# B1—2002

## 10 July 2002

2230-2400: The flam crew and I listen in the vicinity of flagged cavity trees in the Homestead drainage. No nest found. We could hear a M calling from the vicinity of the E Missouri drainage during the last 20 minutes of our time, when we approached to within a few hundred meters of this drainage.

# B1—2003

## 28 May 2003

1300—**Katie and Chris find the B1\_2003 nest** in broken top *Psme* snag in Homestead Drainage. Nest tree is approximately 100 m SW of the homestead, on the W side of the W Missouri Cr, near the end of a prominent SE facing ridgetop. Nest cavity is approximately 11-12 m high, just under a remaining limb, less than one-half meter from the top of the tree, facing the E. Cavity appears to have been excavated by a flicker.

2030—Katie and Chris arrive at Homestead Drainage nest. Female is seen at cavity entrance

2034—F gives FS call.

2035—M gives LC and F responds with FS. Male give LC again.

2036—Male flew to Psme adjacent to nest.

2037—F lest nest to S. Male followed

2038—We hear M giving LC in direction (E) that F flew.

2039—M gives LC from E.

2040—same

2041—same

2043—We hear F giving FS call. M gives LC calls from the S.

2044—same

2046—M gives LC. F gives FS.

2047—same

2053—M gives LC

2058—M gives LC

2059—same

2102—same. We leave due to the possibility that our presence disturbs the F.

## 10 June 2003

2151—Katie, Jake, Miriam, and BL arrive at the B1 nest to observe nest activity.

2152—UFO lands on limb less than one meter away from the nest cavity, and shortly thereafter B1-M starts giving HECs 20 m to the S. Then B1-M flies at the UFO, flushing him to the S.

2200—B1-M gives TC/TEC for 5-7 min from the ridge top 80 m to the SSE of the nest.

2209—M gives LC and delivers prey in the cavity, where he stays with the begging F for approximately 30 sec. Same at 2210, 2215, 2218, and 2222. On two of the occasions, the M flew 20 m upslope and foraged on a large *Pipo* snag.

2225-2320: We leave to spot map the M. He called only sporadically (giving high-pitched TCs)—we marked one song post on the very SW end of Vista Ridge. He called on the NW side of his territory briefly, but no song posts were marked. Another M also called occasionally down the W Missouri Cr to the W.

2415-2430: From his position on the S end of Vista Ridge, BL hears what seems to be B5 and B1 males having a territorial encounter on Sharp-shinned Ridge (just S of W Missouri Cr) to the S. They called for approximately 10 min.

## 12 June 2003

2420—Jake and BL pursue a M giving TC calls from the S end of W Homestead Ridge, from their positions in B4 territory.

2430-0115: BL marks two song posts for B1 M, approximately 100 m and 200 m W of the end of the above ridge (exact tree not known in each case; see data sheet for GPS coord.). Shortly after 0100, Jake marks a third song post near the W end of Sharp Shinned Ridge (0494875, 4333251). This may have been a different M, given that Jake thought that this M continued calling further to the S after he marked the song post.

## 16 June 2003

2415—BL marks one song post on the B1-M (presumably), approximately 200m NW of the nest, one ridge SW of the Homestead (no GPS).

2425—I mark a second song post about 50 m SW of the Homestead, near the bottom of a side drainage (GPS). M goes quiet after giving TC for 2-3 min.

## 17 June 2003

2415—Miriam doesn’t get to exact songpost, but takes a GPS. It’s probably B1, and is at the bottom of vista ridge, near junction of homestead and west Missouri

## 19 June 2003

2345-0110: Jake and BL attempt to mark song posts in the vicinity of B1, B10, and B11 territories, and listen from various areas on the Shooting Star Ridge. B1-M periodically calls from the SW end of Vista Ridge, and at one point BL hears him having a territorial encounter with another M on Sharp Shinned Ridge.

## 23 June 2003

2216—Miriam arrives at B1 nest to observe prey deliveries. 3 prey deliveries between 2216 and 2252.

2301—Miriam starts songposting on shooting star ridge, above B1 nest. She hears no males calling.

**26 June 2003**

2225—Katie and Miriam arrive at B1 nest to observe prey delivery rates. Miriam recorded behavior and prey deliveries.

## 30 June 2003

2157-2226: BL arrives at B1 nest to monitor nest activity; 8 prey deliveries during this time, at least one of which was by the F. F was off the nest most of this time.

## 7 July 2003

2057—BL arrives at B1 nest to attempt capture of B1 male and female. F scolds me from tree adjacent to nest tree as I approach. (Earlier in the day I used the hand saw mounted on the utility capture pole to clear some of the branches from the nest tree. F either was tight on the nest, or was roosting elsewhere).

2104—Both M and F deliver prey to nestlings. F lingers in the hole for about 1 min before departing.

2106—M delivers prey, twice.

2108—F delivers prey, and then stays in hole for at least the next 11 min. I get in capture position.

2119—**I capture M after he delivers prey—previously unbanded.**

**Band #: 92324 (l leg)**

72.0 g

* 20.0
* 52.0 g

2136—I release M after obtaining blood.

2242—**I capture F after she delivers prey —previously unbanded.**

**Band #: 92325 (r leg)**

78.0 g

* 20.0
* 58.0 g

2300—I release F after obtaining blood, and leave.

## 9 July 2003

1545—Katie peeps cavity. The nest is deep. **Two owlets were obvious in cavity**. The age was hard to determine. There was little white down. (Hard to tell if female was or was not in cavity)

1550—I scratched on tree to see if female if female was in cavity and would come to entrance or flush. Nothing was seen.

## 11 July 2003

2045—Miriam and Katie arrive at B1 nest for fledgewatch.

2049—F flies to tree south of nest tree.

2050—M gives LC from west.

2052—M gives LC, 1 note and 3 note. F gives FS call.

2053—F delivers prey twice.

2054—F delivers prey, also at 2055, 2056, 2057, 2058, 2101.

2055—M delivers prey.

2057—Owlet at entrance, begging.

2102—M PD, also at 2104.

2104—F PD.

2105—Katie moves closer to nest. Adult scolds.

2107—Between 2107 and 2128 there are 21 prey deliveries.

2108—Owlet goes back down into cavity.

2109—Owlet back in entrance.

2116—F scolds and gives FS call.

2120—Owlet goes back down into cavity.

2128—F FS call.

2130—We leave nest area.

## 13 July 2003

2056—Katie, Miriam and Chris arrive at B1 nest for fledgewatch. Owlet is in entrance when we arrive.

2058—M flies to nest and perches right next to it, then leaves and scolds from the tree to the south of nest tree.

2100—Owlet starts to beg.

2101—Between 2101 and 2129 there were 14 prey deliveries.

2104—Adult flies to highest branch on nest tree, then flies away. Owlet flaps his wing in entrance.

2107—Owlet starts sticking his head out of the cavity more.

2115—Owlet goes back down into cavity, then back up to entrance.

2117—M scolds as Katie gets closer to nest tree.

2122—Owlet back down in davity.

2126—Owlet back in entrance, gives begging call, then back down in cavity.

2127—Owlet back in entrance.

2130—Owlet back down in cavity, we leave nest area.

## 14 July 2003

2048—Miriam, and Katie arrive at B1 nest for fledgewatch. Owlet is in entrance begging when we arrive.

2049—Adult delivers prey and scolds.

2054—Between 2054 and 2112 there were 12 prey deliveries by both male and female

2115—Owlet no longer in entrance, Miriam sees someone fly out of hole, but it looks very much like the female leaving.

2116—Between 2116 and 2224 there were 29 prey deliveries by both male and female.

2234—We leave nest area after listening in the area for awhile, and hearing no begging calls.

## 15 July 2003

2030—Jake, Miriam, Katie, and BL arrive at B1 nest to await possible fledging. Owlet rises to the cavity entrance at approximately 2040, and starts begging.

2038—Male arrives and feeds owlet in cavity.

2140—Location calls, very soft from M.

2043—**Owlet fledges**, flying to the S approximately 20 m before it flies into the top of a 7 m tall *Psme*. Owlet gives begging calls. BL climbs the tree and retrieves the owlet.

**Band #: 92335**

76.0 g LLP: 75 mm

* 17.5 g Rect: 42 mm

58.5 g

2103—After obtaining blood sample, Katie holds onto the fledgling as we attempt to listen for evidence of any other fledglings.

2200—We leave. No evidence of any other fledglings. One owlet is still in the cavity, and it was occasionally fed at the cavity entrance after its sibling fledged.

## 16 July 2003

2023—Miriam, Jake and Katie arrive at B1 nest for fledgewatch.

2038—Adult delivers prey and owlet gives BC, owlet now in entrance.

2040—Begins to rain slightly.

2044—F delivers prey, owlet gives BC.

2047—Between 2047 and 2056 adults deliver prey 6 times, it appears that only F is delivering prey.

2048—Owlet give BC.

2052—F flies to nest site, perches next to it, then leaves.

2057—Adult delivers prey, owlet flaps a wing.

2101—Between 2101 and 2130 the adults deliver prey 30 times, again, it’s only the F.

2103—M gives LC from SE, owlet not in entrance.

2104—Owlet in entrance, gives BC.

2107—Owlet not in entrance.

2117—M gives LC from E.

2130—We leave nest area.

## 17 July 2003

2034—BL, Miriam, Katie, and Jake arrive at B1 nest to watch for fledging.

2041—Owlet begins BC.

2050—Prey delivery from F.

2051—Prey delivery from F.

2052—**Owlet fledges to branch.**

2055—Owlet reaches the ground.

**Band#92336**

77.0g

-18.0g

59.0g

LLP 77.0mm

Rect 44m

2114—Owlet is placed back on ground and we leave nest area. No remaining nestlings in nest cavity.

# B1—2004

## 1 June 2004

0107—SY hears B1 male give TC and TEC within 15m of B2 male on western slopes of Homestead Cr. drainage, and on the E most portion of Feldspar Ridge.

0115—B1 gives TC south of original location, still on western slopes of Homestead Cr. drainage.

0117—SY songposts B1 male after he gives TC and TEC for approximately 3 min. B2 is heard calling to the North. Five songposts were marked for the B1 male.

## 7 June 2004

2215—The Flam Crew leaves from the Weir in B2 territory to attempt spot-mapping on Shooting Star Ridge and PPG Ridge (B1, B10, and B11 territories). We tap obvious cavities in the vicinity of the Homestead.

2250—We split up on Shooting Star Ridge, with two of us (JM and BL) going to PPG Ridge, and the other three (EC, EP, and SY) staying on the former ridge.

## 8 June 2004

1555—EE finds nest of purported B1 or B4 flams **(NOTE: this is the B1\_2004 nest)**. Nest is facing N in a POTR tagged B4\_311 about 100 m E from W Missouri Cr and Homestead Cr confluence. The flicker size hole is approximately 6 cm wide and 12-14 m from the ground.

2042—EE and EP arrive at nest for observation and peeping. Weather is mostly clear, 18°c, 5+ mph wind.

2049—What is believed to be the B1 M enters cavity and leaves within 30 seconds.

2050—A M about 5m from the nest is showing very strange behavior that is indicative of a UFO. M verbally quiet but making a lot of noise in its clumsiness and lack of balance on the branches. Purported B1 M chases after UFO. F sticks head out of hole.

2053—M begins about 10-15 LC.

2054—F leaves nest.

2057—Peeper is in and out of nest. **Find 3 eggs in the center, and none are touching**.

2106—F lands 1m from nest and then enters.

2109-2130—M makes 12 prey deliveries in 21 minutes.

2134-end—M gives multiple TEC about 100m to the NW. Possible other M calling

2141—EE and EP leave.

2353—From S end of Vista R. SY hears TC to the south nearby. I give chase.

2354—I arrive at the tree. The male continues to call until 2407, he intersperses a few TEC with the majority TCs. When he finished calling I songposted the tree (B1\_1).

## 14 June 2004

2138—BL and EE arrive at nest to attempt to capture M.

2205-2210—M gives sporadic TEC and HEC around nest.

2215—M makes prey delivery to nest. BL attempts to capture and narrowly misses.

2230—BL and EE leave.

## 21 June 2004

2044—BL and EE arrive at B1 nest to attempt to capture B1 F.

2045—M gives HEC near nest.

2048—M makes prey delivery to F in cavity.

2052—F leaves nest and is captured. **She is unbanded so we band her with #92375**.

2101—F is released.

## 28 June 2004

2223—BL and EE arrive at B1 nest to attempt to capture M.

2238—BL has net at appropriate height and observes a flam fly directly past nest. (possible UFO in area. M flies in and makes a prey delivery. BL captures M. **Previously banded number 92324 (2003 B1 M)**.

**Band # 92324**

Total wt. 72.5g

tare - 21.0g

Final 51.5g

Wing Chord—127mm

LLP—105mm

Longest Rectrices—61mm

NOTE: there was no primary molting. 1st primary and 1st secondary on right wing had damage. #2 rectrices almost filled out 🡪38mm

2252—M is released and immediately begins to give LC to F in nest.

## 2 July 2004

2039—EP and BL arrive at B1 nest to attempt capture of F to obtain blood sample. F in the cavity entrance as we approach tree.

2046—M calls off his roost to the S-facing slope, 70 m to the N.

2050—F flushes from the cavity as the net is raised.

2053-2130: Nineteen prey deliveries were made (see PD sheet), mostly by the M.

2130—We capture F (**Band #: 92375**) after M delivers prey to her in the cavity entrance.

2145—We release F after getting blood sample, and leave.

## 8 July 2004

1355—Flam crew arrives to B1 nest to band, bleed, and measure owlets. F was not present.

1358—EP peeps the nest, and **saw 2 owlets** one w/ highly developed facial disk.

1416—BL retrieves **only 2 owlets**, no eggs in cavity (one may have fledged)

cavity entrance dimensions: horizontal vs. vertical- 7.0cm x 5.0 cm

thickness- 3.5 cm

horizontal depth- 13cm

vertical depth- 42 cm

DOH-21.0 cm

**Band#92399 Band#92398**

77.5g 78.0g

-17.0g -17.0g

60.5g 61.0g

LLP 63.0mm LLP 69.0mm

Rect 32.0m rect 29.0mm

1441—Owlets are returned to the nest.

# B1—2005

## 3 June 2005

2152—SY, EE and MS arrive at the B1\_2004 nest tree.

2153—We light up cavity and F rises to entrance—**this is the B1\_2005 nest tree**.

2157—F goes down to cavity bottom.

2203—B1 M gave LC from north of nest.

2206—We leave.

## 13 June 2005

2033—SY and DF arrive at nest site to peep cavity. F not visible.

2051—M calls after awakening on roost <25m W of nest.

2052—M perches on *Potr* 5m N of nest tree, then makes prey deliv.

2053—Same as 2052.

2054—Same as 2052.

2103—Same as above. M flew in from N and left to the E.

2105—Prey deliv. M left to the E.

2106—Prey deliv. M left to the E.

2107—F at cavity entrance, leaves to the W.

2110—M perches on same branch as before, giving scolding calls as SY positions peeper outside cavity entrance.

2112—M flies to N.

2114—M returns to same perch, giving more scolding calls. Cavity is peeped, finding 3 eggs centered, not touching.

2116—SY and DF leave nest site.

## 15 June 2005

2036—SY and DF arrive at nest site to capture F. F not visible.

2037—F up at cavity entrance.

2044—M call from W on roost, down drainage.

2045—F descends into cavity.

2048—F captured and removed from net. **She was previously banded—this is the B1\_2004 female.**

**Band #92375**

100+ g (too heavy to weight)

Wing Chord: 128 mm

Left 5th Primary: 93.5 mm

LLP: 57.0 mm

2049-2051—M gives TC’s and EC’s from N.

2051-2054—M calling from E, up drainage.

2054—F released, strong flight to E.

## 23 June 2005

2157—EE & MS enter to capture B1 male. High clouds, calm and 17 deg. C.

2201—Prey delivery.

2202—Prey delivery.

2203—Female rises.

2205—Female goes back down into cavity.

2206—Female rises again.

2207—Prey delivery.

2219—Female gives FSC’s and the B1 M calls from the south.

2225—Prey delivery and capture attempt.

2226—Female flushes.

2228—Female returns.

2249-51—Two prey deliveries.

2255—Prey delivery and capture attempt.

2256—Female again flushes.

2300—We leave due to female’s nervousness.

## 27 June 2005

2230—SY and DF arrive to capture M.

2237—M gives TC’s to E.

2247—M gives LC’s to E.

2250—F flushes after prey deliv (capture attempt).

2259—F returns to cavity and descends.

2301—UFO perches in tree ~6m NE of nest tree.

2307—M makes prey deliv, UFO leaves.

2311—M gives TC’s to E.

2314-2427—M makes 7 prey deliv.

2440—F mistaken for M at cavity entrance and captured.

2442—F released, SY and DF leave.

2330—BL pursues singing M on N end of Shooting Star Ridge. Over the next 20 min, I mark 3 songposts (see songpost data sheet) on what appears to be two males singing in tandem—B1 possibly, singing from the E-facing side of Shooting Star, and B11, singing from the W-facing side of Shooting Star.

0105—BL pursues M singing to the E of the N end of Shooting Star—this M was originally IDed on the songpost (#3) as B2 male, but given his proximity to the N end of B1 territory and the fact that another M was heard simultaneously in the B2 territory (see below), the ID was changed to B1. **NOTE: THIS ID WAS LATER CHANGED TO B16 (see B16 entry)**.

0120—BL locates M (presumably the same) giving HECs, which may have been courtship calls, from the vicinity of the B1\_19 *Potr* cavity tree approximately 100 m N of the homestead. M may have been vocalizing from inside one of the cavities. He quiets shortly after I arrive.

0130-0223: The Flam Crew marks a total of 12 songposts on the singing M, mostly on the ridge between Feldspar Ridge and Shooting Star Ridge, but two were on/near the latter ridge as well. This M sang for up to 10 min from some of the songposts, giving primarily TC, and at least on these occasions he behaved like a bachelor M. We initially considered this M to be B2, but this changed when SY pursued a M (likely B2) giving LC a short distance W of the B2\_2003 nest tree, near the confluence of Homestead Cr and the drainage that separates the N end of Vista Ridge from the W end of S Goshawk Ridge. These LC were heard at the same time that the rest of the Flam Crew was following the presumed B1 M to the W.

0225—We leave with the B1 M still singing from the # 12 songpost.

## 30 June 2005

2140—SY and DF arrive to capture M.

2154—Unknown prey deliv.

2205—Unknown prey deliv. (net attempt).

2211—Captured what was thought to be the M after prey deliv, but was the F instead.

**Band #92375**

85.0g

-32.0

53.0g

2213—F released.

2214—Flam perched on tree NE of nest tree, flies to cavity and descends.

2215—Flam flushes and flies NE.

2220-2342—21 prey deliveries are made to cavity, most of which are unknown (see prey delivery sheet). The F was leaving the cavity to make prey deliveries nearly as often as the M. The M would never descend for more than a few seconds during a prey deliv, but would often perch in the cavity entrance for up to 30 sec.

2240—SY taps tree and nobody rises to entrance.

2250—F flushes.

2255—Cavity peeped, finding 2 nestlings that appear very old, near fledging.

2310—M hawking 15m N of nest tree.

2325—M captured after prey deliv, but escapes.

2339—M makes prey deliv to F at entrance. F flushes after attempted capture of M.

2347—M captured after prey deliv.

2349—M out of net, has Band #92324—this is B1\_2003 male!

**Band #92324** LWC: 135mm

83.5g LLP: 90mm

-32.5 Rect: 51mm

51.0g

2353—M released, perches 10m N of nest tree in a *Potr*.

## 5 July 2005

2153—SY arrives at B1 nest site to observe prey deliveries.

2154-2215—I observe 5 prey deliveries to the nest. Several Pygmy Owl fledglings are heard begging w/I 15m of nest site in several directions. At one point the bird making prey deliveries (M?) comes to a *Potr* aprrox. 10m N of nest tree very close to my position and watches me for approx. 1 min.

2215—I leave.

2303—From W end of S. S. Hawk R. I hear a singing male in the vicinity of the confluence of W. Missouri Cr. and Homestead Cr. I pursue but he quiets before I am close.

2334—Again from W end of S. S. Hawk R. I hear a singing M distant to the N (100+m) possibly on Vista R. or E slopes of Shooting Star R. (Possibly NOT B1 M…?)

2409—I leave area.

## 6 July 2005

2036—MS arrives to observe 2005 B1 nest for fledging behavior. Wind blowing tops of trees, partial high clouds but mostly clear, 18 deg. C. Also 10 minutes of stronger winds with some light rain drizzle.

2038—B1 F giving FSC’s from tree 15m E of nest cavity and B1 M gives 5 LC’s from S.

2045—B1 F still giving FSC’s, M calls from NE.

2046-7—B1 M continues to call to B1 F from NE.

2048—B1 F gives very insistent FSC’s from 20m NE of nest.

2051—B1 F gives loud FSC’s from same tree to NE.

2053—F gives FSC’s and M gives LC’s from same general area as F (to NE) more softly.

2056—M makes P.D.- loud rasping begging from owlets and F makes P.D. 30 sec. later.

2058-59—2 P.D., no begging from owlets. Adults fly north when leaving nest and come from NE generally.

2101-2110—10 prey deliveries. No sounds from adults, but periodic rasping begging from owlets

2111—Can see a little of owlets moving in nest and prey delivery.

2113-2209—31 prey deliveries.

2210—Owlet rises to front of cavity and begs, only leaves entrance on next prey delivery.

2215—P.D.

2219—I leave.

## 7 July 2005

2031—DF and SY arrive at B1 nest site to observe Prey deliveries and watch for fledging. Approx. 50% cloud cover, calm, 22°C.

2045—A bird (M?) enters nest site – perches on a *Potr* limb approx. 4m NE of nest tree. Owlet comes to cavity entrance for <30sec.

2046—The bird flushes down drainage (W).

2047—Owlet up.

2049—Owlet down then back up for PD then down.

2050—Owlet up.

2051—PD, owlet down.

2052—M(?) flies N out of nest site following a prey delivery to approx. 10m up slope of Vista R.. He perches on an upturned limb of a downed *Psme* then makes a foraging flight upslope to the ground then returns to the *Psme* limb. He then makes a PD at the nest.

2055—F gives scolding calls from a *Potr* approx. 5m E of our position.

2057—While F scolds to the E the M makes a prey delivery at the entrance then goes to cavity bottom. He rises to entrance then goes down again. He comes to entrance again and then flies E.

2104—Owlet up.

2105—2nd owlet up.

2110—2nd owlet down.

2117—Wing flutter by owlet inside the cavity.

2123—Owlet down.

2124—Owlet up.

2127—Owlet down.

2140—We leave after observing approx. 30 prey deliveries.

## 8 July 2005

2033—EE and MS enter B1 nest area for fledge watch. High clouds, calm and 22 deg. C

2043—Prey delivery.

2044—Owlet rises to entrance of cavity and rasps.

2046—Female makes P.D. and owlet in entrance stretches wings.

2048- 2055—4 prey deliveries by adults with owlet still standing in the entrance.

2056—F gives scolding call and owlet immediately goes back down into cavity.

2057—2 owlets rise to entrance, 30 seconds apart and give begging rasps.

2058-2210—32 prey deliveries from both M and F. 1-2 owlets up in entrance of cavity for the majority of the time, some wing flapping and frequent begging from owlets.

2212—We leave.

## 9 July 2005

2040—EE and her brother arrive to watch potential fledge watch. We peep and see 3 owlets still in the cavity.

2048-2115—We observe 2 owlets in cavity entrance for the majority of the time (from 2049 to leaving time). Some wing flapping occurs outside of cavity. There were 36 prey deliveries to nestlings in cavity during this time. There were 3 instances of wing flapping by 1 owlet during this time, each having a duration of about 10 seconds.

## 10 July 2005

2032—EE arrive at B1 nest to watch for fledging. Upon my arrival there is an owlet in the entrance. I glance away and when I look back the owlet is gone🡪**fledged?**

2040—I hear fledgling calling from *Pipu* about 5m from nest cavity and about 30 feet off the ground. His wing flapping indicates where he in the tree. I climb the tree where fledgling was last seen.

2101—F gives me scolding calls for about 2 minutes off and on. Scares owlets in cavity entrance down (they stay down until 2132).

2105—I capture fledgling and take him down to measure, band, mass and bleed. I give him band **#64466.**

**Band #64466**

64.0g

-12.0

52.0g

LLP:69mm

Rects: 35mm

2124—I release fledgling after bleeding him.

2140—#64466 begins to climb trees and flap around and give begging calls.

2245—I leave. NOTE: There were approximately 14 prey deliveries to cavity during my time there. Although the frequency may have been disturbed due to my presence and the capturing of the fledgling.

## 11 July 2005

2033—DF and EE arrive for fledge watch (the 5th night). 1 owlet fledged yesterday (Band #64466).

2041—We can hear owlets begging from cavity.

2046—1 Owlet in cavity entrance.

2048—We hear noise outside of cavity. EE goes to investigate and finds fledgling from last night. I grab him and mass and measure him.

**Band #64466**

62.0g

-12.0

50.0g

LLP:70mm

Rects: 36mm

2054—EE releases fledgling. F gives me scolding call and owlet in cavity entrance is still there.

2057—2 owlets in cavity entrance.

2058—#64466 climbs trees again and begins to beg.

2102, 2118, 2121, 2209—1 of the 2 owlets in cavity entrance begins to flap wings madly for about 10 seconds each time. During this time he would also turn around backwards with his rump facing out of the cavity. At 2209 he was facing backwards for about 5 minutes and flapped his wings and fell out backwards of the cavity. Still hanging on by his feet he quickly righted himself and went back inside.

2212—Owlets in cavity entrance go down, and we leave for the night. We observed 24 prey deliveries during the time we were there. They seemed to come in bursts and then long lulls of no prey deliveries.

## 12 July 2005

2045—EE and DF arrive. 2 nestlings at entrance making calls.

2050—2 aborted prey deliveries followed by 1 completed prey delivery.

2105—Both owlets in cavity entrance fledge within 30 seconds of each other. Owlets fly W and land about 20-30m from cavity. Owlet 74467 landed on the ground, while owlet 74468 landed in a tree about 20 feet off of the ground. After poking this owlet with the peeper he tumbles to the ground where we proceed to bleed and band the fledglings.

**Band # 64467 Band # 64468**

63.5g 73.0g

-11.5g -12.0g

52.0g 61.0g

LLP: 72mm LLP: 67mm

Rect: 39mm Rect: 34mm

2129—Owlets are released.

2135—As we leave and are heading up Sharp Shinned Hawk Ridge the F gives us scolding call about 40m to the SE of cavity. We look around in search for the owlet that fledged three nights ago but see no sign of him. We leave.

# B1—2006

## 29 May 2006

2100—SY arrives at S end of Vista R. to attempt spot mapping. Mostly cloudy, wind >10mph, 15ºC. No owls are heard.

2156—I leave Vista R.

2206—**SY arrives at last years B1 nest tree to check for occupancy. F is in cavity entrance when I arrive.** She stays in entrance for approx. 4 min. She rises two more times while I observe in response to noise that I made. She returns to cavity bottom within 5 min. each time.

2211—M enters nest site and gives several LCs. Leaves within 2 min. (prey delivery?)

2241—I leave.

\*\*\* see also entry for territory B17 on 29 May 2006

## 5 June 2006

2017—SY and EM arrive on site to capture B1 F. She is very skiddish—already up and watching us as we quietly arrive. (Temp = 26 degrees C, slightly cloudy, no breeze.

2044—F, still up, gives FSC

2045—M calls back to female, from South Sharp Shin Hawk ridge

2046—M flies in from West, delivers prey to F (never goes completely into hole. F goes completely into hole.

2047—M gives TC’s from the west.

2049—SY gets up and takes a step towards the nest tree, F immediately comes up to entrance.

2050—F goes back down in hole.

2051—M makes more TC’s to the west.

2100—F flushes, we peep hole and find 3 eggs, centered and touching.

2113—F returns to hole, 5 sec later, M makes another prey delivery

2116—Prey delivery, female makes chittering call.

2120—Prey delivery.

2130—Prey delivery.

2154—SY catches M during a prey delivery. **Male previously banded—this is the B1\_2003 male.**

**Band #92324**

73.5g

-17.0

56.5g

WC: 130mm

LLP: 92mm

Rects: 56mm

2205—Release M, strong flight to the east.

## 15 June 2006

2053—At B17 lure net on top of Sharp-Shinned Hawk Ridge (see B17 16 June 2006 entry) we capture B1 M.

2401—We release him.

## 19 June 2006

2450-0200—See entry for this date in B4. Also, B1 M was giving TEC repeatedly throughout the next hour from the drainage bottom.

0200—I leave.

## 26 June 2006

2023—EM and SY arrive at B1 nest site to attempt to capture F. Weather is mostly clear and calm, temperature is 19 C.

2025—F rises to cavity entrance.

2029—F scolds us from Cavity entrance.

2030—We move up drainage and out of site of F.

2032—F keeps scolding.

2035—Weak scolding call from F.

2036—Weak scolding call from F.

2037—Weak scolding call from F.

2048—Prey delivery (following FSC’s). F in nest entrance. F then flushes the cavity. We then peep cavity and **find 3 nestlings, 2 of which are in juvenile plumage state (especially on their wings)**. On the runt, it is hard to tell the plumage state. While peeping, the F enters the site. In the next three minutes, there were 2 prey deliveries then TC’s to the E for about 3 minutes.

2053—EM and SY leave site.

## 27 June 2006

2031—EE and EM arrive to try to capture B1 F. F is up in cavity entrance. Weather is gusty winds, 17 degrees C, and mostly cloudy. F begins giving a variation of scolding calls at us about once every minute

2045—EM begins setting up net

2047—M makes prey delivery to F.

2049—M makes another prey delivery and F flushes.

2051-2111—Adult Flams (sex unknown) make 17 prey deliveries to young in nest. F is still off. EM notices that F is making prey deliveries as well.

2112—Both adultes come into area and then leave.

2113-2116—10 prey deliveries to nest during this time.

2117—EM, in an attempt to capture F, captures B1 M (#92324) instead. It is difficult to know which adult is making the prey deliveries.

2121—We release M.

2122-2131—5 prey deliveries to nest. At 2131 EM captures again, but it is once again the B1 M. We hold on to him in hopes of being able to isolate when the F is making prey deliveries in order to attempt capture.

2141—F makes prey delivery and EM tries to capture but F bounces out of net. Her prey deliveries are very rapid suggesting possible aborted prey deliveries.

2143-2147—2 repeated attempts but the same thing happens.

2149—M is released.

2151—M makes prey delivery and we accidentally capture him again. We hold on to him.

2203-2210—F makes prey delivery. We decide to let her make 3 without an attempt at capturing to boost her confidence.

2221—EM captures F just as we are about to release M! **She is banded and is the B1\_2004 female.**

**Band #92375**

71.0

-17.5

53.5g

WC: 121mm

LLP: 95mm

Rects: 58mm

2227—F is released.

2235—We leave area.

## 10 July 2006

2117—KC and EE arrive to peep B1 nest and see if there is anyone remaining.

2122—We peep and find cavity empty. We spend about 5 minutes searching on the ground for any signs of dead owlets, and also to listen for possible signs of fledging. It is possible that some of them fledged by this date. It is unknown if there was any brood reduction.

2127—We leave.

# B1—2007

## 5 June 2007

1530—Flam crew peeps western B4 and eastern B1 territories. SY finds a **FLOW nest in B4\_429**, which is approximately 20 m S of the parking area at the base of Camp/Vista Ridges, in the bottom of W Missouri Cr. Nest is in a NOFL-sized cavity in a live *Potr*, approximately 8.5 m above ground on the E side. **We realize during nest observation later in the night that this is the B1\_2007 nest.**

2031—SY and KB approach nest site. It is 17C and cloudy, slight wind (under 10). F is up so we back off about 20m to wait and observe.

2036—M utters TC’s from his roost about 25m to the west of the nest

2036—F LC’s from the hole

2041—M flies up to cavity, PD.

2041—F flushes from cavity.

2043—SY peeps cavity and finds one egg in the center.

2046—F LC’s from approx 25m to the southwest.

2103—An owl lands in nest tree (female?)

2105—F FSC’s from nest site area, unclear if she is in the cavity or just in the area.

2111—SY approaches nest site.

2114—A male lands in cavity tree, gives a singe hoot while B4 is giving TC’s to the east. This must be the **B1 nest**.

2124—Two owls in the tree, both the male and female, so female is out of the cavity.

2125—SY and KB vacate the nest site to wait out of observation range.

2148—SY and KB reenter the nest site.

2207—F LC’s from south of nest tree

2256—SY and KB vacate the nest area.

## 7 June 2007

2020—EM and KB approach the nest tree. No sign of F, so we assume she is down. Overcast, light breeze, 5C

2035—Net is in place covering the cavity. We hear M’s TC’s to the west.

2038—LC’s are heard a lot closer to the nest site, probably 5-10m to the south. However, the calls are higher pitched and we worry that the F may already be out of the cavity.

2039—Owl lands in the nest tree (female?). She flies off.

2040—While EM is holding the net in place, KB taps on the tree to check and see if it is the F is indeed out of the cavity already. No owl appears, so we assume the F is out of the cavity. We take the net down and back off.

2049—KB comes back into the nest area to observe.

2056—TC’s heard from the southeast.

2119—KB and EM observe an owl in the area of the nest tree; appears to be a PD. (F returned to cavity while we were out of observation range?)

2125-2135—F gives FSC’s., we hear TC’s to the east.

2136—M gives LC’s, gives PD to the begging F.

2144—TC’s are heard to the southwest.

2156—M comes into nest tree for a PD. We fail at the capture attempt. We think he never completed the PD.

2221—M comes into nest tree again for a PD, we fail at capturing him. We think he never completed this PD either.

2237-2241—F gives FSC’s. M is just sitting on a branch on the nest tree a few feet from the cavity. We remove net and leave the nest area because it seemed that the net (and us?) were disturbing the M’s PD’s.

## 12 June 2007

2028—EM and KB approach the nest site. There is no sign of the F. A light drizzle is coming down, no wind, 10C.

2032—EM has the net up and in place over the cavity.

2045—We hear M giving TC’s off of the ridge to the South.

2055—There is still no sign of the F, so KB gives the tree a light tap. We set up the peeper and peep. There is nothing in the cavity. At this time CB and SY arrive at the nest site. A search of the ground below reveals egg shell fragments. **The B1 nest apparently has been preyed upon**.

2100—We leave the site.

# B1—2008

## 28 May 2008

1530— DH, KB & friends prepare a mist net on the western end of Sharp-shinned Hawk Ridge in the region of B10, B17 and B1. See B10 for details on evening activities.

Coordinates: 495134

4333292 ±15m

## 3 June 2008

2118—**Nest is found in the tree believed to be the B1\_2007 nest. Based on capture information (see notes for this night under B17) this nest is now believed to be the B17\_2008 nest.**

2215—B1 M can be heard W of the B17 nest while the B17 M is in hand.

2357—SY locates what I believe is the B1 M on the S end of Vista R. See data sheet. M calls for at least 6min.

2407—M can be heard singing farther W, down drainage.

2412—I leave.

## 11 June 2008

1653—**SY approaches cavity tree B4\_311 (tag # 311) – F is in entrance when I arrive.** **This is the B1\_2008 nest.** **This was also the B1 nest tree—and cavity—from 2004-2006.** Cavity is N facing ~45ft up a *potr* snag.

1703—F returns to cavity bottom.

1706—We leave.

## 16 June 2008

2139—SC and SY arrive at the B1 nest to attempt capture of the M.

Weather: clear, calm, 10C

F is in the cavity entrance when we arrive. She flushes w/i 1 minute of our arrival. We back off.

**Note: Incandescent light is necessary to adequately illuminate this cavity.**

2200—Not having heard any nesting vocalizations and given time of night, we leave.

2300—We begin listening for vocalizations on the far W end of SS Hawk Ridge.

2323—From SC’s position on top of SS Hawk R, I hear M give TC/TECs to SW.

2325—From position on top of SS Hawk R, SC hears different M give TCs to the SE. This M has high pitch.

2328—From on top of SS Hawk R, SC hear M to the west again. He continues to sing in short amounts of time for the next ten minutes.

2332—From SY’s position on the extreme W end of SS Hawk R., I hear a M give TC/TECs to the NW, likely on the S end of Vista R. I move in that direction but the M goes quiet before I get close.

2344—From on top of SS Hawk R, SC hears M TC directly to the North. This could either be the B1 or B17 M.

2410—We leave.

**23 June 2008**

2255—DH and KB approach the B1\_2008 nest tree with intent to capture the M. It is raining, so we sit and wait out the rain.

2300—F begs from cavity.

2316—As DH raises the net, the F come up in the cavity.

2318—F is back down in cavity.

2338—M makes a PD. Our attempt at capturing failed. F flushes, so we leave the territory.

## 24 June 2008

2018—SC and BL arrive at the B1 nest to attempt capture of F (or M is necessary). Mostly clear, calm, ~ 18 C.

2032—F ascends to entrance of cavity as BL gets into capture position.

2040—M arrives in nest area without vocalizing, and makes PD to F at entrance of cavity at this time (F remained in entrance the past 8 min).

2041—M makes PD at entrance. Same at 2042, except at this time M goes all the way into the cavity as both he and the F disappear from the entrance.

2044—M flushes at this time.

2047—F flushes from cavity.

2049—Capture M after he makes another PD (F off so he goes all the way down). **M was banded previously—Band # 2003—92324; this is the B1\_2003 M.**

80.5 g LWC: 129 mm

- 29.5 g LLP(5): 93 mm

51.0 g LLP(6): 102 mm

Rect: 58 mm

**M is bled (as backup to blood sampled in 2003).**

**We peep cavity and find 3 owlets in white down—owlets appear well feathered and quite active, and appear to be ~ 4 days old.**

2126—We release M and leave.

**1 July 2008**

2029—KB and CB approach the B1 nest tree with intent to capture the F. F is up upon arrival. Weather: clear, calm, 18C

2034—F begs from cavity.

3037—She begs again.

2043—M enters nest site, perches, and is mobbed by a robin. He leaves the site.

2044—M gives PD at cavity. F briefly goes down, then is back up in the cavity.

2047—F flushes.

2053—Silent PD.

2054—Silent PD.

2055—Silent PD

2107—**F captured by KB—Band#92375—This is the 2003 B1 F.**

**74.0g**

**19.5g**

**54.5g**

2115—F is released.

## 11July 2008

2031—SC and SY enter B1 nestsite to capture M and put a radio tag on him. We hear F about

10m from nest. Nestling is up in cavity opening.

2042—F gives scolding call as SY approaches nest tree.

2045—Net is in position.

Weather: 10-15 mph gusts of wind, 23C, overcast

2047—M PD, gives TC’s and TEC’s

2104—PD F?

2114—PD M

2118—PD M?

2122—PD M, TC

2128—M abort PD due to net

2129—Capture B1M band # 92324

We put Tag # 164.8140 on him.

Mass without tag: 66.0g Mass with Tag: 68.0g

-16.0g -16.0g

50.0g 52.0g

There is a 2 g difference as predicted with the 2 g radio.

LLP(5) 97mm

LLP(6) 105mm

LWC 128mm

RECT 56mm

2147—Release M. Strong flight NE to *psme* approx 20m from nest. Radio indicated he flew E

up drainage.

2155—**We peep. There are 2 nestlings. Possibly one has fledged and is with F.** F not making

many PD’s.

2200—We leave.

## 14 July 2008

1510—DH and SY begin searching for the B1 M’s roost with possible fledge group.

1540—**We locate a fledgling in a live *psme***, dbh: 26.0.

X: 494881

Y: 4333369 +/-10m

Fledgling is at the end of a live limb directly over the drainage bottom on the N side of the tree.

1610—M’s roost located.

B1\_1 – roost.

Live potr dbh: 7.0cm

X: 494891

Y: 4333390 +/-6m

M is 4-5m up the tree w/i live foliage.

1630—We leave the area.

2024—SY and QB arrive to capture, band and bleed fledglings. We begin attempting to shake fledgling out of tree.

2030—DH and KB arrive at the B1 nest to peep. **The cavity is empty except for a couple of feathers.**

2033—Fledgling finally falls out of tree (this FL found on roost today). He flies immediately to the ground. QB goes to find 2ND fledgling, he is found by his begging calls.

**1ST FLEDGLING—New Band #64645**

81.0 g LWC: 96 mm (13mm in shaft)

- 26.5 g LLP(5): 68 mm (15mm in shaft)

54.5 g LLP(6): 70 mm

Rect: 33 mm

We bleed the Fl’s L wing.

2048—QB locates a 2nd Fl.

**2ND FLEDGLING—New Band #64646**

78.0 g LWC: 90 mm

- 26.5 g LLP(5): 65 mm (18mm in shaft)

51.5 g LLP(6): 65 mm (18mm in shaft)

Rect: 29 mm

We bleed the Fl’s R wing.

2049--#64645 allowed to move away.

2103--#64646 placed in a low branch of a nearby psme.

2107—SY goes to fit a transmitter on B17 M, DH and QB listen up and down drainage in B1, trying to locate F and her fledgling. We hear the M, but never the F or a third fledgling.

2225—DH and QB leave area, having not heard even the M for at least 15 minutes.

## 16 July 2008

1935—Flam Crew and Abby arrive B1 territory to capture M and remove radio.

1940—SY and DH begin tracking.

2114—DH finds M roost. He is at the very top of a tall *potr*, maybe 16m high, on a steep N-facing slope. Vegetation in the area is dense—lots of *psme’s*, with a few *potr’s* towards the drainage bottom. We begin looking for nestlings.

**B1\_1** – roost

X: 494903

Y: 4327027 +/-8m

Dbh: 33.5cm ht: 11.5m

2025—M gives TECs off roost, potentially directed at us.

2035—M flushes, flies W, perches 15ft off ground.

2036—M flies off W.

2043—We hear fledgling begs somewhere in the area.

2052—We locate a fledgling perched at the top of a tall *psme*, begging loudly. We attempt to raise pole to knock him off roost, but he is higher than the capacity of our Hastings pole. He relocates to different trees 3 times—we cannot tell if it is because of us or not, and his flight is strong. M is heard in the area a couple of times, but no PDs are observed. Finally the fledgling flies across the drainage and perches in a tall *pipo*, higher than the reach of our pole, so we decide to give up.

2135—We leave.

## 17 July 2008

1445—DH and SY begin searching for the B1 M’s roost.

1505—General area of the roost located near the confluence of W Missouri and Homestead Cr. M is on the N side of W Missouri, ~50m E of Homestead Cr.

The M’s actual perch was never located.

1615—We leave.

2035—SY and SC arrive B1 territory to capture fledgling, lure and capture M, and remove his

radio.

Weather: Overcast, light showers earlier in day, humid, 19C, calm

~2145--We find fledling in large pipo 2m SW of M roost.

2128—We catch fledgling after knocking him out of a spruce down drainage of nest tree.

**B# 64646**

Mass 68.0g LLP(6) 75mm 18 in shaft

-16.0g LLP(5) 75mm 12 in shaft

52.0g LWC 97mm

RECT 38mm

2207—Lure net is ready for capture. It is approx 30m from M’s roost. Fledgling is begging.

2226—Hear M LCs. Fledgling continues begging and flapping around.

2235—Hear M vocalizations. Possibly TCs or LCs

2247—SY check net, M vocalizes in nearby pipo located low on tree.

2252—We back off of net about 50m.

2313—We check net. M doesn’t vocalize. Fledgling is not begging.

2325—Two M’s giving TC;s. One up near shooting star (possibly B2) and the other down drainage toward B10. One of these M’s could possibly be B1.

2332—We check net. No activity.

2357—We check net. No acivity

0012—We check net. No activity. Fledgling is not begging.

0030—We check net. No activity. After failing to capture M, We put fledling in nearby pipo,

collapse net and leave.

## 18 July 2008

0959—BL locates the B1 M roosting approximately 40 m SE of the confluence of Homestead and W Missouri Creeks on the lower N-facing slope of Sharp-shinned Hawk Ridge, approximately 20 m up from the bottom of W Missouri Cr. M was roosting in a 19 cm dbh Psme, approximately 9 m high on the SSW side of the tree, and 20 cm from the trunk. No sign of any fledglings nearby.

GPS: X—494816; Y—4333365; + 8 m.

1020—I leave. M gave soft encounter calls on 3-4 occasions while I was in the area.

1950—SC, Sasha Chudacoff, KB, and BL arrive on the W end of Sharp-shinned Hawk Ridge (near the B1 M roost) to set up lure net in hopes of capturing B1 M. **Weather**: Early evening t-storm w/ hail (1/2 hr earlier)—now clearing, still breezy on ridgetops, ~ 20 C.

2030—Lure net set up, and everyone leaves but BL. BL moves downslope to vicinity of B1 roost, and he scolds me from perch 3 m above ground in tree adjacent to roost (already off roost). He flushes after a couple of minutes.

2038—I locate one fledgling ~ 11 m high in tree adjacent to where M scolded me. I use peeper pole to nudge him off his roost, but he flies downslope to a perch ~ 15 m above ground.

2045—I start playback.

2100—After checking lure net, I move back to general location of where I flushed the fledgling (he is begging sporadically from this area), and hear a 2nd fledgling beg from the lower S-facing slope of Vista, across the W Missouri. I pursue and locate him ~ 8 m high on the trunk of a *Pipo* snag, and use the peeper pole to flush him—unfortunately he flushes downslope into the crown of a dom *Pipo*, about 14 m above ground and out of sight. It was from this area that I heard a M singing in the vicinity of the lure net from 2105-2115 hr.

2118—I move back upslope to the lure net, and find a **FLOW captured in the 2nd shelf from the bottom.**

2122—**A banded FLOW is extracted from the net; it was banded with # 1593—64546, and was the B8\_2008 female whose nest we learned failed earlier in the week!**

92.0 g MOLT: L Wing—P1, P2 are being replaced (~ 2 cm out of shaft)

- 30.0 g R Wing—P1 is being replaced (also ~ 2 cm out of shaft)

62.0 g

2134—F is released.

2140—I start breaking down lure net.

2155—I leave area.

## 21 July 2008

1955—DH and SY begin searching for the B1 M’s roost.

2019—We locate the M’s roost.

**B1\_1** – roost

Live psme dbh:29.5

X: 494811

Y: 4333343 +/-7m

M is ~5m up the tree on the E side of the tree in a dead limb. He is ~0.5m from the trunk. Fls not seen.

2025—M gfives TCs for ~30sec.

2027—M flushes to the NE, continues giving TCs.

2034—We leave.

## 23 July 2008

~2030—Flam Crew arrives at B1 to set up lure net to target M, to remove radio tag. DH tracks M to potentially locate roost—he is already on the move.

2056—Mist net set up in B1—low S-facing slope, fairly open pipo/psme, on the S end of Vista Ridge, in the vicinity of previous roosts. X: 494848, Y: 4333403 +/-9m.

2101—Start playback.

2300—After seeing and hearing nothing of the M, we kill playback. Radiotelemetry had determined that a couple of times he entered the site, but never stayed for longer than a couple of minutes, and never vocalized.

~2315—We leave.

**B1—2009**

## 26 May 2009

2314—BL, SR, and KG arrive at Vista Ridge from B2 territory to listen for singing M’s. Heard T calls from B1 or B10 from our position on Vista Ridge—one M is singing from opposite side of creek bottom on Shooting Star Ridge, and one M is singing from Sharp-shinned Ridge. Weather: No rain or wind, a little damp. BL pursues B14 M on S Goshawk Ridge (see B14 entry).

2410—We leave from Vista Ridge for B1.

## 8 June 2009

2040—Eryn Gable, Steve Geddy, and BL arrive at the B1\_2009 nest to attempt capture of F. Overcast, raining lightly, heavy thunder to E, approximately 13 C. F flushes as we approach nest tree.

2100—F returns to cavity. I get into capture position to attempt capture of M.

2102—M arrives in nest area giving LC, and attempts PD at this time. He flushes without making delivery when capture net momentarily gets tangled in adjacent tree. F then flushes as well, and I back out of the area.

2105—F returns to cavity.

2116—M arrives in nest area giving LC, and makes PD in cavity at this time.

2117—Same.

2136—Same.

2139—Same. I return to capture position.

2145—M arrives in nest area, and F flushes. We leave.

## 15 June 2009

2029—KB approaches B1 nest site in attempt to capture either the F or the M. M is priority. F is down as I near the tree. Weather: clear, calm, 15C.

2030—F comes up in the cavity as I begin to raise the net.

2035—F goes down.

2037—BR approaches the nest site area with the peeper. F comes up in the cavity, then back down.

2043—Net is in place.

2045—M comes in, perches on nest tree and gives LCs. He then notices the net and begins giving TECs within the area.

2050—M leaves the area.

2056—M is back in the area giving LCs. No sign of the F.

2101—No sign of the F, either begs or in the cavity even after the male has come in twice giving LCs. I decide to remove the net and go for the M. As soon as the net moves, the F flushes.

2103—**BR peeps the cavity and sees at least two white, fuzzy nestlings. The peeper head falls loose so it is not maneuverable within the cavity and he is unable to clearly count the contents.**

2122—BR has been watching the nest tree and has heard the F begging from the cavity. I (KB) shine my light to the tree. The F is perched in the cavity, gives a loud scold, and flushes. We leave the area.

2200—We begin setting up a lure net on the west side of Sharp-Shin Ridge. The vegetation consists of *pipo* and *psme* of moderate and young ages. GPS: 494838 4333292 ± 8 m.

2240—We start playback.

2255—Net check, empty.

2306—Net check, empty.

2310—We hear a M come in from the North and begin giving TCs. Net is empty.

2325—Net check, empty.

2330—M falls silent, we check the net and find a bird in the 3rd shelf. **He is unbanded**.

**Band #: (1593) 64679.**

Mass: 86.0 g LP5: 97 mm RECT: 60 mm

-27.5 g LP6: 103 mm

58.5 g LWC: 132 mm

We took a bled sample from the right wing. It was a normal poke, but it bled profusely. BR held onto the bird until 0000, was ready to release, then the clot broke open and started bleeding again, he held on until 0011.

2350—Stop playback and KB begins breaking down the net.

0011—BR releases the M. He fist flies to the ground, then after another release, he flies off to a tree to the west.

0012—We hear the M giving TCs to the northwest.

0015—We leave the area.

## 23 June 2009

2040—KB, JG, and SR arrive at B1\_2009 nest to capture M.

2045—F begging from cavity.

2047—F flushes of her own accord, TC nearby.

2049—**KB peeps and finds two grayish chicks. Egg fragments in nest.** Weather: Clear and calm, 22C.

2055—LC exchanged between M and F, M makes PD to F at entrance and she takes it down into cavity.

2057—2130—Frequent PDs (18 total) by both M and F and always into cavity. See Prey Delivery data sheet.

2101—KB catches FLOW at PD but escapes (M or F unknown).

2105—M caught at PD but escaped.

2130—M and F caught but escaped. We leave to get different net from car.

2212—We return. F begging off-cavity, M giving LCs.

2217—F back in cavity.

2221—M makes a PD.

2225—KB raises net to cavity.

2227—KB thinks F may have flushed.

2230—SR and JG hear TCs from distant NW.

2235—**KB captures M attempting PD. He is banded, Band # 64679. This is the M that KB and BR captured in a lure net on W Sharp Shinned Ridge and banded on 15 June 2009. This is the B1\_2009 territorial male.**

121.0 g LWC: 130mm

-66.0 g LLP: 100mm

55.0g Rect.: 60mm

2244—While we still have M in hand, we hear TCs down drainage and up the S side of Sharp-Shinned ridge, behind the B1 nest.

2302—We release him and leave, having observed what we believe to have been the F making prey deliveries while the M was still in hand.

2330—On top of Sharp-Shinned ridge at its westernmost extent, we hear two males giving TCs.

## 29 June 2009

2040—BR and KB approach the B1 nest site to capture the F. Weather: cloudy, calm, 20C. F is up in the tree as we approach.

2042—F begs from inside the cavity.

2045—M in nest site. M gives a PD to the cavity, and then the F flushes.

2046-2102—We observe 7 PDs. Several had different approaches, we assume the F is helping. See PD data sheet for details.

2102—KB has the net in position. M gives TCs at us.

2104—Both birds in the area. We observe the M give a PD to the F, who makes a PD to the cavity. I allow her to make the PD and do not cover the cavity in case she wants to stay on so I won’t flush her.

2107—PD .

2109—PD by M.

2110—PD by M.

2112—PD by F, failed net capture.

2114—F **makes a PD and we capture her. She is previously banded, #2003-92375, the 2004 B1 Female. Due to miscommunication, we bleed her on her right wing.**

80.0 g

27.0 g

53.0 g

2126—F is released. We leave the area.

## 2 June 2009

1634—**SY taps on cavity tree B4\_311, past B1 nest tree (2004-2008). F rises to cavity entrance—the same cavity as used in previous years. This is the B1\_2009 nest. Cavity is N facing ~35 ft high in a full snag potr. Potr is <5m up the N facing slope out of the main drainage.**

1639—F returns to cavity bottom, we leave.

2042—SY arrives B1 nest to capture F.

2043—M makes PD. F begs from cavity.F flushes cavity immediately after.

2050—We peep. There are 3 eggs center touching. We bring down peeper and leave.

2119—BR, SC and SY set up lure net on sharpshin ridge directly south of B1 nest. Light precip,

cloudy all day, calm, 10C.

2121—We start playback.

2138—BR and SC listen in drainage between sharpshin and goshawk ridge.

2258—From the junction at west Missouri creek, we hear 2 owls TC’s coming from shooting

star . This appears to be BL, SR and JG’s playback from shooting star ridge as well as an

owl they are currently spotmapping.

2340—After failing to capture any owls in the net, we stop playback, collapse net, and leave

.

## 6 July 2009

1622—KB approaches the B1 nest tree to peep and check the status of the nestlings. The F is up in the cavity.

1626—The F flushes as I raise the peeper. **There are two owlets still in the cavity. Both have facial disks, one in profile has adult colored scapulars.**

1628—I leave the area.

2030—KB and SR arrive at B1\_2009 nest to fledge watch. Weather: Mostly clear and calm, 15C.

2040—M gives TC/TEC immediately to W of nest.

2049-2122—We observe 11 PDs, some by the M and some by the F. See PD sheet for details. One owlet is up nearly consistently during this time, for 1 minute, 6 minutes, and 10 minutes, though towards the end of stay it was very difficult to see the owlets (and PDs) at the cavity. The second owlet was up only intermittently in the cavity entrance though out our time there.

2127—We leave the area.

## 7 July 2009

2024—KB, SR, and KC arrive at B1\_2009 nest to fledge watch. Both owlets are up in cavity upon arrival.

2032—M gives single TC nearby, just W of nest tree. Weather: Calm, scattered clouds, 18C.

2043—TC/TEC nearby from S, moves to W.

2048-2105—We observe 6 PDs.

2106—**FLEDGE**! The owlet jumps out of the cavity to the west into thick trees. We begin searching for the fledgling.

2158—We find the fledgling and begin knocking him out of a tree.

2201—**Owlet falls out of the tree**.

**New band: 1593—64717 (L leg)**

83.0 g LP5: 68 mm (16 in shaft)

28.0 g LP6: 68 mm (19)

55.0 g RECT: 32 mm (11)

Bled on left wing. Small hemotoma.

2222—We place him back in a lower branch of the tree he fell out of.

2227—We leave.

## 8 July 2009

2028—SC, SR, and KB arrive at the B1\_2009 nest to fledge watch. The remaining owlet and the F are up in the cavity when we arrive. Weather: clear, calm, 17C

2037—We hear the other fledgling begging down drainage. We also hear M calls down drainage as well.

2047—Owlet in cavity begs. He is still up in the cavity, as is the F.

2054—F flushes, owlet still up.

2057—**FLEDGE**!

2104—We have the owlet in hand.

**Band #: 1593—64709**

69.5 g LP5: 68 (19 in shaft) mm

28.0 LP6**:** 68 (17) mm

41.5 g LWC: 87 mm

RECT: 35 (14) mm

2123—We place him back in a branch.

2125—We leave the area.

## 13 July 2009

2235—SR and BL arrive on the southern terminus of Shooting Star Ridge to set up lure net and attempt capture of B10 M, and possible B15 M.

2300—We start playback.

2304—We hear M approaching from the E (in the direction of B1), giving TC, eventually calling in the vicinity of the lure net.

2309—**M captured in the top shelf, S side of net. He is a previously banded M—Band # 64679; this is the B1\_2009 M.**

87.0 g

- 29.5 g

57.5 g

2313—Another M starts giving TC to the S of the net ~ 60 m—from the direction of B10, or possibly B15. He eventually enters the immediate net area, calling intermittently. We wait on releasing the B1 M to increase our chances of capturing this 2nd M.

2345—We release the B1 M, after unsuccessfully attempting to lure the 2nd M into the net. We start to break down the lure net.

2405—We leave. M giving TC to the S ~ 60 m.

## 18 August 2009

1950—K Kritz (USFWS) and BL arrive on the S terminus of Camp Ridge to set up lure net for possible capture and affixing of geolocator on the B17 male. Weather: PC, calm, 14 C. Afternoon t-storms, but dry here.

2026—Start playback.

2117—**Capture unbanded FLOW in the 2nd shelf from the top**. Owl was not heard vocalizing prior to capture.

2122—FLOW out of net.

**Band # 64750**

93.5 g LWC: 131 mm

- 29.5 g LLP(5): 102 mm

64.0 g LLP(6): 112 mm

Rect: 68 mm

FLOW was bled.

2144—**Two more unbanded FLOW in capture net.**

2150—Both owls removed from net.

2151—The first FLOW (possible F?) released.

**Band # 64751**

82.5 g LWC: 126 mm

- 30.0 g LLP(5): 97 mm

52.5 g LLP(6): 107 mm

Rect: 59 mm

FLOW was bled.

**Band # 64752**

87.5 g LWC: 131 mm

- 29.5 g LLP(5): 101 mm

58.0 g LLP(6): 108 mm

Rect: 60 mm

FLOW was bled.

2225—Both FLOW were released.

2245—We stop playback and break down nets.

2300—We leave.

# B1—2010

## 25 May 2010

2035—BL, JV, JSG, and JG have lure net in position on S Goshawk ridgetop approximately 100 meters E of Missouri Gulch Rd. Weather: Clear, intermittent wind, 10 C. Vegetation: Mature Pipo/Psme.

X: 495265

Y: 4333880

+/-: 5 m

2049—We begin playback with speakers in a young Psme approximately 1 meter off the ground facing toward B4/B5.

2051—We hear TCs in direction of B4/to the SE.

2057—M leaves the immediate area.

2103—BL orients speakers toward B2.

2106—**Capture B1\_2009 Fledgling, band #64717, banded in 2009.** Captured in the top shelf from the W. BL notes this M is more rufous-colored than usual.

LWC: 129 mm

LLP(#5): 91 mm

74.0 g LLP(#6): 102 mm

- 16.5 g Rect: 60 mm

57.5 g

2116—We hear another M in the area giving TCs from the W.

2117—M from the W goes silent.

2122—BL releases B1 M.

2126—We hear TCs from the direction of B14.

2143—M flies in from S and gives TCs and TECs for 3 min.

2145—JV and JG arrive at the Weir to tap cavity trees and B2\_2004 nest tree.

2157—Hears TCs from SE of the net.

2200—We tap a Potr across the road from the Weir and see a small bird flush from a south facing cavity approximately 8 meters off the ground. The cavity appears to be suitable, but we did not get a good enough look at the bird to positively ID its species. We back away and observe the cavity.

2210—We leave the area, having seen/heard no more activity that might indicate a nest.

2215—Hears TCs from direction of B14 again.

2234—We tap B2\_43b, the 2009 nest tree. It is vacant. We head E on N Goshawk ridge toward B14 to listen/spot-map. Refer to 25 May 2010 for further spot-mapping information in B14.

2238—M flies in from the SE and flies over the net toward the SW. Calls for 10 min.

2348—BL and JSG arrive at B2 to spot map.

0015—JSG hears 3 TCs from the direction of the junction of Homestead Ravine and Goshawk Ravine.

0025—BL and JSG leave B2.

## 1 June 2010

1530—Flam crew begins peeping B1.

1538—JV and KB tap the B1\_2009 nest tree (B4\_311, tag #311) and the F comes up. **This is the B1\_2010 nest tree.** Cavity is north facing on dead aspen, ~40 ft.

1548—We leave the nest site, the F is still up in the cavity.

## 7 June 2010

2029—DW, JSG, and BL arrive at the B1 nest to attempt capture of M. F already in cavity entrance when we arrive.

Weather: Partly cloudy, calm, 23 C!

2035—F descends in cavity, then comes back up to the entrance for 30 sec, then descends again.

2047—F flushes cavity. **BL peeps cavity, and finds 3 eggs touching in the center of the cavity**.I then raise capture pole to get net position ready, but I get hung up as the F returns in adjacent tree. I noisily free the net and collapse the pole as the F flushes from the nest site.

2051—M gives TCs nearby during the peeping process.

2052—BL finishes peep and begins to raise capture pole.

2054—Capture pole in position.

2056—F returns to an aspen 5 m away from the nest.

2103—F returns to cavity.

2107—M arrives in nest area giving LC, and makes PD at the cavity entrance where the F is giving FSC.

2111—PD by M in the cavity. Both M and F vocalize (LC and FSC, respectively).

2112—Same. BL gets into capture position.

2122—M aborts PD.

2137—BL lowers the capture pole, as the M is too skitterish to fly into the cavity—he approached the cavity several times, but aborted each time. F giving audible FSC from the cavity.

2139—M makes PD in the cavity.

2141—We leave.

## 15 June 2010

2045—KB arrives at B1 nest in an attempt to capture the B1 F. F comes up in the cavity as I approach the bottom of the nest tree. I move behind the tree.

2050—M calls off roost just to the west, down drainage.

2054—F down (KB thinks). I raise the net. JV arrives with the peeper.

2101—Two birds are in the nest site. M calls from just west of the cavity tree. KB takes the net away and we leave the nest site, in case one is the F- might have flushed unobserved when KB was alone under the tree.

2130—JV moves back into the nest site to observe. The F is down.

2132—KB sneaks under the nest tree. A silent bird flies into the nest tree, then the F is up in the cavity. A M flies into the area and begins giving soft TCs at KB. KB grabs the net and leaves to watch with JV (never put the net back up).

2139—A silent bird flies into the nest tree, then away. **Possible helper in the area??**

2142—We leave, and light up the cavity, and see the F up in the cavity. This cavity is hard to silhouette, so either there is a helper, or the F was flushing.

## 22 June 2010

2031—JV, JSG, and JG arrive at the B1\_2010 nest to attempt to capture the F.

Weather: Clear, calm, 18 C

2034—As JV approaches the nest tree, the F rises to the entrance. We back off.

2038—We check the cavity, the F is down.

2039—As JV approaches the nest tree, the F rises to the entrance. We back off.

2044—M calls off roost down drainage.

2045—As JV approaches the nest tree, the F rises to the cavity entrance.

2049—The F flushes. We peep the cavity and see **3 eggs centered and touching**. We leave.

## 28 June 2010

2022—JG, JSG, and BG arrive at the B1\_2010 nest in order to attempt to capture the F or the M.

Weather: Partly-cloudy, calm, 16 C. After being at the nest for about 30 minutes, very slight rain begins falling and lighting begins to the S.

2026—With the F down, we approach the nest tree and she comes up, we back off.

2044—Finally with the F down, the M begins giving LCs down drainage of the nest tree.

2045—The F begins begging from the entrance of the cavity.

2046—The F backs down into the cavity, JSG begins to raise the net.

2049—M makes a PD.

2052—Net in front of the cavity. **Capture height: 34’4”**

***\*Note – the capture height varies greatly at this nest due to the sharp gradient at the base of the tree.***

2059—With the M giving TCs and TECs at us and the F not yet flushed despite a tap on the nest tree, we decide to back off the capture attempt. While we did not see her flush, it is possible we missed it. **We quickly peep the cavity and see two nestlings together in the center of the cavity, barely moving, and looking down.**

## 9 July 2010

2046—SY, BG, and JSG arrive at B1 to capture F. F is up when we arrive.

Weather: overcast, calm,

2047—M makes a PD.

2049—M makes a possible PD.

2050—M makes a PD.

2053—BG gets net into position.

2056—We see both M and F sitting in tree 5 m from nest tree.

2059—F flies into cavity and M flies in directly afterwards**. BG puts net over cavity and captures both M and F.** F was massed, but no wing measurements were taken.

**Female Band # 1593-92375—this was the B1\_2004 F, so she is now a minimum of 7 years old!**

67.5 g

- 15.5 g

52.0 g

2101—**JSG peeps cavity and sees two nestlings who are mostly gray, fully attentive, eyes open, and no eggtooth.**

2103—Release the M who was previously banded **Band # 1593-64679—this returning M was the B1\_2009 male**. No measurements were taken on him because it was early in the night and we did not want to keep both the M and F for a long period of time.

2114—F is released to strong flight.

2120—We leave to go set up a lure net on Biker Ridge.

## 13 July 2010

~1535—On our way past the B1 nest tree, JSG raises the capture net to attempt to capture the F and get a blood smear on her. We tap the nest tree, but the F does not flush, so we leave.

~1710—On our way back from the B10 nest tree, JG peeps the B1 nest tree and sees no owlets. We did not see the F flush prior to peeping. We also see one egg at the bottom of the cavity that looks as though it has been defecated upon. At this point, we are unsure whether the nestlings have fledged, or if this is a failed nest. We leave.

2035—Jennifer Blakesley, Tyler, and BL arrive at the B1\_2010 nest to attempt to determine if the nest has failed or if the owlets already fledged. Weather: Partly cloudy, slight breeze, ~ 23 C. We spread out in the drainage bottom to listen for nesting/fledgling vocalizations.

2050—Jennifer observed what appeared to be an adult FLOW leave his roost ~ 10 m downstream from the nest tree, and was immediately chased and harassed by a couple of angry AMROs—judging from the subsequent AMRO scolding calls we heard, the chase continued up the drainage ~ 50 m and onto the N-facing slope of Sharp-shinned Hawk Ridge.

2100—Tyler reported that a FLOW was flying through tree crowns in his vicinity. Shortly thereafter, a M gave a few TCs directly to the S and near the top of S-S Hawk Ridge.

2120—We leave. **We did not hear any fledgling begging or adult LC in the interim, nor was I able to elicit any SC anywhere in the nest area—these observations suggest the nest failed.**

## 20 July 2010

2338—TM, JV, and SY set up a lure net and start the playback on the south end of Camp Ridge. The net is on the ridge top opening to the southwest.

Weather: calm, 14C, light fog, light rain, cloudy

Vegetation: small/medium psme

X: 495244

Y: 4333592

+/- 6m

2420—We hear nothing while the playback is running and it is consistently lightly raining. We turn off the playback and take down the net.

# B1—2011

## 1 June 2011

2225—JG leaves lure net on the Biker Trail to observe the B1\_2009/2010 nest tree.

2251—JG hears TCs in Columbine Creek at the W terminus of Sierra Madre. The TCs continue for about 1 minute, and then I continue toward W. Missouri Creek.

2300—On the N side of Sharp-Shinned Hawk ridge and about 100 m W of the B1\_2009/2010 nest tree, JG hears TCs in the direction of that tree.

2303—After hearing the male at 2300 continue further up W Missouri Creek, JG hears another male to the W. I pursue the male to the junction with Homestead Creek, where the TCs continue N into Homestead Cr.

2314—At the B1\_2009/2010 nest tree, JG hears two males in an encounter. One male is in the immediate vicinity of the nest tree, the other is to the E up the drainage.

2320—JG leaves the site of the old nest tree and continues E up the drainage. I did not observe any prey deliveries to the old nest cavity nor did I see a F rise to a tap.

2330—Approximately 100 m up the drainage from the B1\_2009/2010 nest tree, JG hears two males in an encounter, possibly the B1 and B17 males. I record a songpost on the supposed B1 male.

2357—At the top of Sharp-Shinned Hawk ridge, JG hears TCs/TECs to the S in Columbine Creek.

## 7 June 2011

1515—Flamm Crew begins peeping from the B4 parking spot into B1, B17, and up the Biker Trail into B10.

1720—We finish peeping, having not completely peeped these territories. Refer to Master Flamm notes for additional peeping needs.

2333—BG and JV walk down Sharp-shinned to the South listening and hooting.

~2345—B1 begins to respond from B1 drainage (Missouri Creek down to confluence with Homestead Creek).

2353—B1 has brief territorial encounter with B10, encouraged by hooting by BG. Birds are not close enough to spot map.

2355—JV and BG leave area and return to vehicle.

2225—Start playback, S. end of Camp Ridge. X: 495240 Y:4333592

Vegetation: Tall Pipo, lower vegetation,

Weather: Calm until we start playback, then winds 0-10mph, clear night, 18C.

2240—SY And Abby tap on cavity tree #26 (nest box) at end of Camp R. (~75-100m S of lure net position) no response. We back off ~25m and observe.

2249—M gives TCs from ~5-10m W of nest box for ~3min.., then goes silent.

2302—We leave and return to lure net.

2307—TCs heard to E.

2314—SY gives TC and TEC calls, but owl has left area.

2325—We stop playback, take down net and leave.

2335: SY and JR start spot mapping and tapping on trees in Falling Squirrel Cr. We hear a couple TCs from low in drainage, not consistent enough to get close to location. Possibly near a nest?

2420— Stop spot mapping and leave.

2040—PS and BY arrive where road meets Shooting Star Ridge.

2110—Lure net set up at west end of B1 and northern end of B10 territories.

2121—Playback started.

Vegetation: Mature psme and pipo

Weather: Wind calm. Sky clear. Temp: 17F

X: 494589

Y: 4333330

+/- 5m

2128—M heard calling from B1 from eastern direction with one or two vocalizations.

2141-2151—M TCs and TECs heard approaching from south part of ridge possibly from B10.

2200—BL leaves to tap and listen in B10 and B15 territories.

2217—**BL finds B10\_2011 nest. F seen peeking head out from cavity. Refer to B10\_2011 notes on 7 June 2011 for further information.**

2242—**Silent unbanded M caught in 3rd tier of net coming from western direction.**

2247—As PS works on extraction TCs heard from E side of net. Shortly thereafter a bird approaches net from North and strikes western side of net. Bird bounces off net and lands in a tree 3m from net. This was presumably the B10 M.

2256—Silent M Extracted. Banded and bled from right wing.

**Band # 1593-64868 (on left leg)**

73.5 g LWC: 130 mm

- 21.5 g LLP(5): 97 mm

52.0 g LLP(6): 106 mm

Rect: 61 mm

2318—Bird released. Strong ascending flight to west.

2353—Net taken down. BY and PS head towards B11 direction to tap and listen.

0015—BY and PS leave area.

## 20 June 2011

~1630—SY and IJ enter B1 from B2/B11 and begin search for remaining un-peeped trees.

~1730—SY and IJ finish peeping B1, having found most, but not all, remaining cavity trees.

## 28 June 2011

2300—PS, BG, and JV (aka PB & J) arrive at the top of Sharp-Shinned Hawk Ridge to listen and try to solicit encounters in order to ascertain the status of the B1 male. B17 M can still be heard giving TCs to the SW by the nest.

2301—BG gives a couple of TCs and B17 moves further N to give TCs, but not too far up the ridge.

2322—B17 gives a couple of TCs back on the slope next to the nest site in response to PB & J’s TCs.

2335—B1 M makes TCs in response to PS’s TCs near top of Sharp-Shinned Hawk Ridge on Missouri Cr (north) side. The M remains extremely vocal as PS and SY follow him down into W Missouri Cr drainage and up onto the western terminus of shooting star ridge.

2348—PS thinks he may have heard F begging on lower slope of north side of Sharp-Shinned Hawk Ridge. GPS of this area is:

X: 494937

Y: 433365 +/- 5m

2359—B17 giving TCs down at the nest in Columbine Creek.

2400—IJ taps on an untagged cavity tree in the B1 drainage and a bird exists cavity upon first tap to a PSME 2m away. IJ is not able to identify bird or light it up in the vicinity of the cavity. The cavity is a flicker sized hole in a full snag POTR, approximately 20m high facing SE towards Sharp-Shinned Ridge with the following GPS:

X: 495106

Y: 4333414 +/- 4m

2406—B17 goes silent.

2415—Not having observed the F re-enter the cavity or seen/heard her in the vicinity, IJ, PS, and SY leave the area and head back to the vehicles.

2415—BG and JV meet up at the junction of Biker Ridge and Sharp-Shinned Hawk Ridge to listen for a couple minutes before heading back to the vehicles.

2425—Nothing is heard so B & J head back down the Biker Trail to the vehicles.

## 30 June 2011

1445—Flamm Crew begins tapping and peeping in B1 and B3.

1458—JG sees F rise to the entrance of a previously unenumerated cavity tree. **This is the supposed B1\_2011 nest tree. The F rose to the cavity entrance without a tap while I was circling the tree looking for other cavities. She remained in the cavity entrance for 6 minutes. The new tree, B3\_1168 #1168 is a broken top Psme approximately 75 meters N into Falling Squirrel Cr on the N side of Camp Ridge, approximately 35 meters from the drainage bottom. It is a full snag, DBH 60.5, and the nest cavity is the only cavity on the tree. The cavity is approximately NE-facing, and just under 50 feet high. Laser Show**

1506—The F retreats into the nest cavity. We remain at the base of the tree for about 10 minutes, and then leave the area.

2036—JG, AW and JR arrive at B1\_2011 nest to attempt to capture M. Weather: stormy and cloudy, but not very much wind at this time.

2041—JG peeps; but the peeper doesn’t work and gives us no image – **cavity height ~ 50’**

2042—M LCs heard to S.

2044—JG does some pruning on the tree with the hastings pole.

2048—M flies into psme about 5m west of nest then flies to nest tree and perches near the cavity before making a PD.

2052—M flies in while JG hits tree with hastings pole and aborts.

2053—M flies back to tree.

2054—M gives PD.

2056—M flies into psme to W and makes PD.

2059—M makes 6 more PDs in next 10 minutes (see prey delivery sheet).

2109—We leave due to heavy rain.

2205—Arrive back at nest.

2207—JG has net back up; raining slightly.

2210—We leave due to rain.

2306—We arrive back at the nest.

2310—Net up; height: 49ft.

2315—M flies out of psme nearby.

2318—PD.

2337—Lower net (and destroy it) and leave to set up a lure net to attempt to capture B1\_2011 M that way. **Note: PD rate strongly suggests that hatching has occurred.**

2355—Start playback on top of Camp Ridge, NW of B1\_2011 nest.

Weather: 0-5mph, clear, 11C.

Vegetation: Mature psme/pipo with some younger psme/pipo near net.

X: 495240

Y: 4333680

+/-3

2412—M gives TCs from W of net (about 15m) M flies over net and continues to give TCs and HECs from N.

2414—M goes silent.

2425—Turn off playback and leave.

## 5 July 2011

2032—AW, JR, and JG arrive at the B1\_2011 nest attempting to capture either the M or the F at the nest.

2041—JG raises the net into capture position.

2042—M flies into nest tree and perches on a limb adjacent to the cavity. M gives LCs.

2043—M leaves perch and flies S to a nearby psme. M perches for about 15 seconds and returns to the nest tree.

2044—F flushes and we fail to capture her.

2052—**JG peeps and we find 3 owlets. All 3 have their eyes open with 1 having eye fully open and 2 having eyes partially open. All 3 owlets are looking up and laying on their backs. They are covered in white natal down.** We retreat to attempt lure netting for the B1 M.

2121—Start playback on top of Camp Ridge NW of the B1\_2011 nest.

Vegetation: Mature psme/pipo with a few younger trees near the net.

Weather: Clear, calm, 15C.

X: 495236

Y: 4333680

+/- 4m

2124—M flies in from W and gives TCs. M goes silent after a few mintues.

2134—M returns and gives TCs from close proximity to the net. Unclear what direction he came in from.

2140—JR leaves to observe the B1\_2011 nest. JG and AW remain at net. M is still giving TCs in the vicinity of the net.

2146—M goes silent.

2150—M returns from W and gives TCs from SW of net.

~2155—M goes silent.

2200—M gives PD at B1\_2011 nest.

2218—M gives PD at B1\_2011 nest.

2243—AW leaves to observe B1\_2011 nest as JR returns to stay at the lure net with JG.

2249—AW arrives at the B1\_2011 nest to observe.

2320—After observing no PDs, AW leaves nest to help break down lure net.

2340—End playback. JG, JR, and AW leave to attempt to capture the B4 F at the nest.

## 6 July 2011

2036—JG, AW, and JR arrive at B1\_2011 nest to attempt to capture F. F is up, so we back off to the side to wait for a bit. Weather: Cool, calm, ~ 14 C.

2042—See M in area so go back to tree to set net up.

2045—JG has net up.

2048—See M in tree, followed by second owl, assumed to be F; M gives F an off cavity PD. Move net to let her back on.

2049—M delivers PD, almost catch him but the net gets stuck on nearby branch.

2050—PD

2051—PD; F must have flushed again because there are two birds in the tree. She goes back on.

2053—Aborted PD. We decide to take the net down and leave. As we lower the net, the F flushes again. We leave.

## 7 July 2011

2028—JG, AW, and JR arrive at B1\_2011 nest to attempt to capture F. Calm, cloudy.

2032—JG has net up.

2047—M flies into nest tree and tries to fly into cavity through the net; then flies off into nearby psme.

2048—M flies into nest tree again.

2049—F appears captive, but then escapes as net is pulled away from the tree.

2057—AW/JG peep cavity; F tries to come on twice while trying to get peeper in cavity. See two

owlets standing up, but still huddling near each other.

2058—F back on. We then look around tree to see any evidence of brood reduction, don’t find

any, and leave.

## 8 July 2011

2022—JG, AW, and JR arrive at B1\_2011 nest to attempt to capture F. Weather: Cloudy, slight wind, ~ 14 C.

2024—JG raises net.

2031—The net is destroyed as JG attempts to get it into capture position. JG lowers the net for repair.

2041—F is up and we back off.

2044—M gives LCs. JG raises the net.

2046—F flushes as JG moves the net closer to the nest cavity. JG leaves the net up.

2049—F lands in broken top psme S of nest. She perches and flies away.

2050—F perches on branch in nest tree and flies away.

2052—F flutters at cavity, but does not enter and flies away.

2052—F flutters at cavity for a second time, but does not enter.

2053—F flutters at cavity for a third time, but does not enter.

2053—JG lowers net and we leave.

## 11 July 2011

2026—BL, JG, AW and JR arrive at B1\_2011 nest to attempt to capture F or M or both.

2030—JG has net up.

2045—M calls off-roost.

2046—M in nest tree after landing in pipo to E of nest tree.

2047—F flush, net must have been too low.

2056—F in tree; take peeper down without successfully peeping to let her get back on.

2058—Both F and M in nest tree, M makes a PD, F goes in cavity.

2100—F makes a PD

2101—PD

2102—PD

2105—PD

2105—BL attempts to raise the capture net and gets net caught. We lower net.

2114—PD

2115—F gives PD and remains in cavity.

2116—M gives PD.

2117—M gives PD.

2118—M gives PD.

2122—M gives PD. **It begins to rain steadily about this time**.

2131—AW observes a bird, probably the F, fly out of the cavity.

2132—BL begins to raise the capture net.

2132—PD.

2140—PD.

2142—F gives PD and remains in cavity.

2142—M perches on cavity tree.

2143—M gives PD.

2148—M gives PD.

2157—M gives PD.

2159—M gives PD and is captured. **He is banded, with #64490; this is the B10 M in 2008-2010. This represents one of the few confirmed instances of Male Breeding Dispersal! This is also the suspected helper captured at the B10\_2006 nest while the suspected territorial B10\_2006 M was never captured at the nest, only in a nearby lure net.**

**Band # 1593-64490** (on R leg)

83.5 g LWC: 133 mm

- 28.5 g LLP(5): 93 mm

55.0 g LLP(6): 105 mm

Rect: 60 mm

**Molt** **-** On his left wing P2 and 3 are in molt (#2 approximately 55 mm long), those P1-P3 feathers show strong fluorescence (on both wings). Bled L wing.

We bleed his left wing for genetics and a parasite smear.

2238—B1 M is released with strong flight.

## 12 July 2011

2026—JG, AW and JR arrive at B1\_2011 nest to attempt to capture F.

2030—JG has net up.

2032—JR taps nest tree, but F doesn’t come up or flush.

2036—M gives LCs to E of nest tree.

2037—**The F flushes into the capture net - JG captures an unbanded F. We band her with #64848.**

**Band # 1593-64848** (on L leg)

77.5 g LWC: 128 mm

- 18.0 g LLP(5): 93 mm

59.5 g LLP(6): 99 mm

Rect: 57 mm

Bled L wing for genetics and smear.

**Molt** - P 1-8 fluoresce approximately 2/3 from the base to the tip of the feathers, P 9 fluoresces a little less but still more than some of the other birds we have seen. Inner secondaries didn’t show much fluorescence. She is not in molt.

2038—M gives PD.

2103—F release, strong flight.

2105—**JG peeps cavity. We find 2 owlets. Both display extensive juvenile plumage. The**

**youngest owlet is comparable in age to the oldest owlet at A18. The youngest still**

**has some white natal down, but very little. The oldest owlet has a partial facial disk developing.**

2110—PD, identity unknown. We leave.

## 18 July 2011

2032—IJ and BL arrive at the B1\_2011 nest to assess developmental status of owlets. Binocs reveal no owlet/adult at entrance.

Weather: Partly cloudy (hot, dry afternoon), slight breeze (< 5 mph), 23 C.

2035—We hear M start to call off roost approximately 50 m to the SSW. M initially gives TCs—which then become LCs—for several minutes, and in response an owlet starts begging from the cavity. We also hear the F give some occasional FSC from the direction of the cavity as well during this time, but nobody is visible in the cavity entrance.

2043—M starts giving LCs again approximately 20 m S of the nest tree, which continue for a couple of minutes. Shortly thereafter, BL sees something flush away (upslope to the W, nest height) from the nest tree—unsure whether this could have been the F or possibly a bat. Otherwise, we never knew if/when the F flushed.

2053—M makes 1st PD, which occurred at the cavity entrance. No owlet visible in the entrance, but either the owlet is just inside the entrance (difficult to tell since the cavity is nearly 17 m high) or the cavity is quite shallow. M entered entrance from south of cavity, flies N.

2056-2103: M makes 6 additional PDs to the nest during this time (see PD data sheet), many of which following apparent prey captures in the crown of the dom *Pipo* just 5 m downslope from the nest tree, and were quick deliveries after he perched at the outside entrance of the cavity.

2103-2130: BL starts to make a ~30 m radius circle around the nest area, attempting to elicit SC from the M in case a fledgling were nearby. No such response, and no fledgling begging heard during the circuit.

2104-2130: M makes 8 additional PDs nest during this time (see PD data sheet).

2131—We leave. **Note: No evidence that fledging has begun, and the absence of any owlet(s) protruding from the cavity entrance during our observation time suggests that fledging may still be ~ 3 days away.**

**Note: The F was never observed in the nest area once the M started making PDs. At approximately 2245 hr, the B1\_2011 F (band # 64848) was captured in a lure net on Ursus Ridge in A4 territory—a distance of approximately 6.8 km. This is the longest documented movement by a breeding adult during the nesting season. Could this have been the same F that IJ and BL heard in the nest area early in the evening??**

## 19 July 2011

2235—BL arrives at the B1\_2011 nest to assess status of owlets. All quiet at the nest when I arrive.

2240-2250**: I attempt to peep the cavity during this time, but cannot get the peeper in the entrance!** During this time, the M flew to the cavity vicinity on three occasions, apparently trying to make PDs.

2316—M makes PD at cavity entrance.

2319—M makes PD, but he enters the cavity this time and remains there ~ 30 sec before flushing.

2324—M makes PD at cavity entrance. Same at 2325, 2328, and 2330.

2330—I leave. No sign of the F during this time.

## 20 July 2011

2031—JR, JG, and James (NCAR) arrive at the B1\_2011 nest to peep the nest and assess the progress of the nestlings. **We peep the cavity and see 1 nestling with a well-developed facial disk**. We had been expecting to see 2 nestlings at this point so we spread out to search for the potential fledgling and attempt to determine whether the nestling did fledge or whether this nest experienced an additional brood reduction event. Weather: Light rain which lasts until about 2050, cloudy, calm, 14 C.

2038—PD. While JR and James search for the fledgling, JG watches the nest to record PDs and observe fledging behavior from the remaining nestling. From 2038-2136, JG and JR see 23 PDs to the nestling. We could not determine the identity of the bird making PDs, but we never saw more than one FLOW in the nest site. See PD sheet for additional information.

2050—JR observes a forage in a 31.5 dbh Psme on the lower W side of Cooper’s Hawk Ridge. A PD is made approximately 15 seconds later.

2110—JR arrives at the nest to observe PDs and JG leaves to search for potential fledgling.

2200—Having searched N and S of the nest in Falling Squirrel Cr approximately 150 meters in each direction and on the W side of Cooper’s Hawk Ridge and the E side of Camp Ridge, we leave. We did not hear any fledgling vocalizations nor did we hear any scolding from adult FLOWs.

**\**Note – We did not detect any sign of the F while at the nest.***

## 21 July 2011

2235—BL arrives at the B1\_2011 nest to assess status of owlet. All quiet in the nest area when I arrive.

2241—M makes PD at the cavity entrance.

2244—M makes PD at the cavity entrance.

2256—M makes PD at the cavity entrance.

2300-2315: I leave to circle the nest area to listen for possible fledglings (and to elicit SC from the M), but nothing is heard.

2315—I leave.

## 22 July 2011

2035—AW and JG arrive at the B1\_2011 nest to fledge watch. When we arrive, the owlet is up

in the cavity entrance. Weather: Partly cloudy, wind ~ 5 mph, 14 C.

2045—PD

2046—PD, small lepid. Larva

2047—PD

2048—**Owlet fledges onto a branch just below the nest cavity.** The fledgling perches on the

branch for about two minutes and then fledges to the ground and lands about 10 m down

slope/E of the nest tree. The fledgling has a very well-developed facial disk and well

developed adult scapulars. AW bleeds R wing.

**Band # 1593-64892** (on L leg)

91.0 g LWC: 61 mm

- 29.0 g LLP(5): 68 mm

62.0 g LLP(6): 70 mm

Rect: 35 mm

2119—We release the fledgling onto a live Psme about 5 m S of where he landed following

fledging.

2234—SY, CB and JR start playback on top of Coopers Hawk Ridge.

Vegetation: Mixed psme and pipo.

Weather: Windy 5-10mph, that calmed down to 0-5mph later in night, clear, 17C.

X: 495501

Y: 4333738

+/-0 – from ARC map.

2328—Turn playback off and leave, without hearing anything all night except Connor’s

ridiculous stories about an antiquing competition he may or may not have won.

# B1—2012

## 29 May 2012

2058—BL, AW, JR, CC, and NS set up lure net on unnamed spur off of S. Goshawk Ridge between Cooper’s Hawk Ridge and Camp Ridge with the purpose of capturing either B17 or B1 M.

2100—Start playback.

Vegetation: Mixed pipo/psme.

Weather: Clear, slightly windy at first then becoming moderately calm, 16C

X: 0495371

Y: 4333844

+/- 9 ft

2127—AW and NS leave lure net with the purpose of listening near the B1\_2011 nest tree and in Fallen Squirrel drainage.

2145—AW and NS arrive at B1\_2011 nest tree.

2245—After listening at the B1\_2011 nest tree and throughout Fallen Squirrel drainage without hearing anything, AW and NS hear faint TCs from Cooper’s Hawk Ridge. We pursue and hike to the top of Cooper’s Hawk, but hear nothing else.

2252—AW and NS return to lure net.

2300—BL, AW, JR, NS, and CC take down lure net after hearing no responses. We leave S. Goshawk Ridge.

2325—BL, AW, JR, NS, and CC stop at weir to tap on nearby cavity trees. **F FLOW is in entrance when we arrive—this is the B1\_2012! Nest site is located at intersection of Fallen Squirrel drainage and the Missouri two track road approximately 25 m S of road. Nest tree is a potr snag isolated from surrounding trees (B4\_429, tag #429), and nest cavity is ~ 25 ft high, facing ESE. This tree and cavity was also the nest for B1\_2007, and B14\_2008, 2009.**

2328—F goes down. No sign of M. We leave.

## 4 June 2012

2030—NS, BL, David Johnson, and Shannon arrive at the B1\_2012 nest to attempt capture of F. Weather: overcast, breezy in drainages, breezy to windy on ridgetops. Temp 15̊C.

2033 – BL approached nest with net.

2037—BL raised the capture net over the cavity. F had been down as BL approached nest tree, and remained down when with the capture net in place.

2043—M calls off his roost, giving several TCs from the N-facing slope approximately 50 m SE of the nest tree.

2045—F flushes into the capture net, but she does not go down into the bag, but rather gets captured on the side of the bag near the rim. The wind had also blown the net into some adjacent twigs, and in the process of attempting to extricate the net from the tree, the F escapes. She flushes to an adjacent limb for a couple of moments, **where BL clearly sees that she is banded**.

2048—**We peep the cavity and observe 3 eggs (touching) near the center of the cavity**.

2050—We leave for the B17 nest.

## 8 June 2012

2032—PPS and BL arrive at the B1\_2012 nest to attempt capture of F. Weather: Slight breeze, mostly clear, 22 C.

2038—BL raises the capture net in place.

2051—M calls off his roost approximately 50 m upslope to the S. **Seemingly in response, the F flushes at this time into the capture bag. She’s hung up on the trunk momentarily, but then is extricated without issues. F is previously banded—banded # 64848; this is the B1\_2011 F.**

**Band # 1593-64848**

84.0 g

- 7.0 g

77.0 g

2056—**PPS peeps the nest and observes 3 eggs touching in the center of the cavity. M approaches nest tree at this time, giving LCs.**

2101—F released, and we leave.

## 11 June 2012

2129—SY, PPS, and NS at B1 nest.

2131—After correct cavity is identified, SY positions net.

2133—Net in position.

2136—M aborts PD.

2158—M aborts another PD, intermittently giving TCs.

2204—TECs/HECs from M.

2243—M gives repeated HECs at SY.

2250 (approx.)—We leave B1 nest site.

## 15 June 2012

2102—B1 M observed flying into nearby small potr E of nest tree.

Weather: Partly cloudy, calm, 17C

2103—M completes a PD to the F in cavity flying from the small potr.

2108—M gives several TECs at AW as she approaches the tree with the capture pole.

2109—M makes a PD from NW potr to F in cavity.

2113—M giving TC/TECs to the E of the nest tree.

2122—F flushes from the cavity. We believe it was on her own accord because we did nothing to cause her to flush (no noise, didn’t bump tree). We peep the cavity and take a video. MD and AW identify only 2 eggs in the cavity (3 reported from previous peep). It is possible that partial predation occurred or that one of the eggs was crushed. MD and AW back off for ~25 min.

2129—M heard giving TCs to the S of the nest tree.

2146—AW and MD return to nest tree.

2202—M gives a few LCs in the small potr E of nest tree.

2208—F gives LCs from within the cavity.

~2220—M attempts 2 PDs but aborts them both.

~2225—M aborts 3 PDs and completes 1 to F in the cavity.

2229—M again is giving TCs to the E.

2243—M makes a PD and is caught by AW upon exit. **This bird is band #64490 and is the B1\_2011 M**.

**Band # 1593-64490 (on R leg)**

83.5 g LWC: 131 mm

- 19.5 g LLP(5): 98 mm

54.0 g LLP(6): 107 mm

Rect: 61 mm

2302—M is released. He makes a strong flight to the S.

## 20 June 2012

2115 (approx.)—JV, AP, and NS arrive at B1 nest site. JV peep nest, F is seated tightly. Cannot see whether she is seated on eggs or nestlings (see video).

## 22 June 2012

~2145: NS and BL arrive at the B1\_2012 nest to peep contents. **F is sitting tightly on cavity and we are unable to see beneath her.** We leave for B17\_2012 nest.

2254—NS and BL stop at the B1\_2012 nest to peep again after returning from B17\_2012 nest. **This time we see what appears to be an egg fragment on the side of the F, who is still sitting tightly in the cavity (Video #1).**

2300—We leave. M arrives as we depart and gives LCs in the nest area.

## 26 June 2012

2230—SY and MD arrive at B1 to peep the nest to determine status of the brood.

2233—SY peeps and takes a video; the F flushes upon peep. **There are 2 or 3 nestlings that have all white natal down, have their heads down, are sedentary. We cannot see eyes or beaks.** M is giving TCs at this time. We leave.

## 29 June 2012

2246—BL, AW, MD, and PPS arrive at the B1\_2012 nest to determine the status of the brood. **We peep and find 2 nestlings. Both nestlings are covered mostly in natal down with some black juvenile feathers coming in on the wings and back. One nestling has head up and briefly opens eyes. 2nd nestling keeps head down through entirety of peep.**

## 4 July 2012

2021—AW, PPS, and BL arrive at the B1\_2012 nest to check status of brood. F is at the entrance when we arrive and she flushes as the peeper approaches the cavity. **We peep and observe 2 owlets in mostly grey juvenile plumage with some white remaining around the neck region—we estimate they are ~12 d old. Both owets peer up at the camera (#5 camera video).**

2025—We leave for B17 territory.

## 11 July 2012

1500—Flam crew peeps the B1\_2012 nest to assess status of owlets. **Peeping reveals that the cavity is empty, with no evidence of owlets.** We search the surrounding area on the ground, local middens, etc., but find no evidence of the owlets. Nest has been depredated, probably by *Tamiasciurus hudsonicus*.

1510—We leave to process the B17\_2012 owlets.

# B1—2013

## 29 May 2013

2110—CK and BL arrive on the SE facing upper mid-slope of Camp Ridge to set up lure net and attempt capture of B1 M and associated floaters.

Vegetation: Forest overstory at the site is mature/old Pipo/Psme with patches of younger Pipo, Psme, and Pifl—we set up lure net immediately adjacent to a patch of the latter.

Weather: Clear, calm, 7 C.

X: 495263

Y: 4333552

+/- 3 m

2138—We start playback—lure net set up with only one net.

2200—BL leaves CK at the net to check cavity trees on Camp Ridge.

2224—M gives TC to the E in Fallen Squirrel Creek drainage. M about 100-120m away from lure net.

2226—M moving N in drainage. M still 100-120m away.

2228—Lost vocalizations of M NE in drainage. I check the lure net and find FLOW in 2nd from bottom shelf. M entered from the E.

2237—**We extract FLOW from net—owl was previously unbanded. A check for an incubation patch is negative—we have an apparent M. We band M with band # 1783-64387.**

**Band # 1783-64387** (on L leg)

92.0 g LWC: 126 mm

- 34.5 g LLP(5): 94 mm

57.5 g LLP(6): 104 mm

Rect: 63 mm

**We successfully bleed M on left wing.**

**Blacklight data:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Primary | Blacklight, L wing, 0-3 | Blacklight, L wing, 0-5 | Blacklight, R wing, 0-3 | Blacklight, R wing, 0-5 | Wear, L wing, 1-3 | Wear, L wing, 1-3 |
| 1 | 3 |  | 3 |  |  |  |
| 2 | 3 |  | 3 |  |  |  |
| 3 | 3 |  | 3 |  |  |  |
| 4 | 2 |  | 2 |  |  |  |
| 5 | 1 |  | 1 |  |  |  |
| 6 | 0 |  | 0 |  |  |  |
| 7 | 0 |  | 0 |  |  |  |
| 8 | 0 |  | 0 |  |  |  |
| 9 | 0 |  | 0 |  |  |  |
| 10 | 0 |  | 0 |  |  |  |

2312—We release M—he shows strong flight to S.

2330—We break down net, and leave at ~ 2350.

2405-0100: CK and BL tap cavity trees and periodically give TCs to elicit territorial responses in the W Missouri Cr drainage through B1 territory, on Sharp-shinned Hawk Ridge, and in the Columbine Cr drainage north from the B17\_2012 nest site to the head of the drainage. At ~ 2415, we briefly hear M giving TCs faintly to the W in the area of the S end of Shooting Star Ridge (probably B10 M), but other than that, nothing was seen or heard.

## 4 June 2013

2135—AW, RC, and LL begin playback on Sharp-shinned Hawk Ridge approximately 50 m E

of B17\_2012 nest tree on the ridgetop with the intent of luring for the B1 and B17 Ms. Net is open to S.

Weather: overcast, nearby thunderstorms, wind <5 mph, 11C

Vegetation: medium to mature pipo/psme, open

X: 494949

Y: 4333303

+/- 4 m

2142—M gives TCs N of net ~10 m. Prior to this, AW possibly heard TCs from mid-slope on

the N side of Sharp-shinned Hawk R.

2147—**M is captured in the top-shelf from the N. M is unbanded and we band him with #1593-64891 on his R leg.** **Prior to capture, M gave TC/HEC in net vicinity, always remaining to the N of the net. Because of this, we assume him to be the B1 M.** *Note: it is later confirmed this M is NOT the B1 M.*  While in hand, M continues to give HECs. Blood is taken from his R wing resulting in a moderate hemotoma. Blacklight shows medium fluorescence on P1-4 with no fluorescence on P5-10. This pattern is consistent on both wings. P5-10 are extremely worn. P1-4 exhibit light wear with the exception of a V-shaped cut in the tip of P4 on the R wing.

**Band # 1593-64891** (on R leg)

90.0 g LWC: 130 mm

- 29.0 g LLP(5): 99 mm

61.0 g LLP(6): 109 mm

Rect: 60 mm

2217—M released with ascending flight to N.

2220—LL and AW leave to listen for nesting vocalizations and tap in the B1 drainage bottom.

2310—RC ends playback after it starts raining.

2315—LL and AW return to lure net to help RC break it down. They heard and saw nothing while in B1 drainage.

2348—AW, RC, and LL begin listening for nest vocalizations in Columbine Cr (B17 drainage bottom). We spread out around the B17\_2012 nest with LL ~150 m E and ~150 m W of last year’s nest tree.

2430—After hearing nothing, we leave.

## 20 June 2013

2257—SY, CK and LL spread out to listen in the B1 area. CK and SY in W Missouri Cr. and

LL in Flying Squirrel Cr.

0115—Nothing heard, we leave.

## 24 June 2013

2358—AW, RC, and BDG split up to listen on Sharp-shinned Hawk R, Columbine Cr, and W Missouri Cr (B1 drainage bottom)

2412—RC hears brief TCs 70+m SW of position on low S-facing slope of Sharp-shinned Hawk R, 100m from confluence of Columbine and W Missouri. RC heads to drainage bottom at confluence to listen, but bird is silent.

2425—RC hears M TCs upslope to SE on N-facing slope of Sierra Madre R and pursues. M is likely either B10 or B20 M. AW and SY make their way toward TCs from Sharp-shinned R and W Missouri Cr, respectively.

2433—M TCs again S upslope another 60m. RC pursues, but M is not calling near enough or long enough for a song post to be identified.

2440—No vocalizations were heard in B1.

2440—We leave.

2345—SY and LL arrive in bottom of Falling Squirrel Cr. to listen for any potential B1 or B4 vocalizations. We spread out with LL in the lower part of the drainage and SY in the upper part of the drainage. We give some hoots periodically, but hear and see nothing.

2415—After hearing and seeing nothing, we leave and head to Vista Ridge.

2423—SY and LL arrive on Vista Ridge to listen for any vocalizations from FLOWs in the area. We spread out with SY going to the southern point of the ridge and LL heading N/NE along the ridge. SY drops off the W side of the ridge, so LL takes up a spot on the southern part of the ridge. We periodically give hoots.

~0100—LL hears a few faint, distant TCs to the W, either at the very bottom of Homestead Cr. or up on the opposite ridge. This could potentially be the B2? M, though he went silent after only a few hoots and we heard nothing else for the remainder of our time on Vista Ridge.

0110—We leave after hearing and seeing nothing more.

## 28 June 2013

1600—Flam Crew arrives at the B1 parking spot intending to peep Fallen Squirrel drainage and upper W Missouri Cr (focusing on past nest trees in the short time available for peeping).

1705—**AW spots F up in tree B3\_4 #27. This is the B1\_2013 nest tree! Nest tree is a pipo full snag located on the W side of the S terminus of Vista R approximately 25 m W of the nest box (tree #26). Nest cavity is a NOFL sized hole facing SW approximately 32’ from the base of the tree. Nest cavity is located ~2 ft below the fork in the tree and is NOT the lower, smaller cavity facing the same direction.** F is up until I leave at 1712.

1720—Flam Crew ends peeping.

~2205—RC and AW arrive at the B1\_2013 nest tree intending to capture the M on a PD.

Weather: light sprinkling of rain, nearby thunderstorms, cloudy

2207—M makes PD.

2208—M makes PD.

2211—M makes PD.

2216—RC has net in capture position. From his position ~5’ SW of base of tree, **capture pole height is 33’2.**

2236—M approaches nest tree attempting approximately 6 PDs until 2248. None of these PDs are successful. M is clearly very skiddish around capture net.

2252—M makes a successful PD. RC attempts capture, but M is not captured.

2254—M aborts PD. Rain becomes heavier and we take net down.

*Note: since 2236, M has been almost entirely in nest vicinity. M flies in and out of nest tree, perching on cavity entrance or on a nearby limb, before flying off. M circles nest tree a number of times, using many different perches at different heights on the nest tree.*

~2208—Approaching lightning. We decide to get off Vista R and wait out storm in vehicle.

## 1 July 2013

2028—CK, AW and RC arrive at the B1\_2013 nest to attempt capture of the B1\_2013 F and check on the status of the owlets. RC gets into position for a nest capture and F rises to the cavity entrance.

2040—F is down and RC moves the net up to the cavity entrance.

2044—RC gets the net in position.

2054—B1\_2013 M enters the nest area and flies to a branch on an adjacent psme.

2055—M gives LCs to the W of the cavity and then gradually moves N.

2056—M goes silent and is seen leaving the nest area.

2100—**F rises to the cavity entrance and is immediately caught in the capture pole. F is**

**previously banded #1593-64848. She was the B1\_2011 and B1\_2012 F! The**

**B1\_2012 nest was predated and the B1\_2011 nest had brood reduction (3 eggs to 2**

**nestlings to 1 fledgling). This is 2nd reported instance in Missouri Gulch of a F**

**returning to a territory after predation occurred in a previous year. Interestingly,**

**the second instance of this also occurred in B1 with the previous F (band #92375)**

**who was the territorial F for 7 consecutive years.**

**CK peeps the cavity and sees 3 owlets. 2 owlets have their heads mostly down while one is standing vertically with eyes wide open. Juvenile plumage is beginning to emerge in all 3 owlets. Estimated age is 10-11 days with an estimated hatch date of 6/21 + 1 d. Cavity entrance ~33’8’’ using the Hastings pole. Video is uploaded as B1 (1 July 2013).**

**Band # 1593-64848** (on R leg)

2103—F released with strong flight to S. We leave.

## 2 July 2013

~2250—BDG and BL arrive at the B1\_2013 nest tree to attempt capture of M. All quiet in the nest area when we arrive, and no F in cavity entrance.

2300—Net up as M makes PD.

2303—M aborts PD.

2304—M aborts PD and F flushes.

2305—FSCs and LCs heard in adjacent psme, PD?.

2307—M seen flying towards psme followed by LCs and FSCs, PD?

2309—FSCs and LCs are heard from the adjacent psme for several minutes, but M is not seen making foraging flights, though we do not have a good silhouette.

2314—**BL captures what turns out to be the F (Band # 1593-64848) when she exits after making an apparent PD (both M and F had vocalized in an adjacent Psme just prior to her flight to the cavity).** We decide to hold on to her so we can bleed her, and BL rushes into capture position as M comes back into nest area.

2323—M aborts PD.

2324—M aborts PD.

2329—**BL captures M after he exits following an apparent PD in the cavity. M is precariously attached to the upper portion of the capture net, but we manage to lower him to the ground before he can escape. M is previously banded, with Band # 1593-64490—this is the B1\_2011 and 2012 M, and the B10\_2009 and 2010 M!** We hold onto him and process the F first.

2331—A third FLOW flies by the nest tree while we are attempting to extract the M.

2332—The third unidentified FLOW makes a second flight passed the nest tree.

**Female—Band # 1593-64848** (on ? leg)

86.0 g LWC: 126 mm

- 22.5 g LLP(5): 99 mm

63.5 g LLP(6): 107 mm

Rect: 62 mm

We take blood sample for genetics and parasite screen. No primary molt. Pin feathers out of shaft on the incubation patch.

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 (50%) | 2.5 (60%) |
| P2 | 2.5 (60%) | 2.5 (60%) |
| P3 | 2.5 (60%) | 2.5 (60%) |
| P4 | 2.5 (60%) | 1.5 |
| P5 | 2.5 (60%) | 2 (60%) |
| P6 | 2 (45%) | 2 (60%) |
| P7 | 2 (45%) | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1 |
| P10 | 1 | 0.5 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2351—We release F—ascending flight to the N.

2352—We begin processing M.

**Male—Band # 1593-64490** (on ? leg)

88.5 g LWC: 131 mm

- 34.0 g LLP(5): 97 mm

54.5 g LLP(6): 107 mm

Rect: 61 mm

We take blood sample for genetics and parasite screen. No primary molt.

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 (75%) | 2.5 (65%) |
| P2 | 1.5 | 2.5 (65%) |
| P3 | 1.5 | 2.5 (65%) |
| P4 | 1.5 | 0.5 |
| P5 | 2 (60%) | 1.5 |
| P6 | 2 (60%) | 1.5 |
| P7 | 0.5 | 1 |
| P8 | 0.5 | 1 |
| P9 | 0.5 | 1 |
| P10 | 0.5 | 1 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1.5 | 2.5 |
| P5 | 0.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 2 |
| P9 | 1.5 | 2 |
| P10 | 2 | 2.5 |

2407—We release M, and he shows strong ascending flight to the W.

2413—As we prepare to leave, we hear M giving LC and F giving FSC in the nest site.

~2420—We leave.

## 8 July 2013

2341—RC, CK, and BL arrive at the B1\_2013 nest to attempt capture of F. M makes a PD at this time, just as we arrive.

Weather: Mostly clear, calm, ~ 16 C.

2347—RC gets into capture position (CK takes over at ~ 2430).

2349-2455: A total of 16 PDs were made during this time, at least 14 of which we attributed to the M (see PD data sheet). F appeared to make one PD, and possibly two, at about 2415 hr, but we are not successful at capturing her. **M was inadvertently captured at 2441, and immediately released without processing at 2445.** We heard the M foraging in the large adjacent Psme (to W) on several occasions, and on other occasions he flew to the N and E when he exited the cavity.

2455—**We peep contents of cavity, and observe 3 owlets—all three generally had grey juvenal plumage on the wings and back, and with still mostly white heads. All were sitting on the cavity bottom, but looked attentively up at the camera (video made on monitor 2)**.

0100—We take down the net, and leave.

## 12 July 2013

~2230—AW and RC arrive at B1\_2013 nest with intent to peep and check for fledglings. **Peep**

**reveals 2 nestlings, active and fairly well-developed. We think one looks slightly**

**younger, and so assume that the third nestling has fledged. We begin searching.**

2236—3 PDs (M, F, M).

2237-2348—MC and SY join the search, and no one is keeping eyes on the nest to watch for

PDs.

2349—PD (from/to NW).

2351—PD (from/to NW).

2354—Nestlings begging in cavity.

2356—PD (from/to N).

2358—PD (from N/to S).

2359—2 PDs (M and F).

2401—PD (from/to S).

~2405—**After searching in a large radius around nest area, we find nothing. We peep**

**again, and see 3 nestlings. The third is obviously the runt, and is laying face-down**

**in the middle of the cavity** *(We since have reason to believe that this nestling has died)*. **Peep recorded on monitor #4.**.

2412—We leave.

## 13 July 2013

2025—BDG and LL2 arrive at B1\_2013 nest with the intention of banding and bleeding potential fledglings. F is up when we arrive.

2042—F flushes.

2025-2143—PDs are recorded throughout this time and times can be found in the PD data.

2122—Two bird are observed in the nest area while M scolds can be heard ~20m up ridge.

2143—3 birds are observed flying past the nest tree from different directions.

## 15 July 2013

2026—BDG and CK arrive at the B1\_2013 nest tree with the intention of observing fledging. F

is up upon arrival.

2029—F flushes as we attempt to peep.

2030—We peep and observe two well developed nestlings and one much smaller nestling lying

motionless face down.

2041-2137—PDs occur from both the M and the F throughout this time.

2042—Owlet in entrance.

2045—Two owlets in entrance.

2047—Just one owlet up.

~2105—No owlets up.

2112—Owlet up.

2117—Owlet down.

2124—F changes her exit direction following PDs, which also occurred at a similar time on 7-

13-2013

2140—We peep and observe two well developed owlets and the third owlet remains facedown in

the same position as when we arrived and is presumed dead. We leave.

## 16 July 2013

2104—MC and RC arrive at B1\_2013 nest site with intent to peep nest and fledge watch. Peep

reveals 2 well-developed, alert, and standing nestlings with facial discs as well as one

motionless nestling face-down and at an odd angle on the side of the nest. We had

suspected this nestling deceased, and this state seems to confirm our suspicions. Peep

recorded on monitor #3.

Weather: Clear, breezy (moving small branches) with occasional gusts swaying trunks,

10C.

2106-2114—6 PDs go all the way in to cavity.

2116—Nestling comes up to entrance and begins begging (stops shortly). PD.

2117-2119—4 PDs to entrance.

2120—F and M PD.

2121—Nestling goes back down into cavity. 2 PDs.

2122-2147—18 PDs, 1 PD abort. This is the end of our PD observations. We know that both

the M and F have been in the site giving PDs, but nearly all PDs came in silent and from

the same direction (N/NNW of nest tree) and left to same direction as well.

2150—We peep, revealing nest contents unchanged from our first peep. No nestling has fledged

tonight. Adult perches on nest tree as we take down peeper. We leave.

## 18 July 2013

2024—BL and MC arrive at B1\_2013 with intent to fledge watch.

2025—We get the peeper up, Peep reveals two nestlings in the cavity, bobbing around and alert.

The third, presumably dead nestling is not visible in the cavity.

2029—We pull the peeper down and sit down, observation begins.

Weather:Partly cloudy, light breeze, 13°C.

From 2029 until 2145 the male made 53 prey deliveries, coming in from N, occasionally

using a young psme N of the cavity for a perch. In that time the female made 4 prey

deliveries, coming in from S or E and perching on a young psme W of cavity. See prey

delivery data for specific times.

2042—A nestling comes up to the entrance.

2043—The nestling begins to beg from the cavity entrance, nestling begging persists throughout

our time of observation.

2044—Both nestlings are up at the cavity entrance.

2048—Only one nestling is visible at the entrance.

2050—The nestling goes down into the cavity but then a nestling appears back in the entrance.

2053—The wind begins to pick up, strong enough now to sway the trees. More clouds begin to

come in and the temperature drops to 12°C.

2055—The nestling goes down into the cavity but then a nestling appears again in the entrance.

2108—The nestling cannot make up his mind and goes back down into the cavity, and then a

nestling re-appears in the entrance.

2115—The nestling must be afraid of heights as it once again goes down into the cavity.

2116—Clouds begin to disperse but the wind is persistent.

2117—A nestling regains its courage and appears at the front of the cavity.

2125—The nestling returns to the bottom of the cavity.

2145—We end our observation and re-peep the cavity. Peep reveals two nestlings(nobody

fledged), both with evident facial disks, and now shows the (apparently dead) third

nestling. A recording is in dropbox.

2151—We leave. Note: The F made a total of 3 PDs during the night, and the duration of her

appearance in the nest area was limited to the quick PDs she made at the entrance. Most

of the 50 PDs made by the M were at the cavity entrance.

## 19 July 2013

2038—LL and BL arrive at the B1\_2013 nest to assess status of fledging and attempt fledge

watch. No owlets in entrance. We peep at this time, and observe 2 nestlings with strong

facial disks staring up at the camera while standing in the bottom of the cavity. We also

see what appears to be a small remnant of the dead owlet extending out from underneath

one of the nestlings.

Weather: Partly cloudy, slight breeze, 16 C. Lots of moisture in air, but only sprinkles

this afternoon.

2040—M calls from off his roost, approximately 50 m to the W.

2047—M makes PD at cavity entrance.

2048—Nestling is in cavity entrance begging.

2050—M PD at cavity entrance. Another PD by M ~30secs later.

2051—Both owlets are in the entrance begging.

2052—M PD at cavity entrance. Another PD by M ~30secs later.

2053—M PD at cavity entrance.

2054—**Owlet in cavity entrance fledges, gliding ~ 15 m to the N and landing in a ~ 20 cm**

**Psme, approximately 3.5 m above ground.**

2056—**BL uses the peeper to elevator the fledgling down, and then the owlet falls off and**

**tumbles the rest of the way to the ground.**

2057—PD by M at cavity entrance (owlet at entrance).

2058—Same (twice).

2059—Same.

2102—Owlet down.

2103—PD by M in cavity (owlet still down). Same at 2105, 2106, 2108, 2114 (2X), 2117, 2119,

2120, 2121, 2126, 2138.

2138—**BL proceeds to process the fledgling, while LL observes the cavity.** Nestling is back

in entrance begging.

**Band # 1783-64463 (on L leg)**

94.5 g LWC: 97 mm

- 34.5 g LLP(5): 74 mm

60.0 g LLP(6): 74 mm

Rect: 38 mm

Owlet is bled for genetics, but not PS (L Wing)

Blacklight data: Note—Fledgling shows strong porphyrin on P1-6, but little to none on P8-10 (see below). Secondaries all 3’s. This pattern was quite similar to the fledglings from CN11\_2013.

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 (90%) | 3 (90%) |
| P2 | 3 (90%) | 3 (90%) |
| P3 | 3 (80%) | 3 (80%) |
| P4 | 3 (70%) | 3 (70%) |
| P5 | 3 (60%) | 3 (60%) |
| P6 | 3 (50%) | 3 (50%) |
| P7 | 1.5 | 1.5 |
| P8 | 0 | 0 |
| P9 | 0 | 0 |
| P10 | 0 | 0 |

2145—M PD at entrance. Nestling goes quiet and goes back down into cavity.

2146—M PD all the way into cavity.

2151—Fledgling placed in Psme near where it originally fledged. We pack up and leave. **Note**:

Nestling #2 did not fledge.

## 20 July 2013

2054—MC, RC, and Jake Hoffman arrive at the B1\_2013 nest site with intent peep cavity and

fledge watch. No N is up on arrival, and we don’t see any adults or hear any

vocalizations.

2058—We peep and find the one remaining (live) nestling standing and active in the cavity

bottom. We back off to observe cavity.

Weather: Overcast, light breeze with occasional gusts, passing storms to the SE, 14C.

2107—N begging. N sounds like it is up, but we cannot confirm.

2109—N up, begging and bobbing in cavity entrance.

2123—FLOW flies in silently from S to perch 4-5m up in a young pipo 10m W of nest tree.

2124—PD at entrance. N still up and begging.

2148—N is still up in entrance, begging and leaning out, but not jumping. We leave.

## 21 July 2013

2025—JV and AW arrive at the B1\_2013 nest to fledge watch.

Weather: calm, light breeze, 23C

2026—Nestling up in entrance.

2032—Nestling down.

2045—M calls off roost to N-NW of nest ~50 m.

2048—Nestling up.

2050—M TCs N of nest.

2054—**Nestling fledges with flapping flight into a pifl ~5 m N of nest tree!** Fledgling lands in

the upper 1/3 of the tree. JV and AW attempt shaking the tree and pushing fledgling off branch with hastings pole. At one point, fledgling is hanging upside down from snag branch then makes a short flight to a psme ~3 m W. We locate the fledgling ~5 m off the ground in the psme. **JV owl-evators the fledgling to AW. In the process, fledgling loses balance on hastings pole and is hanging upside by 1 leg, with wings sprawled out.** JV lowers hastings pole to AW who grabs fledgling at 2132! *This is the last nestling to fledge at B1.*

2132—Fledgling in our hands.

**Band # 1783-64448 (on R leg)**

81.0 g LWC: XXX mm

- 29.0 g LLP(5): 76 (12 mm shaft) mm

52.0 g LLP(6): 77 (15 mm shaft) mm

Rect: 37 mm

JV bleds fledgling on L wing resulting in small hematoma. Genetics and parasite smear are obtained.

2154—AW places owlet on psme W of nest tree ~10 m downslope. We leave fledgling ~6’ up

against the trunk. We leave.

# B1—2014

## 28 May 2014

2110—RD and BL arrive on the N end of Camp Ridge to lure net for B1 and possibly B14 males.

**Vegetation**: Mature Pipo/Psme, with only a few scattered sub-dominant Psme.

**Weather**: Mostly cloudy (but clearing; light shower at dusk), light breeze on the ridgetops, 18 C.

X: 495222

Y: 4333742

+/- 5 m

2121—We start playback. After the first net check, BL leaves to check the status of the B1\_2013 nest tree (Pipo snag on S end of Camp Ridge) and nearby cavity trees.

2225—All quiet at the net, and nothing heard thus far from anywhere on the ridge (except for helicopter sallies on Ramparts). Sky completely clear now, light breeze.

2228—We stop playback, and start to break net down.

2237—We leave for B14 territory. Nothing heard.

2350—RD and BL arrive in the B1 drainage to tap cavity trees and elicit territorial song. We eventually move up to Sharp-shinned Hawk Ridge, where we call and listen.

0120—We leave via Biker Ridge after not hearing any singing Ms.

## 6 June 2014

~1700—AW, MC, SY, and JS briefly peep select trees in B1 (both down W Missouri Cr and up Fallen Squirrel). We leave at ~1715 having found nothing.

~2230—AW and RC arrive at B1 parking spot by weir to listen for nesting vocalizations and/or lure for possible B1\_2014 M. We move N up drainage ~90m behind weir and spread out to listen, with AW walking Camp R and RC in Fallen Squirrel drainage bottom.

~2245—AW hears brief TCs from upper E-facing slope of Camp R, but we never locate M and he quiets quickly.

2317—We set up lure net in Fallen Squirrel drainage bottom ~75m N of weir. Net is flat, opening NE/SW and flanking a young psme. PB on.

Vegetation: young potr/psme in drainage bottom, some larger pipo/psme on slopes.

Weather: Overcast, calm, 11C.

X: 495342

Y: 4333644

+/- 3m

2330—AW leaves to continue to listen on Camp R.

2343—AW hears distant TCs N up drainage from net that cannot be heard from net, and whose source is difficult to locate due to topography of drainage. RC moves up drainage with PB in an attempt to draw in M and hears a few brief TCs distantly to N. M quiets quickly and never approaches net area. We return to net and beak down.

2359—PB off. We leave.

## 16 June 2014

2427—LL, RC, and RD arrive in B1 to tap and listen. LL and RD spread out in main Missouri Cr drainage, while RC goes up onto the lower slope of Camp R.

2440—BL and Boulder visitors join in on the listening efforts, spreading out on the lower midslope of Coopers Hawk R and Camp R, and in the lower portion of the Fallen Squirrel drainage.

0105—Nothing seen or heard, the whole crew leaves.

## 30 June 2014

1500—Flam Crew arrives at the parking spot on S. Goshawk Ridge to peep N end of B1 territory.

1730—We end peeping having found nothing. We finish peeping Camp Ridge and the western side drainage of Fallen Squirrel. We peep some of the trees on Cooper’s Hawk Ridge, but do not get everything.

**B1—2015**

**28 May 2015**

2105—MC and BH arrive at net site on Shooting Star ridge with intent to net for territorial Ms in the area and attempt to listen for nesting vocalizations. The net is located ~150 S of the road on the ridgetop, ~5m N of where the road cut joins with the ridge.

Vegetation: young-medium pipo/psme, open

Weather: 6C with a strong wind ~3-5mph, partly cloudy

X: 494579

Y: 4333594

+/- 8m

2112—PB starts.

2119—M TCs ~50m S of net, possible B10\_M.

2128—Our PB dies, BL makes his way to Shooting Star with a fresh PB. MC returns to road, giving hoots along the way while BH stays at the net and does the same. No response heard.

2206—BL brings phone to replace PB, we restart. The phone is slightly quieter than desireable.

2227—MC walks ~50m S to listen. M heard giving consistent TC/TECs from ~100m SE.

2237—MC hangs songpost B10\_1 on singing M.

2245—M moves ~10m SE into a low branch, MC spotlights the bird who then takes off, SE down drainage.

2247—M gives TECs from cavity tree #1231. MC kills light in anticipation of hearing FSCs.

2252— M continues to give TECs from the same cavity tree, MC circles tree to find F up in a cavity entrance, **This is the B10\_2015 Nest Tree! The cavity is a NOFL excavation ~20ft. up facing SSE. Tree #1231 is a full potr snag ~26cm DBH. The tree is located on the E side of W Missouri Creek ~100m down drainage from the confluence with Columbine Creek.**

2254—MC kills headlamp and crouches down, after 2 minutes the F flushes her cavity, MC leaves.

2303—MC returns to the net and we kill PB to break down and move net to target the probable B10\_M.

2323—The net is moved ~200m S down Shooting Star Ridge, just upslope of past B2 nest tree #333. PB starts.

Vegetation: young-medium pipo/psme, open.

Weather: 4C, clear and calm.

X: 494591

Y: 4333340

+/- 10m

2335—M TCs ~30m SW of net. Possibly either B11 or B10 M.

2341—M continues to move further towards net, but heads W as well, possibly B11\_M.

2343—Presumed B11\_M goes silent.

2346—M gives 2 TCs from lower Picnic Cr. Due W of net.

2350—Possible FSC in Picnic, MC leaves net to head towards that area, around the same area as M was giving TCs from. M gives a 3 note call from vicinity of cavity tree #503 and 1293. At the same time BH has two birds at the net.

2355—BH hears TECs (3-4) and single FSC in net vicinity, ~5-10m E.

2357—BH hears TCs (2-3) ~10m E of net, possibly indicating B10 M.

2408—BH hears TCs (4-5) ~50m W, possibly indicating B11 M.

2411—PB stopped and begin breaking down net.

2433—BH heads W towards Picnic Creek ~150m down Shooting Star into drainage.

2440—BH hears single TC from W, waits and listens for 6 minutes before heading back up Shooting Star to meet MC.

2448—MC gives TCs from the roadcut, one spur off of Shooting Star ridge, M responds down drainage from the same area as the original TCs.

## 15 June 2015

Afternoon—The Flam Crew peeps out the eastern patch of cavities in B1 from the confluence of Fallen Squirrel Cr and W Missouri Cr working W in the drainage to about 75m E of the base of Sharp-shinned Hawk R. MC peeps the predated B10\_2015 nest #1231 and a few more trees in the vicinity of the predated nest. We find nothing.

2252—BL, LP, and SH (Luke’s friend) arrive at the parking spot at confluence of Falling Squirrel Cr and W Miss Cr with intent to listen for vocalizations and locate nests in the B10/B1/B17 territories. We hike over Sharp-shinned Hawk R and drop into Columbine drainage.

~2305—We arrive in Columbine drainage. LP and SH listen and tap trees in vicinity lower portion of Columbine Cr, including the B17\_2013 nest tree. BL listens and taps trees upstream of LP in vicinity of the B17\_2014 nest tree. Nothing is heard. We continue to tap and listen as we move down Columbine Cr to the confluence with W Missouri Cr. Nothing is heard.

2420—LP and SH cross W Missouri Cr and move up the SE slope of Shooting Star R with intent to tap past nest tree B10\_333.

2430—LP shines headlamp on #333 while ~10m downslope of tree. A downslope-facing cavity is spotted near the top of the broken-top pipo snag. LP then takes eyes off of cavity and immediately gets clear view of FLOW overhead flying S away from the cavity area. One FSC is heard from near where this individual flushes towards. A single TEC is then heard ~2 minutes following flush in vicinity of hypothesized nest tree. Although confirmation is needed, **this (#333) is a FLOW nest tree, and possibly the replacement nest site for B10\_2015.** **Cavity is a NOFL excavation ~16 ft. from base, ~4ft. from top of brokentop. Nest tree is located approximately 80 m N of the S terminus of Shooting Star Ridge, and approximately 25 m E of the crest of the ridge top on the E-facing upper mid-slope.**

**\*Note 1: LP quickly assumes this bird must have been the F flushing from cavity. Upon further reflection, it is realized that this bird could have been M perched in very close proximity to cavity that got flushed from perch.**

**\*Note 2: This cavity is ~100m up slope from the B10\_2015 that was found to be predated by red squirrels on 6/8/2015. Could this pair be completing their clutch in tree #333, or is this a different pair?**

~2440—We briefly observe area in vicinity of confluence of W Missouri Cr and Homestead Cr for ~8 minutes, but nothing is heard.

2452—We begin our hike out of W Missouri Cr towards the vehicle. Our night ends here.

## 7 July 2015

1600-1715: Flam Crew peeps the area from Camp Ridge east to Cooper’s Hawk Ridge. Time was short, and only about half of the cavities were peeped in this area. Nothing found.

## 8 July 2015

1600-1715: Flam Crew again peeps the area from Camp Ridge east to Cooper’s Hawk Ridge, building on the peeping effort of the previous day. Most remaining cavities were peeped today, although pockets of unpeeped trees still exist at the head of Fallen Squirrel Cr and the N end of Cooper’s Hawk Ridge. Nothing found.

## 13 July 2015

2130—After leaving the B14\_2105 nest tree, DL and BL stop at the B2\_2009 nest tree (tag #43, live PIPO) near the old rock quarry on N Goshawk Ridge, to tap and listen. We hear/see nothing near the old nest tree, but we hear a M giving TCs in the distance to the S, seemingly in the vicinity of the B2\_2011 nest tree (tag#52, PIFL snag just off the road ascending to Vista Ridge).

2145—We arrive on the N-S midpoint of Paintbrush Ridge to set up a lure net targeting the B2 M.

2201—Playback started.

Vegetation: Mature Pipo/psme, with a few scattered younger conifers

Weather: Light, sporadic rain, overcast but starting to clear, calm, 15 C.

X: 494940

Y: 4334023

+/- 3 m

2206—After hearing sporadic TCs to the N and E of us, we hear a M giving TC and TEC approaching the net from the SE (B2 M?). This M comes to within 10-15 m of the net, primarily staying on the S side.

2208—**We hear a bird hit the net, and find an unbanded FLOW captured in the lowest shelf, S side. At this time, we hear the nearby M start giving TCs again from the same location, so we knew we had not captured him. NOTE: on closer inspection, our unbanded FLOW is a F, with a clear incubation patch—however, it is nearly entirely filled in with emerging pin feathers. Was this a F whose nest had failed early, or a F whose brood is nearing fledging??**

2212—M goes quiet near net area.

**Band # 1833-03300 (on R leg)**

62.0 g LWC: 126 mm

- 7.0 g LLP(5): 94 mm

55.0 g LLP(6): 103 mm

Rect: 62 mm

**NOTES:**

* **Got genetic blood, but did not take blacklight or wear data.**
* **P 1 and 2 were in molt on both wings—but no shafts were yet visible.**

2224—We release F, who shows strong flight. At this time, we hear a M giving TCs to the SSE—in the vicinity of N Vista?

2230-2300: BL leaves to tap cavity trees and listen, from the area just S of the rock quarry to the B2\_2011 nest tree (PIFL snag). Towards the end of this time, BL heard M giving TCs ~100+ m down Homestead Cr from the Goshawk Weir. He pursues, but does not hear anything more.

2330—BL returns to net area, and DL leaves to tap POTR cavity trees and listen on the other side of FS347 from the Goshawk weir.

2337—**DL hangs songpost B2\_1 at the base of paintbrush ridge.** M then flies S and stops calling.

2350—BL starts breakdown of lure net.

2402—We leave.

## 20 July 2015

2210—SY and LP arrive to B4 parking spot with intent to lure for unidentified B4\_2015 M. We immediately begin searching for lure net site.

2220—Lure net is set up on S end of Bermuda R on mid-slope. PB is started. Net opens NW/SW.

Vegetation: psme, young-medium pipo, open

Weather: calm, mostly clear, 11.5C

X: 495668

Y: 4333473

+/- 17m

2249—LP hears M give TCs and TECs ~80m to NE of net. SY also hears a M W down W. Missouri Cr.. (B1?) SY chases – M is calling from the extreme S end of Cooper’s Hawk Ridge.

2255—COHA R. M quiet.

2305—SY hears M give TCs for ~1 min on the S end of COHA R.

2319—SY hears a few more TCs from the same location on COHA R. Sy moves in that direction.

2312-2320—LP walks around Bermuda R hillside with PB in hand in hopes of provoking M into entering net area.

2328—M gives few TCs ~80m N of net. This M quickly moves into net area from the NW (up slope of net location) and vocalizes in net area for ~5 minutes until ~2333.

2334-2340—LP walks around Bermuda R hillside again towards to NW in hopes of bringing in vocalizing M.

2345-2350—2 Ms have encounter ~100m NW of net, on Coopers Hawk R. B1 and B4?

2358—PB turned off. We break down lure net.

2405—We leave B4 for cars. This is the end of our night.

## 21 July 2015

2212—RC and LP begin PB at lure net on top of Cooper’s Hawk R ~40m N of nose of R with the primary goal of capturing B1\_2015 M and secondary goal of capturing B4\_2015 M.

Vegetation: Mixed pipo/psme, very open

Weather: Partly cloudy, mostly calm

X: 495482

Y: 4333654

+/- 15m

2213—TCs from B1 M ~100m W of net, seemingly from Camp R. M sings from this area, moving slightly N for ~10min, but never approaches net site.

2239—Wingflaps near but not in net to the E.

2242—FSCs at net on net check. This is possibly the presumed B5 F that SY and DL had at just prior to this, or possibly B1/B4 F. We never her anything else out of her, and she never goes into our net.

2247-2330—RC leaves to tap and listen. I walk initially ~50m N up Cooper’s Hawk then angle down into upper Fallen Squirrel Cr. I hop onto the intervening spur between the E and W forks of Fallen Squirrel Cr (~40m above the confluence) then onto the low E-facing slope of Camp R before heading back to the net. I tap, listen, and hoot intermittently, but see/hear nothing in the way of owls.

2305-2315—LP takes PB for a walk, moving N up the R top and back to the net, but never picks up/draws in a bird.

2330—PB off. We break down and leave.

# B1—2016

**1 June 2016**

2351—BL and KM begin playback on Shooting Star Ridgetop, just due NW of the B1\_2015 nest tree (in broken top Pipo, about 4 m tall). Habitat is mixed age pipo/psme and the net backdrop is a young psme.

2358—M responds with TC ~40m NE of net. Moves closer with each call and goes silent. BL and KM check net.

2401—BL captures un-banded M FLOW in 3rd shelf on the E side. **This is the presumed B2\_2016 territorial M**. BL and KM begin processing the M.

**Band # 1783-74303 (on L leg)**

63.5 g LWC: 130 mm

- 7.0 g LLP(5): 98 mm

56.5 g LLP(6): 107 mm

Rect: 59 mm

Vegetation: Mixed age pipo/psme, net backdrop young psme

Weather: Moderate cloud cover progressively decreasing after rain, 8.5C

X: 494586

Y: 4333354

+/- 5m

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 2 | 2 |
| P7 | 1.5 | 2 |
| P8 | 1.5 | 2 |
| P9 | 1.5 | 1.5 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | .5 |
| P5 | .5 | .5 |
| P6 | 1.5 | 1 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

M successfully bled on L wing (small hematoma).

2428—KM releases M who flies strongly 15m SW to perch in tree about 30m NW of net. BL and KM return to vehicle.

## 6 June 2016

2115—BH and BL arrive at the B1\_2015 nest tree to begin listening for nesting vocalizations. BH stays in this vicinity, while BL travels down to the W Missouri Cr bottom to listen in the vicinity of the aborted B1\_2015 nest tree. Weather: overcast, vegetation wet from pm t-shwrs, calm, 12.5 C.

2127—BH hears 4 TCs ~40 m NE of the aborted B1\_2015 nest tree, on the upper midslope of E slope of Shooting Star R.

2135—BL taps the aborted B1\_2015 nest tree, and RESQ comes to the entrance.

~2145-2230: BH joins BL in the W Missouri Cr bottom, and together we tap and listen near the confluence of Columbine Cr and W Missouri Cr, and the confluence of Homestead Cr and W Missouri Cr. Nothing heard or seen.

~2235—BL splits off to return for the peeper on S Shooting Star Ridge, while BH proceeds to travel farther up Homestead Cr to listen.

2239—BH hears 3 distinct LCs ~30m E of lower-midslope of mid Shooting Star R. in Homestead Cr. She chases downslope to a dense clump of predominantly young psme with no cavity trees in sight.

~2244—BH hears a few distant sounding LCs further E towards Vista R, perhaps this is the initial FLOW traveling or a B1 bird.

2246—BH searches for alleged broken top psme cavity tree BL speaks of on low E slope of Shooting Star R, but is unsuccessful in locating said tree. She finds an unenumerated broken top psme cavity tree and taps that.

2312—BH meets up with BL and we leave to set up a lure net and nest search on Camp R.

2345—BL and BH arrive at the junction of Vista and Camp Ridges to set up lure net, targeting B1 and associated males. We set up lure net near the N end of Camp Ridge.

Vegetation: Mixed age Pipo/Psme, with lure net set between two subdom conifers

Weather: Clearing skies, becoming calm, 5 C

X: 495213

Y: 4333761

+/- 3 m

2359—We start playback. BL leaves BH at net to tap/listen around cavity trees at the S end of Camp Ridge.

2415—**BL walks around the B1\_2013 nest tree, and I look up to see a FLOW F looking down at me from the entrance of the 2013 nest cavity—this is the B1\_2016 nest tree! Nest tree is B3\_4, tag #27. Nest tree is a PIPO full snag located on the W-facing side of the S terminus of Vista R, and is approximately 25 m W of the nest box (tree #26). Nest cavity is a NOFL sized hole facing SW approximately 32’ from the base of the tree. Nest cavity is located ~2 ft below the fork in the tree and is NOT the lower, smaller cavity facing the same direction.**

2418—BL looks up from note-taking and F is no longer in entrance.

2427—BL observes F return to the nest cavity—unsure of when she had flushed.

2430—BL returns to lure net.

2439—PB off, BH and BL break down lure net.

2445—We leave for the lodge.

## 14 June 2016

2051—BL arrives at the B1\_2016 nest to peep cavity and attempt capture of M. F down. Weather: mostly clear, calm, ~ 15 C (1st dry day in several days)

2059—M arrives in nest area and gives LC. F flushes. **I peep nest, and observe 2 eggs in close proximity near the cavity center (peeper height = 35’ 0’’).**

2108—M lands on cavity entrance, then leaves (F not inside).

2116—F returns to cavity. M arrives seconds later and makes PD in cavity.

2119—M makes PD.

2130—I prepare to get in capture position (Note: unbeknownst to me, F must have flushed as I got into position).

2139—I hear F giving FSC off cavity, so I swing capture net way wide of cavity. She flies back into cavity seconds later. I lower net.

2143—I leave area for B10\_2016 nest.

2325-2420: BL listens/taps cavity trees on the lower E-facing midslope of Shooting Star Ridge, just N of the confluence of Homestead and W Miss Cr. Nothing heard or seen.

## 21 June 2016

2032—BL arrives at the B1\_2016 nest tree to attempt capture of M. F not in cavity entrance, and all is quiet. Weather: Clearing, calm, ~20 C.

2316—M arrives in nest area, giving LC. F flushes N from cavity, and M follows. (I am unable to see when she reentered cavity)

2411—M arrives in nest area, then F arrives in nest area (uncertain when she flushed). M makes PD outside the cavity, and F returns to cavity.

2420—M gives TC ~30 m downslope to SW, and he goes quiet when ER starts playback from Biker Ridge/Sierra Madre Ridge (quite audible from my position at S end of Camp R). I later hear a M calling in the direction of the playback, possibly from Shar-shinned Hawk Ridge—B1 M?

2434—I leave area.

## 29 June 2016

Afternoon—Flam crew peeps in W Missouri Cr, targeting a potential B4 nest. ER and DL peep out the past B4 nest flat and S up to the saddle into B12, then spend the rest of the day peeping N on Cooper’s Hawk R. MC, BH, and KM peep W Missouri Cr, starting where rd turns W at lower end of B4 flat and peep down past Camp R to the base of Vista R. We also cherrypick past B1 nest tree #311 and enumerate many new trees in W Missouri Cr. No nests found.

2030—RC and BH arrive in B1\_2016 nest area to capture F and peep to determine nest status. F down on arrival. RC spots cavity while BH approaches, and F stays down.

2039—RC mis-spots cavity height from profile view, and F flushes as net hits tree. **Peep reveals at least 2 Ns, all white. Eldest N has eyes open and looks straight up at camera, still has egg tooth (est. age: 4-5 days). Younger 1-2 Ns are facedown and unmoving (est. age: 1-2 days). We suspect there are 3 total, but are unable to confirm**. **Lots o’ shell fragments in cavity.**

2040—We leave.

2400—MC arrives at a lure net site on the S nose of Coopers Hawk Ridge to lure for a potential B4 M. KM is gallivanting around N Missouri, shirking all responsibility. I start PB.

Vegetation: open, mixed pipo and psme

Weather: clear, calm, no temp taken

X: 495486

Y: 4333662

+/- 9m

2405—RC leaves BH at B17/20 net site on Sierra Madre R and drops N into Columbine Cr to tap and listen in B17.

2407—From mid N-facing slope of Sierra Madre spur, RC picks up B17 M giving TC/TECs on upper S-facing slope of Sharp-shinned Hawk R and pursues. MC hears a M calling ~250m E on Bermuda Ridge, possibly ERs playback.

2409—BH switches PB to Megascops to lure in FLOW RC hears in Columbine Cr.

2410—RC runs into an encounter between 2 Ms on the top of Sharp-shinned Hawk R ~130m NNE of net site, presumably B17 and B1 Ms.

X: 495125

Y: 4333307

+/- 9m

2412—B20\_M enters Sierra Madre net site from ESE giving HECs on top of the PB.

2414—One M on Sharp-shinned goes quickly silent and second continues TCing for a moment on R top before backing off N toward B1. A silent bird makes a low, flappy flight after calling M as he backs off.

2415—BH has B20 M in net site, giving HECs and swooping around. A second FLOW approaches net site from N giving TCs/TECs. Based on location, we presume this is a B17 M.

2416—MC hears a M give a single call ~100m S, but he only gives one call which was very difficult to locate.

2417—RC hears TCs 15m N of R top on Sharp-shinned, likely the B1 M returning to area of encounter. This M apparently never crosses to S side of Sharp-shinned, and MC and RC both hear him TCing shortly thereafter near mouth of Fallen Squirrel Cr. *This behavior matches well with observations of movements by B1 M on 6/21/16 by BL at B1\_2016 nest and ER, who was netting on Sharp-shinned Hawk R.* This M never returns to upper Sharp-shinned. RC leaves shortly to tap in Columbine Cr then returns to net.

2421—A M begins TCing at the mouth of Fallen Squirrel.

2428—A M is heard calling from Bermuda Ridge, but this could again be ERs playback. The M is still calling from the bottom of Fallen Squirrel.

2430—MC kills PB to go on a pseudo rescue mission of KM, accomplishing nothing, and almost losing himself in the folds and valleys of the northern Missouri ridges.

0100—MC and KM return to the site to break down, we leave.

## 1 July 2016

Afternoon—Flam crew peeps in W Missouri Cr, picking up where we left off on 6/29/16. We peep out the dr bottom from the base of Camp R W to the confluence of W Missouri Cr with Homestead Cr, as well as the N facing slope of Sharp-shinned Hawk R. Many cavity trees seem to be fallen in this area, and we enumerate a good number of new trees. No nests found.

## 6 July 2016

2026—RC and KM arrive in the B1\_2016 nest site to attempt a F and/or M capture and evaluate owlet development. KM prepares to approach the net to try to snag the F on her flush.

2028—KM executes the approach phenomenally but steps on a small, unseen branch while removing the capture net cover. The F pops her head out of the cavity and glares down at me, intent on identifying her rude intruder. I stand still while RC spots the cavity for the nest half hour. Eventually, RC side slopes to give the F some space and KM sneaks away from her scope of vision.

2054—F flushes W, despite our efforts, so we peep the cavity. **The peep reveals two owlets, both face down and unmoving, with significant grey coming in on head and body (est. age: 13-14 days).** *Previous peep on 6/29/16 by RC showed a potential but unconfirmed third N. This N could be covered by two obviously visible here, or original clutch size could have been 2. These are the only two peeps on this nest.*

2057—The M flies into the site and makes a few TCs. We retreat from the vicinity and observe for a few minutes.

2102—M makes a PD while the F begs from the pipo just W of the nest tree.

2103—M makes a PD to the F.

2103—F makes a PD to the cavity.

2104—F scolds RC 25m down slope of nest tree as he returns from R top radio sesh to observe.

2105—M makes a PD.

2106—F gives brief FSC near RC downslope, then flies to nest tree. F makes a PD. Both the F and M fully enter the cavity on most if not all PDs.

2108—M and F both make a PD, both occupying the cavity at the same time.

2109—M makes a PD.

2110—PD by unknown.

2111—PD by unknown.

2114—2 PDs by unknown. At this time, KM begins her approach to attempt either a M or F capture. About three quarters of the way to the cavity, KM loses a bit of control and gets the net stuck on some of the nest tree’s branches. I attempt to free the net, then call RC over to help me. We get the net out and back out of the site to observe.

2116—PD.

2117—PD.

2130—The minor set-back with the capture net does not seem to sway the efforts of the parents, and either the M or F makes a PD.

2131-2133—Four more PDs are made. RC gets the net back up.

2215—PD.

2217—M makes TCs W of the cavity.

2223—M comes in for a PD and RC snags him. The capture net gets stuck on the tree, so KM gets the peeper pole to untangle the net from the bark. RC and KM lower the capture net and peeper simultaneously and untangle the M from the capture net.

2236—RC frees the banded M from entanglement. **This is the B1\_2016 M, previously banded as the B17\_2015 M!** *This nest location may suggest that this M has undertaken a range expansion. B17\_2015 nest was in dr bottom of Columbine Cr, and this M has been observed several times in 2016 calling on top of Sharp-shinned R, at similar longitude as B17\_2015 nest tree. M has never been confirmed further S than this R top, and on 6/29/16, RC and BH observed a potential B17 M intervening between the B1 and B20 Ms, potentially occupying Columbine Cr, or at least attempting to usurp the area. More attention required to delineate territory boundaries.*

**Band # 1833-03288 (on L leg)**

75.5 g LWC: 121 mm

- 23.0 g LLP(5): 95 mm

52.5 g LLP(6): 102 mm

Rect: 62 mm

**Notes: He was bled last year, so we do not get a blood sample. We do take feather samples.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1 | 1 |
| P6 | 2 | 1.5 |
| P7 | 2 | 1.5 |
| P8 | 1.5 | 1 |
| P9 | 1 | 0.5 |
| P10 | 1 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 0.5 w/ notch |
| P6 | 1 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2305—RC releases the M who makes a SAF to the SW. We leave and head to B19 to briefly look for a previously lost blood sample.

## 12 July 2016

2043—BL arrives at the B1\_2016 nest to attempt capture of F. F not in entrance when I arrive. Weather: Mostly clr, calm, ~20 C.

2051—I get into capture position and extend the net over the cavity. No response at cavity.

2056—M arrives in nest site giving LC. He circles the nest tree for a few minutes, then leaves.

2109—M approaches the nest tree, so I pull back the net, and M makes PD at this time. Before I can again cover the cavity with the net, the F flushes.

2122—M makes PD, followed by an apparent PD by the F. I try to cover the cavity with the net, but F flushes before the net’s in place. **NOTE: A couple minutes later, M starts giving HECs ~ 20 m N of the nest, and shortly thereafter a 3rd FLOW enters the nest area (both B1 M and F vocalizing off site) and then perches in the nest tree ~ 5 m below the nest. It flushes from the nest area after a couple minutes. This 3rd FLOW stays in the nest site ~15 min, returning to perch in the nest tree on 2 other occasions, but after his initial HECs the resident M ceases giving aggressive vocalizations. In fact, on one occasion both the B1 M and the 3rd FLOW were in the nest tree, with no expressed aggression by the B1 M.**

2200—F returns to cavity, and I quickly raise the net but the F does not flush!

2234—I finally take the net down at this time to allow the M to make a PD. F still inside cavity.

2238—I leave. M in nest site with nestling(s) begging audibly (begging heard sporadically since ~2130). No further evidence of 3rd FLOW since ~2140.

2303—KM and ER set up a lure net about 20m S of the nose of Sharpshinned Hawk R. with the intent to lure for a suspected territorial M an listen for potential nesting vocalizations around the confluence of Columbine Cr. and W. Missouri Cr. Net opens E/W. PB begins.

Vegetation: Mixed age pipo and psme

Weather: Clear, calm, 16C

X: 494845

Y: 4333272

+/- 12m

2316—A M gives a handful of TCs from the confluence area ~150m SW of the net.

2320—M goes silent.

2323—KM heads down to the confluence area to listen and tap the cavity trees.

2326—The presumed same M gives TCs within 100m SW of the net, and calls his way up the slope giving TC and TEC.

2327—M gives HECs within 5m of the net. He swoops the net a couple times, but eventually perches W of the net, calling.

2330—M goes silent.

2342—ER hears an intense F SC at the top of Sharpshinned R. about 20m N of the net and where I am listening. I go toward the SC and begin concentric circles in the area, looking for cavities and possible fledglings. *There is one enumerated cavity tree #805 in the area, that looks pretty dismal, but there area quite a few conifer snags and lightening strikes that have cavity potential.*

2352—While listening on top of Sharpshinned, I hear a M giving TCs in W. Missouri Cr. N of Sharpshinned. I suspect this is likely the B1\_2016 M.

2357—During a net check, ER hears two F LCs within 10m of the lure net. I do not get eyes on the FLOW.

~2400—KM returns to the lure net.

2401—The M in the confluence of Columbine and W. Missouri gives a few more TCs from the drainage bottom, but does not approach our net. I pick up the B1\_M still calling from the N side of Sharpshinned, confirming the confluence bird is a distinct M.

2425—PB off. We break down the net and leave.

## 15 July 2016

2045—BL arrives at the B1\_2016 nest to attempt capture of F. Nestling is begging from cavity entrance when I arrive.

2051—F gives SC from ~ 25 m to the ESE.

2055—M makes PD at cavity entrance (M did not vocalize, but F gave some sporadic SC from the other direction).

2057—F arrives in nest tree giving LC, and then makes PD at cavity entrance. Nestling goes down at this time.

2100—M makes PD in cavity.

2103—Same.

2105—F makes PD in cavity. I get in capture position.

2106-2125: M made 6-8 PDs during this time. **NOTE**: F landed in nest tree several times, but aborted a PD each time—very cautious around net, and acting like a banded bird. Each time the M made a PD, she seemed to come a little closer to the cavity.

2126—**Capture F after she made PD in cavity. F was banded previously with Band # 1783-64411—this was the B17\_2015 F, and the B20\_2013 F!**

**Band # 1783-64411 (on x leg)**

62.0 g LWC: 133 mm

- 7.5 g LLP(5): 103 mm

54.5 g LLP(6): 111 mm

Rect: 63 mm

**Notes: Blood sample not taken (taken in 2015)**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 1.5 (light colored under white light) | 1.5 (same) |
| P4 | 2.5 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 0.5 | 1 |
| P7 | 0.5 | 1 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 1 |
| P3 | 1 | 1 |
| P4 | 0.5 | 1 |
| P5 | 0.5 | 1 |
| P6 | 1 | 1.5 |
| P7 | 1 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 3 (broken tip) |
| P10 | 2 | 2.5 |

2159—F released (feisty throughout handling). Strong, ascending flight.

2203—I gather equipment and leave.

## 18 July 2016

2035—BH and BL arrive at the B1\_2016 nest to assess status of fledging. Owlet is quietly perched in cavity entrance when we arrive. Weather: Overcast/threatening skies, wet ground (PM t-showers), light breeze, 15 C.

2045—Owlet starts begging in cavity entrance. **NOTE:** Light rainfall from~2046-2055, and then sporadically during the rest of our observations.

2051—M gives LC outside of nest site. Since we only hear one owlet begging from cavity, BL leaves to listen for fledgling vocalizations in all directions from the nest (BL could hear owlet begging from cavity ~75 m from nest).

2116—Silent FLOW enters nest area from S, makes a PD to N in cavity entrance, then makes a long flight SE out of the nest area. N’s begs become more muffled, indicating a brief stint down in the cavity before returning back to the entrance minutes later.

2118—Silent FLOW makes a low flight upslope into nest area via W slope, and perches on a staub low on the W side of the nest tree before making a PD to the cavity entrance. Directionality of flight out of the nest area is unknown.

2123—BH hears 2 distant, isolated M LCs ~ 70m S of nest site.

2137—Silent bird enters nest site from W and makes short flights to various perches in the nest site. FLOW occasionally lands on external branches of nest tree, but does not make a PD while in the site.

~2142—Silent FLOW leaves site, returns a few minutes later and repeats a similar routine of silent flights around the site with no PD. Throughout the observation period, N is begging wholeheartedly in cavity entrance.

2155—Silent FLOW makes a PD to cavity entrance via S approach perch (presumed to be F’s approach perch), then makes a long flight SE.

2213—Silent FLOW makes PD via F approach perch.

2215—Owlet still in cavity entrance (where he’s been nearly the entire time since we arrived, except immediately following a few PDs). **We peep cavity, which forces the owlet down from the entrance, and we observe only the solitary owlet in the cavity—this owlet is well developed, showing all grey with a pronounced facial disc. We get a cavity height measurement of 24’10”.** As camera is lowered, we hear the F give SC ~20 m to the E.

2223—Adult makes PD at cavity entrance. We leave. **NOTE: Both adults may have been making PDs during our observation time, based on the approaches used by incoming adults (on previous nights, M came in primarily from the W, and F came in primarily from the S). Adults generally did not vocalize during PDs. We left uncertain whether one owlet had already fledged, and just was not detected by BL away from the nest, or whether this has been the only owlet in the brood since sometime after our last peeping effort on 7/1 (when owlets had mix of natal and juvenal plumage) revealed 2 owlets.**

## 19 July 2016

2024—BH and DL arrive at B1\_2016 to fledge watch. When we arrive, cavity entrance is empty. **We peep to find 1 quite developed nestling alert and bobbing in cavity.** We flank N and S sides of nest tree to observe.

2033—N comes up in cavity entrance.

2038—N begins loudly begging in entrance.

~2058—Silent adult FLOW enters nest area from W, and the sound of wingflaps indicate bird is perched in pipu ~20m W of nest tree. FLOW crosses nest site to perch on S side of nest tree.

2100—**Adult FLOW begins flight up to nest cavity, and at the same time, owlet fledges the nest!** **Fl makes flappy, horizontal flight due S out of the cavity, and arcs down towards a small clump of young pipus on upper slope of Camp R.**  We follow his flight path and find him on the ground ~30m of nest tree. We begin processing the newly fledged FLOW~2120—MC and KM arrive in the confluence of W Missouri Creek and Columbine Creek. MC heads down drainage to the two 2015 nesting attempts in the area. KM stays in the confluence. We then work our way N in the drainage. MC goes up on the nose of Sharp-shinned Hawk Ridge. The whole way we are giving hoots, listening for vocalizations and tapping trees.

~2140—MC solicits hoots from the second B10 nesting attempt in 2015. A M responds with two TCs from the confluence of columbine. KM is in the area anmd cannot pic anything up.

2220—Nothing else is heard or seen. We leave.

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**Band # 1783-74328 (on L leg)**

70.0 g LWC: N.A.

- 18.0 g LLP(5): 73 mm

52.0 g LLP(6): 73 mm

Rect: 38 mm

**Notes:** Bled L wing, no hematoma.

2116—As we are processing Fl, M gives HECs in nest site and swoops low over our heads.

2124—We return Fl to perch ~2m up a pipu near the landing of his first flight. BH spreads out on W facing slope and DL on the S facing slope, and we sweep the hillsides for signs of the 1st fledgling of the brood.

2203—DL chases calling bird towards Goshawk Weir and across into B4 dr.

2209—BH hears 2 low LCs and wing flaps on the nose of Camp R, ~150m SW of nest tree. She searches the area but sees/hears no sign of a FLOW.

2213—DL hears wing flaps nearby her in the B4 dr, and gets eyes on an adult silent bird after soliciting calling.

2220—BH is ~50m SW of the nest tree when she hears two distant fledgling begs ENE of the nest tree. She chases up slope and arrives at a clump of 3 bushy conifers where the begging is loud and localized.

2231—BH hears F approach begging Fl giving LCs. F comes closer into area and scolds BH. BH searches in high, dense canopy of spruces for sign of Fl, but cannot find it.

~2238—DL arrives on Camp R. to help BH find the begging Fl. We kill our lights and hear more begging, and silhouette the target tree in hopes of seeing F (who is giving LCs ~30m S) make a PD.

~2245—We raise peeper pole and poke it into high canopy in the hopes of eliciting bill clicking from the Fl. We hear nothing. By this time, Fl has not begged in ~5 minutes.

2249—We give the clump of trees another thorough look, but do not catch a glimpse of Fl. We leave B1 to head to the vehicle where MC and KM are waiting.

**Note:** *Later in the evening, we did not hear Fl #2 begging at all. It is possible that the Fl that BH located at 2220 was not FL #1, who we were actively searching for, but Fl #2. However, we do not expect this to be the case, based on the ~90m straight line distance between where we left Fl #2, and where we located Fl begging later on.*

## 20 July 2016

Afternoon—Flam crew peeps the remaining trees in Homestead Cr, the trees in the confluence of Columbine and W Missouri Cr, some on the SE slope of Shooting Star R, and about half the cavity trees in Catamount Cr. We do not find any signs of FLOWs.

## 21 July 2016

2024—BH, MC, and KM arrive at B1\_2016 nest area to continue search for B1\_2016 Fl #1. We spread out to listen ~20m around a focal point of a clump of 3 conifers where BH and DL had located a begging N the previous night.

2101—BH hears a M LC on W low slope of Camp R ~40m above Vista Rd. BH chases, but M goes silent. MC joins BH in listening on low W slope.

2113—BH hears M LC in vicinity of earlier FLOW, ~20m from BH on low W slope of Camp R, potentially across Vista Rd.

~2115—BH and MC give Fl begs and LCs in an attempt to illicit FLOW calling—this is unsuccessful.

2145—KM hears M LC ~80m ESE of B1\_2016 nest tree in the direction of Fallen Squirrel dr. Hears nothing else.

2152—BH hears a solitary M SC ~25m from listening spot on W low slope. BH and MC listen in the area but do not hear M again.

2214—We leave B1\_2016 to set up a lure net in BG4.

# B1—2017

## 31 May 2017

2330-2400: BL leaves LD and JE with lure net on the S terminus of Bermuda Ridge to listen near the B1\_2016 nest on the S terminus of Camp Ridge. Nothing heard or seen here, but en route and while returning to Bermuda I heard a M giving TC from the S end of Cooper’s Hawk Ridge—I did not have time to pursue. I suspected this M was either the B1 M or the B4 M.

## 5 June 2017

1703—ZM and MC approach B17\_2006 nest cavity tree on the top of Sharpshinned Hawk Ridge. After finding the cavity, ZM taps the tree and views a F FLOW pop her head out. **This is the 2017 nest cavity for the B17 territory (with the possibility of it being the cavity for the B1 territory). The tree is located on ridgetop of Sharpshinned Hawk Ridge (with Columbine Cr to the S and W Missouri Cr to the N) about 120m west of the biker trail. The tree is a full snag PIPO with a dbh of about 40cm. The cavity is located about 28’ up in a flamcrew-enlarged hole within a lightning scar. The cavity is facing about 40deg NE. The tree tag no. is 614.** The F keeps her head out of the cavity for the duration of us watching her.

X: 495268

Y: 4333265

+/- 10m

2044—JE and ER arrive at the B14\_2015, 2016 nest tree to listen for nesting vocalizations. We immediately tap the past nest tree. We do not see anything in the entrance, but in the chance that the F could have flushed before our arrival, JE positions herself with a silhouette of the cavity. ER listens along the R of N. Goshawk and in Goshawk Cr. about 200-300m W of the past nest tree. JE stays in sight of the cavity until 2116, but neither of us hear or see anything signs of FLOW.

2139—ER and JE meet back up at the past nest tree and peep the cavity just in case the owls were being extra sneaky. It is empty. We move down the R to set up a lure net.

2206—We start PB at a lure net ~20m S of the two-track on N. Goshawk R, ~400m E of the parking spot.

Vegetation: Mature pipo, psme. Young psme. Moderately open.

Weather: Partly cloudy, breezy, 12C

X: 495307

Y: 4334130

+/- 3m

2241—M gives a handful of TC from S Goshawk R >200m to the SE of our net. He does not approach and goes silent after one minute. We suspect that this M is coming from the B4/B1 area.

2250—M on S Goshawk gives TC from his same position.

2255—M goes silent.

2305—PB off. We break down the net after not having any action in B14 and begin heading back to the car.

2320—ER and JE give a few hoots around the B14 parking spot near the fence to get no response. We head back to the car to head down to B2.

2336—ER and JW arrive in B2 to listen for nesting vocalizations and any sign of a territorial M.

2344—We begin PB of T42 while walking towards and along Paintbush Ridge. Stop after 3 minutes.

2348—Begin PB of T42 on the top of Feldspar Ridge.

2351—M giving TCs from SE is heard by both ER and JE, possibly from Vista Ridge in the B1 territory. This continues on and off for the entirety of the time T42 is playing.

2356—A second M is heard giving TCs by both ER and JE within 100m to the SW. Only several TCs were heard, but they were clear and higher pitched. The TCs came from the side drainage of Feldspar R. and Shooting Star R. around where the B2\_2014 nest tree was.

2410—We stops PB and the first M stops giving TC. Suspicious of the closer M, we head down into the drainage to listen, tap, and hoot.

2411—ER and JE walk to 2014 B2 nest in the drainage between Shooting Star Ridge and Feldspar Ridge. The tree has fallen.

2415—ER and JE begin walking back towards the B2 parking spot while following Homestead Cr. Both tap on nest trees and give some hoots intermittently but find and hear nothing.

2432—We leave to meet BL and ZM in BG1.

## 8 June 2017

2035—LD and BL arrive at the parking area on the N end of Camp Ridge to listen in the B1 territory. Weather: Partly cloudy, calm, ~ 15 C.

2044—BL drops off LD to listen in the area of the B1\_2016 PIPO nest tree just below the terminus at the SW end of Camp Ridge; we tap 2016 nest tree, but no response. BL leaves to listen in Fallen Squirrel Cr.

2052—LD hears FSC ~30m SSE of last years nest tree. LD pursues with intent to silhouette and follow the F to find nest.

2055—LD can no longer hear FSC without a M response

2059—LD hears FSC calls further to W, continued to pursue call to identify nest site.

2101—FSC stop without M response

2110—LD hears FSC further S, 50m away from B1\_2016 nest tree

2118—BL returns to listen in the area of the B1\_2016 nest tree (including the PIPO nest box, ~ 30 m to the SE).

2120—LD hears FSC near location, had difficulty pinpointing location of call. Sees silhouette of presumed M fly across the road, was quickly lost in the foliage.

2131—LD hears FSC further W of position 30 m S of B1\_2016 nest tree

2145—BL leaves to join LD near FS 347, 80 m WSW (and downslope) of the 2016 nest tree. BL locates PIFL cavity tree just E and on the upslope shoulder of FS 347, and stays here to listen.

2149—LD hears FSC further W towards Vista R across road further down drainage.

2225—LD takes over to listen near PIFL cavity tree while BL returns to listen near the B1\_2016 nest tree.

2250—LD and BL leave to set up lure net at the N end of Camp Ridge.

2326—We start playback near the confluence of the S Goshawk Ridge and Camp Ridge. Net opens ENE/WSW.

Vegetation: Mature PIPO-PSME, with net flanked by ~15 cm PSME.

Weather: Mostly clear, calm, 12 C

X: 495224

Y: 4333850

+/- 3 m

2326—We start playback.

2334—BL leaves to listen in B2 territory. LD hears M giving TC greater than 100m to NNE.

2423—PB stopped

2425—M giving TC, most likely songposting, hear around 200m away SSW of nest. M presumed to be the B1 M.

**19 June 2017**

2040—LD and KM leave B8 territory to join ZM and BL to attempt B17\_2017 M FLOW capture with capture pole, B1/B10/B17 lure net capture, and B10\_2017 M FLOW capture pole.

2205—PB started on W side of Sharpshinned Hawk R. Net opens E/W with young psme trees as targets.

Vegetation: Mixed psme, mature pipo

Weather: Clear, calm, 13C

X: 495063

Y: 4333324

+/- 3m

2206—M FLOW responds to PB 60m+ SE of lure net giving TCs, presumed B17\_2017 M, possibly B20\_2017 M.

2208—Second M FLOW responds to PB roughly 60m W of lure net giving TCs, presumed B10\_2017 M.

2214—Third M FLOW responds to PB N of net location roughly 30m giving TECs, presumed B1\_2017 M.

2216—LD moves towards net to change to MEGA and to move PB around to further draw territorial M FLOW into net.

2218—M captured in net, territorial M came from W of net into 1st level. Possibly B1\_2017 M or B10\_2017 M.

2220—M escapes net prior to capture

2223—LD restarts PB after capture

2225—Bat is captured in net, LD turns off PB in an attempt to untangle bat

2226—ZM joins LD at net site

2227—PB restarted

2230—All 3 M FLOW resume vocalizing at roughly same time

2250—2 M FLOW within 20m of net from the S side of the net. Presumed to be B17\_2017 M and B10\_2017 M FLOW

2255—M FLOW vocalizations stop

2311—M FLOW starts giving TCs from S, stopped after giving a couple TCs

2318—M vocalizing from SSW, could have been B10\_2017 M or B17\_2017

2323—M stops vocalizing

2325—M begins vocalizing with TCs from N, presumed B1\_2017 M

2326—M from N stops vocalizing

2330—M begins vocalizing from NE of net, presume B1\_2017 M, potentially B4\_2017 M

2336—**FLOW flies into 3rd shelf from W of nest previously unbanded bird**

**Band # 1833-03575 (on L leg)**

94.0 g

- 31.0 g

63.0 g

2340—KM and JE arrive to assist with the tagging of the captured FLOW

2354—Newly banded FLOW released with a strong ascending flight towards the SE leaving a mint chocolate surprise

2359—PB restarted after release of bird

2406—M gives TC 150m+ to S of lure net, potentially B20\_2017, B17\_2017, or B10\_2017 M FLOWs

2410—M approaches net, LD switches PB to MEGA

2424—M from S gives HECs immediately but switches to TEC shortly after, KM switches PB to MEGA; bird moves closes, ~10m SW of net

2429—M stops vocalizing

0103—Stopped PB and to take down lure net

# B1—2018

## 4 June 2018

1500-1700—Flam crew cherry peeps the B1 territory, targeting past nest trees and optimal cavity trees. We don’t find any nests.

2030—BL and KA arrive at B1 territory to tap, peep, and listen for nesting vocalizations.

2045—B1\_2016 nest tree, located near the S terminus of Camp Ridge, is tapped. No response observed, and all is quiet. KA remains at B1\_2016 nest tree to watch for female flushing the nest, and BL moves to the B1\_2011 nest tree (tag #1168) on the E facing slope of Camp Ridge (up Fallen Squirrel Cr).

2103—M FLOW makes 3 LCs 100m SW of B1\_2016 nest site down Camp ridge.

2105—M FLOW makes 4 LCs 25m SW of KA.

2107—KA follows bird SW, then hears M move up Camp Ridge towards B1\_2016 nest.

2108—KA observes bird flying from mature pifl 10 m SW of her position just S of B1\_2016 nest site. Bird flies N up the drainage between Vista Ridge and Camp Ridge.

2109—All quiet.

2132—KA, from position at B1\_2016 nest site, hears M FLOW making TCs at least 150 m S off towards Sharp Shinned Ridge. This bird, potentially the B17\_2018 male, continues TCs for 5 mins.

2136—KA calls, imitating M TCs. B1 M FLOW responds with TCs from 30 m W down Camp Ridge. M off towards Sharp Shinned Ridge continues making TCs and TECs.

2140—B1 M flies into pipo 2 m S of B1\_2016 nest tree. Makes TCs, switches to adjacent tree. KA continues her TCs. Then M flies to B1\_2016 nest tree and silently perches for one minute. M does not approach the cavity of the tree.

2142—M flies to pifl just NW of old nest tree and begins TECs.

2144—M goes silent and flies off to the S.

2153—M FLOW (presumable B17\_2018 male) makes TCs for one min 200m to the S towards Sharp Shinned Ridge.

2157—M heard making TCs 100 m N towards Vista Ridge.

2159—M makes TCs 200m S towards Sharp Shinned Ridge.

2202—All quiet.

2204—KA leaves B1\_2016 nest site and walks N up Camp Ridge.

2209—KA makes TCs. B1\_2018 M FLOW responds makes TECs for 4 mins as KA continues calls. M remains by B1\_2016 nest tree and does not follow KA up Camp Ridge.

(2220-2300: KA and BL leave to assist with processing FLOW at the B2 weir.)

2315—BL and KA start playback of Track 42 at lure net. Net location is at N end of Camp Ridge. Net is open N/S on top of ridge. All is quiet upon arrival.

Vegetation: Mature pipo, pifl forest. Net surrounded by 15cm dbh pipos on both sides.

Weather: Calm night, 30% cloud cover. 17 C

X: 495210

Y: 4333755

+/- 3m

2336—After leaving lure net, KA arrives back at B1\_2016 nest site to listen. All is quiet.

2350—KA leaves B1\_2016 nest site.

2355—KA returns to net site, all is quiet, net is empty.

2421—Because all is quiet at lure net, playback stopped and net taken down.

## 05 June 2018

2147—AM and BL arrive in B17 territory along Sharp-shinned Hawk Ridge to listen and lure net. AM heads E along Sharp-shinned Hawk Ridge to listen near the B17\_2017 nest site, while BL goes S and listens near past nest sites in Columbine Cr.

2203—AM hears M TCs S of Sharp-shinned Hawk Ridge on N-facing slope of Sierra Madre Ridge, presumably the B20\_2018 M.

2224—AM hears M TCs distant to the N, potentially on S facing slope on opposite side of W Missouri Cr, presumably the B1\_2018 M.

2227—AM again hears M TCs 100m S along Sierra Madre Ridge.

2304—PB starts, playing T42. Net is located 100m E of W terminus of Sharp-shinned Hawk Ridge along the ridgeline, net open E-W.

Vegetation: open, mature pipo/psme stand.

Weather: 15.0 C, 10% cloud cover, no wind.

X: 494998

Y: 4333317

+/- 3m

2315-2345: BL leaves to listen in B20 territory, particularly near the vicinity of the B20\_2016 nest tree near the head of DGF Cr. BL taps on the past nest tree upon arrival—something appeared briefly in the entrance but cavity height (40+ ft) made it unclear what animal it was. B20 M heard giving TCs continuously from the S rim of Columbine Cr during this time period.

2319-2359—AM hears M TCs and occasional TECs from SE along Sierra Madre Ridge in B20 territory. M never gets closer than 100m away.

2400—PB is stopped. We leave.

## 21 June 2018

2155-2350: BL listens along FS347 for nesting and territorial vocalizations in the B4 and B1 territories, from the W-boundary of B5 territory to the bend in the road due W of the weir at the base of Fallen Squirrel Cr (BL grounded by knee issues). I also gave TC intermittently, but no response was heard anywhere.

## 25 June 2018

1530-1700: Flam Crew peeps cavity trees in the B4 and B1 territories, concentrating on trees along W. Missouri Cr. from the SW portion of B5 territory, to approximately 100 m W of the Fallen Squirrel Weir. Nothing found in the B4 and B1 territories, **but we found the presumed B17\_2018 nest in the B17\_2017 PIPO nest tree and cavity (tag #614)—see B17 notes.**

## 6 July 2018

1300-1700: JE peeps B1 and B4 trees in W Missouri Cr near the confluence with Fallen Squirrel Cr. ES peeps up on Coop Hawk R, and ON peeps the S terminus of Camp R. There are still many remaining cavity trees to be peeped in W Missouri Cr (W of Camp R), up Fallen Squirrel Cr, and on Camp R. Only a few un-peeped trees remain on Coop Hawk R.

# B1—2019

## 10 June 2019

2122—ON, ML, and BL spread out on Camp Ridge to tap cavity trees and listen for nesting vocalizations. ON listens in the N end of the ridge, ML listens in the middle, and BL listens in the S end, particularly in the vicinity of the past PIPO snag nest tree (#27).

Weather: Clear, calm, 11C

2131—ON hears a few M TCs ~50 m E of ridge, but he goes quiet quickly. She follows them, gives a few hoots herself, and the M responds with one TC further S. ON follows the call again, gives some more hoots, and then she hears a couple more TCs at least 50 m NE. After that, he goes silent for the rest of the night. \*Note: While ML and BL were hearing PB running from the two groups in B12/B5 and B4/B13, these groups did not start PB until 2133 and 2137, respectively.

2202—We head out to set up our lure net in B17 after all remains quiet.

## 11 July 2019

1515-1710—Flam Crew does a systematic peep in the W Missouri Cr drainage and Camp Ridge area of the B4/B1 territories in hopes of sniffing out a FLOW nest. We peep the past nest tree near the S terminus of Camp R, and we peep out W Missouri Cr starting at the historic B4 nest tree and working W to the dense clump of potr cavity trees just E of where Vista R meets W Missouri Cr. Unfortunately we find no signs of FLOW activity.

## 15 July 2019

2308—SL, ES, and KA arrive at the B4\_2019 territory. From Fallen Squirrel Cr, we walk W down W Missouri Cr.

2312—SL hears a possible F FSC from W Missouri Cr near where the road begins to wash out E of Vista R. She gives a couple hoots. We do not hear a response in the immediate vicinity, but a M FLOW responds with TCs from ~100 m further W down W Missouri Cr. He approaches, but never gets closer than ~75 m, and then backs off again. We tap cavity trees in the area, but find nothing.

2324—We begin to climb S up Sharp Shinned Hawk Ridge and begin PB while still within ~40 m of the drainage bottom, near the large clump of potr cavity trees. After 5 minutes with no FLOW response, we cut PB and continue up Sharp Shinned Hawk Ridge to set up a lure net.

2342—PB starts. T42. Net is located on saddle of Sharp Shinned Hawk Ridge near the southern terminus of the ridge. Our goal is to draw FLOWs from multiple surrounding territories, including B4, B1, B17, and possibly B10. Net is located on the ridgetop, open N/S.

Vegetation: mixed age pipo, psme

Weather: 10% cc, 13 C, calm

X: 494903

Y: 4333293

+/- 3m

2357—We hear a M give TCs ~50 m E up Sharp Shinned Hawk Ridge. He gives a few sporadic TCs but never gets closer to the nest site.

2405—We cut PB and head back towards the car.

# B1—2020

## 23 July 2020

2400-2430—ES taps cavity trees and listens along Camp R. I tap past nest tree #27 and the nestbox on the southern terminus of Camp R. I periodically hear a M giving TCs near my location on the S terminus of Camp R, probably responding to ON and SL’s PB on Cooper’s Hawk R. I’m never able to get eyes on him.

## 7 July 2020

2307—ES and BL start PB at our lure net on top of S Goshawk R, near the head of Fallen Squirrel Cr. We hope to draw in a M from B2, B14, B4, or B1. Net open N/S.

Vegetation: Mature pipo/psme

Weather: Clear, calm, 20C

X: 495346

Y: 4333892

+/- 3m

2312—HECs ~15m N of the net. He hops to the S side and continues calling very hoarsely. This M, the presumed B14 M, gives HECs in our net site for most of the night.

2321—2nd M gives TECs ~30m W while the 1st M is calling in site. 2nd M, presumed B2 or B1, has a noticeably higher pitched call than the 1st M (presumed B14).

2323—The 2 M’s call at each other ~40m SW of net.

2325—1st M calls ~30m E while 2nd M calls ~30m S.

2336—ES heads to Cooper’s Hawk R to listen for nesting activity and tap trees while BL remains at the net. The 1st M continues to give TCs intermittently to the NE of net over the next half hour.

2351—From Cooper’s Hawk R, ES hears a high pitched M (presumably the 2nd M from the lure net) calling down near the confluence of W Missouri Cr and Fallen Squirrel Cr. I can also hear AM and KC’s PB on Biker R, which is what the M seems to be responding to.

2355—I don’t hear any activity on top of Cooper’s Hawk R, so I return to the lure net.

2412—It’s been quiet at the net site for about ten minutes, so we stop PB and break down the net.

# B2—2002

## 11 July 2002

2250-0100: Flam crew and I listen for nesting activity in the vicinity of cavity trees we flagged earlier in the day. No nest found, but at 2255 we heard B2-M giving TC calls for approximately 5 min from the vicinity of the historical *Accipiter gentilis* nest tree. Tyler again heard him giving TC from this vicinity at about 2430 for approximately 5 min.

# B2—2003

## 30 May 2003

1130—**Miriam and BL find B2-2003 nest near the Weir in Homestead Drainage. Nest cavity is in a 22 cm dbh *Potr* snag, approximately 6 m above ground on the E side of the trunk, and is approximately 25 m W of the Weir.** Female was in the cavity entrance when we walked into the vicinity, where she stayed for 3-4 min before descending. We leave at 1134.

## 9 June 2003

1500—Katie and BL tap on the B2 nest tree while on the way to check cavities in the Goshawk Drainage—F rises to the entrance; **this is the B2\_2003 nest**. We immediately leave, and the F quickly descends in the cavity.

## 10 June 2003

2038—Katie and Miriam arrive at B2 nest. 9 degrees Celsius, with some fresh snow on ground.

2041—M flies to a tree NE of nest tree, give LC. Female goes to cavity entrance.

2043—M flies to SE, gives one LC

2044—F leaves cavity and flies SE

2046—F flies to nearby branch, gives food solicitation calls, flies away, but not far, and kind of watches Katie and Miriam for a few minutes.

2049—F returns to cavity, M gives LC from SE

2053—F gives food solicitation call

2055—F leaves cavity, gives food solicitation calls. Katie and Miriam leave nest area

2057—M gives TC

2058—M gives LC, F gives food solicitation call.

2330—Katie, Miriam, Jake, and BL attempt to spot map B2 male. Near the end of our time, he called briefly from N and S Goshawk Ridge, approximately 100 m E of the Weir. No song posts marked.

2345—We hear M calling N of wier near top of S facing slope.

2347—We hear M calling from N facing ridge of Goshawk drainage

2350—We hear M calling from E end of Goshawk drainage.

2351—We hear M calling from N, approx. near quarry site.

2405—We leave B2.

## 16 June 2003

2030-2230: Jake and BL attempt to capture B2-M. We capture both M and F in the net at approximately 2215, and immediately release the second bird to fly into the net, which we presumed to be the F but which turns out to be the M. We immediately release the F once we discover her identity (based on mass and incubation patch).

1. F at entrance and goes down into cavity shortly after
2. M flies to roost (E *Psme*) then to the cavity
3. F leaves cavity
4. F returns to adjacent tree and then enters cavity.

2118, 2120, 2123, 2125, and 2130: M makes Prey deliveries.

22??—M and F were captured. What was thought to be the F was released and the other owl was weighed. This bird weighed 63g and was subsequently released.

**F 🡪 unbanded; banded with # 92316**

**83g**

**-20**

**63g**

## 19 June 2003

1. BL and Jake arrive in order to capture M. F is at entrance and then leaves cavity.
2. M gives LC from S
3. F returns
4. M gives TC from N and W, approximately 100 m distant.
5. BL and Jake leave nest—M not captured. He had last attempted to deliver prey at approximately 2220.

2230—Miriam starts listening on south goshawk ridge.

2330—Miriam gets B2 songpost #1, not the exact tree but I flagged it.

## 23 June 2003

1. BL and Jake arrive at nest to capture M
2. Captured M. M was unbanded.

**Band placed on left leg # 92400**

**85g**

**-20**

**60g**

2242 M was released.

## 26 June 2003

2226—Jake and BL arrive at B2 nest to monitor nest activity.

2237—M delivers prey in cavity.

2248—We leave. While at the nest, we hear B2 M (presumably) calling S Goshawk Ridge, and from near Feldspar Ridge to the W.

## 30 June 2003

2148-2229: Jake monitors nest activity at B2 nest. Six prey deliveries during this time, of which at least 3 were by the M.

2230-2315: Jake and I attempt to spot map B2 M and M to north, who were having a TE near the quarry at the beginning of this interval. No song posts were marked.

2330—Jake and BL arrive at B2 nest, and observe F in **Potr** adjacent to nest—she appeared banded (but apparently we were duped).

2332—M delivers prey to owlets.

2337—Same. We leave.

## 1 July 2003

1. BL and Jake arrive at nest in order to capture F. F is at Entrance
2. Female leaves the cavity and flies to potr SW of nest
3. F flies from potr south
4. BC and TC from south
5. Capture F

**Band #92316**

**77.5g**

**-20.-0**

**57.5**

**Band on Right Leg # 92316**

2144 Release F.

## 8 July 2003

1039—Miriam and Jake peep B2 nest. 2 of the owlets are bandable, still with some white down, runt has lots of white down and is much smaller, but his eyes are open. F scolds us, we leave.

## 9 July 2003

1305---Miriam, Jake, and Katie arrive to band and bleed owlets. F is at entrance and flushes.

Cavity dimensions:

Cav ht---55mm

Entrance width---65mm

Entrance thickness---60mm

1358—Owlets are out of cavity.

**Band#92329 Band#92330 RUNT**

78.5g 77.5g 52.0g

-22.5g -22.5g -22.5g

56.0g 55.0g 28.5g

LLP 33.0mm LLP 34.0mm LLP 9mm

Rect 10m rect 15mm rect N/A

1500—Owlets are back in cavity after bled.

## 15 July 2003

1300—Miriam, Jake, and Katie arrive to measure and weigh owlets.

**Band#92329 Band#92330 Band#92334**

88.0g 89.0g 72.0g

-23.0 -23.0g -22.5g

65.0g 66.0g 49.5g

LLP 58.0mm LLP 60.0mm LLP 31mm

Rect 28m rect 29mm rect 11mm

1340—Owlets are back in cavity.

# B2—2004

## 1 June 2004

2130—The Flam crew arrives in B2 territory. Partly cloudy (50% cloud cover), breeze on ridgetops, 17 C. We start tapping cavity trees in the vicinity of the 2003 nest, and BL sees what turns out to be a *Otfl* F flying from the opposite side of a focal tree. I quickly exit the area, and she immediately flies into a cavity on the N of the live *Potr*, approximately 7 m above ground—**this is the B2\_2004 nest tree**. The nest tree is located about 10 m E of the Goshawk Cr Weir, at the base of S Goshawk Ridge.

2135—Flam crew splits up. SY and EE head to North Goshawk Ridge. BL heads to Paintbrush Ridge. EP and JM head to South Goshawk Ridge.

2200—EE hears M giving TC from W near Feldspar Ridge.

2207—EE hears TC from western part of South Goshawk Ridge.

2300—EE heads SW to Feldspar Ridge.

2305—JM and EP mark a general songpost on B2\_1 M on the E side of N. Goshawk Ridge.

2311—BL marks B2\_1 songpost.

2315—BL marks B2\_2 songpost.

2320—EE heads over to help BL. Makes B2\_3 songpost

2436—JM and EP hear M in the drainage to the E of Vista Ridge.

2337—EE hears TC from far SW of Homestead Creek and pursues. Results in B10\_1 songpost.

2438—JM and EP mark a general area songpost on B1\_2 male that was giving TECs and two low and hoarse single note calls.

2340—EE and BL move W to Homestead Ridge and check nearby *POTRs* for nests (B1 territory).

2346—From intersection on Paintbrush R. SY hears TC to the E. Gives chase but no further calling is heard.

2444—M gives location calls on the eastern slope of the drainage E of Vista Ridge, B4 male was also heard giving calls to the E.

2454—B4 male was heard giving TEC to the far East.

0105—From the center of B2 SY hears TC to the S in Homestead Cr. Drainage.

0107—SY songposts B2 male while B1 male gives TC and TEC within 15m. This constituted a territorial dispute on the E most portion of Feldspar Ridge.

0115—B2 M was heard by JM and EP near the nest giving two TC.

0117—SY hears B1 male give TC near the road in Homestead Cr. drainage as B1 male calls 20m S.

0120—JM songposts B2\_5 male at the North end of Homestead Creek.

## 7 June 2004

2127—JM and SY arrive at B2 nest to observe prey deliveries. The temperature was 18°C.

2132—M gives LC.

2138—M gives FS.

2143—M gives LC.

2145—M gives two LC.

2154—M gives a TC and SY and JM leave.

## 8 June 2004

2147—JM and SY arrive at B2 nest.

2155—Prey delivery made by male, prey deliveries also at: 2202, 2216, 2239, and 2244.

2221—EE, EP and BL arrive at nest site to attempt capture of male. Attempts made at 2239 and 2244.

2259—We leave, no capture made.

## 15 June 2004

2035—EE and JM arrive at B2 nest to attempt to capture F and peep nest.

2145—EE has capture net set up over cavity entrance.

2102—F flushes the net and is captured. **F is unbanded so we band her right leg with # 92360**.

2114—F is released. EE and JM do not peep nest because of 12 minute period of handling and immediately leave area.

## 21 June 2004

2124—EP and SY arrive at B2 nest to attempt capture of male.

2133—Male is captured following prey delivery. He is previously banded.

**Band#92400—this is B2\_2003 M.**

**LLP: 91mm**

**LWC: 132mm**

**Rect.: 53mm**

## 7 July 2004

2043—KS, EP and guests arrive at the B2 nest to capture the female and bleed her.

2052—F leaves entrance and we do not capture her because we put net over wrong section of tree. **We peep cavity and see three hatched owlets**. Two are in grey plumage and one still looks whitish.

2106—F makes PD.

2107—Prey Delivery by unknown bird.

2112—M makes PD.

2115—M makes PD. We can hear owlets giving FS calls.

2117—F makes PD.

2118—F hits nest tree (likely gleaning food) and flies off to N.

2119—F makes PD.

2120—F makes PD, we attempt to capture her but miss.

2123—M makes PD>

2124—F makes PD.

2125—M makes PD.

2126—F makes PD and we capture and bleed her. **Band #92360**.

2147—We release F.

## 9 July 2004

1526—KS, EP and SY arrive at B2 nest to attempt capture of nestlings.

1532—Nestlings removed.

**Band#92371 Band#92372 Band#92382**

74.0g 54.5g 76.5g

11.5g -11.5g -11.5g

62.5g 43.0g 65.0g

LLP 59.0mm LLP 26.0mm LLP 55.0mm

Rect 27.0mm Rect 8.0mm rect 24.0mm

1609—Nestlings returned to cavity.

## 14 July 2004

2035-2205—KS and EP search around B2 nest in order to find runt fledgling, whom we did not bleed. We hear many scolding calls from both male and female at the head of Homestead drainage just to the south of the road and try to follow birds to the owlets, but never hear owlets and are unable to find fledgling. Adults were calling to each other and giving location calls to owlets.

# B2—2005

## 7 June 2005

2237—MS, EE, and BL drop into upper portion of Goshawk drainage to tap trees in attempt to find B2 nest.

2317—After tapping trees in drainage (near B2\_17) MS and EE leave. Nothing seen or heard.

## 9 June 2005

1430-1600: The Flam Crew taps and peeps cavity trees to attempt finding the B2\_2005 nest—search was concentrated in the N portion of Camp Ridge, W portion of Goshawk Ridge, B3 drainage, and lower Homestead Cr. Nothing found.

## 27 June 2005

2330—EE is on N Goshawk to attempt to songpost B2 M.

2403—EE gets songpost B2\_1.

2409—EE gets songpost B2\_2.

0145—EE moves S along Homestead Creek to aid in songposting of probable B1 M.

0148—From W end of S. Goshawk R. SY hears LCs in Homestead Cr. Bottom near confluence with unnamed drainage between Vista R. and S. Goshawk R. This occurs while the rest of the crew is following probable B1 M.

0156—SY hears TCs for <1min. on R. west of where LCs were heard (S end of Feldspar R.?). I mark general are songpost B1\_9 (marked on tree as B2?\_9). This is while rest of crew is following probable B1 M – this bird is, then, probably B2 male.

0225—I leave.

## 30 June 2005

2230—BL arrives in B2 territory, near S end of Paintbrush Ridge, to listen for nesting activity. Nothing is heard here, but between 2323 and 0100, several songposts are placed on two males, presumed to be B14 and B16 (new ID) who were heard to the E and W, respectively, and who had a TE on the N-facing midslope of Vista Ridge (see entries for B14 and B16 territories).

0100—BL, MS, and EE leave area. It appears possible that B2 has not returned this year, and that the former B2 territory has been subdivided and expanded into B14 and B16 territories.

# B2—2006

## 29 May 2006

2045—KC and BL arrive near the Goshawk Cr weir in B2 territory to attempt spotmapping. Mostly cloudy, 20 C. SY on S end of Vista Ridge, and EE and EM on Sharp-shinned Hawk Ridge. Conditions become very breezy with light rain between ~ 2200-2300, and we move down into Goshawk/Homestead Dr to tap on cavity trees.

2330—Nothing found. We leave.

## 5 June 2006

2422—EE is on Shooting Star Ridge placing songposts on the B11 M and hears the likely B2 M. I place 2 songposts over 20 minutes on the B2 M. B2 M’s call is much higher-pitched than B11 M and is also much more inconsistent.

0130—I leave.

## 6 June 2006

1508—SY arrives at cavity tree **B2\_2 (tag #87)** to check for occupancy. As I approach the female rises to cavity entrance—**this is the B2\_2006 nest tree**. Cavity is W facing approx. 5-6 m high. This was the 2004 B2 nest tree.

1514—We leave.

2030—BL arrives at the B6\_2006 nest to attempt capture of the F. Mostly cloudy, calm, 19 C.

2040—I raise the net over the hole, and the F immediately rises to the entrance and flushes into the net. **She was previously unbanded—given band # 64488**.

83.0 g

* 7.0 g

76.0 g

2045—I release the feisty, uncooperative F as the M arrives in the nest area giving LC.

2049—I peep the cavity and find **3 eggs, mostly touching and in the center of the cavity**. I leave.

2130—I return to the nest area.

2140—M arrives giving LC and delivers prey to the F in the nest cavity.

2200—M arrives giving LC and delivers prey to the F in the nest cavity.

2210—I leave the nest area to attempt spot-mapping.

2300—I leave N Goshawk Ridge, as a strong breeze is blowing.

## 13 June 2006

2120—I arrive at the B2\_2006 nest to attempt capture of M. I get into capture position at this time.

2220—No action at the nest—I hear B2\_M give TC from the spur of N Goshawk Ridge ~ 100 m to the N at approximately 2145, but he never approaches the nest site. I peep the cavity and find 2 eggs—**nest apparently has been abandoned**. No F vocalizations heard over the past hour. I leave.

## 19 June 2006

2105—SY and KC arrive at B2 lure net location to attempt to capture B2 M or other nearby Ms. We open the mist net and start playback of F FSCs.

2125—I check net, nothing present.

2133—From my position (20 m E of net) I hear the B2 M give TCs to the SW (Paintbrush R.?) This is while KC has B14 M giving TCs to the E.

2136—M is now in vicinity of lure net giving TCs.

2143—I check net after TCs stop. A bird is caught on the second “bench” from the bottom near apex of triangle. **This is a previously banded bird—this was the B2\_2003 male; band #92400.**

**Band #92400**

77.5g LWC: 131mm

-17.0g LLP: 95mm

50.0g Rect.: 59mm

Note: This is the B2 M, originally captured in 2003.

2154—M is released, strong flight to the E.

2156—TCs near the net, they sound slightly deeper than the B2 M although this is hard to be certain of.

2207—I check net – nothing.

2231—After the M in vicinity of net stops giving TCs I check net – nothing.

2251—I check net – nothing.

2255—From near the net I hear a M (B2) giving TCs on the S Slope of N Goshawk R. S of the net. I mark songpost B2\_1 (see data sheet).

Note: This is only approx. 30 m from the lure net.

2307—I check net – a bird is caught on the third “bench” from bottom on the inside of the triangle. This bird is previously banded.

**Band #92400**

This is the same M caught earlier in the night. I release immediately and leave.

2327—I check net – nothing.

2334—We break down the net and leave.

## 13 July 2006

2150—While running a lure net on N end of Shooting Star R. (see B11 notes) SY hears B2 M give TCs for approx. 10 min. from S end of Feldspar R.

# B2—2007

## 7 June 2007

1430—The flam crew peeps the north east edge of the territory near the weir. Nothing found.

2311—BL and KB leave weir and head southwest down Homestead drainage where we run into CB. We all continue down Homestead drainage. The skies are clear (a great meteor shower) and the air is bitter, about -2C.

2347—BL CB and KB hear a F’s giving FSC’s at the base of Feldspar Ridge, near the mouth of the drainage to the W. It takes a few minutes, but she finally settles into a large ponderosa where she continues to beg for another 22 minutes (until 2409). During this time, the M responds with LC’s and we infer two PD’s (at 2343 and 2348 hr). The large ponderosa has GPS coordinates 494832, 4333714 (27m).

2407—F ceases giving FSC’s.

2417—The owls have been silent for a few minutes. We leave the area. **Note**: The behavior of the F/M interaction suggested that the F was in the process of egg-laying. There was a large *Pipo* cavity tree within 20 m of where the F vocalized, but she did not approach it or any other cavity tree.

## 12 June 2007

1530—Flam Crew begins peeping B2 territory to search for nests.

1636—EM taps on *Potr* cavity tree B1\_19 – F rises to cavity entrance—**this is the B2\_2007 nest.** Cavity is approx. 30 ft high facing W.

1642—We leave.

2021—BL arrives at the B2\_2007 nest to attempt capture of F. Heavily overcast, raining lightly, calm, 14 C.

2032—I raise the net over the cavity. Within 1-2 minutes the F appears in the cavity entrance, peering down at me.

2036—I capture F after she attempts to flush from cavity. **F was not previously banded**, and I give her band **# 64586**.

96.0 g

- 29.0 g

67.0 g

2041—I release F from 30 m upslope from nest.

2046—I leave.

**NOTE: B2\_2007 was peeped sometime after 12 June and found to be preyed upon (10-19-2007; BL).**

# B2—2008

## 2 June 2008

2040-2158: CB, QB, and BL set up lure net on S end of Paintbrush Ridge. Area is a south-facing slope with tall mixed conifer; X= 494971 Y=4333979 +/- 23ft. We turn on playback at the end of this time period. Partly cloudy, mostly calm, 17.5 C.

2101—M arrives in the area of the lure net giving TCs, then HECs, apparently arriving from the S or SW—probably B2 male. For the next 20 min, he flies around the perimeter of the lure net (staying > 10 m above ground), and occasionally flies over the net, all the while giving the above-noted vocalizations. At 2123, I proceed to move the playback speakers to beneath a subdominant *Pipo*, and the M immediately flies after me.

2126—M is captured in the top shelf of the net, close to the center pole—at first he escapes and then entangles himself in the opposite net, again close to the center pole and in the top shelf (playback continues during our processing of the male downslope). **Male was banded previously—Band # 2003-92400; this is the B2\_2003 male.**

118.0 g LWC: 135 mm

- 63.0 g LLP(#5): 99 mm

55.0 g LLP(#6): 109 mm

Rect: 58 mm

We proceed to bleed male, to complement the sample taken in 2003.

2200—We release M. Within minutes, he is singing again within a 100 m radius of net.

2205—We return to the truck by the B2 weir, and at this time hear the B2 M giving TC in the vicinity. A couple of minutes later we hear a F giving FSC just east of the B2\_2006 nest site (E of the weir). We pursue.

2212—We locate the F sitting quietly ~ 10 m above ground in a *Potr*, about 20 m NE of the above noted nest tree. She stays on this perch until 2223, when she flushes 20 m into a dominant *Pipo* closer to the weir where we cannot observe her. M singing at this time on ridgetops between this location and the lure net.

2235—We hear F give 1-2 FSC from the same dominant Pipo, and leave her to tap cavities in B14 in the bottom of Goshawk Cr.

2310-2330: We return and break down the lure net, and then leave for Vista Ridge.

## 12 June 2008

2107—BL arrives in the area of the Weir in B2 territory, where the M/F interactions were observed on last visit, to attempt to find the B2 nest. I peep the B2\_2006 nest cavity, but the contents are empty. I proceed to tap and listen around other cavity trees in the bottom area. Clear, calm in bottom (breezy on ridgetops), ~5 C.

2150—Nothing heard or found. I leave.

## 16 June 2008

1430-1700: Flam Crew peeps/taps cavities throughout the B2 territory. While peeping a *Potr* cavity tree (B2\_551, tag #551) in the Homestead Drainage at the base of Feldspar Ridge, **CB observes a FLOW fly out of the cavity tree—this is the B2\_2008 nest tree.** CB leaves the area before attempting to confirm which cavity contains the FLOW nest.

2043—CB and BL arrive at the B2 nest, which Cory found in the afternoon, to attempt capture of F and peep contents of nest. We immediately hear M call of his roost ~ 30 m to the SE at this time. Partly cloudy but clearing, calm, 14.5 C. **NOTE: Upon observing the nest tree, CB surmises the FLOW nest cavity from which the F flushed in the afternoon is approximately 7 m above the ground in a NOFL-sized cavity on the SW side of the tree (not the bear-torn cavity ~1.5 m lower on the N side of the tree).**

2045—BL assumes capture position and raised the net over the cavity just as we hear M and F give LC and FSC in the direction of the M roost—F is already off nest. **We peep nest and find 1 egg in the center of the cavity.**  We back off some distance to wait for F to reenter nest cavity.

2121—We leave nest area after failing to see or hear anything in the nest vicinity, although nest site is fairly dark.

2130—While walking back to the vehicle, we hear M/F vocalizations ~ 60 m W of the Weir. **NOTE: Collectively, these observations suggest that the F has not yet started incubation and that her clutch may not yet be complete.**

2140—We hear M give TC on the S-facing slope of Goshawk Ridge, 50 m N of the Weir, but he quiets before we can songpost him. We leave.

## 23 June 2008

2140—QB and BL arrive at the B2 nest to attempt capture of M—F rises to entrance as we approach nest tree. We back off.

2142—M arrives in the nest area, giving several HECs.

2143—M attempts PD, aborts

2145—M makes PD at nest cavity entrance, with F giving FSCs.

2147—M returns to nest area

2150—M makes PD (M appears to enter the cavity this time).

2156—BL gets into capture position after M leaves, but over the next ~ 15 min the F rises to the entrance to observe us as we ready our positions.

2210—Net is in position near cavity

2230—We leave. M not observed in nest area since ~ 2200 hr.

## 24 June 2008

2206—SC and BL arrive at the B2 nest to attempt capture of M. F rises to entrance as we get into capture positions.

2208—M arrives in nest area, and makes PD at cavity entrance (both adults vocalize). F stays in entrance for ~ 1 min, then descends. SC moves into capture position.

2224—M arrives and attempts PD, but aborts at cavity entrance.

2226—M attempts PD from cavity entrance by leaning into cavity (F down), but we were uncertain whether he was successful.

2258—M arrives and attempts PD, but aborts at cavity entrance.

2303—We leave. M not captured.

## 1 July 2008

2034—BL arrives at the B2 nest to attempt capture of F and/or M. Mostly cloudy, calm, ~18 C.

2035—I raise the capture net over the cavity.

2055—F flushes into the net, but she climbs out as the net is lowered.

2101—F returns to cavity.

2103—M arrives in the nest area giving LC. F immediately flushes, and M flushes in the direction of F flight.

2112—F returns to the cavity.

2205—M returns to nest site giving LC, but leaves before attempting PD.

2220—I leave.

## 7 July 2008

2012—DH and SC arrive at B2 nest to attempt capture of the F or M. Weather: cloudy and raining lightly, calm, 13C. She is up in the cavity entrance when we approach. We back off to ~30m, out of sight of the cavity.

2034—We reapproach nest tree, she is not at the entrance.

2038—Net in capture position.

2039—We hear M calling in the area, very close, E of the nest tree.

2056—Rain lightens to a drizzle.

2101—Rain stops altogether.

2110—M enters site, perches on adjacent tree SE of nest, gives a couple of TCs, and flies off S down the drainage. TCs continue from a distance.

2118—M is back in the area, giving TCs.

2118—We peep. F is not in the cavity. We see pieces of egg shells in the cavity: 4 large pieces, each about the size of half an egg shell—the remains of 2 eggs we think. We find nothing at the base of the tree on the ground. **Nest appears to have been predated.**

2124—M leaves after calling in the area for some time.

2130—We leave.

# B2—2009

## 26 May 2009

2028—BL, SR, and KG arrive at Paintbrush Ridge to set up lure nets in hopes of catching B2 M and others. Weather: Hazy sky starting to clear up, no wind, 13C.

2052—We hear M calling to S.

2053—M is captured in second shelf from bottom. M flew in from W.

2056—M taken out of net. **Male was banded previously—Band # 2003-92400; this is the B2\_2003 male.**

LWC: 135 mm

- LLP(#5): 99 mm

87.0 g LLP(#6): 107 mm

- 29.5 g Rect: 60 mm

57.5 g

2110—M released.

2120—BL and KG leave SR at net to tap cavities in Homestead Cr.

2228—BL and SR leave KG at net to tap cavities in bottom of Goshawk Cr. B14 and B2 giving T calls.

2245—We break down lure net. Both B14 and B2 still heard singing sporadically.

2314—BL, SR, and KG arrive at Vista Ridge to listen for songposts. Heard T calls from B1 or B10 from our position on Vista Ridge—one M is singing from opposite side of creek bottom on Shooting Star Ridge, and one M is singing from Sharp-shinned Ridge. Weather: No rain or wind, a little damp. BL pursues B14 M on S Goshawk Ridge (see B14 entry).

2410—We leave from Vista Ridge for B1.

## 8 June 2009

1439—Crew arrives in B2 territory at Homestead Drainage to tap and peep cavities. Weather: Breezy, overcast, 24C.

1717—We leave.

## 12 June 2009

1640—**JG peeps B2\_43b (tag # 43), observes F in cavity—we suspect this is the B2\_2009 nest**. Tree is a live PIPO snag top, cavity approximately 31 feet high and E facing. Difficult to peep – lots of live foliage in front of and just below cavity entrance. F was unresponsive to tap. This nest tree is approximately 30 m S of the 2-track road on top of N Goshawk Ridge, at the head of a drainage that is approximately 40 m E of the Rock Quarry in very open pipo dominated slope.

## 15 June 2009

2132—BL and SR arrive in B2 territory to capture M at B2\_2009 nest site. Weather: 10C, calm and clear.

2135—M flies in giving LC, and makes PD in the nest cavity. FSC by F preceeded PD.

2137—PD by M in the cavity.

2141— PD by M in the cavity.

2145— PD by M in the cavity. We can see in the binocs that the M is wearing a leg band.

2149— PD by M in the cavity.

2155— PD by M in the cavity.

2204—M flies in but flushes w/o making PD.

2210—M flies in but flushes w/o making PD.

2211—M flies in, flushes w/o making PD.

2213— PD by M in the cavity.

2221— PD by M in the cavity. BL catches M in net—he was previously banded.

**Band#: 2003 92400. This is the B2\_2003 M, and the same M we captured in the lure net on 26 May 2009.**

87.5g

- 29.5g

58.0g.

2230—M released.

2242—We leave. **NOTE: M made 8 PDs in 46 min of observation, not counting the aborted flights due to capture attempts—this frequency of PDs indicates that at least some eggs have hatched.**

## 29 June 2009

2042—SR and BL arrive at the B2\_2009 nest to attempt capture of F. F already in entrance when we arrive, so we back away. Weather: Mostly cloudy, calm, stormy off to S and W, 22 C. Pungent aroma of conifers in air, due to hailstorms in the vicinity.

2148—F flushes to the NE. **We peep cavity—3 unhatched eggs in center of cavity!** This nest appears to be ~ 2 weeks behind the chronology of other nests.

2101—F returns to cavity.

2105—M makes PD in nest cavity.

2106—We leave for B14\_2009 nest.

## 7 July 2009

2040—SC and BL arrive B2\_2009 nest to capture F. Weather: Mostly clr, breezy, ~ 20C.

2050—SC on capture pole. After net gets caught on tree, we bring it down for repair.

2052—M gives PD.

2054—F flushes.

2100—M PD.

2102—We peep. **There are 3 nestlings in all white with eyes open. They appear to be 4-5 days old. They are expected to fledge ~ 25 July.**

2103—M gives TEC’s from nearby tree. We observe to assess whether F is giving PD’s and leaving cavity.

2104—M PD.

2106—M PD. Less than a minute later M PD’s again.

2108—M PD.

2109—M PD.

2110—M PD.

2113—M PD.

2114—M PD.

2116—After not seeing or hearing the F, we leave for B14\_2009 nest.

## 13 July 2009

2030—SR and BL arrive at the B2\_2009 nest to attempt capture of F, and attempt affixing a geolocator to the M. F already in entrance as we approach, so we back off. Weather: Mostly clear, slight breezy, ~20 C.

~2035—F still in entrance, so we attempt to raise capture pole anyway—she flushes just as we do so.

~2045—**We peep cavity and see 3 owlets, all in mostly grey juvenile plumage, very attentive and active, and bobbing as they look up at the camera.**

2050—M giving TC nearby.

~2105—We capture F after she makes a PD, but she escapes just as I start to lower the capture net.

2107—F gives several scolds at us.

2114—**We capture the M (Band # 92400) after he makes a PD, and proceed to affix a geolocator (# 3767).**

82.0g

- 29.5

52.5g

2141—We release M after adjusting/checking the tightness of the geolocator harness for several minutes. M roused from his sleepy state within ~ 2 minutes, and his first flight of ~ 5 m ended with a soft landing on the ground. We retrieved him, and his second flight was much stronger—a ~ 20 m horizontal flight around some trees and out of sight, with some evidence of a slight L-to\_R roll in flight. We return to the nest to observe nest activity.

2205—We leave. A couple of PDs in the interim time, presumably by the F, but she was skitterish enough around light that we may have missed some other PDs. No evidence of M attendance before we leave.

## 14 July 2009

2027—SC, SR, JG and Nick arrive at B2\_2009 nest to capture F. F up in cavity upon arrival. Weather: Breezy, clear, ~12C (estimate).

2038—SC captures F as she flushes from cavity.

We band her with **Band# 64724** on R leg

72.5g LP5: 94 mm

-20.0g LP6: 102 mm

52.5g RECT: 59 mm

LWC: 123 mm

Bled on L wing

2051—SC peeps. Three chicks, all have gray, all active and moving, 2nd youngest has beginnings of facial disk and eldest has little more developed facial disk. The oldest looks to be ~14 days old.

2056—M gives LC near nest.

2108—F released, strong flight NW of nest tree.

M makes 5 PDs in ~30 minutes (see PD data sheet). Nestlings begging particularly incessant, loud and frequent.

2128—We leave.

## 20 July 2009

2152—We arrive at B2\_2009 nest and Brian climbs tree and takes owlets out. Weather: 25C, calm, scattered clouds.

**Band#: 64703**

LLP(5): 45mm (22 in shaft)

LLP(6): 45mm (24 in shaft)

Lrect: 13mm (6 in shaft)

Mass: 38.2g

Other: Band L leg, Bled L wing

**Band#: 64704**

LLP(5): 50mm (23 in shaft)

LLP(6): 49mm (21 in shaft)

Lrect: 19mm (10 in shaft)

Mass: 47.9g

Other: Band L leg, Bled L wing

**Band#: 64705**

LLP(5): 39mm (17 in shaft)

LLP(6): 39mm (19 in shaft)

Lrect: 7mm (4 in shaft)

Mass: 31.8g

Other: Band L leg, Bled R wing

2230—Owlets returned and we leave.

# B2—2010

## 25 May 2010

2035—BL, JV, JSG, and JG have lure net in position on S Goshawk ridgetop approximately 100 meters E of Missouri Gulch Rd. Weather: Clear, intermittent wind, 10 C. Vegetation: Mature Pipo/Psme.

X: 495265

Y: 4333880

+/-: 5 m

2049—We begin playback with speakers in a young Psme approximately 1 meter off the ground facing toward B4/B5.

2051—We hear TCs in direction of B4/to the SE.

2057—M leaves the immediate area.

2103—BL orients speakers toward B2.

2106—**Capture B1\_2009 Fledgling, band #64717, banded in 2009**. Captured in the top shelf from the W. BL notes this M is more rufous-colored than usual.

LWC: 129 mm

LLP(#5): 91 mm

74.0 g LLP(#6): 102 mm

- 16.5 g Rect: 60 mm

57.5 g

2116—We hear another M in the area giving TCs from the W.

2117—M from the W goes silent.

2122—BL releases B1 M.

2126—We hear TCs from the direction of B14.

2143—M flies in from S and gives TCs and TECs for 3 min.

2145—JV and JG arrive at the Weir to tap cavity trees and B2\_2004 nest tree.

2157—Hears TCs from SE of the net.

2200—We tap a Potr across the road from the Weir and see a small bird flush from a south facing cavity approximately 8 meters off the ground. The cavity appears to be suitable, but we did not get a good enough look at the bird to positively ID its species. We back away and observe the cavity.

2210—We leave the area, having seen/heard no more activity that might indicate a nest.

2215—Hears TCs from direction of B14 again.

2234—We tap B2\_43b, the 2009 nest tree. It is vacant. We head E on N Goshawk ridge toward B14 to listen/spot-map. Refer to 25 May 2010 for further spot-mapping information in B14.

2238—M flies in from the SE and flies over the net toward the SW. Calls for 10 min.

2348—BL and JSG arrive at B2 to spot map.

0015—JSG hears 3 TCs from the direction of the junction of Homestead Ravine and Goshawk Ravine.

0025—BL and JSG leave B2.

## 7 June 2010

1423—Flam Crew prepares to tap/peep B2 and B14. We are parked at the Weir.

1656—We leave, having found nothing, but not having peeped/tapped all cavity trees.

## 28 June 2010

~0020—BL and DW stop at the top of Paintbrush Ridge to listen and hoot. We think we hear B4 M far off.

0029—We leave after hearing nothing in the area.

## 8 July 2010

~1545—Flam Crew begins tapping and peeping in B2. We split up between Homestead Creek and the area around last year’s B2 nest tree.

~1715—We finish peeping, still needing to return to Homestead Creek.

2235—BL arrives on Paintbrush Ridge to set up lure net in attempt to capture the B2 M. Weather: clear, calm.

2245—As I’m setting up, I hear a M give 8-10 TCs to the S, presumably from the Homestead Cr area.

2304—I start playback.

2308—M begins giving TCs from the N end of Paintbrush Ridge. He approaches the lure net, flies back and forth over the net, and quiets about 10 min later.

2330-2415: M repeats the above on three subsequent occasions over this time span, but does not get captured.

2415—As I start to break down the lure net, I hear a M singing from the lower portion of N Goshawk Ridge, just N of the flume.

2435—I leave area.

## 13 July 2010

2315—SY, JSG, and DW arrive in B2, on the SW spur of N Goshawk R. to run a lure net.

Weather: 18C, calm, clear

2329—Begin playback.

Vegetation: Net is on ridgetop with a mix of small to large psme/pipo. Micro-site of net is surrounded by mostly small trees.

X: 495118

Y: 4334142

+/-: 4m

2420—Stop playback, break down net and leave. Nothing heard.

## 20 July 2010

2331—JG, BG, and DW start playback on the S side of road on N Goshawk Ridge (across trail from old B14 nest tree) to target B2 and B14 Ms. Lure net is on mid to upper S-facing slope.

Vegetation: small psme around net, surrounded by large pipo

Weather: drizzly, wet from lots of rain, partly cloudy, 14C, wind <5mph

X: 495264

Y: 4334178

+/- 13m

2342—We stop playback due to rain and take cover.

2347—Start playback again, still raining lighty.

0017—Stop playback after hearing no response. Net is moist. We pack up and return to vehicle.

2331—JG, BG, and DW start playback on the S side of road on N Goshawk Ridge (across trail from old B14 nest tree) to target B2 and B14 Ms. Lure net is on mid to upper S-facing slope.

Vegetation: small psme around net, surrounded by large pipo

Weather: drizzly, wet from lots of rain, partly cloudy, 14C, wind <5mph

X: 495264

Y: 4334178

+/- 13m

2342—We stop playback due to rain and take cover.

2347—Start playback again, still raining lighty.

0017—Stop playback after hearing no response. Net is moist. We pack up and return to vehicle.

# B2—2011

## 31 May 2011

2055—BL, AW, and KB arrive at N. Goshawk Ridge about 100 m E of weir, set up a lure net, and start playback.

Vegetation: Mature pine/fir with one psme near the net.

Weather: Clear, windy (5-15 mph). 17C.

X: 495184

Y: 4334047

+/-3 m

2126—We start playback at this time.

2127—KB hears TCs. BL and AW also hear TCs to the SE between wind gusts.

2202—KB leaves to tap aspens in B14. BL leaves to walk down slope to the Homestead Drainage to tap trees in B2. AW stays to check net.

2240—AW starts hearing TECs from the N.

2246—**AW checks net and captures M—he is previously unbanded**. M flew into the 2nd shelve from the top and came in from the N-NW direction (upslope). AW bands M on left leg. KB takes a blood sample.

**Band # 1593-64866** (on left leg)

85.0 g LWC: 129 mm

- 30.0 g LLP(5): 95 mm

55 g LLP(6): 102 mm

Rect: 58 mm

2311—AW releases M. BL, KB, and AW break down lure net and head to Vista Ridge to spot

map. We leave Goshawk Ridge and proceed to Vista Ridge. **Note: We presume the M we captured to be B14 since he approached the net from the N, and soon after release we hear what we presume to be this M singing to the SE (lower slope of S Goshawk Ridge).**

## 1 June 2011

2300—On the N side of Sharp-Shinned Hawk ridge and about 100 m W of the B1\_2009/2010 nest tree, JG hears TCs in the direction of that tree.

2303—After hearing the male at 2300 continue further up W Missouri Creek, JG hears another male to the W. I pursue the male to the junction with Homestead Creek, where the TCs continue N into Homestead Cr.

## 13 June 2011

1530—Flamm Crew begins peeping B2 and B14 at the weir—we start by peeping Goshawk Drainage to the E of the weir..

1720—We finish peeping, having found a nest at B2\_13 #82 (The B14\_2011 nest; see B14 Field Notes), and still needing to peep the W side of B2 into Homestead Creek.

## 14 June 2011

2238—IJ, AW, and BL start playback on Paint Brush Ridge in the B2 territory. Lure net is set up on a S facing slope.

Vegetation: Mature pipo/psme with scattered young trees.

Weather: Calm, clear, 17C.

X: 494915

Y: 4334024

+/- 4m

2240—TCs heard from less than 10 m from net. M came in from the SE.

2243—Vocalizations stop.

2254—BL leaves to tap and listen in the B2 drainage and lower Paint Brush slope while IJ and

AW remain at net.

2255—AW hears faint TCs.

2256—M gives consistent TCs from a large pipo N or nest for approximately 3 minutes.

2300—M moves to a tree NE of net and continues to give TCs.

2301—M retreats approximately 50 m to the NE.

2302—Vocalizations stop.

2316—TCs are given from less than 25 m E of net for approximately 3 minutes.

2319—M gives TCs as he leaves nest area to the E.

2321—TCs are given from NE of net. M immediately moves SE of nest and continues to give

TCs.

2322—TCs fade to SE.

2326—IJ leaves to turn on/off playback at 30 second intervals.

2328—M gives TCs from approximately 50 m S of net. M moves further away in S-SW

direction.

2339—TCs are given from N of net approximately 50-75 m.

2342—**M is caught while IJ is standing under net. No vocalizations were made prior to capture. M is unbanded.** M was found in 3rd shelve from bottom and came in from the S. IJ band M. BL takes blood from left wing resulting in a small hematoma.

**Band # 1593-64837 (on left leg)**

91.0 g LWC: 130 mm

- 28.0 g LLP(5): 95 mm

63.0 g LLP(6): 105 mm

Rect: 50 mm

*\*Note—First 3 primaries are in molt—P1, P2, and P3 were missing—while P4-10 were present.*

2343—End playback.

0006—We release M and break down net.

## 20 June 2011

1527—**IJ peeps cavity #52 (B2\_52) with assistance of SY. Female FLOW is in cavity, never rises to entrance. 1 egg is visible. This is the B2\_2011 nest. Nest is the highest cavity, a flicker sized hole facing the road (ENE). Cavity is approximately 30 ft high in fully snagged PIFL above large boulders, about 20 m W of the Missouri Rd equidistant between the weir that divides Goshawk Cr / Homestead Cr and the top of Vista Ridge.**

~1500—Flamm crew begins peeping the rest of B2 down Homestead and W of Feldspar Ridge.

~1730—Flamm crew finishes peeping B2 W of the Homestead following the B2 nest discovery.

2052—SY, BG and PS at B2 nest area to capture F or M.

2055—BG has net up.

2057—Silent bird in site, coming from S where 3 TCs had just been heard seconds before. We assume this bird is the M.

2059—Another silent bird in site, gives PD to first bird. This means F flushed before we came and is still off cavity! BG takes net down immediately, we back off to wait for her return.

2103—F returns to cavity.

~2110—SY has capture net back in place, now targeting M.

2112—M aborts PD to nest and eats prey himself.

2113—Another aborted PD.

2114—Two more aborted PD attempts.

2115—M leaves site.

2124—M back in site, giving LC/TCs.

2126—M aborts PD, capture attempt, retreats to psme ~3 m away and gives TCs.

2127—Possible PD, looks at net from cavity, retreats to nearby psme again.

2130—TCs from approach tree, flies in and perches by cavity, looks at net, possible PD? M exits site to the S.

2135—M back in site from S, gives TCs, gives PD, perches on cavity again.

2136—**SY captures M in net!** **This is the B2 2011 M. He is unbanded.** BG bands, SY blacklights and bleeds left wing. Molt pattern appears strong throughout when blacklighted – there seems to be a steady distance up primaries where pink stops regardless of feather length.

**Band # 1593-64835** (on L leg)

92.5 g LWC: 128 mm

- 34.0 g LLP(5): 98 mm

58.5 g LLP(6): 105 mm

Rect: 58 mm

2209—Release B2 M, strong flight to S (but not ascending). We leave nest area.

## 21 June 2011

2025—SY, JR, and PS arrive at B2 nest to capture F.

Weather: 16C, clear, calm

2037—PS has net up.

2044—M calls off roost to the E.

2047—F up in cavity.

2050—**B2 F caught.**

**Previously Banded # 1593-64724** (on R leg)—**this was the B2\_2009 female!**

2054—M TCs heard from east while F is in hand.

2055—F released. We leave B2 area.

## 28 June 2011

2150—BL arrives at the B2\_2011 nest to assess status of hatching. I tap the tree, but no response.

2151—M arrives in the nest area giving LC, then makes PD in the cavity. Same at 2157, 2201, 2204, 2115, and 2126.

2126—I leave. **The observed PD rate strongly suggests that at least one of the eggs has hatched, and the reluctance of the F to come to the entrance suggests it/they are very young.**

## 8 July 2011

2043—BG arrives at B2\_2011 nest area to peep and observe age of nestlings.

2056—Having heard/seen no signs of owls, BG peeps nest. Peeper does not work (even with battery change and readjusting connection). BG continues to observe nest for activity.

2111—BG leaves having still seen/heard no signs of owls, due to lightning coming onto Vista Ridge. Lack of activity makes it seem that nest may have been predated, but this is unconfirmed.

## 12 July 2011

2141—JG, AW and JR arrive at B2\_2011 to attempt to capture F.

2144—JR tries to get net up, F never comes up.

2149—**JG peeps cavity and discovers that the B2\_2011 nest has apparently been predated; egg shells in the bottom of cavity.**

2151—We take the peeper down and leave to set up a lure net on S Goshawk Ridge.

2213—Start playback on S. Goshawk Ridge to target B2 and B14 M and F. As both nests have failed, we now have to lure for the F’s and M’s to determine their identity and draw blood from those we already have captured.

Vegetation: Mature pipo/psme with small pipo/psme near net.

Weather: Calm, stormy, thunder, cloudy, 14C.

X: 495213

Y:4333822

+/-5

~2245—End playback. JR, JG, and AW break down net after hearing nothing and lighting/t-storms move in. We leave S. Goshawk Ridge to wait out the weather.

# B2—2012

## 29 May 2012

2130-2245—BL travels through B14 and B2 territories, listening for nesting activity, tapping past nest trees (and prospective nest trees), and alternatively calling/listening for territorial activity. Nothing heard, seen, or found.

## 18 June 2012

1540—While peeping the B14 territory and the perimeter of B2 territory, **BL peeps a FLOW F in Potr cavity tree #549—this is the B2\_2012 nest! F was sitting tightly (no eggs or owlets visible beneath her) in a NOFL excavated cavity (6 cm diam), which was facing SE, and was 23 ft above ground. Nest tree is approximately 100 m N of the weir at the Goshawk Cr/Homestead Cr parking area in a drainage bottom that is approximately 70 m S of the B2\_2009 nest tree (live Pipo, #43) near the rock quarry.**

2034—JV, NS, and JR arrive at B2\_2012 nest tree in attempt to capture the F. F is down.

2039—NS has net in place. Net height: 21’ 8”

Weather: cloudy, calm, 24 C

2046—M calls off roost down drainage to the west.

2053—M starts giving TCs about 70m SW of nest.

2054—M goes silent.

2056—M gives TCs straight S of the nest.

2058—M goes silent.

2100—JV taps nest tree. F stays down.

2102—JR peeps cavity. F is still on. No eggs or nestlings are visible.

2107—NS has net back in place.

2119—JR taps. Nothing.

2121—M comes into nest site. Since it is getting so late, JV suspects the F may not flush and NS begins aiming for capturing the M.

2122—M aborts PD. Gives on HEC.

2123-2126—M aborts three more PDs until F flushes at 2126.

2127—JV peeps. **There are 3 eggs in the center.**

2128—JV, NS, and JR back off to the car to let F come back on. M gives TCs 40m S of nest.

2155—Team back in nest site. NS has net back in place.

2211—In order to have enough time to lure net in B14, JV decides to have team leave the area based on the F being so deep in incubation.

## 20 June 2012

2030—JV, AP, and NS at B2\_2012 nest site. AP approaches with net in attempt to capture the F. F down upon arrival.

2032—AP has net in position.

Weather: Cloudy, calm, 14°C.

Vegetation: Mature psme/pipo

2036—M giving TCs to SE.

2055—M giving TCs to SE, closer this time.

2056—F comes up to cavity entrance.

2057—M lands in adjacent potr.

2058—M leaves nest site. F flushes into net.

2103—**F in hand. This is the B2\_2012 F. She is unbanded; JV bands on R leg (#64302). NS peeps nest, 3 eggs center touching.**

**Band # 1783-64302** (on R leg)

79.5 g

- 15.5 g

64.0 g

2105—AP releases F. Strong flight to NS. She lands in young potr near nest before flying away to WSW.

2106—Team leaves nest site.

## 22 June 2012

2310—NS and BL arrive at the B2\_2012 nest to attempt capture of M. All is quiet in the nest area when we arrive. **We peep and find the F sitting tightly in the cavity—nothing is visible beneath her.**

2316—NS gets in capture position adjacent to the nest tree.

2330—M arrives and makes one PD at this time—NS narrowly misses capture (M was hanging by one talon momentarily).

2340—We leave. M had reentered the nest area moments earlier, but he did not make a PD (he had one aborted approach.

## 26 June 2012

2248—JV, PPS, NS, and JR arrive at B2\_2012 nest. PPS has capture net in place at the B2\_2012 nest tree in attempt to capture the M. F is either down or off cavity.

Weather: clear, calm, 15 C

2255—JR peeps cavity, F is sitting tightly in the cavity. No sign of eggs or hatchlings.

2300—M makes PD to the cavity.

2302—JR and NS break off to go listen for nesting vocalizations in B14.

2303—M makes flight towards cavity, then sharply changes direction to fly directly into the capture net. PPS puts net against tree to let M fall into bag but M wriggles himself out of the net using the trunk of the nest tree. JV thinks she sees a band on the M.

2306—PPS has net back into position.

2309—A silent bird flies behind JV.

2310—F flushes on her own.

2312—JV peeps. **There are 3 young nestlings in the cavity. One has its head up and moving around with eyes somewhat open while the other two have heads down and are not moving. All have white natal down.** Considering the F’s and the nestlings’ behavior they are young (about 5-7 days old).

2313—M comes into nest site giving LCs.

2314—F comes back into nest site giving FSCs. She takes prey from M.

2315—F goes back onto cavity.

2323—M comes into nest site. F begins giving FSCs. M aborts PD.

2324—M makes PD and gets caught in the capture net but wriggles himself out using the tree again.

2326—JV bends net so that it will hug the tree. PPS has net back in place.

2353—A silent bird flies behind JV again.

2405—JV takes over net.

2414—M makes PD to cavity and stays in cavity. JV puts net over cavity.

2415—JV catches M in the net. **He was banded previously, with band # 64866.** **This is the presumed B14\_2011 M but was only caught once in a lure night on 31 May 2011—the B14\_2011 nesting M was never caught at the 2011 nest before it was predated.**NS bleeds right wing for genetics and smear. He has a mild hematoma. Blacklight results: Left wing🡪p1-4have a strong pink color, p5 has very little, p6-10 have none. Right wing🡪same as left but color of pink was deeper. JV took pictures.

**Band #1593-64866** (on left leg)

81.0 g LWC: 132 mm

- 28.5 g LLP(5): 95 mm

52.5 g LLP(6): 105 mm

Rect: 60 mm

2445—M released. Strong, short flight up to a pipo NW. He was a bit slow to wake up.

## 28 June 2012

2215—CC arrives at B2\_2012 nest tree. Clear, calm, 13°C and no one is up at the cavity entrance upon arrival. JR, JV, and BL fan out across the B2 territory to listen for nest activity and tap cavity trees (in case the B2\_2012 nest is actually the B14\_2012 nest, based on the identity of the B2\_2012 M).

2215—JR starts listening in Homestead Creek, moving down drainage.

2216—JV arrives on top of Paintbrush Ridge in B2 to listen for any males or nesting vocalizations.

Weather: breeze <5mph, mostly cloudy, 17 C

2229—F exits the cavity, lands on a tree adjacent to the cavity and then immediately returns to the cavity.

2238—M makes PD at cavity entrance from NE.

2240—M makes PD at cavity entrance.

2243—M makes PD at cavity entrance.

2246—M makes PD at cavity entrance.

2247—M makes PD at cavity entrance and then flies off SW.

2248—CC leaves nest site. JR, JV, and BL find nothing. M was heard giving TCs briefly on the S side of Homestead Cr (100 m W of the Wier, N facing lower slope of Vista Ridge) at ~ 2245, but this could have been the B2 nesting M between PDs at the nest.

2250—After dropping down into the side drainage on the w side of Paintbrush Ridge, JV reaches confluence with Homestead Creek. Nothing was heard. A couple of cavity trees were tapped.

2255—JV hears very faint TCs ~250m away to the NNW on Feldspar Ridge.

***\*Note: All field notes prior to 2 July 2012 have been moved to B14\_2012 because a B2\_2012 nest has been discovered with the B2\_2011 M acting as the territorial M.***

## 2 July 2012

## Enter peeping notes NS

2031—JV, BL, NS, and MD begin setting up a two-sided mist net at the B11\_2012 nest in attempt to capture the M. F is down while the net is being set up. The downslope arm and the middle sections of the net is on 5 poles and need to be raised by team members.

Weather: mostly cloudy, calm with breeze ~5mph, 18 C

2044—M calls off roost ~30m SE down slope of nest.

2045—M scolds team setting up the net.

2052—M comes into nest site and makes a PD.

2053—M exits the nest cavity and avoids the raised net. JV takes the middle section down to four poles. The F flushes after the M and gets caught in the net. F is molting one primary but the incoming feather is not visible.

**Band #1783-64332** (on left leg)

76.5 g LWC: 123 mm

- 19.5 g LLP(5): 95 mm

57.0 g LLP(6): 106 mm

Rect: 56 mm

2056—M comes back into nest site and makes a PD to the nestlings.

2057—M is captured in the mist net. He is a previously banded M. **Band #1593-64837. This is the B2\_2011 M!** MD bleeds right wing for a parasite smear. Small hematoma. JV has blacklight pictures.

**Band #1593-64837**

85.5 g LWC: 134 mm

- 34.0 g LLP(5): 99 mm

51.5 g LLP(6): 110 mm

Rect: 61 mm

Blacklight:

0-5 scale: (L and R wings same)

P 1+4: 3

P 2+3: molting

P 5-7: 2

P 8+9: 1

P 10: 0

0-3 scale: (L and R wings same)

P 1+4: 2

P 2+3: molting

P 5-9: 1

P 10: 0

2110—F is released. Strong flight SW.

2139—M is released. Strong flight S.

## 9 July 2012

1445—Flam Crew arrives at B2\_2012 to band, mass, measure, and bleed nestlings.

1448—We peep nest to find only 2 nestlings visible. F is off.

1452—BL climbs nest tree and arrives at cavity entrance.

Cavity dimensions:

Entrance Dimensions: 45 x 170 mm (W x V)

Horizontal Depth: 190 mm

Vertical Depth: 30 cm

Entrance Thickness: 25 mm

DOH: 51.5 cm

1457—BL begins enlarging cavity. **There are only 2 owlets.** **There were previously 3 nestlings observed on (date needs to be confirmed). *Possible brood reduction.***

1500—Owlets in hand.

**Band # 1783-64333**

40.4 g

P#5: 34 mm (24 in shaft)

P#6: 33 mm (23 in shaft)

Rect: 9 mm (7 in shaft)

Notes: Blood is taken from L wing resulting in only genetics (no smear). R wing is attempted, but no blood. No hematoma.

**Band # 1783-64336**

46.7 g

P#5: 39 mm (23 in shaft)

P#6: 39 mm (24 in shaft)

Rect: 14 mm (10 in shaft)

Notes: Blood is taken from R wing resulting in both genetics and a smear. L wing is attempted, but no blood. Small hematoma on L wing. No hematoma on R wing.

~1530—Owlets back in cavity. We leave.

2020—JR and AP arrive at B2\_2012 Nest site to attempt to capture the B2\_2012 F in a capture pole.

2021—We peep. **There are 2 nestlings in the cavity.**

2026—JR has net up.

~2038—Both nestlings start begging.

2048—M is calling from off roost, S of nest tree.

2051—A bird attempts a PD, we believe that it is the F.

2052—The same bird gives a PD. It is the F, because while AP has a visual on her, we hear the M give TCs just S of the nest tree.

2056—F aborts a PD.

2057—F PD, does not enter cavity.

2058—F aborts 2 PDs, and then gives a PD, entering the cavity.

2059—F PD, enters cavity, **JR captures!**

2101—**Bird is in hand. She is the B2\_2012 F, previously banded.** We mass her and take measurements.

**Band # 1783-64332** (on L leg)

79.0 g LWC: 129 mm

- 30.0 g LLP(5): 95 mm

49.0 g LLP(6): 106 mm

Rect: 51 mm

2105—M PD.

2107—M PD.

2109—M PD.

2118—M PD.

2135—F is released with a strong flight to S.

2143—We leave for B14.

2250—JV, MD, and PPS start playback on the upper slope of a ridge on the N side of the road #347 approximately .3 miles west of the intersection of 344 and 347. This was in attempt to capture any territorial Ms outside of the study area to attach a geolocator to.

Vegetation: open area, mixed age pipo/psme

Weather: clear, calm, 13 C

X: 493888

Y: 4333853

+/- 3m

2310—M gives a few HECs then TCs/TECs to E of net.

2316—**As JV approaches to check net, the territorial M flies into the net and is caught in the third shelf from the E. He is a banded M, the B2\_2012 M.**

**Band # 1593-64837** (on L leg)

86.5 g

- 34.5 g

52.0 g

BL and SY join us while processing the bird. Blacklight results (SY has photos). Left wing. (0-5 scale) P1: 2, P2-3:4, P4-9:1, P10:0. (0-3 scale) P1:1, P2-3:3, P4-9:1, P10:0. P3 and P2 were molting: P3: 65mm, P2: 70mm.

2353—M released. Very strong flight S.

2354—Playback stopped.

2416—JV, PPS, MD keep moving down the road and set up a single lure net on the low slope of a SE facing slope. Playback started. Net runs SW-NE.

Vegetation: mixed age pipo psme with small potr in drainage bottom.

Weather: Partly cloudy, little wind, 13C

X: 493519

Y: 4334173

+/-: 4m

2428—M giving TCs up drainage of net.

2436—M gives a few TCs near net.

2441—JV turns playback down.

~2450—Switched playback to F calls, but was very quiet.

2459—Switched playback back to TC/TECs.

0116—Playback stopped.

# B2—2013

## 4 June 2013

~2145—CK and SY arrive at N end of Shooting Star R. to lure and listen.

2201—Start playback at lure net.

Vegetation: Open, young to mature pipo/psme on ridgetop.

Weather: 7C, cloudy, wind 5-10mph, frequent small cells passing through area.

X: 494547

Y: 4333651

+/-4m

2215—M giving TCs from the SW approaches net.

2223—M still giving TCs/TECs S in the vicinity of the net. M continues to call from several location in the immediate vicinity of the net on the ridgetop.

2236—M goes silent.

2238—M TCs to the SW for ~2min.

2245—SY heads to northern portion of PPG R. to listen in the vicinity of the B2\_2012 nest.

2255—M gives TCs at the net for ~1 min. SE of the net.

~2305—Fog and rain begin. SY returns to lure net area – we break down the net since it got wet.

2340—CK and SY spread out along the W flank of Shooting Star R.

Weather: 5C, foggy, wind 5-10mph, recent rain – still tree drip

2417—**SY taps cavity tree #1065 and a FLOW flushes from an unseen cavity on the E side of the tree.** I am able to locate the owl in a nearby tree on confirm it was a FLOW. I back out of the area to allow the (presumed) F to go back on the cavity.

2438—**CK and SY return to cavity tree #1065 and we locate a cavity with a F owl in the entrance on the E side ~20 feet up. Tree is a psme full snag on the top of Shooting Star R. This is the B2\_2013 or B11\_2013 nest!** *Note: this nest is later identified as the B2\_2013 nest with the discovery of separate B11\_2013 and B14\_2013 nests.*

2040—F goes back down.

2050—We depart.

## 10 June 2013

2032—RC, SY and Abby arrive at B2/B11\_2013 nest site with intent to capture nesting F. F is up in cavity upon arrival, and does not go down. Crew retreats behind tree to avoid F line of sight.

Weather: Mostly cloudy, very light breeze, 16C

2040—Quiet wing flaps heard 10m E of nest tree. No visual confirmation of flushing.

2042—SY approaches and moves capture net into place over cavity. F does not rise, and is assumed to have flushed. Peep attempted, but no signal transmitted by camera.

2046—Crew backs off 10m S of nest to wait for F to return for a capture attempt at B2/B11 M.

2057—M heard giving TCs briefly 50m SE of nest.

2058—F heard begging 15m E of nest.

2059—M approaches from SE.

2100—PD 15m E of nest.

2102—PD 18m E of nest.

~2107—F still has not returned to nest. Crew backs off 50m down ridge to allow F to return to nest.

2116—From midway down ridge top of Shooting Start R. we hear TCs distant to the SW – likely B15 on PPG R.

2120—SY returns to nest area. RC and Abby remain at a distance.

2124—F gives 1 beg 15m E of nest.

2126—Capture net in place, away from cavity.

2130—Bird flies in to cavity, capture attempt hits branch, bird flushes to E, and is heard giving F vocalizations. Crew leaves to set up lure net 75 m N up Shooting Star R.

2149—We start playback at lure net on top of Shooting Star R. Approximately 75-100m N of the B2/B11\_2013 nest. A M is immediately in the site giving TCs.

Vegetation: Moderately open pipo/psme on ridgetop.

Weather: 19C, mostly clear, calm.

X: 494569

Y:433486

+/- *estimated from nest tree*

2153—Second M with higher-pitch call gives TCs/TECs and approaches from SE (direction of B2/B11\_2013 nest site).

2200—Both birds move in and out of net area, calling simultaneously at times and alternatively at others for `20 minutes, without flying into net.

2213—SY reports 2 birds calling in net vicinity, as well as another M (presumed B15 M) giving TCs across drainage to S.

2220—All silent in net area.

2227— We hear wingflaps at the net – an unbanded FLOW is caught in the 4rd shelf, S side. We do not believe that this is one of our calling Ms (both had gone quite about 2 minutes prior and at least one continued to call while this bird was in hand. **Unbanded M**.

**Band # 1783-64371 (on R leg)**

74.0 g LWC: 127 mm

- 17.0 g LLP(5): 92 mm

57.0 g LLP(6): 102 mm

Rect: 59 mm

Notes: P1-4 moderately worn, P5-10 very worn, S1/P2 notched. Feather mites present, evidence of mite damage to feathers conspicuous.

~2245—BL and CK take the bird to blacklight him:

Right wing 1-4 = 2; 5 = 1.5; 6-9 = 1; 10 = 0. Left 1-4 = 2; 5-9 = 1; 10 = 0.

2242—Southern M is back at net giving TECs.

2320—Weather: 19C, mostly cloudy, wind has picked up, gusts 5-10.

2319-2327—Pause playback to try to renew interest at net. (No Ms heard since ~2245).

2334—TCs heard to the S ~100m

2336—TCs near net, to the NW

2340—M goes quiet.

2350—End playback. RC leaves to spotmap 150m N on Shooting Star R, SY and AY remain in net area to spotmap. Both groups work toward N.

2450—RC is giving hoots 30m S of road on top of Shooting Star R. M responds with TCs/TECs 30m to W. M briefly moves to N side of road while still calling and then back to S side, before moving SW down ridge toward drainage. RC pursues, but M goes silent before any songposts could be identified.

0100—SY and AY arrive to assist. RC moves down W side of R, hears nothing.

0101—From far N end of Shooting Star R. we hear TCs to the W (due west of B2\_2012 nest), near drainage bottom. We chase, but M goes quite before we locate him

0108—We depart.

## 14 June 2013

2235—BL arrives at the B2/B11\_2013 nest to attempt capture of M. F flushes as I approach the nest tree, and at this time the M enters the nest area giving LC and is prey-laden. I leave the nest site. Quite breezy in the nest area (it had been quite breezy since the evening started).

2245—Wind is finally calm.

2300—I return to the nest area, and as I prepare to get in capture position the M makes 2 PDs in 5 min time.

2305—BL in capture position.

2400—**M returns to the nest area for the first time since I raised the capture pole, and I capture him after he makes a PD at the nest. M was previously banded—he has Band # 1783-64343; this was a floater captured in B14 territory on 7/9/2012 on S Goshawk Ridge! Note: this constitutes an additional record of a floater M transitioning to territorial status in a subsequent** **year!**

**Band # 1783-64343 (on x leg)**

92.0 g

- 34.5 g

57.5 g

No blood samples or measurements taken.

2406—BL releases M and leaves.

## 24 June 2013

2023—BL and CK arrive at B2/B11\_2013 nest tree (#1065) in an attempt to capture the B2/B11\_2013 F.

Weather: Some lingering smoke blowing in from the S. Mostly clear. 20C.

2030—CK approaches the cavity from the downslope side and places capture pole ~2m from the base of the tree. On our arrival, F is down. As the capture pole is raised to the cavity entrance, there is neither movement nor vocalizations from the M or the F. After 30 minutes of waiting with no vocalizations, we decide to wait until 2105 to peep the cavity.

2103—F flushes into the net and then escapes out the side.

2105—**CK peeps the cavity and finds two owlets and one FLOW egg (video taken)**. **One of the owlets is very active with its head up and a full natal down coat indicating 3-4 days old. The other owlet is not as active, but is still moving. The nest is scattered with egg shell fragments. The estimated hatching date is 6/20 + 1.** F gives SC from downslope of the nest while we peep.

~2110—CK and BL leave the B2/B11 nest tree to peep the B10 (#710) nest tree.

2219—While walking down PPG Ridge set up lure net for the B15 M, we hear a M (B11 M?) giving TC near the ridge top and ~ 200 m S of the 2-track road/parking area. We pursue and eventually mark five songposts on the M in an area bounded to the N by a songpost ~ 75 m S of the 2-track road on PPG, and to the W and NW by songposts ~ 150 m W and NW of PPG Ridge. We last heard him moving to the N of the 2-track road (~ 150 m W of PPG Ridge), possibly in response to a M we never heard.

2245—We leave singing M to return to PPG Ridge.

2446—While leaving our B15 lure net on the S end of PPG Ridge, we again hear a M giving TC ~ 200 m S of the N end of PPG Ridge. We pursue and locate the M (B11 M?) giving TC from the #3 songpost (66 cm dbh Psme) marked earlier in the evening.

2450—M quiets and we leave.

2423—SY and LL arrive on Vista Ridge to listen for any vocalizations from FLOWs in the area. We spread out with SY going to the southern point of the ridge and LL heading N/NE along the ridge. SY drops off the W side of the ridge, so LL takes up a spot on the southern part of the ridge. We periodically give hoots.

~0100—LL hears a few faint, distant TCs to the W, either at the very bottom of Homestead Cr. or up on the opposite ridge. This could potentially be the B2? M, though he went silent after only a few hoots and we heard nothing else for the remainder of our time on Vista Ridge.

0110—We leave after hearing and seeing nothing more.

## 28 June 2013

~2020—AW and RC arrive at B2/11\_2013 nest site with intent to capture F and peep nest.

2025—Net is in capture position. Nearly immediately, **F flushes into net. Unbanded F. Peep reveals 3 nestlings—very active, with eyes open and heads lifted. Estimated hatch date June 20, so our age estimation is ~8 days. Peep recorded on monitor #2.**

**Band # 1783-64383** (on R leg)

Weather: Mostly cloudy, warm, strong breeze swaying tree trunks, passing thunderstorms.

2032—F released. Flight to E descending for 4m, then ascending and strong.

2036—We leave to attempt to capture M at B1\_2013 nest.

## 1 July 2013

1500-1630: Flam Crew taps and peeps cavity trees in the B2 territory, starting at the Weir at Homestead/Goshawk Creeks and working down drainage, including along the associated ridges and slopes.

1620—While walking S from the Weir along FS 347 to the past Pifl nest tree near the large boulders, BL notices an unpeeped Potr cavity tree along the W shoulder of the road. **I tap, and a F FLOW rises to the entrance—this is the B2\_2013 (*later changed to B14\_2013 with the capture of a previously banded M #1593-64866 – the B14\_2012 M*) nest tree! Nest tree is B2\_396, tag #396, and is a Potr snag broken top. The nest cavity is approximately 5 m high, 0.5 m below the broken top, and is immediately beneath the one remaining limb on the ESE side of the trunk. Cavity appears to be NOFL-excavated. Nest tree is approximately 25 m S of the B2 Parking Area that is adjacent to the Homestead/Goshawk Weir, and is 2 m W of the road, where the road begins to incline up to Camp Ridge.**

*Note: subsequent capture of the M (#1593-64866; B14\_2012) at this nest changes its identify to B14\_2013. The nest we previously listed as B11/B2 is therefore the B2\_2013 nest.*

1621—F descends in the cavity. The rest of the Flam Crew arrives over the next 5 min.

1635—We leave.

2022—BDG and BL arrive at the B2\_2013 nest to attempt capture of F and/or M. F is in the entrance as we approach, so we back off.

Weather: Mostly cloudy, calm, ~ 10 C.

2031—F is down.

2034—BDG stealthily approaches nest tree, and at this time assumes capture position and raises net over cavity. F does not rise to the entrance.

2052—We hear M give one SC from ~ 20 m across the road to the SE.

2054—M arrives in the nest area giving HECs, but does not closely approach nest tree.

2100—F gives brief, quiet FSC from cavity.

2101—M leaves nest area.

2107—M returns to the nest area, giving LC, but does not closely approach nest tree.

2112—**F finally flushes from the cavity and BDG captures her. F was unbanded, and we band her with Band # 1783-64357.** *Note: subsequent capture of the M at this nest site confirms the identify of this nest as B14\_2013 (NOT B2\_2013). Therefore, this unbanded F is the B14\_2013 nesting F.*

**Band # 1783-64357** (on R leg)

82.0 g

- 22.0 g

60.0 g

No measurements or blood taken.

**We peep cavity and find 2 owlets, both starting to transition from natal to juvenal plumage—some grey is starting to appear on the wings; approximate age is 11-12 days.**

2117—F is released, and shows strong flight.

2120—We peep again to video owlets (but unsuccessfully), and then leave the nest area.

~2245—We return to B14\_2013 (B2\_396) nest tree and BL gets into capture position.

2202—M aborts PD.

2203—M aborts PD

2204—M aborts PD

2205—M perches briefly on cavity entrance, unclear whether PD is successful.

2206— M perches briefly on cavity entrance, unclear whether PD is successful.

2207—M perches briefly on cavity entrance, unclear whether PD is successful.

2211—F scolds off cavity for several minutes.

2216—M gives TCs 30m NE of nest, followed by continuous F scolds from the same location.

2225—M back in site and aborts PD.

2228—M aborts PD and gives HECs.

2230—F begs 30m E of nest.

2239—F begs 30m E of nest.

~2245—We leave.

## 8 July 2013

2141—SY, LL and MC arrive at B2\_2013 (B10\_1065) nest with intent to capture the female and get genetics and a parasite smear.

2144—Prey delivery. Nestlings can be heard begging.

2148—LL gets capture net up.

2155—Female comes into the nest area and gives low intensity scolds (this continues throughout the night)

2204—Male makes a prey delivery.

2210—Male makes a prey delivery.

2218—Male makes a prey delivery.

2230—Male makes a prey delivery.

2234—Female makes a prey delivery. Attempted capture, female is in the nest for a few seconds and then gets free.

2249—FSCs given off nest.

2301—Male gives TCs to E

2303—Male makes a prey delivery.

2305—Aborted prey delivery

2306—Aborted prey delivery.

2317—Male makes a prey delivery.

2323—Male makes a prey delivery.

2330—Female makes a prey delivery. LL puts net over cavity and captures female. **She is previously banded and is the B2\_2013 F.**

**Band # 1783-64383** (on right leg)

74.0 g LWC: 125 mm

- 17.0 g LLP(5): 95 mm

57.0 g LLP(6): 105 mm

Rect: 57 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | 3 | 3 |
| P6 | 2 | 2.5 |
| P7 | 2 | 2 |
| P8 | 1 | 1 |
| P9 | 0 | 0 |
| P10 | 0 | 0 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | .5 |
| P5 | 1 | .5 |
| P6 | 1.5 | 1 |
| P7 | 2 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2.5 | 3 |
| P10 | 3 | 3 |

Notes: Genetics and parasite smear taken.

2335—Peeped cavity. **Peep reveals 2 nestlings. Darker grey down, did not look up or move around much. (video recorded and in dropbox).** Female released, strong flight N. Previous data shows two nestlings and one egg and we hear louder nestling begs, possibly off nest, so we search around for a possible fledgling but do not find anything. We leave.

## 12 July 2013

2031—MC and SY arrive at B2\_2013 to fledge watch.

Weather: ~17C’, mostly cloudy, calm, recent rain.

F gives “whiny scold as we approach the net.

**We peep: 2 Ns present, heads down, but lots of gray plumage visible.**

2041—Ns audibly begging.

2047—M begins giving TCs off roost to the SE.

2048—M approaches site giving TECs, F still scolding.

2050—Both M and F are swooping us and giving scolds.

2055-2140—We observe 22 PDs (see data sheet) by both adults.

2140—We peep again to double check that we have not missed fledging – 2 Ns still present. We leave – no Ns fledged and noNe were in the entrance to the cavity, though both were begging quite loudly.

Weather: 13C, cloudy, calm, very light sprinkles.

We leave.

## 15 July 2013

2045—BL, RReynolds, MSnyder, and two Gazette reporters (Michael and Rian) arrive at the B2\_2013 nest to assess status of fledging. Mostly cloudy, breezy, ~ 10 C. All quiet in the nest area, and no begging from nestlings heard.

2100—**BL peeps cavity, as no adults have appeared in the nest area and no vocalizations from adults or owlets have been heard. Both owlets appear to be in cavity bottom, although the head only one owlet can be distinguished. However, there are no movements or vocalizations from either owlet (both in dark juvenal plumage), and both appear to be flush on the cavity bottom. They appear dead.** I remove the camera and back away from the nest tree to listen.

2110—**Having cleaned the peeper lens for greater clarity, BL peeps the cavity again. Owlets are in the same position on the cavity bottom, again with no signs of movement**. I remove the camera and again listen in the nest area.

2125—We leave the nest area, and move up to the Shooting Star Ridgetop to listen.

2130—At this time, we hear a F giving low-intensity SC from the W-facing upper-midslope of the ridge, moving in our direction. BL pursues and observes a banded F (presumably B2 F) giving SC from a Pipo, ~ 20 high. BL begins to circle the F, attempting to elicit further SC in case interpretation of the cavity peeping was in error and a fledgling actually might be present. However, the F—while she did give a couple of higher-intensity SC at first, begins to move downslope in a NW direction, not appearing to be associated with any one location (which might be expected if fledgling present), and continued circling by BL did not elicit any higher intensity SC. She finally goes quiet after she flies off to the NW from a mid-slope position at ~ 2150 hr. **SUMMARY** **NOTE**: BL concludes no fledglings are present in vicinity of the F, and that both fledglings have died in the cavity. Cause of death is unknown.

2200—We leave for B11\_2013 nest.

# B2—2014

## 2 June 2014

2103—MC, SY and JS set out to run a lure net on top of northern Shooting Star R. targeting B11 and B2 Ms.

2124—PB started.

**Vegetation**: Young to mature psmes among ridge-top

**Weather**: sky clear, slight wind, 15C

X: 494585

Y: 4333595

+/- 3m

2136—MC and SY spread along ridge to tap and listen. JS stays at lure net.

2158—JS hears distant TCs E of net.

2200—JS hears TCs from SE slightly closer.

2205—**Unbanded M caught in second shelf**, approached from E. TCs in net and HECs in

hand. **He is presumably the B2\_2014 M.**

**New Band # 1783-64457** (on L leg)

86.0 g LWC: 129 mm

- 34.0 g LLP(5): 94 mm

52.0 g LLP(6): 102 mm

Rect: 60 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2.5 | 3 |
| P5 | 1.5 | 2 |
| P6 | 1 | 2 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 1 | 0 |
| P5 | 1 | 1 |
| P6 | 2 | 1 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2 |
| P10 | 3 | 2 |

**Notes:** Blood taken from L wing, little to no hematoma. Very rufous bird. Possibly B2?

2230—M released, strong ascending flight SE.

2238—MC departs for B11 to tap the nest tree and listen while SY heads to old pipo nest site and JS stays on Shooting Star Ridge. Nothing responds at B11\_2013.

2241—JS hears TCs from W.

2309—MC and SY return to net site.

2327—PB off.

2336—Lure net taken down.

2343-0106—We spread out along B11 ridges. Listening and hooting along PPG, Shooting Star R and upper Picnic Cr.

2430-0106: BL, RC, ER join SY on the PPG ridge top, where we spread out along its N—S axis to listen and periodically call.

~2450—From his position near the N-most end of PPG, BL hears a M—possibly B11 M—give 8-10 TC, approximately 50 m to the W. He then goes quiet.

2458-0145—SY hears male TC on S end of Shooting Star ridge and sends MC after him. TCs heard across W Missouri Creek. MC gives chase, getting one song post at the lower end of Sharpshinned Ridge. The bird moves up to the mid-slope of Sierra Madre. He gives TCs from cavity tree B10\_1324 for ~10 minutes before moving up the ridge further. I get one more general area song post higher up on Sierra Madre before leaving.

0107—From northern Shooting Star R. JS hears TCs W in drainage bottom in response to BL calls.

0145—Nothing else heard, we depart.

*Note: subsequent notes were taken by AW, LL, and RB from location on N Goshawk and along B14 drainage bottom on same evening as above notes.*

2325—AW, LL, and RB start playback attempting to lure for B14 and B2 Ms. Lure net is located on S facing slope of N Goshawk approximately halfway between E and W B14 territory boundaries.

Vegetation: mixed aged pipo/psme/pifl

Weather: calm, clear, 13C

X: 495307

Y: 4334129

+/- 3m

LL and RB leave to listen for nesting vocalizations in eastern clump of cavity trees in   
B14 drainage bottom.

~2355—AW hears TCs to SW of net ~75 m.

2400—**Territorial M captured in 3rd shelf. M was previously banded by SY, MC, and JS on the N end of Shooting Star R earlier in the evening (at 2205). M flew in from SW. *Because M acted territorially on the E facing slope of Shooting Star, as well as at our lure net on N Goshawk R, he is most likely the B2\_2014 M. It is possible a B14 M also exists further to the E, but we never heard any vocalizations to confirm this.***

**Band # 1783-64457** (on L leg)

74.5 g LWC: 130 mm

- 21.5 g LLP(5): 97 mm

53.0 g LLP(6): 104 mm

Rect: 57 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2419—M released with strong flight to S. End playback and break down lure net to spot-map.

We spread out E of our net site to target the B2 M.   
2444—AW hears M response to her hoots to the NW, along N Goshawk R. AW pursues TCs,

but upon cresting N Goshawk R, AW spots unknown headlamp in the bottom of the drainage to the N. AW can hear footsteps and decides to end pursuit of M and listen with LL and RB along S Goshawk R instead. We do not hear any further vocalizations and at 0130, end observation at the weir.

## 10 June 2014

2343—AW, JR, and JS set up lure net on SW slope of Sharpshinned Hawk R. for B17 M we failed to capture at nest. PB started.

Vegetation: many mature pipos mixed w/ adolescent psmes. Relatively dense slope.

Weather: partly cloudy, no wind, 13C

X: 494855

Y: 4333278

+/- 3m

2401—AW and JS leave to listen in W Missouri. JKR remains at lure net.

2415—JKR hears TCs to the SE. Bird moves closer and flies around the net site.

2423—JKR hears wing flaps, but M continues to give TCs, TECs, and HECs so net is not checked.

2429—**Previously banded M caught** in 3rd shelf, entered from S. TCs given in hand. **He is the**

**B2\_2014 M. He was captured previously on Shooting Star and on N Goshawk (in**

**the same night). *Note: this M has now been captured on Shooting Star R, N***

***Goshawk, and Sharp-shinned Hawk R. He was territorial prior to his capture at lure nets on Shooting Star and N Goshawk. It is unclear whether he was the territorial bird at this lure net or a UFO since we also captured the B17\_2014 M. One of these birds was definitely territorial while the other was silent. It is presumed that the territorial bird was B17\_2014 while the silent one was B2\_2014, although this cannot be confirmed. Both birds were captured within a short time frame, and when JKR checked the net the first time (finding #64457) she did not look down the entire length of the net to check for additional birds. It is possibly that the B17\_2014 M (#64513) was also captured in the net at this time. Either way, it is clear that the B2\_2014 M is using Shooting Star and N Goshawk R to the W-N-E and Sharp-shinned Hawk to the S. This usage suggests that there may not be a current B1\_2014 M.***

**Band # 1783-64457 (on L leg)**

LWC: 131 mm

LLP(5): 96 mm

LLP(6): 105 mm

Rect: 59 mm

2448—AW and JS eventually return to net from W Missouri following a very misfortunate expedition (being completely lost). Note: Led solely by AW.

2449—AW notices net tilting upon reaching lure net site and goes to fix the lean where she sees a FLOW captured in the bottom shelf. **M is unbanded and flew in from the SE. It is unclear whether he vocalized prior to capture and capture time is unknown. We assume his identity as a B17 Floater. *Note: later capture of this individual confirms his identity as the B17\_2014 M. He is NOT a floater.*** Blood sample taken obtaining genetics.

**Band # 1783-64513 (on R leg)**

74.0 g LWC: 124 mm

- 22.0 g LLP(5): 96 mm

52.0 g LLP(6): 106 mm

Rect: 54 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 2 | 2 |
| P5 | 1 | 1 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 3 | 3 |
| P8 | 3 | 3 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2452 – Previously banded M released. Strong flight.

2455—Playback turned off.  
~0120—Newly banded M released. Strong flight.

0125—We break down the net and head back to B4 parking spot after Ms are processed.

## 16 June 2014

~1500—Flam Crew and visitors from Boulder County arrive at the B2/B14 weir with the purpose of peeping up Goshawk and down Homestead drainages.

1657—**AW taps B2\_829 #829 and F rises to the cavity entrance. This is the B2\_2014 nest tree!** Nest tree is located in the bottom of the side drainage bottom just W of Feldspar Ridge and directly N of the actual Homestead. Nest tree is ~ 100 m up from the confluence with Homestead Cr and ~ 60 m down from the head of the drainage. Nest tree is a ~33.0 DBH potr full snag. Nest cavity is a NOFL excavation facing E and is ~32’ in height. There are additional cavities on the tree, but the nest cavity is the only one on the E facing side.

1659—F scolds and goes down.

~1710—We leave and return to vehicles.

~1715—Flam Crew leaves having found the B2\_2014 nest and having peeped most potr cavity trees in Goshawk drainage. Some conifer cavity trees along the Goshawk ridges have been peeped, but many have been missed. Future peeping efforts should concentrate on this area.

2220—Boulder County Open Space and BL arrive at the B2\_2014 nest to attempt capture of M.

Weather: Clear, light breeze, ~ 12 C.

2230—M flies into the nest area as BL gets into capture position (capture pole height: 31’0”).

2234—M makes apparent PD in the cavity, although his time in the cavity was quite abbreviated. F gave faint FSC as M approached nest.

2246—M approaches nest cavity, but PD is aborted.

2258—Same.

2315—M makes apparent PD in the cavity (again, very little time in cavity). This is followed by ~ 10 min of sporadic TC in a ~ 70 m radius around the nest tree.

2330—M makes apparent PD in the cavity.

2338—**BL captures M as he exits cavity following an apparent PD. M was previously banded, with Band # 1783-64457. Note: this is the same M captured in lure nets in previous weeks on Shooting Star Ridge (where he was first banded), N Goshawk Ridge, and Sharp-shinned Hawk Ridge! This suggests, but needs verification, that this is the only territorial M in the area bounded by these ridges.**

**Band # 1783-64457**

60.5 g LWC: 128 mm

- 7.5 g LLP(5): 97 mm

52.5 g LLP(6): 104 mm

Rect: 59 mm

No blacklight data taken, no bleed, no molt.

2415—M is released; he shows strong flight away from the nest site.

## 20 June 2014

2035—BL arrives at the B2\_2014 nest to attempt capture of F. F down when I arrive.

Weather: Clear, calm, 21 C.

2039—F rises to the entrance as I prepare to approach the nest.

2044—F goes back down. I stealthily approach the nest tree and get in capture position.

2059—**After giving FSC from the cavity entrance for ~ 30 sec, the F flushes into the capture net. She was not previously banded—I give her Band # 1783-64399.**

**Band # 1783-64399 (on r leg)**

78.0 g

- 11.0 g

67.0 g

No blood sample or measurements were taken.

2104—I release F, who shows strong flight down-drainage, and peep the nest—**2 eggs, touching and mostly centered.**

2109—I leave for B10 territory.

## 7 July 2014

2028—RD and BL arrive at the B2\_2014 nest to attempt to capture and bleed F. F in cavity entrance when we arrive.

Weather: Mostly cloudy, calm, 24 C (lightning bearing down on us by the time we leave).

2045—RD prepares to get in capture position below the nest; F still in cavity entrance.

2051—**RD raises the capture net over the cavity at this time, and the F is captured as she flushes into the net—she is Band # 1783-64399, the B2\_2014 female. We peep cavity—2 owlets peering up at the camera, both still with heads still in white, natal plumage but wings were definitely grey, particularly with the eldest. BL thought the eldest appeared to be 10-11 days old.**

**Band # 1783-64399**

62.0 g LWC: 127 mm

- 7.0 g LLP(5): 98 mm

55.0 g LLP(6): 106 mm

Rect: 59 mm

We take genetic blood sample. **Note:** Pin feathers just coming out of shaft on incubation patch.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | 1 | .5 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2100—M comes into nest site, giving LC.

2105—M PD to nestlings.

2115-2116—M makes two flights to cavity, probable PD.

2130—We release F.

2135—We leave.

## 18 July 2014

2020—RD and SY arrive at B2\_2014 nest for a fledge watch.

**We peep: 2 Ns, well developed. Both have facial disks and full gray juvenile plumage.** We sit back to watch for possible fledging.

2031—Ns begin audibly begging.

2046-2139—We observe 27 PDs. N(s) up for nearly the entire time until 2130. Almost all PDs are made in the cavity entrance and the Ads appeared reluctant to make PDs when the Ns were in the cavity bottom.

21339—We leave – Ns have been down for ~10min now and it does not appear that fledging will happen tonight.

## 19 July 2014

2045—MC arrives at B2\_2014 to fledge watch. One nestling is up in the cavity begging.

2115—The nestling goes down. **I peep and there are 2 nestlings still in the cavity.** I leave for B17 to help look for a lost fledgling. I observed 14 PDs in the time of my observation.

## 20 July 2014

2051—MC arrives at B2\_2014 to fledge watch. As I arrive there is a nestling in the entrance. I sit down to observe.

2115—Nestling goes down**. I peep and only see one nestling. One has fledged before I arrived. I began to search for the fledgling.**

2220—M makes a PD then makes a forage ~5m S of nest. I follow him and watch him fly through the area prey laden. I hear winglfaps in a tree above but cannot spot anything.

2228—RC arrives to help search.

2245—We have not been able to locate the fledgling and after hearing nothing else; we leave.

## 21 July 2014

2030—MP, MC, and SY arrive at the B2\_2014 nest site to fledge watch and look for fledglings. Cavity is peeped to show **1 nestling remaining looking old and ready to fledge**. MC and SY look for the fledgling while MP watches the nest for the other nestling to fledge.

2033—MC and SY begin listening for FL on the small spur of Shooting Star immediately SW of the nest.

2035—MC and SY hear a single TC from right on the top of the small spur ridge.

~2040—MC spots M in small psmes on slope of ridge in close proximity to where he had seen suspicious activity the evening before (~20m from the nest).

2042—M moves S towards SY. SY then hears a juv. beg ~5m S of his position on upper slope of the small ridge. SY spots the FL perched ~18ft up a small psme on the upper slope of the spur ridge, ~25m SW of the nest. M seems to be approaching to make a PD but is deterred by our presence. We push the N out of the tree using a peeper. FL makes a 45 degree angle flight to the W and goes to the ground – we are able to grab him from there.

**New Band #1783-64595**

72.0 g LWC: n/a

- 16.5 g LLP(5): 72 mm (12mm in shaft)

55.5 g LLP(6): 72 mm (17mm in shaft)

Rect: 35 mm (13 mm in shaft).

We bleed FLs L wing (Genetics only).

We blacklight the FL to assess porphoryn deposition

**Blacklight data:**

|  |  |
| --- | --- |
|  | Left wing (scale 0-3) |
| P1 | 3 |
| P2 | 3 |
| P3 | 3 |
| P4 | 3 |
| P5 | 2 (bright, but still not extensive) |
| P6 | 0 |
| P7 | 0 |
| P8 | 0 |
| P9 | 0 |
| P10 | 0 |

2050—Nestling starts begging from inside cavity.

2051—PD

2053—PD x2

2054—Nestling is up in cavity entrance.

2055—PD x2

2056—PD x3

2056—MC and SY put the FL back in a small psme near where we initially pushed it and return to the nest to assist with observations.

2100-2104—PD x6

2106—PD

2116—PD

2117—PD x2

2120—PD x2

2121—PD

2122—Nestling is down.

2130—Nestling has not fledged, we depart.

**B2—2015**

**28 May 2015**

~1545—Flam crew arrives at parking spot at top of Shooting Star R to peep for nests primarily in B2/B10. Most of the crew drops into Homestead Cr and moves NE, focusing on B2 trees in the drainage bottom but also hitting a few trees, including past nest tree #61, in B1. BL and MC focus on past nest trees on Shooting Star R (B2, B11, B10, B15), moving S from parking area and eventually dropping W toward Picnic Cr.

~1715—Nothing found. We leave.

2105—MC and BH arrive at net site on Shooting Star ridge with intent to net for territorial Ms in the area and attempt to listen for nesting vocalizations. The net is located ~150 S of the road on the ridgetop, ~5m N of where the road cut joins with the ridge.

Vegetation: young-medium pipo/psme, open

Weather: 6C with a strong wind ~3-5mph, partly cloudy

X: 494579

Y: 4333594

+/- 8m

2112—PB starts.

2119—M TCs ~50m S of net, possible B10\_M.

2128—Our PB dies, BL makes his way to Shooting Star with a fresh PB. MC returns to road, giving hoots along the way while BH stays at the net and does the same. No response heard.

2206—BL brings phone to replace PB, we restart. The phone is slightly quieter than desireable.

2227—MC walks ~50m S to listen. M heard giving consistent TC/TECs from ~100m SE.

2237—MC hangs songpost B10\_1 on singing M.

2245—M moves ~10m SE into a low branch, MC spotlights the bird who then takes off, SE down drainage.

2247—M gives TECs from cavity tree #1231. MC kills light in anticipation of hearing FSCs.

2252— M continues to give TECs from the same cavity tree, MC circles tree to find F up in a cavity entrance, **This is the B10\_2015 Nest Tree! The cavity is a NOFL excavation ~20ft. up facing SSE. Tree #1231 is a full potr snag ~26cm DBH. The tree is located on the E side of W Missouri Creek ~100m down drainage from the confluence with Columbine Creek.**

2254—MC kills headlamp and crouches down, after 2 minutes the F flushes her cavity, MC leaves.

2303—MC returns to the net and we kill PB to break down and move net to target the probable B10\_M.

2323—The net is moved ~200m S down Shooting Star Ridge, just upslope of past B2 nest tree #333. PB starts.

Vegetation: young-medium pipo/psme, open.

Weather: 4C, clear and calm.

X: 494591

Y: 4333340

+/- 10m

2335—M TCs ~30m SW of net. Possibly either B11 or B10 M.

2341—M continues to move further towards net, but heads W as well, possibly B11\_M.

2343—Presumed B11\_M goes silent.

2346—M gives 2 TCs from lower Picnic Cr. Due W of net.

2350—Possible FSC in Picnic, MC leaves net to head towards that area, around the same area as M was giving TCs from. M gives a 3 note call from vicinity of cavity tree #503 and 1293. At the same time BH has two birds at the net.

2355—BH hears TECs (3-4) and single FSC in net vicinity, ~5-10m E.

2357—BH hears TCs (2-3) ~10m E of net, possibly indicating B10 M.

2408—BH hears TCs (4-5) ~50m W, possibly indicating B11 M.

2411—PB stopped and begin breaking down net.

2433—BH heads W towards Picnic Creek ~150m down Shooting Star into drainage.

2440—BH hears single TC from W, waits and listens for 6 minutes before heading back up Shooting Star to meet MC.

2448—MC gives TCs from the roadcut, one spur off of Shooting Star ridge, M responds down drainage from the same area as the original TCs.

## 2 June 2015

2050—LP and BL arrive at the Goshawk Weir to set up lure net for possible capture of B2 and B14 males, and listen for nesting activity. LP listens around Potr cavities in the immediate vicinity of the weir, and BL goes farther down Homestead Cr.

2107—BL hears M give 2 LC near the homestead at the base of Feldspar Ridge. He then quiets for ~ 10 min before beginning to give TC and TECs from several large Pipo and Psme in this area, gradually moving down the drainage. LP joins BL in listening in this area from 2120-2130, and the M returns to this area to give a few additional TC/TECs, but no further nesting vocalizations are heard, and no response from tapping cavity trees in this area.

2135—We return to the weir area to retrieve lure net, and proceed to set up the net on the SW terminus of N Goshawk Ridge, just 50 m from the parking area at the weir.

Vegetation: Mature Pipo/Psme, with lure net flanked on one side by several young Potr, and open on the other side down to the road.

Weather: Mostly clear, calm, 15 C.

X: 495038

Y: 4333989

+/- 9 m

2202—We start playback.

2204—We hear M approach the net area from the N, giving TC and then TEC in the net area.

2206—M leaves the net area, and moves off to the E, still giving TC.

2215—M returns to give TC/TEC in the net area, then moves off to the E side of Paintbrush Ridge.

2222—Net check reveals FLOW in net—captured in 3rd shelf from bottom, N side.

2229—**Banded FLOW is extricated from net—its band # is 1783-64588; this is a B18\_2014 nestling, banded/bled on 7/17/2014!**

**Band # 1783-64588 (on l leg)**

63.0 g LWC: 129 mm

- 7.0 g LLP(5): 93 mm

56.0 g LLP(6): 99 mm

Rect: 61 mm

We take genetic blood sample on L wing, leaving small hematoma.

**Note: Given that this natal dispersal M is just now entering his 2nd year, it was uncertain whether he was a territorial male wanna-be, a bachelor territorial male, or breeding male in the area of the traditional B2 territory—which we hope to learn in subsequent weeks.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 1 | 2 |
| P7 | 1 | 1.5 |
| P8 | 1 | 1.5 |
| P9 | 1 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | 1 |
| P5 | .5 | 1 |
| P6 | 1 | 1.5 |
| P7 | 1.5 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2 |
| P10 | 2.5 | 2.5 |

2300—We release M, and he shows strong, ascending flight to the W.

2320—No further activity in net area (but LP hears the apparent B2 M singing from down Homestead Cr.), and we proceed to break down net.

2332—Net is broken down, and we proceed (after checking out condition of Vista Rd) to E end of N Goshawk Ridge to listen for B14 nesting activity.

2425-0100: We listen and tap cavity trees in the vicinity of the B14\_2007 nest tree (live snag-top Pipo). LP hears M give 10-12 TC far down drainage in Goshawk Cr at 2455 (B2 M?), but nothing heard or seen in the immediate listening area.

## 24 June 2015

2400-2410: While walking out from the B10\_2015 nest area, J Salgado and BL hear a M giving TC near the N end of Shooting Star Ridge, just over the E-facing side, after BL had given some TC several minutes before farther south on the ridgetop. He quiets after 3-4 min—B2 M?

## 13 July 2015

2130—After leaving the B14\_2105 nest tree, DL and BL stop at the B2\_2009 nest tree (tag #43, live PIPO) near the old rock quarry on N Goshawk Ridge, to tap and listen. We hear/see nothing near the old nest tree, but we hear a M giving TCs in the distance to the S, seemingly in the vicinity of the B2\_2011 nest tree (tag#52, PIFL snag just off the road ascending to Vista Ridge).

2145—We arrive on the N-S midpoint of Paintbrush Ridge to set up a lure net targeting the B2 M.

2201—Playback started.

Vegetation: Mature Pipo/psme, with a few scattered younger conifers

Weather: Light, sporadic rain, overcast but starting to clear, calm, 15 C.

X: 494940

Y: 4334023

+/- 3 m

2206—After hearing sporadic TCs to the N and E of us, we hear a M giving TC and TEC approaching the net from the SE (B2 M?). This M comes to within 10-15 m of the net, primarily staying on the S side.

2208—**We hear a bird hit the net, and find an unbanded FLOW captured in the lowest shelf, S side. At this time, we hear the nearby M start giving TCs again from the same location, so we knew we had not captured him. NOTE: on closer inspection, our unbanded FLOW is a F, with a clear incubation patch—however, it is nearly entirely filled in with emerging pin feathers. Was this a F whose nest had failed early, or a F whose brood is nearing fledging??**

2212—M goes quiet near net area.

**Band # 1833-03300 (on R leg)**

62.0 g LWC: 126 mm

- 7.0 g LLP(5): 94 mm

55.0 g LLP(6): 103 mm

Rect: 62 mm

**NOTES:**

* **Got genetic blood, but did not take blacklight or wear data.**
* **P 1 and 2 were in molt on both wings—but no shafts were yet visible.**

2224—We release F, who shows strong flight. At this time, we hear a M giving TCs to the SSE—in the vicinity of N Vista?

2230-2300: BL leaves to tap cavity trees and listen, from the area just S of the rock quarry to the B2\_2011 nest tree (PIFL snag). Towards the end of this time, BL heard M giving TCs ~100+ m down Homestead Cr from the Goshawk Weir. He pursues, but does not hear anything more.

2330—BL returns to net area, and DL leaves to tap POTR cavity trees and listen on the other side of FS347 from the Goshawk weir.

2337—**DL hangs songpost B2\_1 at the base of paintbrush ridge.** M then flies S and stops calling.

2350—BL starts breakdown of lure net.

2402—We leave.

# B2—2016

## 1 June 2016

2040—KM and BL arrive at the Goshawk Weir to listen for nesting/courtship behaviors in B2 territory. We start tapping and listening immediately to the SW in the Homestead Dr, and continue working our way down-drainage toward the homestead proper (at base of Feldspar Ridge). Weather: calm, partly cloudy, ground wet from pm t-shwrs, ~ 10 C.

2050—BL hears M giving sporadic TCs and possibly LC in the area of the confluence of Homestead Cr and the major tributary just SW of Feldspar Ridge (tributary contained the B2\_2014 nest in tag #829). KM joins BL, and over the next 15 min (till 2105), we track the M going up a tributary at the W base of Vista R and on to the lower W-facing flank of Vista R, while he gave sporadic TC. No cavity trees in the immediate path of his excursion, and no F vocalizations heard.

2110-2155: We travel up the tributary adjacent to the homestead, tapping cavity trees along the way to the B2\_2014 nest tree. Nothing seen or heard in this area, where we listen for ~15 min.

2155—We return to the weir, and leave for Shooting Star Ridge.

## 14 June 2016

2325-2420: BL listens/taps cavity trees on the lower E-facing midslope of Shooting Star Ridge, just N of the confluence of Homestead and W Miss Cr. Nothing heard or seen.

2411—DL and MC turn on PB right by tree #43 (live Pipo near Rock Quarry, past B2 nest tree) for ~2 minutes. We hear no response and leave.

2421—We turn on PB near the Goshawk weir. We play it for three ~1 minute intervals with ~30 seconds between each minute. We hear and see nothing. We head to listen/ tap in B4.

## 12 July 2016

2315—BL runs lure net targeting a possible B2 M from the N-most E-facing spur coming off of Shooting Star Ridge (approximately 100 m E of the Shooting Star Ridge top). About 5 min after playback was started, I hear a M give 4-5 TC ~75 m to the SW on the lower flanks of Shooting Star, but after that, all was quiet. Weather: Mostly clr, calm, ~20 C.

2428—I pack up lure net and leave.

## 20 July 2016

Afternoon—Flam crew peeps the remaining trees in Homestead Cr, the trees in the confluence of Columbine and W Missouri Cr, some on the SE slope of Shooting Star R, and about half the cavity trees in Catamount Cr. We do not find any signs of FLOWs.

# B2—2017

## 5 June 2017

2336—ER and JW arrive in B2 to listen for nesting vocalizations and any sign of a territorial M.

2344—We begin PB of T42 while walking towards and along Paintbush Ridge. Stop after 3 minutes.

2348—Begin PB of T42 on the top of Feldspar Ridge.

2351—M giving TCs from SE is heard by both ER and JE, possibly from Vista Ridge in the B1 territory. This continues on and off for the entirety of the time T42 is playing.

2356—A second M is heard giving TCs by both ER and JE within 100m to the SW. Only several TCs were heard, but they were clear and higher pitched. The TCs came from the side drainage of Feldspar R. and Shooting Star R. around where the B2\_2014 nest tree was.

2410—We stops PB and the first M stops giving TC. Suspicious of the closer M, we head down into the drainage to listen, tap, and hoot.

2411—ER and JE walk to 2014 B2 nest in the drainage between Shooting Star Ridge and Feldspar Ridge. The tree has fallen.

2415—ER and JE begin walking back towards the B2 parking spot while following Homestead Cr. Both tap on nest trees and give some hoots intermittently but find and hear nothing.

2432—We leave to meet BL and ZM in BG1.

## 8 June 2017

2035—LD and BL arrive at the parking area on the N end of Camp Ridge to listen in the B1 territory. Weather: Partly cloudy, calm, ~ 15 C.

2044—BL drops off LD to listen in the area of the B1\_2016 PIPO nest tree just below the terminus at the SW end of Camp Ridge; we tap 2016 nest tree, but no response. BL leaves to listen in Fallen Squirrel Cr.

2052—LD hears FSC ~30m SSE of last years nest tree. LD pursues with intent to silhouette and follow the F to find nest.

2055—LD can no longer hear FSC without a M response

2059—LD hears FSC calls further to W, continued to pursue call to identify nest site.

2101—FSC stop without M response

2110—LD hears FSC further S, 50m away from B1\_2016 nest tree

2118—BL returns to listen in the area of the B1\_2016 nest tree (including the PIPO nest box, ~ 30 m to the SE).

2120—LD hears FSC near location, had difficulty pinpointing location of call. Sees silhouette of presumed M fly across the road, was quickly lost in the foliage.

2131—LD hears FSC further W of position 30 m S of B1\_2016 nest tree

2145—BL leaves to join LD near FS 347, 80 m WSW (and downslope) of the 2016 nest tree. BL locates PIFL cavity tree just E and on the upslope shoulder of FS 347, and stays here to listen.

2149—LD hears FSC further W towards Vista R across road further down drainage.

2225—LD takes over to listen near PIFL cavity tree while BL returns to listen near the B1\_2016 nest tree.

2250—LD and BL leave to set up lure net at the N end of Camp Ridge.

2326—We start playback near the confluence of the S Goshawk Ridge and Camp Ridge. Net opens ENE/WSW.

Vegetation: Mature PIPO-PSME, with net flanked by ~15 cm PSME.

Weather: Mostly clear, calm, 12 C

X: 495224

Y: 4333850

+/- 3 m

2326—We start playback.

2334—BL leaves to listen in B2 territory. LD hears M giving TC greater than 100m to NNE.

2423—PB stopped

2425—M giving TC, most likely songposting, hear around 200m away SSW of nest. M presumed to be the B1 M.

## 26 June 2017

1603—As the Flam Crew is peeping in the Homestead drainage below the weir, MC taps a tree and a F FLOW rises to the entrance of a cavity! **This is the B2\_2017 nest! The tree is a full snag pipo almost bare of bark, tag #1084. The tree is ~80m S of the weir and ~20m W of the road where it takes its first large turn near the large boulder, ~50m W of the historic B2 pifl nest tree. The cavity is a NOFL excavation ~30ft. high and faces 290˚ NE.** The F goes down after ~30 seconds. The full crew comes to join and brings the ABC crew with them. We tap again and the F rises to the entrance. We all leave after ~2 minutes and the F goes back down.

2349—BL arrives at the B2\_2017 nest (PIPO full snag, #1084), which was found by MC earlier this afternoon. F not in cavity entrance when I arrive, and all is quiet in the nest area. I prepare to get in position to capture the M. F pops up in the entrance as I inadvertently touch the net on the tree, but she goes down when I back off.

~2415—I hear what sounds like B2 M giving TC ~ 100 m to the W somewhere in Homestead Cr.

2424—**I capture M after he makes the first and only PD in the cavity—the net gets hung up on the nest tree as I attempt to lower the owl, and the F flushes, but I finally get him down safely and vacate the nest area. M was previously banded with Band # 1783-74303—he was first banded on a lure net on Shooting Star Ridge on 6/1/2016, and presumed to be possible B2\_2016 M at that time (he gave TC going into the E side of the net).**

**Band # 1783-74303 (on L leg)**

71.0 g LWC: 131 mm

- 7.0g LLP(5): 97 mm

64.0 g LLP(6): 106 mm

Rect: 60 mm

**Notes: M bled in 2016, so not bled tonight.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | 1.5 | 1.5 |
| P3 | 3 | 3 |
| P4 | 1.5 | 1.5 |
| P5 | 1.5 | 1.5 |
| P6 | 3 | 3 |
| P7 | 1 | 1 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 0.5 | 0.5 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2.5 | 2.5 |

2449—M released, and he shows strong horizontal flight away from the nest area (to the E). I gather my goods and leave.

## 11 July 2017

2050—BL arrives at the B2\_2017 nest to attempt capture of F. I hear F giving FSC off cavity as I approach nest tree (prematurely dark sky; overcast), and nestlings are giving audible, raspy begging. **I peep—shallow cavity, so peeper is very close to owlets, but I see at least 2 owlets with 1 owlet possibly underneath, but not certain. Older sib in full juvenile plumage, probably 16-17 days, and the younger sib in ~50/50 juvenile plumage. Peeping height: 29’6” from upslope.** Weather: Cloudy following early evening steady, light rain, calm, ~16 C.

2105—I get into capture position.

2110-2300: M approached nest cavity cautiously at first with raised net in area, but gradually adjusted, and made ~15 PD during this time. F was known to come into the nest area only once (giving FSC), but did not make a PD.

2305—**I finally capture F after she makes PD in cavity. F was previously unbanded.**

**Band # 1833-03527 (on R leg)**

70.0 g LWC: 131 mm

- 7.0 g LLP(5): 100 mm

63.0 g LLP(6): 109 mm

Rect: 59 mm

**Notes: F was successfully bled on the L wing, with a slight hematoma.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | 3 | 3 |
| P6 | 3 | 3 |
| P7 | 3 | 3 |
| P8 | 3 | 3 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2335—F released; she makes 5 m flight to downed snag where she preens for 3 min, then makes strong flight away from nest site.

2340—As I exit, I hear M giving LC and F giving FSC in nest area.

## 18 July 2017

2043—BL arrives at the B2\_2017 nest to assess status of fledging. One nestling is begging loudly from the entrance of the nest cavity when I arrive, and I hear either one or two other nestlings begging from the cavity as well. Weather: Misting, and still very wet from moderate/steady rain from ~1600-1800 hr.

2115—Owlet finally goes down from the cavity entrance, and **I peep—peeper is flush with the feathers from the owlets (cavity very shallow), and I see at least 2 owlets with certainty—and probably 3 owlets, all completely covered in juvenile plumage.** An owlet comes back to the entrance just after I lower the peeper.

2133—Owlet descends from the cavity entrance, and I leave to assist flam crew listening for possible fledglings in B17\_2017. From 2043-2130, adults made 15-20 PDs to the cavity, and based on sporadic vocalizations, the M made the majority of the PDs and entered and exited to the W of the nest tree, while the F generally entered and exited to the E.

## 19 July 2017

2040—MC and ZM arrive at B2\_2017 to fledge watch. **An angled peep reveals three nestlings, all in full juvenile plumage. Two have developed facial disks, the younger has a facial disk but has not started to darken.** We back off to observe.

Weather: Overcast, calm, 13C, there was a very heavy and consistent (2 hour) rain that let up just before dusk.

2048—A silent adult makes a PD, a N rises to the entrance.

2200—We end our observation. The adults have made 23 PDs in this time (see PD sheet for details). The nestling went back down into the cavity at 2130. We peep before we leave and all three owlets are still present.

## 20 July 2017

2029—ZM, ER, and JE arrive at the B2\_2017 nest site with the intent of conducting a fledge watch. There is no FLOW in the entrance so JE peeps. **There are three owlets in the cavity. The owlets look similar to the night before with two having developed facial disks and one having a some natal down still attached.**

Weather: Cloudy then clear then cloudy again (rained earlier in the day), calm, 13C.

2037—An adult silently enters the site. We hear two distinct begs from the cavity. One N is in the entrance.

2038-2225—We observe 40 PDs with an N in the entrance. At 2145, the N is down in the cavity until 2150 when it pops back up. At ~2150, BL (and a guest) arrive at the site. It then goes down at 2153 again until 2157.

2231—The N is down so we peep the cavity to find that all 3 N are still in the cavity.

2238—We observe a PD.

~2250—We leave the nest site in order to go to BG1. However there is a high-energy storm quickly moving into W Missouri. *Throughout our observations a N was in the entrance for quite some time, but we did not observe the N making very many wing flaps/stretches. This may be related to the afternoon rain and/or the oncoming storm.*

## 21 July 2017

2021—ER, ZM, and JE arrive a the B2\_2017 nest site with the intent to fledge watch. No owls are in the cavity entrance upon our arrival. **We peep to see three owlets all with well-developed facial disks.** We back off to our observational position.

Weather: Light to moderate rain early but lightens up by 2100. Slight breeze and 14C.

2028—A N pops up in the entrance and gives a few begs. It goes back down, but all three Ns begin begging.

2030—N up in the entrance, begging.

2034-2147—Adults make 34 PD to the N in the entrance. See PD sheet for detail.

2148—Given the likely impact of the rain, it seems unlikely that the N will fledge tonight. The N is still in the entrance, but not bobbing or leaning out. We leave.

## 22 July 2017

2035—JE arrives at B2\_2017 nest to fledge watch. From the top of the slope, someone appears to be up near the entrance but not quite poking out. Weather is cloudy (but it later cleared up), calm, and 14C.

2038—**Peep only shows 2 owlets.**

2039—PD. I hear begs from off cavity so I walk towards them.

2043—**I find a fledgling perched ~6ft high and ~10-15m from the nest tree.**

**Owlet**

55.0 g

P#5: 74 mm (xx in shaft)

P#6: 73 mm (xx in shaft)

Rect: 37 mm (xx in shaft)

Band#: 1833-03574 on R

Notes: Bled L

2101—I see a PD and spotlight the cavity to see eye shine in the entrance.

2105—I place the fledgling on a perch, gather my belongs and return to the nest tree to observe.

2108—I notice there are still 2 distinct begs coming from the cavity.

2110—PD.

2122—PD.

2126—PD. N is still up.

2135—I put a dim spot on the cavity and see that the N has gone down.

2136—PD.

2141—N is back up in the entrance.

2154—PD. Appears that N is still up as the owl hovered while making the PD.

2156—I check with a dim spot and the owlet has gone down.

2200—PD.

2201—PD and N rises to entrance.

2205—N is down.

2212—PD.

2215—Owlet is down so I peep before leaving. **Still 2 owlets in the cavity, one appears inactive but the other is bobbing quite a bit.** I pack up and leave.

## 24 July 2017

2030—ES, ZM, and ER arrive at the B2\_2017 nest site to look for fledglings and possibly do a fledge watch if any nestlings remain. Nobody is up in the cavity entrance when we arrive. We hear fledgling begs down the slope S of the nest. ZM goes to check it out while ES watches the cavity.

2037—JE and KM arrive with a peeper. **JE peeps the nest cavity to find it empty, meaning that all three owlets have presumably fledged.**

2038—**ZM finds an unbanded fledgling perched about 7 ft high in a young psme 10 m downslope from the nest tree.** She is able to easily reach up and grab the fledgling to begin processing with ER. ES, KM, and JE hear M giving TCs and TECs down in the drainage so we go investigate in hopes of finding the third fledgling we have yet to band.

**Owlet**

56.5 g

P#5: 76 mm (xx in shaft)

P#6: 77 mm (xx in shaft)

Rect: 40 mm (xx in shaft)

Band#: 1833-0354 (L)

Notes: Bled L wing—small hematoma.

2057—ZM and ER return fledgling to the tree it was found in and head down the drainage to help the rest of flam crew search for the third fledgling.

~2100—KM and ES locate the B2\_2017 M in the drainage bottom ~75m SW of the nest tree giving TC, TEC, and HEC. He sings mostly from a perch in the top of a young pipo ~35’ high, but at one point the M flies to a perch ~6’ off the ground on a branch of a fallen pipu. ES spots that he is preyladen, but still giving HEC. He does not apparently deliver the prey, but flies away S.

2132—M returns to site ~75m SW of the nest tree in the drainage bottom. He perches in the same young pipo, giving TC. He flies around the site for a few minutes, but eventually flies off again. We spend the rest of the night looking and listening in this area, but never pick up any definite fledgling vocalizations.

2215-2220—From the nest tree, ZM hears a fledgling begging up the slope near the road. She pursues. The Fl. continues to give occasional begs, and ZM tracks it down to a patch of psmes right on the W side of the rd. The crew comes up to join the search.

2228—Fledgling gives a single beg in its position ~30m E of the nest tree by the road. ER spots it on a perch ~18’ high in a psme. We begin to attempt to extricate it from the perch, but in the process, spot a band on the L leg. This is the Fl. that was banded earlier tonight. We leave to lure net in BG1 and BG7.

# B2—2018

## 4 June 2018

2030—ES, AM, and JE start tapping and listening in B2. JE splits off towards the B2\_2017 nest while ES and AM go W towards Feldspar Ridge to search for B2\_2014 nest tree.

2110—Silent FLOW flies above JE and perches in a tree 3m N of the B2\_2017 nest habitat focal tree. The FLOW moves to the adjacent tree, silently watching JE. After about 1min or so, the bird flies into Homestead Cr to the SW.

2113—3 or 4 M TCs are heard about 50m across Homestead Cr from the B2\_2017 nest.

2114—A few more TCs are heard ~75m away towards the weir, presumably the same M, but after a plane passing over is silent.

~2140—While listening and tapping, JE flushes a silent bird from a cavity, tag 1189, but it is unclear whether it was a FLOW or not.

2207—We pause our listening and tapping efforts to begin PB at a lure net. Net is SE facing on a low slope position on Paintbrush Ridge, open E-W. Net is 20m W of road and 50m NW of Weir.

Vegetation: pipo/psme, mixed age, open stand

Weather: 10-20% cloud cover, little wind, 16 C

X: 494974

Y: 4333989

+/- 3m

2210—JE returns to tree where silent bird had flushed to observe for several minutes. Nothing was seen or heard, and nobody came up to a tap.

2211—AM and ES hear M FLOW TCs from SE.

2218—AM and ES hear M TCs 10m NE.

2219—Net is empty.

2220—M HECs 5-10m NE of net. These HECs go quiet and TCs begin about 10m W of the net.

2224—While TCs continue ~10m W of the net, we do a net check. **There’s a FLOW in the net! The FLOW is in the 2nd shelf and came in from the E.** **AM and ES still hear M TCs from W as ES extracts the bird.** We leave PB running and meet BL and KM at the weir for processing.

**Band # 1833-32510 (on L leg)**

80.0 g LWC: 123 mm

- 28.5 g LLP(5): 92 mm

51.1 g LLP(6): 101 mm

Rect: 58 mm

**Notes: Presumably B2\_2018 M, but possibly the B14\_2018 M.** RP3 broken at mid-shaft. Evidence of moderate head lice. Small hematoma from bleed.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | 2.5 | 2.5 |
| P6 | 2.5 | 2.5 |
| P7 | 2 | 2 |
| P8 | 1.5 | 1.5 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1 | 1.5 |
| P7 | 1.5 | 2 |
| P8 | 1.5 | 2 |
| P9 | 2 | 2.5 |
| P10 | 2 | 2.5 |

2224-2301—ES checks lure net every 10 minutes, but no one comes in. After ~20 minutes, the M calling W of the net goes silent.

2301—M FLOW is released and has a SAF to NE. AM returns to the lure net. JE listens near the B2\_2017 nest, while ES listens and taps in Homestead Cr.

2316—Net is empty.

2320—AM hears M TCs faintly from SE.

2344—ES thinks she hears LCs near the head of Homestead Cr, just SW of the weir, close to tree #352. After listening in that area with JE for ~15 minutes, we don’t hear anything else. The calls heard by ES were definitely a FLOW, but it’s possible that they were quieter TCs responding to the PB.

2400—ES and JE rejoin AM at the lure net.

2407—M TCs are heard ~75m SSE from net.

2409—JE potentially hears wing flaps ~20-30m N. Net is empty.

2410—M FLOW gives TCs 10-20m N of net.

2411—JE thinks she hears wing flaps against the net but did not have a silhouette to confirm. Net is empty.

2412—PB switched to FLOW HECs. M immediately responds with HECs in the net site.

2415—M flies between perches in net site, moving around the net and flying just over it.

2418—JE gives some TCs and HECs to try to draw in the M. He backs off to about 50 m to the NE.

2423—Playback is stopped. We break down the net and leave the area.

## 18 June 2018

1530-1715: Flam Crew peeps cavity trees in the B2 and B14 territories. No nest was found, but effort was not complete—we started at the Goshawk Weir and worked W down Homestead Cr, and peeped past nest trees in both B2 and B14. Additional day(s) will be needed to finish this effort.

## 19 June 2018

1430-1715: Flam Crew spends a second day peeping cavities in the B2 and B14 territories, without finding a nest. Most cavities were peeped in both territories with some notable pockets remaining—namely the lower portion of Homestead Cr and side drainages, ridge spurs associated with Feldspar Ridge, and the upper portion of Goshawk Cr along with portions of N and S Goshawk Ridges.

## 25 June 2018

2030—KA, BL and ES arrive at B2 territory to listen, tap, and lure net. We split up to listen. ES remains the furthest N along Homestead Cr. KA listens along Feldspar Ridge down to the homestead. BL heads S and listens near the homestead and S down drainage. We all tap trees, and explore ridgetops looking for conifer cavities.

2046—KA, from her position ~150 m NE of the homestead, hears 5 or 6 TCs from a M FLOW. The bird is very far away (~200 m N) and difficult to hear. It could be the M that KM, DL, and AM are songposting in B14.

2103—ES hears a single note, unsure whether it’s a TC or LC, near the B2\_2017 nest site. After a few minutes of listening, ES doesn’t hear anything else.

2217—PB starts of T42. Net located on spur of Shooting Star Ridge ~20 m W of the homestead and ~30 m W of Homestead Cr. Net open N/S.

Vegetation: open, mixed age psme/pipo

Weather: calm, clear, 12 C

X: 494746

Y: 4333651

+/- 3 m

2220—M responds with TCs ~150 m SW of net.

2243—From his position at a PIPO snag cavity tree on the E-facing upper midslope of Shooting Star Ridge (just downslope from the PSME snag B2\_2013 nest tree, now on the ground), BL gives 3 TC.

2245—With BL still near the same cavity tree, a FLOW flies past BL’s head from S to N, and commences to give TC for 30 sec ~10 m upslope. BL stays at this cavity tree for an additional 15 min, but nothing more seen or heard (cavity tree tapped several times).

2246—KA hears a M gives TCs from due E across Homestead Cr on the opposite slope. He moves in towards the net within ~70 m.

2252—While M to the E continues calling, a silent FLOW perches on the pipo where KA is sitting, ~10 m W of net. The bird flushes to the NW.

2253—The bird to the E keeps giving TCs, but doesn’t move any closer to the net.

2255—The silent FLOW returns to the pipo from upslope to the W.

2256—A 3rd bird begins calling. This M has a much higher pitched call than the first M, and is further SE (~200 m away). The bird to the due E goes quiet around this time.

*The following notes are from ES on top of Shooting Star R, between 10 m and 50 m S of the road.*

2258—From her location on Shooting Star R, just S of the road, ES hears two M FLOWS giving TCs. One bird is calling ~200 m NE and the other (a higher pitched M) is >300 m SE, likely the same bird heard by KA at the lure net.

2300—ES hears TCs approaching from the SW, likely the bird BL was hearing. Once within 30 m of ES’s location S of the road, the TCs get quieter and ES thinks they might be LCs. ES thinks she hears an FSC S of her, near where the M LCs? are coming from.

2302—Things go quiet on top of Shooting Star. **ES gives some LCs, and a silent bird perches in a potr snag ~3 m away. ES can clearly see a band on the L leg**. The bird retreats ~20 m to the SW and gives TCs. **ES hangs songpost B2\_1.** After a minute or so, the bird goes quiet and nothing else is heard on top of Shooting Star R. ES hears the higher pitched TCs far off to the SE, and thinks it is possible that she mistook this for the earlier FSCs.

*The following notes are taken by KA at the lure net near the homestead.*

2303—The high pitched TCs to the SE continue, not moving towards the net.

2308—A bird comes in from the NW, gives ~5 TCs within 30 m of the net, and then leaves.

2314—A bird comes in again from the NW to within ~20 m of the net, gives TCs for less than a minute, and then leaves. The M far off to the SE has been continuously giving TCs.

2320—SE bird occasionally gives TCs, then goes quiet.

2327—PB stops.

2333—BL and KA leave the net site and head back to the vehicles.

# B2—2019

## 3 June 2019

1628—KC, AM, ES and ON arrive in B2 territory to cherry peep past nests. KC and AM head S on 347 Rd. In the B2\_2011 past nest AM raises peeper and KC notices **a beautiful FLOW** looking straight at the camera! **This is presumably the B2\_2019 nest**! This was the B2\_2011 past nest. B2\_52 is a lightning struck PIFL snag cavity about 35 ft off the ground and E facing. NOFL cavity above the spilt in trunk directly below a broken branch. Tree #52 is 15m S of W Missouri Gulch FS 347 Rd and 5m E of the large boulder.

Vegetation: Mature Pipos and large boulders.

Nest coordinates:

X: 495006

Y: 4333806

+/- 5m

2039—AM, JE, and KC arrive at the B2\_2019 nest to observe FLOW activity and attempt to peep the nest once the F flushes. F is down upon arrival.

2057 —JE hears four single note M LCs ~40-50m to the SW of the nest.

2100-2143—No other vocalizations are heard around the nest site. We never see the F up at the cavity entrance or the M in the area. We decide to back off instead of peeping the nest.

2143—We leave to set up a lure net on Paintbrush Ridge.

2214—We start PB, T42 on a low E facing slope on Paintbrush Ridge 30m W of 347 Rd. Net is open E-W.

Vegetation: open, mixed age pipo/psme

Weather: clear skies, calm wind, 12 C

X: 494977

Y: 4333993

+/- 3m

2219— We hear M TCs ~40m NW of the net.

2221—M goes silent but returns with TCs 10m N/NE of net.

2222—M on top of net is quiet. Net is empty.

~2230—M is heard giving a several TCs very distantly (100m?) to N/NE, then goes quiet.

2247—M TECs 50m SW of net.

2249-2254—M from SW approaches to within 30m W of the net but begins giving TCs instead.

2254—M vocalizations stop. JE and KC walk down to Homestead Cr to listen and tap some trees.

2325—We tap the B2\_2017 and nobody pops up to the entrance of the cavity. We hear 4 or 5 TCs ~50m SW (down Homestead Cr) of our position at the nest.

2312—M TCs are heard 80m E of net.

2330—It is silent. We cut PB, break down net, and head out. While walking down 347 to return to the car, we stop along to the way to listen and give a few hoots but hear nothing.

## 10 June 2019

2037—ON, ML, and BL arrive at B2\_2019 nest tree to observe nest activity and peep the cavity. F is down upon arrival and all is quiet.

Weather: Clear, calm, 13C

2047—M flies into site and perches a few meters NE of cavity in the adjacent PSME. M and F give some LCs. BL catches sight of the M prey-laden with a Lepidopteran in his beak.

2048—F comes up to cavity entrance.

2049—F flushes and M follows.

2051—**We peep to find 3 eggs centered and touching!** We proceed to sit back down and wait for the F to come back on cavity.

2101—ON thinks she may hear a couple LCs S of the nest tree ~30 m.

2112—F still has not come back on cavity, so we head out to listen for vocalizations in B1.

## 18 June 2019

2114—ON, BL, and SL arrive at B2\_2019 nest tree to peep, observe nest activity, and attempt a M capture. F is off cavity upon arrival and all is quiet. **We peep to find** **three eggs, still centered and touching.** Cavity height is 27’7”. We head back to FS Road 347 to give the F some space to go back on cavity.

Weather: 40% cloud cover, drizzling on/off, calm, 8C

2141—We move back in to the vicinity of the nest tree (~5 m N) to silhouette cavity while watching PDs.

2144—M PD in cavity.

2155—M PD in cavity.

2220—BL begins his sneaky approach to the nest tree to attempt a M capture.

2226—BL gets net into position and tests the height against the cavity. F pops up and sticks her head out of the entrance – seemingly about to flush – but then goes back down into the cavity. BL brings the net away from the cavity.

2255—ON switches out with BL at the capture net.

2257—M returns to nest site, from down drainage, giving LCs and perches in an adjacent psme ~ <5m away. M jumps around to other adjacent trees, giving LCs then comes to the cavity entrance, but aborts PD.

2306—M leaves nest site.

2308—M reenters the nest site, jumping around to adjacent trees, like before, giving LCs and TCs and aborts PD again. He flies down drainage.

2315—We hear M TCs ~125m down drainage, BL suspects the vocalizations are coming from Paintbrush Ridge.

2320—M goes quiet and we hear nothing else for the remainder of the night.

2327—ON brings the net down and we head out of B2 for the night. Given the very low PD rate and the lack of F vocalizations, we presume that the F is pretty deep in incubation, and the M is spending more time out calling with the boys.

## 20 June 2019

2145—BL, ON and SL arrive at the B2\_2019 nest site to attempt a M capture. Upon arrival all is quiet and F is down.

Weather: calm, 10% cloud cover, 15 C

2150—We get eyes on a silent bird, who we presume is the M, entering the nest site from the SE. He perches <5m NE away on a psme, then perches on the cavity tree and enters the cavity to give a PD. He then gives HECs and LCs, so we determine this is the B2\_2019 M. The M spends ~ 30 seconds in the cavity and then flushes to the E.

2154-2205—We observe four PDs in the cavity. See PD sheet for more details.

2214—ON begins approach for M capture, F is still down.

2119—M enters site and perches on previously mentioned adjacent psme. ON adjusts net position to get ready for M enter the cavity to give a PD. The capture net gets caught on a branch directly above the cavity entrance and hits the cavity tree. Unfortunately, the F flushes, and we leave and head to B13 to attempt a M nest capture (but at least we pruned the tree a bit for next time!) We’ll be back, B2.

## 27 June 2019

2012—ML, KC, JE arrive at B17/B12 parking spot at Bermuda Ridge. We walk along Missouri Gulch Rd to B2\_2019 nest to attempt a F nest capture and to peep.

Weather: 15% cloud cover, leaves blowing, 22 C

2028—We arrive at B2\_2019 nest tree. F is down.

2035—JE begins approaching nest tree for F nest capture.

2041—JE gets the net at cavity height and F comes up I believe from the sound of the capture pole creaking as it moves as no branches were knocked or stepped on.

2047—F goes down.

2048—While placing the cavity over the net, the branch sticking out from directly above the cavity is touched by capture pole. This causes the F to flush, seemingly into the bag that is directly in front of the cavity, but not over the tree. At first she appears to go into the bag, but by the time JE has the net down to ~10 ft, she appears to be freeing herself and only caught by the legs. It is unclear whether or not she escaped through an unseen hole in the net (we checked afterwards and found no owl-sized holes) or if she was just not entirely caught in the net. **We peep the cavity and find 3 eggs centered and touching. The leftmost egg has a slight dark line across the top of the egg. It is unclear if it is a pip or just dirt. Net height measured from the base of the cavity: 26 ft, 10 in.**

2052—We leave the nest and head back down the road to attempt to capture M at nest in B5.

2108—Walking down Missouri Gulch Rd towards the parked car in B17/B12 spot, we run into two dudes in a razor, and they stop to talk to us. They insinuate we are catching critters and ask if we are owl catchers. JE informs them of our real mission to catch nocturnal lizards.

## 01 July 2019

2046—BL, KA and SL arrive at B2\_2019 nest site to attempt F nest capture and check status of hatching. Upon arrival all is quiet and F is down.

Weather: 60% cc, calm, 15 degrees C,

2048—KA is at the base of the nest tree and begins raising the capture net.

2050—KA has net at cavity height but not directly over the cavity entrance. KA taps branch with net maneuvering net towards the cavity. The F pops up at the cavity entrance; KA stops moving. **F FLOW flushes directly into the bag. She was previously banded, with Band #1833-03527—this was the B2\_2017 F.**

**Band # 1833-03527 (on R leg)**

76.5 g

- 7.5 g

69.0 g

2051—**SL peeps the cavity and finds three nestlings with all white down, bobbing around in the cavity. BL estimates age of the eldest owlet at ~5 days (based on upright head posture and strength of posture), with a projected fledging date of 7/19.**

2054—BL releases F FLOW. She gives a SHF.

2055—We back off from the nest site, while M FLOW gives TCs and HECs <5m W of the nest tree.

2100—We leave B2 and head to B5 for M nest capture. We hear the M giving TCs near the nest as we leave.

## 9 July 2019

2034—ML, BL, AM, and their guest Rob Heavey arrive at B2\_2019 nest to peep the cavity and attempt M nest capture. F is down upon arrival.

Weather: 20 C, calm, 10% cloud cover

2045—M chased by hermit thrush through nest site. M had a moth in its mouth.

2048—M gives a PD (Lepidoptera).

2058—M gives another PD, followed by the F flushing from the cavity.

2101—**We peep the nest and find 2 fat owlets. One has its eyes open and is looking up at the camera. The other is eyes closed and not looking up. They both have about 50% gray juvenile plumage. We estimate that the oldest nestling is 12 days old.**

2101-2106—AM gets net up to height before resting the capture pole against a nearby snag.

2101-2150—28 PD’s occur, all of them going to the nestlings. Both F and M were giving silent PDs. It appears the M typically flushes off the W downslope to forage while the F flushes upslope following PDs. M and F were comfortable with net even when it was at cavity height and continued giving PD’s. Occasionally F would give FSCs off cavity, helping us identify her. See PD record from B2 7/9/19 for more details.

2106—A few M TEC’s and F FSC’s are given.

2124—AM attempts to swing net at cavity during PD but it gets caught on a branch.

2129—AM swings net at cavity during PD but bird escapes. More TEC’s at the net.

2131—After a PD M gives TEC’s from on cavity.

2145—**AM swings net at the nest cavity following a silent PD, and the bird flushes into the net. We check the band number and it is the B2\_2019 F, who had already been caught last week. M gives some TC’s as we bring down the net. We keep the F in a capture bag as we attempt to capture the M.**

**Band # 1833-03527 (on R leg)**

2150—**AM swings the net at the tree during a PD: we capture the M. He is previously banded on the L leg, and he is the B2\_2017 M!**

**Band # 1783-74303 (on L leg)**

59.0 g LWC: 132 mm

- 7.0 g LLP(5): 96 mm

52.0 g LLP(6): 105 mm

Rect: 55 mm

**Notes: He was last bled in 2016 so we bleed him on R wing, medium hematoma and get enough blood for a genetic marker. He also had hippoboscid flies.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2 | 2 |
| P5 | 2 | 2.5 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 2.5 | 2.5 |
| P5 | 1.0 | 1.0 |
| P6 | 1.5 | 1.5 |
| P7 | 2.5 | 2.5 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2154—We release the F. SAF to the NW. No measurements were taken on the F.

2238—We release the M. SAF to the S.

2242—We leave and head to B11 to set up a lure net.

## 15 July 2019

2034—BL, ON, and KC arrive at B2\_2019 nest to attempt a F capture and observe nest behavior. Upon arrival F is up at the cavity entrance and sticking her body very far out to observe evening activity.

Weather: 60% cloud cover, calm, 17 C

2038—M calls off roost ~30m NE of nest tree.

2047—F flushes after staying up in the cavity entrance since our arrival. **We peep the B2\_2019 nest to find three nestlings. Eldest nestling is in all gray down with a strong facial disk, estimated to be 19-20 days old. The runt still has some natal down and is clearly 4-5 days younger than the eldest.** After peeping ON begins to raise capture net to check height.

2055—M TCs ~15m E then N. M then flies into the nest site giving LCs just SW of the nest.

2056—ON has the capture net at cavity height. M gives PD. Nestlings start begging and proceed to beg the entire time we observe the nest. They give a loud raspy beg and it sounds as if the eldest is almost in the cavity entrance although we never observe him at the entrance.

2100-2127—We observe 8 PDs and all are presumably from the M given his previously observed behavior. F gives one brief fly-by past the cavity entrance but doesn’t appear to go all the way in the cavity. See PD sheet for more detail.

2110—ON leans the extended capture pole against a psme snag in the site and observes with BL and KC to give the M and F some more space to give PDs.

2133—ON gets back into capture position.

2134—Capture net is at cavity height.

2136-2151—We observe 6 M PDs. See PD sheet for more detail.

2152—F gives PD. **ON swings net and we capture the F FLOW. She is previously banded 1833-03527 on the R leg.**

2154—F is extracted from the net and we begin processing her. We try to bleed L wing, but do not get a substantial amount of blood. L wing shows small hematoma. We bleed R wing, and obtain enough blood to be a candidate for a genetic marker. R wing shows small hematoma.

**Band # 1833-03527 (on R leg)**

69.5 g LWC: 133 mm

- 7.0 g LLP(5): 101 mm

62.5 g LLP(6): 110 mm

Rect: 64 mm

**Notes: F pin feathers are coming out of shaft and stretching all the way across her incubation patch. Bled R wing, small hematoma and candidate for genetic marker. Tried to bleed L wing but did not get enough blood.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 1.5 | 1.5 |
| P5 | 2 | 2 |
| P6 | 1.5 | 2 |
| P7 | 1.5 | 2 |
| P8 | 1.5 | 1.5 |
| P9 | 2 | 1.5 |
| P10 | 2 | 2 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1.5 | 1.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2.5 | 2.5 |

2229—We release the F. SHF W.

## 18 July 2019

2035—BL arrives at the B2\_2019 nest to assess status of fledging. F not in cavity entrance upon arrival.

Weather: Clear, calm, 23 C!

2039—**I peep cavity, and see all 3 nestlings present—no F. Two owlets were in full juvenal plumage (heads were down, otherwise facial disks should have been present), and youngest owlet still had ~30% natal plumage visible. Eldest appear to be ~22 days old.**

2041—I back away to observe nest activity. HETH singing in the vicinity, occasionally landing and singing from the nest tree.

2046—I see what appears to be a silent F FLOW flushing N from the live PIFL, 3-4 m NE of the nest tree, and adjacent to the large boulder.

2048—Owlets start begging audibly from nest cavity.

2110—I leave. No adults have approached the nest cavity (and none heard), and owlets have mostly gone silent. No owlets were observed in the cavity entrance.

## 19 July 2019

2036—Crew (minus BL and ES) plus visiting Ellie Harrison arrive at B2 to fledge watch.

Weather: 80% cloud cover, calm, 26C

2039—**Peep shows 3 owlets that are all very grey. F is off-cavity again. Heads are down and owlets are sleepy and not moving very much.**

2044—Nestlings start begging.

2052—Silent PD made then an owlet rises to the entrance and starts bobbing its head out of the cavity.

2054—Silent PD. Owlet is really stretching out half its body.

2104—Silent PD. Owlet goes down for ~15 seconds then come back up to the entrance.

2107—Silent PD. Owlet at entrance is really extending body out of cavity but then goes down.

2110—Silent PD.

2113—Owlet up in entrance again. This time, the owlet only stays up for a few minutes and never returns to the entrance.

2114—PD aborted but then given ~10 seconds later.

2117—PD.

2118—PD.

2119—PD.

2123—PD.

2126—Crew packs up and heads out. Owlet down in the cavity.

## 20 July 2019

2037—ML and JE arrive at B2 to fledge watch.

Weather: 100% cloud cover, calm, wet, 16C

2039—**Peep shows no F and 3 owlets still in the cavity, one on top is very active and bobbing with a developed facial disk.**

2042—PD. Loud begging begins.

2044—Owlet scrambles up to the entrance of the cavity, really poking its head out.

2047-2128—18 PDs seen. See PD sheet.

2051—Silent adult flies into site without prey, perches for a moment, then leaves. Owlet in the entrance goes down but quickly comes back up.

2052—Owlets heads down and pops right back up.

2102—Owlet goes down.

2103—Owlet back up.

2105—After a PD, owlet really tries to squeeze out of the cavity, bobbing and looking around the entire time.

2108—Owlet goes down.

2109—After a PD, owlet comes back up.

2116—Owlet goes down and is never seen in the entrance again.

2129—We leave.

## 23 July 2019

2032—ML, KC, JE and KA arrive at the B2\_2019 nest to fledge watch and fledge search. **We peep and see one owlet left in the cavity with a well-developed facial disk.** KC and KA stay at the nest to watch the runt, while JE and ML spread out to listen for fledglings.

Weather: 20 C, calm, 30% cloud cover

2035—M gives LCs from ~50 m S of the nest. JE and ML follow that direction.

2040—The runt gives very loud, raspy begs from on cavity. He is not up at the entrance.

2041—ML gets eyes on the M on a low perch ~60m SE of the nest.

2045—Unknown FLOW enters the nest site and N begs.

2046—M LCs ~50 m S, so we presume the bird in site is the F.

2047—After chasing the M to 2 different trees, ML loses sight of the M.

2049—F PD, N begs, M LCs ~40 m S.

~2050-2110—JE hears rustling in the trees somewhere in the drainage bottom ~10m S/SEish of the nest. I walk over to a pair of psmes and hear some more rustling and sloppy wing flaps originating from those trees. I have a feeling it is a fledgling so I stay to observe and call over ML to help. I become certain when I definitively hear a nestling beg (not from the nest cavity!) from where the tree branches had been shaking. A few minutes later, I then hear what is potentially a 2nd fledgling rustling some trees ~20m S of me. I radio the crew and get KA to begin searching once the runt in the cavity goes down.

2051—N pops up to entrance, F PD.

2052—F PD. M LCs ~50 m S.

2053—F aborts a PD then gives PD. KA leaves to help JE and ML track N. KC stays to observe the nest.

2105—KA follows M LCs ~70 m from the nest SW up Vista Ridge. KA hears something move in a clump of psmes. KA goes over to investigate and finds a fledgling perched ~5 ft high in a psme.

2110—**KA plucks the presumed B2\_2019 fledgling from its perch.** ML joins to process the owlet.

**Owlet**

63.0 g

P#5: 78 mm (xx in shaft)

P#6: 78 mm (xx in shaft)

Rect: 43 mm (xx in shaft)

Band#: 1833-32653 (R leg)

Notes: Bled L, tiny hematoma. This is likely the eldest owlet (the runt is still in the cavity and later in the night we find another owlet much closer to the nest tree).

2114—M gives a few HECs while we have the owlet in hand, then goes quiet.

~2115-2125—JE backs off from the suspicious psme and walks around a bit in the drainage immediately S of the B2 nest. However, I hear a few more sloppy, fledgling-like wingflaps and find myself tracing the source back to the two psmes.

2131—We return the Fl to its psme perch, but once released it immediately flies/tumbles to the ground. We try again, and this time the fledgling flies downhill out of our sight. KA and ML head back to help JE at the suspicious psmes.

2134—With 3 sets of eyes scanning the tree, KA spots the fledgling! A Flam-evator effort is attempted, but unfortunately the Fl hopped deeper into the foliage of the tree rather than onto the peeper or into sight. We spent the next ~1 hour searching the tree from all possible angles and try to shake/move branches in an attempt to reveal the fledgling hiding near the trunk. JE even climbs onto the adjacent rock and uses the peeper horizontally to try and move some branches to look for the fledgling.

2211—M aborts a PD. We still cannot see the fledgling in the tree

2219—M flies into the psme near the area where we last saw the fledgling. M is prey laden with a moth. We have a dim spot on the tree and hope that the M will deliver the PD and reveal the location of the fledgling, but he gives a few TECs and then leaves without completing the PD.

~2230—Our efforts to find the fledgling in the tree are unsuccessful so we take one last look before heading out.

2236—**On our way out, the runt is not in the entrance so we peep and see that it is still in the cavity.**

2241—We drive out and head for CN7.

## 24 July 2019

2027—KC, KA, JE, and ML arrive at B2\_2019 territory to fledge search and fledge watch. **We peep and see that the runt is still in the cavity. He is slow moving and not looking at the camera.** JE and ML head S in the direction that we heard the fledgling last night, and KC and KA stay at the nest to observe.

Weather: light breeze, 90% cc, 18 C

2031—M TCs ~70 m S.

2033—N starts begging on cavity.

2035—ML spots the M, giving LCs 25 feet up in a tree, on the upper eastern slope of Vista Ridge. After 2 minutes the F flushes farther upslope, but ML loses track of his position.

2037—Presumed F flies to the snag psme perch adjacent to the nest tree. The N gives loud, raspy begs from inside the cavity.

2039—F PD.

2040—N pops up to the cavity entrance. Begging volume increases.

2041—M gives some more LCs SE of the nest, near MLs position on the low slope of Vista, ~60m from the nest.

~2045—After hearing silence at the base of the psme occupied by the fledgling the previous night, JE walks down the side drainage towards it’s confluence with Homestead Cr. From ~35 m S of the nest JE starts to hear some very faint begging, so ML joins her in looking for the fledgling.

2041-2044—F gives 3 flyby PDs with the N at the cavity entrance. Then the N goes back down and stays down.

2045-2117—F gives 13 PDs. N continues begging from inside the cavity. Then PD rates slow down.

~2050—ML and JE continue moving S down Homestead Cr.

2059—M begins calling ~ 75 S of the nest so ML and JE head down. Fledgling begging is also heard within ~10 m of us while in the bottom of Homestead, but we cannot see the fledgling and are having trouble locating the exact position of the begs. ML heads towards the M, who is on the low S-facing slope of Feldspar.

2110—KC leaves the nest to join JE and ML in Homestead Cr searching for fledglings. KC stays closer to the nest in case a fledgling is in between the nest and the location of JE and ML.

2124—The nestling begging is no longer heard, but JE hears the M even further down drainage making TCs, ~90m S of the nest.

2130—ML gets to within ~5 m of the M, who is still calling, making TCs, TECs and HECs. He continues calling for the next few minutes.

2136—With the M calling territorially, JE faintly hears some TCs ~150m S that do not sound like echos as the M in B2 was making TECs and HECs, even when we back off from the tree and turn our lights off.

2137—M in Homestead stops calling and flies to the N.

2128—F PD at nest.

2135—KA leaves the nest site to help with the fledge search, because it seems like the runt is not likely to fledge tonight. KC and KA continue to listen in the drainage ~30 m S of the nest.

2140—KA hears M give single TC from within ~40 m of the nest site. Then quiet.

2152—JE is near the confluence of Homestead and the side drainage that runs between Feldspar and Shooting Star. I heard a M making TCs ~75m NE of my position.

2155—JE hears that M more even farther up Homestead, now ~95m N of me. JE begins walking back up Homestead towards the parking spot.

~2205—From a position farther N in Homestead Cr (due W of the B2\_2019 nest), we hear two M FLOWS get into a territorial encounter. A F gives FSCs close to the southern calling M.

~2208—JE hears more very faint begging near the confluence of Homestead and the NE side drainage that is immediately SE of the nest. I am unable to pinpoint it and only find a roosting F (or HY?) AMRO roosting in a tree.

2209—The territorial encounter continues as KC and ML watch, never getting eyes on the birds but hearing them each giving TCs and TECs within 5 m of each other in the drainage bottom of Homestead Cr, 60 m W from the nest.

2211—KA returns to the nest site to check if the runt is still on cavity. F is in the site and KA hears audible begging from on cavity, so she leaves without peeping.

2215—We leave B2 territory.

## 25 July 2019

2033—BL, KC, KA, and SL arrive at B2\_2019 nest to fledge watch and fledge search. Upon arrival no one is up at the cavity entrance. **KC peeps and we see one nestling in the bottom of the cavity, inactive and lying prostrate. He is in all gray and has a pronounced facial disk.**

Weather:100%cc, calm, 17C

2034—KC and SL stay in the B2\_2019 nest site to fledge watch, while KA and BL go in search of the second fledgling (one fledgling was processed on July 23rd 2019).

*The following notes are KC and SL’s observations from the nest. See below for KA and BL’s notes from the fledge search.*

2036-2037—Two unknown PDs. **(note: all unknown PDs observed on the night of 07/25/2019 came from a silent FLOW that used the adjacent upslope psme as staging perch).**

2038—The nestling is up in the cavity entrance, bobbing aggressively and begging loudly.

2039-2042—Four unknown PDs.

2044—The nestling goes down.

2045-2049—Three unknown PDs.

2051—Nestling up at the cavity entrance, again bobbing and begging.

2053-2056—Two unknown PDs.

2057—The nestling goes down.

2101-2129—Eight unknown PDs during this time.

*The following notes are from KA and BL fledge searching.*

2042—KA has traveled S ~30 m down drainage from the nest tree, and hears a single fledgling beg ~30 m SE up the slope of Vista Ridge. She follows.

2048—KA hears three more quiet fledgling begs in her vicinity. She scans the ground and trees for a possible perched bird.

~2055-2100—KA sees a fledgling perched ~15 m high in a psme. Fledgling is located ~70 m SSW of the B2\_2019 nest, very close to where KA found one of the B2 fledglings on July 23rd. It is perched in a clump of old man’s beard, so she cannot tell if this fledgling is previously banded. KA keeps eyes on the bird while BL brings a peeper pole. BL uses the peeper pole to nudge the fledgling. We see that it is unbanded. The bird flushes E upslope, and we flush him once more to a perch ~5 ft off the ground. KA approaches from behind the bird and BL comes from the other side, but just as KA is about to grab the fledgling it flushes and soars ~30 m downslope to the N. We chase.

2100—BL uses the peeper pole again to flush the fledgling upslope. **It lands on the ground and we grab the second, unbanded B2\_2019 fledgling! We band and process the bird (#1833-32614 L leg).**

**Band # 1833-32614 (on L leg)**

70.0 g LWC: XXX mm

- 7.5 g LLP(5): 87 mm

62.5 g LLP(6): 87 mm

Rect: 45 mm

**Notes: B2\_2019 Fledgling. Bled R, genetic marker candidate. Sm/med hematoma. Did not take wear data but used blacklight to examine fresh feathers. (see dropbox photo). Based on the P5 of this bird and the fledgling captured on the 23rd (P5 was 78) it is difficult to determine which is the elder sibling.**

2128—We release the fledgling to a perch ~5 ft high. It jumps to the ground, so we try again. This time it glides NE ~15 m towards the ground. We look for it to see if we can move him back to a perch, but do not find him. We give a wide berth and walk back to join KC and SL at the nest.

2149—We all leave the B2 territory. It appears that the remaining nestling will not be fledging tonight, given the limited amount of time spent at the cavity entrance.

## 26 July 2019

2029—KC, ML, and BL arrive at the B2\_2019 nest to check contents of the nest and possibly perform fledge watch for the runt nestling. The cavity entrance is empty when we arrive, and all is quiet in the nest site. **We peep—the runt owlet is still in the cavity bottom, and is inactive.**

Weather: 20% cloud cover, calm, ~18 C.

2033—FLOW makes PD in cavity at this time, approaching and exiting the nest site to the E (across the road). Sex unknown, as there were no vocalizations, but the F is suspected since she approached/exited to the E on previous nights. (**NOTE**: This approach/exit direction was the same for all PDs for the remainder of our observation time.)

2034—Same. After the adult exits, the owlet appears in the cavity entrance, begging loudly. He

continues begging loudly until 2103.

2036—PD at the cavity entrance (owlet here).

2037—We hear the F give a rather quiet SC from the E side of the road, which is the direction the adult FLOW flew after the last PD.

2039-2124: FLOW makes 18 PDs during this time (see PD sheet for details).

2043—M LCs heard ~60 m S of nest, seemingly around the same location where the M was

spotted on 7/23 and 7/24.

2047—Owlet goes down, following a PD at the cavity entrance. Thereafter, all PDs were delivered down in the cavity.

2103-2115—Nestling begging stops, and all is quiet for this time period.

2116—Nestling begging from inside cavity starts once again.

2130—We leave. **NOTE**: NO fledging tonight! All PDs appeared to be performed by the F, based on her SC at one point and approach/exit direction of all PDs.

# B2—2020

## 23 July 2020

2245—ES and BL arrive in the B2 territory to listen for nesting vocalizations and tap cavity trees. ES immediately travels to the B2\_2019 nest tree (PIFL near rock outcrop, tag #1084), while BL goes to the B2\_2018 nest tree (PIPO snag ~70 m N of 2019 nest tree).

2255—ES taps tree #52, the B2\_2019 nest tree, but no one is home. I observe the tree for about ten minutes. No sign of nesting flams. BL also receives no response at the 2018 nest tree.

2310—ES remembers an unenumerated cavity tree she found last year just upslope from the B2\_2019 nest tree. I walk up that direction to inspect it. **Sure enough, when I tap on the tree, a FLOW rises to the entrance and then flushes.** **This is the B2\_2020 nest tree! It is an UNENUMERATED live lightning-struck PIPO, ~24 DBH, on the W terminus of S Goshawk R, ~50m E of the B2\_2019 nest tree and ~30m E of the road. The nest is in the only cavity, a NOFL hole ~20ft high facing SE. x= 495073, y= 4333810 +/- 3m.** I back off to observe, and BL comes to meet me.

2312—M PD. F vocalizes ~30m downslope, in the direction the FLOW flushed when I tapped.

2314—Unknown silent PD.

2316—Unknown PD. **I get binocs on the bird and see it is banded on the L.**

2321—M PD. F flushes. She apparently when back on earlier without my noticing.

2322-2327—4 unknown PDs.

2333—Silent bird enters the cavity and stays. This appears to be the F coming back on.

2337-2342—M gives 4 PDs, each time just hovering at the entrance and handing off to the F.

2349—We leave to go search for more nests in W Missouri.

## 30 June 2020

2015—ES arrives at the B2\_2020 nest tree to peep and attempt M and F capture if the nestlings are all in grey. The cavity entrance is empty when I arrive.

2052—M calls off roost ~100m W from down in Homestead Cr.

2104—TCs ~150m W in Homestead Cr.

2113—Silent FLOW flies into nest site and perches in psme snag 10m W of the nest tree. It looks at me for a minute and then flies off.

2115—ES taps the nest tree, and nothing happens. **Peep reveals an empty cavity, with two white objects that could be eggshell fragments or feces. When ES and BL were here on 6/23/20, the frequent M and F PD rates late into the night indicated that hatching had occurred and the nestling energy demands were quite high. This is likely an instance of predation in the middle of the nestling period.**

2115-2140—ES walks around the nest site looking for eggshells, pluckings, and—while very unlikely—fledglings. I don’t see or hear from the M or F during this time. The M’s earlier visit to the nest site and the early date in the breeding season leads me to believe that predation is more likely to have occurred than fledging.

2140—I leave the nest site and start walking toward B1.

2146—From on top of Vista R, I hear the presumed B2 M calling ~20m NW in Homestead Cr. He calls consistently for the next 10-15 minutes until I leave the area.

## 7 July 2020

2307—ES and BL start PB at our lure net on top of S Goshawk R, near the head of Fallen Squirrel Cr. We hope to draw in a M from B2, B14, B4, or B1. Net open N/S.

Vegetation: Mature pipo/psme

Weather: Clear, calm, 20C

X: 495346

Y: 4333892

+/- 3m

2312—HECs ~15m N of the net. He hops to the S side and continues calling very hoarsely. This M, the presumed B14 M, gives HECs in our net site for most of the night.

2321—2nd M gives TECs ~30m W while the 1st M is calling in site. 2nd M, presumed B2 or B1, has a noticeably higher pitched call than the 1st M (presumed B14).

2323—The 2 M’s call at each other ~40m SW of net.

2325—1st M calls ~30m E while 2nd M calls ~30m S.

2336—ES heads to Cooper’s Hawk R to listen for nesting activity and tap trees while BL remains at the net. The 1st M continues to give TCs intermittently to the NE of net over the next half hour.

2351—From Cooper’s Hawk R, ES hears a high pitched M (presumably the 2nd M from the lure net) calling down near the confluence of W Missouri Cr and Fallen Squirrel Cr. I can also hear AM and KC’s PB on Biker R, which is what the M seems to be responding to.

2355—I don’t hear any activity on top of Cooper’s Hawk R, so I return to the lure net.

2412—It’s been quiet at the net site for about ten minutes, so we stop PB and break down the net.

# B3—2002

## 10 July 2002

2400-0100: The flam crew and I listen in the vicinity of flagged cavity trees in the B3 drainage and surrounding ridge tops. Nothing seen or heard.

**B3—2003**

## 23 June 2003

2300—Jake and BL arrive on S Goshawk Ridge and Cooper’s Hawk Ridge to listen for territorial singing.

2315—We pursue a singing M in the area between Camp and Cooper’s Hawk Ridges on S Goshawk Ridge, and eventually mark 4 song posts (3 trees, all dominant *Pipo*) over 20 min. M then goes quiet and flies off to the S or SE.

2445-0100—Miriam on top of camp ridge listening, does not here anyone calling

0100-0120—Miriam on top of Cooper’s Hawk ridge listening, does not here anyone calling.

## 30 June 2003

0105—BL hears M calling from near the junction of Cooper’s Hawk and S Goshawk Ridges. I pursue and eventually find the M calling from the same *Pipo* as on 28 May. One song post. M continued to sing for at least 15 min—he was still singing when I left at 0120.

## 15 July 2003

1400-1530: Jake and Katie peep the most suitable cavities in B3 territory. Nothing found.

# B3—2004

**B3—2005**

# B3—2006

# B3—2007

# B3—2011

## 30 June 2011

1445—Flamm Crew begins tapping and peeping in B1 and B3.

1458—JG sees F rise to the entrance of a previously unenumerated cavity tree. **This is the supposed B1\_2011 nest tree. The F rose to the cavity entrance without a tap while I was circling the tree looking for other cavities. She remained in the cavity entrance for 6 minutes. The new tree, B3\_1168 #1168 is a broken top Psme approximately 75 meters N into Falling Squirrel Cr on the N side of Camp Ridge, approximately 35 meters from the drainage bottom. It is a full snag, DBH 60.5, and the nest cavity is the only cavity on the tree. The cavity is approximately NE-facing, and just under 50 feet high. Laser Show**

1506—The F retreats into the nest cavity. We remain at the base of the tree for about 10 minutes, and then leave the area.

# B4—2002

## 9 July 2002

2230-2430: Flam crew and I listen in the vicinity of flagged cavity trees in the E Missouri drainage. No nest found, but at approximately 2300, two males engaged in a territorial dispute in the drainage bottom, just due S of the Vista Ridge. They called for approximately 10 minutes, at which time one of the males retreated to the E up the drainage bottom. This M then called periodically until we finished for the evening, calling approximately 50-400 m E of our position in the drainage bottom. The other M retreated possibly to the N.

# B4—2003

## 28 May 2003

2015—**Jake and Miriam arrive at A4\_2003 nest (located 20 m S of Missouri Rd, just off the entrance to Biker Trail, in a live Potr (~36 cm dbh) , approx. 12 m high)**. 14 degrees Celsius. Female is poking head out of hole.

2032—F gives food solicitation call.

2034—M gives LC.

2036—M flew from south to NE, right past nest tree and gives LC.

2038—M gives LC from the NE.

2039—M roosts on branch next to cavity, then M and F fly to the south together.

2041—M gives LC from south.

2100—M and F roost on branch on tree just SW to the cavity, he delivers prey on that branch, then F returns to cavity.

2102—High pitch male and normal sounding male ping pong far off in NE direction.

2107—M delivers prey, does not go inside cavity. Same at 2108, 2109, 2110, 2112.

2115—Prey delivery, male perches on tree directly NW of cavity tree, on the branch facing S.

2120—Prey delivery.

2124—Prey delivery.

2128—M gives LC from south.

2129—Prey delivery.

2130—Prey delivery.

## 10 June 2003

2030—Jake and BL arrive at B4 nest to attempt capture of B5 male.

2030—Jake and BL arrive at B4 nest to attempt capture of B5 male.

2031--- M gives LC

2039--- F leaves

2050--- F returns

2115—We leave, after F flushes the nest at 2111. M not captured. **Note:** At approximately 2100, both the B4-M and a UFO flew into the nest area, and perched about 5 m from each other (F was in the cavity at the time). B4-M made no attempt to flush the UFO, nor did he offer any HECs. They both flew off in the same direction about 3 or 4 min later.

2415-2430: From his position on the S end of Vista Ridge, BL hears what seems to be B4 and B1 males having a territorial encounter on Sharp-shinned Ridge (just S of W Missouri Cr) to the S. They called for approximately 10 min.

## 12 June 2003

2230-2300: Miriam, Katie, Jake, and BL attempt to spot map B4-M from ridge tops to the S, N, and E of the nest. Nothing heard.

## 17 June 2003

1. BL and Jake arrive at nest for capture attempt on B4 M (48 degrees F) F not at entrance
2. F leaves.
3. F returns to cavity. UFO observed in *Potr* to the West of cavity at this time; B4-M did not appear to be overly aggressive towards the intruder, and after a couple of minutes both birds flew to the S.
4. Capture owl.

**78g**

**-20g**

**58g**

2057 Release owl because it was possibly the female. BL and Jake immediately left.

## 23 June 2003

1. Jake and Brian arrive to capture M. F is at entrance.
2. F goes down into cavity.
3. Unidentified owl flies towards cavity and then veered away and landed on a roost in adjacent tree. No vocalization.
4. Owl flies from roost without vocalizing and flies to SW.
5. F at entrance.
6. F leaves cavity.
7. M enters cavity
8. F returns to roost on adjacent *Potr* and receives prey from M.
9. M makes another prey delivery to F on roost.
10. BL and Jake leave the nest because the female had not returned to nest and was acting skittish.

## 26 June 2003

1. BL and Jake arrive at nest in order to capture the M ( Cloudy and 58 F).
2. F at entrance.
3. F goes down into cavity.
4. F at entrance and M enters. Both M and F leave the nest.

2105 UFO is chased out of nest area (North) by M.

1. F returns to nest. UFO returns and M chases UFO out of nest area.
2. F leaves.
3. F returns.

2143--M is captured. M is unbanded.

**Band on Left Leg# 92302**

**71.0g**

**-20.0**

**51.0 g**

LWC: 128mm

LLP: 100mm

Rect: 55mm

1. M is released.

**B4 suspected Hatch date: 24June; projected Fledge date: 17-18 July.**

## 30 June 2003

1. BL and Jake arrive at nest in order to capture F.
2. Female at entrance.
3. F goes down into cavity.
4. F left cavity.
5. BC and TC from SE.
6. UFO flies to roost on SW *Potr* and then flies into *Potr* (S) then flies south.
7. Capture F—previously unbanded.

**Band on Right #92304**

1. Release F and leave.

## 9 July 2003

1615—Katie peeps B4 nest. Three owlets were in cavity all similar age with mostly gray down. Female was not in the cavity.

## 11 July 2003

(jake)

## 12 July 2003

1545—BL, Ian, and 13 LHS colleagues arrive at B4 nest to band/bleed owlets. We peep cavity and find only the three owlets present—no F. Cavity dimensions:

Cavity entrance: 6.0 X 5.0 cm

Entrance thickness: 5.5 cm

Horizontal depth: approximately 20 cm

Vertical depth: approximately 30 cm

1615**—**I finish enlarging the cavity and remove owlets.

**Band #92351 Band # 92352 Band # 92353**

78.0 g 83.0 g 77.0 g

-16.5 -16.5 -16.0

61.5 g 66.5 g 61.0 g

LLP= 65 mm LLP= 61 mm LLP= 65 mm

Lrect= 30 mm Lrect= 26 mm Lrect= 27 mm

1515—We return owlets and leave. It appears Band # 92351 and 92353 may fledge tonight. Runt of the brood appears to have hatched one day later than the two older sibs.

# B4—2004

## 31 May 2004

2250—Flam crew arrives in the vicinity of the B4-2003 nest. We tap on a few cavity trees, and then B4-M starts to give TC on the lower SW slope of Bermuda Ridge. Julie and Scott pursue, while Eric and Erin go to Cooper’s Hawk Ridge, and BL goes to Sharp-shinned Hawk Ridge to attempt spot-mapping.

2255—JM song posts B4 M in a PIPO on the SW side of Bermuda Ridge. B4 male gave 2 TEC and another male is heard giving TC calls on the SE side of the ridge. B4 M flew further to the SW.

2305—After pursuing B4-M for a few minutes, at this time I locate him giving TC on the W-facing slope of Scott’s Ridge (approximately 100 m S of B4-2003 nest). I eventually mark two songposts in this vicinity before the M quiets.

2330—EP hears B4 male calling nearby from north end of Cooper’s Hawk Ridge and songposts him in a large PIPO.

2335—JM hears B$ male give TC call W of Bermuda ridge.

2356—From the confluence of Cooper’s Hawk Ridge and Bermuda Ridge, EP hears what is

thought to have been B2 male calling from the NNW. EP begins to pursue, but male

stops calling quickly.

2438—JM hears B4 M give TC at the bottom NW side of Bermuda Ridge and she songposts the general area.

2457—SY hears TC from N end of drainage between Bermuda and Cooper’s Hawk Ridges, gives chase and records a general area songpost.

## 8 June 2004

2315—The flam crew spreads out along Vista, Camp, S Goshawk, and Cooper’s Hawk Ridges to attempt spot-mapping of adjacent males.

2320—EE and SY songpost B4 M in the bottom of the drainage between Camp Ridge and Vista Ridge.

2410—BL and EP hear M giving TC in the vicinity of Cooper’s Hawk Ridge (EP was on S Goshawk Ridge, BL was on the S end of Cooper’s Hawk Ridge). BL locates the presumed B4-M giving HECs on the lower W-facing midslope of C Hawk Ridge (60 m SE of the B3 nest area of the late 1980’s), and hears a UFO flying in the foliage of adjacent trees. We eventually mark seven songposts on this male, all in a 50 m radius on this slope. After the first 10 minutes, most of the vocalizations became TC.

2440—We leave the area after the male finally quiets.

## 28 June 2004

2300-2445: EE and BL attempt to spot-map and listen for evidence of nesting in the N end of B4 territory, in the vicinity of S Goshawk Ridge, the N end of Cooper’s Hawk Ridge, and the head of the drainages between Camp and Cooper’s Hawk Ridges. Light to moderate breeze on the ridgetops; nothing heard.

## 7 July 2004

2220—SY and BL arrive on Bermuda Ridge (S end, and mid-portion, respectively) to attempt spot-mapping of B4.

2235—BL hears M calling from vicinity of S Goshawk Ridge, between Cooper’s Hawk Ridge and Bermuda. I pursue, but M quiets before I can reach his close vicinity.

~2250—KS, JM, and EP arrive and arrange themselves around the SE, S and W portions of the territory.

2330—BL buzzed by a UFO near the E end of S Goshawk Ridge. The owl perches briefly in the crown of a large *Pipo*, then flies off to the E.

2345—We leave.

# B4—2005

## 31 May 2005

(Scott/Dash entry)

## 2 June 2005

1445—Flam Crew arrives to tap and peep cavity trees in the B4 territory.

1501—SY and MS enter area and tapped B4\_23 with goal of finding nest, no sign of B4 F. Calm winds, light cloud cover and 24 deg. C.

1501—Peeped B4\_23 and found B4 F **and saw two eggs in cavity**.

1504—Moved back 10m

1508—Left area.

## 3 June 2005

2035—BL arrives at the B4\_2005 nest to peep contents. Calm, PC, approximately 16 C.

2038—F rises to entrance.

2039—F gives three FSC, then descends.

2052—F leaves cavity, after M delivers prey. **I peep cavity and find 4 eggs, all but one** in contact (but the other within 1-2 mm).

2102—F returns to cavity.

2105, 2107, 2109—M delivers prey to F in cavity.

2110—I leave.

## 7 June 2005

2030—BL arrives at the B4 nest to attempt capture of F. Calm, PC, approximately 18C.

2035—I raise the net over the hole, and the F flushes into the net (she had not been at the entrance). F was not previously banded—given **band # 64402**.

~ 103 g (estimated—she was heavier than the 100g scale)

* 26 g LLP: 99 mm

~ 77 g LWC: 123 mm

2041—Release F.

2046—M arrives in the nest site giving LC, and both adults fly off to the S.

2056—F returns to the cavity.

2057, 2058—M delivers prey to F in cavity.

2059—I leave.

## 13 June 2005

2150—SY and DF arrive at the B4 nest site to capture M.

2152—M makes prey delivery to F.

2156—F flushes from cavity.

2158—SY and DF leave nest site.

## 15 June 2005

2113—SY and DF arrive at the B4 nest to capture M. Lightning and thunder to S, moving within ½ mile of nest site.

2115—Prey deliv by M.

2119—Prey deliv by M.

2121—Prey deliv by M.

2125—Prey deliv by M, then perches on Potr within 5m of nest tree. F flushes to S, M follows. No apparent cause for flush noticed. Eggs hatched?

2134—Prey deliv by M, then takes same perch.

2139—We leave.

## 23 June 2005

2231—SY and DF arrive at the B4 nest to capture M.

2235—M makes prey deliv.

2236—F flushes.

2238—M makes prey deliv.

2239—M makes prey deliv.

2243—F returns and descends into cavity.

2257—**M is captured – he is unbanded. We place a new band on his right leg. #64425.**

**Wing Chord: 133mm**

**LLP: 91mm**

**Rect.: 61mm**

We bleed him (we first attempt the left wing but after 4 unsuccessful attempts we switch to the right wing and bleed on first attempt).

2318—M is released – strong flight to the S.

2319—We leave.

2322—MS and EE arrive to spot map B10 but hear B4 M singing about 40m up Falling Squirrel Drainage for about 1 minute.

2319—EE and MS hear male calling from north up Falling Squirrel drainage when we are loading car: we run up drainage about 20 yards and then stop to listen.

2322—EE gives hoots.

2330—MS gives hoots.

2339—We leave after hearing nothing more.

## 1 July 2005

1450—DF, EE and BL arrive to attempt to capture and bleed F at the B4 nest as well as band and bleed the owlets.

1455—F is up in cavity and gives us scolding call.

1509—F flushes from cavity as DF raises net to attempt to capture her.

1524—B4 Owlets (4 of them) are out after BL climbs tree.

**Band #64442 Band #64450**

67.0g 66.0g

-15.0g -16.0g

52.0g 50.0g

LLP: 36mm (19mm in shaft) LLP: 37mm (29mm in shaft)

Rects: 11mm (9mm in shaft) Rects: 6mm (4mm in shaft)

**Band #64449 Band #64429**

72.0g 49.0g

16.5g -17.0g

55.5g 32.0g

LLP: 37mm (25mm in shaft) LLP: 12mm (8mm in shaft)

Rects: 13 mm (10mm in shaft) Rects: 3mm (all in shaft)

1550—Owlets back in cavity. We leave.

## 5 July 2005

2024—DF and SY arrive at B4 nest site to attempt capture of F. Mostly clear, calm, 22°C. F is in cavity entrance when we arrive. M gives LCs w/I 15m to the W on low slopes of SS Hawk R./Biker R. Calls last for <1min.

2035—Several LCs are heard in same area as previous entry.

2040—F flushes in response to the net to the SE. M gives several LCs to the S while F gives FSCs in general area of M. This continuous sporadically for approx. 5 min.

2047—2 birds are seen in a *Potr* approx. 7m N of nest tree. One male gives soft LC like calls. While the other birds approaches the nest tree. The male flies very quickly at the first bird and chases it to the S of the tree where the birds make physical contact approx. 3m S of nest tree. Both birds fly out of nest site to the SE. Several LC like calls are heard from that vicinity.

2051-2106—We observe 16 prey deliveries before the F is captured at **2106**.

**Band #64402**

We bleed her L. Wing.

2118—F is released, she flies N.

2120-2155—DF resumes observations of the nest. 14 prey deliveries are observed.

2155—I leave.

## 6 July 2005

2025—SY arrives at B4 nest site to observe prey deliveries. >50% cloud cover, wind 5-15mph, 20°C. F is in cavity entrance when I arrive.

2041—F flushes to the S.

2042—Owlet in cavity entrance begging.

2052—Owlet down.

2057—Owlet back up.

2102—Owlet down.

2105—Owlet up.

2112—Owlet down.

2123—Owlet up.

2125—Owlet down.

2133—Owlet up

2141—Owlet down.

2227—I leave after observing 53 prey deliveries between 2042 and 2227.

# B4—2006

## 2 June 2006

1430—Flam crew arrive to in afternoon to tap and peep cavity trees. EE walks by **B4\_303 (Tag # 303)** and notices F in entrance of *Potr* cavity. **The B4\_2006 nest tree!**

## 5 June 2006

2132—EE and KC enter the B4 nest site to capture M.

2137—Prey delivery after the F begs.

2148—EE is setting net up, nest is ~ 40ft high.

2152—Net up, but the F flushes from the net hitting the tree. We leave the area, hoping to give her time to return, but end up moving on to another territory.

## 6 June 2006

2021—KC and SY arrive at B4 nest to attempt to capture the female.

2040—M enters the nest site and perches on a *Potr* approx. 6 m W of nest tree. He gives 1 LC. KC attempts to move net into position but F flushes the nest. We leave.

2101—We return to nest to observe prey deliveries and catch M.

2103—M delivers prey.

2104—Another PD from M.

2105—Net is in place. Again PD, no catch.

2108—Fourth PD, failed netting.

2109—M calls from S.

2133—M enters and delivers prey, is caught in net, F flushes. **The male was previously banded; Band #64425—this is the B4\_2005 male.**

LWC: 132mm Mass: 74.0g

LLP: 87mm 20.0g

Rec: 58mm 54.0g

2145—Release M. He has strong flight to the S. We leave.

## 13 June 2006

2022—KC and EE arrive at the B4 nest to attempt to capture F and peep nest. Weather is calm, PC, and 21 degrees C. F is down when we arrive.

2024—As KC moves closer to nest F comes to cavity entrance.

2025—F goes back down.

2027—F comes back up.

2028—F gives HEC calls at us and M begins to sing TC’s off of roost about 30m to the S. M continues singing for about 5 minutes.

2030—F goes back down.

2032—F comes up.

2036—F goes down.

2043—As KC attempts to set net over cavity entrance the F flushes.

2046—M and F begins to give HEC as KC attempts to peep. F flies back to within 2m of nest. Peeper gets near F and she flushes the area. We take peeper down to avoid any further disturbance.

2050—M comes near nest tree and is immediately mobbed by an angry robin. M leaves.

2051—F goes back in to cavity.

2052-2052—M makes 2 prey deliveries.

2100—We leave.

## 15 June 2006

2033—EE and EM arrive at B4 nest to attempt to capture F and peep nest. Weather is PC, calm, and 18 degrees C. F is up upon our arrival.

2040—F flushes as EM taps the tree with pole trying to set net over cavity entrance.

2042—We peep the nest and **find 4 eggs in the center** and touching (**this is the second year in a row the B4 female has laid a clutch of four** (we still need to determine if it’s the same F as last year). **Nest height is 37 feet, 7inches**

2045—We take peeper down and leave.

## 19 June 2006

2318—EE and EM arrive at B4 nest site to observe prey deliveries. Temperature at nest is 14 degrees C, with no breeze. **\*Note: The nest site is very hard to observe prey deliveries because of a lack of good silhouette. Some prey deliveries could have been missed.**

2332—Prey deliveries (indicated by location calls from the M)

2340—Prey delivery

2344—Prey delivery

2357—EE and EM leave nest site.

2450—EE is on Vista Ridge song-posting and hears a M calling to the S (likely B1) and another to the E (likely B4). I chase after the Eastern bird and get within 50m of him on Camp Ridge before he stops calling. He was calling from the S end of Camp while the B1 M was calling from the Missouri Creek drainage bottom.

## 20 June 2006

2027—KC, SY and Kal arrive at B4 nest site to attempt capture of the F.

Weather: approx. 30% cloud cover, calm, 24 C.

2030—F in cavity entrance.

2031—F down.

2040—Net in capture position.

2041—Capture. **F is previously banded; Band #64402—this is the B4\_2005 female**.

**Band # 64402**

LWC: 128mm 88.0g

LLP: 91mm -20.5g

Rect.: 55mm 67.5g

This is the 2005 B4 F.

2046—Release, strong flight E.

2047—We peep: four nestlings in gray natal down.

2048—We leave.

## 27 June 2006

2145—BL arrives at the B4 nest to peep cavity. F is off the nest when I arrive, and she makes a couple of prey deliveries before I leave. I peep the cavity and find that 3 of the owlets have grey down on the back and wings (mostly white heads), and one owlet (the runt) is mostly in white down—eyes not open.

2155—I leave.

## 30 June 2006

1435—Flam Crew and Marcus arrive at B4 nest site to band and bleed nestlings. F is in entrance when we arrive.

1440—F flushes.

1450—After taking measurements, BL begins enlarging cavity.

DOH: 26.0cm

Ent. (h x v): 5.0 x 4.5cm

Ent. Thickness: 4.5cm

Horiz. Depth: 16.0cm

Vert. Depth: 32.0cm

1500—Nestlings removed. 4 of them, runt is too young to band.

**Runt Band #64495 Band # 64496**

39.5 g 56.0 g 55.0 g

-20.5 -17.0 -17.0

19.0 g 39.0 g 38.0 g

LLP: 25mm(20 in shaft) 17mm(16 in shaft)

**Band #64497**

59.5g

-17.0g

42.5g

LLP: 25mm(20 in shaft)

1533—Nestlings returned to cavity after bleeding all except the runt. We leave.

## 6 July 2006

1410—Flam Crew arrives to check the status of the B4 nest. F is at entrance when we arrive, and she flushes as we raise the peeper. **Nest contains only two owlets**, both of which are total juvenal plumage with adult plumage filling in on remiges and facial disk. No evidence of other two owlets, either in the cavity or on the ground in the nest site.

1420—We leave.

## 7 July 2006

1620—Flam Crew arrives at B4 nest to assess brood reduction.

1622—F flushes the nest, we peep: **2 nestlings present**.

1632—BL removes owlets from cavity. #64495 and #64497 remain.

**Band #64495 Band #64497**

53.5g 56.0g

-12.0g -12.0g

41.5g 44.0g

LLP: 50.5mm 52.0mm

Rect.: 20mm 20mm

1647—Owlets returned to cavity, we leave.

## 10 July 2006

2200—Flam Crew passes through B4 nest area on way to B12 territory. We pause to observe nest activity.

2207—M arrives and delivers prey in cavity, and we hear the one owlet give FSC at this time.

2210—Same. We leave.

## 13 July 2006

1400—EE and EM arrive at B4 to peep. F is not in the cavity. **We find 1 owlet that looks very close to fledging age**, although 1-2 days younger than remaining B6 owlet.

1430-1645: Flam Crew peeps and enumerates cavity trees in the N end of B4 territory, from Camp Ridge to the W, S Goshawk Ridge to the N, and Coopers Hawk Ridge to the E. Nothing found.

2240—EM arrives at B4 nest tree to observe nest activity.

2247—EM hears a scampering sound to the E of the nest tree. He continues to listen and watch for prey deliveries and possible fledging.

2317—EM peeps B4 cavity and finds **fledging has occurred**. He looks within the vicinity of the nest tree but is unable to find the nestling.

2323—EM leaves site.

# B4—2007

## 29 May 2007

2052— SY, KB and CB arrive at B5 and spread out looking to assign songposts to the B4 male.

2200— M gives TCs and TECs from entrance of an unnumerated cavity on the SW slope of Bermuda R. (approx. 35m from B4 parking spot) for two minutes, then leaves.

2223—While observing the M at a songpost (B4\_2, 5/29/07 – see data sheet) SY observes a second owl in the same tree as the M. Possibly a F?

2230—M returns to cavity and calls (TCs and TECs) for nine minutes. At one point the M drops to cavity bottom and continues calling for approx 20 sec before returning to entrance. (Nest selection behavior?)

2052-2400—KB SY and CB flag six songposts.

0007—We leave.

## 5 June 2007

1530—Flam crew peeps western B4 and eastern B1 territories. SY finds a **flam nest in B4\_429**. We realize during nest observation later in the night that this is the **B1\_2007 nest**.

2140—BL travels through B4 territory on the way to Sharp-shinned Hawk Ridge, and hears M giving TC just S of the B4\_2006 nest tree. I pursue and mark the first of 3 songposts, ranging from 23-75 m S of said nest tree (see Songpost Data Sheet). At the 2nd songpost, which was a *Potr* cavity tree (B5\_9, tag 423), the M sang from the entrance of a cavity for ~10 min.

2215—I leave the M, who has moved back in the vicinity of the B4\_2006 nest tree. No F is seen or heard during this time.

2250—EM and CB arrive at last year’s B4 nest tree to spot map.

2251—EM hears TC’s to S (probably the B4 M).

2256-2325—EM hears and songposts a M giving TC’s and hoarse encounter calls on a large *Potr* on Cooper Hawk ridge.

## 7 June 2007

1400—Flam crew arrive to peep B4 and B14 territories to attempt to find B4\_2007 nest.

2100-2300—EE and CB spread out on N and S Goshawk ridge to listen for any Flam calls. Weather starts out cloudy/ foggy and winds 5-10mph. Temperatures hovered around 0 degrees C. We hear nothing.

2300—CB goes down into Missouri drainage bottom and hears nothing.

2345—BL, KB, CB move further S down towards Homestead drainage. Hear M and F interaction in drainage bottom and watch M make PD to F outside of a cavity for about 20 minutes. This suggests that they are early along in their courtship.

0030—EE heads up to tree B2\_529 to watch for any nesting activity. It remains quiet

0040—EE hears M calling to W and tries to chase after but he stops calling (probably B2 M)

0050—We leave area.

## 13 June 2007

2049—EM and CB arrive ¾ the way up Cooper’s Hawk Ridge and have mist net set up. Slope is about 15 degrees, surrounded by two low conifers. Speaker volume was set lower than normal. No clouds, calm, 14 C.

2055—immediate activity around the mist net. Sounds like one male from the south and one from the west, most likely B1 and B4 males. CB and EM begin to songpost and observe.

2056—2155—this activity remains the entire time the recorded male vocalizations are played. Net is checked every 15 min. At one point, SY sees a M bounce off the mist net. EM sees male owls swoop very close to the mist net several times. No M is ever captured in net. The males also showed aggression at one another, at one point flying into the same conifer and making hoarse encounters, almost behaving like UFO’s.

2050—One M flies off site to the W.

2156—We disassemble mist net and turn off recording to prepare to leave site.

2156—2200—2 males still giving TC’s in near vicinity as we leave the site.

# B4—2008

## 27 May 2008

1445—Entire flam crew enter edge of B5 and set up lure net on the S end of Bermuda Ridge.

Weather: 15mph wind, temp 18C, mostly sunny

2048—BL,SC,DH enter B5 and extend lure net and start playback, and immediately hear male give TC in the vicinity of the net.

Weather: no wind, temp 14C, slight overcast

2050—Male Captured. **He was previously banded -- Band#64425; this was the B4\_2005M.**

Band # 1593-64425 LWC 132mm

80.0g RECT 64mm

-30.0g LLP(5) 92mm

50.0g LLP(6) 102mm

2110—M released.

2112—Hear TC again; most likely B4\_2005M calling again.

2120—TC stop. leave net.

## 2 June 2008

2345—CB, QB, and BL arrive on Vista Ridge to attempt spot-mapping of B4, B1, and B14 males. CB travels out Camp Ridge, QB on Vista Ridge, and BL on S Goshawk Ridge. SY and SC move in from Bermuda Ridge to assist; they position themselves on the E end of S Goshawk and Cooper’s Hawk Ridges.

2427—CB tags songpost B4\_1 (see datasheet)

2445—We leave after B4 male quiets on Camp Ridge.

## 3 June 2008

1625—Flam crew begins peeping B4 area. Weather- 28C, partly cloudy,wind NW 15-20.

1642—**B4\_2008 nest found in cavity tree B4\_304**. Cavity is SW facing, approximately 40ft high. F is in entrance, visually spotted with binoculars.

1650—F returns to cavity bottom – we leave.

2055-SY and CB arrive at the B4 nest to attempt capture of the F. Net is in capture position. No response.

2105—We peep – **F is not present – 2 eggs, center and touching.** We leave.

## 11 June 2008

2055—Arrive B4 to attempt capture of female.

2058—Net in position over cavity; female has not appeared yet.

2110—Female appears in tree nest to nest tree(gives no calls); attempts to fly into cavity but cannot because of net so flies to a nearby tree.

2112—M flies in and leands beneath cavity; flies away to other tree; we remove net.

2113—F flies into cavity, begins giving FSCs; M makes PD; we back off but hear no calls in nest area.

2132—We decide not to attempt to capture M because we see a bird fly out of cavity; Afraid we flushed F again since we hear no calls; Also, nest is very difficult to access quickly or quietly. We leave area.

## 12 June 2008

2044—KB and SC enter B4. Immediately hear M give LC. F is down giving FSC. We attempt to position net, but discover large hole in net. We wait to capture and repair net.

Clear, calm, 3C

2045—M enters cavity for PD then flushes. F stays down in cavity giving FSCs.

2049—M flies in cavity for 2nd PD and leaves.

2050—F comes up and flushes.

2051—M flies to branch near cavity while F calls from nearby tree. He then leaves presumably to join F.

2055—SC peep cavity. **There are 2 eggs touching to the side and 1 egg almost touching them: 3 eggs total.**

2100—We back off cavity tree and attempt to fix net.

## 16 June 2008

2036—KB and QB arrive at B4 nest to attempt capture of Female. Weather: calm, partly cloudy, lightening and sprinkles on the drive in, thunder in distance. 18C

2038—Capture net is in position over cavity at 40ft 11 in. So far no sign of F.

2046—M arrives giving LC’s

2049—M attempts prey delivery, flies away before hitting net.

2051—M attempts another prey delivery- F sticks head out of cavity, immediately back down. M perches on branch near cavity.

2053--M leaves perch, gives LC’s.

2057—**F captured. She is unbanded. We band her.** **Band number: 1593-64626.** She gets very tangled in net on way down. Her tongue is bleeding, but once we get it untangled, it stops and she appears to be ok. **Peeping shows 3 eggs touching.**

2112—F released without taking measurements because it took so long to get her untangled and banded. We leave area.

## 23 June 2008

2050—DH and KB approach the B4 2008 nest tree. M is giving LCs in the area. We observe the tree from a distance. Our intent is to capture the M. Weather: 12C, cloudy, clam

2056—M makes a silent PD , then the F flushes.

2100—M comes back to the nest tree, briefly perches in the cavity entrance, then perches on the nest tree giving some TCs. He leaves to the SW after a minute of calling.

2104—F returns to cavity.

2106—M makes a PD, completely enters the cavity.

2116—As KB gets the net in position, the M aborts a PD.

2117—Net is in position and M is calling in the nest area.

2125—M attempts a PD and aborts.

2136—M makes a PD, attempt at capturing fails.

2153—M attempts another PD, believe it is successful, attempt at capturing fails again.

2213—We take the net down

2215—We leave the area.

0012—DH and KB return to B4 to try to catch the M again. As we approach, we hear him giving TCs to the East. Weather: clear, calm, 7C

0014—DH raises the net and gets it in position.

0040—We leave the territory without seeing or hearing the M at the nest site.

## 24 June 2008

2014—KB and DH arrive at B4 to attempt early capture of the male. Weather: 15C, calm, isolated clouds.

2034—Hear male calling off roost to the SW of the cavity (up slope).

2040—Net in position—KB on net. Height of net = 41 ft, 2 in.

2047—Male is giving TCs in the nest area.

2052—Female begs from cavity. Male is still hooting in the area.

2054—PD, aborted.

2055—PD, aborted.

2055—Another PD. This time he fully enters cavity, but flies off before we can get the net in front of the hole.

2101—We drop net. Male does not appear to be in the area.

2109—PD.

2113—Female flushes.

2114—Male is back in the area, giving TCs.

2116—Female comes back on to the cavity. PD from male.

2120—PD.

2121—PD.

2123—PD. Could this be a hatching?

2126—Net in position—KB on net.

2133—Male flies (silent) to perch right in front of cavity, but does not go in.

2150—DH takes over on net.

2155—PD, aborted (silent entry).

2158—PD, successful (vocal). Missed him with net.

2200—PD, aborted (vocal). This male is very finicky around the net.

2206—We drop net.

2209—He is vocalizing in the site as we leave.

## 1 July 2008

2151—CB and KB arrive at B4 nest site with hopes to capture the M.

2158—Bird enters cavity.

2159—Same bird comes out of cavity, perches on branch, then hops back into the cavity briefly, then takes off to the East. We hear F vocalizations, though we are not sure if they are from inside or outside the cavity.

2200—Bird back in the area, silent PD

2201—F up in cavity.

2202—F flushes.

2203—Silent PD.

2206—Silent PD.

2207—Silent PD.

2211—Aborted PD.

2212—Silent PD.

## 7 July 2008

2250—SC and DH join BL at B4 nest to peep nest and attempt capture of the M. BL raises capture net at 2245.

2254—F goes back on to the cavity. M is hooting in the area.

2255—She flushes as we raise peeper.

2258—**We peep and find at least 2 nestlings (probably 3), one of which was on top of the other(s). The most visible owlet appeared to be ~10 days old, as he was covered with juvenile plumage and appeared grey and white on the face (no defined facial disk), breast, head, and wings.**

2305—F gives PD, then perches on adjacent tree S of the cavity, vocalizing.

2312—M enters site, gives aggressive TCs from various perches around the nest for ~5min. He does not approach the cavity.

2318—F enters area, vocalizing. She and the M both call to each other, F approaches cavity, flies off—aborted PD.

2319—We leave.

## 8 July 2008

2034—BL and QB arrive at B4 nest site to attempt capture of M. F does not come up to cavity. Weather: partly cloudy, calm, humid, 13 C.

2042—M calling in area (LCs).

2044—BL gets net in capture position.

2048—M makes aborted PD

2049—M makes PD; we hear F calling in nest, she rises to entrance.

2053—M flies in giving LCs, lands beside cavity (PD to F?). F flushes.

2055—M makes PD, caught in net but escapes.

2057—M makes aborted PD, F flies into cavity, M makes PD to F.

2058—M makes PD, F leaves.

2059—F makes PD.

2100—F on cavity, M makes PD to F.

2101—M makes PD, hits side of net but escapes, F leaves.

2103—F makes PD.

2106—F makes PD, followed into cavity by M who makes PD.

2109—M makes PD, captured in net. **He is banded. Band # 1593-64425—originally the B4\_2005 M. He is the presumed B4 M who was caught in a lure net in B4 on 27 May 2008.**

Band # 1593-64425 LWC 132mm

67.5g RECT 59mm

-15.0g LLP(5) 96mm

52.5g LLP(6) 105mm

There is no molt evident.

2117—M released. QB raises net again to attempt to capture and bleed F. Net gets hung up as it is raised, and we lower the net for repair.

2145—QB again in capture position. F makes PD and net gets hung up again at this time.

2155-2205: M approaches nest several times but aborts each time without making PD.

2205—M and F make PDs in the cavity.

2209—M makes PD in cavity.

2216—M makes PD in cavity.

2224—Same.

2231—F makes PD.

2236—We leave.

## 11 July 2008

2144—DH and KB arrive at the B4 nest site with intentions to capture the F and peep.

2147—As we raise the peeper, a bird enters the site. Peeping reveals three nestlings. They look at the peeper and the elder is developing a facial disk. The other still has some gray fuzz on its head. The youngest is still very fuzzy light gray.

2152—Net is in position. M gives TCs to the SW.

2200—DH captures the F. We bleed and band her. **B4\_2008 F is banded as 64626.**

Our blood sample is of questionable quality because of the clots that formed.

75.5g

- 16.5g

59.0g

2225—We release her.

2226—We leave the site.

## 14 July 2008

1450—Flam Crew arrives to peep/check status of B4 owlets, and possibly to band/bleed owlets.

1454—F flushes from cavity as peeper is raised.

1455—**We peep: 3 nestlings, 2 developing facial discs. The runt we decide is ready to be processed, though it is close.**

1514—BL reaches cavity entrance:

Horizontal x Vertical: 60mm x 70mm

Thickness: 60mm

Horizontal depth: 15cm

DOH: 26.0cm

Vertical depth: 40.0cm

1534—Owlets out of cavity.

Nestling Band # 64619

Mass 78.5g LLP(5) 42mm 26 in shaft

-17.5g LLP(6) 43mm 24 in shaft

61.0g LWC 63mm

RECT 14mm

Nestling Band # 64618

Mass 76.0g LLP(5) 54mm 20 in shaft

-16.0g LLP(6) 55mm 24 in shaft

60.0g LWC 72mm

RECT 26mm

Nestling Band # 64620

Mass 81.0g LLP(5) 55mm 19 in shaft

-16.0g LLP(6) 56mm 22 in shaft

65.0g LWC 76mm

RECT 24mm

Lots of sawdust in eyes, but successfully removed.

**All owlets bled.**

1618—Owlets returned to cavity.

1626—We leave.

## 17 July 2008

2331—BL, DH and KB arrive at the B4 nest site to peep.

2335—Peeping reveals one nestling sprawled and wearing a shiny new band.

2338—We leave the nest site.

# B4—2009

## 26 May 2009

2316—JG and KB arrive (see B5 notes 26 May 2009) in B4 to listen.

2325—KB taps B4 2008 nest tree, movement observed in cavity.

2327—Owl observed in area near 2008 nest tree. It lands in B4\_303, then flies away. We listen.

2351—We leave.

## 2 June 2009

1620—JG, KG, and KB arrive in the B4 territory. KB taps B4\_303 and the F comes up in the cavity. **Cavity tree B4\_303 is the B4\_2009 nest tree; this live *Potr* is 5 m S of the B4\_2008 nest tree, and the same tree and cavity was first used as a B4 nest in 2006. Cavity is approximately 12-13 m high and faces W; it was enlarged in 2006.**

1621—F goes back down. We leave.

## 8 June 2009

2028—JG, KG, and KB approach the B4 nest tree with intent to capture the F. F is up as we approach. Weather: cloudy, calm, scattered rain,

2031—F goes down. KB raises the net.

2035—F flushes as the net hits the tree and escapes above and to the right of the net rim. This is a tricky cavity to get the cavity completely covered. Might be best to approach from the south/west and lean the net in

2036—M enters the area at the same time as F flushes.

2038—**We peep and find 3 eggs centered and touching**.

2043—M enters the nest site giving LCs.

2044—We observe the F enter the cavity. The M is still in area, we see him in the neighboring tree.

2046—We hear a male calling just to the south of the nest tree, up biker ridge. KB runs up the trail to find this third owl. Near the hairpin turn on biker trail (where it turns to go up Sharp-shinned Ridge) I hear what sounds like LCs in the drainage bottom. M goes silent. I hear and see nothing.

2048—Male seen returning to nest.

2052—I leave the drainage, meet JG and KG at the B4 nest site and we leave the nest area to set up a lure net on Camp Ridge.

2130—We set up a lure net on top of Camp Ridge.

2131—Playback starts. The batteries immediately die in the speakers and we replace them.

2134—Playback restarted.

2139—M begins calling in the lure net area. He seems to have come in from the south, southwest.

2143—M is caught in the second shelf on the south side (outside of V). He is previously banded.

**Band # 2003-92385** LWC 137

85.0g RECT 63

-27.0g LLP(5) 105

58.0g LLP(6) 112

**This bird, presumably the B4 male, was a B7\_2004 nestling—another example of natal dispersal, and in this case the M is now 6 yr old!**

2158—M is released.

2200—Net check, empty.

2208—Catch the same male again in the top shelf from the sw.

2211—We release the M, while he is in hand we hear two males calling to the south, one is very close to the net site.

2222—Net check, empty.

2227—Net check, empty. Direction of the playback is changed.

2228—JG and KB head over the ridge to the north to listen.

2232—KB taps B3\_41and JG observes an owl-like figure flush from the N side of the tree. We sit to observe.

2235—Net checked. Empty.

2243—Net Checked. Empty.

2251—No sign of any birds, so we leave and head southwest and loop back to the parking spot by B4 where we grab the peeper.

2253—Net checked. Empty.

2303—Net checked. Empty.

2306—Owls heard nearby. KG attempts to contact JG and KB.

2321—We catch an owl, same male as before.

2327—We release him, and at the same time another bird, this one unbanded, flies into the net. We band him.

**Band #1593-64678 (R leg)** LWC: 138 mm

82.5g RECT: 59 mm

-27.0g LLP(5): 97 mm

55.5g LLP(6) : 106 mm

We bleed the right wing, small hematoma forms.

2341—Bird is released and we break down the net.

2352—We leave the area.

## 15 June 2009

2020—QB and SC arrive at the B4 nest to attempt capture of F. Weather: calm, clear, 15C.

2024—We arrive at nest site; F is down.

2031—Capture net in position; F comes up, clacks beak at net, bobs head.

2032—F down.

2051—M in area, gives LCs.

2052—F begs, but does not come up.

2054—F flushes into net. She is unbanded. **We band; #1593-64657 (R leg). This is the 2009 B4 Female.**

2058—We peep; three eggs, center touching.

2105—Release F; M still calling in area.

2106—We leave area.

## 18 June 2009

2333—BL and SR arrive at B4\_2009 nest tree to attempt capture of M. **Height of capture net—38’ 0’’.**

2338—PD, M goes inside cavity.

2351—PD, M goes inside cavity.

2353—**M captured as he finally exits the cavity. He was previously banded—band suffix: 92385. This is the same M captured in the lure net on Camp Ridge on 8 June 2009, and is one of the B7\_2004 nestlings.**

89.5g LWC: 138 mm

- 29.5g Rect: 61 mm

60.0g LLP(5): 104 mm

LLP (6): 109 mm

2413—M released. Weather: Calm, partly cloudy, 13C.

2415—We leave.

## 29 June 2009

2026—JG and SC arrive at B4 to capture and bleed F. She has previously been captured and banded as a new F on 15 June 2009, **band #1593-64657.** F is down in the cavity. Weather: Thunderstorms to the S, mostly cloudy, 18C.

2033—JG raises capture pole into position. **Height of capture net—37’6’’.**

2040—M calls off roost.

2043—M flies to branch on nearby POTR.

2044—M gives rapid TECs.

2045—M flies to adjacent POTR and flies by cavity, presumably to attempt PD.

2049—F up and begging, M attempts PD.

2049—Capture F, she is banded, **Band #1593-64657**.

2050—**SC peeps cavity and observes three nestlings, all with grey feathers and active in the cavity. These owlets are comparable in age to the owlets in the A2 nest. The youngest owlet in this nest is comparable to the youngest at A2, while the eldest at the B4 is comparable to the middle owlet at the A2 nest.** We decide we will have enough time to measure and bleed the F.

70.5g LWC: 129 mm

- 20.5g Rect: 64 mm

50.0g LLP(5): 99 mm

LLP (6): 104 mm

JG took measurements, SC bled the left wing.

2107—Release F, she displays a brief moment of confusion in flight resulting in a collision with a nearby branch, then strong flight thereafter until out of sight.

2108—We leave.

## 6 July 2009

1618—Flam Crew arrives at the B4\_2009 nest to band/bleed owlets. F at entrance.

1620—F flushes.

1624—**2 owlets removed from cavity, banded and bled.**

1593-64696 (left leg)

49.0 g Rect: 17, 10 in shaft

LLP (5): 43, 24 in shaft

LLP (6): 41, 22 in shaft

Right wing bled

1593-64695 (right leg)

46.8 g Rect: 12, 10 in shaft

LLP (5): 40, 23 in shaft

LLP (6): 38, 23 in shaft

Right wing bled

1635—**Cavity peeped and third nestling found, banded and bled.**

1593-64711 (left leg)

35.1 g Rect: 10, 7 in shaft

LLP (5): 33, 22 in shaft

LLP (6): 30, 22 in shaft

Right wing bled

Feathers collected from each owlet for records: breast feather and secondary or tertiary coverts.

1700—Owlets returned to cavity.

## 9 July 2009

2050—DH and SY arrive at the B4 nest to attempt to capture the M and affix a geolocator. Ns are begging when we arrive.

2053—M gives TCs to the W. Net in capture position.

2104—We capture the F – **Band #64657**.

We hold on to the F to induce the M to make a PD.

2113—We capture the M – **Band #92385**; we release the F.

68.5g

-16.0g

52.5g

We affix geolocator #6765 using a backpack harness.

2139—We release the M, pack up and leave.

2331—SY returns to the B4 nest to check on how M is responding to geolocator. N is in entrance when I arrive.

2338—PD followed by F scolds.

2348—Pd – silent.

2353—M PD, silent (F giving FSCs to the W during the PD.

Flight appears normal. After the PD: F FSCs and M LCs.

2357—PD, silent.

2400-PD silent.

2405—I leave the nest site.

2411—Scare the living daylights out of QB and JG on the biker trail – Note: Please consider them pirated.

## 14 July 2009

2038—BL arrives to check the fledging status at the B4\_2009 nest, and the status of the geolocator on the M. Weather: mostly clr, calm, 19 C.

2105—No activity at the nest, and no vocalizations in the nest area—owlets are all apparently fledged. I leave.

# B4—2010

## 25 May 2010

2200—SY and BG enter B4 area to listen for nesting vocalizations

2205—BG walked down west Missouri Creek to listen and tap cavity trees. No response or vocalizations heard.

2211—SY begins listening for nesting vocalizations in vicinity of B4\_2009 nest tree.

2215—SY hears LCs ~15m S of 2009 B4 nest.

2217—M gives TCs from near top of 50 Cent R. – seems to be responding to playback on Bermuda R. Calls from ~1min.

2225—SY moves ~25-50m up creek towards B12. I give a few low TCs and M responds almost immediately with low TECs and HECs from approximately 10m E of my position.

2230—Depart area to assist removing bat from lure net.

2350—BG hears several location calls near junction of trail and road. Pursued up drainage, heard several more calls and then no response.

2415—SY, KB, DW, and BG leave B4 area to walk back to truck.

**\*\*ADDENDUM/CORRECTION (bl—6/4/2020): On this date, we failed to include the fact that a lure net on Bermuda Ridge resulted in the capture of a previously unbanded FLOW (1593-64758), a presumed floater, who later became the B4\_2011 and 2012 territorial/breeding male! Thus, this constitutes another documentation of an apparent floater who later transitioned into the status of a territorial male.**

## 1 June 2010

1506—Flam crew arrives in MG to tap/peep B4 and B1.

1512—**At the B4\_2009 nest, after SY beats JG in race to tree, B4\_303 #303, we see the F up in the cavity.** **This is the B4\_2010 nest tree**. This cavity is about 38 feet high, W-facing, and in a live *Potr*. BL notes light coming through the top of the cavity.

1518—BL spots roosting Pygmy Owl in *Psme* approximately 100 feet to the SE of the B4\_2010 nest tree.

1521—The F in the cavity of the B4\_2010 nest tree backs down into the cavity.

2030—JSG and KB arrive at B4\_2010 nest site (B4\_311) to attempt to catch M and observe PDs. Overcast skies, 17.5C, slight wind.

2033—F flushes from nest.

2035—**We peep the nest and find 2 eggs that are centered and touching.** Flicker feathers found in cavity.

2121—F returns to nest.

2124—M makes PD.

2128—Possible PD.

2132—Net is raised into position.

2141—PD, capture attempt fails, net too low.

2146—PD, capture fails again, too low.

2149—As approaching on a PD, the M flies into the capture net, which is about 10’ away from the cavity. He flies in the wrong way into the bag, and quickly frees himself.

2153—PD, net positioned too low to catch M.

2203—Hears no vocalizations but see bird fly by nest, possibly F. Lower net to avoid interfering with F.

2222—We hear the M giving LCs within the nest site. We begin to raise the net back into position.

2223—PD observed as net is being raised.

2228—PD, but accidentally catch bark with the net. Quickly lower net and raise again.

2230—Aborted PD.

2236—M gives soft TCs from within the nest site at us for about 10 min.

2248—M gives TCs at us.

2256—**M makes a PD, we capture the Male!** We heard male LCs within the nest site prior to capture, but we were not positive this was the male, so we tried to release quickly. He was previously banded as a floater in B6 in 2009. We held on to him for 10 minutes then released. We did not take any remige measurements. **M was previously banded--#64662; this was a B6\_2009 Floater male!**

**Band # 64662**

73.0 g

- 15.0 g

58.0 g

2306—Release bird.

2326—We begin listening on the road for the B4 male to songpost.

2346—Hear TCs west of the nest site, about 100m down the road. We pursue M.

2351—First song post.

0004—Second song post.

0015—We leave the area.

## 7 June 2010

2016—BG and SY arrive at the B4 nest to attempt to capture the M with capture pole.

Weather: 19C, calm, clear

2033—Net in capture position (before F flushes)

2041—F rises to cavity entrance, flushes W. M gives TCs to the W.

**We peep: 3 eggs, center, touching.**

2058—F returns to cavity while male gives LCs.

2059—PD after a few LCs. M leaves immediately before we can get net in position. F stays down.

2100—LC/TC from M, lasts <1min

2102—SY gets net up and ready.

2104—SY accidentally taps tree with capture net but F remains down.

2109—PD after a few LCs from M, net not ready.

2110—PD after LCs from M and F, capture effort unsuccessful.

2115—PD after LCs from M, we nearly capture M but he hits side of net while flushing.

2117—PD after LCs and TCs from M, begging from female when male hesitates to approach. F is up for PD so M does not enter cavity and capture effort fails.

2118—F ducks down into cavity, then F comes up and flushes. We pack up and leave.

2125—SY and BG leave in truck to go to B7/B8 and set up lure net.

## 15 June 2010

2037—JSG and JG arrive at the B4\_2010 nest to attempt to capture the F or the M. F is up upon arrival so we back away immediately.

2039—F goes back down, JSG begins to raise the net to the nest cavity.

Weather: Wind ~ 5 mph, clear, 10 C

2047—Net hits tree, F flushes, then immediately comes back on.

2050—M calls off-roost.

2051—JSG has net in position, refer to previous notes in B4 for capture height.

2054—F flushes into net. **She is previously banded as the B4\_2009 F. Band #64657.**

2056—We release her.

2059—We attempt to peep the cavity, but the peeper does not transmit a picture. We try to fix it, but given the aggravated activity of both the F and M in the area, we leave without seeing into the cavity. See notes for 15 June 2010 in B5 and B13 for further information on the night.

*\****Note: See B17 15 June 2010 for notes on lure set up on Sharp-Shinned Hawk Ridge.**

## 28 June 2010

2309—BG and JG arrive at B4 nest tree to attempt capture of B4 M

2311—JG puts net up (accidentally taps tree?), F flushes.

2314—**We peep: F back on, we cannot see under her but she appears to be tightly**

**incubating.**

2319—We back away to let her calm down before trying again.

2324—Hear M TCs from N (not too close). F begs and gives a weird, multi-note call.

2330—PD, JG gets net up.

2331—M LC.

2333—PD.

2336—PD followed by M LCs.

2339—PD, JG captures M in net but he gets away. We find hole in net and fix it.

2347—JG puts net back up.

2348—PD, F up, F begs for ~1min.

2353—Aborted PD.

2355—Aborted PD, capture attempt, F flushes, we take down net and pack up.

2358—We leave.

## 8 July 2010

2253—DW and JG arrive at the B4\_2010 nest to attempt to capture either the F or the M. We need a genetics blood sample from the F and a blood smear from the M. Upon arrival we hear the nestlings begging.

Weather: Calm, clear, 10 C

2258—Silent PD

2301—DW raises net and places it over the nest cavity to attempt to flush the F if she is in the cavity, we tap the nest tree and wait, but the F does not flush. We remove the net from in front of the nest cavity to attempt to capture either the M or F on a PD. **Capture height: 38’3”**

2303—Silent PD

2307—Silent PD

2310—Silent PD

2313—Silent PD

2320—M PD, LC immediately before flight to cavity.

*\*Note: PDs were occurring very quickly – each PD by the time we were able to get the net over the cavity, the silent FLOW had left.*

2324—JG hears TCs/TECs to the N toward the B4 parking spot/main road.

2332—TCs from the parking area stop.

2340—TCs/TECs begin again in the same direction.

2350—Nestlings stop begging. Since we arrived at 2253 they were continuously begging.

0009—**We peep the nest cavity, having not seen a PD since 2320. We see 3 nestlings. 2 of the nestlings are just beginning to develop facial disks and their bodies are covered in juvenile plumage. They are probably 2-3 days ahead of the A18 nestlings at this point. The youngest of the 3 is probably 2-3 days behind the older two, is still developing juvenile plumage, and has not yet begun to develop a facial disk**.

0011—As we lower the peeper, the nestlings begin begging again and we see 2 more PDs to the nest cavity and hear the F begging and the M giving LCs.

0015—We get the net back in position to capture upon a PD.

0022—We leave, having not observed another PD.

## 13 July 2010

1438—BL, JSG, and JG arrive at B4 to capture F and band and bleed nestlings.

1443—JG puts up capture pole.

1447—**F flushes into net while peeper is being raised. She is previously banded with band number 1593-64657.**

**Band # 1593-64657**

67.0 g LWC: 131 mm

- 15.0 g LLP(5): 98 mm

52.0 g LLP(6): 108 mm

Rect: 56 mm

1448—**We peep cavity and see 3 nestlings with developing facial discs and almost no natal down.**

1457—BL climbs tree with hooks and takes nestlings out of cavity. All nestlings are banded and bled for genetics and parasite smears.

**Band # 1593-64782**

51.8 g

P#5: 59 mm (20 in shaft)

P#6: 57 mm (21 in shaft)

Rect: 26 mm (12 in shaft)

**Band # 1593-64783**

53.2 g

P#5: 57 mm (21 in shaft)

P#6: 58 mm (21 in shaft)

Rect: 23 mm (10 in shaft)

**Band # 1593-64784**

47.8 g

P#5: 46 mm (22 in shaft)

P#6: 45 mm (21 in shaft)

Rect: 16 mm (7 in shaft)

1517—Release F to strong flight.

1538—Nestlings are back in cavity.

1545—We leave the area.

2145—Jennifer Blakesley, Tyler, and BL arrive at the B4\_2010 nest to attempt capture of M and attach geolocator. Weather: Partly cloudy, slight breeze, ~ 22 C.

2147—PD at nest (silent, but M is suspected). Same at 2150 and 2151, as owlets beg audibly from the cavity.

2152—Owlet at entrance. BL gets into position with capture pole.

2204—**M is captured after he makes a PD—his Band # 64662 confirms his identity as the B4\_2010 M.**

**Band # 1593-64662**

81.0 g

- 30.0 g

51.0 g

**BL proceeds to attach geolocator # 12A184 with backpack harness.**

2236—M is released—he makes a strong ascending flight ~ 15 m to the NW, then a moment later an ascending ~ 10 m flight to the terminal limb of a *Pipu*, where he proceeds to preen.

2240—We leave, after noting that the M had left his last perch.

# B4—2011

## 31 May 2011

2225—SY, JR and EWE enter B4 to listen for nesting vocalizations and tap on cavity trees.

Weather: 16C, wind <5mph, clear

2234—We tap on cavity tree #303 (B4\_2010 nest tree) – F rises to entrance for less than 1 min. (same cavity as 2010). **This is the B4\_2011 nest**. **This cavity is about 38 feet high, W-facing, and in a live *Potr*.** We remain in area to observe activity at nest.

2246—M begins giving TCs and TECs from 25-50m NE of nest on low slope of Bermuda R.

2252—F gives FSCs from bottom of cavity

2253 – Depart area, return to B5

2407—JV and EWE walk down the road into B4 to attempt spotmapping. Hear two TCs and nothing else.

2410—Hear a couple more TCs far down drainage from the road.

2417—JV gives a couple of TCs from the road and the territorial M begins to make his way up the drainage but stops just N where the drainage opens up and doesn’t come closer.

## 1 June 2011

2027—JV, JG, and JR arrive at the supposed B4 nest to attempt a capture of the M.

Weather: clear skies, 21 C, wind >5mph

2037—Arrive at nest and F is down.

2040—JG has net up. **Nest height: 38 ft.**

2106—M flies silently into nest site.

2108—F begins begging from cavity.   
2118—M gives one TC and one loud TEC, then flies overhead giving LCs.

2120—JG takes down net. We did not observe any PDs or see the F flush, so we leave having not had the opportunity for a capture or to peep the nest.

***\*Note – on 7 June 2011, SY discovers that this is in fact not the B4 nest and that #469, just E of this tree, is the B4\_2011 nest. See notes below.***

## 6 June 2011

*\*Note—These notes are also in B5.*

2340—JR and AW start playback on the S end of Bermuda Ridge. *\*Note—Presumed B5 M gives consistent TCs from N, E, and S of net while we are setting up.*

Vegetation: Mixed aged psme/pipo.

Weather: Calm, mostly clear, 11C.

X: 495761

Y: 4333610

+/- 8m

2320—The M arrives at the nest and begins delivering LCs.

2325—After moving two several different perches and continually delivering LCs, the M makes a PD to the nest cavity. JG captures him, but while lowering the capture pole, the M escapes! Déjà vu…

2347—M gives 4-5 TCs from SW of net along Bermuda Ridge.

2350—M gives TCs from further to the SW-W on the W facing slope of Bermuda Ridge.

2355—M continues to give TCs, but now sounds further away. M goes silent after approximately 30 seconds.

2405—M gives TCs from SW of net. M sounds as if he is on Coop Hawk Ridge to the W of Bermuda Ridge. At this point, JR and AW assume this M is B4.

2413—M gives more TCs from SW of net from Coop Hawk Ridge.

2420—Stop playback. JR and AW break down net and we leave.

## 7 June 2011

2040—JR and SY arrive at “B4 nest” to attempt to capture M.

Weather: Very little wind, clear night, 16C.

2044—SY raises net.

2052—M flies over area giving TCs, 10m to the E of “B4 nest”

2104—We hear F off cavity to the E, bring net down.

2108—SY heads towards F FSCs, E of B4 “nest”. I locate a M in a pipu ~10m E of B4 “nest”., can see a band on R leg. I observe M make a forage either on ground or <1m off ground in ACGL, w/I 3m of my position. Returns to perch and feeds himself. Makes another forage in pipu. F continues giving FSCs ~8m S of my position. **M flies towards F and I observe M make a PD at a cavity in tree #469.** **This is the *actual* B4\_2011 nest.**  **Cavity is ~35 ft. high, N facing in a potr snag(?).**

2115-2120—We observe 4 PDs.

2125—BG peeps the supposed B4 nest to find two flicker feathers and old, broken egg shells.

2130—SY has net up. F giving FSCs constantly the whole time.

2134—M makes a PD, attempt to capture.

2139—M makes another PD.

2144—M makes a third PD.

2150—M makes a fourth PD, SY comes in contact with owl, F flushes.

2155—SY peeps cavity, transmission bad, at least 1 egg.

2200—We leave to set up lure net on S end of Cam R. See fieldnotes from B1\_2011 for this day.

## 20 June 2011

2147—JG has the capture net in position at the B4\_2011 nest.

2153—F begs and M flies in about 1 ft away from the cavity before aborting the PD. F

continues to beg.

2155—M PD.

2122—M gives TCs from approximately 5m W of nest.

2213—F begs for approximately 1 minute.

2214—M gives TCs from approximately 50m E of nest. TCs continue regularly until 2238.

During this time, M moves back and forth from E to N of the nest.

2233—M gives TECs and a second M (probably B5) gives TC/TECs.

2306—After observing no PDs in 72 minutes, JG lowers the capture net and we leave to listen in

B12.

## 21 June 2011

2117—SY, JR and PS arrive at B4\_2011 nest to attempt to capture M. M makes PD right after we arrive.

2120—JR and PS go up ridge north of B4 nest to lure net while SY remains behind to attempt capture of B4 M.

2139—**After several PDs, SY catches B4 M, who was previously banded as a B4\_2010 floater (captured in lure net on Bermuda Ridge).**

**Previously Banded # 1593-64758**

75.0 g LWC: 128 mm

- 15.0 g LLP(5): 101 mm

60.0 g LLP(6): 107 mm

Rect: 60 mm

2210—Release M, strong flight to the W.

## 28 June 2011

2042—IJ and SY arrive at the B4 nest to attempt to capture F.

Weather: 17C, clear wind 0-5mph.

2046—F rises to cavity entrance while net is going up. We bring net down and IJ hides behind cavity.

2048—F goes down and we resume capture attempt.

2052—Net in capture position. F does not rise to entrance.

2056—F rises to entrance

2059—F goes back down. M enters site from the E.

2100-2103—M makes ~5 aborted PDs.

2104—We pull back net to allow PD.

2105—M makes a PD. We return net to capture position. F rises to entrance and flushes. She escapes the net to the side. **We peep: 3 Ns present all in white natal down. Top N has eyes open briefly, still has egg tooth. 2nd N has eyes closed, can’t see bill. Can’t see the face of the 3rd N.**

We leave.

## 30 June 2011

2032—IJ, SY arrive at B4\_2011 nest site to attempt **capture of the B4\_2011 female**. Upon arrival, F is down in cavity.

Weather: 18C; cloudy with light rain; thunder and lightning building over area quickly

2036—SY moves to nest tree to raise capture net.

2041—capture net placed over cavity.

2043—M comes in to site, F starts begging. M aborts a PD due to presence of the capture net so SY removes net from over the cavity. M immediately makes a successful PD, entering the cavity and then leaving; SY puts the net back over the cavity; F continues begging.

2046—M returns to nest site, SY again removes net to allow a successful PD; M makes PD, leaves site and SY returns the net over the cavity.

2048—M again returns to site and makes PD when SY removes net; M leaves site immediately and net is returned to cavity.

2049—same as above.

2050—same as above; F begging audible.

2053—same as above.

2056—same as above, however M makes 2 consecutive PDs.

2059—F flushes into capture net**. F is previously banded B5\_2010 female. The B5\_2010 nest failed—this represents breeding dispersal by this female.**

**Band # 1593-64769**

77.5 g

- 16.0 g

61.5 g

While F is in capture net the cavity is peeped by IJ. **3 hatchlings are visible with all white natal down; no egg tooth is visible on the largest and presumably eldest hatchling.**

2105—F is released and IJ and SY leave the site.

## 5 July 2011

2320—AW, JG, and JR arrive at the B4\_2011 nest to attempt to capture the F and take a blood sample for genetics and a parasite smear.

2325—AW has capture net in position over the nest cavity. We hear the F begging off-cavity, so we remove the net from over the cavity.

2326—The F continues begging and lands on a dead branch next to the nest cavity on the nest tree. Immediately after she lands, the M delivers prey to her.

2327—The F returns to the nest cavity, and the M leaves the nest site. AW moves the capture net back over the nest cavity.

2428—**F flushes and is captured. As previously determined, she is the B5\_2010 F.**

**Band # 1593-64769** (on L leg)

79.5 g LWC: 122 mm

- 20.5 g LLP(5): 93 mm

59.0 g LLP(6): 99 mm

Rect: 58 mm

We take a blood sample for genetics and a parasite smear.

**Molt –** P 1 on the left wing is in molt. All primaries except for P 2 show a strong fluorescence on both wings.

2435—JR peeps the nest and sees **3 owlets with eyes open. 1 is standing upright and the other two are on their backs. All three appear to be covered in grey and have no more white natal down.**

2448—F is released with strong, ascending flight.

## 7 July 2011

2400—PS, EE, BG, and JV arrive at A4\_2011 to observe prey deliveries at nest.

Weather: Cloudy, calm, 15C, very humid and moist from afternoon thunderstorms.

2402—M makes PD from southern branch above cavity on nest tree. F is presumably on cavity and doesn’t make any PD during observation period.

2407—M makes PD from west.

2411—M makes PD from south.

2418—M makes PD from western Potr. Always flies away to same branch on potr snag to west of cavity tree.

2420—M makes PD.

2423—M makes PD.

## 14 July 2011

1420—AW, BG, BL, and EE arrive at the B4\_2011 nest to band and bled owlets. The F is up when we arrive.

1424—F flushes as BL starts to climb tree (climbing hooks). **We peep and find 3 owlets. The 2 oldest owlets have well developed facial disks. The younger owlet has extensive grey juvenile plumage.**

1432—BL enters the B4 cavity. There is no cutting needed due to the naturally large entrance and relatively shallow cavity.

**Band # 1593-64814** (on L leg)

46.5 g

LWC: 50 mm

P#5: 32 mm

P#6: 33 mm

Rect: N/A

Notes: Bled L wing.

**Band # 1593-64812** (on R leg)

59.0 g

LWC: 77 mm

P#5: 60 mm

P#6: 60 mm

Rect: 26 mm

Notes: Bled R wing.

**Band # 1593-64813** (on L leg)

63.0 g

LWC: 81

P#5: 56 mm

P#6: 57 mm

Rect: 18 mm

Notes: Bled R wing.

BL takes cavity dimensions for the B4\_2011 nest.

DOH: 23.5 cm

Entrance (bear torn): 80 mm (w) x 105 mm (h)

Entrance thickness: 35 mm

Vertical depth: 20 cm

Horizontal depth: 14 cm

1512—BL returns the owlets to the cavity. **Note: Eldest owlet is probably ~ 21 days old, and will likely fledge in 2-3 days.**

**14 July 2011**

2020—EDE arrives at B4 nest site and no birds are at the entrance. Heavy rains and thunder at site.

2022—Nestling pops up to entrance of cavity.

2026—Second nestling pops up briefly.  
2034—Nestling descends in cavity and F flushes to tree 20m north of nest.  
2038—Nestling begins begging.  
2039—PD (from west).  
2039—PD (from east).  
2043—Nestling descends again.  
2045—Nestling pops up again and continues to beg.  
2046—PD  
2049—PD  
2103—PD (from west)  
2107—PD  
2110—PD (from west)  
2115—PD  
2122—PD  
2124—PD  
2125—LC and M PD and nestling popped up at entrance.  
2126—M PD  
2127—Nestling down and up again.  
2127—PD  
2128—Nestling stretches wings.  
2137—Two LC and a M PD.  
2148—Two LC.  
2140— Rain stops.  
2154—LCs near nest.  
2155—More LCs and female scolding call.  
2155—F PD  
2155—M PD  
2200—M LC   
2201—PD  
2202—PD  
2202—EDE departs.

**15 July 2011**

2028 — EDE and friends arrive at B4\_2011 nest to fledge watch. Female is at the entrance with her eyes closed.

2035—M scolds  
2044—F flushes  
2046—Nestling pops up and down again.

2055—**A Red Squirrel begins making noise ~15m north of the nest high up in a pine. A commotion in the tree attracts our attention and I see the M dive twice at the location where the squirrel is in the tree (to dark to see squirrel). Squirrel is subsequently quiet.**

2055—3 PDs take place.  
2056—3 nestlings are at the entrance.  
2100—PD  
2102—PD  
2110—PD, only two birds are at the entrance but both are begging.  
2111—2 PDs  
2113—PD  
2115—The third nestling pops up again.  
2115—All go down.  
2116—PD  
2125—PD  
2127—PD  
2128—F PD

2130—M PD, one nestling up. This nestling sat at the hole for most of our time here and flapped his wings ~6 times. Otherwise bounced around at the entrance contemplating flight. Had a developed facial disk.

2130—F PD  
2143—PD and one adult flies by.  
2145—PD  
2147—M PD  
2147—F PD  
2150—PD  
2153—PD  
2155—PD  
2157—Nestling down.  
2158—PD  
2200—Nestling still down, we depart the site.

**18 July 2011**

2045—EDE arrives at B4 nest site and a fledgling is heard begging north of the nest.  
2050—F PD after she sat at the hole for 30 sec.  
2059—Nestling at entrance and begins begging.  
2100—Nestling down.  
2105—PD  
2108—PD  
2110—TC from west.  
2112—TCs stop.  
2113—Nestling back at hole.  
2114—PD  
2116—PD

2119—Nestling down. **Note: this nestling was probably the runt, appeared small and did not have a fully developed facial disk. Only one fledgling was off nest calling and he remained calling for the entire time.**

2123—PD and EDE depart nest to search for fledgling.

2130—Fledgling located ~50m north of nest in a dead pine. Fledgling jumped around in this tree begging until 2200 and no prey deliveries were seen.

2200—EDE departs site, no nestlings at cavity entrance.

## 18 July 2011

2425—JV and PS arrive at B4\_2011 nest to search for a fledgling that was heard by EE earlier in the night and also peep the nest.

2430—**We peep the nest. The runt is still in the nest and the other two have fledged. Only one of the two that have fledged has been located at this point.**

2440—Fledgling #64812 captured in Pipo just off of the road ~20 m NW of the nest.

**Band # 1593-64812**

51.2 g LWC: 93 mm

LLP(5): 72 mm

LLP(6): 70 mm

Rect: 46 mm

2244—The M is giving TCs just above our heads as we process the owlet.

*Note: This suggests that the M is taking care of this owlet while the F continues to care for the runt.*

2250—We return the fledgling to a Psme adjacent to the Pipo it was found in and leave.

## 22 July 2011

2234—SY, JR and CB start playback on top of Coopers Hawk Ridge.

Vegetation: Mixed psme and pipo.

Weather: Windy 5-10mph, that calmed down to 0-5mph later in night, clear, 17C.

X: 495501

Y: 4333738

+/-0 – from ARC map.

2328—Turn playback off and leave, without hearing anything all night except Conor’s

ridiculous stories about an antiquing competition he may or may not have won.

# B4—2012

**29 May 2012**

2030—JV, PPS, AP arrive at Bermuda ridge SE spur and set up lure net facing south.

Vegetation: Grasses, medium Pipo and Psme, snags near net.

Weather: Windy at first but dying down later, mostly clear, 12C

X: 495672

Y: 4333595

+/- 3M

2055—Start playback.

2116—JV, AP break off to listen in B4 and B5.

2206—JV, AP arrive in B4 proper next to both 2010 and 2011 nest tress to listen and attempt to find nest.

2215—Hear female and male location calls heard, near 2011 nest tree.

2230—Hear TCS NW of 2011 nest tree.

2238—Hear FSC and male makes PD to 2011 nest. **This is the B4\_2012 nest tree, and is the same nest tree, and nest cavity, as in 2011 (live Potr, B4\_469, Tag # 469). Nest cavity is approx. 38 ft high, is ~ 25 m S of the Missouri two-track, and ~25 m E of the B4\_2010, 2009, etc. nest trees.**

2240—Male PD to nest, female comes up to meet him, but otherwise down the whole time.

2255—JV, AP return, end playback and take down lure net.

## 4 June 2012

2104—CC, AW, AP and JV arrive at the B4\_2012 nest site to attempt to capture the B4\_2012 M.

Weather: Calm with some gusts of wind, 15C.

2108—AW raises the net. F is down.

2109—F is up.

2110—F is back down.

2117—M comes to cavity. It is unclear whether he makes a PD or aborts. AW moves net attempting to capture M. M leaves cavity, and F flushes after. AW takes down capture net.

2119—JV begins raising peeper. We observe a bird either fly from the cavity or from directly behind it. F had either returned quickly to the nest and flushed a second time, or was attempting to return to the nest, but did not get back on. **We peep the nest and find 2 eggs touching in the center of the nest.**

2121—We back off to the road.

2134—F gives two FSCs.

2135—The presumed B5 M gives TCs from the B5 direction.

2144—We head back to the nest to again attempt to capture the B4 M.

2144—The net is raised and the F is down.

2145—The F is up and AW stops raising the net.

2146—The F is back down and AW proceeds.

2157—F flushes for no apparent reason. We take down the capture pole.

2159—We leave the area.

## 8 June 2012

2133—PPS and BL arrive at the B4\_2012 nest to attempt capture of M. All quiet in the nest site at this time. Weather: clear, no wind, 21 C (drops to 12.5 C at end of night).

~2135—BL leaves to go retrieve pole clamp that was left at B1\_2012 nest.

2138—F gives FSC from cavity, in probable response to presence of M in the nest site. Unknown whether M made PD at this time due to dim headlamp.

~2145—BL returns to nest site.

2146—F rises to cavity entrance as BL attempts to raise capture net.

2154—Capture net is in place at this time.

2224—M arrives in nest area giving quiet TC and LC in trees immediately to E of nest.

2230—F gives FSC from the nest.

2236—M perches on limb of nest tree ~ 1.5 m W of the cavity. F responds again with FSC.

2239—M flushes past cavity (to E).

2240—**After perching briefly on previously mentioned limb, M makes PD in the nest cavity and we capture him at this time. M is previously banded—band # 64758; this was the B4\_2011 M.**

**Band # 1593-64758**

88.0 g LWC: 130 mm

- 30.0 g LLP(5): 100 mm

58.0 g LLP(6): 107 mm

Rect: 60 mm

M was not bled (done in 2011).

**Blacklight results**: R and L wings symmetrical—P1 and 2 were very light pink; P3-8 were strongest pink; P9-10 very light pink.

2302—M released; strong ascending flight to the E. We leave.

## 11 June 2012

2020—SY, PPS, NS at B4 nest site. We keep our distance until the sky darkens more.

2040—SY approaches with capture net.

2041—F up.

2042—F down.

2045—Net in position, F up.

2046—Begging calls from F.

2048—F down.

2052—TCs from M, behind nest.

2053—M lands on branch of nest tree, giving calls.

2055—M flying around nest site.

2057—M aborts 2 PDs.

2059—M makes successful PD.

2101—F in net. **B4 female is banded, #64769. F is massed at 66.5 g. B4 nest is peeped, contains 2 nestlings. Nestlings have heads up and are all white. They appear to have their eyes closed (but difficult to tell.) M giving TECs throughout capture.**

**Band # 1593-64769** (on L leg)

93.0 g

- 26.5 g

66.5 g

Weather: Partly cloudy, some breeze, 15°C

2106—F released, SY, PPS, NS leave B4 nest site.

## 20 June 2012

2125—JV, AP, and NS arrive at B4 nest site. F makes a PD. She halfheartedly scolds as JV approaches with peeper. **JV peeps nest, 2 nestlings, some gray on back, able to hold heads up.**

## 22 June 2012

2145—NS and BL (accompanied by D. Barnes and friends) arrive at the B4\_2012 nest to peep contents. All is quiet in the nest area when we arrive; neither the M or F apparently are in the area.

2146—**We peep nest—no F in the cavity, but the 2 owlets are quite active and peering up at the camera. One owlet has mostly gray down, the other with slightly less gray down; the eldest is probably 15 d old (eldest appears to be 1-2 d older than the eldest in A10\_2012 brood). Video taken on unit 1.**

2153—We leave. Still no sign of M or F.

## 26 June 2012

2240—SY and MD arrive at B4 to peep to determine the status of the brood.

2245—SY peeps but does not take a video. **The nestlings appear old; they are alert, have facial disks, and grey juvenile plumage.** The F is off the cavity at the time of the peep. We leave.

## 28 June 2012

2036—BL and CC arrive at B4\_2012 nest tree for fledge watch. Weather: Clear, calm and 16°C. One nestling is up at the cavity upon arrival.

2040—Nestling begging calls heard from the cavity—this seemed to come from the nestling at the bottom of the cavity.

2044—Nestling goes down into the cavity.

2046—Nestling comes up but then goes back down.

2057—**CC peep reveals 2 nestlings with only one nestling being attentive to the peeper (video on peeper #4).**

2058—M arrives in the area, giving LC, and makes a PD at the cavity entrance (owlet at entrance).

2059—M makes PD at cavity entrance.

2100—M perches at cavity entrance and then flies off to a tree adjacent to the cavity. M then leaves the tree and makes a PD at the cavity entrance.

2101—F flies to the cavity giving FSC, then enters and apparently makes PD. **Note:** M up to and subsequent to this time approached the nest area (and nest tree) from up drainage (to E), while the F was approaching the nest tree from the W/SW.

2103—M makes PD at cavity entrance.

2106—Owlet appears at cavity entrance.

2110—M makes PD at cavity entrance.

2112—M makes PD at cavity entrance.

2113—F makes PD at cavity entrance.

2114—M makes PD at cavity entrance.

2116—M makes PD at cavity entrance.

2117—Owlet leaves cavity entrance to go back down.

2121—M makes PD at cavity entrance.

2123—M makes PD at the cavity entrance—he bypassed the F, who was perched 0.5 m away from the cavity on an adjacent limb. No vocalizations by either adult.

2126—M enters the cavity and makes a PD.

2130—Owlet up a cavity entrance.

2131—FEC’s heard at cavity while TEC’s are heard to the S.

2132—M flies over head and gives TC’s to the N/NW.

2134—M makes PD at cavity entrance.

2143—Fly by.

2148—M makes PD at cavity entrance.

2150—**CC peep reveals both nestlings are present in the cavity and both are attentive and active**.

2152—BL and CC leave nest sight.

## 29 June 2012

~1042—BL, JV, JR, and CC arrive at B4\_2012 to band and bled nestlings.

1045—CC has capture net up and catches F.

1046—JV peeps and sees 2 owlets.

F is processed.

**Band # 1593-64769** (on x leg)

91.5 g LWC: 123 mm

- 29.5 g LLP(5): 92 mm

62.0 g LLP(6): 101 mm

Rect: 59 mm

JR bleeds right wing, small hematoma. Females P1-3 has less wear than P4-10 on both wings.

1056—BL begins climbing nest tree.

1101—BL has owlets out of cavity.

Doh: 24.0cm

h x v: 75x110mm

vertical depth: 25cm

horizontal depth: 130mm

thickness: 30mm

**Band #1783-64314** (on R leg)

58.5g

P5: 59mm (22 in shaft)

P6: 58mm (22 in shaft)

Rect: 28mm (10 in shaft)

JV bleeds left wing and gets both smear and sample, very small hematoma.

**Band #1783-64315** (on L leg)

62.2g

P5: 64mm (19 in shaft)

P6: 64mm (19 in shaft)

Rect: 28mm (10 in shaft)

CC attempts to bled L wing, small hematoma.

JR bleeds right wing to get smear and sample, small hematoma.

1137—BL has owlets back in the cavity.

1141—BL on the ground safely.

2238—BL, AW, MD, and PPS arrive at the B4\_2012 nest to determine the status of the brood.

**We peep and find only 1 nestling remaining in the nest. The elder 2 owlets (likely) have fledged!**

## 2 July 2012

0158—PPS, CC, AW, JR and SY arrive at B4. We peep the nest. **No N’s present, last owlet has fledged!** We leave.

# B4—2013

## 29 May 2013

2115—SY, NS, and LL arrive on Bermuda Ridge and begin net setup.

2130—Net up, playback begins. Net is on ridgetop, opening NNE.

Vegetation: Mature psme/pipo, open.

Weather: Clear, slight breeze early in night quickly faded away, 8°C.

X: 495719

Y: 4333523

+/- 3m

2137—SY and LL depart to listen in B4/B5 for nesting vocalizations. NS remains at net.

2140—SY arrives in main creek bottom in B4 to listen for nesting vocalizations and tap cavities.

Weather: 1C, clear, calm

2205—Nothing heard, I depart.

2253—SY returns to main B4 nesting area to continue listening.

Weather: 0C, clear, calm

2309—Nothing heard, I depart.

2330—After hearing nothing, we stop playback and take the net down.

2345—We leave.

## 4 June 2013

~1645—Flam Crew arrives in B4 aspen flat to peep. Peeping is conducted from the E edge of

the aspen flat up to the parking spot.

1520—We do not locate a nest and leave.

2451—AW, RC, and LL begin listening for nesting vocalizations in the B4 aspen flat.

0115—After hearing nothing, we leave.

## 10 June 2013

2125—AW, BDG, and LL begin listening in the B4 aspen flat for nesting vocalizations. LL listens near the B4 parking spot, AW listens near B4\_2012 nest, and BDG listens E of the past nest tree.

2149—As we are about to end listening to set up lure net, AW and BDG pick up set of LCs given by M in the vicinity of the B4\_2012 nest tree. We spread out in this area attempting to pick up additional nesting vocalizations.

2201—AW and LL leave to set up lure net on Cooper’s Hawk R. BDG remains in the B4 aspen flat to listen.

2248—We begin playback on the SW end of Cooper’s Hawk R.

Vegetation: medium-mature psme/pipo w/ pifl in net vicinity.

Weather: calm as net is being set up, windy w/ strong gusts as soon as playback starts, cloudy, then becoming clear later in the evening, warm 21C.

X: 495466

Y: 4333559

+/- 3m

2257—As wind begins to pick up, AW checks net for snags on nearby pifl. Net is very tangled

with pifl and **there is also an unbanded bird captured in the lowest shelf. Bird flew in from the E and appeared to come in silent (although it would have been hard to tell even if he was vocalizing due to wind**). **Identity is unknown due to lack of vocalizations, but bird appears to be a M. We assume his identity as a B4 Floater.** We are able to obtain a blood sample (including parasite smear) from R wing and blacklight. L wing: P1-4 moderate, P5 low, P6-10 none. R wing shows same blacklight pattern as L. P6-10 show high wear. P1-5 show low wear. Wear pattern is consistent on both wings.

**Band # 1783-64367 (on L leg)**

85.0 g LWC: 127 mm

- 29.0 g LLP(5): 99 mm

56.0 g LLP(6): 106 mm

Rect: 60 mm

2329—M is released with strong ascending flight to E. We untangle lure net from pifl.

~2400—End playback. There is a bat stuck in the lure net!!!

~2430—Bat is released with normal flight, finally.

2443—We begin listening in B4 in the vicinity of the B4\_2012 nest tree for wing flaps and

nesting vocalizations.

0124—AW gives a few soft TCs. As we are getting ready to end listening, we observe a FLOW

fly from a tall potr a few meters from our location.

~0126—AW gives a few more soft TCs and these are immediately responded to by M TC/TECs.

The rest of Flam Crew arrives and we are able to spotlight M in a number of potr and psme E, W, and S of the B4\_2012 nest tree within a 10 m radius. M gives TC/TEC consistently until we depart around 0210. **The B4\_2013 nest tree appears to be near this location, possibly the same tree as B4\_2012 or in a potr nearby.**

## 14 June 2013

~1530—AW arrives in B4 to peep vicinity of the B4\_2012 nest tree where possible nesting

vocalizations were heard on 10 June 2013 by BDG and AW. The remainder of Flam

Crew begins peeping in B5 at this time.

~1630—AW is joined by RC. We peep in the vicinity of the B4\_2012 nest tree (25 m radius).

AW scans drainage just S of the B4\_2012 nest tree (drainage runs E-W; now named

Secret Creek) for new trees. We do not locate a B4 nest at this time.

~1715—AW and RC end peeping.

## 17 June 2013

~1515—AW, RC, and LL begin peeping N of the B4/B12 saddle while SY heads straight for

B12 past nest trees. After SY locates the B12\_2013 nest, we begin focusing on B4

territory. LL peeps remainder of cavity trees on the N slope of the saddle, CK and AW

peep Secret Creek (short drainage S of the B4 aspen flat ridgeline) to where it connects

with the meadow, and SY heads N of the road to peep cavity trees on Cooper’s Hawk

Ridge.

~1715—SY, AW, RC, and LL end peeping in B4 having found nothing, again.

## 20 June 2013

2146—LL, CK and SY start playback at a lure net in southern end of Roadcut Cr., ~50m N of the B5 road junction.

Vegetation: Young potr/psme/pipo; open and in drainage bottom, near road.

Weather: 12C, clear/smoky, calm.

X: 495814

Y: 4333605

+/-6m

B5 M immediately enters the net site giving HECs. M came from the S.

2149—2nd M (B6? B12?) heard giving distant TCs to the NNE.

2150—B5 M quiet.

2154—HECs in net site.

2200—SY and LL leave the net site to listen in the W Missouri Cr. in the B4 area.

2207—SY and LL arrive in the past B4 nesting area to listen for nesting vocalizations. We almost immediately hear a M giving hoots back to the E and up the drainage. We end up approaching the B5 M giving TCs in the middle of the aspen flat, S of the road jct.

2233—CK hears M TCs to the S near the failed B5\_2013 nest ~50m away. M continues calling for ~ 5 minutes and then goes quiet.

2235—B5 M goes quiet in the aspen flat. A M is reported at the lure net shortly thereafter.

2238—A silent bird presumed to be the B5\_M flies overhead as CK is stationed in between the lure net and the failed B5\_2013 nest.

2241—The presumed B5\_2013 M flies over the net from the W to the E side of the creek bottom.

2242—CK continues to hear M TCs across the drainage to the E ~30m away. After two minutes of calling, the presumed B5\_2013 M goes quiet.

2249—SY and LL head back in the direction of B4 but are quickly diverted by a 2nd M giving TCs in the Aspen Flat S of the willows – likely B4(?).

2254—Hang songpost B4\_1 in that area. B5 was heard giving TCs farther E at the same time.

2257—B4 M goes quiet.

~2325—LL is standing silently with lights off listening when a silent FLOW flies into a psme ~2m away and perches at eye level. He then proceeds to fly to another nearby psme before flying out of view. LL saw this M ~40m SE of the willow marsh within ~15sq m of GPS:

X: 495842 Y: 4333414 +/- 4m

We believe this is the B4\_M, as CK had the B5\_M giving calls simultaneously near the lure net.

2346—CK stops playback and waits five minutes before switching playback to F calls.

2351—Playback is resumed with FSCs.

~2356—LL hears presumed B4\_M give TCs and TECs further SW from where she saw him. LL pursues the M and gets within ~20m before the M goes silent again. The M was ~20m SW from GPS:

X: 495784 Y: 4333351 +/- 8m

2403—LL hears M give TCs for <1min ~60+m N/slightly NE of where B4\_M last went silent.

2405—Presumed B5\_M approaches the net rapidly from the SW from across the road.

2407—FLOW is captured in the net on the 3rd shelf facing W. **M was previously banded with**

**# 1593-64514 and is the B5\_2006 M.**

**Band # 1593-64514 (on x leg)**

87.0 g LWC: 129 mm

- 28.5 g LLP(5): 95 mm

58.5 g LLP(6): 105 mm

Rect: 59 mm

Blood is taken from the LW for a parasite smear

2432—FLOW is released with a strong ascending flight to the N. We stop playback and break down the net to depart.

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 2 | 2 |
| P7 | 2.5 | 2.5 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

## 24 June 2013

2345—SY and LL arrive in bottom of Falling Squirrel Cr. to listen for any potential B1 or B4 vocalizations. We spread out with LL in the lower part of the drainage and SY in the upper part of the drainage. We give some hoots periodically, but hear and see nothing.

2415—After hearing and seeing nothing, we leave and head to Vista Ridge.

## 15 July 2013

2230-2430—CB, KB and SY spread out along Cooper’s Hawk Ridge to listen. No FLOW heard during this time.

~2345—AW and LL arrive in B4 with intention of lure netting for B4\_2013 M.

2353—Playback started. We have a single net set up just above the Biker Trail as it moves up

slope out of the B4/B12 drainage.

Vegetation: Mixed age pipo/psme, young potr, open.

Weather: Clear, slight breeze (moving just the tips of branches), 8 C.

X: 495519

Y: 4333373

+/- 3m

2412—AW goes to listen in drainage.

2425—AW picks up a M to SE ~150 m from her position on the ridgetop directly S of the

B4\_2012 nest tree. I pursue M and follow him to the following location before he goes

silent:

X: 495843

Y: 4333407

+/- 9 m

During pursuit, M calls for intervals of ~30 seconds, then goes silent. I give hoots between intervals, and M quickly responds with TCs. *It appears that M returns to E edge of willows in between calling intervals then moves W in response to AW’s hoots.*

2430—LL stops playback. SY, CB, and KB arrive to help break down net. There is a bat caught

in the net, so we extract that first, then take down the net and leave.

## 16 July 2013

2104—MC and RC arrive in B4 with intent to tap cavity trees and listen for nesting

vocalizations. We listen on SW side of rd, in drainage at the northward turn from B5 to

B4. We move up the drainage behind the willows and spread out.

2224—MC picks up M giving TCs/TECs on top of NE-SW running R that parallels drainage,

60m SW of rd.

2232—RC picks up M giving TCs/TECs in same place and pursues. M flies 50m SE from R

toward B5 and we follow.

2239—BDG and JV radio in, and say that they are ready for pickup.

2241—RC identifies **general area songpost in enumerated cavity tree B4\_1598**. I don’t hang

flagging as we need to leave and the tree was already flagged as a cavity tree. The

songpost will be entered as **B4\_1**. We leave to pick up JV and BDG from B13.

## 17 July 2013

2253—BDG, CK and AW start playback in B4 with the intention of luring for the B4 M. We

set up lure net on the ridgeline S of Secret Cr (drainage bottom S of the B4\_2012 nest).

Specifically, net is located on the E terminus of this ridgeline, just out of drainage

bottom.

Weather: clear, calm, 11.5C

Vegetation: young-mature psme/potr/pifl

X: 495629

Y: 4333294

+/- 4 m

2259—CK and AW leave the lure net site to go listen for the B4\_M and potential fledglings near

the B5 aspen flat.

2307—AW picks up M TCs to E from her position near the nest box just S of the willows. M

appears to be on the E edge of the willows.

2312—M continues to call further E. **AW briefly hears the B5 M calling to the N, confirming**

**this eastern bird as B4.** *Note: this is roughly the same location as the B4 was heard*

*calling from on 15 July 2013 by AW, CK, and BDG as well as when LL and SY*

*songposted the B4 M on 20 June 2013*.

2334—Playback off. We break down net and move location.

2400—We begin setting up lure net at SE edge of B5 aspen flat and begin hearing TCs ~30m to

the WNW.

2407—We start playback.

Vegetation: young-mature potr

Weather: clear, calm, <11.5C

X: 495805

Y: 4333435

+/- 3 m

2435—Playback stopped. We leave.

## 18 July 2013

~1545—AW, RC, LL, and BDG arrive in B5/B4 territories to peep in the vicinity that the B4 M

was calling in on 15 July and 17 July 2013 (just S of willows). We re-peep notable trees

in that area as well as search for unennumerated trees. BDG peeps a few trees N of the

road on the low slope of Bermuda R.

1700—We leave having found no evidence of a nest.

## 20 July 2013

2110—MC, RC, and Jake Hoffman arrive at lure net site with intent to lure for B4 M. Net is located on ridge top of E side of Sharp-shinned Hawk R, 150 m SW of Rd 347 at the turn from B5 to B4. Net is flat, opens N/S, and is set up to 5 poles.

2125—Playback begin.

Vegetation: Mixed pipo/psme, moderate density.

Weather: Mostly cloudy, calm, 11C.

X: 495629

Y: 4333385

+/- 3m

2243—MC stops playback and walks it E toward where the R turns NE—where we had heard M

TC/TECing on 7/15/13—in an attempt to pick up a M and lure it in to the net site.

2253—Nothing heard E on R. Playback started again at original location.

2306—RC leaves to listen E in drainage S of willows.

2319—After hearing nothing, RC returns. Playback end. We break down net and leave.

# B4—2014

## 28 May 2014

2050—AW, MC, MP arrive at B5 parking spot with intent to lure net for B5 M. MC taps on B5\_2013 Nest tree. Female flushes on second tap. This is the **B5\_2014 nest tree tag #729.** *Note: Peep on 2 June 2014 reveals 6 eggs – indicating this is NOT a FLOW nest.*

2124—AW, MC, and MP start playback on SE facing slope of Bermuda Ridge (150m NW of B5 parking spot) with the purpose of luring for B5/4 Ms.

**Vegetation**: young-old pipo/psme forest with young trees near the net site

**Weather**: partly cloudy, calm, 12C

X: 495685

Y: 4333578

+/- 4m

2159—MP and AW leave net to listen for males in B4 territory.

~2201—M TCs heard from eastern edge of B4. We pursue calls, M flies south.

2204—M TCs heard from Secret Creek drainage bottom. MP stays in vicinity, AW moves west along ridgeline.

2213—AW hears TCs to the S (up towards B12 saddle). AW pursues and locates M calling from drainage bottom in patch of potr cavity trees.

2215—MC begins walking around with the playback towards B5\_2014.

2220—M flies N and continues calling from slope to S of Secret Creek. MP hears TCs from his position and pursues.

2229—M flies N and continues calling from slope to N of Secret Creek. M drops to B4 aspen flat and continues to call. At this time, MC has moved playback to B5 aspen flat and B4 M appears to be responding to playback.

2235—MC moves playback ~10m S of cavity tree #869 ~100m N of B5\_2014. Four LCs heard in nest vicinity, two likely from female. No response to playback, I back off.

2243—We take down the lure net after hearing no response from the B5 male and after failing to lure B4 male to the net.

2306—Started playback with single net downhill from previous net location on S slope near B4 drainage bottom attempting to capture the B4 M.

**Vegetation**: open young-medium potr/pipo/psme forest

**Weather**: calm, clear skies, 8C

X: 495689

Y:4333431

+/- 4m

2310-2325—Response calls to PB heard on opposite side of drainage from W travelling E closer to net location, most likely B4 M. B5 also approached net location giving HECs for ~5min before going quiet. B4 M still in drainage bottom responding with TCs.

2330—B4 M goes quiet and AW checks net after ~2 minutes. There is not a bird in the net, so AW turns off headlamp and waits at net site. Immediately after, **AW hears wingflaps and turns on headlamp to observe a FLOW fly into the net and get captured.** **M flew into 3rd shelf of net from the N and was unbanded.** We unsuccessfully bleed R wing, then attempt a second bleed on the L wing. We obtain genetics sample. **While this M is in hand, no other bird is heard in the area. This M is most likely the B4\_2014 territory holder.**

**Band # 1783-64510** (on r leg)

81.5 g LWC: 124 mm

- 28.5 g LLP(5): 96 mm

53.0 g LLP(6): 105 mm

Rect: 53 mm

**Blacklight data**:

|  |  |
| --- | --- |
|  | Left wing (scale 0-3) |
| P1 | 2 |
| P2 | 2 |
| P3 | 2 |
| P4 | 1 |
| P5 | 1 |
| P6 | 1 |
| P7 | 1 |
| P8 | 1 |
| P9 | 0 |
| P10 | 0 |

**Primary wear data:**

|  |  |
| --- | --- |
|  | Left wing (scale 0-3) |
| P1 | 1 |
| P2 | 1 |
| P3 | 1 |
| P4 | 1 |
| P5 | 1 |
| P6 | 2 |
| P7 | 2 |
| P8 | 2 |
| P9 | 2 |
| P10 | 2 |

2403—M is released to the SW with strong, ascending flight.

2413—Stopped playback and broke down net.

2431—We spread out in B4 territory to spot map and tap cavity trees. MC begins listening on the E edge while AW and MP begin listening in the B4 aspen flat.

2440—B4 M responds to AW’s hoots to the S towards the B12 saddle. AW and MP pursue, but M goes quiet when we approach.

0100—We end observation.

## 6 June 2014

~1600—Flam Crew arrives in B4 aspen flat to peep.

~1700—We end peeping having peeped the entirety of B4 and found nothing.

2115—RC and AW begin listening for nesting vocalizations in the main aspen flat of B4 territory.

2148—After hearing nothing in the main aspen flat, we move E towards the meadow to continue listening in the vicinity of the cavity trees on the eastern edge of B4.

2205—AW hears TCs to her NW from her position on the ridgeline S of the main aspen flat. AW pursues M and finds him calling in the vicinity of the past nest tree (B4\_2012).

2207—M stops calling and perches silently next to the past nest tree, then flies E.

2211—M gives TCs from 2 m S of past nest tree. M continues to call until 2217.

2218—M gives TCs from beginning of B12 drainage bottom.

2223—We peep the past nest tree and find nothing. After talking with BL, *we decide the B4 M is probably unpaired and most likely still attempting to attract a F with vocalizations in close vicinity to cavity trees.* We leave to listen in B1.

## 10 June 2014

2227—As JV, LL, SY, and RD are preparing to hike up to B20, a M is calling softly near the B4\_2012 nest site. Team spreads out to listen.

~2230—LL sees a FLOW fly either out of the B4\_2012 nest tree or the potr just adjacent to it.

~2245—After listening around the B4\_2012 nest tree, SY gives a couple of TCs. A M begins calling across the road on Bermuda Ridge. He crosses the road and gives a single, two-note LC. Nothing else is heard.

2300—JV peeps B4\_2012 cavity. It is empty. Team leaves to lure in B20.

## 16 June 2014

~2400—RC, LL, and RD arrive in B4 to listen for any vocalizations and tap cavity trees. We initially spread out in main potr flat near past nest trees, then move E up rd and toward Biker Tr.

2420—After hearing and seeing nothing, we leave to go listen in B1.

## 23 June 2014

~2250-2300: JS and BL tap on past nest trees, and call briefly, in the B4 territory as we pass through on our way to the B17\_2014 nest. Nothing seen or heard.

2430-2440: We call briefly and listen from the Biker’s Trail as we pass through B4 territory after returning from the B17\_2014 nest. Nothing heard or seen.

## 2 July 2014

1615—Having located a B18\_2014 nest, Flam Crew arrives in B4 to re-peep trees because our last peeping effort was on 6/6 and a nest was potentially missed.

1715—We leave having scrutinized the aspens in close vicinity to the 2012 nest tree looking for new cavities and finding nothing.

2227—JV and JS arrive back at the B4 parking spot and are trying to decide what to do as there is not enough time left in the night for a capture at B13\_2014. As they are talking, a M is heard singing down West Missouri in the direction of the B1 weir. JV and JS pursue.

2235—JS songpost B4\_1 (labeled as B1\_1). *At this point, it is unclear as to whether this is the B4 M or the B1 M. In retrospect, this is most certainly the B4 M.*

2236—JV songpost B4\_2.

2250—JV and JS come together chasing the B4 on the mid-slope of Sharp-Shinned Hawk Ridge. The B4 M is giving TCs and TECs. It is unclear if he is becoming so territorial because of our presence or B17 M who can be heard high up on top of Sharp-Shinned Hawk Ridge W.

2251—JS songposts B4\_3 (labeled as B1\_3).

2254—JV songposts B4\_4.

2255—JV songposts B4\_5.

2305—JS songposts B4\_6 following M TECs and some very clear F calls off cavity.

2306— JV songposts B4\_7. **JV spots a band on the right leg of the M.** M flies off N down BB Ridge to the area of the past B4\_2012 nest tree. JS hears a F give three FSCs in the area of the B4\_2012. Immediately following, the M gives two incredibly hoarse HECs.

2307—JV runs down to help listen for a couple more minutes but need to leave to meet the crew back at the lodge on time.

*2250-2315—JV and JS have chased the B4 M all over Sharp-shinned Hawk Ridge and West Missouri Creek, as well as E to the Biker Trail and up onto BB Ridge (BB Ridge is Big Bertha Ridge, the previously unnamed ridge just N of the past B4\_2012 nest tree). Seven total songposts.*

## 9 July 2014

2357—RC, LL, and MP arrive in main B4 potr flat near past nest trees to listen. We spread out, keep eyes up, tap trees, and listen for vocalizations. In our time here, we move up dr. toward Biker Tr as well as up and down Missouri Gulch rd and on lower N-facing Turkey R.

2437—After hearing and seeing nothing, the crew is moving back toward the vehicles. RC and LL converge on past nest tree B4\_303. RC taps and a bird flushes from the W side of the tree ~30ft up. Likely, this bird flushed from the keyhole as this is the only listed cavity on the tree. This bird—which we do not get a good view of—is FLOW-sized, but flaps loudly several times before disappearing. Peep reveals that the keyhole is empty (as suspected since it was peeped as 1-1 with no notes on 7/2/14) and scouring the tree reveals no more openings. RC remains at tree, but no bird ever returns. LL and MP spread out again, but hear nothing once again. We are unsure, but suspect that this may have been a NOFL or some other diurnal bird roosting in a cavity as we saw and heard nothing FLOW-like in this area all night.

0103—We leave, but the B4 mystery remains…

## 21 July 2014

2155—SY, MC and MP arrive in B4 to listen and watch for any FLOW activity in the area in hopes of finding a nest or nestlings. MP is up the biker trail ~ 50m, MC is at the old B4 nest tree, SY is ~30m up the main B4 drainage from MC

2200—SY and MC hear beg in between them.

2205—MC sees a silhouetted bird fly into large pipu ~5m N of old nest and hears wing flaps.

2217—MP hears rustling in the same large pipu by the nest tree next to the road

2224—MP hears possible beak clicks when approaching the same, previously mentioned pipu.

2422—Nothing has been definitively heard for almost 2 hours. We depart.

## 22 July 2014

~2045—MC, RD, ER, and LL arrive to listen in B4 for nestling/adult presence.

~2100—RD hears what he believes to be a nestling beg in the vicinity of the nest tree, though the lack of other vocalizations or any activity as the night continues points to a probable mistake on RD’s part.

2156—Group is finished listening in B4 and splits to go Geo netting. ***Tonight’s observations and lack of activity suggest that the fledgling heard previously has since moved on (and may possibly be associated with a nest other than B4 – possibly B21 where fledging occurred a few days earlier). We are still unclear on whether a nest exisited this year in B4.***

## 30 July 2014

*End of season note: Overall, the behavior we have observed in the vicinity of the B4\_2012 nest has been suspicious. At the beginning of the season, we captured an unbanded territorial M just N of the road on the eastern edge of the B4 aspen flat. He is presumably the B4\_2014 M (although a territorial M was never captured in 2013 so it is unclear whether he is the same male as in 2013). On 6/6, AW and RC observed a M giving TCs (and perching) in the immediate vicinity of the B4\_2012 nest. During this instance, we assumed he was still unpaired and possibly trying to attract a F by calling near usable cavity trees. On 6/10, LL and SY observed a FLOW fly out of the past nest tree (or a nearby potr) and then proceed to give 2 LCs from across the road on the S end of Bermuda. On 7/2 (after scrutinizing trees near the B4\_2012 nest for potentially missed cavities), JS and JV pick up the B4 M giving TC/TECs on the ridge to the S of the past nest. They follow the M to the vicinity of the 2012 nest where they pick up a F giving FSCs. On 7/21, SY, MC, and MP hear begging calls from just N of the B4\_2012 nest and later hear suspicious wingflaps and observe an adult FLOW flying overhead. Over the summer, Flam Crew has observed the B4 M, a F, and a possibly fledgling in the vicinity of the B4\_2012 nest. While these observations alone are not suffient enough to confirm the presence of a nest, they highlight the possibility that a nest MAY have exisited and that we failed the locate it. If a nest cavity exists in the vicinity of the B4\_2012 nest tree, it is likely a natural cavity or is obscured by conifer branches. Further investigation of this area is necessary in following years. The B4 story remains a mystery…*

# B4—2015

## 27 May 2015

2121—MC, ER, and ER-sis set up a lure net on the S terminus of Bermuda R about 15m N of Missouri Gulch Rd and about 150m NW from the B5 parking spot to target males in B5 and B4. Playback begins. Within seconds of PB start, a high-pitched M begins giving TCs in the drainage around the W edge of the B5 aspen flat. We also hear a M giving TCs from about 100m W from B4. Both go silent after a couple minutes

Vegetation: Young to mature pipo. Open

Weather: 7C partly cloudy, but clearing up. No wind.

X: 495836

Y: 4333567

+/- 14m

**Note: Our GPS point puts our net E of the B5\_2014 nest tree which is incorrect. A previous lure net has been placed on the S terminus of Bermuda at the coordinates X: 495685 and Y: 4333578**

2124—The high-pitched presumed B5\_M gives several TECs about 10m SW of the net from the drainage. The presumed B4\_M gives occasional hoots from the W, bouncing to about 70m from our net site. A M starts giving TCs about 150m NE of the net from Turkey R.

2129—We hear wing flaps near the net, but no capture.

2132—The presumed B5\_M gives HECs from his position 10m SW of the net. He bounces within 5m of the net and gives a few HECs, but then goes silent.

2138-2207—The NE bird continues to give TCs from his position on Turkey R., but does not appear to be approaching the net.

2153—The presumed B4\_M gives a series of 5-6 TCs from Big Bertha R. MC goes into the area to listen but does not find anything significant.

2205—The presumed B5\_M gives a few more TECs from his position about 10m SW of the net in the drainage.

2210—Playback stopped. Without any bird giving a significant approach to the net, we break down the net and move NE.

2238—MC, ER and ER-sis set up a lure net on the SE slope of Bermuda about 50m upslope from the junction of Missouri Gulch Rd and the roadcut. Playback begins. As soon as playback begins, we hear a high-pitched M, presumably the same bird as our first net site, respond with TCs about 70m WSW.

Vegetation: Young potr, psme, and pipu surrounded by mature pipo, psme, and pipu. Relatively dense.

Weather: 7C and Clear

X: 495736

Y: 4333665

+/- 11m

2248—A M gives a TEC from about 25m NE of the net and then gives a TC within 5m from the net. Seconds later, we hear wing flaps.

2249—**We check the net and an unbanded M is caught in the 2nd shelf on the E side!** With an unclear approach, this could potentially be the B5/B13/B14 male.

**Band # 1833-03260 (on L leg)**

71.0 g LWC: 123 mm

- 19.5 g LLP(5): 94 mm

51.5 g LLP(6): 102 mm

Rect: 56 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | Right wing not taken. |
| P2 | 0 |  |
| P3 | 0 |  |
| P4 | 0.5 |  |
| P5 | 0.5 |  |
| P6 | 1.5 |  |
| P7 | 1.5 |  |
| P8 | 2 |  |
| P9 | 0.5 |  |
| P10 | 0.5 |  |

2307—While still processing the B5/B12/B14 M, **we catch an unbanded silent bird in the 3rd shelf on the W side of the net.** The belly is slightly naked but is not extensive or shows pin feathers to indicate a brood patch. However, we only band and mass to be precautious.

**Band # 1833-03259 (on X leg)**

81.0 g

- 19.5 g

61.5 g

2315—We release both birds. The B5/B13/B14 M has a strong horizontal flight S, and the silent bird has a strong ascending flight SE to perch in a psme.

2323—Playback stopped and we break down the net.

2344—MC, ER, and ER-sis begin spotmapping. ER and sis start in the N end of the B5 drainage along the road cut about 50m N of Missouri Gulch Rd and MC listens below the B5/B13 saddle.

2350—ER and sis hear the high-pitched presumed B5\_M give a few TCs from about 20m S.

2351—As MC crests the ridge between B13 and B5 a flam flushes off of a perch ~5m from the ground and flies N to another tree on the top of the divide and ~5 m W of the road. A after couple minutes MC attempts to illicit a response from the bird. After giving a couple hoots a M responds with TCs from the ridgetop to the W. MC gives chase when another high pitched male calls from the same spot. Then there is a F response from the same spot.

2353—The high-pitched presumed B5\_M gives a few more TCs about 40m N of ER’s position toward MC. ER and sis hear a second bird about 200m SW give four TCs from the direction of B4.

2354—MC attempts to chase after the birds on the ridge but then hears the F call from in the drainage.

2355—ER and sis join MC just below saddle.

2359—MC hears M give LCs from same location in the drainage ~10m S of the B5/13 divide.

2417-2420—ER and sis begin listening about 20m below the saddle and hear an LC about 15m S down drainage. We pursue and hear a second LC and a single FSC 20m further SE in a side drainage of Roadcut Cr. Both birds go silent.

2435—MC heads down roadcut into B13. MC gets as far N as B13\_2014 nest, tapping and hooting along the way. From my most northern position a M responds ~150m N, but he is far outside of B13 so I do not pursue and return to ER at the top of B5.

~2440—MC, ER, and ER-sis join to listen back down in the B5 aspen flat by the junction of Missouri Gulch Rd and the road cut. We hear a M give a couple TCs about 20m SW of the junction. Seconds later we hear an FSC about 15m due S of the junction. We pursue and follow a series of FSCs further S into the aspen flat. She hops back N across Missouri Gulch Rd and gives a couple more FSCs. We call her the presumed B5\_2015 F

~0100-0120—MC leaves to listen W toward B4 while ER and ER-sis continue to track the F. She gives consistent FSCs around the B5 aspen flat.

0108—ER and sis locate the presumed B5\_2015 F giving FSCs in the top of a potr snag and record a songpost.

DBH: 22.5cm

X: 495880

Y: 4333447

+/-8m

0109—The F takes a short flight to a neighboring live psme due W where she gives a few more FSCs and the presumed B5\_2015 M lands beside to make a probable prey delivery. We cannot see the birds through the foliage, but both birds vocalize. We songpost this tree. M flies away.

DBH: 33.0 cm

X: 495870

Y: 4333455

+/- 11m

0110—DL and BL arrive in the vicinity of the B4\_2006, 2009, and 2010 nest tree (tag #303), a full Potr snag, near the base of Big Bertha Ridge. BL taps the tree, and DL observes a bird that rises to the entrance of the cavity—this bird descends from the entrance in less than 1 min, but DL thought it had the appearance of a FLOW F. We tap on the tree on three additional occasions, but the F does not rise. **Note: Peeping on 6/2/2015 reveals that this cavity tree, unfortunately, is NOT the B4\_2015 nest tree.**

0117—The presumed B5\_2015 F makes another short flight to a nearby live potr to the NW, continuously giving FSCs. We take another songpost. All songposts were taken in the vicinity of the B5\_2009 nest and surrounding cavity trees.

DBH: 22.5

X: 495857

Y: 4333432

+/- 7m

0120—MC and ER meet up with BL at the potential B5\_2015 nest tree and head out.

## 2 June 2015

~1600—Flam crew spends the afternoon peeping in B4 and B5. Most of the crew peeps in B4, moving toward western portion of B5 as we peep out E B4 while SY cherry picks in B5 proper. We peep past B4 nest tree #303 where BL and DL suspected the B4\_2015 nest to be and find it vacant. The crew peeps out most of the trees in this potr flat area to E and W as well as S up the Biker Tr drainage, peeping out up to saddle to B12 and finding nothing. We should have known B4 wouldn’t make it that easy for us.

2045—MC, LL and BH arrive at B4 parking spot to listen, tap, and lure net in B4 and B12 territories. LL stays in B4 territory near past B4 nest tree B4\_303, while BH and MC head up past saddle into B12 drainage to check cavity trees, specifically B12\_2013 and B12\_2014 nest trees.

Weather: Clear, calm, 9.5C

2100—LL is listening near B4\_303 when black bear strolls down road, proceeds to tear up tree just S of where LL is standing. Typically, no one is in radio contact.

2106— BH and MC hear TCs E of Beartorn Cr. (~4-5 before becoming silent). Possibly indicating B12 M.

2114—LL hears potential wing flaps overhead, but wasn’t able to confirm, as there was a lot of other noise from bear grunting and tearing things up. LL heads up towards B4/B12 saddle.

2126—From B4/B12 saddle LL hears M give TCs distantly to the N, this is potentially SY’s B5 PB.

2128—M gives TCs W/down drainage of the saddle ~200m in B4 <1min. MC and BH join LL at the saddle to set up a lure net in hopes of capturing the B4 and/or B12 Ms.

2153—PB is on. Lure net is located ~40m W and upslope of B4/B12 saddle.

Vegetation: Dense pipo/psme, young to mature.

Weather: Calm, clear, 16C

X: 495527

Y: 4333148

+/- 12

2207— HECs heard SW in net area, presumably B12 M. Continue ~1min.

2208— FLOW swoops down towards net, evades net, but possibly clipped the bottom of the net.

2210— M HECs and TCs continue in net area ~3min. B12 M leaves net area, is not heard again.

2222—LL and BH go to tap and listen in B12, in the vicinity of B12\_2013 and B12\_2014 nest trees. No vocalizations heard.

2310—While trying to locate cavities on tree B12\_1190, **LL spots F FLOW in entrance of cavity facing almost due W ~30ft up on the tree. B12\_1190 is the B12\_2015 nest tree!** B12\_1190 is a 33.0 DBH live potr ~2m SW of B12\_2014 nest tree in the Beartorn Cr drainage.

X: 495486

Y: 4332867

+/-3m

The cavity is sapsucker-sized and is on the main trunk just below a perpendicular snag branch pointing S off the trunk. The F stayed up in the entrance for the 10min LL and BH were in the area.

2320—MC shuts off PB. LL and BH head up to “help” take down the net.

2340—MC, LL and BH head S on Biker Tr into B20 with intention of listen and tapping for B20 nest.

## 08 June 2015

2413—SY and LP arrive in B4 from the E with intent to spot-map and hopefully locate nest tree.

Weather: 7C, clear, calm

2417—Several quiet TCs and LCs heard on the low far-SW corner of Bermuda R in young-medium psme, pifl, pipo trees. LP also sees silhouette of what was probably a FLOW in flight in this area. We are unable to lay any songposts in this area as we were unable to definitively locate the FLOW in this area.

2430—From the low slope of SW Bermuda, R., SY hearas a couple quick LCs on the slope above.

2456—TC’s heard coming from the SE near the past potr nest trees. We immediately begin following these vocalizations up the bike path drainage for ~75m. The vocalizations seemed to move further up the drainage as we continued to follow them. We hang one Gen. Area songpost on the M.

0120—We leave B4 area for the night and begin walking E towards cars.

## 24 June 2015

2242—SY and LP arrive at B4 parking spot at bottom of biker trail with intent to go to B17. We hear TCs at bottom of slope for ~1 minute across from W Missouri Cr from the road – presumed B4 M. We briefly investigate. We then hear TCs for ~1 minute ~20m to the E near the start of the biker trail. We briefly investigate, but then continue on our way towards the B17 nest area.

## 7 July 2015

1600-1715: Flam Crew peeps the area from Camp Ridge east to Cooper’s Hawk Ridge. Time was short, and only about half of the cavities were peeped in this area. Nothing found.

## 8 July 2015

1600-1715: Flam Crew again peeps the area from Camp Ridge east to Cooper’s Hawk Ridge, building on the peeping effort of the previous day. Most remaining cavities were peeped today, although pockets of unpeeped trees still exist at the head of Fallen Squirrel Cr and the N end of Cooper’s Hawk Ridge. Nothing found.

## 13 July 2015

2311—RC and BH arrive near saddle between B12 and B4 to set up a lure net targeting primarily the B12 M and secondarily the B4 M. We set up net ~60m WSW of S end of the saddle on the upper SE-facing slope of Biker R.

Vegetation: Mixed psme, mature pifl, open.

Weather: Overcast, calm, ~10C.

X: 495489

Y: 4333098

+/- 9m

2327—PB begin.

2331—TCs in net site, no apparent approach heard.

2333—2 Ms in net site. One still giving intermittent TCs while the second gives TECs.

2337—As RC approaches to check net, PB dies. TCing M continues calling 10m NW of net for ~2 min. Other quickly M and F go silent. RC replaces battery and restarts PB.

2342—TC/TECs in net site to SE. Shortly after, intermittent FSCs at net.

2347—HECs in net site. Only this M and no F audible.

2351—On net check, M in net site goes silent. RC spots a bird (presumably this M) perched silently at the top of a 7-8m dying psme directly adjacent to the PB tree. Bird flies away as RC tries to get binocs on it.

2354—PB changed from T42🡪P.flam#1 (PB#4).

2355—HECs in net site again. M calls intermittently for ~5 min and seems to be flying over the net before going silent. No big surprise. There are some very large psmes in net site.

2409—TCs near net as we prepare to break down. RC pursues and spots M singing 30m S of the net 12-15m up a barkless snag. M is perched next to the trunk giving consistent TCs. Possible 2nd M nearby. RC leaves M here to go break down net.

2413—PB off. M quickly goes silent. We break down and leave.

## 20 July 2015

2210—SY and LP arrive to B4 parking spot with intent to lure for unidentified B4\_2015 M. We immediately begin searching for lure net site.

2220—Lure net is set up on S end of Bermuda R on mid-slope. PB is started. Net opens NW/SW.

Vegetation: psme, young-medium pipo, open

Weather: calm, mostly clear, 11.5C

X: 495668

Y: 4333473

+/- 17m

2249—LP hears M give TCs and TECs ~80m to NE of net. SY also hears a M W down W. Missouri Cr. (B1?). SY chases – M is calling from the extreme S end of Cooper’s Hawk Ridge.

2255—COHA R. M quiet.

2305—SY hears M give TCs for ~1 min on the S end of COHA R.

2319—SY hears a few more TCs from the same location on COHA R. Sy moves in that direction.

2312-2320—LP walks around Bermuda R hillside with PB in hand in hopes of provoking M into entering net area.

2328—M gives few TCs ~80m N of net. This M quickly moves into net area from the NW (up slope of net location) and vocalizes in net area for ~5 minutes until ~2333.

2334-2340—LP walks around Bermuda R hillside again towards to NW in hopes of bringing in vocalizing M.

2345-2350—2 Ms have encounter ~100m NW of net, on Coopers Hawk R. B1 and B4?

2358—PB turned off. We break down lure net.

2405—We leave B4 for cars. This is the end of our night.

## 21 July 2015

2212—RC and LP begin PB at lure net on top of Cooper’s Hawk R ~40m N of nose of R with the primary goal of capturing B1\_2015 M and secondary goal of capturing B4\_2015 M.

Vegetation: Mixed pipo/psme, very open

Weather: Partly cloudy, mostly calm

X: 495482

Y: 4333654

+/- 15m

2213—TCs from B1 M ~100m W of net, seemingly from Camp R. M sings from this area, moving slightly N for ~10min, but never approaches net site.

2239—Wingflaps near but not in net to the E.

2242—FSCs at net on net check. This is possibly the presumed B5 F that SY and DL had at just prior to this, or possibly B1/B4 F. We never her anything else out of her, and she never goes into our net.

2247-2330—RC leaves to tap and listen. I walk initially ~50m N up Cooper’s Hawk then angle down into upper Fallen Squirrel Cr. I hop onto the intervening spur between the E and W forks of Fallen Squirrel Cr (~40m above the confluence) then onto the low E-facing slope of Camp R before heading back to the net. I tap, listen, and hoot intermittently, but see/hear nothing in the way of owls.

2305-2315—LP takes PB for a walk, moving N up the R top and back to the net, but never picks up/draws in a bird.

2310—DL and SY arrive at the B4 parking spot and spread out in the historic B4 nesting area to listen.

2321—SY hears several quiet TCs to the E, upstream of the past nests.

2330—SY/DL leave.

2330—PB off. RC/LP break down and leave.

# B4—2016

## 1 June 2016

2056—BH and RC arrive in the B5 aspen flat to listen for courtship and nest search.

~2120—BH heads across the meadow to listen ~60m S of the B5 aspen flat.

2137—BH hears M give 2 LCs ~20-30m W of cavity tree Tag #7, behind willows. M goes silent.

2140—Another brief LC bout 15m N. RC pursues, BH remains in willow area.

2142—More LC/TCs 50m N of last calls. RC follows.

2146—BH hears suspected B4\_M give 1 LC ~35m W of location behind willows once more. RC follows calling M to 15m S of rd at B5 parking spot. BH joins RC as RC spots M giving TC/TEC/HECs 15m up small potr. RC flags as “M HECs 6/1/16” (closest to cavity tree #1367).

2150—M moves S to call (TC/TECs) from potr 1m S of B5\_2015 nest tree.

2158—RC hears possible TCs back toward willows and pursues, but hears nothing after arriving. BH catches silent blur flying due E from stand of spruces while territorial M is still calling in potr. Possibly a second FLOW.

2207—BH watches B5\_M make short flights N to two more trees within ~10-15m of the B5\_2015 nest tree. Continues to TCs and TECs incessantly until rain picks up strongly around 2220, then picks up calling again in same location after rain ends.

2210—We leave the B5 aspen flat to set up a lure net on the low S-facing slope of Bermuda R to target B4/5 Ms, but end up waiting at the vehicle for storm to subside.

2255—After waiting out a storm, BH and RC arrive on the low S facing slope of Bermuda R., ~30m WNW of the bend in the road to lure net for potential B4, B5 Ms. We set up poles, and then wait out another storm cell under a spruce.

2328—M TC/TECs ~100m W of net location toward B4.

2330—PB started.

Vegetation: Young to mature pipo/psme, open

Weather: Intermittent rain, overcast, mostly calm with gusts prior to net setup, 7C

X: 495691

Y: 4333427

+/- 9.2 m

2336—B4\_M in net site to S, giving TC/TECs. B5\_M (presumed) is also heard giving TC/TECs 150m NNE toward upper E-facing slope of Bermuda R. M goes silent without approaching net. Very brief FSCs in net vicinity. RC attempts to pursue to no avail.

2338—M (suspected B4) TCing steadily in pipo crown just E of net.

2342—2nd M begins calling suddenly just S of rd, 30m S of net. M to E of net jumps S to encounter new M. Both birds move SE; one goes silent while the second HECs 60m SE of net.

2346—Both Ms silent.

2352—Both Ms calling again 20m S of net, giving TCs and HECs. One quickly goes silent, and RC moves S to tap around in the B4 drainage.

2355—From rd 10m S of net, RC hears one M TC/TECing in PB tree. RC spotlights and M flies under net. M circles back around momentarily to perch in PB tree once more. 2nd M begins TCing 40m SW toward B4. M in PB tree still present (potential B5 M?) and perched 0.5m off the ground, so RC approaches slowly. M makes no moves to fly away and politely averts his gaze as RC arrives at PB tree.

2402—RC removes unsuspecting FLOW from low branch of PB tree. This **M is unbanded**. We give him **Band #1833-03383 (L leg)** and proceed to process him.

**Band # 1833-03383 (on L leg)**

74.5 g LWC: Wing extended- could not measure

- 15.0 g LLP(5): 98 mm

59.5 g LLP(6): 106 mm

Rect: 66 mm

2434—FLOW released. SAF N. We leave B5.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | 1.5 | 2 |
| P3 | 1 | 2 |
| P4 | 1 | 2 |
| P5 | 1 | 0.5 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0.5 | wet |
| P5 | 0.5 | 0.5 |
| P6 | 1.5 | 0.5 |
| P7 | 2 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2 |
| P10 | 2.5 | 2.5 |

## 6 June 2016

Afternoon—After leaving B13, RC and DL do some cherrypeeping in B4. RC works around past nest area in confluence and 60m E up rd—peeping out good cavity trees in this area—while DL peeps her way up the dr between Sharpshinned Hawk R and Turkey R. No FLOWs.

2055—DL and KM arrive in the B4 drainage to listen for courtship behavior/sniff out a nest. KM stays near the clump of past nest trees on the SE side of the territory. DL heads W in the drainage bottom.

2112—KM hears TC 30m SW from the patch of previous nest trees and moves to continue listening. She does not hear any more calls.

2116—DL hears F LCs near tree 1553 where the giant fallen PIPO is across the drainage bottom. At the same time M is also giving LCs on the N slope of sharp shinned hawk ridge ~50-80m to the SW of the F. KM stays in the area near 1553 and DL walks up the ridge toward where she heard the M. Both birds go silent, so we walk back to the patch of nest trees where we started and hear nothing.

2210—RC joins us and we leave B4 to set up a lure net on the ridge of sharp shinned hawk targeting B17.

## 14 June 2016

2204—BH and ER arrive at B4 to listen and tap trees around the Weir.

2220—After hearing nothing, we leave B4 to observe FLOW behavior at the B20\_2016 nest.

~2440—DL and MC arrive at the B4 weir and head down the B4 drainage to listen/tap around the area where DL was hearing birds the week before (near tree 1553). We hear and see nothing and leave to meet flam crew to debrief.

## 21 June 2016

2445-0100—RC and KM listen in lower B4, from W end of potr flat down Missouri Cr for ~200m. RC hears a few brief TCs on top of Sharp-shinned Hawk R, which we suspect is B1 M returning from ER/Dl/s PB to his nest area. Brief, then silent. We see/hear nothing else and leave.

## 29 June 2016

Afternoon—Flam crew peeps in W Missouri Cr, targeting a potential B4 nest. ER and DL peep out the past B4 nest flat and S up to the saddle into B12, then spend the rest of the day peeping N on Cooper’s Hawk R. MC, BH, and KM peep W Missouri Cr, starting where rd turns W at lower end of B4 flat and peep down past Camp R to the base of Vista R. We also cherrypick past B1 nest tree #311 and enumerate many new trees in W Missouri Cr. No nests found.

2400—MC arrives at a lure net site on the S nose of Coopers Hawk Ridge to lure for a potential B4 M. KM is gallivanting around N Missouri, shirking all responsibility. I start PB.

Vegetation: open, mixed pipo and psme

Weather: clear, calm, no temp taken

X: 495486

Y: 4333662

+/- 9m

2407—MC hears a M calling ~250m E on Bermuda Ridge, possibly ERs playback.

2416—MC hears a M give a single call ~100m S, but he only gives one call which was very difficult to locate.

2421—A M begins TCing at the mouth of Fallen Squirrel.

2428—A M is heard calling from Bermuda Ridge, but this could again be ERs playback. The M is still calling from the bottom of Fallen Squirrel.

2430—MC kills PB to go on a pseudo rescue mission of KM, accomplishing nothing, and almost losing himself in the folds and valleys of the northern Missouri ridges.

0100—MC and KM return to the site to break down, we leave.

# B4—2017

## 31 May 2017

2040—LD, BL, and JE begin listening for courtship vocalizations of B5 mating pair to attempt to elucidate nest location.

2045—LD hears FSC vocalizations from E, FSC vocalizations were roughly 20m away from 495843, 4333488 +/- 3m. BL corroborated the FSC designation and pursued calls further.

2055—FSC vocalizations no longer heard by LD but one call heard once from E by JE, approximately 60m W of LD.

2105—LD hears FSC vocalizations restart E roughly 20m away, LD pursues vocalizations.

2107—FSC vocalizations change direction, now heard to the NE ~15m away.

2113—FSC vocalizations stopped without LD hearing a M response.

2121—FSC vocalization heard toward S.

2131—LD hears FSC resume straight W. **NOTE**: BL pursued F from ~2110-2132; during this time, the F crossed FS347 twice as she made 10-30 m flights from the E end of the territory (vicinity of historic nests) to the nest box and former location of the B5\_2002 nest tree (now on ground), and back again. A silent 2nd FLOW was trailing her, who I presumed to be the M, apparently foraging in the vicinity.

2132—FSC vocalizations stop and BL and LD walk towards JE in an attempt to enter B4 territory and listen for courtship vocalizations.

2145—BL, LD, and JE hear TC vocalizations begin in B4 territory along Biker R at ~90m away from their position in the SE end of B5 territory, near the B5\_2016 nest.

2150—BL, LD, and JE pursue vocalizations along Biker R in an attempt to spot map the territory of B4 M.

2205—As BL, LD, and JE approach Biker R, TC vocalizations stop.

2207—TC vocalizations begin NNE of location.

2303—Started PB on S terminus of Bermuda R, net opens E/W with young PIPO as target vegetation for lure net

Vegetation: Mature pipo/psme w/ some smaller pipos flanking net

Weather: Mostly cloudy and calm, 11̊C

X: 495693

Y: 4333488

+/- 3m

2308—M approaches PB at ~20m distance upslope giving primarily TC vocalizations w/ intermittent TEC that transitioned into HEC for two vocalizations.

2313—After second HEC vocalization M flushed from PB site.

2330—M giving TC from S of PB location ~60m away, did not approach further.

2358—JE may have heard M TC from across the road, potentially up on a ridge to the S. LD did not verify.

2415—End PB and take down net.

## 5 June 2017

2015—MC and ES arrive in the B5 aspen flat to peep the B5\_2017 nest. With some extra time we peep the B5\_2016 nest and tap a few trees in that vicinity—nothing found.

2030—We approach the B5\_2017 nest and get a silhouette of the nest cavity.

2043—A M gives two TCs ~100m N on Bermuda Ridge. Then moves further W and continues to TC.

2047—The F flushes after having risen to the cavity entrance for ~2 minutes. **A peep reveals one egg in the center of the cavity.**

2050—A M is giving TCs further W, approximately near the Fallen Squirrel, we drive the car to the B4 parking spot to wait for KM and listen for the M.

2116—Nothing has been heard in the area, we leave to lure on Sharpshinned R.

2044—JE and ER arrive at the B14\_2015, 2016 nest tree to listen for nesting vocalizations. We immediately tap the past nest tree. We do not see anything in the entrance, but in the chance that the F could have flushed before our arrival, JE positions herself with a silhouette of the cavity. ER listens along the R of N. Goshawk and in Goshawk Cr. about 200-300m W of the past nest tree. JE stays in sight of the cavity until 2116, but neither of us hear or see anything signs of FLOW.

2139—ER and JE meet back up at the past nest tree and peep the cavity just in case the owls were being extra sneaky. It is empty. We move down the R to set up a lure net.

2206—We start PB at a lure net ~20m S of the two-track on N. Goshawk R, ~400m E of the parking spot.

Vegetation: Mature pipo, psme. Young psme. Moderately open.

Weather: Partly cloudy, breezy, 12C

X: 495307

Y: 4334130

+/- 3m

2241—M gives a handful of TC from S Goshawk R >200m to the SE of our net. He does not approach and goes silent after one minute. We suspect that this M is coming from the B4/B1 area.

2250—M on S Goshawk gives TC from his same position.

2255—M goes silent.

2305—PB off. We break down the net after not having any action in B14 and begin heading back to the car.

2320—ER and JE give a few hoots around the B14 parking spot near the fence to get no response. We head back to the car to head down to B2.

2336—ER and JW arrive in B2 to listen for nesting vocalizations and any sign of a territorial M.

2344—We begin PB of T42 while walking towards and along Paintbush Ridge. Stop after 3 minutes.

2348—Begin PB of T42 on the top of Feldspar Ridge.

2351—M giving TCs from SE is heard by both ER and JE, possibly from Vista Ridge in the B1 territory. This continues on and off for the entirety of the time T42 is playing.

2356—A second M is heard giving TCs by both ER and JE within 100m to the SW. Only several TCs were heard, but they were clear and higher pitched. The TCs came from the side drainage of Feldspar R. and Shooting Star R. around where the B2\_2014 nest tree was.

2410—We stops PB and the first M stops giving TC. Suspicious of the closer M, we head down into the drainage to listen, tap, and hoot.

2411—ER and JE walk to 2014 B2 nest in the drainage between Shooting Star Ridge and Feldspar Ridge. The tree has fallen.

2415—ER and JE begin walking back towards the B2 parking spot while following Homestead Cr. Both tap on nest trees and give some hoots intermittently but find and hear nothing.

2432—We leave to meet BL and ZM in BG1.

## 29 June 2017

2420-2440—KM and ZM play playback on Coopers Hawk Rd. We do not hear any responses.

## 4 July 2017

~2300—KM and LD start playback on the SW terminus of Bermuda Rd. Just NE of the B5 parking spot. Everything is silent until…

2338—A M starts responding from the S. He seems to call from the B5/B4 area. We throw up a lure net in a nice spot just S of where we were playing PB.

Vegetation: open, young-mature pipo/psme

Weather: calm, clear, 18C

X: 495646

Y: 4333514

+/- 5

2345—We have the net up. LD stays near the net and KM runs to the car to retrieve a pinpoint to give to ZM. LD hears the M responding from the B5/B4 area again, and he flies towards the net. LD changes the playback from Track 42 to HECs.

2350—The M hits the second shelf of net from the SW. KM runs up the ridge to help extract the bird**. He is the B5\_2016 M and potentially the B5\_2017 M. *He was a new band in 2016*. The B5\_2017 nest failed, so we cannot confirm he is the B5\_2017 M, though observations suggest he is.**

2357—He is extracted from the net and begin to process him.

**Band # 1833-03384 (on R leg)**

75.0 g LWC: 130 mm

- 17.0 g LLP(5): 99 mm

58.0 g LLP(6): 110 mm

Rect: 61 mm

**Notes:**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | Just out of shaft | Just out of shaft |
| P4 | 2.5 | 2.5 |
| P5 | 3.0 | 3.0 |
| P6 | 2.5 | 2.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | 1.0 | 1.5 |
| P3 | -- | -- |
| P4 | 3.0 | 2 |
| P5 | 2.0 | 2.5 |
| P6 | 2.5 | 2.5 |
| P7 | 2.5 | 1.5 |
| P8 | 2.0 | 1.5 |
| P9 | 2.0 | 1.5 |
| P10 | 2.0 | 1.5 |

2425—Release M who makes a strong ascending flight to the SW.

2432—We hear response from the PB from the SW, and we think it might be the M we just released. He does not approach the net. We break down the lure net and head to Cooper’s Hawk Rd. to walk the PB around. We do not hear any responses.

# B4—2018

## 30 May 2018

2330—Flam crew begins listening around old nest sites in B4 and B5.

2305—JE and KA hear TCs coming from up on Coopers Hawk R. This is possibly the B4 M. The TCs stop after ~1 minute.

2415—We don’t hear anything else in the area, so we pack up and go home.

## 21 June 2018

2155-2350: BL listens along FS347 for nesting and territorial vocalizations in the B4 and B1 territories, from the W-boundary of B5 territory to the bend in the road due W of the weir at the base of Fallen Squirrel Cr (BL grounded by knee issues). I also gave TC intermittently, but no response was heard anywhere.

## 25 June 2018

1530-1700: Flam Crew peeps cavity trees in the B4 and B1 territories, concentrating on trees along W. Missouri Cr. from the SW portion of B5 territory, to approximately 100 m W of the Fallen Squirrel Weir. Nothing found in the B4 and B1 territories, **but we found the presumed B17\_2018 nest in the B17\_2017 PIPO nest tree and cavity (tag #614)—see B17 notes.**

## 6 July 2018

1300-1700: JE peeps B1 and B4 trees in W Missouri Cr near the confluence with Fallen Squirrel Cr. ES peeps up on Coop Hawk R, and ON peeps the S terminus of Camp R. There are still many remaining cavity trees to be peeped in W Missouri Cr (W of Camp R), up Fallen Squirrel Cr, and on Camp R. Only a few un-peeped trees remain on Coop Hawk R.

## 9 July 2018

~1600-1730—Flam Crew, accompanied by the ABC squad, power peeps Bermuda Rd, Cooper’s Rd, Camp Rd., and Fallen Squirrel Cr. Goose Eggs.

## 12 July 2018

~1500-1630—The flamily peeps out most of the remaining cavity trees in B4 territory. We finish peeping all of Fallen Squirrel Cr; only a few trees remain along the low W slope of Coop Hawk Ridge. We peep the mid to N portion of S Goshawk Ridge (the S portion is still unpeeped). No FLAM evidence found. A thunder storm rolls in, so we make a soggy exit around 1630.

# B4—2019

## 30 May 2019

1438—JE, ML, KC and AM arrive in B4 territory to cherry peep known cavity trees and past nests. JE and KC head S staying E of Sharpshinned Hawk ridge. No nests are found. ML and AM peeped S cavity trees. No nests are found. JE, ML, KC and AM all travel S into B12 to continue peeping.

1645—ES and SL head to B4 territory to cherry peep the B3\_2011 historic nest tree (#1168) on the upper-slope of Fallen Squirrel Cr. (**note:** We were unable to peep the suspected nest cavity because we could not get the peeper head into the cavity, should be revisted).

1710—ES and SL leave the B4 territory.

## 10 June 2019

2327—JE hears two different Ms giving TCs. One bird is likely the bird that KA and KC also hear from the B4 parking spot. The second bird is further N. JE in the excitement gets lost. KC and KA drove the car into the B4 parking spot. Upon arrival KA and KC hear TCs and TECs 50m W up Bermuda ridge to the NE, they follow but were unable to find a song post. JE uses GPS to meet up with KA and KC.

2238—We hear a few TCs ~100 m N up the ridge, but then all goes quiet.

2350—KA and KC head back to the car to listen and tap trees along Missouri Rd. KC stays just SE of parking spot. KA walks S to Fallen Squirrel. Nothing is heard or found

2358—KA, KC and JE meet at the car to end the night.

## 27 June 2019

2258—KC, ML and JE spread out throughout B4 to listen, tap and do some spotmapping. KC and ML head up Fallen Squirrel and JE follows Cooper’s Hawk Ridge N. KC heads W onto S Goshawk Ridge. ML heads E onto Cooper’s Hawk Ridge.

2352—After a long bout of silence, JE hears 2 M’s in the midst of a territorial encounter ~75m WNW from her position at the armpit of Coop’s and Fallen Squirrel. They call at one another for a few minutes. Meanwhile, ON and ES return to the vehicles and immediately start hearing M TCs ~50 m NW of the B4 parking spot on Cooper’s Hawk Ridge. ON goes to chase him down while ES heads S where another bird is giving quiet TCs ~15m S of the B4 parking spot.

2354—KC hears a M calling ~100m E/SE of S Goshawk Ridge. KC begins to pursue.

2355—ON marks **songpost B4\_1. It is a live psme, dbh 21.5 cm.**

X: 495647

Y: 4333555

+/- 3 m

2356—Now only one FLOW is making TCs so JE hoots and calls him in, **marking songpost B4\_3. It is a live pipo, dbh 46.0cm.**

X: 495605

Y: 4333937

2358—After calling in the site for a while, the M flushes to the E, continuing to make TCs. I believe this bird had originated from the N.

Meanwhile, the bird ES heard just S of the B4 parking spot moves ~150 m W down W Missouri Cr.

2400—KC is in Fallen Squirrel Cr still hearing the M give TCs ~50m SE, but KC is not close enough to get eyes on therefore he heads back to the car. Meanwhile, the M ON is following retreats W towards Fallen Squirrel and goes quiet for a few minutes.

2403—JE and ML begin to walk down Fallen Squirrel and head back to the cars.

2404—The M that retreated W towards Fallen Squirrel starts giving TCs again, this time farther N up Cooper’s Hawk Ridge, so ON goes after him.

2412—ON marks **songpost B4\_2. It is a live pipo, dbh 59.5 cm.**

X: 495647

Y: 4333619

+/- 3 m

2415—ON heads back to the cars to meet up with the rest of the group. ES hasn’t heard the M calling down in W Missouri Cr for about 20 minutes now, so she goes back to the cars too.

## 1 July 2019

~2350-2400—BL, SL, and KA listen in B4 for 10 minutes. BL goes partially up Fallen Squirrel Cr, SL heads W along the FS 347. KA heads E along FS 347 and hears a M FLOW calling in the direction of the saddle to B12. KA follows the M and reaches the base of Biker Trail. The M continues giving TCs from the saddle, and does not come any closer when KA gives a few hoots. It is possible that this M was the reason that the B5 M was leaving the nest to sing off to the SW earlier in the night (see B5 01 July 2019 field notes). No FLOW activity is observed or heard in B4 proper. We leave to meet the crew.

## 4 July 2019

1530-1700—Flam crew systematically peeps B4 on Cooper’s Hawk Ridge and up Fallen Squirrel Cr. We find no signs of a FLOW nest, but we do not finish getting all the cavity trees up at the head of Fallen Squirrel Cr and should return to clean them up.

## 9 July 2019

1515-1715—Flam Crew with guests Rob Hevey and Lacey Allor continue systematically peeping through B4 in search of a nest. We begin where we left off near the top of Fallen Squirrel Cr and move from S Goshawk Ridge down Camp Ridge. There are still several trees on Camp, including the past nest tree, as well as a couple scattered trees that were previously jumped over and not hit today. Nothing is found so we head out.

## 11 July 2019

1515-1710—Flam Crew does a systematic peep in the W Missouri Cr drainage and Camp Ridge area of the B4/B1 territories in hopes of sniffing out a FLOW nest. We peep the past nest tree near the S terminus of Camp R, and we peep out W Missouri Cr starting at the historic B4 nest tree and working W to the dense clump of potr cavity trees just E of where Vista R meets W Missouri Cr. Unfortunately we find no signs of FLOW activity.

## 12 July 2019

2230—KC, ML and SL set up a lure net to pull in a potential B4 or B1 M. We start PB before the net is set up because we have a limited amount of time for PB. T42

2241—Lure net is set up. KA, ES, and Jamie Smith join at the lure net. Net is 25m W of Fallen Squirrel parking spot and 25m N of Missouri Rd on the southern terminus Camp Ridge. Net on E facing low slope. Upon set up we hear M TCs ~100m W/SW, from down in W Missouri Cr. Net open SE/NW.

Vegetation: Mixed age psme and pipo

Weather: 10% cc, Calm, 16 C

X: 495328

Y: 4333529

+/- 3m

2249—M TCs ~150 m SW from further down W Missouri Cr.

2252—M TCs in nest site ~25m W. We switch tracks to Psiloscops AZ.

2253—**We catch a silent unbanded bird in the 4th shelf from the W**. We presume this to be the M we’d heard calling to the W. We check for a brood patch but don’t see one, so we begin taking measurements and switch track back to T42.

**Band # 1833-32612 (on R leg)**

76.5 g LWC: 134 mm

- 7.0 g LLP(5): 99 mm

59.5 g LLP(6): 108 mm

Rect: 61 mm

**Notes: We eventually realize the bird is F and does have an incubation patch with substantial pin feather coverage. At this point we decide not to take further measurements. Left** **1st and 2nd primaries are possibly in shaft. Bird seems to be missing left 2nd and 4th primaries on the left wing, but we check very quickly and aren’t positive. Right wing looks normal.**

2259—M TCs ~30m NW (while still processing what we presumed to be the FLOW we’d previously heard).

2300—M TCs ~ 20m NW.

2302—M TCs on the net.

2303—M HECs on the net.

2305—ES moves PB to the ground.

2310—M still giving TCs and HECs on the net.

2311—Based on bird in hand’s heavy mass, we decide to recheck bird for incubation patch. ES discovers that bird does in fact have an incubation patch with substantial pinfeather growth. We stop taking measurements and throw band #1833-32612 on the R leg. The bird still calling at the net is the presumed B4 M, but we aren’t sure about the F’s identity based on potential prospecting behavior this time of year.

2314—We kill PB. Release F with SAF into a snag.

## 15 July 2019

2308—SL, ES, and KA arrive at the B4\_2019 territory. From Fallen Squirrel Cr, we walk W down W Missouri Cr.

2312—SL hears a possible F FSC from W Missouri Cr near where the road begins to wash out E of Vista R. She gives a couple hoots. We do not hear a response in the immediate vicinity, but a M FLOW responds with TCs from ~100 m further W down W Missouri Cr. He approaches, but never gets closer than ~75 m, and then backs off again. We tap cavity trees in the area, but find nothing.

2324—We begin to climb S up Sharp Shinned Hawk Ridge and begin PB while still within ~40 m of the drainage bottom, near the large clump of potr cavity trees. After 5 minutes with no FLOW response, we cut PB and continue up Sharp Shinned Hawk Ridge to set up a lure net.

2342—PB starts. T42. Net is located on saddle of Sharp Shinned Hawk Ridge near the southern terminus of the ridge. Our goal is to draw FLOWs from multiple surrounding territories, including B4, B1, B17, and possibly B10. Net is located on the ridgetop, open N/S.

Vegetation: mixed age pipo, psme

Weather: 10% cc, 13 C, calm

X: 494903

Y: 4333293

+/- 3m

2357—We hear a M give TCs ~50 m E up Sharp Shinned Hawk Ridge. He gives a few sporadic TCs but never gets closer to the nest site.

2405—We cut PB and head back towards the car.

# B4—2020

## 23 June 2020

1500-1645—Flam Crew arrives to peep cavity trees in the B4, B12 and B13 territories. Nothing was found in any territory. BL peeped all the past nest trees still standing, in addition to all cavity trees in the N-most patch of POTR containing these past nest trees, and noted that several cavity trees had been taken down by IREA in the previous weeks (utility line hazards). The rest of the Flam Crew peeped B4 trees in vicinity of the parking spot along W Missorui Cr. before heading into B12. We peeped all standing nest trees in B12, as well as most trees with suitable cavities in Beartorn Cr.

2350—SL and ON arrive at B4 territory to hoot and listen for flammies.

Weather: clear, calm, 11°C

2410—We played T42 off our phones and gave hoots on the top of Cooper’s Hawk R. M responds with TCs ~50m N.

2412—2 M’s giving TCs, one from ~50m N and one from ~30m W.

2415—M giving HECs above us, on the top of Cooper’s Hawk Rdge. We follow M back to B4/B12 parking spot, where he eventually stops singing ~20m N of the parking spot. We bid ado to our little friend and head out.

## 7 July 2020

1730—Flam Crew arrives in B4 to systematically peep for a potential FLOW nest. We start at the B4 parking spot and work our way down W Missouri Cr. We do not find any nests.

1830—We head back to the B4 parking spot to cook dinner.

2307—ES and BL start PB at our lure net on top of S Goshawk R, near the head of Fallen Squirrel Cr. We hope to draw in a M from B2, B14, B4, or B1. Net open N/S.

Vegetation: Mature pipo/psme

Weather: Clear, calm, 20C

X: 495346

Y: 4333892

+/- 3m

2312—HECs ~15m N of the net. He hops to the S side and continues calling very hoarsely. This M, the presumed B14 M, gives HECs in our net site for most of the night.

2321—2nd M gives TECs ~30m W while the 1st M is calling in site. 2nd M, presumed B2 or B1, has a noticeably higher pitched call than the 1st M (presumed B14).

2323—The 2 M’s call at each other ~40m SW of net.

2325—1st M calls ~30m E while 2nd M calls ~30m S.

2336—ES heads to Cooper’s Hawk R to listen for nesting activity and tap trees while BL remains at the net. The 1st M continues to give TCs intermittently to the NE of net over the next half hour.

2351—From Cooper’s Hawk R, ES hears a high pitched M (presumably the 2nd M from the lure net) calling down near the confluence of W Missouri Cr and Fallen Squirrel Cr. I can also hear AM and KC’s PB on Biker R, which is what the M seems to be responding to.

2355—I don’t hear any activity on top of Cooper’s Hawk R, so I return to the lure net.

2412—It’s been quiet at the net site for about ten minutes, so we stop PB and break down the net.

# B5—2002

## 8 July 2002

2230-2330: Flam crew locates, and listens to, cavity trees in the vicinity of the W Missouri drainage. During this time we occasionally heard a *Otfl* giving TC from the E end of the drainage (probably B5—M).

## 9 July 2002

1240—**Flam crew and I discover nest in a new territory—B5\_2002**—within the Missouri Gulch study area. Nest tree is a ~30 cm Potr, and is about 10 m N of the Missouri Gulch Road. Cavity is approximately 9 m above ground on the S side of the tree. F was in the entrance as we walked by on the road. We leave after approximately 5 min.

2035—BL arrives at B5 nest to attempt capture of adults and assess status of nest. F perched in cavity entrance, and she scolds me as I approach tree.

2038—F flushes as I raise ladder on nest tree. There appear to be at least two well-developed owlets in the nest.

2052—M arrives in nest site and promptly scolds me.

2056—M attempts prey delivery at this time, and finally succeeds at 2056. An owlet was in the cavity entrance.

2108—Male delivers prey.

2121—Same.

2140—Male delivers prey, and I capture him as he exits. Previously unbanded—he is given **band #: 92284**. I collect blood sample (but no feathers).

69.5 g

* -19.5

50.0 g

2200—I release M.

2235—M delivers prey, and I leave.

## 10 July 2002

0950—Flam crew enters nest site to capture female in B5 territory.

1004—Female is captured in ring net after being flushed from the cavity. She is given

**Band #: 92285**. Blood and feather samples are taken.

83.5 g

-19.5 g

64.0 g

LLP (omit) Tail= 53mm WC= 136mm

Note: Incubation feather are filling in, pin feathers are out of the shaft.

1030—Female is released.

Cavity Entrance Specifications : 6cm wide by 5.5cm high, Entrance diameter (thickness @ entrance) = 6.5cm, Inside diameter @ entrance = 15cm.

1050—Owlets removed.

**Band # 92286(l.leg) Band # 92287(l.leg) Band # 92288(r.leg)**

80.0g 71.5g 68.0g

-16.5 -16.5 -16.5

63.5g 55.0g 51.5g

LLP= 71mm LLP= 61mm LLP= 69mm

Rect= 33mm Rect= 17mm Rect= 31mm

1152—We return owlets and leave.

## 11 July 2002

~1030: Flam crew climbs B5 nest cavity to check contents—only #92288 is left; **the 2 older sibs fledged last night**.

# B5—2003

## 30 June 2003

2135—Katie and Miriam observe a Flammulated Owl fly across the road to the S and land on a tree adjacent to the road in the vicinity of where Brian finds the actual B5 nest on 1 July 2003. The male flies to the S off of the branch. We continue driving.

## 1 July 2003

1140—**BL discovers B5\_2003** nest in a previously unflagged live *Potr* approximately 80 m SE of the B5\_2002 nest (and the Missouri Rd), in the bottom of W Missouri drainage. F rose to the entrance when tree was tapped. Nest hole is approximately 8-9 m high, about 6 cm in diameter, and the entrance faces S.

1150—F still in the entrance when I leave.

1. BL and Jake arrive in order to capture M.
2. Capture M

**70.5**

**-20.0**

**50.5**

**Banded on Right # 92284—this is B5-2002 male.**

1. Release M after taking blood sample.

## 2 July 2003

1. BL and Jake arrive in order to capture F.
2. Capture F.

**Banded # 92285—this is B5-2002 female.**

**80.5**

**19.5g**

**61.0g**

1. Release F after taking blood sample.

0100—Jake, Miriam, Katie, and BL arrive to peep the B5 nest. We find 3 well-developed owlets; two appeared to be entirely in grey down, and one had a mixture of grey/white down.

0115—We leave.

## 5 July 2003

1650—Marlene, Aunt Rose, and BL arrive to enlarge cavity entrance, remove, band and bleed owlets. F, who was not in the entrance, flushes as I attempt to raise capture net.

1655—I climb to entrance. Cavity specifications:

cavity entrance dimensions: 5.0 x 5.5 cm

thickness of cavity entrance: 4.5 cm

horizontal depth: 16 cm

vertical depth: 23 cm

dbh at cavity: 28.0 cm

height at hole: 7.5 m

1720—Finish enlarging cavity entrance, and remove young.

**Band # 92318 (r.leg) Band # 92319 (r.leg) Band # 92320 (l.leg)**

71.5 g 70.0 g 73.0 g

-17.0 -17.0 -17.0

54.5 g 53.0 g 56.0 g

LLP= 38/19 mm LLP= 47/24 mm LLP= 47/27 mm

Rect= 9/7 mm Rect= 18/7 mm Rect= 13/6 mm

Youngest; mostly Both of these appeared to be same age (probably 2

grey w/ some white down days older than #92318; likely will fledge in 3-4 n

**Note**: X/X refers to total length of feather, and length of feather out of the shaft.

1815—We return owlets after bleeding and leave.

## 10 July 2003

2245-2310: Miriam, Jake, Katie, and BL arrive to attempt spot-mapping of the B5 and B6 males. Katie heard a M (possibly B5) give a few hoots from the W side of Turkey Ridge soon after our arrival, but no song posts were flagged.

2315—Jake and BL stop to check the status of the B5 nest—two owlets are at the entrance of the cavity. M delivers prey shortly thereafter, and we hear the F giving a couple of FS calls approximately 50 m to the N. We leave.

# B5—2004

## 24 May 2004

2052: The flam crew arrives at B5 *Potr* bottom. BL gives a few calls from the aspen flat. Weather: Windy, 10OC, most cloudy.

2100-2215: We call from the S end of Bermuda Ridge, and gradually work our way around the S and E sides of B5 territory. Quite breezy.

2220-2305: We tap several *Potr* cavity trees in the center and northern portions of the territory, and continue listening for B5 male. Nothing heard.

2315: Group splits up from B5/B13 intersection at road cut.

2335: JM and KS give calls from E end of Goshawk ridge. We hear a response 200m W on Goshawk ridge. We move W 150m and listen again. No additional calls heard.

2345: JM and KS hear 2 (1 note) TC on Goshawk ridge. We do not find the songpost but record a GPS location around the singing male.

2350: Julie gives a few more calls from Goshawk ridge, we do not hear a response.

2420: EP,EE,KS,JM meet at the vehicles near the B5 fork.

2425: We hear TC from S end of Bermuda ridge. JM and EP go after him.

2430: We hear TC from aspen bottom on S side of the road.

0104: The entire flam crew hears TC from aspen bottom on S side of the road. We all chase after him. He moves to the aspen bottom on the N side of the road. JM and KS mark one songpost for the evening. We leave.

## 1 June 2004

1509—SY taps on tree B5\_41 (tag: 39) and female ascends to cavity entrance within 5 sec. of peeping—**this is B5-2004 nest (this was the B5\_2002 nest, and is located 5 m NW of the Missouri Rd in a live Potr)**. She remains in nest hole for at least 2 min. but we leave before she descends.

2150—**EP and EE peep the nest and find three eggs** in the middle of the nest all touching. We leave.

## 7 June 2004

2105—EE and EP arrive to observe B5 nest behavior.

2112—M and F land on branch next to each other about 10m from nest. M gives 2 LC.

2113—M and F fly E about 20m.

2114—F gives 4 FS.

2118—F returns to nest.

2125—M makes prey delivery to nest. F continues to give FS for about one minute after.

2128—M attempts prey delivery but does not actually enter cavity. M flies E about 30m and gives 10-15 LC.

2139—M lands about 2 m from nest and then makes a prey delivery as F gives FS.

2143—M makes quick prey delivery.

2146—M makes prey delivery and F gives 3-4 FS.

2150—EE and EP leave nest area.

## 8 June 2004

2111—BL, JM and SY arrive at B5 nest to attempt capture of B5 male.

2114—Male makes prey delivery accompanied by LC and FS call by female. Prey deliveries also at: 2115, 2116, 2119, 2120, 2121, 2122, 2123, 2128, 2129. In tree marked **B5\_41 (tag # 39)**

2129—Female flushes the nest during an attempted capture, we leave.

## 14 June 2004

2034—EP, JM and SY arrive at B5 nest to attempt capture of the female.

2044—Female flushes the nest before capture as a result of our presence. We leave.

## 15 June 2004

2130—JM and EE arrive at nest to attempt to capture M. M gives immediate prey delivery.

2155—M gives prey delivery and attempted capture fails.

2159—M gives TEC about 5-10m from nest.

2221—M gives TEC about 5-10m from nest.

2245—JM and EE leave area.

## 21 June 2004

2038—SY and EP arrive at B5 nest ready to capture B5 female.

2046—SY gets net over hole.

2046—Female comes up to entrance as soon as net is in place and flies into the net.

**Band #92306** (B6 Female 2003)

2052—Release.

## 24 June 2004

2122—EP and SY arrive at B5 nest to attempt capture of male.

2124—Prey delivery. Deliveries also at 2125, 2133 and 2141.

2141—Capture of male.

**Band #92284** (B5 male 2003)

Weight: 49 grams

LLP: 103mm

WC: 135mm

Ret: 46mm

2150—Release (strong flight).

## 2 July 2004

2028—SY arrives at B5 nest to attempt capture of nestlings and observe nest. Female is already in cavity entrance when I arrive.

2051—I flush female with the peeper. **2 young (at least one with gray plumage) and 1 unhatched egg.** Cavity is too high for the ladder.

2057—Male arrives in the area and gives LC.

2059—Male delivers prey to the female in a tree approx. 1.5m SE of nest tree.

2102—Prey delivery to the nest. Also at 2106, 2106, 2110, 2113, 2114, 2115, 2119, 2120, 2122, 2122, 2124, 2131, 2132, 2134, 2138, 2138, 2139, 2140, 2142, 2142, 2143, 2149, 2205, 2213, 2214, 2217, 2218, 2221, 2225, 2227. (Both sexes making deliveries.)

2205—EP arrives at nest and SY leaves.

2227—EP leaves.

## 8 July 2004

1545—EE, KS, and EP arrive to mass and bleed owlets. **We find a dead flam owlet on ground** within one meter of nest tree. Appeared to be a recent death (within the last day or so).

1552—F flushes as KS begins to climb ladder.

1555—KS begins to open cavity

1630—KS brings 1 owlet down and 1 intact egg. We take the egg with us. The owlet looks sickly and has a very deep and pronounced respiratory rate. We measure 90 breaths/min. We proceed to band the owlet.

**Band#92378**

74.5g

-21.0g

53.5g

LLP: 35.0mm

Rect:10.0mm

1700—We return owlet to nest and leave with egg and body of dead owlet.

## 14 July 2004

1654—Flam crew arrives at B5 nest to peep cavity. No owlets are present in cavity. We leave.

# B5—2005

## 31 May 2005

1600-1630—Flam Crew attempts to find B5\_2005 nest by tapping on marked cavities trees in the *Potr* drainage in the vicinity of the junction of the Missouri Rd and Roadcut Rd. Nothing found.

2035—MS and BL arrive in B5 territory to tap cavity trees and listen for nesting vocalizations. Partly cloudy, mostly calm, approx. 18 C.

2038—MS sees B5 M catch prey off nearby POTR, just to south of Missouri road, then M flies off to East.

2040—M calls off his roost, apparently just NE of Missouri Rd, ~ 70 m E of the road junction. (Makendra entry)

2050—BL pursues F who is giving FSC N of Missouri Rd to the vicinity of the cavity trees near Roadcut Rd, where she quiets before I locate her. We tap trees and listen for nesting activity in the area for the next ~ hour.

2200—We leave for B13 territory.

## 2 June 2005

1400—Flam Crew arrives to tap and peep cavity trees in the B5 territory.

1444—**Female rose to cavity entrance in B5\_50 after thumping tree with palm of hand—this is the B5\_2005 nest.** Did not rise initially with knocking by knuckles.

1448—Flam Crew leaves nest site. Female still in cavity entrance.

## 3 June 2005

2033—DF arrives at B5\_50 nest tree. Female not visible. Temperature is 7° C, clear sky overhead, slight breeze from N.

2040—M calls from SE.

2041—F flushes from cavity.

2042-2046—**Cavity peeped, finding 3 eggs each less than 1 mm apart.**

2047—Leave nest site, F not visible.

## 7 June 2005

2020—EE and MS arrive in vicinity of 2005 B5 nest tree to capture female. Clear skies, calm, 17 deg C.

2040—B5 F rises to top of cavity as MS is approaching with capture net.

2045—M calls off roost.

2048—F still up, M comes and gives LC. F immediately flushes.

2048-2053—M stays directly above EE to check us out.

2055—MS moves away from nest to give F room to re-enter nest.

2105—F returns to nest.

2106-2121—M makes 6 prey deliveries to nest.

2121—As M makes PD and EE moves under nest to attempt setup of capture of M, F gets nervous and flushes the nest.

2123—EE and MS immediately leave.

## 13 June 2005

2145—BL arrives at the B5\_2005 nest to attempt capture of M. M is giving LC calls, and F is giving FSC, as I approach (probable prey delivery).

2152—M delivers prey to F in cavity. Same at 2156. Cavity must be shallow, as M does not fully enter to deliver prey.

2200—M captured after he delivers prey. **M was not previously banded—given band # 64409** on left leg.

Mass: 74.0g

Tare -26.5g

47.5g

LLP: 93.0mm

L. Wing Chord: 130.0mm

Rect.: 61.0 (Measured on next to middle rect. – middle rect. Broken.

2017—Bird is released. Flies S.

## 15 June 2005

2025—EE arrives in the area to attempt to capture B5 female. Clear, light breeze (5 mph), 16 degrees.

2032—As I begin to raise the net the F comes to cavity entrance. I swing net over and capture B5 F. **She was previously banded—band #92306; this was the B5\_2004 female**.

Mass: 91.5g

Tare -23.0g

68.5

LLP: 95.0mm

L Wing Chord: 137.0mm

Rect: 62.0

2042—Bird is released.

## 29 June 2005

2030—MS and EE enter B5 to capture female. 17 deg. C, calm and clear.

2036—Female up in cavity when EE nears tree.

2051—Female flushes .

2053—We peep nest: 3 owlets with white natal down, we were unable to see the eyes to determine age although owlets appear large (possibly due to shallowness of cavity).

2054—We check sheet and see that blood has already been taken on this bird (2004).

2058—We leave.

## 6 July 2005

1635—EE, MS, DF and SY enter B5 nest site to band, bleed, and measure owlets.

1643—B5 F flushes as ladder is being situated, lands in *psme* 15m south-east of nest tree.

1653—SY in at cavity.

**B5 Nest Cavity:**

**Width: 7cm**

**Height: 9cm**

**Depth horizontal: 11cm**

**Depth vertical: 9 cm**

1700—Owlets out of cavity.

**Band # 64426 #64427 #64428**

**61.0 59.0 50.0**

**-11.5 -11.5 -10.5**

**49.5g 47.5g 39.5g**

**LLP: 34 (24 in shaft) LLP: 38 LLP: 24**

**Rect: 11 (9 in shaft) Rect: 15.0 Rect: 8**

1728—Owlets returned to nest after being bled, banded and measured.

1735—We leave.

2028—DF arrives to observe nest. F at entrance.

2030-2043—F gives scolding calls ~ 1 per minute.

2045—F flushes to N, continues to give scolding calls.

2050—M gives LC’s to N.

2055-2226— 42 Prey deliveries made by M and F (See prey delivery sheet). F often perches on Potr E of nest tree before flying to cavity entrance.

2216—M gives TC’s to SW of nest.

2217—M gives TC’s to S of nest.

2226—DF leaves.

# B5—2006

## 29 May 2006

2415—SY, KC, and BL arrive in B5 territory to tap on cavity trees. Mostly cloudy, calm, and light intermittent rain.

2421—B5 M starts giving TC from the S end of Bermuda Ridge. We pursue and begin flagging songposts. M sings sporadically (5-10 min at a time) until 0115, when we leave. We mark 8 songposts during this time (see data sheet), all along the S-N axis of Bermuda Ridge. EE and EM join us at ~ 2445, first checking cavities along Road Cut Dr, and then spotmapping. No nest found.

0102—We leave.

## 30 May 2006

2000—Flam Crew arrives in B5 territory to peep cavities and listen for possible nest activity. PC, calm, approximately 13 C.

2018—B5 M calls off his roost on Bermuda Ridge, ~ 70 m NW of the parking area.

2038-2115: The M flies around the *Potr* bottom area giving TC and TEC, but never gives LC or approaches any of the cavities. The behavior of the M suggests that he is unpaired, and we never heard any F vocalizations during this time period. We leave.

## 13 June 2006

2115—EE and KC set up mist net and sound system with F vocalizations in order to capture a M in the B5 area. Also, prepare for songposting.

2133—KC hears several Ms in the drainage of B5. One is up drainage, towards the Roadcut Creek, one directly in the B5 drainage, and then one to the W, near Sharp-Shinned Hawk Ridge. This latter one is particularly loud. The one in the drainage is lower-pitched calls and softer.

2210—EE checks net and **finds an un-banded M captured in the net (we later determine him to be the B5\_2006 M)**. I weigh, measure and bleed him.

**Band #64514**

80.5g

-20.5

60.0g

WC: 132.0mm

LLP: 104.0mm

Rects: 48.0mm

2237—While we have this M another M begins calling about 50m to the N.

2241—While we still have this M, we hear another M calling nearby to the N and yet another M calling from the vicinity in the mist net.

2250—#64514 finally stops bleeding after about 25 minutes.

2305—We release #64514 and he has a strong flight off to the E.

2310—Flam crew takes apart mist net and recording devices.

## 17 June 2006

1800—EE is in B5 vicinity and notices F flam in cavity entrance of 2004 nest tree **(B5\_41 tag# 39)—this is the B5\_2006 nest.**

## 19 June 2006

2226—EE and EM arrive to capture M at B5 nest. F is in cavity entrance when we arrive.

2227—M comes into area and begins giving HEC and the F responds with a hoarse single note call/beg.

2228—F flushes cavity and M continues giving HEC.

2231—We back off about 25m.

2241—From our distance we can still hear M giving HEC. It is possible that they aren't directed at us.

2249—While M is still giving HEC the F begins to beg.

2255—We move closer and find both M and F still outside cavity. We observe strange behavior as one of the owls flies towards the other and makes a lot of noise hitting a tree. **Suggests possible UFO behavior.**

2259—We leave so as not to disturb the F any longer. BL thinks the above behavior might indicate the early stage of incubation, which is possible given the apparent late start of this nest.

## 20 June 2006

2221—EE and EM arrive to attempt to capture B5 M. Nobody is in the cavity entrance when we arrive and we assume F is down inside cavity.

2230—EM sets up capture net over cavity.

2232—M comes into area and starts giving quiet TEC’s at us. F also begins giving hoarse FSC. She is outside the cavity and apparently has been since we arrived.

2234—We back off.

2243—We peep and find F has returned to cavity so we set up capture net again.

2249—M is in the area and gives about 15 seconds of quiet TEC’s.

2251-2322—M makes 4 prey deliveries and we attempt to capture but each time he bounces out. Need a Hastings Pole net for this hole.

2325—We leave area.

## 22 June 2006

(Erin Notes)

2226-2230—Flam comes to cavity and perches at entrance. Owl stays still with tail feathers hanging out of cavity for several minutes. During this time, EM places net over cavity entrance and Owl eventually flies into net. EE and EM check **band number**, **92306** and realize that they captured the **F—this is the B5\_2004,2005, and B6\_2003 female**! We decide to release the F immediately so to not disturb her nesting cycle any further.

2243—EE and EM release F and immediately back out of site.

## 26 June 2006

2158—EE and BL arrive at B5\_2006 nest to attempt capture of M. F in entrance when we arrive.

2102—M arrives in nest area giving LC, and delivers prey to F in cavity entrance at this time.

2105—Same.

2109—F descends into cavity, and EE stealthily assumes capture position shortly thereafter.

2116—EE captures M following a prey delivery. **M was previously banded—Band # 64514—this is the M that EE and KC captured in the lure net on 13 June**.

72.0 g

17.5 g

54.5 g

2221—We release M, and leave at 2225 hr.

## 27 June 2006

2224—KC and SY arrive at B5 nest to peep. We tap, F rises to entrance.

2226—F flushes as peeper is being raised. We peep: **2 eggs center and touching**. **NO HATCHING.**

2227—We leave.

## 10 July 2006

1427—Jim Dandy and BL arrive at the B5 nest to peep its contents. F rises to the entrance as we enter the nest area, and she flushes as we raise the peeper. **We observe 2 unhatched eggs—F is still incubating.**  We quickly exit the area.

1429—F flies back to the nest tree, and we leave.

## 13 July 2006

2040—EM and KC arrive to mass newly hatched B5 nestling. Temp. is 19 C with clear skies and no breeze. As we approach the cavity, the F rises to the entrance.

2041—We raise ladder, F flushes as it touches the tree.

2043-2045—KC attempts to remove the nestling. Cavity hole is too small to allow her hand in so we cannot mass the nestling.

2046—EM peeps the cavity, finds one very young nestling covered in natal down and one unhatched egg.

2047—we leave the site.

2236—KC arrives at the B5 nest site to observe the prey deliveries. It is now 17 C, still calm and clear.

2237—M enters site from SE and gives a LC, F responds with begging and he delivers.

2239—Another prey delivery with same entrance from M as two minutes ago.

2244—F has been begging, maybe B5 M is in the S giving TC’s.

2246—M enters site, perches first in *Potr* 7m NE, then to a tree 1m E before delivering prey. F responds to the M LC’s. She continues to beg after he leaves the site.

2330—After observing no other prey deliveries, and hearing nothing more from the F, I leave.

## 14 July 2006

**1411—EE and EM arrive at B5 to peep. F is on so we flush her. We peep and find 2 eggs and 1 owlet. Owlet looked *very* young (hatched within the previous couple hours): no signs of natal down just bare skin.**

1412—We leave.

## 20 July 2006

1655—The flam crew arrives at the B5 nest to weigh the owlets. It is 15 C, and cloudy, but calm. We will peep the contents before climbing up the ladder.

1707—**We do not see anything in the cavity. We find a white-covered owlet directly out in front of the cavity under a *Juco* bush, ~1m away from the base of the nest tree**. We package it up for freezing and later analysis and leave the site.

# B5—2007

## 29 May 2007

1632—While peeping the cavities in the B5 area SY taps on cavity tree B5\_119 (tag #119) and F rises to cavity entrance. **This is the 2007 B5 nest tree.** F remains in cavity entrance for approx. 25 sec before returning to cavity bottom. We leave.

2027—BL EE SY CB and KB approach the B5 nest tree. M is spotted in the area and is heard giving LC’s..

2030—SY places net in front of cavity, M flies up to net and is nearly caught.

2032—**F is captured, band reads 64489—this is the B7\_2006 female**. **Peep into cavity reveals 2 eggs, touching.**

2038—F is released and we leave.

## 1 June 2007

2024—CB and SY arrive at B5 nest to capture Male. (B5\_119). 50% cloud clover, still, 12C.

2033—M TC’s off roost 20m to West.

2046—F exits cavity. Upon peeping, **we confirm that two eggs are present** (the same number discovered earlier)

2050—M returns to adjacent trees to nest.

2057—F returns to cavity

2103—PD

2107—PD

2110—Failed capture attempt (PD)

2120—Failed Capture attempt (PD)

2125—Failed Capture attempt (PD)

2135—Failed Capture attempt (PD)

2136—Failed Capture attempt (PD)

2144—Failed Capture attempt (PD)

2154—A UFO quietly enters the territory from the NE, landing on tree 5m from cavity to the NE.

2155—Female flushes off nest (presumably in response to UFO as we were making little noise). Territorial M gives HEC. UFO attempts exit to the NE but is physically intercepted by the territorial M, a brief mid-air collision, UFO leaves heading NE.

2156—F returns to cavity.

2224—SY puts up net, no PD for approximately 30 minutes.

2233—Failed Capture Attempt (PD). Discouraged, SY retires from Flam work.

## 5 June 2007

2120—EM and CB arrive at B5 nest cavity to capture M (B5\_119).

2142—M gives LC in Southern adjacent tree.

2143—Female flushes (somewhat inexplicably as we were making little noise).

2145—CB and EM move to the South of the nest tree to spot map.

2146—EM hears M TC to NW.

2226—M makes PD in the cavity.

2227—Male Captured. **He was previously banded—Band #64514; this was the B5\_2006 M.**

**Band # 1593-64514 LWC 120**

**74.0 RECT 52**

**-16.0 LLP 92**

**58.0 grams**

2135—M flies off to West.

2136—We leave.

## 29 June 2007

2420—BL and the Florissant Fossil Beds class arrive at B5 nest to observe nest behaviors and attempt capture of adults. We peep cavity—F is in the bottom **with two young (mostly white down) owlets.**

0125—We leave. F was off the nest much of the time and made 2-3 PD’s, after receiving prey from the M. On his own, the M made 3-4 separate PD’s to the nest, and managed to avoid capture in the process.

## 8 July 2007

2145—EM peeps nest tree to check status of nestlings. Although cavity is deep, field cam shows two dark owlets, motionless at bottom of cavity. EM unable to determine age of owlets from peeping.

## 10 July 2007

1645—Flam Crew arrives at the B5 nest to check on nestlings. Nestlings appear very close to fledging so we decide to band and bleed the nestlings.

1700—BL climbs tree,

Cavity Dimensions:

DOH: 29.5cm

Entrance Dimensions:

H x V: 60mm x 70mm

Thickness: 55mm

H Depth: 140mm

V Depth: 45cm

BL begins enlarging cavity.

1720—Nestlings removed from cavity.

**#64585 #64584**

65.5g 62.0g

10.5g 10.5g

55.0g 51.5

LP(5): 61mm 55mm

LP(6): 60mm 56mm

Rect.: 25mm 18mm

We band and bleed all nestlings.

1740—We return Ns to cavity and leave.

## 16 July 2007

1530—EM and SY arrive at B5 nest to check on status of owlets.

1532—We peep and find that **all owlets have fledged.**

1534—We leave site.

# B5—2008

## 27 May 2008

1445—Entire flam crew enter edge of B5 and set up lure net on the S end of Bermuda Ridge.

Weather: 15mph wind, temp 18C, mostly sunny

2048—BL,SC,DH enter B5 and extend lure net and start playback, and immediately hear male give TC in the vicinity of the net.

Weather: no wind, temp 14C, slight overcast

2050—Male Captured. **He was previously banded -- Band#64425; this was the B4\_2005M.**

Band # 1593-64425 LWC 132mm

80.0g RECT 64mm

-30.0g LLP(5) 92mm

50.0g LLP(6) 102mm

2110—M released.

2112—Hear TC again; most likely B4\_2005M calling again.

2120—TC stop. leave net.

2130—We hear F giving FSC calls near the vicinity of the B5\_2003 nest tree (about 60 m due E of the parking area in B5). We pursue and locate her within 10 m of this nest tree, with the M giving LC about 20 m away. She flies W and we momentary lose her.

2138—Visual on female giving FSC on south side of the road interacting with male, approximately 30 m W of the B5\_2002 nest tree. We followed female to north side of the road and observed 2 copulations and 6 PD. Female was banded. Male banded?

2218—Leave female.

2225—DH check lure net. Net empty, but male TC responding to the lure. Male made a couple passes over the net. BL, SC tapping a few cavity trees in the SW side of B5.

2233—Male stopped calling or left the area.

2300—We break down net, and leave to join rest of crew in B8.

## 28 May 2008

1530— Flam crew sets up a mist net on Roadcut Saddle (between B5 and B13). We then peep the southern end of B5. No luck. \

2030—SY, CB, SC, QB set up net. Site is mixes pico/psme of small to medium size. Located on saddle between two ridges. Net is partially over the road.

X: 495878

Y: 4333915 +/-7m

Weather: wind <5 mph (picked up as night progressed), clear, 10C

2053—Start playback.

2057—Hear male giving TCs/TECs ~50 meters to the south of the net.

2100—Visual of male near net.

2101—Male captured in top shelf. **He was previously banded- Band # 64514; this was the 2006-07 B5 M.**

Band # 1593-64514 LWC 131mm

70.0g RECT 57mm

-15.0g LLP(5) 93mm

55.0g LLP(6) 103mm

2110—Bird released; flies to the south, immediately begins calling again.

SC stays to monitor net; SY spot-maps moving down Bermuda ridge; CB and QB spot-map moving down drainage/two track towards aspen stands. CB, QB, SY meet up and spread out to listen in the aspen stands; SC joins us after an hour of no activity at the net.

2213—M and F briefly heard in S end of B5 aspen flat.

2235—SY locates F giving FSCs N of rd. near nest box. She makes several short flights around the aspens on the N side of the rd. Consistently begging – M occasionally enters vicinity and gives several LCs

2259—F gleans a moth of the trunk of adjacent potr then returns to original perch.

2315—M makes a PD to F in potr.

2316—Copulation. M leaves to the N. F goes to pipo then a potr; M returns – they allopreen for ~5 minutes.

2335—Copulation in potr ~15m NE of jct.; CB checks net; empty.

2347—Allopreening in potr ~35m N of jct.

2350—Both birds move to potr -~10m N of previous perch. Copulation. M leaves to the N.

2353—We leave the owls in order to go break down the net.

2400—Stop playback; we break down net, leave area. Temp: 9C.

## 1 June 2008

1405—Flam crew begins peeping the B5 area.

1445—**SY locates the 2008 B5 nest in cavity tree B5\_33. Cavity is SW facing ~10m high in a potr snag. F is in cavity entrance when I arrive at the tree. This tree—and cavity—also was the B5\_2003 nest tree.**

1515—We leave.

## 2 June 2008

2100—KB and DH arrive at B5 nest to attempt capture of F. Put net in capture position.

2120—We peep, female is already gone. **2 eggs center touching.**

2128—We back off to ~10m from nest to observe.

2219—Left the nest. Did not observe any sign of M or F.

2221—DH hears a TC to the SW of the vehicle.

## 12 June 2008

2146—KB, SC enter B5. M gives PD while F begs from inside the cavity.

Clear, calm, 2C

2156—We approach nest tree, but female flushes after accidentally tapping tree.

2158—F begs from outside the cavity, M gives LC’s. We back away from the cavity to let her settle.

2220—We go back to nest tree and set up capture pole.

2222—M gives TC

2224—M enter cavity. We attempt to catch him but net is too low and F flushes again.

2226—We leave.

## 16 June 2008

2147—KB and QB arrive at B5 nest to attempt capture of Male. Upon arrival, we hear M and F LC’s followed by a prey delivery.

2150—M enters nest site again. We quickly get net in place.

2153—M enters cavity; we trap him in net but he is not caught well. M escapes as we pull net down. F flushes. We leave area.

## 23 June 2008

2025—KB and DH approach the B5 2008 nest tree with intent to capture the F. Weather: overcast, calm, 12C.

2028—KB raises the net.

2030—Net is in position and the F flushes into the net. **She is a previously banded bird,**

**B5 2008 Female: Band #: 64489**

**Mass: 88.0g**

**-16.0**

**72.0 g**

2034—Peeping reveals 3 eggs, centered and touching.

2036—F is released. We leave the territory.

## 24 June 2008

2331—SC and BL arrive at B5 nest to attempt capture of M. Over the next 10 min, we sporadically hear a M (presumably B5) giving TCs due W on Bermuda Ridge and ~ 80 m to the S.

2400—M arrives in the nest area giving HECs.

2401—M attempts PD, but aborts. F, who was in the cavity bottom, subsequently flushes.

2404—F silently returns to cavity.

2415—We leave.

## 1 July 2008

2206—SC and DH enter B5 to attempt to capture M at nest.

Weather: 15C, partly cloudy, calm.

2208—Hear M LC.

2211—DH raises capture pole and flushes F.

2214—F goes back on cavity and M gives PD.

2224—M attempt PD but aborts.He flies away as DH swings net around. F begs in cavity.

2227—M PD. Attempt capture but net appears to be too low over cavity. F begs in cavity.

2232—M PD Fail capture attempt.

2238—M attempt PD but aborts due to net. F begs.

2242—M PD. He flies into net and escapes.

2246—M PD. He flies into net and escapes. Net appears to be turned around so we lower it and

check.

2251—M TECs and TCs around nest site.

2302—M PD. He is caught in net. **This is the B5 M from 2006 and 2007.**

**His Band number is 64514.**

Mass 71.5g LLP(5) 97mm

-16.0g LLP(6) 103mm

55.5g LWC 130mm

RECT 59mm

2321—Release M. We leave

## 8 July 2008

2232—CB and DH approach the B5 nest area. Intend to peep and capture/bleed F.

2238—Nest peeped by CB and DH. **3 nestlings were visible, all have much dark and spotty plumage. 2 nestlings have dark faces, 3rd has light fuzzy face. These nestlings seem to be the oldest yet observed.**

2242—DH has bird in net, caught making a PD—It escapes. Note: While bird is in net, CB hears F vocalizing S, DH hears M vocalizing NE. Possible 3rd adult in territory?

2244—BL and QB join CB and DH at nest site.

2247—2 or 3 PDs in the last ~3min.

2253—Capture. CB, QB, and BL process while DH continues capture attempts.

**Band #64489—This is the B5\_2008 F.**

Mass 85.5g LLP(5) 88mm

* 29.5g LLP(6) 98mm

56.0g LLC 130mm

RECT 58mm

**Blood taken.**

2313—F is released. Activities concluded, and we leave.

## 14 July 2008

1430—Flam Crew arrives at the B5 nest to peep contents and assess likelihood of accessing owlets in nest. We lean ladder on nest tree, but top of ladder (2 10-ft sections) is nearly 3 m short of cavity, and BL determines the snag might be unsafe to support any larger ladder resting on the mid-section of tree (base of tree appears solid, but likely brittle).

2245—SY and DH arrive at B5 to capture the M and put on a radio tag.

2248—PD, aborted when we turn on light or when “light!” is called. Bird entered silently, flew off N.

2252—M. PD—aborted. Bird was vocal, and continued calling from perches around the nest after the PD.

2256—M. PD—aborted. Missed him.

2258—Bird captured. **Band #64514.** **This is the B5 2007 M.** Note: this bird seemed like a different bird from the one that made the previous few PDs. The first bird flew off to the NE, then this one came in ~10 seconds later from the NW, and used different perches when approaching. SY would not have attempted capture, assuming this were the F, if it had not made quiet M LCs before making PD.

81.0g mass w/ transmitter: 83.0g

-27.0 -27.0g

54.0g 56.0g

We are placing **tag #164.7940** (though it sounds better at 164.7930).

2320—Released. Very weak flight N. He misses his first perch of ~5m from the ground, catches himself ~1ft off the ground on a small twig. He also misses his next 2 perches, and sort of crash-lands into the next perch—all of these flights are no longer than 5m. He spends a decent amount of time visibly trying to remove the tag, and holds his R wing in a funny way. After ~5 min of this, where his perches have been progressively higher, he takes off upslope to the E of the Road Cut Trail. Radiotracking reveals that his flight seems to have gotten stronger—he left for Bermuda Ridge at one point, then spent the rest of our time tracking up on the slope to the E of Road Cut Trail.

2321—KB and QB arrive at B5 nest to attempt to capture possible helper M.

2322—Net is in position; height is 24 feet, 6 ½ inches.

2337—Silent bird which is not the territory M arrives in site, does not vocalize.

2340—Silent bird makes PD. We cannot tell if this is a M or F bird.

2355—We leave after having no further action at the nest.

## 16 July 2008

2155—Crew and Abby arrive B5 nest to peep and age nestlings. **We peep: there is full juvenile**

**plumage on all owlets, 2 owlets with full facial disks.** They are very close to fledging.

2200—We leave.

## 17 July 2008

2037—BL arrives at the B5 nest to assess fledging status and monitor nest provisioning. Overcast, occasional sprinkles (clearing later), ~ 21 C.

2038—I peep cavity, and find all owlets still present—one may have been knocked from the entrance judging from its position on its back with talons positioned vertically, on top of the other two owlets. M gives light SC from an adjacent *Psme*, presumably where he was roosting.

2045—M makes PD at the entrance, where one of the owlets is begging loudly. **NOTE: M and F make 40 additional PDs at the cavity entrance between this time and 2130 (see Prey Delivery Data Sheet). M frequently foraged in the outer crowns of adjacent Psme’s in the nest area, at least for the first 20 min of activity, apparently primarily gleaning moths from the needle foliage (many flying moths visible around these tree crowns). No more than 2 adults were in the nest area at once during this time, and their vocalizations usually IDed them as M and F.**

2130—I leave for B13 territory.

2347—DH, KB, and BL return to the B5 nest site. **We peep and find all 3 owlets still present.** Both M and F present in the nest area at this time.

2351—A 3rd FLOW flies into the nest area and perches within 30 cm of the perched F (so IDed by FSC), in a *Potr* 10 m SW of the nest tree. This until 2400, when both the UFO and the F fly off to the W. The B5 M, who was present during this time, gave relatively low, somewhat hoarse 3-note LC from the opposite side of the nest area (to the SE).

0009—Silent PD, bird perches to the west of the nest tree in a *Potr* after making the PD.

0010—M flies into the nest site from the east and perches to east of the nest tree in a *Potr* giving low TCs. He suddenly takes off straight towards the previous bird that made the PD, and aggressively swoops at the bird on its *Potr* perch. Both birds fly off together towards the east.

0038—Silent PD (radio telemetry tells us it is not the M)

0047—Silent PD (radio telemetry tells us it is not the M)

0050—Silent PD, Male swoops in from the N and in a rather aggressive manner, he flies right past the net. The bird making the PD is captured in the net. It is the B5\_2008 Female, **band #64489**.

0052—F is released.

0053—M makes a PD. M and F are both calling in the area.

0058—M makes a PD. We capture the B5 male, **Band #64514.**

0100—M is released.

0104—F PD.

0105—We leave the area.

## 18 July 2008

2044—SC, KB and Sasha Chudacoff approach the B5 nest site with hopes to capture a helper bird. Weather: 22C, 5-10mph wind, partly cloudy.

2045—Nestling is up in the cavity begging. M gives LC’s.

2045-2210—There are 32 PDs. See 18 July 2008 B5 PD sheet for details.

2128—Capture pole is in position. 24’8”

2131—Both M and F in site. F aborts a PD.

2133—F makes a PD and is captured. **Band# 64489**

76.0g LP5: 90mm

- 16.0g LP6: 97mm

60.0g LWC: 124mm

Rects: 60mm

**Note:** We place the F in a sock and hold on to her so it is easier to tell who is in the site.

2201—F is released.

2212—We leave the site.

## 21 July 2008

1430—SC and SY begin searching for the B5 M’s roost with possible Fl.(s)

1440—M and 1 Fl are located in sm. Psme ~30m NE of the nest.

**B5\_1** – roost

Live psme dbh: Not taken due to birds’ low perches.

X: 495856

Y: 4333517 +/-5m

Both birds are very close to the trunk ~1/2 the way up the tree. They are ~10cm apart (Fl just above the M).

1500—2nd Fl not located, we leave.

1930—Flam Crew arrives in the B5 territory to set up mist nets surrounding the roosts of the B5 M and one fledgling in hopes of banding/bleeding the fledgling and removing the M’s transmitter.

2034—SC and BL return to the vicinity of the mist nets; M and fledgling are still on their roosts.

2036—Using the capture pole, we flush the M into the mist net (2nd shelf using 4-pole setup). SC then leaves to monitor the remaining owlet in the B5 nest, and BL proceeds to flush the fledgling into the mist net. BL holds on to both owls while hoping to locate the other fledgling.

2037—SC arrive nest tree. Nestling comes up to entrance as I arrive and begs.

2052—BL locates 2nd fledgling ~ 50 m W of the nest (~ 20 m from Missouri Rd), approximately 12 m high in a dense Pipo.

2056—A FLOW (presumably the F; no vocalization) flies to the 2nd fledgling and apparently delivers prey, based on the fledgling’s subsequent vocalizations. This is followed by 10 more apparent PDs as observed by BL and DH until 2123, when DH moves to the nest to help SC capture and process the last owlet in the nest to fledge.

2058—BL processes the B5 M and fledgling captured in the mist nets.

**B5 M (Band # 64514)**

89.0 g (w/ trans) **Transmitter mass was scaled at 2.5 g, so the M’s**

- 32.0 g **mass w/o transmitter was calculated as 54.5 g.**

57.0 g (w/ trans)

2105—Transmitter of M removed by BL, and M is released.

2110—BL starts processing fledgling captured in mist net.

**Band # 64670** (l leg)

94.5 g P#5: 76 mm

- 29.5 g P#6: 77 mm

64.5 g Rect: 39 mm

2123—Nestling fledges into adjacent psme from cavity tree.

2127—We knock fledgling out of tree with capture pole. Bird is caught.

2130—We process newly fledged bird. Blood is successfully taken.

**Band #64664** (R leg)

77.5 P#5: 70mm

-16.0 P#6: 70mm

51.5 Rect: 39mm

LWC: 90mm

2135—BL returns fledgling # 64670 to roost tree, and proceeds to break down mist nets.

2153—BL completes breakdown of mist nets.

2208—Fledgling #64664 released into the same *psme* he fledged into. We leave.

# B5—2009

## 26 May 2009

2012—JG, DH, KB, SC arrive B5 to set up lure net and listen for nesting males.

10C, slight overcast, rain earlier in the day.

2015—KB, SC tap 2008 B5 nest tree. No response. We leave to set up mist net on Bermuda Ridge.

2030—We arrive southern end of Bermuda ridge and set up mist net.

2058—Start Playback.

2123—Check net. Net empty.

2127—KB, SC tap 2007 B5 nest tree. No response. We listen near old nest tree.

2128—JG, DH hear male calling in the area.

2135—Check net, empty.

2140—After not hearing any birds, we move to the 2008 B5 nest tree to listen.

2145—M owl caught in net. **This is the B5\_2006 male.**

**Band # 64514**

75.0g P#5: 97mm

-19.5g P#6: 106mm

55.5g Rect: 59mm

LWC: 130mm

2203—Release Bird.

2211—Hear TC’s near net.

2212—Hear another Male calling from west with higher pitch. This is possibly the B4 Male.

2216—DH, JG go down to road to listen.

2216—Male from west stops calling. We move closer to the net to watch.

2221—Ist male flies east and stops calling.

2224—M gives TC’s from west and continues to fly in and out of net area.

2247—After not catching bird we stop playback. Male continues to give TCs in area. This is most likely B5 male that we caught earlier.

2248—Playback stopped, male still in the area giving TCs.

2306—Collapse net and leave Bermuda Ridge.

2315—DH and SC listen near road cut in B5, KB and JG head to B4.

2325—KB taps B4 2008 nest tree, movement observed in cavity.

2327—Owl observed in area near 2008 nest tree, lands on 2005 (?) nest tree. KB and JG observe for 25 minutes, but don’t see any other movement.

2328—Hear TC’s near 2008 nest tree. We follow calls and listen, but he goes quiet.

2333—Hear TC’s northeast of 2008 nest tree. We move back up road cut to listen.

0023—After hearing nothing we wait by car. Flam crew meets at the junction, leaves.

## 2 June 2009

1525—Flam Crew in B5 to begin peeping. Weather: drizzling.

1606—**SC, BR, SY tap on un-enumerated cavity tree. F rises to cavity entrance. This is the B5\_2009 nest tree. Cavity is W facing, ~40 ft high in a potr snag. Cavity tree is near the S end of the Potr stand that includes all of the past nest trees, approximately 20 m N of a small meadow, and is ~ 60 m E of the Missouri Rd and 100m SE of the Parking Area at the confluence of Roadcut and Missouri Rds. X: 495816, Y: 4333442 +/-6m. F remains in entrance for ~ 2 min.**

~1612—Leave nest site.

2030—DH, KB, QB, KG, Pat and Kristy in B5 to attempt capture of the F at nest.

2038—Net in position, QB on net. Height of cavity: 37ft. Weather: cloudy, calm, slight drizzle, 8C. Some noise made getting net up and F did not flush.

2049—Bird approaches nest silently, perches on top of the net, then flies off, remaining silent. We think this is the F. Take net down (removing a branch from right beside the cavity in the process).

2054—We leave nest site.

2122—DH, KB, QB, KG, Pat and Kristy arrive in B13 to set up lure (see B13 notes).

## 8 June 2009

2023—QB, SR, and DH arrive in B5 territory to capture F at 2009 nest cavity.

2029—F pokes head out.

2033—F head down. Weather: Light rain, lightning, 15C.

2035—F escapes out top of net just as it is set in place, M flies in giving LC, DH peeps unsuccessfully (battery low).

2040—M giving TC and TEC until we leave.

2042—We leave and walk to B13 territory.

## 15 June 2009

2130—QB and SC arrive at nest. F does not come up. Weather: calm, clear, 8C.

2131—M gives LCs in nest area, F begs from cavity. M flies at cavity, but does not enter, aborted PD?

2133—PD M flies away to W, gives TCs.

2136—M gives PD then TC’s in nearby potr.

2143—F comes up and flushes as QB raises net. We back off from tree and observe.

2145—2 birds fly to adjacent potr. F appears to fly back on cavity. We give her some time before approaching the tree again.

2147—M gives PD while F gives FSC.

2156—F FSC from cavity.

2204—M gives PD.

2214—Capture pole is in position. Capture pole height is 36ft 7in. QB on net. M TEC’s in nearby tree. F begs.

2230—M flies in the area silently. F continues to give FSC.

2232—F comes up

2234—F goes back down. For the next 45 min. M gives TC’s and TEC’s 50-100m NE of the nest tree.

2257—We hear M TC’s from the west. This is most likely B4 M. B5 M continues to call to the NE.

2207—We hear M TC’s from the west again. This is presumably the B4 male again. B5 M continues to call to the NE.

2325—M flies into cavity for PD. QB puts net over the cavity. A bird comes up and waits in the cavity entrance for about a minute. During this time a different bird flies silently overhead. Thinking that the bird in the entrance may be the F, we pull net away.

2327--The bird who is perched in the cavity flies out of the cavity to adjacent tree and gives a couple TC’s. We confirm that there are two different birds in the area. The silent bird may be a helper M.

2347—M flies in the cavaity for PD. While M is in the cavity, we see another bird silently flying around the nest tree. This bird’s flight is very low. As M leaves cavity, we catch him in the net. While bringing the net down, net gets snagged on tree and M escapes.

2350—A bird gives variation of LC just to the north of the nest tree.

0008—M flies in for PD. We attempt a capture but net gets caught on tree and he flies away.

0009--As we try to break net free from nest tree, we flush F.

0012—We leave.

## 18 June 2009

2126—BL and SR arrive in B5 territory to capture M at 2009 nest. MC, very breezy, lightning in distance to SW.

2134—We arrive at the B5\_2009 nest tree to attempt capture of M, and F is giving FSC at cavity entrance.

2135—PD by M at the nest cavity entrance, where F is still giving FSC.

2137—TC and TEC from M in snag immediately to N of nest tree.

2141—M flies in silently from N.

2142—PD by the M in the nest cavity. M makes hoarse TEC immediately after in nearby area.

2148—F pokes head out of cavity for a few seconds.

2150—BL has net in place. F briefly ascended to the cavity entrance as net was raised, then descended within 15 sec. **Height of the capture net: 37’ 5” on the E side of the cavity tree.** Weather: Overcast, breezy, 14C.

2217—PD by the M in the nest cavity.

2218—M caught in net as he exits but escaped, makes TC nearby.

2233—PD by the M in the nest cavity. We capture him as he exits and nearly have him lowered to the ground before he escapes.

2306—PD by the M in the nest cavity.

2307—**M captured as he finally exits the cavity—we successfully lower him to the ground! M was previously banded—band # 64514 This is the B5\_2006 M, who was also captured in the lure net on 26 May 2009.**

87.0g

- 29.5g

57.5g

2321—M released.

2327—We leave for B4 territory.

## 23 June 2009

2028—QB, SC, and BR arrive to capture F. F is down.

Weather: clear, calm, wind~5mph, 16C.

2036—Capture net in position (36’9’’). F comes up.

2040—F down.

2046—M flies into area, silent.

2049—M gives LCs, F begs from cavity.

2051—M gives TCs, TECs at net.

2055—M aborts PD.

2057—M aborts PD.

2101—Catch F. M makes PD while we are lowering her.

**She is unbanded. We band her, Band # 1593-64674. This is the B5\_2009 F.**

77.5g

- 20.0g

57.5g

2110—We release F. Are attempting to peep, M is in cavity.

2111—M flushes from cavity.

2113—**We peep; 2 nestlings, white & fluffy, holding heads up, moving well, one seems to have eyes open, we cannot tell on the other (it is a deep cavity and Ron was the peeper). Also see eggshell fragments. The 2 may have been hiding a third egg or nestling, but it seemed unlikely.**

2114—We leave area.

2131—On our way up to B13 saddle, we hear M giving TCs on W side of road (`20-30m NW of cavity tree B5\_516).

## 29 June 2009

2022—QB and DH arrive to capture and bleed F. She is down.

Weather: cloudy, wind gusts ~5mph, distant thunder, light rain earlier, 18C.

2028—Capture net in position (37’ 5”). DH on net. F still down.

2039—M calls off roost; he sounds ~20-30m SW of nest.

2045—M flies into nest area, gives LCs, TECs, and TCs.

2047—M leaves nest area.

2050—M returns, gives LCs.

2051—M attempts PD.

2051, 30s—M attempts PD.

2051, 50s—M attempts PD.

2052—M attempts PD.

2052, 20s—F flushes. She evades net through gap between bottom of net and tree. We lower capture net.

2056—**We peep; 2 nestlings, grey, primaries developing but no facial discs, ~age of A2 nestlings (blue and black).** Bird returns to nest site.

2059—Both birds are in nest area. We observe 15 PDs by both the M and the F between 2059 and 2125 (refer to prey delivery data sheet). At 2059, M makes PD to nest, followed shortly by F making PD to nest. The nestlings beg.

2100—F leaves area, followed by M (giving TCs); they both leave to SW of nest.

2103—M in nest area, gives LCs, aborts PD, gives TECs.

2105—M aborts PD.

2105, 40s—M makes PD, leaves to N of nest.

2107—Silent bird makes PD, comes from and goes to N (probably the M).

2108—M makes PD.

2109—M makes PD.

2110—M makes PD.

2110, 40s—F returns to nest area, makes PD. She comes from and goes to E of nest.

2112—M makes PD.

2113—M makes PD.

2114—F makes PD.

2115—Capture net back in position. DH on net.

2117—F makes PD. We miss with net.

2120—Silent bird flies onto nest perch, but does not give PD, flies away.

2122—F makes PD. We miss.

2124—We catch F making PD. **Band # 1593- 64674. This is the B5\_2009 F that we caught at the nest earlier this season.**

71.0 g LWC: 128 mm

- 17.0 g LLP(#5): 101 mm

54.0 g LLP (#6): 109 mm

RECT: 54 mm

We bleed F on L wing.

2125—M makes PD while we are extracting F from net. He stays in area while we are processing her, may give other PDs, but we are focused on processing F and do not observe cavity.

2146—Release F. She flies to ground, makes short (~5 ft) flight again to ground, then makes ~30m low flight. We follow her, but lose her. Her flight appears weak but not lopsided. We ascertain that she is dazed from being captured and bled and not injured.

2150—We leave area.

## 6 July 2009

1616—QB arrives to peep and determine status of nestlings. F is up.

Weather: Sunny, wind 5-10 mph, humid, light rain just passed, 21C.

1620—F flushes; I have to tap tree with peeper to get her to leave (she does not respond to hand tap).

1621—**Peep: 2 well-developed nestlings, both bob and clack at peeper, have well-defined facial discs. There appears to be some patterning on wings, although I was not using a color peeper and cannot say definitively.**

1632—I leave.

2025—KG and JG arrive at nest tree and begin observations.

2045—male heard calling.

2046—male sited flying past nest tree to south.

2047—M PD

2051—M PD, twice

2052—M PD

2053—Unknown PD

2054—Unknown PD

2057—F PD

2058—M PD, then F PD, male heard calling nearby

2059—F PD, twice  
2101—M PD; male perched on nearby tree before entering cavity

2105—M PD, soft calls from male

2106—M PD, lands on same perch as 2101

2107—M PD, soft hoot from male

2109—Unknown PD

2110—Unknown PD, twice

2111—M PD, lands on same tree branch as previous PDs

2112—M PD

2113—M PD

2114—M PD

2115—M PD

2116—F PD, twice, flies in from East instead of West, female gives call

2117—M PD

2118—M PD

2120—M PD, then F PD

2125—Nestling seen in cavity entrance from about 3 seconds

2127—F exits cavity, followed by the male

2128—male hoots, M PD

2132—F PD, male heard calling from distance, female trills when leaving cavity

2134—Unknown PD

2135—Nestling heard begging, M PD

2137—M PD, vocalizes upon exit

2139—M PD, F PD

2140—M PD

2141—F PD, M PD, F PD

2142—M PD, male heard close by

2143—male hoots, M PD

2144—KG and JG leave

## 7 July 2009

2012—JG, BR arrive at B5\_2009 nest to fledge watch. F is up in cavity. On **6 July 2009** JG and KG observed one nestling up in the cavity for no more than 30 seconds. Weather: 12 C, clear, 5-10 mph wind.

2048—F flushes.

2054—M heard in area giving TCs and TECs.

2057—M prey delivery. **From 2057-2204 we observed 53 PDs, see PD data sheet for B5\_2009, 7 July 2009.**

2058—Owlets begging from down in cavity.

2102—Owlet up in cavity.

2104—Second owlet up in cavity.

2108—Second owlet goes back down in cavity, first is in full sight in cavity entrance.

2110—F begging off-cavity.

2112—Owlet down in cavity.

2119—Owlet up in cavity.

2125—Owlet down in cavity.

2131—Owlet up in cavity.

2136—Owlet down in cavity.

2204—We leave to meet SR, KB, and Cat at the B1\_2009 nest and set up a lure net on Shooting Star Ridge. See notes for B11, 7 July 2009.

## 8 July 2009

2014—QB and JG arrive to fledge watch. F is up when we arrive.

Weather: clear, calm, 16C.

2032—M calls off roost in nest area.

2035—QB finds M roosting in young pifl ~7m NE of nest. M is ~20ft high, ~1 ½ ft out on branch with his back against a young potr.

2043—M gives LCs from roost.

2046—M flies to delivery perch near nest and exchanges LCs and begs with F. F flushes. She has been up since we arrived.

2047—M give PD; both nestlings are up at cavity entrance, begging loudly. We observe 62 more PDs between 2048 and 2150 (see prey delivery data sheet).

2100—M gives TCs to N of nest during break in PDs.

2104—Nestlings down, then immediately back up.

2105—Nestlings down. (M PD)

2106—At least one nestling is back up. (M PD)

2113—Nestlings down. (M PD)

2128—M gives TCs to W of nest.

2142—Nestling back up (M PD).

2131—M gives TCs, TECs to NW of nest.

2146—Nestling down. M gives TECs to NW of nest.

2150—We leave. Neither nestling has fledged.

Note: Neither nestling actually perched on the cavity’s edge or attempted to flap wings, but both were up for a significant period of time. M and F used separate approach perches and flew off to and returned from different directions. The M was very vocal, giving many LCs in the nest area.

## 9 July 2009

2036—QB and JG arrive to fledge watch and capture M for fitting with geolocator. F is up upon arrival.

Weather: partly cloudy, wind 5-10mph, 16C.

2043—M calls off roost from ~10-15m E of nest.

2046—F flushes; M next to nest.

2046—M makes PD, nestlings come up to cavity and begin begging. We observe 53 more PDs between 2049 and 2220 (see prey delivery data sheet).

2127—Nestlings go down.

2138—UFO in nest area! M chases and gives TECs, but also makes a PD mid-chase.

2140—Nestlings up.

2159—Capture net up-JG on net.

2200—**Catch F (#64674); hold onto her.**

2209—Miss M.

2212—Miss M.

2214—UFO again! M chases and gives TECs.

2220—Miss M, release F. QB and JG leave.

2220—SY and DH take over capture operation from QB and JG.

2227—M PD, failed capture attempt. We switch capture poles due to a malfunction with the Hastings.

2230—M PD

2234—Net back in capture position.

2239—M PD – he escapes from the net.

2241—M PD, capture.

**Previously banded – Band #64514**

Pre-geolocator: Post-geolocator:

70.5g 72.5g

-16.0g -16.5g

54.5g 56.0g

We affix geolocator #6764 using a backpack harness.

2317—We release the M – very strong flight to the N.

2324—SY goes back to B4 nest to observe M behavior with geolocator at B4. DH remains at B5 nest to observe M behavior.

2329—PD, silent/unknown. F?

2338—PD, silent. F?

2354—I leave. All is quiet.

## 10 July 2009

2011—QB, JG, SR, Andy arrive at B5 nest to Fledge Watch…again. Weather: 19C, cloudy, thunder/rain earlier in the evening, 5-10 mph wind. F is off cavity when we arrive.

2042—M calling off-roost approximately 30 m N of nest.

2043—M moves closer to nest, gives TCs.

2045—M delivers medium sized lepidopteran prey to nestlings. Both nestlings are up in the cavity. **Between 2045 and 2215 we observed 44 PDs. See PD sheet for B5\_2009, 10 July 2009.**

2101—M gives TECs W of tree.

2104—M TECs/TCs directed at UFO who is perched about 10 S of the nest tree. M is perched from his normal approach.

2107—UFO leaves area.

2114—UFO back in area perched on tree adjacent to nest. M gives TECs.

2115—M chases UFO, gives more TECs.

2120—UFO perches at the top of the POTR snag the M uses as an approach before delivering prey.

2120—UFO leaves area.

2137—M TECs, F FSCs – off cavity.

2155—M giving TECs away from nest.

2200—Nestlings down in cavity.

2207—We hear what SR and Andy believe is a long-eared owl vocalizing to the NE of the nest.

2213—M back on his normal perch, delivers one soft TC.

2214—Nestlings begging from down in cavity.

2215—Nestlings receive first PD in 23 minutes.

2215—M giving TECs.

2216—Nestlings up in cavity.

2217—UFO perched directly above us in POTR. M directing TECs at him/her. **QB observes that the UFO is unbanded.**

2218—Nestlings down.

2219—Nestlings up.

2228—UFO in area, M giving TECs.

2229—M chases UFO, gives TECs directly overhead, S of nest.

2231—We leave.

## 13 July 2009

2015—QB, BR, JG, SC, Onya arrive at B5\_2009 nest to fledge watch and/or retrieve nestling(s) that have fledged over the weekend.

2020—**JG peeps nest. I see one nestling, which means the other has fledged. The remaining nestling has a well-developed facial disk.** Weather: Clear, calm, 12C. F is off-cavity when we arrive.

2030—Male calls off roost

2041—Nestling up in cavity

2044—Nestling begging.

2054—Scolding calls from male

2058—PD, F

2058—**Nestling fledges, finally!** The fledgling displays strong flight following PD from the F and flew E, the same direction the F flew following the PD. The fledgling landed in a live POTR, approximately 20 feet above the ground and about 10 m from the nest tree.

2100—SC finds other fledgling (this one fledged on a previous night).

**Band #: 1593—64722, right leg.**

LP5: 75 (17 in shaft) mm

LP6**:** 73 (17) mm

55.2 g RECT: 38 (4) mm

BR bled the left wing.

2104—We have fledgling in hand.

**Band #: 1593—64721, left leg.**

70.0g LP5: 73 (19 in shaft) mm

17.5g LP6**:** 70 (18) mm

52.5 RECT: 39 (11) mm

QB bled the left wing, took a feather sample from the right wing.

NOTE: We observe that the M is in the vicinity of the other fledgling and the F in the vicinity of this fledgling.

2123—SC places fledgling #64722 back into a small pipo. Male had been scolding and giving TC’s the entire time we had him in our possession.

2127—We place fledgling #64721 on a low branch on the POTR we retrieved him from.

2128—We leave the area and head toward S. Goshawk to lure net. **See notes for B14, 13 July 2009.**

# B5—2010

## 25 May 2010

1530— SY taps unenumerated cavity tree that was the B5\_2009 nest tree – F rises to cavity entrance. **Note: This is the B5\_2010 nest. See 2009 notes for nest description.**

1537—F still in entrance; we leave.

## 1 June 2010

2037—SY arrives at B5 nest tree to attempt to capture the M.

F is in entrance when I arrive.

2039—F flushes cavity to the N. M gives LCs ~10m to the N from direction of where F flushed to.

Weather: 17C, calm, overcast

2102—F still not back in cavity, SY backs away.

JG and DW begin playback on Grave Ridge in B6 to attempt to capture the B5 and/or B6 M. Refer to B6 notes on 1 June 2010 for complete information.

2110—JV joins SY at the B5 nest tree.

2131—F still not on the nest, we back away to the road to listen

2150—SY sets up the capture pole

2253—Having not heard nor seen anything SY takes down the capture pole and we leave.

## 7 June 2010

1423—Flam crew arrives at the Weir to tap/peep in B2 and B14.

1656—We leave, having not found any nests, but not having tapped/peeped all cavities in the B2 and B14.

2014—JV and JG arrive at the B5 parking spot and prepare to attempt to capture the B5 M and peep the nest cavity.

2023—JV and JG arrive at the B5 nest tree, the F is down in the cavity.

Weather: Calm, clear, 22 C.

2033—We approach the nest tree to raise the net and the F rises to the cavity. We back away.

2034—The F is back down in the cavity.

2038—JG has the net in position and raised to the cavity height to attempt to capture the M following the first PD of the evening **(Capture height is 37’2”).**

2044—M LCs heard. JG observes that the M is delivering LCs from the same ‘approach branch’ that he used for PDs during the 2009 season.

2054—M PD. JG attempts to place the net over the cavity, but it gets stuck on the tree and is not fully over the cavity. Before the net comes free, the M flushes. JG lowers the net and the F flushes.

2100—We peep the cavity and see 2 eggs in the center of the cavity touching each other.

2108—M TCs heard N of the nest tree.

2111—We see the F return to the cavity.

2113—JG has net in position and misses capture on what we believe to be an attempted PD.

2114—We observe what we believe is a PD, however we did not hear any vocalizations prior to it. JG captures the owl as it leaves the cavity.

2116—With captured bird in hand, we see that it is **unbanded**. We observe a large brood patch extending from the neck to the cloaca area. We decide that we must have missed the F flushing after we saw her return to the cavity and that this bird in hand is most likely the F and we captured her upon attempting to return to the cavity. We band her with **band #64769.**

2118—We release her.

2119—We observe a M PD to the F off-cavity and immediately leave the area.

## 15 June 2010

2111—We arrive at the B5\_2010 to attempt to capture the B5 M and hear the M giving location calls.

2114—We observe an owl fly into the nest cavity and not come back out, so we presume the F is back in the nest cavity.

2118—M PD. **From 2118-2156 we observe 12 M PDs. See the PD information sheet for B5, 15 June 2010 for more information.**

2123—F flushes upon capture attempt.

2124—F back on.

2137—F flushes upon capture attempt.

2138—F back on.

2200—We bring the net down to observe.

2211—We leave.

***\*Note, there were three capture attempts that partially captured the M, but he was able to escape from the bag before we could lower it. There was also one capture attempt that had the M in the bag, but he escaped after we had lowered the Hastings pole about 20 feet.***

2355—From the top of the road-cut between the S end of B13 and the N end of B5, we deliver TCs toward the N end of B5. We immediately hear a response from a M from about 50 meters away. He delivers TCs and TECs and leads us S on the eastern side of B5 toward the main road-cut.

0005—When we arrive at the main road-cut we hear the M we had chased from northern B5 in a territorial dispute with another M in the direction of the B5 nest. This lasts for about 2 minutes, then the M in the direction of the B5 nest (presumably the B5 M) stops and the M we had chased from southern B13 (presumably the B13 M) retreats back up Roadcut Creek.

0009—We leave.

## 22 June 2010

2115—We arrive at the B5\_2010 nest to attempt to capture the male. Upon arrival, we hear M delivering TCs/TECs NE of the nest tree toward the roadcut.

2134—JG has the net in position to capture the male.

2136—TCs heard to the NW.

2212—TCs heard to the NW.

2215—More TCs heard to the NW.

2218—We take the net down and prepare to peep the cavity, suspecting that the nest may have been predated upon. Up to this point we have not heard any F vocalizations and we have not seen the M in the nest site.

2222—We peep the cavity and it is empty. **The B5\_2010 nest has failed/been abandoned/been predated upon**.We leave.

## 25 June 2010

2220—Start playback on Bermuda Ridge on the upper slope facing east.

Vegetation: Open, mature pipo/psme

Weather: cloudy with no wind, 16C

X: 495705

Y: 4333539

+/- 6m

2239—M comes in from down slope to the south giving TCs and TECs (presumably B5 M).

2244—Sounds like M gets caught in the net but then gets out.

2304—**Catch B5 F in the net.**

**Band # 1593-64769**

92.0 g

- 28.0 g

64.0 g

2309—Release F. B5 M is back in the net area giving TCs and TECs.

2320—M is still in the area giving TCs and TECs but we turn off the playback and break down the net.

## 28 June 2010

2220—JSG, BG, and JG arrive at S. Bermuda Ridge to lure net for B5 and B13.

2240—Start playback

Weather: some clouds, calm, 16C

Vegetation: mixed age Pipo/Psme

X: 495763

Y: 4333638

+/- 4 m

2300—JG and BG leave to attempt to capture B4 M.

2322—M gives TCs from S in the direction of B5. M does not come into net site.

2408—JG and BG rejoin JSG at net.

2424—Final net check. **Capture unbanded F in top shelf. It is unclear which direction she came from due to her being very tangled in the net.**

After taking about 12 minutes to untangle/cut her free, we band her with **Band # 1593-64736 on the left leg**

2426—Turn off playback.

2440—Release F.

2450—We leave the area.

## 8 July 2010

2226—JV, JG, and DW set up a lure net and start the playback on Bermuda Ridge on the southeast midslope in attempt to capture the B5 M and possibly recover a geolocator.

Vegetation: small and medium psme

Weather: calm, clear, 11C

X: 495780

Y: 4333572

+/-: 7m

*\*Note: As we are setting up the net we hear TECs from north upslope from the net and then a couple TCs are heard closer to the net.*

2240—DW and JG head to the B4 nest to attempt a capture of the M or F.

2432—JG and DW return and we turn off the playback and take down the net.

*\*Note: Periodically a bird can be heard far off in the distance on Grave Ridge.*

## 13 July 2010

2300—BG, JV, JG, Will, and Paul begin playback on the N end of Turkey ridgetop, slightly off to the W side. We are targeting the B5 male whose nest failed earlier this year and who may have a geolocator from last year.

Vegetation: Mixed age Pipo/Psme, moderate ground cover

Weather: Calm, clear, 18 C

X: 495902

Y: 4333301

+/-: 5m

2320—Check net, **capture banded female in the 2nd shelf from the E. She was previously banded on Sharp-Shinned Ridge on 15 June 2010 with band #1593-64771**

**Band # 1593-64771 (on right leg)**

78.0 g LWC: 134 mm

- 13.0 g LLP(5): molting

65.0 g LLP(6): 105 mm

Rect: 62 mm

She is molting primaries 1-5 on both wings.

We take a blood smear.

2345—We release her and she flies into live Psme ~ 15 meters away and perches for about 20 minutes.

0000—Stop playback briefly. At this point we have not heard any male vocalizations so we have decided to stop the playback and restart in a few minutes.

0005—Re-start playback.

0020—Stop playback, break down net, and leave. We did not hear any male vocalizations all night.

# B5—2011

## 31 May 2011

2155—JV, EWE, JR, and SY set up a lure net on the S side of Bermuda Ridge and start the playback.

Vegetation: mature pipo

Weather: 16 C, wind at ~5mph, clear skies

X: 495771

Y: 4333552

+/- 3m

*While setting up the net a M (probably B5) begins giving TCs and TECs to the SE of Bermuda*.

2203—SY, EE, and JR head off to tap trees in B5 and B4.

2229—B5 M goes quiet.

2231—B5 M starts back up farther S.

2240—B5 M comes into net site giving TCs and TECs and continues to call and fly around the net until the playback is turned off.

2314—M still calling but not coming too much closer to the net. The playback is turned off and the net is taken down.

2330—SY, JV JR and EWE begin spottmapping in B5.

2232-2432 – We mark 6 songposts on the southern end of Bermuda R. M sang (TCs and TECs) nealy constantly in this vicinity the entire time. B4 was occaisionally audible very distant to the SW.

2335—JV and EE move to tap trees and spot map in B5. JV tapped B5\_1049 (the 2009 and 2010 nest tree) to no avail.

2432—Depart.

## 1 June 2011

1435—Flamm crew arrives in B5 to peep.

1700—Finish tapping/peeping B5. Having conducted a thorough search of B5, we did not find any nests.

## 7 June 2011

2223—Playback started on road cut between B5 and B13.

Vegetation: Mixed aged psme/pipo.

Weather: Clear, calm, 13C.

X: 495853

Y: 4333932

+/- 5m

\**Note—While setting up lure net, we hear B13 giving TCs N of road cut approximately 30 m from net.*

2237—IJ walks W of net on Bermuda Ridge towards B14. JG walks N of net into B13. AW stays to listen at net.

2241—IJ hears TCs from N, possibly B13 M.

2245—IJ hears another TC from N.

2247—After hearing no responses from the B13 M, AW orients playback to face B5.

2249—JG hears TCs in B13 about 100 m N of road cut.

2250—IJ hears TC from W, possibly B14 M.

2310—End playback. JG, AW, and IJ head into B13 to attempt songposting.

2328—We hear TCs from B13 M. We pursue and begin to songpost him. From 2328 until 0015 we mark 5 songposts. Refer to master songpost sheet from Missouri Gultch (7 June 2011).

## 13 June 2011

2200—While setting up lure net, IJ hears TCs from S of position on low slopes of Turkey R.

2209—JV, IJ and SY begin playback at lure net on low slopes of N end of Turkey R.

X: 495892

Y:4333401

+/-: 3m

Vegetation: Young to mature pico, psme, potr.

2211—M gives TECs from E

2212—F begging within 20m S/SE of site

2315—Stop playback

2323—After the lure net is taken down JV hears the B5 M giving TCs to the NW of the net site.

2332-2352—We mark 3 songposts on B5 M in and around the drainage bottom/aspen flat. M is frequently seen with a F giving FSCs and LCs. M makes several prey deliveries to this F and they are often seen perched in the same tree together. F is making relatively long flights and does not appear gravid. At songpost B5\_1, M appear to tail chase a 3rd silent bird from the vicinity of the rd. jct. – UFO flies to S. M and F were hears in all portions of the low lying areas of B5 terr.

2419—JV and SY chase B5 M across the road to the north about 70 m up the road to B13 before he goes silent. We leave.

## 21 June 2011

2153—PS and JR start playback on end of Bermuda R. TCE/TCs heard to E/SE while setting up nets.

Weather: calm, clear, 10C.

Vegetation: Mixed pipo/psme, mostly mature.

X: 495691

Y: 4333518

+/-7

2218—PS and SY arrive in B5 to listen for vocalizations.

Weather: 8C, clear, calm

2230—B5 M heard west of B5 parking spot. PS follows M as he gives TCs and eventually has encounter with playback for next hour.

2232—Bird starts giving TC/TECs, calls from both sides of the net, on and off for 30 minutes.

2258—Bird goes silent.

2300—**Unbanded, silent M caught, 2nd shelf from South.**We bleed M’s R wing (DNA and blood smear). Molt pictures were taken with a black light.

**New Band # 1593-64820** (on L leg)

75.5 g LWC: 130 mm

- 16.0 g LLP(5): 99 mm

59.5 g LLP(6): 106 mm

Rect: 65 mm

Molt:Fairly weak throughout, but very weak to nonexistent P8-10. Only ~20% of each feather in P1-7 fluoresced.

2307—B5 M approaches lure net.

2311—Second M (presumably B4 M) heard in net area and gives about four TCs before going quiet. B5 M goes quiet for about 30 s then continues with TECs.

2325—B5 M goes quiet around net.

2342—B4 M floater released. The bird was rather unresponsive and took about 3 minutes to fully perch on SY’s extended palm. Upon take-off the bird had strong flight and perched well on a Pipo about 5m from the release point. The bird continued perching on the same branch until we left at 0010, but looked alert.

2007—B5 M giving TCs in drainage bottom to east.

0010—Playback stopped and net taken down.

## 23 June 2011

~1130—While conducting thesis field work, EDE sees F FLOW in the bear tear cavity of B5\_119 #119. **This is the B5\_2011 nest tree (this was also the B5\_2007 nest tree)! The F was in the cavity entrance before tapping the tree. I leave momentarily and return with the peeper to peep the cavity, but the F flushes – I peep the cavity and see 1 egg. The tree is a live Potr N of the B5 parking spot by approximately 100 m in Roadcut Cr on the E side of the road. It is the B5\_2007 nest tree. The cavity is W-facing, bear torn, and approximately 7 meters high. After I peep the cavity, I immediately leave.**

## 28 June 2011

2120—IJ and SY arrive at B5\_2011 nest to attempt a capture of the B5\_2011 territorial breeding male. F is not up and neither M nor F is heard upon arrival. We sit down about 7m away to observe the nest area and wait for PDs to begin.

2137—Having heard or seen nothing in or around the nest, SY decides to tap the tree. There is no evidence of a F in the nest upon tapping, therefore we decide to peep the nest.

2143—SY peeps cavity; cavity has **one egg** in it and is otherwise clean and seemingly undisturbed. The cavity was previously peeped on 6/23/11 by EE with one egg observed. With no evidence of predation and having heard or seen neither B5 breeding adult, we begin to believe that nest abandonment of this partial clutch has occurred but decide to observe the area for a few more minutes before leaving.

2203—Assuming nest abandonment has occurred, we prepare to leave the site.

2204—As we prepare to leave, M TCs are heard followed by F begging. The F begging sounds as if it is on cavity, suggesting that the F has returned to the nest.

2205—M TCs/TECs from full snag POTR approx 10m from nest. M continues calling for 2-3 min, stays perched in tree for 10 min.

2215—M flies to POTR approx 20m from nest, vocalizing with TCs/TECs presumably directed towards us for 2-3 min and remains perched in tree preening.

2223—After perching for 8 min, M continues vocalizing with TCs/TECs for 2-3 min in the same live POTR.

2232—M makes 3 TCs then flies to POTR closer to cavity where he vocalizes for 2 min with TCs/TECs.

2235—M flies E appox 50m where he continues vocalizing. At this point no PD has been made and it is unclear whether or not the F is in the nest, so we decide to peep again.

2237—SY peeps cavity; **female is in cavity incubating the one egg**. F flushes, SY and IJ leave site immediately. **Based on the evening’s events, it seems that the female was off cavity for at least 23 min and at most 43 min; the F’s re-entry into the nest was never observed so the exact amount of time she spent off-cavity is unknown. Additionally it is unclear whether B5 nest represents a partial nest or has a full clutch size of 1 egg.**

## 30 June 2011

2135—IJ and SY arrive at the B5\_2011 nest to attempt to capture the M. We tap tree to see if F is on – she rises to cavity entrance.

2136—T-storm hits and we retreat.

2158—After storm we return to nest to attempt to capture the M..

Weather: 11C, partly to mostly cloudy, calm –recent storm and lots of tree drip.

2202—Net in capture position.

2210—Rain comes back in – we bring down net and wait.

2301—Rain mostly stopped – return to nest to attempt to capture M.

2304—Net in capture position.

2312—M begins giving TCs and TECs from ~10m W of the nest.

~2318—M goes quiet

2322—M begins calling again from WSW of the nest. Continues giving TCs but steadily moves S down Bermuda R towards the southern terminus.

2333—We bring down net in order to lure for the M.

2356—We start playback very low on the far southern end of Bermuda R. basically in the bottom.

Vegetation: Potr, psme, pipo low slope, moderate density to S, open to N.

Weather: ~10C, mostly cloudy, calm, recent rain.

M begins giving TCs, TECs and some HECs almost immediately from ~14m S of the net. M never moves closer to the net but continues calling almost the entire time playback is running.

2422—Stop playback.

## 5 July 2011

2225—BL arrives at the B5\_2011 nest to attempt capture of M. M giving TCs in the nest area as I arrive. I tap cavity tree, but there is no response from the F. I get into capture position.

Weather: Overcast but sky partially clearing, calm, ~ 20 C.

2237—M makes PD (approached nest giving LC). I have him in capture net briefly as he exits, but he escapes.

2241—M returns to nest area giving HECs (likely directed at me), then leaves after a couple minutes.

2430—I leave. M did not make any appearances in the nest area during the interim, but could be heard occasionally giving TCs to the S and SW on Bermuda Ridge. **I peep cavity, and the F peers up at the peeper from the bottom, obscuring any view of the eggs (hatching no doubt has not yet occurred, based on the M’s lack of appearances in the nest area)**.

## 6 July 2011

2113—AW, JG, and JR arrive at B5\_2011 attempting to capture the M. We wait out the rain until 2204. Weather: Rainy, no wind, 14C.

2204—AW, JG, and JR arrive at the B5\_2011 nest attempting to capture the M during a PD.

2205—JG raises the net into capture position.

2221—M gives LCs from S and E of the nest until 2226.

2226—M goes silent.

2232—M gives LCs from S of nest tree.

2236—M goes silent.

2252—M gives LCs from S of nest tree.

2259—After observing no PDs, JR and AW leave to begin lure netting on S Bermuda Ridge. JG remains at nest still attempting to capture the M.

*\*Note—The notes beneath this are also in the notes for B4.*

2340—JR and AW start playback on the S end of Bermuda Ridge. *\*Note—Presumed B5 M gives consistent TCs from N, E, and S of net while we are setting up.*

Vegetation: Mixed aged psme/pipo.

Weather: Calm, mostly clear, 11C.

X: 495761

Y: 4333610

+/- 8m

2320—The M arrives at the nest and begins delivering LCs.

2325—After moving two several different perches and continually delivering LCs, the M makes a PD to the nest cavity. JG captures him, but while lowering the capture pole, the M escapes! Déjà vu…

2347—M gives 4-5 TCs from SW of net along Bermuda Ridge.

2350—M gives TCs from further to the SW-W on the W facing slope of Bermuda Ridge.

2355—M continues to give TCs, but now sounds further away. M goes silent after approximately 30 seconds.

2405—M gives TCs from SW of net. M sounds as if he is on Coop Hawk Ridge to the W of Bermuda Ridge. At this point, JR and AW assume this M is B4.

2413—M gives more TCs from SW of net from Coop Hawk Ridge.

2420—Stop playback. JR and AW break down net and we leave.

## 7 July 2011

2136—JG, AW and JR arrive at B5\_2011 nest to attempt to capture M.

2138—AW has net up. Starts to lightly rain, calm, cloudy, 14C

2206—M west of nest giving LCs, F gives FSCs.

2207—M silent.

2210—M LCs, circles west around site landing in potrs around nest tree, never gives PD.

2215—M leaves area.

2300—JG takes over net, while AW and JR go onto SW end of Graves R. to lure net.

2306—M in nest site giving LCs.

2308—M makes a PD, gets caught in net, and escapes.

2333—AW and JR start playback on SW end of Graves Ridge. M starts giving TC/TECs to the

NW in the drainage pretty immediately after starting playback.

Vegetation: Mixed ages pipo/psme.

Weather: calm, cloudy, 14C.

X: 495937

Y: 4333581

+/-4

2345—Turn off playback to see if he will make a PD since he isn’t leaving drainage bottom.

2351—LCs from M, then PD. Captured, and escaped mere inches from JG hand!

2358—Turn playback on again.

2400—M responds to playback from NW in the drainage.

2402—M silent.

2407—We turn playback off to see it he will make a third PD.

2410—M gives LCS, makes a PD, gets captured, and proves he is Houdini by escaping a third

time, or the 5th time in 3 nights.

2414—Playback on for a minute, then AW/JR turn it off and head to the car.

2425—JG leaves, dejected/furious.

## 8 July 2011

2243—JG, AW and JR arrive at B5\_2011 nest to attempt to capture M. Weather: ~ 10 C, cloudy, calm.

2306—The M arrives in the nest site giving LCs.

2308—After flying to two different perches, the M makes a PD. We momentarily capture him, but he escapes as we lower the net.

2335—Having observed no more PDs, we leave.

## 10 July 2011

2153—JV, JR, and JG arrive at the B5\_2011 nest for an attempted capture of the M. JG has net in position and F is down.

Weather: cloudy, calm, 16 C

2202—M begins giving TCs down drainage toward the B5 parking spot.

2207—M stops giving TCs.

2216—F gives a couple of FSCs.

2223—M gives LCs just north of the nest and the F responds with FSCs.

2226—Flies north and starts giving TCs about 40 m away from the nest.

2228—M begins giving LCs on a perch W of the nest tree.

2230—M makes a PD to the cavity. JG moves the capture net into position and **the F flushes into it. We leave it in position and the M eventually flushes into the capture net as well**. The M momentarily remained on the side of the cavity so JG kept the net up until he flushed too. As the net is lowered, the M almost escapes AGAIN, tensions run high, and JR grabs him at the last second. He is caught for the first time in two years! F is unbanded. JG and JV have to cut her out of the net quickly band her.

**F Band # 1593-64850** (on right leg)

2235—JR peeps the nest cavity. There is still just **one egg in the center**.

2240—Release F. She flies east towards the nest with strong flight. JG, JV, and JR turn their attention to the M. **This is the B5\_2006 M carrying a geolocator from 2009!! Geolocator #: 3764.** We are ecstatic! (He is a feisty one.) We take measurements and take his blood for a parasite smear and genetics. **Later we discover that this geolocator has been actively collecting data for 2 years!**

**M Band #1593-64514** (on right leg)

Mass with geolocator:

85.0 g LWC: 128 mm

- 20.5 g LLP(5): 96 mm

64.5 g LLP(6): 104 mm

Rect: 56 mm

Mass without geolocator:

83.0 g

- 20.5 g

62.5 g

**Molt** – Similar fluorescence on both wings with innermost primaries fluorescing the least and the rest of the feathers fluorescing approximately ½ to 2/3 of the feather.

2311—Release M. He flies strongly to the telephone wire to the SE of the nest. He is content to weigh 2 g less.

## 15 July 2011

2335—BG, AW, SY and friend arrive at B5\_2011 nest area to access nestling age and potentially peep. F is up.

2339—F will not go down with us present, we do not peep because we do not know nestling age

and do not want to flush her if they are not old enough. We think that eggs have

hatched because in the past she would not come up or stay up as easily. We leave.

## 19 July 2011

2345—BL arrives at the B5\_2011 nest to attempt capture (to bleed) F. All quiet in the nest area when I arrive. **I peep—F is in the cavity bottom, attentively looking up at the peeper. Nothing is visible (i.e., owlets) underneath her.**

2400—I leave. M flies into nest area as I exit.

## 21 July 2011

2335—BL arrives at the B5\_2011 nest to attempt capture (to bleed) F. All quiet in the nest area when I arrive. **I peep—F is in the cavity bottom, attentively looking up at the peeper. Nothing is visible (i.e., owlets) underneath her.**

2354—M makes PD, after approaching cavity with quiet LC (F silent)

2409—Same.

2410—I leave.

## 1 August 2011

1530—SY, PS, JG, and BL arrive at the B5\_2011 nest to band/bleed owlet. **We peep cavity and find the contents empty.** We spend the next 20 min looking for evidence of nest predation as well as for a possible fledgling (**while we lacked information on when hatching occurred, we presumed that it may have occurred around 7/8, and for this reason thought it possible the owlet could have fledged**), but find nothing. We proceed with quantifying the nesting and random habitat in this territory.

1730—We leave.

## 6 August 2011

2000—BL arrives in the vicinity of the B5\_2011 nest to begin listening for possible fledgling vocalizations. Weather: light breeze, PC, ~ 22 C (dry/hot afternoon). I proceed to move in a circular fashion (30-100 m from the nest) all around the territory.

2155—I leave. Nothing heard from the B5 occupants (but see the B4 Field Notes—the F and one of the fledglings were found in the S portion of the B5 territory.

# B5—2012

**29 May 2012**

2020—MD and SY arrive in B5 aspen flat to listen for nesting vocalizations.

Weather: 14C, wind 0-10mph, clear

2025—SY taps on B5\_2011 nest tree – no response.

2027—MD hears M give several TCs from W edge of Aspen flat.

2030—JV, PPS, AP arrive at Bermuda ridge SE spur and set up lure net facing south.

Vegetation: Grasses, medium Pipo and Psme, snags near net.

Weather: Windy at first but dying down later, mostly clear, 12C

X: 495672

Y: 4333595

+/- 3M

2036—MD hears several more TCs from same location. SY joins MD in main portion of aspen flat. We hear M LCs in center of main aspen flat.

2055—Start playback.

2056—We hear TCs approximately 35 m S of our position. Hear possible F LCs as well. We approach the spot we heard birds calling and see an owl fly N, over our heads back in the direction of the aspen flat. We follow.

2112—We pick up F in main aspen flat. M makes lots of PDs over the course of the next 30 minutes, while we observe. F is fairly sedentary (remaining in first perch for ~20 min). She makes a few short flights, appears gravid when flying. F does not vocalize, but M gives LCs when making PDs. F appears to be unbanded.

2116—JV, AP break off to listen in B4 and B5.

2144—F flies to cavity tree **B5\_712**. **This is the B5\_2012 nest tree! Cavity is ~30ft high, S facing in a potr snag. Lots of live pine foliage around entrance. This is an old nest tree (B5\_2009?). Tree # 712, Tag # B5\_712. Add more info regarding general location in territory.**

2148—F flies to and enters the cavity (she must have exited without us observing, or didn’t really enter cavity first time). M gives TECs from ~5m east.

2150—M makes PD to F in entrance of cavity.

2152—We leave.

2255—JV, AP return, end playback and take down lure net.

## 4 June 2012

2034—JV, AW, CC, and AP arrive at the B5\_2012 nest attempting to capture F on her flush. JV

begins raising the capture net.

2037—Capture net is in position.

Weather: mostly cloudy, strong breeze, 16 C

2038—F flushes into the net, but is not caught well and escapes.

2040—**We peep the B5\_2012 nest and find 3 eggs. Two of the eggs are directly touching**

**while the third egg is close, but not touching.** We back off and decide to attempt capture of the B4\_2012 M at the nest.

## 11 June 2012

2020—CC & JV arrive at nest tree. Appears female is down upon arrival.

2024—JV has net in position.

2100—No activity has been heard so CC goes to peep cavity.

2103—**Peep reveals nest predation! No sign of female, eggs or eggshells. The B5\_2012 nest has been predated.**

2105—CC & JV leave nest site.

## 26 June 2012

2320—SY and MD arrive in B5 to set up a lure net to try and capture the B5 territorial M.

2330—The lure net is set up and opens to the NE. Playback is started. It is located very low slope on the W side of Grave R. The net is ~50m NW of the B5 parking location.

Weather: Clear, calm, 10C

Vegetation: mostly young potr/psme with some mature potr, moderately open.

X: 495859

Y: 4333556

+/- 4m

2331—We hear wingflaps as we sit under the net taking notes. SY shines his light on the net and watches as a silent M flies into the net from the SW. It flies into the 3rd shelf. **This is an unbanded M that we later identified as a B5 floater.** He gave an ambiguous vocalization in hand but otherwise was silent the entire time. The territorial M was calling both at the net and away from it while we had this bird in hand.

**Band # 1783-64322** (on R leg)

82.0 g LWC: 128 mm

- 26.0 g LLP(5): 96 mm

56.0 g LLP(6): 105 mm

Rect: 64 mm

MD attempted to bleed R wing but was unable (no hematoma caused). SY successfully bled the L wing and we obtained a blood sample and a smear (no hematoma).

P2 and P3 were missing from both wings (molting) and P1 was new. P1 had no phosphorescence, P4 and P5 had a small amount, and P6-P10 had virtually none. Pictures were taken (photos 889 and 890 on SY camera).

2402—M is released and makes a strong ascending flight to the S.

2404—The territorial M gives a few TCs and then is silent.

2413—Territorial M is giving HECs from W of the nest. He continues to give HECs and TCs but moves to the S after ~5 minutes.

2423—We stop playback and take down the net. We then leave to rescue JV who cleverly got

stuck at B2.

# B5—2013

## 29 May 2013

2115—SY, NS, and LL arrive at net site on Bermuda Ridge and begin net setup.

2130—Net up, playback begins. Net is on ridgetop, opening NNE.

Vegetation: Mature psme/pipo, open.

Weather: Clear, slight breeze early in night quickly faded away, 8°C.

X: 495719

Y: 4333523

+/- 3m

2137—SY and LL depart to listen in B4/B5 for nesting vocalizations. NS remains at net.

2205—SY heads to main aspen flat S of rd. jct. in B5 to listen for nesting vocalizations and tap cavities.

Weather: 1C, clear, calm

2253—Nothing heard, SY departs.

2330—After hearing nothing, we stop playback and take the net down.

2345—We leave.

## 4 June 2013

1636—Flam Crew arrives at the B5 parking spot to peep. CK peeps first tree (B5\_729 # 729) and observes F in cavity bottom. She attempts to flush while peeper is still inside cavity and ends up squeezing herself between peeper and cavity entrance wall. **This is the B5\_2013 nest tree (B5\_729 # 729). Nest tree is located 1 m S of rd at the B5 parking spot. Nest tree is a broken top potr snag. Nest cavity faces N and is the larger of the two cavities (also the lower cavity) on the tree. Nest height is approximately 22’.**

1638—Flam Crew leaves B5.

2041—AW, RC, and LL arrive at the B5\_2013 to check the status of the nest while the F is off.

2044—M perches in potr ~5 m NE of nest tree and gives LCs. F responds with FSCs from N of

nest ~ 15 m.

2046—**We peep and find 1 egg.**

2047—We leave.

## 10 June 2013

2020—AW, BDG, and LL arrive at B5\_2013 nest intending to capture the F on her flush.

2033—BDG has net in capture position.

2045—M gives a few TCs from ~ 100 m SW (in vicinity of meadow area). Presumably these were given from M roost site.

2110—After seeing no sign of the M or F at the nest, we decide to peep. **There is still 1 egg present in the center of the nest. The egg does not appear to be damaged. We presume the F abandoned the nest, possibly when nest was peeped on 6/4/13 and the F flushed during the day. Nest cavity is shallow and possibly contributed to F flushing. F may have laid remainder of clutch in a different nest tree.** We will need to re-peep B5 in order to confirm this. We leave after peep.

## 14 June 2013

1530—Flam Crew (minus AW who is peeping B4) arrives in B5 to peep.

~1715—Flam Crew ends peeping having peeped most cavity trees in the main B5 aspen flat.

Additional peeping may be useful to the W, near the meadow between B5 and B4.

## 20 June 2013

2146—LL, CK and SY start playback at a lure net in southern end of Roadcut Cr., ~50m N of the B5 road junction.

Vegetation: Young potr/psme/pipo; open and in drainage bottom, near road.

Weather: 12C, clear/smoky, calm.

X: 495814

Y: 4333605

+/-6m

B5 M immediately enters the net site giving HECs. M came from the S.

2149—2nd M (B6? B12?) heard giving distant TCs to the NNE.

2150—B5 M quiet.

2154—HECs in net site.

2200—SY and LL leave the net site to listen in the W Missouri Cr. in the B4 area.

2207—SY and LL arrive in the past B4 nesting area to listen for nesting vocalizations. We almost immediately hear a M giving hoots back to the E and up the drainage. We end up approaching the B5 M giving TCs in the middle of the aspen flat, S of the road jct.

2233—CK hears M TCs to the S near the failed B5\_2013 nest ~50m away. M continues calling for ~ 5 minutes and then goes quiet.

2235—B5 M goes quiet in the aspen flat. A M is reported at the lure net shortly thereafter.

2238—A silent bird presumed to be the B5\_M flies overhead as CK is stationed in between the lure net and the failed B5\_2013 nest.

2241—The presumed B5\_2013 M flies over the net from the W to the E side of the creek bottom.

2242—CK continues to hear M TCs across the drainage to the E ~30m away. After two minutes of calling, the presumed B5\_2013 M goes quiet.

2249—SY and LL head back in the direction of B4 but are quickly diverted by a 2nd M giving TCs in the Aspen Flat S of the willows – likely B4(?).

2254—Hang songpost B4\_1 in that area. B5 was heard giving TCs farther E at the same time.

2257—B4 M goes quiet.

~2325—LL is standing silently with lights off listening when a silent FLOW flies into a psme ~2m away and perches at eye level. He then proceeds to fly to another nearby psme before flying out of view. LL saw this M ~40m SE of the willow marsh within ~15sq m of GPS:

X: 495842 Y: 4333414 +/- 4m

We believe this is the B4\_M, as CK had the B5\_M giving calls simultaneously near the lure net.

2346—CK stops playback and waits five minutes before switching playback to F calls.

2351—Playback is resumed with FSCs.

~2356—LL hears presumed B4\_M give TCs and TECs further SW from where she saw him. LL pursues the M and gets within ~20m before the M goes silent again. The M was ~20m SW from GPS:

X: 495784 Y: 4333351 +/- 8m

2403—LL hears M give TCs for <1min ~60+m N/slightly NE of where B4\_M last went silent.

2405—Presumed B5\_M approaches the net rapidly from the SW from across the road.

2407—FLOW is captured in the net on the 3rd shelf facing W. **M has band # 1593-64514 and is the B5\_2006 M.**

**Band # 1593-64514 (on R leg)**

87.0 g LWC: 129 mm

- 28.5 g LLP(5): 95 mm

58.5 g LLP(6): 105 mm

Rect: 59 mm

Blood is taken from the LW for a parasite smear

2432—FLOW is released with a strong ascending flight to the N. We stop playback and break down the net to depart.

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 2 | 2 |
| P7 | 2.5 | 2.5 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

## 17 July 2013

2253—BDG, CK and AW start playback in B4 with the intention of luring for the B4 M. We

set up lure net on the ridgeline S of Secret Cr (drainage bottom S of the B4\_2012 nest).

Specifically, net is located on the E terminus of this ridgeline, just out of drainage

bottom.

Weather: clear, calm, 11.5C

Vegetation: young-mature psme/potr/pifl

X: 495629

Y: 4333294

+/- 4 m

2259—CK and AW leave the lure net site to go listen for the B4\_M and potential fledglings near

the B5 aspen flat.

2307—AW picks up M TCs to E from her position near the nest box just S of the willows. M

appears to be on the E edge of the willows.

2312—M continues to call further E. **AW briefly hears the B5 M calling to the N, confirming**

**this eastern bird as B4.** Note: this is roughly the same location as the B4 was heard

calling from on 15 July 2013 by AW, CK, and BDG as well as when LL and SY songposted the B4 M on 20 June 2013.

2334—Playback off. We break down net and move location.

2400—We begin setting up lure net at SE edge of B5 aspen flat and begin hearing TCs ~30m to

the WNW.

2407—We start playback.

Vegetation: young-mature potr

Weather: clear, calm, <11.5C

X: 495805

Y: 4333435

+/- 3 m

2435—Playback stopped. We leave.

## 18 July 2013

~1545—AW, RC, LL, and BDG arrive in B5/B4 territories to peep in the vicinity that the B4

was calling in on 15 July and 17 July 2013 (just S of willows). We re-peep notable trees

in that area as well as search for unennumerated trees. BDG peeps a few trees N of the

road on the low slope of Bermuda R.

1700—We leave having found no evidence of a nest.

# B5—2014

## 28 May 2014

2050—AW, MC, MP arrive at B5 parking spot with intent to lure net for B5 M. MC taps on B5\_2013 Nest tree. Female flushes on second tap. This is the **B5\_2014 nest tree tag #729.** *Note: Peep on 2 June 2014 reveals 6 eggs – indicating this is NOT a FLOW nest.*

2124—AW, MC, and MP start playback on SE facing slope of Bermuda Ridge (150m NW of B5 parking spot) with the purpose of luring for B5/4 Ms.

**Vegetation**: young-old pipo/psme forest with young trees near the net site

**Weather**: partly cloudy, calm, 12C

X: 495685

Y: 4333578

+/- 4m

2159—MP and AW leave net to listen for males in B4 territory.

~2201—M TCs heard from eastern edge of B4. We pursue calls, M flies south.

2204—M TCs heard from Secret Creek drainage bottom. MP stays in vicinity, AW moves west along ridgeline.

2213—AW hears TCs to the S (up towards B12 saddle). AW pursues and locates M calling from drainage bottom in patch of potr cavity trees.

2215—MC begins walking around with the playback towards B5\_2014.

2220—M flies N and continues calling from slope to S of Secret Creek. MP hears TCs from his position and pursues.

2229—M flies N and continues calling from slope to N of Secret Creek. M drops to B4 aspen flat and continues to call. At this time, MC has moved playback to B5 aspen flat and B4 M appears to be responding to playback.

2235—MC moves playback ~10m S of cavity tree #869 ~100m N of B5\_2014. Four LCs heard in nest vicinity, two likely from female. No response to playback, I back off.

2243—We take down the lure net after hearing no response from the B5 male and after failing to lure B4 male to the net.

2306—Started playback with single net downhill from previous net location on S slope near B4 drainage bottom attempting to capture the B4 M.

**Vegetation**: open young-medium potr/pipo/psme forest

**Weather**: calm, clear skies, 8C

X: 495689

Y:4333431

+/- 4m

2310-2325—Response calls to PB heard on opposite side of drainage from W travelling E closer to net location, most likely B4 M. B5 also approached net location giving HECs for ~5min before going quiet. B4 M still in drainage bottom responding with TCs.

2330—B4 M goes quiet and AW checks net after ~2 minutes. There is not a bird in the net, so AW turns off headlamp and waits at net site. Immediately after, **AW hears wingflaps and turns on headlamp to observe a FLOW fly into the net and get captured.** **M flew into 3rd shelf of net from the N and was unbanded.** We unsuccessfully bleed R wing, then attempt a second bleed on the L wing. We obtain genetics sample. **While this M is in hand, no other bird is heard in the area. This M is most likely the B4\_2014 territory holder.**

**Band # 1783-64510** (on r leg)

81.5 g LWC: 124 mm

- 28.5 g LLP(5): 96 mm

53.0 g LLP(6): 105 mm

Rect: 53 mm

**Blacklight data**:

|  |  |
| --- | --- |
|  | Left wing (scale 0-3) |
| P1 | 2 |
| P2 | 2 |
| P3 | 2 |
| P4 | 1 |
| P5 | 1 |
| P6 | 1 |
| P7 | 1 |
| P8 | 1 |
| P9 | 0 |
| P10 | 0 |

**Primary wear data:**

|  |  |
| --- | --- |
|  | Left wing (scale 0-3) |
| P1 | 1 |
| P2 | 1 |
| P3 | 1 |
| P4 | 1 |
| P5 | 1 |
| P6 | 2 |
| P7 | 2 |
| P8 | 2 |
| P9 | 2 |
| P10 | 2 |

2403—M is released to the SW with strong, ascending flight.

2413—Stopped playback and broke down net.

2431—We spread out in B4 territory to spot map and tap cavity trees. MC begins listening on the E edge while AW and MP begin listening in the B4 aspen flat.

2440—B4 M responds to AW’s hoots to the S towards the B12 saddle. AW and MP pursue, but M goes quiet when we approach.

0100—We end observation.

## 2 June 2014

2050—SY, MC and JS arrive at presumed B5\_2014 nest tree with intent to peep and gauge phenology. **Peep reveals six eggs. This is either a very productive flam but more likely a NOFL nest. THIS IS NOT THE B5 NEST TREE.** We leave for Shooting Star ridge.

2206—AW, LL, and RB start playback intending to lure for B5 and B13 Ms. Net is located on the E end of Bermuda R, ~50m W of the saddle between B13 and B5.   
  
Vegetation: med-mature pipo/psme, young potr, relatively dense

Weather: partly cloudy, slight breeze, 13C

X: 495773

Y: 4333955

+/- 5m

After setting up lure net, AW leaves LL and RB to listen for nesting vocalizations in the vicinity of the B13\_2013 nest tree.

2210—While walking down road towards B13, AW hears 2 TCs 25m to her W and ~50 m N of saddle.

2212—M approaches net from NW giving TCs.

2215—M goes silent.

~2220—M intermittently gives TCs from W of road, slowly moving N towards the B13\_2013 nest vicinity.

~2230—AW taps B13\_2013 nest tree. No response. AW starts walking S along road and hears quiet TCs from E of road, ~25 m S of last years’ nest tree. AW stops to listen for vocalizations.

2238—**AW hears LCs and observes M make a PD. This is the B13\_2014 nest tree! Nest tree is a full potr snag, located ~2 m E of road and ~25 m S of the 2014 nest tree. Tree was also a past nest in 2005 and 2006. Nest cavity is NOT the keyhole. Nest cavity is ~8 ft below keyhole and faces S. Cavity is just below snag branch that sticks out to right.**

2247—AW observes M make PD to confirm nest cavity. I leave to break down lure net and spot map in B14.

2241—LL and RB end playback and begin breaking down lure net.

## 6 June 2014

~1600—Flam Crew arrives in B5 to peep.

1620—RD peeps **B5\_41 #39 and finds F down in cavity bottom. This is the B5\_2014 nest tree!** **The cavity is a large keyhole 25’ up on the full potr snag. The cavity faces E across the road, w/ the snag residing 5m from the road on the W side. The snag is 25m down drainage/rd from the B5 parking spot.** **B5\_41 #39 is the past nest tree for 2004 and 2006.** Flam Crew leaves B5 to continue peeping B4 and B1.

~1715—Flam Crew leaves having peeped B4 completely and having begun peeping B1, but only cherry picking through territory highlights.

2041—BL and JS arrive at B5 parking spot to peep B5\_2014 nest. F is not at the cavity entrance

when we arrive.

2044—M calls off roost, giving TCs ~50m SE of nest cavity for 1-2 min.

2049—LCs heard from similar area.

2052—F rises to cavity entrance as the M enters nest vicinity giving LC.

2053—M gives PD at entrance of nest cavity (where F still is).

2054—M gives 2nd PD in same fashion.

2056—F flushes SE. We peep B5\_2014 nest cavity, **2 eggs centered and touching, suggesting the F is incubating.**

2058—We leave.

## 10 June 2014

2040—ER, MP, and BL arrive at the B5\_2014 nest to peep contents and attempt capture of the resident M. F is not at the cavity entrance when we arrive.

Weather: Calm, mostly clear, 12C

2045—M calls off roost approximately 70 m to the SE. He gives 6-8 TC before quieting.

2049—M flies into the E side of the nest area (just E of the road), giving LC.

2051—**M moves to tree limb adjacent to cavity tree giving LC, and then makes a PD inside the cavity at this time (F still down). BL captures him as he exits. The M was previously banded with Band # 1593-64514—this is the B5\_2006 M! He has been the resident M since that year, and he is now a minimum of 9 yr old.**

2103—F comes up to entrance of cavity.

2104—F flushes from cavity. **We peep cavity and find there are still 2 eggs in the center, touching.**

2105—We lower peeper and exit the site, returning to the vehicle at the B5 parking area to process the banded M. **He is the B5\_2006 M.**

**Band # 1593-64514 (on R leg)**

60.0 g LWC: 131 mm

- 7.0 g LLP(5): 99 mm

53.0 g LLP(6): 108 mm

Rect: 60 mm

We do not take blood.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1 |
| P2 | 1.5 | 1 |
| P3 | 1.5 | 1.5 |
| P4 | 0.5 | 1.5 |
| P5 | 0.5 | 1 |
| P6 | 0.5 | 1 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 1 |
| P6 | 1 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2 |
| P10 | 2.5 | 2.5 |

2126—MP releases the M, who shows a strong, ascending, 10 m flight to the NE. We leave for the B10 territory.

## 16 June 2014

2034—Boulder County Open Space and BL arrive in the B5\_2014 nest area to attempt capture of F. F not in cavity entrance as BL approaches nest tree.

Weather: Clear, calm, ~16 C.

2038—BL has net in capture position over cavity entrance.

2052—M calls off roost ~ 80 m N of the nest.

2056—M arrives in the nest area giving LC. He perches ~ 5 m to NE of nest, peers at the capture net over the cavity, and leaves ~ 2 min later.

2106—After giving TC in a ~ 50 m radius around the nest site over the previous 5 min, M returns to the nest area again at this time, giving LC.

2108—**M flies to within 0.5 m of nest tree, landing on trunk of adjacent tree, where he peers at the capture net and gives LC. F gives FSC in response, and flushes into the capture net. F was not previously banded—and I band her with Band # 1783-64482,**

**Band # 1783-64482 (on ? leg)**

70.5 g

- 7.5 g

63.5 g

2113—Release F, who shows strong flight in the direction of the nest (S). We leave for B2 territory.

## 30 June 2014

2150—JS and SY arrive at the B5\_2014 nest to peep and assess status of hatching. We tap the tree – no response. **We peep: there are no owls or eggs in the cavity. A few eggshell fragments are visible within the cavity. Apparently B5 has been predated.** We check the ground around then nest tree but observe nothing of note.

# B5—2015

## 27 May 2015

2121—MC, ER, and ER-sis set up a lure net on the S terminus of Bermuda R about 15m N of Missouri Gulch Rd and about 150m NW from the B5 parking spot to target males in B5 and B4. Playback begins. Within seconds of PB start, a high-pitched M begins giving TCs in the drainage around the W edge of the B5 aspen flat. We also hear a M giving TCs from about 100m W from B4. Both go silent after a couple minutes

Vegetation: Young to mature pipo. Open

Weather: 7C partly cloudy, but clearing up. No wind.

X: 495836

Y: 4333567

+/- 14m

**Note: Our GPS point puts our net E of the B5\_2014 nest tree which is incorrect. A previous lure net has been placed on the S terminus of Bermuda at the coordinates X: 495685 and Y: 4333578**

2124—The high-pitched presumed B5\_M gives several TECs about 10m SW of the net from the drainage. The presumed B4\_M gives occasional hoots from the W, bouncing to about 70m from our net site. A M starts giving TCs about 150m NE of the net from Turkey R.

2129—We hear wing flaps near the net, but no capture.

2132—The presumed B5\_M gives HECs from his position 10m SW of the net. He bounces within 5m of the net and gives a few HECs, but then goes silent.

2138-2207—The NE bird continues to give TCs from his position on Turkey R., but does not appear to be approaching the net.

2153—The presumed B4\_M gives a series of 5-6 TCs from Big Bertha R. MC goes into the area to listen but does not find anything significant.

2205—The presumed B5\_M gives a few more TECs from his position about 10m SW of the net in the drainage.

2210—Playback stopped. Without any bird giving a significant approach to the net, we break down the net and move NE.

2238—MC, ER and ER-sis set up a lure net on the SE slope of Bermuda about 50m upslope from the junction of Missouri Gulch Rd and the roadcut. Playback begins. As soon as playback begins, we hear a high-pitched M, presumably the same bird as our first net site, respond with TCs about 70m WSW.

Vegetation: Young potr, psme, and pipu surrounded by mature pipo, psme, and pipu. Relatively dense.

Weather: 7C and Clear

X: 495736

Y: 4333665

+/- 11m

2248—A M gives a TEC from about 25m NE of the net and then gives a TC within 5m from the net. Seconds later, we hear wing flaps.

2249—**We check the net and an unbanded M is caught in the 2nd shelf on the E side!** With an unclear approach, this could potentially be the B5/B13/B14 male.

**Band # 1833-03260 (on L leg)**

71.0 g LWC: 123 mm

- 19.5 g LLP(5): 94 mm

51.5 g LLP(6): 102 mm

Rect: 56 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | Right wing not taken. |
| P2 | 0 |  |
| P3 | 0 |  |
| P4 | 0.5 |  |
| P5 | 0.5 |  |
| P6 | 1.5 |  |
| P7 | 1.5 |  |
| P8 | 2 |  |
| P9 | 0.5 |  |
| P10 | 0.5 |  |

2307—While still processing the B5/B12/B14 M, **we catch an unbanded silent bird in the 3rd shelf on the W side of the net.** The belly is slightly naked but is not extensive or shows pin feathers to indicate a brood patch. However, we only band and mass to be precautious.

**Band # 1833-03259 (on X leg)**

81.0 g

- 19.5 g

61.5 g

2315—We release both birds. The B5/B13/B14 M has a strong horizontal flight S, and the silent bird has a strong ascending flight SE to perch in a psme.

2323—Playback stopped and we break down the net.

2344—MC, ER, and ER-sis begin spotmapping. ER and sis start in the N end of the B5 drainage along the road cut about 50m N of Missouri Gulch Rd and MC listens below the B5/B13 saddle.

2350—ER and sis hear the high-pitched presumed B5\_M give a few TCs from about 20m S.

2351—As MC crests the ridge between B13 and B5 a flam flushes off of a perch ~5m from the ground and flies N to another tree on the top of the divide and ~5 m W of the road. A after couple minutes MC attempts to illicit a response from the bird. After giving a couple hoots a M responds with TCs from the ridgetop to the W. MC gives chase when another high pitched male calls from the same spot. Then there is a F response from the same spot.

2353—The high-pitched presumed B5\_M gives a few more TCs about 40m N of ER’s position toward MC. ER and sis hear a second bird about 200m SW give four TCs from the direction of B4.

2354—MC attempts to chase after the birds on the ridge but then hears the F call from in the drainage.

2355—ER and sis join MC just below saddle.

2359—MC hears M give LCs from same location in the drainage ~10m S of the B5/13 divide.

2417-2420—ER and sis begin listening about 20m below the saddle and hear an LC about 15m S down drainage. We pursue and hear a second LC and a single FSC 20m further SE in a side drainage of Roadcut Cr. Both birds go silent.

2435—MC heads down roadcut into B13. MC gets as far N as B13\_2014 nest, tapping and hooting along the way. From my most northern position a M responds ~150m N, but he is far outside of B13 so I do not pursue and return to ER at the top of B5.

~2440—MC, ER, and ER-sis join to listen back down in the B5 aspen flat by the junction of Missouri Gulch Rd and the road cut. We hear a M give a couple TCs about 20m SW of the junction. Seconds later we hear an FSC about 15m due S of the junction. We pursue and follow a series of FSCs further S into the aspen flat. She hops back N across Missouri Gulch Rd and gives a couple more FSCs. We call her the presumed B5\_2015 F

~0100-0120—MC leaves to listen W toward B4 while ER and ER-sis continue to track the F. She gives consistent FSCs around the B5 aspen flat.

0108—ER and sis locate the presumed B5\_2015 F giving FSCs in the top of a potr snag and record a songpost.

DBH: 22.5cm

X: 495880

Y: 4333447

+/-8m

0109—The F takes a short flight to a neighboring live psme due W where she gives a few more FSCs and the presumed B5\_2015 M lands beside to make a probable prey delivery. We cannot see the birds through the foliage, but both birds vocalize. We songpost this tree. M flies away.

DBH: 33.0 cm

X: 495870

Y: 4333455

+/- 11m

0117—The presumed B5\_2015 F makes another short flight to a nearby live potr to the NW, continuously giving FSCs. We take another songpost. All songposts were taken in the vicinity of the B5\_2009 nest and surrounding cavity trees.

DBH: 22.5

X: 495857

Y: 4333432

+/- 7m

0120—We meet up with BL at the potential B5\_2015 nest tree and head out.

## 2 June 2015

~1600—Flam crew spends the afternoon peeping in B4 and B5. Most of the crew peeps in B4, moving toward western portion of B5 as we peep out E B4 while SY cherry picks in B5 proper. We peep past B4 nest tree #303 where BL and DL suspected the B4\_2015 nest to be and find it vacant. The crew peeps out most of the trees in this potr flat area to E and W as well as S up the Biker Tr drainage, peeping out up to saddle to B12 and finding nothing. We should have known B4 wouldn’t make it that easy for us.

1714—**SY peeps cavity tree #28 and F FLOW is present in cavity bottom. This is the B5\_2015 nest! This is the same cavity that was the B5\_2005 nest tree. Cavity is ~22 feet up the N side of a potr full snag. Tree is ~40m S of the road right where the aspen flat starts to rise onto the low slopes of Turkey. R.**  Flam Crew comes over to see nest and then we depart.

2044—DL and SY arrive at the B5\_2015 nest to peep and attempt to capture M. We tap, no response. **We peep: 1 egg in cavity, no adult.** Since she is possibly still not incubating, we leave and abandon the capture attempt.

2100—DL and SY arrive in the B5/B13 saddle to set up lure net. Net is set up ~ 20m W of the road across the saddle.

2109—Begin playback

Vegetation: young to mature pipo/psme with few young, fairly dense.

Weather: 13C, clear, calm

X: 495854

Y: 4333928

+/- 8.4

2121—Wingflaps at net, capture silent M. This is the same M caught by MC last week.

**Previously banded # 1833-03260 (on L leg)**

89.5 g LWC: 124 mm

- 34.0 g LLP(5): 94 mm

55.5 g LLP(6): 100 mm

Rect: 57 mm

2126—Another male giving TCs ~20m from net site. Continues to call while we process the other M, but goes silent once we release other bird.

2134—Release M. Strong flight to the E/SE. 2nd M still giving TCs during release, but goes quiet shortly thereafter.

2139—Female gives FSCs ~20M NW of the net and a M to the distant NE gives a few TCs.

2151—SY leaves to listen in B13

2220—From past B13 nesting area SY hears FSCs and M LCs on the W side of the road in the immediate vicinity of cavity trees #237 and #238. I hear a PD occur then see the F fly NW. I give chase but quickly lose them with an unbelievable series of airplanes passing overhead.

2238— Weather (at net): 10C clear, calm

2253—SY returns to net site.

2305—Stop playback and break down net.

## 08 June 2015

2033—SY and LP arrive from the NE to the B5\_2015 nest tree with intent to peep the nest and capture the M.

Weather: Calm, clear, 11C

2046—M arrives to nest area from SE giving LCs to perch on potr a few meters from cavity at similar height as cavity.

2048—M flies into cavity while giving LCs to give PD to F.

2051—Capture net is raised.

2056—SY catches M in capture net following a PD into the cavity. Unfortunately the M soon escapes by maneuvering his way through a hole in the net while behind brought down by SY (in true B5 fashion).

~2105—M flies into nest area to give an in-flight PD to the F who rises to entrance to accept delivery. F flushes from nest immediately after this.

2110—**Peeping reveals three centered eggs**. Because the F appeared to notice SY with capture net, we leave B5 at this time to go to B13.

## 15 June 2015

2011—BH and SY arrive at the B5\_2015 nest tree with the intention of net capturing B5 M and F and peeping the nest cavity. Starts raining almost immediately.

Weather: 12C, cloudy, calm. Light-moderate rain.

We wait out the rain under a spruce ~10m W from the nest tree.

2034—F gives FSCs from nest. BH sees M give a PD then leave the nest area. At this point there is consistent moderate rain.

2048—Rain has stopped – we tap the nest tree to see if F is on – she rises to the cavity entrance for ~30 sec before going right back down.

2050—F gives FSCs, M responds with LCs and quiet TCs before making a PD.

2151—Net in capture position for the M. M enters the site twice, apparently attempting to make a PD, but is reluctant to go to the cavity.

2106— F flushes cavity. BH proceeds to peep the nest cavity.

2109—**We peep the nest cavity to find a clutch size of 3 eggs, centered and touching**.

Note: *One egg shows possible signs of cracking, which may have been confused with a piece of debris or a wet feather. We suspect the latter, but cannot be sure either way.*

2110—We wait for B5 F to return to nest in hopes of capturing B5 M on a PD.

2121—F returns to nest, SY raises capture pole and we wait for M.

2126—While F is giving FSCs, a UFO enters nest area. UFO gives LCs coming in, perches in a tree ~3m S of the nest tree and goes silent.

2127—B5 M gives HECs tail chases the UFO out of the nest site..

2128—**SY captures B5 M in net on a PD. Previously banded #1593-64514, originally 2006 B5 M! Now at least 10 years old!**

**Band # 1593-64514 (on R leg)**

83.5 g LWC: 129 mm

- 29.5 g LLP(5): 99 mm

54.0 g LLP(6): 108 mm

Rect: 59 mm

Vegetation: Dense young to med. potr, few psme/pipu

Weather: Moderate to heavy rain, 13C

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2.5 | 3 |
| P5 | 2.5 | 2.5 |
| P6 | 2.5 | 2 |
| P7 | 1.5 | 2 |
| P8 | 1 | 2 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1 |
| P6 | 1.5 | 2 |
| P7 | 2 | 2 |
| P8 | 1 | 2.5 |
| P9 | 1 | 2.5 |
| P10 | 0.5 | 2.5 |

Note: *We did not collect a blood sample.*

2146—B5 M released, extremely strong ascending flight NW.

2200—Storm gets heavier and we take cover and wait out the storm before heading into B12.

## 24 June 2015

2020—LP and SY arrive at the B5\_2015 nest to attempt to capture the F.

Weather: 13C, mostly clear, calm, recent rain.

We wait to put up net.

2026—M calls off roost to the S. We begin moving in to capture position.

2031—Net in capture position – no response/

2043—M enters site giving LCs, then transitions to TCs/TECs. Mc alls for ~30 sec. then goes quiet.

2048—M comes to perch ~1m N of the nest tree – gives LCs. F responds with FSCs, but stays down.

2052—M backs away ~25m giving TCs and TECs; then comes back to the site apparently trying to make a PD. M continues to move around the site attempting to make a PD, giving mixed LCs and TCs/TECs. F giving FSCs much of the time.

2104—While trying to allow the M to make a PD, the F comes to cavity entrance. LP gets the net over the cavity before she can flush and she is captured. **She is previously unbanded.**

**New Band #1833-03252 (on L leg)**

93.0 g

- 21.0 g

72.0 g

**We peep: 3 eggs, possible “pipping” on one egg.**

2111—We release F. Strong flight W. We leave.

## 30 June 2015

~2242—RC and LP arrive in B5 and crash around for a bit looking for the B5\_2015 nest tree. F likely flushes during this time.

2247—We arrive at nest tree and tap. F is off. **Peep shows 3 Ns in a pile, surrounded by egg fragments. All 3 Ns are in all white natal down with eyes closed. They are very sedentary during peep but do shuffle a bit when we move camera—all 3 appear mobile, at least 2 are able to move heads. Oldest N appears to be 3-5 days old, consistent with previous peep on 6/24/15 (3 eggs, 1 possibly pipping). Based on N ages and past peep, hatching may have occurred 6/24/15 at the earliest and no later than 6/27/15.**

2250—We leave.

## 7 July 2015

2241—RC and LP arrive in B5\_2015 nest area to observe activity, peep, and capture F if Ns are apparently homeothermic. We enter quietly, and F is off on arrival.

Weather: Overcast, calm, intermittent fog, 7.5C.

2243—PD to nestlings. Bird flys in from S and out to S.

2249—PD to nestlings.

2256—**We peep and see 3 Ns. The older two (sleeping on top of the runt) appear to be ~13-15 days, becoming dark on a significant portion of their bodies. No sign of a facial disk, but older Ns are inactive and we don’t get a great view of their faces. Runt appears much smaller, but seems to have gray coming in on both head and scaps (~10 days).** Runt is also nearly being smothered by a very cozy looking owlet blanket, so we back off and prepare for F capture. M gives TCs ~5 from nest tree while we peep.

2305—F FSCs ~20m S of nest tree. M TCs ~5m from nest tree. M delivers PD to nestlings.

2310—LP approaches nest tree with capture net.

2312—Net at height. Ns beg from the cavity.

Cavity height: 20’6”

2315—Possible forage in small potr in front of cavity. Both adult perched in this tree. One makes an ungraceful crash into wet foliage.

2316—M PD to Ns.

2318—F PD to Ns. **F is captured!**

**Band # 1833-03252 (on L leg)**

75.0 g - 16.0 g LLP(5): 97.0 mm

59.0 g LLP(6): 105.0 mm

Notes: We bleed F on L wing for genetic sample. Small hematoma, nice quick clot. F is molting primaries asymmetrically. LP1-3 and RP2-3 are in molt. RP1 does not appear to have molted recently. All feathers look fairly worn, but primaries are a bit wet so it is difficult to tell. We take measurements on molting feathers, but not wear or black light.

LP1: 18 mm (18 in shaft) RP2: 21 mm (19 in shaft)

LP2: 22 mm (17 in shaft) RP3: X17 mm (17 in shaft)

LP3: 19 mm (19 in shaft)

2342—F released with strong, ascending flight S.

2346—We leave.

## 13 July 2015

1645—Flam Crew arrives at B5\_2015 nest to process owlets. F comes up on our approach.

1648—**We peep cavity**, F flushes. We proceed to set up ladder.

1703—BL begins climbing ladder.

1705—All owlets extracted from cavity. BL comes down ladder and we begin processing.

Weather: Calm, cloudy

**Owlet #1**

66.4 g

P#5: 46 mm

P#6: 47 mm

Rect: 17 mm

Band#: 1833-03276 (L. leg)

Notes: Blood sample taken from R. wing

**Owlet #2**

62.6 g

P#5: 43 mm (xx in shaft)

P#6: 43 mm (xx in shaft)

Rect: 15 mm (xx in shaft)

Band#: 1833-03277 (R. leg)

Notes: Blood sample taken from R. wing

**Owlet #3**

37.5 g

P#5: 23 mm

P#6: 24 mm

Rect: N.A. mm

Band#: 1833-03278 (L. leg)

Notes: Blood sample taken from L. wing

1729—BL climbs ladder with owlets.

1731—All owlets returned to cavity. We leave B5\_2015 nest site shortly after.

2406—MC and ER arrive on the road cut saddle to listen for possible nesting vocalizations from an unaccounted-for territorial M. MC goes ~75m W onto the upper S slope of Bermuda Ridge and ER goes ~75m E on to Grave Ridge.

2430—After both walking around and tapping trees/ soliciting hoots we have heard nothing and leave the area.

2435—As we arrive at the B5 parking spot we hear a M vocalizing ~50m N but it is time to leave so we head out.

## 21 July 2015

2034—SY arrives at upper Roadcut Cr. to run a lure net to investigate the possibility of a territorial M between B5 and B13.

Vegetation: young pipo/psme/potr adjacent to the road in the drainage bottom.

Weather: 13C, partly cloudy, wind 1-3 mph.

X: 495888

Y: 4333837

+/- 10m

2048—SY starts PB at lure net.

2055—SY leaves net to assist with B13 FL.

2115—SY back at net.

2120—RC and LP arrive in B5\_2015 nest area to peep nest and see how many Ns have fledged. **Peep confirms F is off and shows 1 N in cavity. N is in full juvenile plumage with a well-developed facial disk.** **2 Ns have fledged** here. Begs in cavity. M gives a couple LCs nearby then transitions to scolding briefly at the nest tree before flying 15m NE and giving more LCs. We spread out in this direction.

2127—F gives 3-note “encounter calls” ~5m E of net.

2134—RC/LP get scolded by M 15-20m NE of nest tree. M is watching us from a low perch, but not making PDs while we are there. Based on M activity, begs heard from nest area, and some brief foliage crashing heard in this area, we suspect there is 1 fledgling close to this location and another ~15m further N across rd. Third N is begging loudly from the nest cavity.

2138—DL arrives at the lure net.

2139—RC/LP leave B5.

2142—SY leaves to search for fledglings at B5

2153-2223—I hear FSCs in the net site, so I check the net and there is a bird in the site. This F continues to make short flights around the net site while giving FSCs.

2157-2236—In the vicinity of the B5 nest, SY gets nearly constantly scolded by the M, while the remaining N begs from the cavity entrance. I never hear the FL vocalize but I am clearly close given the behavior of the M. The M also makes several PDs to the N in the entrance. F never observed in the nest site.

2223—F flies into net but is only stuck for a few seconds before escaping and flying to the SW.

2233—DL hears FSCs ~10m NE of the net, but do not spot the bird again.

2249—SY returns to net.

2255—PB runs out of batteries. We breakdown and leave.

# B5—2016

## 1 June 2016

2056—BH and RC arrive in the B5 aspen flat to listen for courtship and nest search.

~2120—BH heads across the meadow to listen ~60m S of the B5 aspen flat.

2137—BH hears M give 2 LCs ~20-30m W of cavity tree Tag #7, behind willows. M goes silent.

2140—Another brief LC bout 15m N. RC pursues, BH remains in willow area.

2142—More LC/TCs 50m N of last calls. RC follows.

2146—BH hears suspected B4\_M give 1 LC ~35m W of location behind willows once more. RC follows calling M to 15m S of rd at B5 parking spot. BH joins RC as RC spots M giving TC/TEC/HECs 15m up small potr. RC flags as “M HECs 6/1/16” (closest to cavity tree #1367). *This tree is later found to contain at least one cavity and is tagged with #1394.*

2150—M moves S to call (TC/TECs) from potr 1m S of B5\_2015 nest tree.

2158—RC hears possible TCs back toward willows and pursues, but hears nothing after arriving. BH catches silent blur flying due E from stand of spruces while territorial M is still calling in potr. Possibly a second FLOW.

2207—BH watches B5\_M make short flights N to two more trees within ~10-15m of the B5\_2015 nest tree. Continues to TCs and TECs incessantly until rain picks up strongly around 2220, then picks up calling again in same location after rain ends.

2210—We leave the B5 aspen flat to set up a lure net on the low S-facing slope of Bermuda R to target B4/5 Ms, but end up waiting at the vehicle for storm to subside.

2255—After waiting out a storm, BH and RC arrive on the low S facing slope of Bermuda R., ~30m WNW of the bend in the road to lure net for potential B4, B5 Ms. We set up poles, and then wait out another storm cell under a spruce.

2328—M TC/TECs ~100m W of net location toward B4.

2330—PB started.

Vegetation: Young to mature pipo/psme, open

Weather: Intermittent rain, overcast, mostly calm with gusts prior to net setup, 7C

X: 495691

Y: 4333427

+/- 9.2 m

2336—B4\_M in net site to S, giving TC/TECs. B5\_M (presumed) is also heard giving TC/TECs 150m NNE toward upper E-facing slope of Bermuda R. M goes silent without approaching net. Very brief FSCs in net vicinity. RC attempts to pursue to no avail.

2338—M (suspected B4) TCing steadily in pipo crown just E of net.

2342—2nd M begins calling suddenly just S of rd, 30m S of net. M to E of net jumps S to encounter new M. Both birds move SE; one goes silent while the second HECs 60m SE of net.

2346—Both Ms silent.

2352—Both Ms calling again 20m S of net, giving TCs and HECs. One quickly goes silent, and RC moves S to tap around in the B4 drainage.

2355—From rd 10m S of net, RC hears one M TC/TECing in PB tree. RC spotlights and M flies under net. M circles back around momentarily to perch in PB tree once more. 2nd M begins TCing 40m SW toward B4. M in PB tree still present (potential B5 M?) and perched 0.5m off the ground, so RC approaches slowly. M makes no moves to fly away and politely averts his gaze as RC arrives at PB tree.

2402—RC removes unsuspecting FLOW from low branch of PB tree. This **M is unbanded**. We give him **Band #1833-03383 (L leg)** and proceed to process him.

**Band # 1833-03383 (on L leg)**

74.5 g LWC: Wing extended- could not measure

- 15.0 g LLP(5): 98 mm

59.5 g LLP(6): 106 mm

Rect: 66 mm

2434—FLOW released. SAF N. We leave B5.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | 1.5 | 2 |
| P3 | 1 | 2 |
| P4 | 1 | 2 |
| P5 | 1 | 0.5 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0.5 | wet |
| P5 | 0.5 | 0.5 |
| P6 | 1.5 | 0.5 |
| P7 | 2 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2 |
| P10 | 2.5 | 2.5 |

## 6 June 2016

1534—**ER peeps tree B5\_52 tag #8 to see moving bird parts in an extremely shallow cavity. The bird figure moves a bit to reveal at least two spherical eggs. More movement reveals flame colored scapulars and I hear aggressive beak clicking.** I become very suspicious. MC and KM join. After a bit of camera adjustment, we get some owlish breast plumage into view. **Finally, when adding flagging to the tree, a F FLOW pops up in the cavity entrance. This is the B5\_2016 nest!** Who knows why this owl did not budge with the several previous taps and peeps?! **The nest tree is a potr snag located ~150m SSW of the B5 parking spot, near the SE corner of the willows. The nest cavity faces NW and is about 6m high in a large flicker excavation.**

1542—While we have backed off to observe, a WISA taps on the top of the nest tree, and the F flushes to the W. We leave the finicky owl.

2038—DL and KM arrive at B5\_2016 nest tree to watch F flush and peep.

2041—M gives LCs and flies into nest site on a perch ~1m away from the tree.

2042—F flushes. M remains on his approach perch ~20 seconds before flushing. **We peep. There are 3 eggs centered and touching.** We leave to listen in B4.

2241—MC and ER set up a lure just SW of the Roadcut Saddle. PB starts. MC leaves the net to go listen in the B13 drainage.

Vegetation: mixed pifl, pipo, psme

Weather: mostly cloudy, calm with gusts ~3mph, 8C

X: 495849

Y: 4333922

+/- 10m

2257—ER hears very high pitched, TC-like vocalizations ~30m N of the net, the bird starts approaching the net.

2307—**The bird is caught in the 2nd Shelf from the S. The bird is unbanded.**

**Band # 1833-03389 (on R leg)**

84.0 g LWC: 132 mm

- 29.5 g LLP(5): 91 mm

54.5 g LLP(6): 101 mm

Rect: 58 mm

**Notes: Based on the mass, we assume the bird is not a breeding F, we do a full processing. Bled right wing, no hematoma.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1 | 1 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 3 | 3 |
| P8 | 3 | 3 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2330—We release the bird with a SAF W. ER leaves the net to go listen

2350—A M starts calling ~150m N of the net in the B13 drainage and then approaches the net.

2415—The M is still calling at the net, ~20m S, from a very tall pipo and shows no sign of moving from his post, even with the enticement of a megascops call. We decide to move the net ~75m W and keep playback running.

2420—The new net is erected on the ridgetop.

Vegetation: young to mature pipo/psme

Weather: clear and calm, no temp taken.

X: 495789

Y: 4333951

+/- 8m

2424—A M starts calling ~20m S of the net and eventually gives HECs.

2426—A 2nd M starts calling from S of the saddle area giving TCs.

2439—**The first M hits the net from the S in the 3rd shelf. This is the B14\_2015 M!**

**Band # 1833-03324 (on X leg)**

83.0 g LWC: 130 mm

- 29.5 g LLP(5): 95 mm

53.5 g LLP(6): 103 mm

Rect: 56 mm

**Notes: No blood taken.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2 | 2 |
| P4 | 2 | 2 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 2 | 2 |

2445—A M approaches the net giving TCs from the N and comes in to the net giving HECs. We switch the PB to megascops but the bird goes silent after ~5minutes.

2455—The M is released and we turn of PB and leave.

## 14 June 2016

2035—BH and ER arrive at B5\_2016 nest tree to attempt M capture at the nest and peep nest upon F flush.

2044—ER positions capture net at cavity height.

2057—M gives a few LCs from ~20m W of the nest tree without coming into the site. The pair moves S down by the willows, with the F giving consistent FSCs.

2059—F flushes. **BH peeps to find 3 eggs centered and touching**.

2113—F returns to nest cavity.

2114—F gives FSCs on cavity. M enters nest site from NW. He makes a silent PD, landing on ER’s capture net on his way to the cavity.

2115—M makes a PD.

2118—M makes a PD. ER swings and captures him! We lower him and begin processing. **He is unbanded, and we band him #1833-03384**.

**Band # 1833-03384 (on R leg)**

65.0 g LWC: 129 mm

- 17.0 g LLP(5): 99 mm

48.0 g LLP(6): 107 mm

Rect: 61 mm

**Notes:** Bled L wing. Substantial hematoma.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0.5 | 0 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2150—Release the B5\_2016 M SAF S toward nest.

## 15 June 2016

Afternoon—Flam crew does a full peep in B5, peeping out potr flat across from B5 parking spot, as well as Road Cut N up to the saddle. Several trees in the main flat are not found, but we search extensively for them and enumerate several new trees in the area. We give the B5\_2016 nest tree a 50m buffer to N and S, then pick up peeping in side dr to SE behind the willows. We get good coverage here and begin moving toward the B4 past nest flat when we run out of time. No nests found.

## 21 June 2016

2230—RC and KM exit the vehicle in the B5 parking spot, ready to attempt a M capture at the B13\_2016 nest. Immediately after we don our vests, we hear TCs on the W facing slope of Grave R, 20m N of rd. RC runs to track the M, followed by KM.

2233—**RC hangs B5\_1** in large live psme. M gives TCs here for a few minutes, spontaneously changes to HECs, then flies E at 2242 when RC goes in for a dbh. KM taps around the B5 potr flat, but finds nothing and shortly joins RC on slope.

X: 495921

Y: 4333520

+/- 8m

2243—**RC hangs B5\_2** in another large live psme. M calls for 2 mins in crown here, then flies N up slope.

X: 495965

Y: 4333520

+/- 9m

2246—**RC hangs B5\_3** in yet another large live psme. M is giving TCs in the crown of this tree, seeming to continue his songposting-type behavior. After ~8min of this, M changes to HECs for an unknown reason and flutters loudly down to a perch 15m up and visible to RC. RC attempts to spot a band but never gets a good look at his legs, and while light is on, **a silent FLOW flies in from E to perch 2ft above calling M. Silent bird flies away briefly and B5 M goes silent. New silent bird hops back in to approach again, and B5 M flies 40m W, then picks up giving HECs again (2256)**. KM picks up B5 M while RC spots the silent FLOW (definitely unbanded) as it forages on the trunk of B5 M’s songpost B5\_3, eats the prey immediately, then flies silently back to the E. This bird never vocalized, and we never pick it up again.

X: 495964

Y: 4333552

+/- 9m

2305—KM joins RC on the slope to try to track the M giving TCs and HECs. The M seems to fly SW, making a few short stops of various psme. With white flagging, I mark all of the trees where the M spent more than a few moments.

~2315—KM **hangs B5\_4** in live psme 15m NE of B5 parking spot. M continues calling in this area, giving mostly TCs and some HECs. RC attempts to find new cavities in potr snags around the area briefly, but is unsuccessful. We leave.

2435-2440—RC and KM return from B13 and hear M TCing near B5\_2015 nest tree. We pursue and find M calling within 5m of this tree. M begins giving HECs. We tap trees in the area, including #28 (B5\_2015) but find nothing. M goes silent, and we pick him up a moment later giving TCs/HECs 80m E. We leave.

*This M’s behavior is consistent with behavior observed in this area on 6/1/16 by RC and BH (giving HECs in past nest area and near parking spot, while a second M was calling near B5\_2016 nest). Based on our observations tonight and on our full peep effort on 6/15/16, we suspect that the M we were tracking is the occupying the B5 flat area as a bachelor, although it is possible that he is broadcasting at his territory boundaries during incubation. This does not seem to be the same M as occupies the current B5\_2016 nest.*

## 29 June 2016

2024—DL and ER arrive in the B5\_2016 nest area with the intent to capture the F on flush and peep to observe nest contents. The F peeks out at us for a split second, but immediately lowers back down—probably just because of the very shallow cavity.

2033—DL begins to approach the nest with the capture pole.

2037—Net is raised to cavity height.

2043—M calls off roost about 40m SE.

2044—M comes into the nest site, giving LCs for five minutes. He never comes within 5m of the net.

2053—The M returns to the nest site. DL moves net to allow him to make a PD, but he immediately transitions to TC/TEC and flies away.

2055-2103—M gives TC/TEC around the aspen flat, never coming within 20m of the nest.

2109—M comes back into the site giving LCs. DL attempts to allow him into the cavity, but he again flies away from the site.

2116—Given the time, DL lowers the capture pole as the F does not seem to be flushing. We back off to observe PD rates, given we do not know the status of the nest.

2119—Just seeming to spite us, the F flushes the cavity. A few seconds later, the M makes a PD to the cavity. The two birds leave the nest site, so we reenter to peep.

2120—**Peep reveals at least two Ns, possibly on top of the third. The two Ns that we see are very active with eyes open and no obvious egg tooth. There appears to be some juvenile plumage coming in on the scaps. The oldest two are estimated to be at least eight days old.** The pair reenters the site and we leave.

2344—DL and ER arrive ~100m N of the B5 parking spot. As we are looking for a net site we hear a M calling ~50m to the SE so we begin putting up a mist net.

~2350—Begin playback.

Vegetation: Young PSMEs and POTRs with some large POTRs to the W of the net.

Weather: partly cloudy, calm, 13C

X: 495841

Y: 4333659

+/- 11m

~2355—M approaches the net and gives some very low hoarse calls in the site. He then switches to TECs and calls for at least five minutes in the tall POTRs.

2400—ER begins moving the PB around. M calls for a few minutes while she does this but then goes quiet.

~2403—ER leaves to go listen around where the M began calling.

2405—M resumes calling from the W facing slope of grave, seemingly near the top. He calls up there for ~5 minutes. M continues to move around and give TCs and TECs at least 50m away from the net.

2410—ER gets eyes on the M on the low slope of Grave about 50m NE of the B5 parking spot. In between calling, he is preening. I see a band on the L leg.

2411—While ER has eyes on the M, I hear F LCs about 30m downslope. I pursue but don’t pick anything up again. ER continues to keeps tabs on the M and listen and tap around potential cavity trees on the low slope of Grave R.

~2445—The M continues to call upslope, ER hears a bird flush out of a spruce behind her. I don’t see the bird, but it sounded like owl wingflaps.

2453—**Capture banded F** in the mist net!

**Band # 1833-03307 (on R leg)**

92.5 g

- 29.5 g

63.0 g

**Notes: Prominent brood patch with no pin feathers coming back in.** *She was banded on the saddle at the A11 site on 8/28/15, and called a HY. She was banded the same night as the A29\_2016 F!*

2455—PB off

2459—Release F. Strong ascending flight to the S.

0104—As we are breaking down the net ER hears the F giving LCs near the parking spot. She chases her and we find her across the road in the main B5 aspen flat. The M is also near her giving HEC, mixed with LCs. **We stay on the pair of about 20 minutes where they are making short flights in the area of cavity tree 1394**. The F makes a few fluttery flights as if entering a cavity, and perches on the side of the tree like a nuthatch. *While we were not able to confirm that the B5 pair by the willows were around their nest site, but considering previous observations in the main B5 aspen flat and on the low slope of grave, we assume this is a second pair.*

0125—We stop observing as flam crew has come to meet us. We leave.

## 6 July 2016

1523—RC/KM/DL/ER arrive in B5\_2016 nest area to capture F and band/bleed owlets. F up on arrival.

1528—F flushes. We enter nest site. **Peep reveals at least 2 Ns, gray, but very blurry and indistinguishable in shallow cavity.** Ladder going up.

1537—ER takes cavity measurements, then begins enlarging cavity.

**Cavity Dimensions**

Entrance H x V: 60mm x 65mm

Entrance Thickness: 35mm

Depth H x V: 90mm x 110mm

DOH: 27.0cm

Height: 18’8”

Note: Vertical depth taken after enlargement and duff removal to restore cavity depth.

1547—ER completes enlargement. Ns out.

**Aluminum Owlet**

P#5: 26 mm

P#6: 25 mm

Rect: 8 mm (7 in shaft)

Band#: **1833-03375 (R)**

Notes: Bled R wing after poke L. L wing never bleeds (no hematoma); moderate hematoma R. No mass taken (for no good reason). Both older owlets have a significant amount of juvenile plumage on whole body, and are quite active (**~14 and 13 days, respectively**).

**Aluminium Owlet**

P#5: 21 mm

P#6: 20 mm

Rect: too small to measure!

Band#: **1833-03376 (L)**

Notes: No mass taken. Bled R after poke L. No hem. L; small hem. R. 2 small hippoboscid grubs removed from primary shafts.

**White Owlet**

14.9 g

Band#: too small to band

Notes: N in mostly white natal down, with some gray coming in on both head and scaps. Eyes remain mostly closed (outside of cavity), no egg tooth (**~9days**)

1623—ER back up. Some duff removed to restore cavity depth. Ns back in. No sign of F in site. We leave.

~2245—BH, ER, Kierstin, Connor, and Dakin arrive in the B5\_2016 nest site with the intent to capture the F on a PD. On our approach, we see a FLOW in the entrance of the cavity which then flushes to the S. We do not know if this was the tail-end of a PD or the F flushing the cavity due to our presence. We sit back to observe.

2248—M gives LCs within 10m of the nest tree. The F also gives FSC and LC from the SW. The M makes a PD to the cavity. The F is also flying around the nest site during this time.

2255-2325—BH and ER go to listen in upper B5 to try to track down the upper B5 pair. BH listens in the aspen flat near the parking spot and ER is positioned on the low slope of Grave R. and about midway up Roadcut. We do not hear or see any signs of FLOWs within this time. While we are listening in upper B5, the super vets attempt a capture of the F on a PD with no success. We leave to meet the rest of Flam Crew in B6.

## 8 July 2016

2030—RC, Candace, and Corey arrive in B5\_2016 nest site to capture F.

2033—Net over cavity. F does not come up. Tap. Same.

2043—M LCs off roost 80m W of nest

2044—Flutter PD.

2045—PD, snag, escape.

2047—PD, **bird snagged by band and captured! This is the B5\_2016 M #1833-03384.** All previous PDs silent, while M LCs 80-100m W (B4 M?). I suspect all previous PDs were made by M.

2055—M is removed from capture net and released.

2100-2124—15 PDs by M and F. I swing at F every time she vocalizes. F escapes multiple times. I also snag M (who escapes) on a silent PD. F is a bit hesitant to approach nest tree, but none of these capture attempts seem to seriously hinder PDs by either parent.

2128—**F makes a PD and is captured! This is the B5\_2016 F, a previously unbanded bird.**

**Band # 1783-74343 (on R leg)**

68.5 g LWC: 125 mm

- 15.5 g LLP(5): 101 mm

53.0 g LLP(6): 106 mm

Rect: 61 mm

**Notes:** Most contour feathers on F’s head are severely worn, missing up to half of their barbs along the whole rachis. Outer primaries also highly worn. Blood sample taken. No hematoma.

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1 | 2 |
| P6 | 2.5 | 2 |
| P7 | 2.5 | 2.5 |
| P8 | 2.5 | 2.5 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2208—F released with SHF (E) to a low potr snag perch. F ruffles and preens here for several minutes. We leave, as F continues to preen.

## 12 July 2016

~2315—DL and MC arrive at a lure net site on the SW facing slope of grave ridge ~100m away from the B5 parking spot.

2323—Start playback

Vegetation: young-mature PSME

Weather: clear, calm, 14C

X: 495931

Y: 4333641

+/- 7.7

2337—Bird comes silently into net site.

2339—Makes flight over the net and begins calling.

2340—MC changes playback to megascops.

2343—MC gives some hoots at the net as well, then changes the playback back to track 42. Another bird begins to call near the B5 parking spot.

2353—MC changes the call beck to megascops.

2354—**Capture unbanded M.**

**Band # 1783-74329 (on L leg)**

85.0 g LWC: 128 mm

- 28.5 g LLP(5): 102 mm

56.5 g LLP(6): 108 mm

Rect: 58 mm

**Notes: Feather sample taken**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molt | 3 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | .5 | Molt |
| P6 | .5 | .5 |
| P7 | .5 | .5 |
| P8 | .5 | .5 |
| P9 | 0 | 0 |
| P10 | 0 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molt | 0 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | 1 | Molt |
| P6 | 1.5 | 2 |
| P7 | 1.5 | 2 |
| P8 | 2 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2404—**A silent bird lands in the tree above us and then flies into the net. This bird is unbanded!**

**Band # 1833-03398 (on L leg)**

86.5 g LWC: 131 mm

- 28.5 g LLP(5): 96 mm

58.0 g LLP(6): 106 mm

Rect: 58 mm

**Notes: Feather sample taken.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molt | Molt |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | 1 | .5 |
| P5 | 1 | .5 |
| P6 | .5 | .5 |
| P7 | .5 | .5 |
| P8 | .5 | .5 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molt | Molt |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | .5 | .5 |
| P5 | .5 | .5 |
| P6 | 1 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2431—1st M released. Jumps to ground then SAF W.

2440—2nd M released. SAF W. Stop playback and pack up to meet flam crew.

## 19 July 2016

1546—DL, RC, and ER arrive at the B5\_2016 nest tree to band and bleed the remaining owlet.

1550—**As DL raises the peeper, she spots an owlet in an adjacent pine ~5m away from the nest tree. The peep reveals a dead owlet in the cavity.**

1556—We retrieve the owlet from the pine and take measurements.

**Owlet**

52.0 g

P#5: 76 mm

P#6: 76 mm

Rect: 38 mm

Band#: 1833-03376

1620—We place the owlet in a nearby PSME as it begins to rain. ER climbs the ladder to get the dead owlet out of the cavity. It is the runt who has not grown very much since we banded its siblings aside for some grey feathers beginning to come in on the scaps and back. The bird is very desiccated. We collect the body and bring it back to the office with us.

~1630—We leave.

# B5—2017

## 31 May 2017

2040—LD, BL, and JE begin listening for courtship vocalizations of B5 mating pair to attempt to elucidate nest location.

2045—LD hears FSC vocalizations from E, FSC vocalizations were roughly 20m away from 495843, 4333488 +/- 3m. BL corroborated the FSC designation and pursued calls further.

2055—FSC vocalizations no longer heard by LD but one call heard once from E by JE, approximately 60m W of LD.

2105—LD hears FSC vocalizations restart E roughly 20m away, LD pursues vocalizations.

2107—FSC vocalizations change direction, now heard to the NE ~15m away.

2113—FSC vocalizations stopped without LD hearing a M response.

2121—FSC vocalization heard toward S.

2131—LD hears FSC resume straight W. **NOTE**: BL pursued F from ~2110-2132; during this time, the F crossed FS347 twice as she made 10-30 m flights from the E end of the territory (vicinity of historic nests) to the nest box and former location of the B5\_2002 nest tree (now on ground), and back again. A silent 2nd FLOW was trailing her, who I presumed to be the M, apparently foraging in the vicinity.

2132—FSC vocalizations stop and BL and LD walk towards JE in an attempt to enter B4 territory and listen for courtship vocalizations.

2145—BL, LD, and JE hear TC vocalizations begin in B4 territory along Biker R at ~90m away from their position in the SE end of B5 territory, near the B5\_2016 nest.

2150—BL, LD, and JE pursue vocalizations along Biker R in an attempt to spot map the territory of B4 M.

2205—As BL, LD, and JE approach Biker R, TC vocalizations stop.

2207—TC vocalizations begin NNE of location.

2303—Started PB on S terminus of Bermuda R, net opens E/W with young PIPO as target vegetation for lure net

Vegetation: Mature pipo/psme w/ some smaller pipos flanking net

Weather: Mostly cloudy and calm, 11̊C

X: 495693

Y: 4333488

+/- 3m

2308—M approaches PB at ~20m distance upslope giving primarily TC vocalizations w/ intermittent TEC that transitioned into HEC for two vocalizations.

2313—After second HEC vocalization M flushed from PB site.

2330—M giving TC from S of PB location ~60m away, did not approach further.

2358—JE may have heard M TC from across the road, potentially up on a ridge to the S. LD did not verify.

2415—End PB and take down net.

## 5 June 2017

1511—ER peeps cavity tree B5\_1394 and MC sees the head and slit eyes of a F FLOW. **This is the B5\_2017 nest! The nest tree is located in the B5 aspen flat about 20m SE of the B5 parking spot. The tree is a potr full snag with a dbh of about 30cm. The cavity faces approximately 130deg SE and is ~33.5” high in a NOFL excavation.** The F did not come up to a tap, and held tight after peeping and throughout Flam Crew’s observation of the nest.

X: 495845

Y: 4333509

+/- 10m

1515—After everyone has seen the nest cavity, we leave.

2015—MC and ES arrive in the B5 aspen flat to peep the B5\_2017 nest. With some extra time we peep the B5\_2016 nest and tap a few trees in that vicinity—nothing found.

2030—We approach the B5\_2017 nest and get a silhouette of the nest cavity.

2043—A M gives two TCs ~100m N on Bermuda Ridge. Then moves further W and continues to TC.

2047—The F flushes after having risen to the cavity entrance for ~2 minutes. **A peep reveals one egg in the center of the cavity.**

2050—A M is giving TCs further W, approximately near Fallen Squirrel, we drive the car to the B4 parking spot to wait for KM and listen for the M.

2116—Nothing has been heard in the area, we leave to set up a lure net on Sharpshinned Ridge.

## 13 June 2017

2030—KM arrives in the B5 nest site.

2115—F has not vocalized or popped up. I tap the tree and she does not come up to the cavity entrance. **I peep and see very obvious egg shells, suggesting the B5\_2017 nest has been predated.** I do not hear neither the M or F in the vicinity of the nest.

## 4 July 2017

~2300—KM and LD start playback on the SW terminus of Bermuda Rd. Just NE of the B5 parking spot. Everything is silent until…

2338—A M starts responding from the S. He seems to call from the B5/B4 area. We throw up a lure net in a nice spot just S of where we were playing PB.

Vegetation: open, young-mature pipo/psme

Weather: calm, clear, 18C

X: 495646

Y: 4333514

+/- 5

2345—We have the net up. LD stays near the net and KM runs to the car to retrieve a pinpoint to give to ZM. LD hears the M responding from the B5/B4 area again, and he flies towards the net. LD changes the playback from Track 42 to HECs.

2350—The M hits the second shelf of net from the SW. KM runs up the ridge to help extract the bird**. He is the B5\_2016 M, and was first banded in 2016. He has returned territorially to the area although the suspected B5 nest failed and we can not confirm him at the nest.**

2357—He is extracted from the net and we begin to process him.

**Band # 1833-03384 (on R leg)**

75.0 g LWC: 130 mm

- 17.0 g LLP(5): 99 mm

58.0 g LLP(6): 110 mm

Rect: 61 mm

**Notes:**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molt | Molt |
| P2 | Molt | Molt |
| P3 | Just out of shaft | Just out of shaft |
| P4 | 2.5 | 2.5 |
| P5 | 3.0 | 3.0 |
| P6 | 2.5 | 2.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | 1.0 | 1.5 |
| P3 | -- | -- |
| P4 | 3.0 | 2 |
| P5 | 2.0 | 2.5 |
| P6 | 2.5 | 2.5 |
| P7 | 2.5 | 1.5 |
| P8 | 2.0 | 1.5 |
| P9 | 2.0 | 1.5 |
| P10 | 2.0 | 1.5 |

2425—Release M who makes a strong ascending flight to the SW.

2432—We hear response from the PB from the SW, and we think it might be the M we just released. He does not approach the net. We break down the lure net and head to Cooper’s Hawk Ridge to walk the PB around. We do not hear any responses.

# B5—2018

## 30 May 2018

1630-1700—Flam crew cherry peeps in B5, checking historic nest sites and optimal cavities. We don’t find any nests.

2330—Flam crew begins listening around old nest sites in B4 and B5.

2305—JE and KA hear TCs coming from up on Coopers Hawk R. This is possibly the B4 M. The TCs stop after ~1 minute.

2415—We don’t hear anything else in the area, so we pack up and go home.

## 5 June 2018

2036—Flam Crew spreads out around the B5 territory to listen for FLOW vocalizations.

Weather: 60% cloud cover, calm, 16.5C

2100—ON and AM hear distant TCs about 50m S of vehicles. The M quickly goes silent.

2104—JE hears M make TCs 150 E of parking spot.

2107—ES spots FLOW about 75m W of the 2017 nest tree who flies SE and out of sight. The bird is silent.

2113—M TCs 80m ESE of 2017 nest and stopped after a few hoots.

2135—Flam crew ends listening efforts and splits off to lure net/listen in B13, B12, and B10.

## 20 June 2018

1500-1700—Flam crew plus Ethan Cutler (Eliza’s special friend) peep out most of B5, hitting all standing past nest trees. Tree #1394, the B5\_2017 nest tree, is not found. We believe it has fallen. We do not find the nest. ☹

# B5—2019

## 29 May 2019

1630-1700—ES, KA, JE, and ML cherry peep near the B5 parking spot. We peep tree #19 (the B5\_2007, 2011 nest tree) and a handful of cavity trees immediately south of the B5 parking spot. We do not find any flam nests.

2045—JE, ML, and KA arrive at B5 to listen and tap trees. ML stays in the central clump near the parking spot, KA goes to SW clump, and JE heads N up Roadcut.

2054—JE hears FSCs coming from the patch of potrs with the past nest, just N of her position.

2056—F still giving FSCs, but moves S, landing ~40m S of the potr patch. M begins to give one- and four-note LCs from the potr patch, ~20m N of JE’s position.

2057—M flies S towards the F, still giving FSCs. JE walks towards them and hears some chittering vocalizations and lots of wingflaps.

2058—M moves W, ~20m up the E slope of Bermuda Ridge. F remains perched, and JE gets eyes on the bird. **It appears the F is potentially banded on the L leg!** Tree the FLOW was perched on was flagged and approximate coordinates are

X: 495737

Y: 4333491

+/- 3m

2059—F flushes in the direction of the M. Plane flies overhead, and when I can hear again, it is silent.

2100-2200—ML joins JE and we walk up and down Roadcut Cr. KA follows in the direction that FLOWs flushed, heading up Bermuda ridge. It is silent on the ridge for the next hour. KA descends to listen near B5 parking spot.

2219—KA hears F FLOW giving FSCs 150 m SW of her position near the parking spot. KA follows and sees F FLOW perched and giving FSCs in live pipo, dbh 57.0 cm. F appears unbanded, but unsure given JE’s earlier observation. **KA hangs songpost B5\_1.**

X: 0495756

Y: 4333461

+/- 3m

2225—JE and ML join KA and spot both M and F FLOWs perched next to one another. F begs and M gives LCs. M makes a PD. **KA hangs songpost B5\_2 in live pipo, dbh 25.0 cm.**

X: 495743

Y: 4333457

+/-3m

M flushes N up Bermuda ridge. F remains giving FSCs for around 10 mins, then returns to songpost B5\_1.

2225-2245—KA, JE, and ML follow F as she gives FSCs for 20 mins. She bounces around area NW of road, once crossing to the S side. We mark 4 more songposts. She seems to still have good mobility and is moving around quickly.

**B5\_3 is a live pipo, dbh 26.5 cm.**

X: 495766

Y: 4333478

+/-11

**B5\_4 is a live pipo, dhh 47.0 cm**.

X: 495749

Y: 4333480

+/-3m

**B5\_5 is a live pipo, dbh 42.5 cm**.

X: 495737

Y: 4333491

+/-3m

**B5\_6 is a dead potr, 24.0.**

X: 495792

Y: 4333470

+/-3m

2245—F heads N up Bermuda ridge. We leave and head towards the vehicles to meet the crew.

## 30 May 2019

1437—SL, ES, KA, and ON arrive in B5 territory to cherry peep known cavities. ES and SL worked N of the B5 parking spot, cherry peeping marked cavity trees, including the 2013 historic nest tree (#729) and 2017 historic nest tree (**note:** not located, ES suspects that it has fallen). No nests were found.

1500—ES and then moved through the aspen flat on the south side of FS 347 rd. to locate new cavity trees. No new cavities were found.

1600—ES and SL leave B5 territory and head towards the B12 territory. No nests were found.

## 10 June 2019

1645—KC, KA, and JE head into B5 to cherry peep in search of a nest.

1658—**Tree #1735 is peeped and a F FLOW is seen taking up the entirety of the monitor! This is the B5\_2019 nest! The cavity is a large sapsucker-sized cavity and ~22ft high, facing S. It is just below a knot and is a bit of a squeeze for the peeper. The tree is a full snag potr ~30m E of the B5 parking spot, in the center of that aspen flat. The tree has orange and white flagging.**

X: 495863

Y: 4333512

+/- 3m

~1710—The rest of the Flamily heads over to scope out the nest and we all leave. F never popped up to the entrance.

2028—ES, AM and SL arrive in B5 territory to peep the B5\_2019 nest cavity.

2030—F FLOW is up at the cavity entrance when we arrive.

2032—F FLOW goes down from the cavity entrance.

2033—We hear M TCs (calling off roost?) 150 m W of the nest site.

2037—F FLOW is back up at the cavity entrance.

2038—W hear M LCs ~ 25 m W of the nest site.

2041—We hear M LCs ~ 25m NW of the nest site.

2043—M TCs ~100 m W.

2047—F goes back down. TCs ~150 m W.

2048—M FLOW approaches nest site from the W and perches ~ 5 m from the cavity on a young potr. He is pray laden with larvae. He flies to the cavity entrance for a PD.

2051—M FLOW flushes from cavity and perches in the same young potr giving LCs. The F flushes to join him and they both flush to the W.

2058—**ES peeps the B5\_2019 cavity and finds 3 eggs centered and touching**. It takes several minutes to peep the nest because cavity entrance is small and the peeper head barely fits.

2105—We leave the B5\_2019 territory to lure net in the B12 territory.

2135—ES, AM, and SL start PB (T42) at our lure net on the saddle N of Bear Torn Cr. We hope to draw in the B4 M and/or B12 M to get an idea of their identities. The lure net is located in the center of the saddle between Biker R and Turkey R and open E/W. As we are setting up the net, we hear TCs ~200 m N.

Vegetation: Dense, mixed age conifer/potr

Weather: Clear, gentle breeze, 11C

X: 495575

Y: 4333167

+/- 3m

2201—AM hears M TCs 100m NE of the net, possibly from the B5 territory.

2217-2225—M FLOW comes in hot from the NE, giving TCs, TECs, and HECs 20-50m NE of the net.

2227—AM changes PB to Psiloscops, M goes silent.

2242—PB is changed back to T42.

2251—AM hears a few distant TCs 100m W of the net.

2302-2315—M FLOW originating from the NE is back giving TCs 70-90m N of the net consistently. Exact location was hard to hear due to mysterious siren blaring.

2315—PB is switched to Megascops. M is still calling 70m N of the net.

2326—ES walks PB N towards M FLOW.

2331—ES returns with the PB to the net site. M FLOW does not come any closer, but continues calling. PB is switched back to T42.

2336—M goes silent.

2340—We cut PB, break down the net, and leave the B12/B5 saddle.

*(The following notes are from a second group luring in the B5 territory)*

2137—After peeping the B13\_2019 nest, KC, KA and JE set up a lure net between B13 and B5. We begin PB of T42. The net is set up on the low slope of Bermuda, ~15m W of the center of the Roadcut saddle between B13/B5. The net is open N/S along the washed out bike trail on Bermuda.

Vegetation: mixed age psme

Weather: 12 C, Tree tops blowing, 0% clouds,

X: 495848

Y: 4333944

+/- 3m

2141— TCs N 100m in the direction of the B13 nest. Lasted less than 30 seconds and then went quite.

2213—TC N 100m. Then fell quite again.

2223—Nothing is heard near the net site. KA walks PB N into B13 territory trying to draw in the B13 M.

2224—TCs NW 75m. Called three times and went quite.

2232—PB returned.

2244—Nothing has been heard near or far from the net site. KC walks PB S towards B5 territory in order to draw in the B5 M.

2246—KC hears TCs 100m S in the direction of the B5\_2019 nest. KC continues to walk PB toward TCs but nothing is heard again. M would not follow KC. KC was sad but quickly got over it.

2250—PB returned.

2307—PB is stopped. We breakdown.

2315—KA and KC head down Roadcut to travel to B4 while JE attempts to walk the ridgetops to B4.

## 18 June 2019

2030—KA, ML and JE arrive at B5\_2019 nest to attempt a F capture and peep. It is drizzling so we stake out a conifer to sit under and wait for the rain to pass.

Weather: 11 C, 100% cloud cover, raining

2035—KA sneaks to a spot behind to cavity to wait out the rain to approach.

2045—It’s been raining for 15 mins so we cancel the capture attempt and decide to watch just to peep.

2054—M LC’s ~30 m N of nest site.

2055—F FSC’s from within cavity, responding to M.

2056—F flushes. **Peep shows 3 eggs, centered and touching. No pipping visible.**

2105—After JE tries to send BL an email to get in contact, but it is unsuccessful. We leave and head for BG5.

## 20 June 2019

2029—KA, ML and JE arrive at B5\_2019 to attempt a F capture and peep. F is down on arrival.

2036—F pops up.

2037—F goes down.

2038—KA begins an approach that is oh so sneaky.

2042—Net is raised and placed over the cavity.

2043—F flushes into the net! However, a very large hole in the net allows the F to escape from the net. She perches in an adjacent, young potr that is directly in front of the nest cavity. She remains in the site.

2046—**We get a very quick peep and see 3 eggs. It was very quick and no obvious pips were seen.**

2050—We head back to the car, fix the large hole in the net and head for BG5.

## 24 June 2019

2202—ON, KA, and KC arrive at the B5\_2019 nest site to observe nest activity and attempt a M capture. F is down upon arrival and all is quiet.

Weather: clear, calm, 10 C

2204—ON sees a FLOW flush W away from the cavity – it looks like the M made a PD but we missed him entering the cavity.

2205—We hear a M giving constant very distant TCs ~200 m N of the nest tree in the direction of D13 (possible D13\_2019 M?). This M calls on and off for ~20 mins, never coming closer to the nest than 100m.

2213—M gives TCs ~20 m NW of nest.

2223—M makes a PD and we hear the M and F giving LCs/chittering in the cavity.

2225—The M TCs move a bit closer but are still pretty distant ~100 m NW of the nest site. We hear a second M FLOW giving consistent TCs ~100-150 m SW of the nest. This M called almost continuously for most of the night, but never approached the nest.

2234—M comes into the site and gives a silent PD.

2238—KA begins to creep into capture position.

2240—F comes up to the cavity. KA holds tight until she goes down shortly after.

2249—KA is in capture position and starts to raise the net.

2259-2334—M aborted two PDs (see PD sheet for more details). In addition, M would come into the nest site and give HECs at the capture net, but he never approached the cavity as he was super wary of the net. KA moved capture pole ~15 ft away from the cavity to give M space to give PD. After moving the pole farther away, M would abort PDs but never enter the cavity.

2350—We head out for the night after failing to snag the B5\_2019 M. We’ll be back!

## 27 June 2019

2119—KC, ML and JE arrive at B5\_2019 nest to observe PDs and attempt a M capture. Upon arrival F is down.

Weather: Clear, Leaves blowing, 20 C

2121-2149—M gives seven PDs on cavity.

2141—M comes into the site and gives HECs at us ~5m N. He continues off and on for about 5 minutes.

2149—TC’s heard ~30 m W of nest.

2150—JE gears up to begin approach for M capture.

2155—TEC’s are heard ~20 m NE of the nest.

2203—JE has capture net in position.

2208—Two M’s are heard making TECs and TCs ~100m SW. This seems to be a territorial encounter potentially between B5 and B12.

2212—Presumed B5 M moves closer, making TCs ~ 60 m N of nest.

2219—TCs farther, ~100 m N of nest.

2228—M gives LCs and HECs at the net while in the nest site, perched ~5m W of the nest.

2238—JE looks down and scratches her head as the mosquitos had attacked me. The pole taps the tree, but unbeknownst to JE. I hear wingflaps, look up and see a bird flush to the N. We were unsure if it was a M fly by or a F flush. M HECs are immediately heard from ~20m N (the direction the bird flushed), so we decide to wait a couple minutes.

2241—M returns to the site, still making HECs intermittently at the net. He is perched in the potr directly in front of the nest, a tree he has been using as an approach perch. However, we see 2 FLOWs flush from the tree, one enters the cavity and the other continues E. We realize our mistake that we had indeed flushed the F so we leave. We head to B4 for some listening and tapping time.

## 01 July 2019

2124—BL, KA, and SL arrive at B5\_2019 nest to attempt M capture. Upon arrival all is quiet and F is down.

Weather: 40% cc, calm, 12 C, lightning in the distance

2123—We hear M TCs ~150 m W of nest.

2227—M TCs ~50m W of nest.

2229—M enters nest site, perches in adjacent young potr. F gives FSC on cavity and male gives PD at cavity entrance. M flushes to the S.

2231—M reenters site and hovers by cavity entrance—it is unclear if PD is completed.

2232—M gives PD at cavity entrance and flushes to the E.

2234-2245—Five PDs are made at the cavity entrance during this time. (See PD sheet for details). **NOTE: All PDs by M were made quickly at the entrance, and since F did not ever appear to be at the entrance for receiving PDs, the cavity depth may be quite shallow**.

2147—We hear 2 TCs ~ 75m SW of nest.

2155-2159—M gives three PDs at cavity entrance during this time period. See PD sheet for details. (**note: because of the high number of PDs during this short window we believe that there are nestlings in the cavity.)** The M delivers prey and leaves the cavity very quickly, so we presume the cavity is very shallow.

2201—BL begins his approach to the nest tree to attempt a M nest capture (**net height: 21’ 6”**).

2203—We hear TCs ~ 30m NE. BL begins raising the capture pole.

2204—Capture net is at cavity height.

2213—M is still off singing with the boys.

2215—M reenters nest site and gives PD at cavity entrance; he flushes to the NW. Because the M was very wary of the net during the last capture attempt and he does not linger in the cavity, the plan is to give him a few freebies while slowly moving the net closer to the cavity.

2218—M reenters nest site, but does not give a PD.

2220—TCs ~75m SW.

2231—TCs~ 30m SW.

2235—TCs ~ 45m SW.

2244—BL gives some hoots to try to lure the M back into the nest site. M continues to vocalize but does not seem to be getting closer.

2247—KA switches with BL at capture pole.

2306—BL gives some hoots again, M responds with TCs ~ 75m W.

~2309—KA sees something fly from the W to the E on the N side of the nest tree. She assumes it was a bat, but then a FLOW silently returns from the E to a psme perch just NW of the nest (out of sight of BL and SL). **The M off to the SW is still calling, who we had been assuming was the B5 M. It is difficult to determine the identity of the bird in the nest site. However, it is clear that there is a third FLOW in the B5 territory. It is possible that this is a helper M.**

2312—The silent FLOW flushes from the psme perch and hovers by cavity entrance and then flushes to the NE.

2318—We hear HECs ~ 25m NE of nest tree. The M off to the SW has gone silent. KA hears 2 FSCs on cavity.

2321—M reenters nest site, perches in adjacent psme behind young potr.

2325—M flies by the cavity and flushes to the E.

2327—M reenters nest site, hovers by cavity entrance but does not give PD.

2328—HECs ~ 15m W, he hovers by cavity entrance again but does not give PD.

2330—M gives PD at cavity entrance, followed by HECs in nest site. F begs on cavity. KA moves the net slightly closer to the cavity.

2332—M enters nest site and hovers by cavity entrance by does not give PD.

2333—Because of the number of aborted PDs and the time that we have had the net at the nest we decide to take down the capture pole and leave B5 territory.

## 09 July 2019

2033—ES, KA, SL and Lacey Allor arrive at B5\_2019 nest with the intent of attempting a F (or M if we miss) nest capture. Upon arrival F is up at the cavity entrance and all is quiet.

Weather: 0% cc, calm, 15 C

2039—We position ourselves out of sight from the F ~25m from the nest tree and wait for the F to go down. Unknown M gives silent PD. F pops down for ~5s and then pops right back up to the cavity entrance. **(*NOTE: The last time we were in B5 territory we observed evidence of helper behavior, see field notes for 7/1/19. It becomes evident later on during the night of 09 July 2019 that there are indeed three FLOWs in the site. Therefore, we will refer to the M FLOWs giving PDs as “unknown M” unless their identity is clear, territorial or helper M, based on behavior and/or vocalizations.)***

2043—F is down; KA begins approach for F nest capture.

2044—F pops back up to cavity entrance, but it is within the normal time for F flush so KA continues her approach.

2046—Unknown M silently enters nest site.

2048—F gives loud FSC on cavity.

2049—Unknown M PD. F goes down.

2050—KA begins raising capture net.

2054—F flushes, but net is not at height yet so we do not capture her.

2056—**We peep the nest and find three nestlings. Two nestlings are in 90% grey plumage, and runt appears to be in less than 50% grey plumage. No facial discs seen on eldest owlets. They are sleepy and not moving around. BL estimates their age to be ~ 13 days.**

2101—We back off ~ 25m to let the F come back on cavity. Because of the age status of the nestlings, we decide to not go for the F again and instead attempt a M capture.

2103-2130—There are 17 unknown PDs during this time period (see PD sheet for details). At one point, the F vocalizes and delivers a PD, only staying in the cavity for ~3 seconds. This confirms that F does not feel pressure to spend time on cavity and the nestlings are sufficiently homoeothermic to go into capture position while she is still off cavity.

2132—ES approaches nest tree and begins raising capture net.

2134—Net is at capture height.

2135—Unknown PD.

2141—Two FLOWs enter the nest site and fly past the cavity. We hear FSCs off cavity.

2142—Unknown aborted PD.

2143—Unknown PD.

2144—F PD. Unknown M flyby.

2145—Unknown PD. We hear FSCs off cavity.

2146—Unknown PD.

2147—FSCs off cavity.

2148—F PD followed by unknown M PD (this M had been perching ontop of capture pole for ~2 minutes before giving PD). ES attempts M capture, he flies out of a massive hole in the bag.

2150—ES takes down the net and walks ~25 m away to repair the massive holes in the capture bag.

2151-2157—Two unknown PDs.

2159—F PD, she stays on cavity.

2201—FSCs on cavity. Unknown M PD.

2202—Territorial M enters site giving TCs ~ 25m N.

2207—FSCs off cavity.

2208—ES begins approach to attempt M capture again.

2210—Territorial M giving TCs ~ 30m N. ES has capture net to height.

2214—**ES has eyes on three FLOWs in the nest site.**

2218—ES hears F FSCs behind her and sees unknown M PD. Simultaneously, a M is making TCs ~40 m N of nest site. **As unknown M is leaving cavity, ES gets him in the capture bag!** **He is the presumed B5 helper M. He is previously banded (#1833-03383 L) and was originally captured and banded at a lure net in B5 on 6/1/16.** We confirm that he does not have an incubation patch. Field notes from 6/1/16 confirm his sex because he made M vocalizations.

2220—**As we are taking the unknown M out of the capture net we hear the territorial M giving HECs and the F giving loud LCs in the nest site. Therefore, we can presume that this is the B5 helper M and not the territorial M.**

**Band # 1833-03383 (on L leg)**

62.5 g LWC: 133 mm

- 15.5 g LLP(5): 101 mm

47.0 g LLP(6): 109 mm

Rect: 65 mm

**Notes: There is evidence of head-lice as shown by fraying head feathers. Bled L but insufficient blood so bled R. Small hematoma R, tiny hematoma L. B5\_2016 floater M.**

**Blacklight data: (note: L wing appears to be significantly brighter than R.)**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 3 | 3 |
| P3 | 0.5 | 0.5 |
| P4 | 3 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 2.5 | 2.5 |
| P7 | 2.5 | 3 |
| P8 | 2.5 | 3 |
| P9 | 2.5 | 2.5 |
| P10 | 2 | 2.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 3 | 3 |

2303—We release B5 helper M; he has SH then AF. We leave B5 territory.

## 11 July 2019

2010—ML and ES arrive at B5 to attempt F nest capture, attempt M nest capture, to record FLOW vocalizations, and to observe nesting behavior, especially paying notice to the presence of a third bird in the site because a “helper” bird has been observed previous nights—and possibly captured on 7/9/19.

Weather: 15 C, 40 % cloud cover, calm

2033—ML approaches viewing spot to observe nest and spot ES on the F nest capture attempt. F is up in cavity but not looking at ML or ES. Based on her being in the entrance on 7/9, and the shallow cavity depth, we think she is roosting in the cavity entrance.

2038—M LCs ~30 m S of nest.

2040—PD by unknown M.

2041—ES approaches nest for F nest capture attempt.

2043—PD by unknown M.

2044—Unknown M is chased into nest site by a robin. The M stays silent while the robin calls at the M for ~ 3 minutes before leaving.

2048—ES gets capture pole to cavity height from behind the tree, then swings the net around the cover the cavity entrance. **The F flushes into the net! This is the B5\_2019 F! She is an un-banded F, so we give her the band 1833-32623. Unknown M silently watches us extract the F from the bag from ~5 m away on an adjacent potr.**

**Band # 1833-32623 (on R leg)**

81.0 g

- 18.0 g

63.0 g

**Notes: Previously unbanded. Still need blood from her.**

2050—**We peep the nest and see 3 nestlings, piled on top of each other. We have to move the camera around to view them all, as one nestling takes up the entire screen. They are not looking up at the camera and have their eyes closed. They do not have facial disks and are approximately 90% gray. Based on estimated age from 7/9, the nestlings are ~15 days old.**

2055—We release the F. SAF to a perch.

2057—M LC’s are heard ~40 m S of the nest.

2059—2104—There are four unknown PDs given during this time period. (See PD sheet for B5\_2019 July 11 2019 for details).

2105—Unknown PD. SL and KA join ES and ML at the observation site.

2111—F PD with LCs. (*Note:* *All PDs labeled as F from this point on are accompanied by F LCs*).

2116—Unknown PD. Silent bird goes from potr snag to young potr to cavity.

2117-2125—We see 5 Unknown PDs and one F PD during this time period. (See PD sheet for details).

2129—ES begins approach for M capture.

2131—Capture net is at height.

2133—Loud nestling begging.

2134—Unknown M PD, F LCs ~ 15m W of the nest followed by an unknown PD.

2137—F FSCs ~ 20m W.

2139—F LCs ~ 5m W.

2141—ES backs net away to encourage PDs.

2143—M giving TCs ~ 15m W. F perches on adjacent young potr.

2144—F PD.

2146—M gives loud scold ~ 15m W.

2148—ES leans net farther away from the cavity and lowers the net halfway.

2151—F is in potr snag giving loud LCs, ES moves net away even more.

2152—F PD.

2156—F PD. A second FLOW enters the site, ES raises the net up.

2202—ES brings down the net and leaves capture position to encourage PDs.

2204—F enters nest site giving LCs.

2205—F PD.

2207-2213—We see four unknown PDs during this time period as well as one F and one territorial M PD.

2214—ES gets back into capture position but keeps net all the way down, hoping to get birds used to her presence at base of tree.

2215—Two rapid fire Unknown PDs from two separate birds.

2218—M TCs ~ 20m W.

2219—M PD. He perched on potr snag, then young potr and then entered the cavity. ES raises net halfway.

2224—M TC ~ 25m W.

2228—ES raises net to full height but keeps it leaned ~2 m from cavity entrance. There is a FLOW in the young potr.

2230-2235—Two unknown PDs. ES moves net within a foot of cavity entrance.

2238—Presumed territorial M is perched on cavity for PD, KA turns on a spot, ES swings but he flushes before net is over cavity.

2240—F is giving LCs from adjacent young potr. Territorial M is giving low scolds from ~ 10m W.

2243—F LCs ~ 25m NW.

2245—M PD.

2249—F LCs ~ 15m NW.

2250—There are two FLOWs in the site bouncing between the potr snag and adjacent young potr. F is giving LCs.

2254—Two birds are still in the site, nestlings are begging loudly.

2259—M perches on cavity entrance to give PD, ES swings and he does not end up in the bag.

2301—ES takes down capture net for the night.

2303—2348—12 unknown PDs and two F PDs during this time period.

2349—There are two birds in the site, F is giving loud/aggressive LCs followed by a F PD.

2350-2351—There are four Unknown PDs during this time period.

2352—M TCs ~40m SW. F LCs ~ 15m W.

2353—Unknown PD, M is still giving TCs to the SW. (**note: it seems likely that this is helper M although it is not completely clear). We have never definitively observed 3 birds in the site tonight, but it still appears that the helper is giving PDs based on M TCs happening simultaneously with silent PDs.**

2354-2358—Four Unknown PDs during this time period.

2359—M TCs ~ 25m N.

2400—We leave B5 territory. No birds have fully entered cavity for a PD tonight, likely due to shallow depth and nestlings taking up space.

## 12 July 2019

2031—KA, ES, ML, KC, SL and Jamie Smith arrive at B5\_2019 nest to attempt to capture the territorial M. We have already observed and captured the presumed helper M. Therefore, PDs made by a M, when it is it unclear whether it is the territorial or helper M will be referred to as Unknown M. Upon arrival F is down.

Weather: Clear, slight breeze, 19 C

2033—F pops up at cavity entrance.

2043—M calls off roost giving TCs ~ 45m NE.

2044—Unknown M PD. We get eyes on him and can see that he is banded left.

2048—Unknown M PD. F flush.

2051—Unknown M PD; we hear F vocalizing ~ 5m W.

2053-2059—Three unknown PDs during this time period.

2101-2103—Two F PDs (with F LCs) during this time period.

2104—ES begins approach with capture net for M capture. She waits at base of tree without extending capture pole to allow FLOWs to get used to her presence.

2107—Unknown M PD. **(note: We notice that the Unknown PDs are being made from the young potr and he is consistently flushing to the SE.)**

2108—F is giving LCs ~ 15m W.

2110—F LCs then F PD from W **(note: We notice that the F PDs are being made from the potr snag, then young potr, and she is flushing to the NW**.**)**

2113—ES raises capture pole to half height. F PD.

2115—Unknown FLOW perched in young potr, another FLOW enters the nest site and flies directly at the first FLOW chasing it out of the potr. This is a possible tail-chase.

2116—2119—Three Unknown PDs.

2120—M TCs ~ 150m N. This may be the B13 M.

2122-2126—Three Unknown PDs.

2127—ES takes down net to reposition it and then raises net to full cavity height.

2128—Unknown PD.

2131—Loud M scolds ~ 20m NW.

2132-2142—M TCs ~ 45m W followed by six unknown PDs during this time period.

2144—Silent PD, ES decides to swing. **ES gets a FLOW in the bag. It is the presumed Helper M.**

**Band # 1833-03383 (on L leg)**

66.5 g LWC: XXX mm

- 17.0 g LLP(5): XX mm

49.5 g LLP(6): XXX mm

Rect: XX mm

**Notes: We decide to keep the helper M in a bag for 30 minutes while attempting to capture the breeding M.**

2149—ES gets back in capture position to attempt to capture the territorial M. We keep the Helper M in hand.

2150—F gives LCs from potr snag. F PD.

2153—F LCs ~25m NW.

2155—F PD. **ES has bag ~ 1ft away from the cavity and does not swing, but FLOW flushes into the bag anyway. It is the B5\_2019 F.**

**Band # 1833-32632 (on R leg)**

77.5 g LWC: XXX mm

- 12.5 g LLP(5): XX mm

65.0 g

Notes: **We decide to keep the F in hand for 15 minutes while attempting to capture the M.** We do not bleed the F despite needing a blood sample because we have already caught 2 of the 3 adult birds at the nest tonight and hope to capture a 3rd. We decide to reduce our impact by waiting to get F blood.

~2157—ES returns to capture position. We have the B5\_2019 F and B5\_2019 presumed helper M in hand, so if a bird gives a PD or vocalizes in the site it must be the B5\_2019 breeding M. Unfortunately, the nest site is completely quiet. SL, ML, and KC leave to set up a lure net in B4. KA and Jamie Smith remain with ES in the nest site.

2213—Release B5\_2019 F. SHF to the S.

2217—Release B5\_2019 presumed helper M. SHF to the S. Immediately upon releasing the M, we hear F LCs and M 3 note, hoarse calls that we call LCs from ~15 m S of us (~25 m S of the nest). We are unsure how to interpret these vocalizations, as it appears this is the helper M vocalizing with the F, which is unprecedented helper M behavior. It is possible however that the territorial M is also in that area and is the one we hear vocalizing.

2220—ES lowers the net. We continue to observe the nest, hoping to confirm the presence of the B5\_2019 M.

2324—F LCs from the potr snag by the nest. F aborts PD then gives PD.

2228-2232—2 Unknown PDs (F behavior from the potr snag).

2235—We leave to join the crew luring in B4.

## 15 July 2019

1631—Flam crew, Steve Alton, and Lacey Allor arrive at the B5\_2019 nest site to process owlets and bleed the F. F is down upon arrival.

1633—ON approaches and gets to the base of the tree. F stays down.

1638—ON has net in position. **KC peeps, we see that the F is on cavity with the owlets.**

1648—The ladder is in position. BL climbs, ON keeps net covering cavity.

1649—BL reaches cavity height.

**B5\_2019 nest cavity entrance dimensions:**

**Horizontal x vertical: 45 x 45 mm**

**Entrance thickness: 55 mm**

**Vertical depth: 130 mm**

**DOH: 20.5 cm**

**Cavity Height: 21’10.5”**

1651—BL begins enlarging cavity.

1713—**BL extracts the B5\_2019 F and the B5\_2019 nestlings.** We lower them in a capture bag and begin processing.

**B5\_2019 F**

**Band # 1833-32623 (on R leg)**

79.0 g LWC: 129 mm

- 21.5 g LLP(5): 102 mm

57.5 g LLP(6): 112 mm

Rect: 62 mm

**Notes: Bled L wing, moderate hematoma. Candidate for genetic marker. Fecal sample collected. Pin feathers coming in on incubation patch. F seemingly lost 8 g in 3 days. We think this could be due to researcher error but will need to confirm.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 1.0 |
| P4 | 2.0 | 2.5 |
| P5 | 1.0 | 1.5 |
| P6 | 1.5 | 2.0 |
| P7 | 2.0 | 2.0 |
| P8 | 2.0 | 2.0 |
| P9 | 2.0 | 2.0 |
| P10 | 2.0 | 2.5 |

**Eldest Owlet**

59.2 g

P#5: 44 mm (22 in shaft)

P#6: 43 mm (24 in shaft)

Rect: 14 mm (8 in shaft)

Band#: **1833-32646 (L)**

Notes: Bled L, small/med hematoma, enough blood for a genetic marker

**Middle Owlet**

58.3 g

P#5: 41 mm (21 in shaft)

P#6: 41 mm (21 in shaft)

Rect: 15 mm (9 in shaft)

Band#: **1833-32648 (L)**

Notes: Bled L, small hematoma, enough blood for a genetic marker

**Runt Owlet**

47.1 g

P#5: 31 mm (19 in shaft)

P#6: 31 mm (19 in shaft)

Rect: 10 mm (8 in shaft)

Band#: **1833-32647 (L)**

Notes: Bled L, med hematoma

1752—BL puts the owlets back in the cavity and comes down the ladder.

1758—Lacey releases the F and she makes a strong horizontal then ascending flight W.

1759—We head out for the afternoon.

2110—KA, ES and SL arrive at B5\_2019 nest with the intent of capturing the territorial M. It has been previously observed: visually, through vocalizations and through captures, that there are three birds at this site, including a Helper M. We determine the identity of the three different FLOWs based on their vocalizations or lack of vocalizations paired with the vocalizations of other FLOWs in the site. Unknown PDs that are known to not be the F are referred to as unknown M PDs. Any PDs labeled “F PD” are accompanied by F LCs. PDs labeled “Territorial M PD” are accompanied by M vocalizations.

Weather: 60% cc, 14 C, calm

2111—We hear F LCs in site followed by two unknown PDs.

2112—One unknown aborted PD, followed by two unknown PDs. We can see two FLOWs in the adjacent young potr. There is loud, raspy nestling begging that persists throughout the night.

2115—F tail chases Unknown M out of the nest site. Unknown PD.

2116—F PD.

2117—F LCs ~ 20m NW. Unknown M PD.

2120—F LCs ~ 25m N.

2121—F PD. Territorial M PD.

2122—Unknown aborted PD. F giving LCs ~ 30m NW.

2123—Two unknown PDs. ES approaches for capture but does not raise the net.

2124—Four F scolds.

2125—F LCs in the nest site. Presumed M scold.

2127—F scold.

2128—F giving LCs ~ 25m NW. Territorial M giving TCs and HECs ~ 30m E.

2129—**ES has eyes on three FLOWs in the nest site. One FLOW is giving F LCs and is presumed to be the F. One FLOW is giving M TCs and is presumed to be the territorial M, and the third bird is silent and is presumed to be the Helper M.**

2131—F aborted PD. Silent bird flushes to the E.

2132—F is giving LCs in the nest site. M is giving HECs ~ 35m E as he approaches the nest site.

2133—F aborted PD. F scold.

2136—Territorial M HECs ~ 35m E. F is giving LCs in the nest site.

2137—We hear really short high pitched TCs followed by HECS ~ 30m E.

2138—F aborted PD. F PD.

2141—F scold.

2142—F scold. ES lays capture pole on ground and sits down at base of tree to encourage PDs.

2145—After 3 more F scolds and no PDs, ES moves farther away and gets out of capture position.

2147—F LCs ~ 30m NW. M HECs ~ 25m E.

2148—F aborted PD. F PD.

2150—Unknown PD.

2151—We get eyes on two FLOWs in the nest site. The F is giving LCs from the potr snag. Unknown M PD.

2155—Unknown aborted PD.

2156—Unknown PD.

2158—F giving LCs in nest site from potr snag.

2159—F aborted PD. M giving TCs in nest site.

2200—**ES gets eyes on all three FLOWs in the nest site.** Unknown PD. There is a tail-chase that results in two birds hitting each other and crashing around in the young potr.

2201—F and territorial M vocalize a few seconds after the tail chase from the direction that the birds flushed. Territorial M PD.

2202—We hear single-note HECs ~ 25m E. There is a tail-chase in the nest site between the F and an unknown M. Following the tail-chase we hear M TCs ~ 15m W.

2203—F scold. ES gets back into capture position but doesn’t raise net.

2204—F scold.

2206—F giving LCs ~ 25m NW.

2208—There is another tail-chase in the nest site between the F and an unknown M.

2209—ES raises the capture net part way.

2213—F LCs ~ 30m NW. M TCs ~ 30m E. F enters nest site giving LCs.

2217—F scold.

2218—F scold. ES backs off again and gets out of capture position.

2221—F giving LCs ~ 25m NW. Silent M enters nest site.

2222—Unknown M PD.

2223—F PD. Territorial M giving TCs ~ 45m SE.

2224—Unknown silent PD.

2225—F PD.

2226—F LCs ~ 20m NW.

2228—Unknown M PD followed by HECs ~ 50m E.

2229—ES gets back into capture position.

2230—Unknown M PD. This unknown M flushes to the E. A second Unknown M enters nest site from the W and F chases this unknown M out of the nest site.

2231—F LCs and M TCs ~ 30m E. ES fully extends capture pole but holds it ~2 m away from cavity.

2232-2235—Four F scolds from ~ 20m, two from the N and then two from the E, during this time period.

2238—M TCs ~ 150m E.

2242—F LCs ~20m W.

2248—Tail-chase between unknown FLOWs. We get eyes on the F in the nest site prey laden with a moth, and confirm that she is banded on the right leg.

2249—U M PD.

2250—F PD.

2252—U PD.

2253—F aborted PD. Unknown aborted PD.

2255—We hear really short high pitched TCs ~ 30m E.

2256—M TCs ~ 25m E.

2257—Unknown PD.

2300—ES brings down capture pole and we leave B5 territory to go lure net on Sharp-shinned Hawk Ridge. The FLOWs were much more hesitant to give PDs tonight, possibly due to the increasing age of nestlings.

## 18 July 2019

2039—ES, KA, and Ethan Cutler arrive at the B5\_2019 nest to attempt to capture the territorial M. We have previously captured the presumed helper M (#1833-03383) but need to capture the territorial M to confirm the presence of two M FLOWs giving PDs at the nest.

Weather: clear, calm, 16.5 C

2040—M gives LCs ~ 40 SE of nest, then F vocalizes off cavity ~20 m NE of the nest. The F could have flushed before we arrived, but it is more likely that she was roosting off cavity due to the age of the nestlings, warm ambient temperatures, and shallow cavity depth.

2043—**We peep the nest and see 3 nestlings, all gray. They appear sleepy and don’t move around much. The eldest has a pronounced facial disk.** F continues to give LCs and flies across the nest site to the W.

2047-2103—Nestlings receive 9 PDs. Three PDs are confirmed territorial M PDs with LCs given, one PD is a confirmed F PD with F LCs, and five PDs are unknown, silent PDs. **One nestling pops up to the cavity entrance three times. Twice only the top of its head appears and then immediately descends back into the cavity. Once the nestling stays up for ~30 seconds, but never sticks a head or wing out of the entrance. We hear loud, raspy nestling begging throughout the night.**

2105—ES begins approach.

2108—ES has net to height. Hoarse M LCs heard in the site.

2111—Unknown PD from a bird banded on the L. Nestlings give raspy begs, then F gives LCs in the site.

2113—Two birds are perched in the young potr adjacent to the nest tree.

2113—**Territorial M gives LCs and makes a PD. ES swings and gets the bird in the bag, but he escapes through a hole in the net.** ES lowers net and steps away ~30 m to make repairs.

2114—F gives loud LCs and M gives HECs after the failed capture.

2115-2118—Nestlings receive 6 rapid fire PDs while ES is away from the tree. Two confirmed F PDs, two unknown M PDs, and two unknown PDs.

2119—ES gets back into capture position. F gives loud LC or soft SC. PD rates slow way down.

2126—Territorial M PD, nearby F LCs.

2138—BL joins after fledge watching B2.

2132—ES swaps out the capture net for one in better condition. It has been quiet around the nest.

2134—F LCs ~15 m N.

2135—Silent bird perches in young potr and stays for several minutes.

2138—BL leaves to join JE at the B5 parking spot to attach a Pinpoint GPS.

2153—Bird that was perched in young potr flies to an adjacent conifer, gives M LCs and aborts a PD.

2156—Unknown aborted PD. Then F LCs.

2157—M gives quiet LCs in adjacent conifer, then gives a PD. **ES swings and captures a M FLOW, previously banded on the L. Band # 1833-03383. This is the presumed helper M that ES first captured on July 9th, 2019.** We put the M in a bag and hold onto him while ES tries to capture the second M FLOW.

**Band # 1833-03383 (on L leg)**

67.0 g

- 15.5 g

51.5 g

**Notes: No other measurements taken, already processed on July 9th, 2019.**

~2200—ES gets the net back into position. F gives LCs relatively consistently in the site for the next ~40 minutes.

2213-2219—F continues giving LCs and aborts two PDs.

2223-2226—F gives 3 PDs and an unknown bird gives a silent PD. Then PDs stop for ~10 minutes. BL returns to the nest site.

2237-2245—F gives two PDs with LCs and aborts one PD. Nestlings give loud, raspy begs.

2252—**We release the presumed helper M, band #1833-03383. SHF SW.** ES lowers the net and we observe for a few minutes.

2255—We hear M TCs ~20 m SW of the nest. This is the same direction that the presumed helper M flushed when we released him 3 minutes ago.

2259—F LCs in the site.

2300—F PD. We have been in the nest site for a while, so we pack up and leave. While debriefing at the cars, we discuss the possible identity of the presumed helper M (#1833-03383). Tonight we never definitively witnessed three birds in the nest site. While we are still confident that there is a third FLOW at this nest, we are beginning to question if #1833-03383 is in fact the B5\_2019 breeding M. Given that all M vocalizations ceased both nights while we held him in a bag, we heard M vocalizations resume shortly after releasing him both nights (in the direction that he flushed), and ES heard this M give LCs tonight before capturing him, it seems likely that he is the breeding M. However, we are still confused by the vocalizations heard when we captured him on July 9th. During his first capture, ES, KA, and SL all confirm hearing M HECs above us from the potr snag ~5 m from nest while extracting #1833-03383 from capture net. There is strong evidence that two different Ms have made territorial vocalizations in the nest site.

## 19 July 2019

2026—ES and BL arrive at the B5\_2019 nest to attempt capture of M and observe possible helping behavior. F in cavity entrance when we arrive.

Weather: 40% cloud cover, light breeze (mostly just small tree-top twigs moving), 23 C.

2037—F flushes. **We peep cavity—nest contains 3 well developed owlets, all in full juvenal plumage, and at least 2 owlets with well-developed facial disks. Owlets mostly inactive, and still dozing.**

2045—M calls off roost ~35 m to the E. Shortly thereafter, a FLOW (presumably M) flies into the nest area from the E and perches in the young POTR adjacent to the nest tree (usual PD approach tree). Presumed M gives a PD and flushes to the SE.

2050—ES assumes capture position at the nest tree with net raised, with intent to allow M a free PD.

2053—M PD in cavity entrance (he gave a few LC on his approach).

2055—M attempts PD, but appeared to abort and flushed to a POTR 20 m ESE of the nest. He perched here for ~30 sec, where he did not appear to make any other prey capture attempts, and then returned to the cavity entrance for what appeared to be a successful PD.

2057—M perches on young psme ~20 m SE of the nest and gives a few LCs. M then gives a PD at cavity entrance. F is giving FSC in the nest area at this time.

2058—While F gives LCs to the W, a silent bird comes in from the SE and perches on the same young psme used by the M at 2057. This is the presumed B5 M. **ES captures M following PD at cavity entrance. M is banded, with Band # 1833-03383—this is the M IDed as the helper M when first captured at the nest, and now appears to be the resident territorial M**.

2102—We release M from the margins of the nest site, while the F is giving FSC near the nest tree. Owlets begging audibly from cavity (but not at entrance).

2103—F PD at cavity entrance. After she flushes, we see one owlet at the entrance.

2107—PD at cavity entrance, presumably the M given his approach from the E.

2112—We observe two owlets at the cavity entrance, begging audibly.

2113—We leave the area. **NOTE**: Only the presumed M and F were observed before we left.

# B5—2020

## 16 June 2020

1415—Flam Crew arrives in the B5 territory to cherry peep for the B5\_2020 nest in the POTR drainage bottom.

1430—**While peeping a POTR snag (tag #1762) in the N portion of the POTR drainage bottom, BL sees a F FLOW in the bottom of the cavity (F never rose to the entrance)—this is the B5\_2020 nest tree! Nest cavity is a narrow NOFL excavation, S-facing, 28’10” high, and is located in the middle of a prominent elbow in the trunk. POTR snag was recently topped by IREA (within the preceding weeks), about 15 ft above the cavity.** **POTR snag is about 100 m N of the B5 parking area (by fenceline), about 15 m E of the old, eroded 2-track road in the bottom of the drainage, and about 10 m N of the POTR bear-torn cavity that was the nest tree of the 2-yr geolocator M of B5\_2011 (tree is now on ground).**

1445—After Flam Crew arrives to view the nest tree, we leave.

2035—ON and SL arrive at B5\_2020 nest tree to peep nest status and possibly attempt a M capture. F is down upon arrival and all is quiet.

Weather: clear, calm, 22°C

2047—M gives a PD, however, he doesn’t go into the cavity.

2050—M aborts PD.

2051—M gives PD, then F comes up to the narrow cavity entrance, wiggles her way out, and flushes. It’s no wonder that the M isn’t going into the cavity for PDs because not only does it have a very small cavity entrance and a shallow depth, but it is a FULL house in there! **We peep to find FOUR white fluffy nestlings wiggling around with eyes closed. We estimate the oldest nestlings to be about 5 days old.**

2100-2110—Unknown bird (presumably the M) gives five PDs while the F is off cavity.

2113—F back on cavity

2114-2125—M gives seven more PDs with the F back on cavity.

2125—SL begins her approach to attempt a M capture.

2127-2129—M gives two more PDs.

2133—SL is in capture position.

2137—M aborts a PD, then gives one PD. SL gives him a freebie and doesn’t swing the capture pole.

2152—M attempts to give a PD, but SL swings the capture pole just before he gets to the cavity, so he flies away without having given a PD.

2154—M tries to give another PD and SL swings but he gets away.

2204—SL stays at the base of the tree but lowers the net to give the M some space.

2212—After still not attempting to give any more PDs, SL backs away and we pack up to give the M some space to feed his four hungry nestlings. We head out to lure for a possible territorial M in B13.

## 23 June 2020

2051—SL and ON arrive at B5\_2020 nest tree to peep the status, observe nest behavior, and attempt a M and/or F capture. Upon arrival, we see a silent bird flush from the cavity. We soon find out that this was the M giving a PD.

Weather: 60% cloud cover, calm, 10°C, very foggy

2052-2101—Silent bird (M) gives nine more PDs without fully going into the cavity.

2055—F begs on cavity.

2101—F flushes.

2101—M gives another PD. **We peep to find a pile of 3-4 nestlings in all gray from what we could see. They look about 13 days old. It’s possible that there might be a runt with more white underneath the gray owlets, but the cavity was pretty shallow. All nestlings had their heads down and were not moving.** F comes into site and gives some FSCs.

2112-2120—Silent birds give four PDs. We observe that the birds are still not going fully into the cavity to give PDs even though there are only nestlings inside.

2121—F gives FSCs off cavity then gives a PD.

2122—M gives a PD and F gives FSCs off cavity. Then F gives a PD.

2123-2135—Silent birds give 13 PDs.

2136—F gives FSCs off cavity.

2136—M PD.

2137-2146—Silent birds make three more PDs.

2147—M and F both in nest site. Each bird makes a PD. SL begins her approach to attempt a capture.

2148—Silent bird gives a PD.

2150—Silent bird gives a PD.

2152—F comes into site and gives FSCs while SL is at the base of the tree. SL backs away from tree to give her space.

2159—F leaves nest site and M comes into site. Then F gives FSCs ~20 off cavity.

2202—M gives a PD while F continues FSCs away from nest site.

2203—M gives another PD. SL makes her way back to the nest tree and slowly raises cavity while making sure to give the birds free PDs to get acclimated to the net.

2207—Silent PD.

2214—Silent PD. F comes back into site giving lots of FSCs.

2220—SL gets the net up but not quite to height.

2226-2231—Birds give three silent PDs. SL doesn’t swing.

2233—Capture net is in plcae. F gives FSCs.

2234—M and F each give a quick PD.

2237—Silent bird gives a PD.

2243—Silent bird gives a PD, SL swings capture net but the bird gets away. We later realize that SL was swinging the capture pole from the wrong angle and thus couldn’t get the net over the cavity.

2243—Silent bird gives another PD.

2252—M and F are both in site perched next to each other. They make some chittering vocalizations and ON watches this cute pair bond.

2252—Silent bird gives a PD, SL swings but bird gets away.

2303—Silent bird gives a PD, SL swings but birds gets away.

2305-2308—F attempts to give three PDs but aborts

2322—F tries to give a PD, SL swings and she gets away.

2326—SL brings the net down to give this nest some space. After trying some different capture angles, we feel like we understand what we need to do next time to snag these sneaky birds that can’t quite fit all the way in the crowded cavity to give PDs. We’ll be back soon!

## 30 June 2020

2034—BL arrives at the B5\_2020 nest to attempt capture of both adults. All quiet on arrival, and F not in cavity entrance. No audible begging heard from cavity.

2040—I raise the capture net over the cavity to attempt capture of F. No response, but net is kept in position.

2056—I hear M call off roost from his location seemingly near the B5 parking location. He gradually moves closer over the next couple of minutes as he continues to give TCs.

2101—M gives TCs approximately 30 m SE of nest tree. This is as close as he approaches, and he goes quiet after 1 min.

2103—**I peep cavity, and find the nest empty—only small egg fragments! Brood has apparently succumbed to nest predation, and F is nowhere in sight (and not heard). I lower the peeper and search the surrounding ground/vegetation for owlet remains for several minutes, but find nothing.**

2130—After failing to hear any further vocalizations or observe any adult activity, I leave.

# B6—2002

## 12 July 2002

1045—**BL finds B6\_2002 nest** during daytime cavity search.

Macrosite descriptions:

1. N. end of N. fork of Missouri Gulch.
2. 50m N. of W. bend in Missouri Gulch Rd.

1058—Brian climbs ladder to capture female and check status of nestlings.

1059—Female captured. Blood and feather samples are taken. **Female was not previously banded, and she is given Band # 92289** and it was placed on the right leg.

80.5g

-19.5

61.0 g

LLP= (omit)

Tail= (omit)

WC= (omit)

Note: Female has molted primaries 1 and 2 and the new feather is 2mm out of shaft. Pin feathers are just starting to emerge from shafts on the breast.

1110—Female is released and we leave.

2030—Ian and BL arrive at the nest to capture the M and estimate nesting chronology.

2053—F scolds us from somewhere in the nest site—she is not in the nest cavity.

2056—An adult approaches and lands in the cavity entrance on two occasions (separated by about one minute), each time flying off without descending into cavity. I presumed this was the F attempting to determine the status of the nest, after our disturbance earlier in the day, and after apparently roosting away from the cavity. Owlets could be heard begging quietly from the cavity (they sound to be ~ 5-7 days old, based on the high-pitched ‘cheeps’).

2103—M arrives with HECs; F responds with BC and they both fly off to the S.

(**add capture info** **for male—band # 92290!!**).

## 19 July 2002

1353—Flam crew arrives at nest and sets up the ladder in preparation of entering the cavity. Cavity Stats: Entrance is 5.5cm x 4.0cm, entrance thickness is 5.0cm, and the horizontal depth is 11.0cm.

1400—Flam crew begins enlarging the cavity entrance to gain access to owlets.

1409—Owlets are extracted, female is not on the nest, and there are two (2) young. We band both young, but will wait for a later occasion to bleed them.

**Band#92293 Band#92294**

63.0 g 56.0 g

-16.0 -16.0

47.0g 40.0g

LLP = 26 mm(22mm in shaft) LLP = 17 mm(all in shaft)

Lrect = 12 mm Lrect = not measurable

1427—We return owlets and leave.

## 27 July 2002

1203—Marlene and BL arrive to bleed B6 nestlings. F is not in the nest cavity.

**Band#92293 Band#92294**

75.5 g 78.5 g

-16.5 -16.5

59.0g 62.0g

LLP = 59 mm LLP = 51 mm

Lrect = 26 mm Lrect = 22 mm

1240—We return nestlings and leave.

# B6—2003

## 2 June 2003

1505—**BL discovers B6\_2003 nest in last year’s *Potr* nest cavity.** Female ascended to the entrance when I lightly rapped on tree. I back off to about 20 m, and she is still in the entrance when I leave 3-4 minutes later.

## 4 June 2003

1. Jake arrives to observe nesting behavior at B6 nest. 38 degrees Fahrenheit raining and overcast. Female is at entrance of cavity.
2. M TC from SE and F responds with BC.

2040 M lands on Doug. Fir (five m to SE) and makes LC.

2041 M and F leave.

2042 M TC.

2054 F returns.

2055 M makes 2 prey deliveries.

2056 M makes prey delivery.

2100 Rain intensity increases.

2110 M makes prey delivery and F BC.

2113 M makes prey delivery and F BC.

2115 F BC.

2120 Prey delivery.

* 1. No prey delivery.

## 12 June 2003

1. BL and Jake arrive to capture M.
2. M makes prey delivery then roosts on *psme* to SE.
3. M leaves (East) F is at entrance.
4. M makes prey delivery and then F leaves.
5. F returns.
6. M makes prey delivery and flies over BL and Jake.
7. (approx.) M was captured**—he was previously banded. M is Band # 92290; he is the B6\_2002 male**.

**Band # 92290**

70.5g

` -20.0g

50.5g

LLP= (omit)

Tail= (omit)

WC= (omit)

1. M was released.

## 19 June 2003

2155-2225—Katie and Miriam arrive at B6 nest to observe prey deliveries. Three prey deliveries were observed.

2217—Male giving TC from West.

## 24 June 2003

2230—Jake and BL arrive at B6 nest to monitor nest activity. F at cavity entrance when we arrive, then she quickly descends.

2301—We leave. M made 5 deliveries during this time, starting at 2242, with the interval between deliveries 3-4 min; eggs may be hatched.

## 30 June 2003

2145—Miriam arrives at B6 nest to observe prey deliveries. Between 2145 and 2217 there were 10 prey deliveries, it appeared that both M and F were delivering prey, and F was off her brood most of the time.

2245—Miriam, Katie, and Mike begin songposting on Grave and Turkey ridges. Katie and Mike moved south while calling systematically. Nothing was seen or heard from Turkey Ridge.

2315—Miriam gets songpost number 1 on grave ridge. Not exact tree.

2322—Miriam gets songpost number 2 on grave ridge. Exact tree and M flew NE afterwards.

2335—Miriam gets GPS about 20-30m E of where M was singing. Most likely B6 male, but could possibly be B5.

## 3 July 2003

2029—Miriam and Katie arrive at B6 nest to attempt to capture F. F is in cavity entrance when we arrive.

2031—Capture F.

2041—F out of net.

2053—We thought we heard another F calling to the S, but might have been the wind.

2055—Release F after banding her**—she was not previously banded. Given band # 92306**. We tried to bleed both of her wings, but could not get enough blood.

**Band#92306**

## 7 July 2003

2221—Jake, Katie and Miriam approach B6 nest to attempt to capture F. M gives scolding call as we arrive.

2226—M and F are both calling. M gives HEC.

2233—Prey delivery.

2234—M gives LC, F gives FS call.

2235—M delivers prey, owlets beg.

2236—Prey delivery.

2239—Prey delivery.

2240—We leave nest area.

## 8 July 2003

1517—Jake and Miriam arrive at B6 nest to determine the developmental status of the owlets (mass not taken).

**Band#92346 Band#92347 Band#92345**

LLP 40.0mm LLP 50.0mm LLP 60.0mm

Rect 12m rect 20mm rect 27mm

1534—Return owlets to nest.

1536—We leave nest area.

2124—Katie and BL arrive to attempt capture of the B6 Female with a mist net, so that she can be bled.

2150—Mist net in place; M flies into the nest area giving LC.

2124—**We capture F (band # 92306). We band, measure, and bleed her.**

77.0 g

-21.5 g

55.5 g

LWC: 127 mm

LLP: 97 mm

Rect: 55 mm

2145—We release F.

2200—We leave after taking down the mist net.

## 9 July 2003

1205—Miriam, Jake and Katie arrive to bleed and weigh B6 owlets.

**Band#92345 Band#92346 Band#92347**

84.0g 72.0g 82.0g

-19.0g -20.0g -19.0g

65.0g 52.0g 63.0g

LLP 60.0mm LLP 44.0mm LLP 50.0mm

Rect 28m rect 14mm rect 20mm

Cavity dimensions

Entrance thickness---5cm

Horizontal depth---11cm

Entrance height---9cm

1255—Owlets are placed back in the cavity after they are bled.

# B6—2004

## 25 May 2004

2300—Flam crew arrives at B6 territory to songpost and look for signs of nesting. We walk to the aspen bottom on the N end of the territory and begin tapping cavity trees.

2321—BL and KS hear LC from aspen in N end of B6 drainage on the E side near creek. We see two birds on the same branch in a *Potr*.

2330—F moves further to the E of the drainage.

2344—M gives LC and F give FS. They land on the same branch and we observe a prey delivery.

2345—M moves to N about 5m. EP marks songpost #1.

2346—M continues to call from N upslope of F who is still in the prey delivery tree.

2347—We hear M move further N and W while he is giving TC.

2354—M continues to call N and upslope of F

2355—F moves N again. SY continues to follow her.

2356—M continues to call. F moves N again. M still giving TC.

2401—F continues to move N.

2406—M heard near F again but further E and upslope.

2409—We lose F. General GPS location of the action:

(X): 0496356

(Y): 4333701

2411—SY locates M. EP marks songpost #2.

2414—EP and SY continue to follow M

2425—KS hears M call from bottom of drainage near where the drainage splits. KS follows M. M moves up ridge that divides drainage.

2430—EE hears M move up to top of grave ridge.

2438—Flam crew meets in bottom of drainage. We leave.

## 31 May 2004

1515-1700: While **tapping and peeping cavity trees in the northern end of B6 territory, F rises to the entrance of a *Potr* cavity tree after the tree is tapped—this is the B6\_2004 nest. Cavity was excavated by a NOFL, and is approximately 6 m above ground on the E side of the tree. Tree was not previously marked, and still needs to be enumerated.** We leave after observing her in the entrance for about 5 min.

2038—EE and EP arrive at B6 nest to observe flam behavior.

2043—EE and EP hear M give 3 TC coming from north about 200 meters.

2049— EE and EP hear M giving approximately 10-15 LC to F about 50m from nest.

2051—M makes prey delivers to nest. Leaves in a SE direction.

2052—F leaves in SE direction.

2054—M returns to nest and quickly leaves.

2057—M gives soft LC.

2117—M gives 1 LC and makes prey delivery to nest.

2121—Same as previous entry.

2123—M makes prey delivery to nest.

2124—F leaves nest.

2126—EP hears M give 6-10 TEC from S about 150m from nets.

2128—F returns to nest.

2129—M lands in POTR about 5m from nest.

2130—UFO tries to enter nest B6 M gives short call and chases UFO to E.

2133—B6 M returns and makes soft LC and prey delivery to nest.

2135—M makes 3 TC about 50m from nest, then 5-6 TC about 150m from nest.

2143—EE and EP leave.

2155—EE makes B6 #1 song-post near road.

## 7 June 2004

2038—JM and SY arrive at B6 nest tree (B6\_118) to peep.

2056—M gives LC from a tree west of the nest, he then flies to the nest and enters the cavity.

2057—M leaves the nest. The female then rises to the cavity entrance and flies off following the M.

2058—**SY peeps the nest and finds three eggs in the center of the cavity all touching**. SY and JM then leave.

## 14 June 2004

2138—EP, JM and SY arrive at B6 nest to attempt capture of the male.

2139—Prey delivery. Deliveries also at 2144, 2152, 2156, and 2210

2210—Following a prey delivery the male is captured and banded.

**Band#92356** on L leg.

2218—The male is released

## 15 June 2004

2036—EP and SY arrive at B6 nest to attempt capture of the female.

2057—Male gives call off roost.

2058—Male attempts and aborts prey delivery, giving LCs throughout. Male has a moth.

2059—Female ascends to the cavity entrance.

2101—Female flushes the nest and is captured. She is unbanded.

**Band#92362.**

2111—Female is released.

## 23 June 2004

2045—KS and EE arrive to capture F. Weather: 0%cloudy, 18 degrees C, no wind.

2054—EE has net over cavity entrance.

2059—M calls off of roost to the S, about 10m from nest.

2102—We capture F. Band **#92362** We take blood sample.

2121—We release F after we ensure a good clot is formed.

## 2 July 2004

## 8 July 2004

1406—KS, EE, and EP arrive at B6 nest to band and bleed owlets.

1413—We capture F because we mistakenly thought that she still needed to be bled.

1420—We release F once we confirm that she already had a blood sample taken

1438—All three owlets are removed from the cavity. Eric enlarged the cavity.

**Band #92373 Band #92374 Band #92377**

79.5g 80.0g 83.5g

-23.5 -21.0 -21.0

56.0g 59.0g 62.5g

LLP =35.0mm LLP = 41.0mm LLP = 44.0mm

Rect = 12.0mm Rect = 17.0 Rect = 20.0

1520—We put owlets back into nest after they are bled.

## 9 July 2004

2104—EE and JM arrive to B6 nest to capture and bleed the male.

2152—After two previous attempts M # 93256 is caught and bleed.

2211—M is released.

## 15 July 2004

2220—KS and EE arrive to nest observe and determine brood division.

2223—**We peep nest and find 1 owlet remaining**. KS searches surrounding area for fledgling. EE waits at nest to watch for PD.

2245—M gives scolding call about 10m from nest.

2253—M give TEC about 40 m from nest.

2302—**KS finds fledgling # 92374 about 40 m from nest**. We find M nearby.

2312—Unknown adult (M or F) in hole and flies off to W without any vocalizations.

2315—We leave.

**B6—2005**

**NOTE: The entry for this territory in 2005 was moved to B8 territory, reflecting the parsimonious hypothesis that we have two territories in this portion of the study area (B8 and B6), and not just one (B6). The basis for this hypothesis is that the male (band # 92356) from the B6 territory in 2004 was recaptured in the northern portion of the territory in 2006, while the purported B6 male in 2005 (band # 64431) was recaptured in 2006 and 2007, along with the same female (band # 64430) over these three years, in the southern portion of the territory. Consequently, in retrospect we do not know if male 92356 nested in 2005, since we presumed that their was only one nest in the area (what we have now identified as B8\_2005), and so no further entries exist in this year for B6-proper territory.**

## 31 May 2005

1500-1545: Flam Crew attempts to find B6\_2005 nest by tapping on marked cavity trees within the presumed territory. (**need Makendra entry**)

## 3 June 2005

2026—EE, SY, and MS enter area of B6 2005 nest tree in order to capture B6 F. High Cloud cover, wind moving pine limbs, 9 deg. C.

2028—SY waits with mist net over cavity.

2052—B6 M flies into tree 5m W of nest tree with Lepidoptera in beak. Deterred by flam crew he eats prey himself and leaves area (direction not known).

2104—EE knocks tree and B6 F leaves cavity and enters net**—she was not banded.**

2107—**F banded on left leg with band #64430**. Weighed in over 100g (sock weighed 33g).

2114—B6 F released and flies to N (unable to see in which tree she lands).

## 7 June 2005

2026—DF and SY arrive at B6 nest tree to peep cavity and attempt capture of the M. Clear sky, almost no wind, 15°C.

2055—M arrives at nest site, perches in sm. POTR approx. 2m N of nest tree for <1min. then makes prey deliv. Accompanied by LCs – M quickly leaves to the S. F rises to cavity entrance and gives several FSCs then follows M to the S. FSCs heard for approx. 2min. to the south.

2059—**Peeper in the cavity: 3 eggs, center, touching.**

2103—SY in position for netting.

2129-2150—M makes 8 prey deliv, 4 of which are aborted. See prey delivery data sheet.

2134—M is netted after entering cavity for prey deliv but escapes in <1min.

2150—M netted successfully after making prey deliv, placing only his head inside cavity.

2153—M removed from net—**he was not banded**.

2154-2200—**M banded on left leg with band #64431**. Blood taken from left wing.

**Band** **#64431**

89.0g

-31.0

58.0g

2200—M makes strong flight to tree 7m S.

2201—DF and SY leave nest site.

## 29 June 2005

2028—SY and DF arrive to capture F. F not visible.

2035—Net in position, tree tapped but no F.

2120—Cavity peeped, finding no birds and only eggshell fragments. We leave.

# B6—2006

## 30 May 2006

2136—EE, EM and SY arrive at B6 territory to tap trees and listen for any nest activity.

2220—**EE finds 2006 B6 nest at eastern edge of aspen flat along N Missouri Creek (*Potr*, B6\_26, tag # 118). F came to cavity entrance upon tapping. She stayed up about 1 minute.** EE, EM and SY observe prey deliveries.

2221-2311—9 prey deliveries during this time to F in cavity. M would stay down in cavity ~5 seconds. BL thinks that the F is probably a few days into incubation.

2316—We leave.

## 5 June 2006

2020—BL arrives at the B6\_2006 nest to attempt capture of F and record F vocalizations. Mostly cloudy, calm, 23 C.

2040—I raise the capture net on the hole, and after a few seconds the F ascends and flushes into the net. **She was previously unbanded**.

**Band #: 64487**

91.0 g Very conspicuous, clean incubation patch

- 7.0 g

84.0 g

2045—I release F.

2050—I peep cavity and discover 3 eggs, touching (or nearly so) in the center of the nest. I leave nest area.

2106—M arrives in the nest area giving LC—he leaves after ~ 30 sec, still calling (F not in nest area).

2135—I return to nest area.

2152—M delivers prey, and stays in the cavity for 3-4 min, giving quiet LC.

2152—I tap on tree to ensure F returned to the cavity, and F rises to entrance. I move to the margin of the nest site.

2205—I leave.

## 15 June 2006

2031—BL arrives at the B6\_2006 nest to attempt capture of M. Mostly cloudy, light breeze on ridgetops, 19.5 C.

2039—M calls off his roost approximately 100 m E of the nest on Lodgepole Ridge. He gives TC intermittently for the next 10 min. I get into capture position at this time.

2101—F flies into the nest area, giving a few FSC! (I had assumed she was still in the cavity—she may have exited as I assumed capture position without me knowing it.). I leave the nest area so that she can return to the cavity.

2105—M arrives giving LC, and delivers prey to the F in the cavity. I get into capture position.

2120—M is captured after he delivers prey in the cavity. **Previously banded—Band # 92356; this is the B6\_2004 male**.

85.0 g LWC: 130 mm

* 29.0 g LLP: 104 mm

56.0 g

2132—I release M.

2135—M gives LC in the nest area as I leave.

## 27 June 2006

2244—KC and SY arrive at the B6 nest to peep. We tap, no response.

2245—We peep: F is not present in cavity. There are 3 nestlings, only 1 is clearly visible. Eyes are open, gray juvenile plumage is coming in on wings. Runt appears much younger than older siblings.

2246—We leave.

2249—As we are walking out we hear several LCs from vicinity of the nest site.

## 6 July 2006

1117—The flam crew arrives at the B6 nest site to remove the owlets for banding and bleeding, and also bleed F.

1118—EE saws cavity, no F.

Cavity Dimensions:

Vertical x horizontal: 7 x 7.5 cm. 6.5 cm thick.

Horozontal depth: 11cm DOH: 24cm

1135—EE discovers that there are only 2 nestlings now, lost one.

**Band #64523-Nestling**

65.5 g LLP: 43mm BLED.

12.0 g Rect: 20mm

53.5 g

**Band #64524 Nestling**

66.0 g LLP: 47mm BLED

12.0 g Rect: 22mm

53.0 g

1204—Owlets returned to cavity.

## 10 July 2006

2038—Jim Dandy and BL arrive at the B6 nest site to attempt capture/bleed of F. Owlet is begging loudly from the cavity entrance when we arrive. We raise the capture net and peep the cavity—**just** **one owlet is present**, and no F. PC, calm, 14 C.

2050—M arrives and makes the first prey delivery to the owlet at the cavity entrance. M did not vocalize.

2114—We capture the F at this time. Between 2050-2114 inclusive, there were a total 16 prey deliveries by both sexes (see data sheet). Owlet at or near the cavity entrance during this time.

**F—Band # 64487**

80.5 g LLP: 97 mm

* 29.5 g Rect: 60 mm

57.0 g LWC: 132 mm

2133—We release the F after bleeding her, and leave.

## 13 July 2006

1346—EE and EM arrive to peep B6. F was off when we arrived. Owlet was up in the cavity when we first arrived and as soon as it saw us it went back down. We find 1 owlet that looks *very* old and must be close to fledging. It has a very well developed facial disk and scapularies.

2059—EM and KC arrive at the B6 nest site to observe fledging.

2100—The F is in a *Potr* 10m E of nest tree. She’s giving LC’s.

2101—M enters the site, on a Potr with F giving TC’s.

2102—F goes to cavity, sits on edge and pokes head in. Gives LC’s from there.

2103—Both F and M are circling the nest tree, giving a mix of scolding and TEC’s as well as LCs.

2105—F heard to the N now, giving LC’s—single note calls.

2106—F goes to nest again. The M follows to the nest once F goes to *Potr* 7m S. Then the M follows the F. He continues to follow her out of site.

2110—F is back, on same perch as before, giving one note calls, and then moves into the N.

2112—F comes back to nest tree and sits at entrance for 30 seconds after ducking her head in. Then she returns to her perch in *Potr* 7 m S.

2115—M comes in and follows F again. She goes to another tree, he follows.l They continue to give a mix of LC’s and TC’s (M)/scolding (F).

2120—We peep the nest, nothing there. We must have missed the fledging. We then look around the site in search of the fledgling.

2136—We sit quietly and wait for the F or M to come in and lead us to the fledgling.

2155—F gives LC’s a little to the N of the nest area. KC hears the begging calls of the fledgling, and we begin to look again.

2158—EM spots the fledgling in the willows by the creek, perched on a lower willow branch. (**NOTE:** We did not take note of the band number, but we could maybe guess that the older fledgling went before peeping on the 10th of July, and that would leave this one to be #64523. However this is ONLY speculation.)

71.0 g LLP: 59 mm

* 19.0 g Rect: 33 mm

52.0 g LWC: 84 mm

2211—We leave fledgling and exit the nest site.

# B6—2007

## 1 June 2007

1526—Flam Crew arrives in the B6 territory to tap/peep and conduct nest search. **At this time, EE and BL tap on *Potr* cavity tree B6\_94, and a F rises to the entrance—this is the B6\_2007 nest! This was also the B6\_2002, 2003 nest tree, which is 5 m E of N Missouri Cr, and 50 m E of the B6 parking area.**

1535—We leave. F still in entrance.

2030—BL returns to the nest to attempt capture of F. PC, calm, ~15 C. F ascends to the entrance shortly after I arrive.

2036—F flushes as I raise net. I back away from nest, but stay ~ 20 m from nest.

2058—M gives LC in nest vicinity, but does not approach nest.

2115—M arrives again, gives LC in nest area for ~ 20 sec. Nothing heard from F. I leave nest area to allow F to return to nest uninhibited, and attempt to spot-map M.

2224-2245: I mark 2 song posts on M, approximately 100 m S of nest. Toward the end of this time, I hear four different males singing—besides B6, I hear B7, a M on Turkey Ridge (B12?), and a M near the roadcut on Grave Ridge (B5?). I leave at the end of this time.

## 5 June 2007

2030—BL arrives at the B6 nest to attempt capture of F. Mostly cloudy, breezy on ridgetops, 21 C.

2034—I raise the net over the cavity and the F immediately ascends and flushes into the net. **This is a previously unbanded F—I band her with band # 64577** (r leg).

2040—I release F.

2042—**I peep nest and find 3 eggs**, all touching in the cavity center.

2043—I leave.

## 7 June 2007

2020—BL arrives at the B6 nest to attempt capture of M. Heavily overcast, calm, and 2 C (chilly).

2026—F rises to the entrance when I open my Velcro pocket; I move 20 m away from nest.

2032—M calls off roost, approximately 25 m upslope from nest.

2036—F flushes from cavity, giving FSC.

2010—F returns to cavity.

2113—M delivers prey to F in nest; she responds to his LC with FSC.

2117—Same.

2119—Same; I capture M as he exits cavity. **Previously unbanded M—I give him band # 64578** (l leg).

88.5 g LWC: 133 mm

- 31.0 g LLP(5): 97 mm

57.5 g LLP (6): 104 mm

2128—I release M.

2130—I leave.

## 4 July 2007

F band #64577

LP #5: 93mm total: 83.5g

LP #6: 102mm tare: -17.0g

66.5g

2047—M gave quiet TC’s within site.

2049—Release, we leave the area.

## 11 July 2007

1512—Flam crew arrives at B6 to mass and measure owlets.

1514—Ladder raised, F flushes as it touches nest tree.

1526—Nestlings out of cavity. We **bleed and measure the owlets**.

**Band # 64568 #64567**

**67.0 60.0**

**-16.0 -16.0**

**51.0g 44.0g**

**LP (#6): 43 mm 29 mm**

**LP (#5): 44 mm 28 mm**

**Rect:19 mm 8 mm (7 in shaft)**

1544—Nestlings back in cavity. We leave site.

2033—EM and SY arrive at B6 to capture F and M. Temp is 17C, cloudy, calm.

2035—As net is raised, F rises to cavity entrance.

2038—We back off but F still flushes and perches is a PSME 30m SW of nest site.

2042—M calls off roost S of nest site.

N’s begging audibly.

2049-2109—We observe 15 PDs.

2107—EM gets in capture position.

2107—We capture F making a PD.

**Band # 64577**

85.5g LP(5): 94mm

-27.5g LP(6): 103mm

58.0g Rect.: 61mm

WC: 129mm

We fix crimped band on F’s R leg.

2125—F released.

2144—We return to capture position.

2152—M is captured making a PD; **he was not previously banded**.

**Band #64578**

58.0g LP(5): 96mm

-11.0g LP(6): 104mm

48.0g Rect.: 65mm

WC: 131mm

We bleed this M.

2205—We release M and leave.

## 16 July 2007

1500—EM and SY arrive at B6 nest tree to check nestling status.

1502—F flushes when peeper is raised.

1505—We peep**. 2 owlets, one has a facial disk but the other does not.** Both are covered in grey juvenile plumage.

## 17 July 2007

1658—SY and BL peep the B6 nest to determine status of fledging. F ascends to the entrance and flushes as we raise the peeper. Both owlets still present. Their facial disks and scapulars are becoming quite prominent.

1705—We leave.

## 19 July 2007

2145—SY and KB arrive at the B6 nest site to peep. We want to know if any of the nestlings have fledged.

2147—Peeping reveals **one nestling in the cavity**. We listen for fledgling begging for 10 minutes, but hear nothing, so we leave the site.

# B6—2008

## 2 June 2008

1523—Flam Crew begins peeping the B6 area.

1525—**SY locates the 2008 nest in cavity tree B6\_94 (this is the B6\_2007 and B6\_2002 nest tree and cavity) – F is in entrance when I arrive at the tree. Cavity is SE facing ~7 or 8 meters high in a live potr.**

1532—We leave.

2050—KB, SC, DH, SY and Abby Pyle (AP) begin playback of M TCs at a lure net on the SW end of Grave R.

2101—SY, SC, and AP arrive at the B6 nest tree to attempt capture of the F.

2105—Net up and in position. F does not respond to knocking.

2107—We peep cavity: 2 eggs, centered and touching. We back off.

2114—M and F enter the nest site.

2118—M gives TCs from the S end of Grave R.

2121—Net check, 2 birds are caught in the net.

First bird is previously banded.  **Band # 64578—this is the B6\_2007 M.**

65.0g P5: 87mm

-15.5g P6: 106mm

49.5g LWC 132mm

Rect.: 56mm

Second bird in unbanded. **New band #64603**.

85.5g P5: 95

-26.5g P6: 104

59.0g LWC: 127mm

Rect.: 57mm

We bleed the left wing.

2141—#64578 is released.

2153—#64603 is released.

2219—After freeing 3 bats from the net we restart playback.

2231—SC, SY and AP arrive at the B6 nest to attempt capture of the M.

2235—SY flushes the F. We leave.

2240—KB and DH arrive at net—it is empty.

2250—Stop playback at the net.

2251—Break down net.

## 12 June 2008

2130—DH and SY arrive at the B6 nest to attempt capture of the M.

2136—While putting the net up, SY taps the nest tree with the net, like an idiot. F flushes, we leave.

## 16 June 2008

2020—EM and DH arrive at B6 to attempt capture of the F. Cloudy, temp 20C.

2041—DH raises net.

2042—F flushes as net is being raised. We peep and find 2 eggs, center and touching.

2044—We leave.

## 23 June 2008

2135—SC and SY arrive at the B6 nest to attempt to capture the M.

Weather: Clear, calm, ~13C.

2141—Net in capture position. We see bird flush from a neaby bush. We assume it is the M, but

are not sure.

2157—A bird silently enters the site an perches low (eye-level) ~3m NNE of the nest. Perches for ~1-2min. then flushes.

2159—We tap the tree to ensure that the bird we saw was not the F – no response. We leave.

## 24 June 2008

2010—QB and SY arrive at the B6 nest area to attempt to capture the F. Since it is so early we remain outside the immediate nest site.

Weather: Mostly clear, wind <5mph, 15C, recent rain in the area.

2035—We arrive in nest area

2041—Net is in position over cavity. So far there is no sign of the F.

2057—We hear F LC’s followed by M LC’s about 50m to the south east of the nest; we tap on the tree, no response.

2105—There is still no activity at the nest, so we peep. There is only one egg remaining in the nest (previously there were two). There is no F present.

2108—We leave nest area. Hear M LC’s from the vicinity of the nest as we approach truck.

# B6—2009

## 26 May 2009

1500—Crew arrives B6/ B7/ B8 to tap and peep. 15C and cloudy. Nothing found after tapping

and peeping 2008 nest tree.

1647—After finding nothing, we stop peeping and leave.

## 8 June 2009

2110—SY, BR and SC arrive in B6 to set up lure net. Showers in the evening, 10C, calm

2128—Lure net is set up west of road across from B6 parking area.

X: 496179

Y: 4333313 ±12m

2131—We start playback

2138—SY and SC move north to listen in drainage while BR mans the net.

2143—SY hears M in drainage giving TCs and TECs from upslope (E) of cavity tree tag #459.

2145—As SY approaches he hears a F give FSCs to the N ~12m. SY chases to the spot but she goes quiet.

2149-2153—SY marks songposts B6\_1 and B6\_2 (see data sheet). M moves to the SW after calling (towards the lure net).

2202—Bird is caught in net – top shelf, N side. SY joins BR to process bird. SC moves further north in the drainage to listen.

**Bird is previously unbanded – New Band # 1593-64662 on L leg**

86.0g P5: 98mm

-27.0g P6: 105mm

59.0g Rect.: 64mm

LWC: 131mm

We bleed M’s L wing.

2233—Release.

2234—2 Ms calling in vicinity of net.

2312—SC moves south after hearing LC’s midway between last year’s nest tree and the northern

boundary of the Territory

2315—**M perches on B6\_41 and gives a PD—this is the apparent B6\_2009 nest tree! 2009 B6 Nest is in B6\_41 live *potr* in an aspen flat midway between 2008 nest tree and northern boundary of the territory on the east side of the drainage. The cavity is ~25ft up northwest facing. The new GPS points are 496304 4333549 +/- 6m**

2322—M gives another PD. We leave nest site to check the lure net.

2332—Bird flies in silently around the net.

2334—Bird gives a few quiet TC’s./

2338—Bird is caught from west side of net in top shelf. This is the Male that we caught earlier.

**Band #64662**.

2341—Bird is out of net.

2342—Bird is released.

2345—Bird flies in silently around the net while different bird gives TC’s up drainage.

2350—2 males call to each other around the net.

2353—After birds take greater interest in each other rather than in the playback, we stop

playback and collapse net.

0007—After net is collapsed M’s are still calling. We leave.

## 15 June 2009

2021—JG and I arrive at the B6 nest to attempt capture of the F.

Weather: Mostly clear, wind up to 5mph, 13 C.

2035—Net in capture position

**Note: Net Height = 22’8”**

2036—F rises to entrance – clicks bill several times.

2039—F returns to cavity bottom.

2103—M gives TECs and TCs from NE of the nest (~15-20m). M lands on branch adjacent to cavity. We pull net back and attempt to capture the M instead.

2107—M captured following a PD. **Previously Unbanded**

**New Band #64681 – R leg.**

82.0g P5: 100mm

-27.0g P6: 106mm

55.0g LWC: 134mm

Rect.: 61mm

**We bleed M’s L wing.**

2122—Release M. We tap on nest tree to see if F is still in cavity – F rises to entrance, we are unable to peep, we leave.

## 29 June 2009

2022—SY arrives at the B6 nest to attempt to capture and bleed the F as well as peep the nest.

Weather: partly cloudy, calm, T-storm passing top the S, 18 C.

2141—Net in capture position – F rises to cavity entrance.

2144—M calls off roost to the W.

2149—M enters nest site.

2152—M comes to nest tree – gives TECs. F gives FSCs.

2153—F flushes, capture. She is previously unbanded.

I peep the contents of the nest while F is in hand: 2 unhatched eggs, 1 very well developed owlet – all in gray juvenile plumage, fairly well developed facial disc.

**New Band #64684 for F – L leg**

80.0g P5: 101mm

-20.0g P6: 106mm

60.0g Rect.: 68mm

LWC: 128mm

I bleed F’s L wing. Small hematoma as a result.

2113—Release F – strong flight SE, I pack up and leave.

## 30 June 2009

1605—BL, QB and SC arrive at B6\_2009 nest to band and bleed nestling.

Weather: sunny, calm, humid, short rain earlier, 26 C.

1606—We tap; F comes up.

1607—F flushes as we are raising peeper.

1608—**We peep; 1 well-developed nestling (very grey, facial disc), 2 unhatched (dud) eggs.**

1614—BL begins to climb tree.

1616—Cavity measurements: Entrance measurements:

Height: 23 ft. Hor. X Vert.: 5.0cm x 4.0cm

DOH: 25.5 cm Thickness: 60mm

Hor. Depth: 120mm

Vert. Depth: 25cm

1620—Begin sawing cavity entrance.

1628—Done sawing.

1630—Owlet is removed from cavity. We band (R leg) and bleed (R wing).

**Band #1593-64687—This is the B6\_2009 Nestling.**

Mass 55.4g LLP(5) 52mm (23mm in shaft)

LLP(6) 55mm (30mm in shaft)

LWC 77mm

RECT 18mm (12 in shaft)

**Blood taken (R wing).**

1700—Owlet is back in cavity. We mass the two dud eggs.

Egg A: Egg B:

18.5 13.1

- 5.7 3.3

9.8g 9.8g

1710—We leave.

## 6 July 2009

1613—SY, SC, and DH arrive at the B6 nest to peep and determine status of nestlings. We peep: 1 owlet is still in nest. He looks ready to go.

1615—We leave.

# B6—2010

## 1 June 2010

2102—JG and DW begin playback on Grave Ridge ridgetop near the S end. Playback is oriented to the W, toward B5. We are attempting to capture the B5 M (geolocator) and/or the B6 M.

X: 496064

Y: 4333518

+/-: 12 m

Weather: Wind less than 5 MPH, 16 C, cloudy

Vegetation: Dense mature Pipo/Psme

2106—Wind intensifies.

2127—JG moves speakers into a Psme about 3 feet off the ground still facing toward B5.

2135—TCs heard to the W/NW/B5. We hear them for about 1 minute, but the wind picks up and it becomes difficult to hear if the TCs continue.

2138—M aggressively approaches net and continues delivering TCs and circling the net area.

2140—M goes silent, last heard to the E.

2142—Net check, empty, but TCs heard to the E/B6.

2302—End playback, break down net.

2328—We head into N Missouri Creek to listen and attempt to spot-map the B6 M.

2336—M TCs/TECs heard near the B6\_2008 nest tree. SY, JG, JV, and DW pursue to attempt to spot-map. From 2336-0000, we record 4 songposts on the W side of Lodgepole Ridge for the supposed B6\_2010 M, refer to the master MG songpost sheet for information.

0000—We leave B6.

## 15 June 2010

1521—Flam Crew arrives at the S end of B7 to tap/peep our way through B7, B8, and into B6.

~1630—**BG and SY peep cavity tree tag #229 and see an apparently dead flam. Bird is on her back, head to side and wing partially extended. Bird does not move or react to peeper. BG climbs tree and attempts to pull bird from cavity. Cavity entrance is too small. JG brings small hand saw. We spend over ½ an hour enlarging cavity entrance. We eventually get cavity enlarged enough to reach in. BG pulls F by tail to cavity entrance. As BG gets a better grip and pulls the bird out of the cavity it begins to move and escapes - strong flight to the E. It’s alive (was she banded? BL—12/21/10)! This is the B6\_2010 nest. We leave immediately.**

Nest is ~10ft high on W side of potr snag. Tree is located at upper end of B6 drainage just before the drainage splits; in W-ish half of the large aspen flat in that area,

1753—We finish peeping for the day, having found nests in B6 and B8. See notes for 15 June 2010 in B7 and B8 for notes on the B8\_2010 nest.

2355—SY and BG enter B6 to watch nest for signs of activity at nest discovered earlier in the day.

2359—BG hears TC/LCs in nest area from B6 M. BG backs off from ~15m to ~40m to give

birds more space.

0005—B6 M still hooting in nest area. Hoots too loud to be normal LCs, must be aggravated and

probably hooting at BG. M moves up drainage (N) toward SY.

At same time SY hears another M giving TCs further N.

0011—B6 M still hooting N from nest.

0017—SY returns to B6 nest area, SY and BG move closer to nest to watch more closely.

0018—PD! Signifies F is probably still incubating in nest cavity! We cannot confirm whether she is still on her back, though…

0019—We leave site for vehicle.

0024—SY and BG arrive back at truck.

0025—We hear a few more TCs SW of parking spot on N end of Turkey R.

## 22 June 2010

2022—DW, BG and SY arrive at B6 nest site to attempt to capture the F.

Weather: 15C, wind <5 mph, clear.

2035—M gives TCs to the E.

2041—Net in capture position.

2054—M gives TCs to the S.

2059—2nd M gives TCs to N while 1st M still calling to the S.

2105—FLOW flies into potr just E of nest from S. Perches briefly then flies N. 2nd bird still giving TCs to N. 1st bird stopped ~3min ago.

2112—We peep tree – no F or eggs. Egg shell fragments and feathers in bottom of cavity. The nest has **apparently been depredated.**

## 28 June 2010

2249—SY and JV start a playback system with a lure net on Chopper Ridge in the north end of B6.

Vegetation: medium openness on a ridgetop with small to medium psme.

Weather: 14C, mostly clear and calm

X: 496221

Y: 4333699

+/- 6m

2259—**Catch B6 M in the net coming from the north in the 1st shelf. M was previously banded--#64681; this was the B6\_2009 M.**

**Band # 1593-64681** (on right leg)

79.0 g LWC: 135 mm

- 20.5 g LLP(5): 100 mm

58.5 g LLP(6): 109 mm

Rect: 65 mm

2322—After taking blood for a smear we release him. He has a strong flight.

2327—**Catch a silent bird in the 4th shelf coming from the south. It is the B1 2008 Fledgling, who is now an apparent FLOATER!**

**Band # 1593-64645** (on right leg)

74.5 g LWC: 128 mm

- 20.0 g LLP(5): 92 mm

54.5 g LLP(6): 104 mm

Rect: 62 mm

2342—After taking blood for a blood smear we release him. He flies away strongly.

2353—**Catch a silent bird in the 2nd shelf coming from the west. It is an unbanded female with a very large brood patch. SY bands her.**

**Band # 1593-64741** (on left leg?)

2353—We release her and she flies low but with a strong flight.

2408—As we have one bird in the net site (later found out to be the B6 M) another bird is giving TCs to the east.

2413—**Catch the B6 M again.**

**Band # 1593-64681**

2416—Release him and he flies away with a strong flight.

2421—We turn off the playback and take down the net.

2436—While walking back to the vehicle we hear LCs across the creek. We light up last year’s nest tree and the M is calling from inside the cavity. We flies away and moves down drainage to give more LCs. (After nest failure courting behavior?)

# B6—2011

## 31 May 2011

1502—SY, JG, PS, and JR begin tapping and peeping at the north end of B6

1615—**JG peeps B6\_90 tag #90 and sees FLOW in the bottom of the cavity. This is the B6\_2011 nest. The cavity is west-facing on a full Potr snag on the lower E slope of N Missouri Creek, approximately 30 m N of the B6\_2009 nest tree. The cavity is bear torn and approximately 20 feet high. The F did not rise to a tap and never flushed.** (Ref pix SY052 and SY053)

1700—SY, JG, PS, and JR finish peeping at the junction of the road and E Missouri Creek.

2035—PS, CB, BG, and JG arrive at B6 to attempt capture of male at B6\_2011 nest.

2050—PS, CB, BG, and JG arrive at B6\_2011 tag #90. Light Breeze at bottom of gulch <10 mph. Skies clear. Temperature = 13C.

2055—CB gets net up and waits for M.

2100—M perches on the nest tree about 15 feet above the nest cavity and delivers two LCs.

2102—TCs heard from M then seen flying westward directly away from nest.

2123—Net brought down. M never captured and female never flushed.

2150—Lure net set up in B6 on upper slope of Graves Ridge. Playback not started because of high winds. PS and JG leave to listen in E. Missouri.

2232—Wind dies down so BG and CB return to net and set it up again.

2233—Start playback.

Vegetation: mature pipo

Weather: slight wind, clear skies, 14C

X: 496212

Y: 4333519

+/- 4m

2220—PS and JG begin spotmapping in B7 beginning at junction of the road and E Missouri Creek moving south. TCs made periodically after every 50m of travel by PS and JG. No responses heard.

2243—BG and CB hear TCs SE of net.

2244—TCs move from SE to NE, then stop.

2246—TCs begin again near net to the NE/E, keeps crossing over net but never heard within ~30m.

2252—BG and CB observe TCs stopping at net. At the same time, having heard no responses to their TCs in B7, JG and PS leave B7 to return to B6.

2258—JG and PS hear TCs responding to the playback N of the lure net in the direction of the B6 nest tree.

2303—TCs SW (up ridge from net about 30m) for ~1min.

2312—A few TCs SE of net.

2316—A few more TCs further to the SE.

2313—PS and JG hear TC in response to playback as they return to lure net location on upper Graves Ridge.

2328—End playback and take down net.

2338—PS, CB, BG, and JG begin spotmapping around site of lure net to find M songpost.

2347—TCs heard on upper slope or perhaps saddle of Graves Ridge at northern end of B6.

2353—JG hears one male deliver HECs and a second male respond with TCs in the vicinity of the lure net location. We move closer to where this interaction occurred, but do not hear anything else.

0025—TCs heard from bottom of drainage at northern end of B6 in response to what sounded like feline/canine calls. PS, CB, BG, and JG finish spotmapping and leave.

## 1 June 2011

2205—AW, BG, PS, and SY arrive in southern B6 territory directly W of B6 parking area to set up lure net.

2226—Begin playback on lower slope of Graves Ridge.

Vegetation: Potr/psme.

Weather: Windy (5-15 mph) at times with intermittent calmness. 17C.

X: 496164

Y: 4333316

+/- 3m

2229—BG, AW, and PS move down drainage for tapping and listening.

2302—AW hears 2-3 TCs from S-SW direction towards the ridge.

2314—AW and PS move upslope to listen and spot map. BG remains in drainage tapping and listening.

2325—M enters net site. Gives TCs and TECs from within 10-15m of net.

2340—M begins backing away to N-NW giving sporadic TCs and TECs.

2343—BG, AW, PS, and SY break down lure net. B6 (?) M gives less than 5 TCs to the E likely on low slope of Lodgepole Ridge while we are breaking down net.

2356—BG, AW, PS, and SY leave B6 parking area for spot mapping. PS and BG headed towards junction of Genesis and Lodgepole Ridges. AW moves up Graves Ridge. SY moves up far south end of Graves Ridge (south of road).

2425—Finish listening. Nothing heard. We depart study site.

## 7 June 2011

2040—AW, JG, and IJ arrive at B6\_2011 nest attempting to capture F as she flushes and M as he makes a PD. Weather: calm and clear.

2042—IJ and JG see F up in cavity. We retreat.

2047—F flushes.

2048—IJ attempts to peep B6 cavity, but peeper battery pack is dead. We retreat again to wait for F to return to cavity and for M to make PDs.

2055—M makes PD.

2058—JG puts up capture net attempting to capture M. **Capture height=17’4”.**

2111—JG lowers net after observing no PDs. JG retreats and we observe nest for PDs.

2118—M makes PD. M flies in from S.

2123—M gives LCs from W.

2124—M gives 2 LCs from potr directly S of cavity. M remains perched in potr for approximately 1 minute before aborting PD.

2132—JG takes down capture net. AW, JG, and IJ leave B6 territory and walk to road cut between B5 and B13.

## 13 June 2011

2037—BG, JG, and JR at the B6\_2011 nest to capture the F. JR has the capture net in position. Weather: Wind < 3 mph, cloud cover ~ 35%, 14 C.

2045—M begins calling off roost W of the nest.

2054—Having not stopped delivering LCs/TCs since 2045, the M perches on a Potr snag directly S of the nest tree ~ 3 m from the cavity.

2056—Following LCs from the M, he flushed from his perch and flew North. The F did not rise to the cavity entrance.

2059—F begs twice.

2103—Since the F has not yet risen to the cavity entrance, JG approaches with the peeper, JR keeps the capture net in position. **We peep the cavity and see the F incubating.**

2114—Having not seen the M return to the nest site or the F rise to the cavity entrance, we back off.

2116—M enters the nest site and perches on the same Potr snag S of the nest tree.

2117—M makes a PD.

2118—The M exits the nest cavity directly followed by the F. **We peep the nest and see 3 eggs, centered and touching**. We back off to wait until the F returns to the nest.

2132—M giving TCs S of the nest.

2133—We decide to leave having not seen the F return to the cavity. As JG nears the nest to retrieve the capture pole, he sees the F return to the nest.

2135—F flushes again as net is moved from below nest tree.

2136—We leave nest area immediately.

## 20 June 2011

2051—JG, JV, and AW arrive at the B6 nest to attempt to capture the F or the M. Weather: 100 % cloud cover, cool, light mist/rain falling, 9 C.

2051—F up when we arrive.

2052—After we back off, the F flushes. We peep the cavity and see **3 eggs, centered and almost touching**.

2057—The F returns to the cavity.

2100—M PD.

2102—M PD.

2106—JV has the capture net in position to capture the M following a PD.

2108—The M arrives in the nest site and perches on a Potr snag directly S of the nest tree. For three minutes, he delivers TCs and LCs and then leaves the site.

2127—Having not seen any PDs while the capture net was up, we leave to attempt to capture the B4 M at his nest.

## 21 June 2011

2130—JG, AW, and KB arrive at the B6 nest to attempt to capture the M. When we arrive, the F is up, so we back off. The M is giving TCs to the N up N Missouri Creek.

2133—The F backs down.

2137—KB has capture net in position for M.

2142—After having given TCs and LCs in the area since KB put the net up, the M makes a PD and we capture him. He is the previously banded **B6\_2009 M and is this year’s B6 M.**

**Band # 1593-64681** (on R leg)

89.0 g LWC: 133 mm

- 28.5 g LLP(5): 98 mm

60.5 g LLP(6): 106 mm

Rect: 63 mm

**Molt –** Blacklight on the L wing reveals fluorescence in primaries 1-4, strongest and fullest in 1 and 2.

We take a blood smear.

2145—**We peep the nest and see 3 eggs, centered and touching.**

2212—We release him. He exhibits a strong/ascending flight. We leave to set up a lure net to attempt to capture the supposed B19 M.

2243—JG, AW, and KB begin playback on a spur ridge of Turkey W of the main road along N Missouri Cr and SW of the supposed B19 nest tree targeting the B19 M and the silent FLOW that was in the nest site when we captured the F at 2104.

Vegetation: Young Potr, mature Psme/Pipo, Juco

Weather: Clear, wind ~ 5 MPH, 8 C

X: 496122

Y: 4332991

+/- 3m

2258—AW leaves to observe the B19 nest and any helper/silent M situation.

2302—JG sees silent FLOW fly past us toward the lure net. S/he came from the direction of the B19 nest.

2304—M responding in the immediate vicinity of the lure net – TCs/TECs. He approached from the E.

2310—M goes silent. We check the net – empty.

2317—M begins responding to the playback again, this time to the W of the net.

2320—M goes silent. We check the net and see **FLOW captured in the top shelf from the W. He is previously banded as the B6\_2007 M. We suspect that he is this year’s B19 M given the direction from which he approached the lure net, and the absence of TC/TECs or prey deliveries at the nest while we had him in hand.**

**Band # 1593-64578** (on L leg)

79.5 g LWC: 135 mm

- 20.0 g LLP(5): 98 mm

59.5 g LLP(6): 106 mm

Rect: 63 mm

**Molt –** Blacklight on the L wing reveals fluorescence strongly on primaries 1 and 2, and half way from the top of the proximal edge on the tertiaries and secondaries.

We take a blood smear.

2347—We release him – strong/ascending flight.

2354—AW and JG head up E. Missouri Creek, KB remains at lure net still attempting to capture silent M observed at the B19 nest during the earlier capture attempt.

2405—We deliver 5 TCs to attempt to illicit any response about 200 m E up E Missouri Creek.

2410—Having heard no responses, we leave.

2416—End playback, and leave.

## 28 June 2011

2043—JR and I arrive at the B6\_2011 nest to attempt to capture the F. When we arrive, the F rises to the cavity entrance, so we back off. Weather: Partly cloudy, slight wind, 20 C.

2044—The F backs down, and JR begins to approach the nest to raise the capture net.

2050—JR has the capture net in position – **capture height 18’1”**

2055—M begins calling off roost to the SE.

2056—M lands on Potr directly S of the nest tree, delivers 3 LCs, then leaves the nest site.

2059—M again lands on Potr directly S of the nest tree.

2101—After delivering several LCs, the M leaves the nest site.

2105—We peep the cavity. **The F is incubating and we see 1 owlet with all white natal down and not moving. This nest had 3 eggs on 20 June 2011, but we could only definitively see 1 owlet, however the F was probably covering the other two owlets/eggs.**

2107—JR removes the capture net to allow the M to make a PD.

2111—M PD.

2112—JR places capture net back over cavity.

2116—We remove the capture net, and leave, presuming that the F will not flush given the supposed age of the owlet.

2333—JG, JR, and AW begin spotmapping in the vicinity of the presumed B6/B19 territory boundary.

2400—We songpost a M on the E side of Turkey Ridge, possibly B6.

2405—The wind intensifies, and we are no longer able to spotmap as a result.

## 5 July 2011

2025—BL arrives at the B6\_2011 nest to attempt capture of F. She’s already in the cavity entrance as I cross Missouri Cr and approach the tree, and flushes as I start to raise the capture pole. **I peep cavity and see 2 owlets, one of which has mostly white down with grey plumage coming in on head/back (probably 7-8 days old) and quite active, and an older sibling that is larger, mostly grey plumage, and is inactive with face down—age estimated at 9-10 days.** I back away from nest area.

Weather: Overcast/threatening skies (already quite dark around nest site), calm, 20 C.

2044—Both M and F arrive in the nest area giving LC and FSC, respectively. M makes PD at this time.

2045—F flies to tree adjacent to nest tree, but she flushes out of nest area as I slowly approach nest tree.

2048-2114: M makes 12 PDs during this time (see Prey Delivery Data Sheet), and F makes one PD at 2102. Each time he exited (and returned), he flushed to the W and N, while the F flushed to the S.

2114—**I capture F as she exits after following M into the nest cavity. F is already banded with Band # 64741—this was the presumed B6\_2010 F who was captured in a lure net (along with the B6\_2009, 2010 M) on Chopper Ridge on 6/28/10 following nest failure.**

**Band # 1593-64741**

82.5 g LWC: 123 mm

- 22.5 g LLP(5): 93 mm

60.0 g LLP(6): 104 mm

Rect: 58 mm

F bled (both genetic and parasite blood smear).

2134—I release F, who makes a strong ascending flight of > 15 m to the S.

2140—I leave.

## 14 July 2011

1645—JV, JR, JG, SY, and PS arrive at the B6 nest to band and bleed owlets. We tap the nest tree, but the F does not rise to the entrance. We peep the cavity and see no owlets, only egg shell fragments. **We are uncertain at this point whether fledging or predation has occurred given the predicted fledging date.**

## 15 July 2011

2023—AW, BG SY and Alec arrive at B6 to listen for a possible Fl/Brood group.

Weather: 16C, clear, calm

2033—M calls off roost W of nest.

2047—SY locates M on or very near roost tree on top of spur running SE off of Grave R. I watch him as he makes a few short flights in the vicinity, occasionally preening. M gives a few quiet intermittent TCs.

~2050—M flushes to the SE and continues giving TCs.

2055—M goes quiet.

2145—We depart having heard nothing else (except a few false begs a.k.a sniffles).

**Note: Apparently no brood group in territory – nothing heard or seen in the vicinity of the M’s roost indicating that he is not tending brood group. F not heard or seen. All evidence suggests that the B6 nest failed (likely due to predation) and did not fledge early.**

# B6—2012

***\*Note: Prior to 13 June 2012 the B19\_2012 nest was thought to be the B6\_2012 nest. All appropriate notes regarding the nest have been moved to B19. All notes regarding any listening or capturing attempts north of the B19\_2012 nest have been left in B6—2012.***

## 29 May 2012

2340—SY, AP, PPS arrive in B6 terr. to listen for nesting vocalizations and attempt to spotmap male.

2348—**SY taps on cavity B6\_94, (Tag #94) is in entrance when I arrive – this is the B6\_2012 nest tree. Cavity is ~15ft up live potr on E side, ~5m up slope from cavity bottom. This was also the B6\_2002, 2003, 2007, 2008 nest tree, which is 5 m E of N Missouri Cr, and 50 m E of the B6 parking area**

2350—F Flushes as AP approaches, we leave immediately.

We begin moving N in drainage to continue to attempt to spotmap and to listen for more nesting vocalization in northern part of drainage.

2401—M gives several TCs from vicinity of nest.

2410—M continues calling at nest site – we continue moving north into aspen flat where drainage splits. SY hears a single hoot to the N while B6 M continues to call in the vicinity of the nest site.

2413—SY gives several hoots and hears a M respond with only a few hoots to the N.

2420—M begins giving TCs on E side of Grave R. – not sure if B6 or northern M, flag as B6\_1.

2447—Nothing else heard – we depart.

## 4 June 2012

2204—JR, PPS, MD, Marcus, Williams, and SY start playback at lure net on top of Grave R.

Weather: 13C, wind 0-5, cloudy

Vegetation: Pipo/potr/psme (some pifl). Small trees with some large at periphery.

X: 496180

Y: 4333478

+/-3m

2215—While lure is running on top of Grave R., SY heads to N end of drainage (in aspen flat near split in drainage) to listen for nesting vocalizations.

Weather: 13C, wind 5-10mph, partly cloudy

2029—SY hears 2 quiet TCs near NW portion of aspen flat.

2034—SY hears 2 more quiet hoots back in S end of the aspen flat.

2039—SY locates M giving very occasional soft TCs from cavity in tree #1121. Cavity is less than 3m up S side of broken top potr snag in aspen flat. No sign of a F.

2043—M gives a few TECs from cavity.

2046—M flushes to the E.

2253—M gives TCs from E side of aspen flat for ~1 min.

2259—M give a couple TCs from N end of the aspen flat in vicinity of tree #1157.

2313—Nothing else heard, SY heads back to lure net location to break down net.

2338—Stop playback at lure net – break down net.

2352—JR, MD, and PPS drop off the top of Grave Ridge to attempt to spot map the B6\_2012 M.

2354—We hear M giving TCs about halfway up Chopper Ridge. MD goes to birds location and songposts B6\_1 2012. M moves to the S and gives TCs in that direction. JR follows but bird goes silent. Possible that we were tracking Marcus’s playback down in B19.

2441—JR, MD and PPS continue down drainage occasionally giving hoots, but no response until MD ends up close to the nest tree. JR hears F scold, so everyone heads back N, but the M is not heard again.

2450—JR, MD, and PPS leave the area.

## 12 June 2012

2346—BL and PPS enter B6\_2012 nest site to try to catch M. As we enter the site, there are two MM calling. One is calling from the N (on Grave Ridge) and the other to the SW (in the area of B19\_2011 nest).

2348—F is off and gives scolding calls.

2351—F still scolding and flies up slope.

2353—BL gets net in place.

2357—F stops scolding. Weather: clear, no wind, 10.5C

2400—F goes back on nest.

2409—F flushes.

2426—M giving quiet TCs to N.

2428—M flies into nest area to tree just up slope of the nest.

2432—Brian taps the tree to get F to come up (to ensure it was the M in the nest area) and she flushes to the SW and starts scolding again.

2434—M gives HECs almost directly above PPS near nest tree.

2436—M moves up slope of nest.

2437—The second M gives TCs far up slope.

2438—F comes back on.

2441—M gives HECs down drainage.

2442—BL brings the net down and we leave. **Note: besides the apparent resident M singing from time to time in the nest area, we also periodically heard a M calling upslope to the E near what seemed like the Lodgepole R ridgetop—was this B18 M??**

## 15 June 2012

1600—Flam crew begins peeping northern portion of B6 territory.

1625—SY peeps cavity tree #1121 – suspicious eggshell fragments in cavity and on ground. I collect those fragments on the ground. **Note: This is the same cavity M was observed calling from last week. Possible predation?**

## 20 June 2012

2152—JR, AW, MD, and CC arrive at B6 to set up a lure net.

2154—M giving TCs to NE during net set up.

2206—Playback started, M still calling to NE.

Vegetation: young/med psme, with some young potr

Weather: Calm, slightly cloudy, 12C

X: 496252

Y: 4333705

+/-6

2208—M goes silent.

2210—M calling to W

~2215—M goes silent.

2220—M calling back in N Missouri Creek Drainage, possibly on Lodgepole Ridge.

~2235—MD, CC, and AW leave the lure net to listen further S in N. Missouri drainage.

~2235-2400—MD hears no owls besides the B6 M singing at the playback. MD is positioned between ~150 and 350 m down drainage of the lure net (GPS of the lure net is listed above). MD traverses the region on both ridges along N. Missouri during this time.

2238—M goes silent briefly then resumes calling to NE.

2356—JR songposts B6 male on NE end of Lodgepole Ridge.

2400—M (possibly **B19\_2012 M**) giving TCs to SE of net, no longer hearing bird JR had just songposted to the NE. MD pursues M E up on Lodgepole R. to try to songpost him, but returns to the lure net before he reaches the vocalizing owl because an owl had been caught in the net.

2412—Bird caught 4th shelf from the N. **Unbanded silent M**. **B6?** Unclear whether M caught

is the territorial M or a silent floater. B6 M had been singing up until 2400 when the supposed B19 M started singing to the SW.

**Band # 1593-64879** (on L leg)

88.5 g LWC: 134 mm

- 29.0 g LLP(5): 98 mm

59.5 g LLP(6): 108 mm

Rect: 60 mm

JR bled R wing, CC smeared, small hematoma.

Playback turned off when M was found.

2442—JR released bird, strong ascending long flight to the SW.

# B6—2013

## 29 May 2013

1600—SY, NS, LL, and CK arrive at the B6 aspen flat to begin peeping.

1638—**Tree #230 is peeped. F is down in cavity. This is the B6\_2013 nest (tag #230). Nest tree is a live potr in the main B6 aspen flat located approximately 30 m W of Missouri Creek. Nest cavity is NW facing in a former branch hole. Nest cavity is NOT the obvious S facing flicker sized hole. Nest height is 20’7”.** F remains down the entire time.

~1715—We end peeping.

2030—NS and LL arrive at B6\_2013 next to observe F behavior and peep nest.

2033—M calls of roost, ~40 m up drainage (NNE.)

2037—F gives LC from nest.

2037—F up.

2038—F flushes to SSW. Her flight is short and low to nearby psme, suggesting she may still be

gravid. **We peep, 2 eggs in center**. We back off the nest. LCs continue between M

(still to NNE of next) and F (still to SSW of nest.)

2045—We leave site.

2137—RC, AW, and BDG arrive at S end of Grave R with the intention of luring for the B6 M and B19 M. Net was set up low on the S facing slope, 200m NW of B6 parking spot. Playback begin.

Vegetation: Open, mature pipo/psme with some younger potr

Weather: Calm and clear, 4 C

X: 496202

Y: 4333355

+/- 4m

2141—B6 M gives TC and approaches net from the E until going silent at 2144. No bird in net when checked.

2158—AW and RC leave to B19 to listen and spotmap

2229—Silent bird observed perching in tree <2m from playback and <2m high, SE of net. Bird makes a short flight to tree 3m away, never flies into net.

2248—Playback moved to W side of net

2327—End playback

## 4 June 2013

2023—SY and CK arrive at B6\_230 2013 nest west of the N Missouri Cr drainage in the low slop of Grave R to capture female and check on status of eggs in cavity.

Vegetation: open area with small to mature potr, small to med psme

Weather: clear, calm, 2C.

2025—M gives TCs to the NW of the cavity tree ~25m.

2027—We set the net up due to M vocalizations in the cavity proximity.

2240—M FLOW spotted flying overhead behind us to the N/NW of cavity ~10m away.

2040-2052—M FLOW continues sustained TCs to the N/NW of cavity and moves in closer as the light diminishes.

2053—M gives TECs ~5m away.

2054—F responds by giving LCs from the nest cavity, while M remains ~5m away perched on a branch to the north of the cavity.

2058—F gives FSCs from the cavity.

2102—Male responds to F FSCs, so SY moves capture net to the side. M makes a PD. Less than a minute later, M makes a second PD after SY removes capture net from the cavity again.

2103—F enters cavity entrances and flushes into the capture net less than a minute later. SY captures F FLOW. **F is previously banded and was the B8\_2010, 2011, and 2012 F! Nest failure occurred in each of these years, yet the F remained in the same territory with the same M (1593-64431; B6\_2005) in all 3 years.**

**Band # 1593-64748 (on ? leg)**

99.0 g LWC: 132 mm

- 17.0 g

82.0 g

2105—CK peeps the cavity and finds **3 eggs center touching**.

2107—SY releases F FLOW. F has a solid flight to the S.

2109—We leave the nest cavity and head to B2/11 on Shooting Star Ridge.

## 7 June 2013

~2030—BDG and BL arrive at the B6\_2013 nest to attempt capture of M.

2035—BDG gets into capture position at the nest. No attempt by F to rise to the entrance.

2043—We hear M call off his roost approximately 50 m to the N on the lower slope of the S-

facing ridge.

2048—M comes into nest area giving LC. Shortly thereafter the M flies off without approaching

the cavity.

2054—**M returns, and at this time makes a PD inside the cavity—BDG captures him as he**

**exits. M was previously banded with Band # 1593-64681—this is the B6\_2009 M**

**(and likely on the territory last year although with the failed nest he was uncaptured)!**

**Band # 1593-64681**

90.0 g LWC: 137 mm

- 34.5 g LLP(5): 101 mm

55.5 g LLP(6): 108 mm

Rect: 64 mm

Blood was not taken, and blacklight was not available to check porphyrin. Wear: P6-10, score 2.5 (scale 1-3). P1-5, score 1 (scale 1-3).

~2104—Female not in nest. BDG peeps B6 nest and there are **three eggs touching in the**

**center**.

2108—M shows strong flight as we release him.

## 20 June 2013

2018—CK arrives at B6\_2013 (#230) nest tree to peep for possible hatching. F is down on arrival.

2053—M TCs to the N ~50m away then he gradually to the W/SW ~50m away.

2053—2120—M giving sustained TCs in the nest vicinity, however F gives no response.

2125—CK decides to approach cavity and elicit a F response. No response or visual after tapping the tree.

2127—**CK peeps the cavity to find no F or eggs present in the cavity. It appears the nest is**

**full of feathers and egg shell fragments. The B6\_2013 has been predated.**

# B6—2014

## 28 May 2014

1530—Flam crew arrives in E Missouri Creek with purpose of peeping B6/19/8/7 territories. BL, AW, RD, and MP begin peeping at the southern end of B7 and proceed N while SY, LL, RC, JS, and ER begin peeping at the B6 parking area and proceed N.

1730—End peeping having found nothing.

2055—RC, LL, and JS arrive at B6 parking area to lure net. Net is set up <5m W of road in stand of small potr across from parking area.

**Vegetation**: young pipo/potr stand with some mature pipo/psme nearby, open.

**Weather**: 10.5C, partly cloudy early but quickly clearing, very slight breeze.

X: 0496173

Y: 4333309

+/- 3m

2120—PB begin.

2126—M approaches net area quickly from W side, giving TC/TEC/HECs. Wing flaps heard. **M in net, 3rd shelf from W side. Previously banded. This was the B5\_2012 floater who is now apparently a territory holder in the area. This is another documented case of a floater progressing to territory holder status in an adjacent territory.**

**Band # 1783-64322** (on R leg)

71.0 g LWC: 138 mm

- 16.0 g LLP(5): 99 mm

55.0 g LLP(6): 109 mm

Rect: 59 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0 | 0 |
| P5 | 0 | 0 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 1.0 | 1.0 |
| P10 | 1.0 | 1.0 |

Note: Large hematoma after bleed.

2157—M released. Strong ascending flight NW to potr perch 7m up.

2202—TCs heard 50m E of net toward Missouri Cr drainage.

2206—M makes long flight from drainage to net site. Brief TCs in net vicinity. Wing flaps heard, but net empty upon check. M resumes TCing momentarily back 40-50m E in drainage. M goes silent within 5 min.

2230—All silent at net. LL stays while RC and JS spread out in B6 portion of Miss. Cr drainage to tap and listen. Nothing seen or heard.

2255—M TC/TECing in net vicinity. 2nd M TCing distantly S down drainage.

2300—RC and JS return. M TC/TECing in net vicinity, mostly sedentary.

2302—2nd bird still TCing distantly to S. M in net vicinity goes silent.

2307—PB off. We break down. All silent.

2327—We split up to spot map in Miss. Cr drainage. We move S from parking area first into B19 area. JS heads ~100m down drainage, LL stays in potrs just SE of parking area, RC goes NW and then N of parking area.

2335—RC hears TCs distantly to S from net area. Neither JS nor LL hear bird.

2340—RC hears brief TCs in drainage 50m E of parking area as well as southern bird and pursues, but TCs stop quickly and go silent.

2344—JS hears flush above head from low branch of pipo near B6 and B19 border, 10m from marked songpost. Bird flies E.

2400—JS, RC and LL move up into B6 proper to listen.

2417—Brief TCs heard 80-100m N of parking area in drainage bottom, but lost quickly.

2419—LL hears brief TCs again in same area with possible FSCs simultaneously.

2431—M TCs ~100-120m N of parking area.

0100—We leave.

## 6 June 2014

~1645—Flam Crew arrives in B6 and B19 territories to peep remaining trees that were not

peeped on 28 May 2014. SY, JS, and AW peep trees at base of W Missouri Creek and move up drainage, peeping trees until about halfway to B18. The rest of crew peeps trees in the main drainage at the southern end of B6.

~1530—We leave having found nothing.

2115—JS and BL arrive at the B6 parking area to assist in the whole-crew listening effort for possible nesting vocalizations along the length of N Missouri Creek from B6 to B7. JS nearly immediately travels to join SY et al., who are responding to vocalizations in the area of B19. BL heads north into B6 territory.

Weather: Mostly clear, calm, approximately 13 C.

2120—As I approach to within 100 m of the aspen flat area in N B16 territory, I hear faint LC from a M to the N. I hasten to this area.

2131—After waiting out the passage of multiple jet passages overhead, I hear LC from a M nearby. I pursue and locate a M perched in the top of a Potr, about 10 m from a Potr cavity tree. He flies off, but I tap this cavity tree—a FLOW flushes from the backside of the cavity to a tree approximately 20 m distant.

2135—**This FLOW returns to the cavity on the Potr cavity tree—this is the B6\_2014 nest tree! Nest tree is tag # 230, which is a live Potr with at least 2 cavities visible; the nest cavity is the upper cavity (lower cavity is approximately 5 m high) at about 7.5 m high, and is a NOFL-sized cavity in the black-colored remains of a limb hole facing N/NW. This also was the B6\_2013 nest cavity; this suggests the F will be new, since the nest in this location failed last year**. **Nest tree is approximately 30 m W of Missouri Cr in the mid-portion of the aspen flat.**

2137—M makes PD in nest cavity. Same at 2139, and 2141. **F appears to be incubating, but clear is energetically recovering from clutch production**.

2145—I leave area.

## 10 June 2014

2045—LL and JV arrive at B6\_2014 nest tree for an attempted capture of the M. F is down.

2046—M calls off roost to the SW. He quickly switches to LCs.

2048—F pops up in entrance and gives several FSCs.

2049—F flushes. **JV peeps nest. There are 3 eggs in the center, touching. Cavity is at 20’5”.**

Weather: partly cloudy, calm, 9C

2117—F comes back on. LL starts to move into capture position.

2118—M PD.

2119—M PD.

2121—LL has net in place.

2124—M PD. He eludes capture net.

2129—M PD. He eludes capture net.

2130—M is wary of making PDs and aborts three.

2132—M PD. He eludes capture net.

2139—M PD. He eludes capture net.

2142—M PD. He hits the capture net but escapes. Net gets caught on nest tree.

2144—F flushes.

2145—JV and LL leave nest site.

## 16 June 2014

2055—RD, LL, and RC arrive at B6\_2014 nest intending to capture the B6\_2014 M on a PD at the nest. F is off cavity as we find a spotting location. We wait for F to return.

2120—M arrives in nest vicinity, gives 3 soft TCs/ LCs.

2122—F comes back on nest.

2123—FSCs in cavity. M gives LCs followed by a PD. LL begins approaching nest tree w/ capture pole.

2125—M gives PD, LL has net in place.

2130—PD aborted.

2131—PD aborted.

2133—PD aborted.

2134—PD aborted.

2136—PD aborted, M seems to be wary of being lit up by RC when giving PDs. F giving consistent FSCs, M giving LCs/ TCs during PDs. LL has not had much chance to attempt capturing as the M moves off cavity so quickly.

2138—LL captures M, but he escapes the net as she is lowering the capture pole.

2142—M makes a PD, RC waiting to light him up for several seconds after he alights on the cavity.

2149—**LL captures M, RC choosing not to light him, allowing LL time to move net into place. The M is previously banded and is the B6\_2009 M. This M has been the B6 territory holder since 2009.**

**Band # 1593-64681 (on R leg)**

92.0 g LWC: 134 mm

- 34.0 g LLP(5): 102 mm

58.0 g LLP(6): 111 mm

Rect: 64 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | 1.5 | .5 |
| P5 | 1.5 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2.5 | 2.5 |

*Note: LL bleeds M as he has not been bled since 2009. The R wing has a large pink mass, likely muscle, and clots quickly when bleed is attempted. The muscle is less prominent on the L wing and LL is able to perform the bleed successfully on this wing.*

2221—RC releases M, strong ascending flight E. F begins begging immediately, evincing strange telepathic abilities. We leave and head to B12 to attempt M capture at nest.

## 20 June 2014

2027—RD and LL arrive at B6 2014 nest site intending to capture the F.

2035—RD in capture position

Weather: calm, partly cloudy, 10C

2040—M calls off roost to E.

2043—M gives another call to E.

2049—RD brushes tree with capture pole, F comes up into cavity mouth.

2050—M gives more calls.

2053—M gives LCs in the nest site, TCs, F gives FSCs

2055—**F flushes and is captured. She is unbanded. We do not process her.**

**Band # 1783-64526 (on L leg)**

2101—F released, strong flight S. RD and LL **peep and see 3 eggs centered and touching, possible small cracks in one of the eggs.**

2105—RD and LL head to B19 to capture M.

## 27 June 2014

2037—AW and RB arrive at the B6\_2014 nest to check on status of nestlings.

Weather: clear, light breeze, 14C

2056—M PD.

2100—M PD.

2102—M PD. F comes up to entrance.

2103—F goes down.

2104—M PD.

2105—M PD.

2110—M PD.

2111—F flushes.

2112—PD.

2113—**We peep and find 3 nestlings. Two nestlings are very active when peeper initially goes into cavity. Both can hold their heads up. One nestling (clearly the runt) is below the two older nestlings and remains mostly inactive throughout peep and cannot hold its head up. All 3 nestlings have closed eyes and all white natal down. They look to be able ~5 days old.**

## 07 July 2014

1518—The Flam Crew approaches the B6\_2014 nest with the intent to capture and bleed the F and to band and bleed the nestlings. JV raises the capture net over the cavity to catch the F is she flushes.

1519—We peep the cavity. Unfortunately, the camera is incredibly foggy and it is difficult to make out anything in the cavity, but we have doubts as to whether there are any owls inside. We do see a possible FLOW shaped blob in the back of the cavity, so BL decides to climb to tree to get cavity measurements and a closer look.

1531—BL tree hooks up the B6\_2014 nest tree and takes measurements on the cavity.

Horizontal by Vertical: 65 by 80mm

Depth at Horizontal: 180mm

Entrance thickness: 30mm

DOH: 27.5cm

Cavity Height: 20’9”

Cavity Depth: 30cm

1535—BL uses a hand saw to begin cutting a larger cavity entrance.

1538—BL reaches in cavity to only find a few egg shells and NOFL feathers. **Unfortunately, the B6\_2014 nest has failed**. We find two nestling carcasses a few meters S of the nest tree that show signs of squirrel predation, but were fairly decomposed. Both nestlings were in all white natal down as far as we can tell and fairly small. We suspect that predation probably occurred greater than four days previously based on decomposition and size of nestlings compared to our last peep on 6/27.

# B6—2015

## 27 May 2015

1545-1715: Flam Crew peeps the N end of the B6 territory, and selected cavity trees in the area of the B21 territory. Nothing found.

2259—SY and DH start playback at a net on the W upper slope of Grave Ridge, somewhere along the B6/B21 interface.

Vegetation: Young to mature pipo/psme/potr, medium density.

Weather: 6C, clear, calm.

X: 496217

Y: 4333527

+/-18m

2313—F gives LCs then FSC right at the net.

2316—SY checks the net and observes the F flush from the ground and fly under the net.

2321—**FLOW caught in 1st shelf on E side of net. Previously unbanded.**

2322—FLOW extracted from net by SY and began banding. Small incubation patch evident indicating F.

**New** **Band #1833-03249 placed on left leg**.

SY noticed FLOW has mites. No measurements taken so as to not handle F for too long.

2327— FLOW released. Strong ascending flight E/NE.

2329—Just as we move to stop PB, a M begins giving TCs in the net site. The recently released F is giving FSCs and LCs. We decide to keep playback going for a couple minutes to try to capture the M.

2331—We capture the same F again in the 2nd shelf on W side of net (Band #1833-03249). We immediately release her, stop playback and breakdown the net.

2348—Begin listening in northern B21/B6 area (DH on W side of Grave R., SY in drainage bottom). Minor bear issues forces us both into the drainage.

2355-2440—We travel through the main B6 aspen flat then back down along Missouri Cr. Through B21. We do not hear anything during this time.

2445—From the B6 parking spot, SY hears a M to the SE from the direction of the historic B19 nesting area. I chase M but he quickly goes quiet. I go to check the area of the B19\_2014 nest, nothing can be heard here due to the creeks. I tap last year’s nest but get no response.

0101—We leave this area and head to B7/B8 to join RC and LP.

## 2 June 2015

2323—DL and SY arrive on top of Grave R. to listen and watch for courtship behavior.

2332—We head into the drainage bottom and ~30m below the main B6 aspen flat, we hear M to the E across the drainage right in the vicinity of the past B6 nests located on the east side of the creek.. Creek quite loud and we lose him.

~2345—Hear a different M giving TCs to the distant S and begin to follow him down creek. DL stays to the S to listen and SY returns to the N.

2412—From the main B6 aspen flat, SY hears a single TC back towards where we originally heard the male. DL still chasing a bird to the S.

2418—From the past nest trees E of the creek, SY hears TCs back to the W side of the creek. I chase but he quickly goes quiet.

2421—From creek bottom, SY hears TECs just out of the drainage bottom. SY chases and gets close enough to see a M flush to the N. I hang a general area songpost.

2426—As SY is hanging the songpost, I hear M TCs and LCs as well as FSCs ~10m N. I chase and see a F acting somewhat gravid.

2451-0120—DL and SY follow M and F traveling around small area on both sides of the creek roughly parallel with the past B6 nests on the E side of Cr. We see several PDs and a few short flights. Unclear if F is gravid, but suspect she may be based on fairly short flights. She is consistently staying ~3-7m above the ground and in ~30m radius area W of the creek near the songpost SY hung earlier in the night. While we watch her, M is giving LCs and quiet TCs while circling around the area.

0120—We leave.

## 8 June 2015

2041—ER arrives about halfway in between the B21\_2014 nest and the B6\_2014 nest to listen for courtship or nesting vocalizations about 100m S of the B6 aspen flat. I listen on the game trail on the W side of Missouri Cr.

2044—ER hears a ventriloquist M FLOW call of roost. I stay put.

2046—ER spots a suspected owl head in a cavity tree about 15m E across the creek. I watch.

2048—A M FLOW lands in the vicinity of the suspected cavity tree, giving LCs. He flies to a potr about 3m NE of the tree, and then makes a PD to the F in the suspected cavity! Both birds fly N, out of site. ER crosses creek to get cavity tree specs. **This is the B21\_2015 nest! The nest tree is potr snag with tag #14 and territory ID B6\_41 about 10m E of the creek. The cavity is a keyhole entrance about 6m high, facing NNW. It was previously the B6\_2009 nest.**

2051—M returns to cavity and gives LCs from the entrance for about 30 secs, then leaves after realizing F is not there. ER leaves. M gives LCs .

2058—ER arrives in the B6 aspen flat drainages to listen for a potential B6 nesting pair in the flat, up Missouri Cr, and in the B6 side drainage off of Grave R. I see and hear nothing.

~2130—RC joins ER on the game trail across from the B21\_2015 nest to show him the cavity. We both go further N into B6 to listen.

2140—RC leaves to attempt M capture at B19 again. ER continues listening in B6, but hears and sees nothing.

2227—RC and ER set up a lure net on the N/S spur of Grave R at the northern end of the B6 aspen flat about 40m N of the terminus of the spur. We erect an L net with both in an E/W aspect. Playback begins.

Vegetation: Young to med pipu, psme, young potr, and med to mature pipo. Relatively open.

Weather: Clear, calm, 10C.

X: 496329

Y: 4333739

+/- 9

2228—A M approaches the net from the NE end of the B6 aspen flat about 40m SE of the net, giving TCs and TECs. This is presumably the B6\_M.

2229—The first M starts giving HECs at the net and a second M approaches the net from the SW, giving TECs. He is presumably the B21\_M. Both Ms give HECs within 5m of the net, and then jump to the W of the net where RC and ER are listening. Both birds continue to give HECs, but seem distracted by each other.

2231—Both birds move further W about 20m from the nest downslope toward the W side drainage off N Missouri Cr in B6.

2234—The first M (presumed B6\_M) chases the second M (presumed B21\_M) to the SW. We hear the B6\_M giving HECs from the W slope of the spur ridge about 30m from our net and the B21\_M on the low slope of Grave R on the W edge of the B6 aspen flat.

2242—Both Ms go silent.

2244—Presumed B6\_M gives a couple TCs from the terminus of the spur ridge of Grave about 30m S of our net.

2251—B6\_M gives hoarse TCs a few meters S of our net, then goes silent. Possible wingflaps.

2255—**An unbanded M is in the 1st shelf on the W side of the net! This is the presumed B6\_M!**

**Band # 1833-03236 (on R leg)**

71.5 g LWC: 133 mm

- 15.5 g LLP(5): 100 mm

56.0 g LLP(6): 110 mm

Rect: 65 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0.5 |
| P2 | 0 | 0.5 |
| P3 | 0.5 | 1 |
| P4 | 1 | 2 |
| P5 | 0.5 | 0.5 |
| P6 | 0.5 large notch | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2.5 | 2.5 |

**Note: Left wing bled for genetics.**

2318—The M is released with a strong, ascending flight NE.

2321—RC leaves to listen further N up Missouri Cr.

2325—Presumed B6\_M gives a few HECs from just N of the B6 aspen up Missouri Cr about 40m NNE of the net.

2330—ER listens just S of net in the B6 aspen flat.

2338—Presumed B6\_M gives more TCs from the N end of the aspen flat, just E of the net.

2340—M starts giving TCs and TECs from NE end of the aspen flat and moves upslope on the spur of Grave R toward the net.

2345—ER returns to net site. M is still calling about 15m E of the net.

2401—PB stopped. RC returns, and we crash the net.

2418—ER and RC split up to listen in B6/B21. ER is positioned on the mid E-facing slope of Grave R about 40m N of the B21\_2015 nest. RC starts near the spur ridge of Grave at the N end of the B6 aspen flat.

2427—The B21\_M gives TCs for three minutes on the low E-facing slope of Grave R directly W of the B21\_2015 nest in a live psme. **ER hangs songpost B21\_1.**

X: 496265

Y: 4333542

+/- 10m

2430—The B21\_M flies S and gives TCs near the S terminus of Grave R.

2433—The B21\_M pops back N across from the B21\_2015 nest, giving TCs. The presumed B6\_M gives a few TCs to the N in response near S end of B6 potr flat and 40m W up E-facing slope of Grave R. Both birds go silent.

2434-0125—RC and ER listen around the B6 aspen flat, further N up Missouri Cr, and in the W side drainage at the N end of the aspen flat. We hear nothing more. We leave.

## 10 June 2015

Afternoon—Flam Crew peeps out the B7 territory down to the edge of BG4 and up until the failed (Likely B7) nest.

~1605—While RC is peeping B8\_2014 nest tree #1336, RC and LP hear M giving TECs 5-10m N of nest tree. RC has peeper up ~40ft when calls are given. LP pursues and quickly spots M roosting in ~15cm dbh live psme. M is perched ~8m up in tree against the trunk on a small branch. RC has already peeped all but the highest cavity in tree and found nothing. The rest of the crew joins RC and LP to observe M. RC re-peeps highlight cavities in tree, including 2014 nest cavity, with several spectators.

~1630—Flam crew moves in to B6 to peep some highlight trees. We have very spotty coverage but find nothing. SY peeps some B19 trees under the suspicion that what we are calling the B19 nest is in fact B21.

## 15 June 2015

2052—MC, RC, DL, and ER arrive in B6 to listen for nesting or territorial vocalizations once the rain has slowed down. We spread out from the S end of the B6 aspen flat to about 100m up Missouri Cr past the B6 aspen flat, with DL in the side drainage W of Grave R spur.

2106—MC hears two quiet TCs about 20m E of the Missouri Cr at the mouth of the B6 aspen flat. MC pursues but hears nothing else. From 60-70m N up Missouri Cr from end of Grave R spur, RC hears MC’s M to S as well as a couple of TECs ~60m NNE of RC on low W-facing slope of Lodgepole R. RC pursues and ER joins. We listen and tap trees near area where M was heard, but we never hear anything else.

2133—After hearing nothing more in B6 we split to attempt M captures. RC and DL leave for B19, MC leaves to fetch the capture pole, and ER stays at the B21\_2015 nest to observe activity and insure F is back on cavity.

2134—ER hears FSCs pick up from inside the cavity. The F has returned from flush.

Weather: Cloudy, rain on-and-off all night, light breeze.

2137—M comes into the site giving LCs. M makes a PD, and then perches on a small potr snag (DBH~4cm) about 3m N of the nest tree and gives occasional TCs in ER’s direction.

2141—M flies ENE to the low slope of Lodgepole R and gives a few LCs from about 20m E of the nest, then goes silent. MC arrives S of the nest to attempt M capture.

2149—While MC has capture pole extended, a M gives a few TCs from about 5m W of the B21\_2015 nest. MC sees a silent FLOW fly W to E from the direction of the M that just gave TCs while the W M gives another TC.

2150—The presumed B21\_M gives TCs about 10m E of the B21\_2015 nest while the second W male gives a few more TCs before going silent. The B21 \_F gives FSCs from the cavity.

2151—The B21\_M makes a PD. MC puts capture net over cavity. The B21\_M comes up into the entrance to the cavity, giving quiet TCs and TECs. He then proceeds to go up-and-down in the cavity for the next three minutes. F is giving FSCs from the cavity.

2154—The M flushes into the net, but wiggles his way out.

~2200—The rain begins to pick up, so we return to the car to wait it out.

2259—ER returns to the B21\_2015 nest to spot cavity for second attempt at M capture.

2302—M perches in potr adjacent to nest, giving LCs. F begs from cavity.

2305—M makes a PD.

2309—MC arrives in nest site and sneaks the net up to cavity height.

2321—The B21\_M comes into the nest site from the E, giving LCs. F gives FSCs in cavity.

2325—The M perches in the nest tree about 2m below the nest, then makes a PD. MC puts the net over the cavity.

2326—M flushes into the net but makes like Houdini and escapes.

2410—The B21\_M gives LCs in the nest site.

2411—M makes a PD. MC puts net over the cavity.

2412—**M flushes into the net and gets caught! He is the B21\_2014 M!**

**Band # 1783-64322 (on x leg)**

72.0 g LWC: 134 mm

- 15.5 g LLP(5): 98 mm

56.5 g LLP(6): 108 mm

Rect: 61 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 1 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2.5 |
| P10 | 2.5 | 2.5 |

2424—We release the B21\_M with a strong ascending flight N to a potr snag about 15m from the nest. We leave.

2435—MC and ER go back into B6 to listen from the B6 aspen flat to about 100m N up Missouri Cr and up the W side drainage in Grave R. We hear and see nothing.

~0110—We leave.

## 19 June 2015

2114—NS and ER arrive in the B6 aspen flat to listen for nesting or territorial vocalizations and activity. ER listens in the confluence at the N end of the aspen flat and up the NW drainage. NS listens about 70m up N Missouri Cr. We see and hear nothing.

~2135—NS and ER leave to meet RC to go to B8.

2255—RC, ER, and NS arrive in B6 to tap, listen, and nest search. NS starts in upper potr flat/confluence area between Missouri Cr and western side dr. ER moves ~80m N up Missouri Cr and RC starts 40m N of S terminus on spur of Grave R.

2300—From confluence area, NS hears TCs from a M ~50m W on low E-facing slope of Grave R. M quickly goes silent.

2304—RC hoots from position on spur of Grave R and M responds with a few TCs 50m WNW on very low E-facing slope of Grave R, nearly in the dr bottom of W side dr.

2306—M gives a couple more TCs in this area then goes silent.

2314—ER solicits hoots and the M responds with TCs on the midslope of grave abou 150m NW from the confluence of the W side dr with N Missouri Cr.

2319—The NW M gives a few more TCs on the NW midslope of Grave R for about 15 seconds.

2320—TCs distantly to SSW near top of Grave R. Likely B19/B21 M. RC pursues briefly, but M (possibly 2 Ms) very far away.

2329—RC hears single faint hoot in confluence area or possibly N past confluence in Missouri Cr. RC pursues and taps trees in the area, but never picks up M again.

2345—We tap our way out of the B6 aspen flat and leave.

## 30 June 2015

2220—SY and ER arrive in the B21\_2015 nest vicinity to peep and assess nest progress. F is down in the cavity upon our approach. SY taps tree and F pops up in the entrance. We attempt to flush her with the peeper, but she goes back down in the cavity. **We peep anyway, but F is covering cavity contents. We see egg shells on the cavity floor surrounding the F, so some if not all the nestlings have hatched.** We leave.

2224—From the trail just W of the B21\_2015 nest, we hear the B21 M give a few LCs from a potr about 5m S of the nest tree. M then makes a PD. We leave to listen in B6.

2230—SY and ER spread out in B6. SY begins listening up N Missouri Cr past the B6 aspen flat, and ER listens in the aspen flat and up the W side drainage.

2234—The B21 M gives a series of about five TCs from the low slope of Grave R across from the B21 nest. ER pursues, but M goes silent.

2241—From just above the Aspen Flat, SY hears a few TCs to the E, just across E Missouri Cr. M quickly goes quiet.

2318—The B21 M gives a few more TCs from the drainage bottom in the nest vicinity.

2337—From the ridgetop of the spur of Grave R N of the aspen flat, ER hears a M gives low LCs from the E side of N Missouri Cr about 30m N of the B6 aspen flat. M gives a total of four LCs from this area. This is the presumed B6 M. ER follows, and SY joins her in the drainage.

2345—From E side of the cr, we hear a couple more LCs about 20m S of us, still of the E side. We follow.

2347—M gives two LCs from the low slope of Lodgepole R about 20m ESE of where he called in the drainage.

2349—M gives a series of TCs bouncing N about 40m on the low slope Lodgepole R. just E of the B6\_2004 nest tree. He then goes silent. SY and ER listen and tap trees in along the E stretch of the cr where we heard the M vocalize, but we see and hear nothing else.

~2430—We leave.

## 01 July 2015

1700—LP and crew are in B6 area peeping with intent to find B6\_2015 nest tree. **LP’s peep of previously unenumerated potr reveals F FLOW in cavity—this is the B6\_2015 nest tree!** The tree was tapped at first, but she did not rise to entrance of cavity at tap. F was tight on bottom of cavity and did not move at all when cavity was peeped (cavity was peeped again ~10 minutes later and she appeared more “anxious” at this time). **The cavity is a bear tear on S facing (down drainage) side of live potr with dbh ~28.0 cm located in middle of main/eastern drainage of B6. Estimated height of cavity is 26ft. Nest tree is located in the N end of B6 territory, approximately 150 m up-drainage (N) of the confluence of forks in the E fork, and is positioned near the base of the W-facing slope on the E side of the drainage.** Orange flagging is attached to tree, but this tree is unenumerated!

Weather: Overcast, rainy

X: 496445

Y: 4333906

+/- 20m

1712—We leave nest area.

## 2 July 2015

2028—SY arrives at the B6\_2015 nest to attempt to capture the F.

Weather: 11C, mostly clear, calm.

2040—Net in capture position.

2053—M gives TCs ~50m NW of the nest.2058—M begins giving intermittent TCs, down drainage to the S, 50-75m away.

2105—**F flushes and is captured. She is previously unbanded.**

**New Band #1833-03254 (on L? leg)**

89.0 g

- 18.0 g

71.0 g

*Note*: During the banding process I crimp a band. I am able to remove the band and put a new on the bird prior to release, but it results in holding the F for ~14 minutes.

2119—Release F – strong flight to the W. **I peep: 2 eggs with no sign of hatching yet.** I leave.

## 7 July 2015

2418—RC and LP arrive in B6\_2015 nest area to capture M on PD. F down on arrival. LP spots cavity while RC approaches tree and raises net. F stays down.

Cavity height: 25’6”

2430—No sign of M. We pull down net and leave.

## 8 July 2015

2233—BL arrives in the vicinity of the B6\_2015 nest tree to attempt capture of M. All quiet in the nest area, and F is not in the entrance.

2234—I scratch the nest tree, and the F rises to the cavity entrance and promptly flushes.

2244—F not yet back on, so I back out of the nest area.

2310—I return to the nest tree, and very softly scratch the nest tree to see if F has returns—and she promptly flushes. I back out of the nest area.

2330—I hear M come into the nest area giving LC, to which the F responds with FSC off cavity.

2335—I leave.

## 10 July 2015

2233—S Getty and BL arrive in the vicinity of the B6\_2015 nest tree to attempt capture of M. All quiet in the nest area, and F is not in the entrance. BL gets in capture position beneath the cavity.

2330—F flushes cavity (apparently of her own volition), and we leave. M came into the nest area once and attempted a PD at approximately 2315, but then backed off.

## 13 July 2015

2038—MC and ER arrive in the B6\_2015 nest vicinity with the intent of M capture. ER gets in position to spot the cavity and MC begins his approach with the capture pole in hopes of catching the M before the F flushes. F is either already off cavity or down.

2045—MC gets net at cavity height. At this time, a silent FLOW flies from the W to perch on a small potr about 2m E of the nest tree and stares us down for ~1minute.

2046—Silent FLOW flies S out of sight.

2053—M gives LCs, beginning ~30m N of the nest, but approaching the nest site.

2055—F pops up in the entrance of the cavity.

2056—M arrives in nest site, giving LCs, and makes a flutter PD to the cavity entrance. MC swings net and captures M as he flies from the cavity and F as she flushes. F escapes from the top of the bag, and the M flies straight through a hole in the bottom of the bag. Boo, owls!! Cavity height is 25’3”. **We peep to see two eggs with not obvious signs of cracking.** MC backs off to repair the net, and ER stays in position about 10m upslope from the net to observe.

2059—M comes into the nest site from the SE and perches in conifer about 3m SE of the nest tree, giving quiet TCs and TECs for three minutes.

2107—F returns to cavity.

2114—M makes a PD. M does not vocalize, but F begins giving FSCs and three-note LCs from the cavity. M perches in the cavity entrance for a few seconds and then spends about 1minute down in the cavity. F continues to vocalize.

2122—Same.

2129—MC begins to approach the nest with capture pole to attempt capture again. As he nears nest tree, F pops up in the entrance. We kill lights.

2133—F down in the cavity.

2135—MC gets net back up at capture height.

2141—M comes into the nest site from the SW and perches in conifer a few meters SW of the nest, giving quiet staccato LCs. **M makes a PD to the F, and MC swings capture net over the cavity and snags the M as he flushes. He is an unbanded M!! and the B6\_2015 M.** *Interestingly, he is not the territorial M that RC and ER caught on the spur of Grave R above the B6 aspen flat, giving HECs. This means there is a second, unaccounted for, territorial M in the area.*

**Band # 1833-03284 (on L leg)**

80.0 g LWC: 126 mm

- 20.5 g LLP(5): 95 mm

59.5 g LLP(6): 102 mm

Rect: 62 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 (Molt: 44 (21)) | 0 (Molt: 45 (21)) |
| P2 | 0 (Molt: 81) | 0 (Molt: 34 (25)) |
| P3 | 0 (Molt:29 (23)) | 0 (Molt: 25 (20)) |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 0.5 | 1 |
| P7 | 1 | 1 |
| P8 | 1.5 | 1.5 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

**Note: Bled L wing, medium hematoma.**

2233—Release B6\_2015 M with a strong horizontal flight S toward the nest and out of sight. We leave.

## 21 July 2015

2035—RC and LP arrive in B6\_2015 nest area to capture and possibly bleed F based on peep. F down on arrival. LP approaches with capture net.

2036—LP at tree. Net going up.

2039—Net in place over cavity. F stays down.

Weather: Mostly cloudy, calm

2046—M in site. Brief LCs near cavity.

2049—M flies into site from W, givfes a few more LCs that turn gradually into TECs by 2050.

2051—F flushes into net, escapes through hole. **Peep reveals 1 N and apparently 1 unhatched egg, likely a dud. The N N is mostly white with gray on scaps. There may be some gray on head, but if so it is a very small amount and we have some difficulty seeing due to cavity depth. N has head up and eyes open, but is not extremely active. Est. age: 9 days.**

2055—We leave.

## 24 July 2015

2032—RC and DL arrive in B6\_2015 nest site to capture F, peep, and possibly bleed F. F down on arrival. DL approaches and begins raising net.

2036—Net over cavity. F stays down.

Weather: Mostly cloudy, calm, late afternoon rains left ground wet.

2041—M in nest site. LCs near cavity, brief.  
2049—M back in site. LCs.

2052—LCs, aborted PD, LCs.

2053—LCs, aborted PD, weak scold from M. **F flushes into net.** F is previously banded and captured this year as the B6\_2015 F. **Peep shows 1 N in cavity with a dud egg. N has quite dark wings/scaps in addition to some gray coming in on head and body. Est. age: ~12 days. This aligns with previous peep on 7/21/15.** We process and bleed F.

**Band # 1833-03254 (on L leg)**

75.5 g LWC: 128 mm

- 15.5 g LLP(5): 101 mm

60.0 g LLP(6): 109 mm

Rect: 62 mm

Notes: We bleed R wing for gen. sample. Moderate hematoma. F has something interesting going on with her right eye, possibly a cataract. Pupil appears milky and clouded. Very striking in hand. This does not appear to be the result of an external injury.

2109—F released with a strong ascending flight S.

2112—We leave to aid SY, who is currently inundated with birds in BG4/5.

## 28 July 2015

850—Flam crew arrives to band and bleed last N of the season! F down on arrival, comes up as we enter site.

851—F flushes as we raise peeper. Peep shows 1 N, difficult to discern on peep. ER begins enumerating nest tree while BL hooks up. **Tree gets tag #1557**.

859—BL ascending.

901—BL up. No enlargement necessary.

Cavity Characteristics

Height: 25’5”

Entrance H x V: 90 x 390 mm

Depth H x V: 170 x 550 mm

Entrance Thickness: 60 mm

DOH: 30.0 cm

Note: This cavity has a double entrance. The cavity always observed to be used was the bear tear (quantified above). The second cavity is ~18” lower and is NOFL-sized. We take no measurements on this entrance.

910—N out. No dud egg present as previously suspected. *Later peep of lower cavity shows that there is possibly still a large egg fragment in the cavity, but no full egg.*

**Owlet Solo**

57.4 g

P#5: 37 mm

P#6: 37 mm

Rect: 12 mm

Band#: **1833-03253** (on L leg)

Notes: Bled L wing (gen.), small hematoma.

~925—Flam crew takes team photo with style and grace.

~945—MC ascends nest tree to replace N.

951—N back in. MC descends.

955—MC down. We leave.

# B6—2016

## 1 June 2016

~1530-1715—Flam Crew peeps along N. Missouri Cr. from B7 to B6. **The B6\_2016, B21\_2016, and B8\_2016 nests are found**. Past nest trees and other appealing cavity trees are cherry picked in B19 and B7.

1555—**ER finds the B6\_2016 nest in tree B6\_1557** about 200m NE up N. Missouri Cr from the B6 aspen flat. The nest tree is located at the base of Lodgepole R. in a live potr. The nest cavity is a S facing bear tear about 10m high. This was also the B6\_2015 nest. The F comes up to the entrance on a tap. As rain and lightning storm are starting to pick up, ER immediately leaves.

2036—ER arrives in the B6\_2016 nest area to peep after the F flush and observe nest contents. F is down in cavity.

2038—B6\_M calls off roost about 30m NW of the nest tree up drainage. The F pops up in the cavity entrance.

2039—F flushes. **Peep reveals 2+ eggs. A potential third egg could be obscured by debris but could also be a past egg fragment.**

2040—ER leaves.

~2045-2110—ER listens in the B6 aspen flat, up the NW side drainage, and down N. Missouri Cr for nesting vocalizations or territorial calls. All is silent. ER leaves to join MC and DL in B19 to follow courting pair.

2325—After waiting out the storm, DL, MC, and ER arrive at the NW end of the B6 aspen flat between the spur of grave and grave ridge to set up a lure net targeting the B6 and B21 area.

2337—Begin playback

Vegetation: young, open psme, potr and pipu.

Weather: heavy rain right before setting up the net. Some light precip, light breeze, 7C.

496260

Y: 4333673

+/- 9

2339—Hear TCs ~20m N of the net.

2342—M goes silent. MC moves into net site and gives some hoots. M does not respond.

2353—Change the playback to “megascops” – the four note territorial call. M immediately comes back into the site from the N and makes a few short flights around the net while calling.

2357—Capture. 3rd shelf from the S. Change payback back to track 42.

**Band # 1783-64322 (on x leg)**

85.0 g LWC: 138 mm

- 29.0 g LLP(5): 99 mm

54.0 g LLP(6): 108 mm

Rect: 65 mm

B5\_2012 floater, B21 M since 2013.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1 | 1 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | .5 | .5 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | 1 | .5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2.5 |
| P9 | 2 | 2.5 |
| P10 | 2.5 | 2.5 |

2423—Release. Strong ascending flight to the NW. DL checks the net and sees a silent bird sitting right above the playback. She turns he light off and backs away, but the bird flushes.

2434—Change the playback to “megascops” – the four note territorial call.

2435—A bird flies into the nest site, presumably the same M that we recently released. Does not approach the net.

2437—ER begins to give hoots near the nest.

2443—MC begins to give some hoots near the net as well. Bird continues to respond but never approaches the nest. Silent bird was also spotted in the nest site by MC.

2446—Stop playback, tear down the net, and leave to meet flam crew.

## 6 June 2016

2035—MC arrives at B6\_2016 nest with intent to capture the F.

2038—I approach the nest and begin raising the capture pole. When the net is ~5ft. below the cavity the F comes up.

2042—The F flushes, **a peep reveals three eggs, one slightly covered in what appears to be plant matter, but is definitely a full egg.** I leave.

## 14 June 2016

2030—MC arrives at B6\_2016 to attempt to capture the F.

2035—I get the net up over the cavity.

2036—The F rises to the entrance and flushes into the bag. **She is an unbanded F.**

**Band # 1833-03369 (on L leg)**

2041—I release the F with a strong horizontal flight W. **A peep reveals 3 eggs.** I leave to go listen in B19.

## 21 June 2016

2038—BH and MC arrive at B6\_2016 nest to attempt M capture for deploying a PinPoint GPS.

2042—MC gets capture pole at cavity height. F comes up in cavity entrance.

2046—M enters nest site giving LCs, F stays up.

2048—M gives PD, F goes down in cavity.

2051—M reenters nest site from down dr. giving TC/TECs.

2052—M makes PD, MC moves capture net to cavity, and both M and F flush into capture bag. MC immediately extracts and releases F.

2053—**BH peeps nest cavity to find 1 hatchling, 1 egg, and egg shell fragments. N is in all white down, and moving head slightly. I estimate him to be ~2 days old. I did not see any clear signs of another egg or N in the cavity, despite the previous assessment of a clutch of 3. Another peep would help us understand if 2 Ns were merely stacked on top of each other, or if another egg was hidden under debris.**

2054—BH leaves nest site to help MC process M.  **M is banded #1833-03284, this is the B6\_2015 M.**

**Band # 1833-03284 (on L leg)**

**Notes:** *We do not take any measurements on M so as to allow him to make PDs before we attempt to recapture him for a PinPoint GPS.*

2055—Based on the hatching status of B6, we quickly release M to allow him to make PDs before we attempt another capture to deploy a PinPoint GPS on him. We wait further down dr. for F to come back onto cavity.

2118—BH enters nest site, and arrives at observation point on slope. F is down upon approach.

2122—F jumps up in cavity with unknown provocation, and flushes.

2124—BH leaves nest site, and we head to the B6 parking spot to get further instructions from BL.

## 24 June 2016

2035—MC arrives at B6\_2016 to attempt a M capture.

2044—M makes a PD to the cavity.

2045—The F flushes, **peep reveals 3 nestlings, all in white down. All eyes closed, there is some head movement from at least one nestling.**

2101—The F returns to the cavity.

2102—The M makes a PD to the cavity.

2103—The M makes another PD.

2107—A silent M comes flying in low and crashing in to perches. The M makes another PD.

2109—M makes a PD, I lose sight of the silent bird.

2111—I move to get the net up, the M makes another PD.

2113—The M makes another PD while my net is at half height.

2119—The M makes a PD, I swing and capture the M. As I lower the pole the F gets caught in the bag. I bring them both down. The F was banded earlier this year on 6-14.

**Band #1833-03369.**

2121—I release the F, SHF N. I pull the M out of the bag. He was already captured earlier this year (6-21) but he is now going to get a pinpoint GPS! MC meets BL and RC at the B6 parking spot to affix the device. **He gets PinPoint #V4254(40921).**

**Band # 1833-03284 (on x leg)**

71.5 g LWC: XXX mm

- 19.5 g LLP(5): XX mm

52.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: Due to handling time associated with affixing the pinpoint we do not take any other morphometric data.**

2211—MC walks back to the B6 aspen flat to release the M. The M takes off with a strong ascending flight >100m and I lose sight of him.

## 29 June 2016

2240—DL and ER arrive in the B6\_2016 nest site with the intent to observe activity to gauge how the M is adapting to life with a PinPoint GPS.

2244—M makes a PD to the cavity, then perches in an adjacent tree, giving LCs. F then flushes to the M.

2247—F returns to the cavity, potentially making a PD handedoff by the M.

2249—M stops giving LCs.

2251—M gives TC/TEC from the pipu within 5m of the nest tree. We see a second UFO fly around the nest tree and land in the adjacent potr at cavity height.

2255—UFO leaves perch. M still calling.

2256—M stops calling. We hear wing flaps and bill clicks—a probable tail-chase out of the site!

2259—M makes a PD. *M seems to be continuing under the status quo with his new addition.* We leave.

## 6 July 2016

2215—MC and DL arrive at B6\_2016 with intent to capture the M and remove his pinpoint. MC approaches to observe.

2219—A silent PD is made to the cavity, the bird perches in the entrance for ~ 1 minute before exiting.

2222—DL raises the net into capture position.

2226—The M comes into the site giving TCs and LCs. He flies off after ~2 minutes.

2245—A bird comes into the site and makes a silent PD. DL captures the bird in the net. **This is the B6 female! MC peeps the nest to confirm age of owlets, but between a foggy peeper and a deep cavity we can not determine age.** Based off of a 6/19 hatch date and the F being off cavity to make PDs we go ahead and take a blood sample.

**Band # 1833-03369 (on x leg)**

77.5 g LWC: XXX mm

- 20.0 g LLP(5): XX mm

57.5 g LLP(6): XXX mm

Rect: XX mm

**Notes: Bleed L wing for genetics, small hematoma.**

2255—While the F is in hand MC give LCs at the nest to tempt the M in to the site. He responds ~10m S of the nest with TCs/HECs but does not come in.

2300—MC release the F. She flies to a perch near the nest tree and gives FSCs. The M comes in to the perch and they allopreen for ~2 minutes. Both birds fly S.

2317—A silent PD is made to the cavity but we do not swing as the M has been vocalizing in the site, so we assume this is the F.

2320—With no more action in the site we take the net down to leave. As we are walking out we can hear the M and F vocalizing near the nest.

## 8 July 2016

2245—MC arrives at B6\_2016 to attempt a M capture. The M gives LCs and the F responds with FSCs on cavity. The M changes to HECs and the F eventually flushes. They fly around the nest site calling and allopreening.

2310—**I peep, revealing at least one nestling with a significant facial disk ~18-19 days old.** With the pair’s behavior and an ambiguous amount of nestlings I do a quick search for any possibly fledged individuals. I find nothing and leave.

## 9 July 2016

~2100—MC, ER, and MC’s crew arrive in the B6\_2016 nest site with the intent to capture the M to retrieve the PinPoint GPS. We see the M perched within 5m of the nest tree. We assume the F is likely off cavity, so we tap and peep the cavity. **Peep reveals at least two Ns all in gray juvenile plumage. Both have well-developed facial disks. We estimate their ages to be from 18-20 days old.** *There were originally three Ns in this nest. We could either be not seeing the runt, or perhaps there was brood reduction. We do not think a fledging is likely, considering the two owlets in the cavity appear to be of similar age.* MC raises the capture pole to cavity height, and the rest of us back off.

2105—**F makes a PD, and MC captures her as she leaves the nest.** We process her away from the nest tree and hold her in hopes of encouraging the M to make more PDs.

**Band # 1833-03369 (on L leg)**

76.0 g LWC: 128 mm

- 21.5 g LLP(5): 98 mm

54.5 g LLP(6): 106 mm

Rect: 60 mm

**Notes:** F was bled, but not processed, earlier this year.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2 | 2 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 0.5 | 0.5 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1.5 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1 | 1 |

2136—M PD to the Ns. He escapes MC’s capture net through a large hole. He backs off to repair.

2147—Release F with a SAF N.

2152—M PD to the Ns. He again escapes through a hole.

2200—**M makes a PD, and MC captures him as he leaves the cavity! We remove the PinPoint GPS!**

**Band # 1833-03284 (on x leg)**

70.5 g LWC: 125 mm

- 20.0 g LLP(5): 97 mm

50.5 g LLP(6): 103 mm

Rect: 62 mm

**Notes:** Do not bleed.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 2.5 |
| P2 | 1 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2 |
| P5 | 2 | 1.5 |
| P6 | 2 | 1.5 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 1 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 1 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 1.5 | 1.5 |

2226—Release M. SAF S.

## 12 July 2016

2159—MC and DL arrive at B6\_2016 to see if anyone fledged. As we peep both the M and F scold us. **Peep reveals only one nestling in the cavity, at least one N has fledged.** We spread out.

2245—The F continues to scold us as we spread out in the area. She leads us ~75m W up Grave, but we do not locate a fl;edgling. We leave after peeping again. There is still one nestling in the nest.

## 13 July 2016

1528—Flam crew arrives in the B6\_2016 nest site to process some owlets. When we get eyes on the cavity, the F is up.

1529—F flushes to a psme NE of the cavity after we tap the tree. **We peep and see two large, grey owlets. The eldest looks close to fledging.**

1536—BL gets the owlets out of the cavity, and the flam crew processes them.

**Black Owlet**

59.2 g

P#5: 64 mm (xx in shaft)

P#6: 63 mm (xx in shaft)

Rect: 31 mm (xx in shaft)

Band#: 1783-74326 R

Notes: We bleed the owlet on the left, and a small hematoma occurs. The owlet seems very ready to fledge.

**Blue Owlet**

57.9 g

P#5: 54 mm (xx in shaft)

P#6: 53 mm (xx in shaft)

Rect: 27 mm (xx in shaft)

Band#: 1783-74327 L

Notes: We bleed the owlet on the left, and a small hematoma occurs.

1603—Brian returns to the top of the ladder to return the owlets to the cavity.

# B6—2017

## 31 May 2017

Afternoon—MC, ZM, ER, and LD cherry peep in B6, B21 and B19.

1630—**LD and ER approach tree B6\_118 Tag #370 and a F is up in a cavity entrance, this is the suspected B6\_2017 nest!** **The tree is a full snag potr ~50m N of the B6 aspen flat on the E side of E Missouri Creek. The cavity is a keyhole ~20ft. high and facing ENE. This cavity was previously the B6\_2004 nest.**

2038—MC, KM, and ES arrive at B6\_2017 to peep the cavity and observe its contents. We crouch down ~20m S of the tree.

2105—The F gives an FSC ~40m S. She likely flushed the cavity before we arrived. **We peep the nest and find it empty.** We leave.

2110—MC, ES, and KM begin listening in the B6/B21 drainage. We distribute ourselves about 60m apart and walk in small circles around N Missouri Cr. KM spends time listening between B21\_2016 and B19\_2016 and on the low slope of Lodge pole. All is silent for the entire time we listen. We abandon efforts after over an hour of listening.

2232—We set up a lure net and begin playbacks on the S ridge of Grave about 60m N of the rabbit gravestone.

Vegetation: mixed pipo/psme, young potr, mostly open

Weather: 12C, mostly cloudy, slight breeze

X: 496200

Y: 4333436

+/- 3

2300—KM ventures into the B6 aspen flat to listen for vocalizations. No sauce. MC makes a few vocalizations on Grave but we did not hear responses either at the net or in the aspen flat.

2310—MC hears periodic possible TCs from Lodgepole Ridge; could have been an echo from PB.

2330—We take down the net and move to the SW corner of the B6 aspen flat to lure for the remainder of the night. We set up the net about 20m W of the game trail. We are approximately 215m SW of the presumed B6\_2016 nest tree.

2338—Playbacks begin.

Vegetation: young potr/psme, mostly open

Weather: 12C, partly cloudy, slight breeze

X: 496265

Y: 4333617

+/- 3

2415—We hear three TCs from a M about 50m E of the lure net, after which he falls silent. We hear no other vocalizations.

2430—We break down the lure net and head back to the B21 parking spot to end the night.

## 8 June 2017

2027—KM gets into the B6\_2017 nest site and the F is up in her cavity. KM’s stream crossing may have startled her, so perhaps an approach from a point further away might be needed.

2032—F down in the cavity.

3039—B6\_M makes LCs from the W side of the creek. I cannot determine the distance from which the M calls.

2041—F up in the cavity making quiet FSCs.

2044—F flushes to the S. I get in and peep the tree. **The B6\_F is sitting on three eggs, centered and touching!**

2045—I get out as quickly as possible and head to B21 to listen.

## 13 June 2017

2035—MC arrives at B6\_2017 with intent to capture the M and attach a GPS PinPoint. As I approach the tree the F rises to the entrance. After ~2 minutes she goes back down.

2045—MC approaches the nest again and raises the capture pole. The cavity height is ~17’5’’.

2049—The M calls off roost ~75m N and gets in an encounter with a more northern bird ~150m N. The F rises to the entrance and then flushes. I move off the nest to silhouette the cavity and let the F back on.

2115—ZM arrives at the B6\_2017 nest to assist MC with the M capture.

2119—F reenters the nest cavity. We start the 20 min wait to allow her to incubate before approaching.

2131—We hear FSCs from within the cavity. They are heard intermittently for the duration of the nest capture.

2134—The M makes a PD.

2139—ZM begins to get into position to help spot the F for MC. After ZM is in position MC approaches the tree.

~2150—The F rises as MC extends capture pole. She goes down after ~2 minutes. The F rises one more time but goes back down quickly. MC in capture position.

~2155—The M is giving HECs in the nest area and flies near the nest every few min, sometimes swooping at the capture net. He perches on the cavity entrance two separate times.

2206—The M lands on the cavity tree one more time, and then enters the cavity. MC swings capture pole and the M is captured! The F flushes as the net is lowered. We move away from the nest in order to confirm the band number before heading back towards the B6 parking spot. **The M is banded and is the B6\_2016 M first caught as the B6\_2015 M, returned for the 2017 season!**

2218—We arrive at the car and BL and MC proceed to attach a harness and pinpoint to him.

**Band # 1833-03284 (on L leg)**

71.5 g

- 20.0 g

51.5 g

2240—The harness is securely on the M. ZM and MC head back towards B6 to release him.

2251—ZM releases the M at the S end of the B6 aspen flat with a SAF. The M has a strong flight to the NE ~50m, we cannot locate him. We head back towards the B6 parking spot.

## 24 June 2017

2025—KM and JE arrive at B6\_2017 nest to attempt an early PD M capture.

2039—KM gets into capture position.

2049—F up in the cavity.

2053—F flushes.

2056—M LCs, HECs off cavity (NE?). We hear FSCs off cavity as well.

2100—F back on.

2111—M still making HECs. Another M enters vicinity making TCs. Second M silent. Silent bird flies into nest cavity, then flushes. Third bird is seen perched a tree next to the nest. It was hard to keep track of which bird was silent and which was calling territorially.

2114—PD by unknown bird.

2117—Unknown bird flushes.

2125—KM starts making approach.

2130—Capture net in position.

2135—JE leaves to set up a lure net in the Aspen flat. Upon her departure, silent bird gives PD. KM gets capture net over the cavity, the bird gets caught in the net, but he escapes on the way down. KM takes a quick break to fix some holes in the net. She gets back into capture position and raises the net with no issue. About ten minutes later the F flushes. In case I may have spooked her on approach, I give her some space and head to B21.

2200—KM gets into position at B21. No PD attempts are made and JE potentially hears B21 near her lure net. KM backs off while B21 is not in the nest area to try her luck at B6.

2225—JE begins PB of T42 at lure net. The net is located in the open aspen flat, a couple feet off the trail towards B6, open E/W and flanked by a couple pifls. It is ~130m from the B6\_2017 nest when following the trail S. Within a couple minutes, I hear a M ~170m to the NW.

Vegetation: young/mature potr, young pifl

Weather: cloudy, calm

X: 496305

Y: 4333640

+/- 3m

2228—JE switches to megascops to try and bring him in, but it does not work. After several minutes of silence, I switch it back to T42 to try and get a response.

2259—HECs are hear from the SW.

~2320—KM is set up again at B6\_2017. JE hears and sees eyeshine of an unidentified large mammal and walks towards KM, despite the M from the SW still giving HECs. KM lowers net and saves JE from her potential demise. We do a net check together and alas, we have caught both an owl and a bat. The owl does not have a pinpoint, which is pretty LAME, but……. **He is the B19\_2016 M!!!** (The B19\_2017 nest was predated).

**Band # 1783-74306 (on L leg)**

80.0 g LWC: 138 mm

- 17.0 g LLP(5): 104 mm

63.0 g LLP(6): 112 mm

Rect: 66 mm

**Notes:**

2340-2430—KM waits with a capture pole at B6 with no luck. I occasionally hear two territorial M making TCs at one another within 30m of the cavity.

2416—JE hears a M from the N, ~200m away.

~2420—JE hears a second M, calling from the SE. Both M seems to be more interested in one another rather than the PB.

2446—JE ends PB and breaks down the lure net.

0110-0130—We leave for B8, where KM is set up with a capture net at the tree and JE is walking with the PB near the B8 parking spot. The M does not make any PDs, but JE hears a M giving TCs directly E of the parking spot, ~70m away.

## 25 June 2017

2020—KM and JE arrive at the B6\_2017 nest to attempt an early night M capture to recover a pinpoint. The F is down.

2039—KM is in position.

2049—The F pops her head up into the entrance of the cavity.

2054—The F flushes. No vocalizations were heard up to this point. KM backs off to allow the F to come back on.

2057—A M is heard giving TCs ~85m N. w

2059—We see the F come back on.

2100—TCs and HECs from a M is heard ~50m E of the nest.

2101—A M comes in for a PD. He quickly leaves and begins calling just SE of the nest. A few seconds later, the F flushes once again.

2106—We hear a M give a few HECs just E of the cavity, somewhere upslope.

2110—We heard some more HECs.

2111—The F comes back on once again. Immediately after, a 2nd bird approaches and enters the cavity. After about 30 seconds, the bird leaves.

2112—Another bird comes into the cavity, probably to make a PD.

2113—The bird leaves and we immediately hear more HECs.

~2130—KM begins to get in position for a M capture once again.

2140—With KM is position, JE leaves to set up a lure net in the same spot as the night previous. The net is located in the open aspen flat, a couple feet off the trail towards B6, open E/W and flanked by a couple pifls. It is ~130m from the B6\_2017 nest when following the trail S. While setting up a net, a M can be heard calling on and off from the N.

Vegetation: young/mature potr, young pifl

Weather: calm, mostly clear, 11C

X: 496305

Y: 4333640

+/- 3m

2205—JE begins PB of T42. Immediately a M is head giving TCs E, across the Missouri Cr.

2210-2240ish—Back at the capture net, KM sees some weird things. Right as JE leaves to set up a lure net, a silent bird enters the cavity. I swing my net into position and wait about five minutes. The bird doesn’t flush, and I worry there might be a small chance the F flushes and came back on. TCs off cavity concern me even more, so I remove the net. About five minutes after that, a bird flushes out of the cavity. A few minutes later the presumed F flushes. I wait with the capture pole well away from the cavity to figure out what is going on. Two males are giving TCs about 20m NE and SE of the cavity. F is looking at me from a potr just W of the nest tree. I back off to give her space and try my luck at B21. \*We potentially have a third bird in the nest area, which was observed in two consecutive nights—6/24/17 and 6/25/17. In future capture attempts, I will keep my capture net on the cavity if I am pretty sure I did not see the F previously flush.

2210—I walk the PB into B6 to try and bring in the M that had gone silent but get no response.

2222—JE hears a M distantly to the N, ~150m or so away. Only a few TCs are heard.

2228—After JE hears the M come in and out giving TCs every few minutes, but the M does not stick around.

2246—After JE walks with the PB and switches to megascops, nobody approaches.

2250—JE switches the pb back to T42 and begins walking towards the B6\_2017 nest to observe and check if there is a M in the site. While walking, I hear a M calling from the SE of my position so I return to the net to try and bring him in. After a few minutes, he goes silent.

2305—JE hears HECs from within 150m to the SW. He calls for several minutes but does not come any close than ~80m.

~2320—A M has been heard on and off from the N and the SE, but neither bird comes in. JE tries giving some hoots, switching to megascops, and walking, but nothing works.

~2350—JE stops the PB to start and break down the net, but once again hears a M from the NE. She calls back and forth with the M for a couple minutes before turning the PB back on. This does not draw him in.

~2410—JE stops the PB once again and begins breaking down the net to end the night. 2 birds can be heard, one ~150m to the NE and the other ~80m E.

## 26 June 2017

2040—ZM and MC arrive at the B6\_2017 nest tree with the intent of capturing the M. ZM spots the cavity while MC approaches the tree and raises the net. Weather: 10% overcast, calm, 13C.

2046—The capture pole is set. MC and ZM begin to wait for the M.

2055—The F is up in the cavity entrance.

2056—The F flushes the cavity. We peep the cavity **and the F is still on 3 eggs. One egg looks like it has a single pip, and a 2nd egg possibly has a pip mark as well.**

2100—The M calls off roost NE of the cavity tree.

2102—The M gives LCs NW and then W of the tree.

2114—The F is back in the cavity.

2115—The M gives LCs NW of the cavity tree.

2116—The M enters the cavity fully and gives a PD.

2117—After the M leaves the cavity, the F flushes again.

2125—The F is back in the cavity. At this point, ZM and MC are backed off a ways from the nest in order to minimize disturbance of the F.

2130—The M flies in silently from the N and perches on a branch of the cavity tree for a min before flying S.

2136—The M gives TCs for a min ~75m W of the cavity.

2142—We observe a FLOW fly S over our heads from the direction of the cavity. *At the time we assume that it is the M, however we will learn that this is the F flushing the cavity a 3rd time.*

2148—MC is back in capture position with ZM spotting the cavity.

2149—The F lands on the cavity and then flies away.

2151—**The F lands on the cavity again, and MC catches her in the capture net, believing this to be the M**. **This is the B6\_2016 F.**

**Band # 1833-03369 (on x leg)**

2155—The F has been released. She has a SHF. Because we do not want to disturb the F anymore than we already have, we quickly leave the site and head to the B21 nest.

## 29 June 2017

2037—ZM and KM arrive at the B6\_2017 nest site with the intent of capturing the M. KM starts her approach. Weather: Clear, calm, 11C.

2043—KM is in capture position.

2101—M calls off roost; F is up in the cavity entrance.

2103—F flushes the cavity. **We peep the cavity and find that she is on 2 N and one egg (with two pips in it). One of the N has its head up, mouth open, and eyes closed (probably about 3 days old); the other N is fully face down in the cavity, not really moving.**

2107—The F is back in the cavity.

2110—The F flushes the cavity (naturally) and returns in about 40 sec. She appears to be prey laden.

2113-2134—The M makes 5 PDs, always fully going into the cavity. See PD sheet for detailed times.

2138—KM begins her approach.

2142—KM is in capture position.

2143-2147—The M flies into the site a couple of times, perching on the cavity, but not making full PDs.

2149—KM snags the M! This is the B6\_2017 and B6\_2016 M. He has a pinpoint on him. After extracting the M, we head down the trail (to B21) to meet up with BL in order to take off the pinpoint. We do not put another pinpoint on the M at this time due to a small amount of scabbing underneath the R wing.

**Band # 1833-03284 (on L leg)**

2215—We release the M with a strong, premature ascending flight to the NE.

2216—We leave the B6 area and go meet BL at B21.

## 4 July 2017

2038—ER and ES arrive at the B6\_2017 nest site to peep the nest and attempt a M nest capture. We hope to put a pinpoint on the B6\_2017 M, the second pinpoint on him this season.

2055—M delivers a PD, followed by FSCs from on cavity.

2056—F flushes. **ES and ER peep the nest to find 3 nestlings. Two have their eyes open and head up, with grey coming in on the scaps—they appear to be 7-8 days old. One nestling has its head resting on the others and is moving slightly, still in all natal down with no apparent egg tooth—this one appears to be about 3 days old.** We back away from the nest area to wait for 9 PDs before moving into capture mode.

2059—F comes back onto the cavity and we hear M giving LCs nearby. The F flushes again after about 30 seconds, presumably after delivering a PD.

2101—M hovers at the cavity entrance, but flies away giving loud LCs.

2101—Unidentified FLOW hovers at the cavity entrance, then flies away. We hear M LCs in the area.

2103-2110—Unidentified FLOWs deliver three PDs. See PD sheet for details.

2111—F enters cavity as the M gives LCs in the area.

2113—F flushes again. She has presumably given another PD.

2115—Unidentified FLOW delivers PD.

2116—Two FLOWs enter cavity and then both flush.

2120—Unidentified FLOW delivers PD. *Apparently the F is off cavity making PDs, indicating that the Ns are somewhat homoeothermic. Given that nine PD have been made to the Ns, we begin to go into capture mode.*

2121—ER approaches the nest tree with capture pole.

2128—Unidentified FLOW delivers a PD, and by the time ER begins to swing capture net the bird has flown away.

2129—Aborted PD, followed by M LCs and F FSCs off cavity.

2131—F enters the cavity and remains on cavity for the rest of our time at the nest.

2134—M gives HECs and TECs at the capture net.

2139—M flies through the nest site.

2141—Aborted M PD.

2144—**M gives a PD, and ER captures him in the net! The M is previously banded and is the B6\_2016, 2017 M**. We walk with him to the B6 parking spot to meet up with BL and the rest of flam crew.

**Band # 1833-03284 (on x leg)**

67.0 g LWC: XXX mm

- 16.0 g LLP(5): XX mm

51.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: BL and MC attach pinpoint # 48201.**

2028—KM releases the B6\_2017 M in the middle of the B6 aspen flat. He shows a strong horizontal flight. The crew packs up the vehicles and leaves the area.

## 13 July 2017

1532—Flam crew and Evil Brian arrive to the B6\_2017 nest site to process some owlets.

1334—The F flushes to a psme about 20m E of the nest tree. We peep the tree because we are good scientists, and note three owlets glaring up the peeper camera. ER climbs the ladder to extract the babies.

1339—ER extracts the owlets. We move to some shelter under a conifer to process them.

**Black Owlet**

38.6 g

P#5: 25 mm (21 in shaft)

P#6: 24 mm (19 in shaft)

Rect: xx mm (xx in shaft)

Band#: 1833-03580 L

Notes: Bleed L, then R. Sm Hem

**Blue Owlet**

50.1 g

P#5: 32 mm (25 in shaft)

P#6: 31 mm (25 in shaft)

Rect: 11 mm (10 in shaft)

Band#: 1833-03579 R

Notes: Bleed L, then R

**Red Owlet**

46.8 g

P#5: 36 mm (25 in shaft)

P#6: 35 mm (24 in shaft)

Rect: 12 mm (7 in shaft)

Band#: 1833-03578 R

Notes: Bleed L, then R, then L

1622—We finish and ER climbs the ladder to put the babies back and get cavity measurements.

**Cavity Dimensions:**

DOH:30.0

HD:150mm

VD:195mm

Height:18’4”

Thick: 45mm

HxV:65x95mm

1626—Owlets are returned and ER climbs down the ladder. Flam crew and Evil Brian leave to eat pizza and free cookies.

2040—MC and ES arrive at B6\_2017 to attempt M capture. MC moves into a observation position.

2042—The F comes up to the entrance of the cavity.

2043—The F flushes, ES raises the capture pole.

2045—The M and the F are in the site vocalizing, ~10m E of the nest.

2048—The M begins giving HECs and flying around the nest site.

2052—There is a silent PD, we do not swing to avoid catching the F.

2057—The M comes in to the site, MC can spot the pinpoint. He is carrying hymenopteran prey, with a long (~3.5 cm), reddish body.

2059—The M makes a PD.

2100—The M comes back in to the site carrying the same prey as before.

2105—The makes a PD, ES swings and captures him!

**Band # 1833-03284 (on L leg)**

65.0 g LWC: XXX mm

- 16.0 g LLP(5): XX mm

49.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: We remove the pinpoint. In order to expedite the process, we do not take any measurements and releases him.**

2112—M released SAF W.

# B6—2018

## 30 May 2018

1530-1700—KM, JE, SF, and AM cherry peep in B6 and the northern part of B21 in order to find nest trees. We do not find any owl nests.

2035—KM, SF, and AM listen for FLOW vocalizations in the B6 and B21 territories. KM listens near the B6\_2017 nest tree, which has fallen. AM listens in the B6 aspen flat and SF listens near the B21\_2017 nest tree.

2046—AM hears 3 M TCs S of aspen flat in B6 territory on E facing slope, 10-20m W of Missouri Cr.

2049—AM hears 2 M TCs SE of aspen flat on W facing slope, 5-10m E of Missouri Cr near border between B6 and B21 territory.

2056—AM spots FLOW in flight headed NW across Missouri Cr. This is presumably the M giving vocalizations.

2104—AM spots presumably the same M FLOW return to previous location on W facing slope.

2109—AM hears two different M TCs, one from NW near aspen flat, one faintly from the S, possibly in the B19 territory. Total silence follows.

2206—We start PB at a lure net in the B6 aspen flat on a low, E facing slope about 60m W of Missouri Cr.

Vegetation: open, young psme and potr, shrubby, fallen potr snags

Weather: 10%-20% cloud cover, no breeze, 11C

X: 496274

Y: 4333659

+/- 9

2226—M TCs far to the N in the Missouri Cr drainage. KM checks it out and taps around. M approaches within 60m of the site, but never comes any closer. SF and AM listen further S in the drainage.

2230—M silent, net empty.

2231-2300—All quiet. KC, AM, and SF wander up and down drainage listening without detecting any FLOWs.

2301—Net broken down and PB stopped. We leave B6 territory.

## 12 June 2018

2030—AM, ES, and KM arrive in B6 and B21 territories to listen for vocalizations, tap cavity trees, and set up a lure net. AM listens in B21 proper and walks along N Missouri Cr. for vocalizations. ES listens in the S part of the B6 Aspen flat, and KM listens in a tributary to Missouri Cr just NW of the Aspen flat.

2056—AM hears M TCs 70m NE of B21 parking spot 20m E of N Missouri Cr.

2103—AM hears M TCs 20m N of B21 parking spot near S terminus of Grave Ridge.

2130—AM hears M TCs 150m SE of B6 aspen grove on low slope of Lodgepole Ridge.

2149—AM hears M TCs 50m SE of B21 parking spot E of N Missouri Cr.

2159—AM hears M TCs 150m E of B21 parking spot on Lodgepole Ridge.

2205—KM and ES do not hear any vocalizations. We tap on all cavity trees still standing.

2210—KM and ES hear TCs E of Missouri Cr about 30m S of the 2018 nest tree. He flies N and sings from the clump of cavity trees about 80m S of the Aspen flat. The M sings for about two minutes before apparently flying E onto Lodgepole Rd. We tap on the cavity trees in the vicinity of his vocalizations, but we do not find anything. We meet AM and listen for about ten more minutes before heading S to set up a lure net.

2301—We start playback, T42 on ridgeline of Grave Ridge, 150m NW of B21 parking spot on the E facing slope. Net is open E-W.

Vegetation: mature psme, pipo, a few young potr. Open stand.

Weather:18.5 C, clear sky, moderate wind.

X: 496061

Y: 4332642

+/- 3m

2311—M TCs 150m NE of net, consistent for 10 min then quiet.

2350—After a quiet night, we kill PB and head down to B8 to meet up with the rest of Flam crew.

## 15 June 2018

1500-1700—Flam crew plus MAX CIAGLO peeped the N part of B21 and up through most of B6. JE and BL took a side drainage going W in B19. Goose eggs.

## 16 June 2018

1500-1800—KM, ES, and JE peep the rest of B6. We hit almost all of the cavity trees on record and enumerated a handful of new trees. We additionally do a quick peep of the cavity trees left in the S part of B8, hitting past nest trees in B7. Goose eggs. Womp womp.

# B6—2019

## 29 May 2018

1500-1630—ES and KA cherry peep the B6 territory. We successfully peep all past nest trees (excluding tree #229, the B6\_2010 nest tree, which has fallen). We don’t find any flam nests.

2045—AM, ES, and SL arrive in B6 to listen for FLOW activity. AM walks along southern portion of B6 territory on east and west sides of N Missouri Cr., SL walks along N Missouri Cr. in the northern portion of the aspen flat, and ES walks along both sides of the creek near the southern portion of the aspen flat. All is quiet.

Weather: 100% cloud cover, no wind, slight drizzle, 5 C.

2157—AM hears two lone M LCs roughly 20m NE of B6/B21 parking spot. We leave B6 and head for B21 to listen for FLOW activity.

## 31 May 2019

2040—AM, ON, and KA arrive in B21/B6 to lure net and listen for FLOW activity. Net is open N-S on S terminus on the upper slope of Grave Ridge, 50m NW of B6 parking lot. We pick this location to attract FLOWs from the main drainage, while remaining far enough away from the area where a F FLOW was heard two nights prior (near past nest tree#94). AM remains at the net while KA and ON listen in N terminus of B21 territory in the drainage of N Missouri Cr near historic B21 nest trees.

Vegetation: open, mixed age pipo, pifl, potr

Weather: 60% cloud cover (later cleared up), calm wind, 8 C

X: 496155

Y: 4333413

+/- 3m

2130—PB starts, T42. All is quiet.

2154—KA hears a single M FLOW hoot from her position 20 m S of the B6 parking spot. It appears like a possible LC coming from 40 m S of parking spot, but I don’t hear any further vocalizations in the area.

2200—ON heads S to join KA near B6 parking spot after hearing nothing up drainage.

2205—ON and KA tap and listen around historic nest tree # 94, where F FLOW vocalizations were heard two nights prior.

2230—ON and KA return to net after no signs of FLOW activity seen nor heard.

2231—ON walks PB up Grave Ridge. No response.

2245—We cut PB, break down net, and leave. All quiet.

## 14 June 2019

1530-1650—ML, JE, ES, and KA arrive in B19, B21, and B6 to cherry peep past nest trees and cavity trees in the territories.

1655—Nothing is found. We leave the study site.

## 18 June 2019

1430-1600—Flam Crew starts a full peep of B21, B19, and B21, sending several teams N and S of the B6 parking spot. We make it about halfway through the cavity trees S of the parking spot, and we peep most of the cavity trees in B21 up to the northern edge of the territory. We don’t make it into B6. It begins to rain at 1600, halting our peeping efforts.

2320—KC, ES and AM arrive at B21 to spot map FLOWs and listen for nesting activity. ES heads W of E Missouri Rd. AM and KC head N up drainage towards B6 territory. KC stays on the W side of N Missouri Cr and AM stays on E side of N Missouri Cr.

2330—KC has M FLOW flush in front of him, definitely not from a cavity tree. M flies directly N up drainage.

23232—KC follows hearing three TCs ~20m N.

2340—KC reaches the S end of B6 after following M TCs. M goes quiet.

2343—KC turns around to head back to the cars and we leave the territory.

## 24 June 2019

1450-1715—Flam Crew (-BL) peep out all remaining cavity trees of B19, B21, and B6. We find several new trees and find many on the ground. There are a handful of trees that could not be found and are presumed to be down given the sight of fallen trees in the area. We do not find a nest.

2335—ML and ES arrive at B6 to listen for nesting vocalizations.

2345—We give a few hoots and check for new cavities on the W side of N Missouri Creek, just S of the aspen grove.

2351—We give some more hoots just N of the aspen grove, but don’t hear any response.

2359—Nothing seen or heard, we leave territory.

## 27 June 2019

~1135—AM, SL, and KA arrive at B6\_2019 territory to listen for nesting vocalizations. KA stays in aspen flat of B6 proper, and explores a side drainage to the W. AM follows N Missouri Cr past the aspen flat to the N. SL splits from creek to listen in drainage NW of the aspen flat. We all give hoots, no response.

~2405—No FLOW vocalizations heard, so we begin heading back to the cars.

# B6—2020

## 16 June 2020

1454—KC, ON and SL arrive at B6 to cherry peep. We all head down to the aspen flat and peep past nests. KC heads S on the E side of the creek.

1543— **KC peeps Tree #14 and finds the B6/21\_2020 nest. Tree #14 was the B6\_2009 and B21\_2015 nest**. **Tree is 10 m E of Missouri Cr, 20 SE of B6 aspen flat, and 200 m NEof B6 parking spot. Full potr snag with NW facing key hole 23 ft high.**

X: 496310

Y: 4333542

+/- 3

1550—We leave the territory.

2030—KC and AM arrive at presumably the B6/21 nest to peep and observe PD rates. F is down upon arrival.

Weather: 10% cc, slight breeze, 16℃.

2031—AM realizes his headlamp is out of juice, so he heads back to the car to get new batteries.

2045—AM returns to the nest site.

2053—M gives LCs from 50m SE of the nest.

2057—F is up. She flushes to the W. KC peeps, we find 3 eggs, centered and touching. One of the eggs potentially has a small pip, but it could just be a speck of dirt.

2100—M gives LCs 10m E of the nest. F FSCs off cavity. The M gives at least 2 PDs off cavity.

2107—M perches at cavity entrance, gives TCs at us and flushes to NE.

2115—F enters cavity and stays down.

2117—M LCs, FSCs, M PD.

2122—M PD.

2124—M PD.

2129—M PD.

2132—M TCs 50m W on Grave Ridge.

2146—M PD.

2147—M TCs 70m NW.

2155—M PD.

2159—M PD. We leave to set up a lure net in the B6 aspen flat.

2210—While we are setting up the net, we hear M TCs 70m SW/W on Grave Ridge.

2222—We start PB, TC UT track, on a low slope position, S-facing slope, at the northern end of the B6 aspen flat. Net is open N/S. We hear M TCs 50m NW.

Vegetation: mixed age psme, potr, pifl.

Weather: clear, slight breeze, 16℃.

X: 496270

Y: 4333684

+/- 3m

2230—M TCs 50m W on Grave Ridge.

2237—Switch to TEC track. M still gives TCs 20m N of net.

2245—AM leaves to tap and listen up a side drainage NW of the aspen flat.

2315—AM returns to the net site.

2318—We cut PB and leave.

## 23 June 2020

2049—KC arrives at B6/21\_2020 nest to peep and attempt a M capture if all nestlings are hatched. Upon arrival F is down.

2115—All is quite so I proceed to tap the tree. As I tap the tree a silent bird flies into the nest area and attempts to give a PD. He never goes fully into the cavity, and then gives HECs above my head. I go back to watch the nest, and see a silent bird flying around the nest area, so I presumed I missed the F flush. I tap the tree again and no one comes to the cavity. I peep the cavity and find only egg shells. **B21\_2020 nest has been predated.** I leave the territory.

# B7—2002

## 12 July 2002

2230-2330—The owl crew and BL listen for nesting activity in the vicinity of flagged cavity trees in the central portion of N Missouri Gulch. We hear M give TECs near Missouri Rd for about 5 min at 2250, and this was followed a few minutes later by Tyler hearing scolding calls approximately 30 m N of his position at cavity #6. Katie, who did not hear the calls from her position at cavity #4 50 m N of Tyler, saw an Otfl fly past her in the direction of cavity #5 approximately 5 min later. Nothing was subsequently heard or found, but the scolding calls that Tyler heard suggested that fledging had occurred in this territory, and that the nest may have been located in the vicinity of our flagged cavity trees.

# B7—2003

## 2 June 2003

1410—**BL discovers B7\_2003 nest in the main drainage of N Missouri**, approximately half-way between B6-2003 nest and the confluence with the S Missouri. Nest cavity is approximately 4 m high on the ENE side of a live *Potr*, and is 30 m E of N Missouri Cr, and 40 m E of Missouri Gulch Rd. Female rose to the entrance when I lightly tapped the trunk. When I leave at 1415, she is still in the entrance.

## 4 June 2003

2014—6 degrees Celsius. Windy and rainy. F is at cavity when Miriam arrives.

2017—F goes back down into cavity

2039—M flies to nest and give LC. F gives LC in nest. F leaves nest and flies to the east. M follows her.

2056—Female returns to cavity, goes down into cavity

2112—Male gives LC, Female gives LC and food solicitation call. M delivers prey, going all the way inside cavity, staying in cavity for about 10 seconds. Same at 2115, 2116, 2118, 2119, and 2124.

## 9 June 2003

1300—Katie and BL tap on the trunk of the B7 nest, and the F rises to the entrance. We immediately leave, and she quickly descends in the cavity.

## 12 June 2003

2030—Katie and Miriam arrive at B7 nest to record F vocalizations and capture M and observe prey deliveries.

2041—M gives LC from NW.

2047—Same.

2048—We see female in cavity entrance. Female leaves the nest. We begin setting up net for capture. After set up, we return observe nest from a distance so as not to disturb the female re-entry and male prey deliveries.

2106—F re-enters the nest.

2138—We capture unbanded M.

2145—M out of net.

**Band # 92296**  (on right leg)

70.5g LWC 139mm

19.5g

51.0g

LWC 138mm

LLP 109mm

Rects 57.5mm

2206—Release M.

## 19 June 2003

2031—Miriam and Katie arrive at B7 nest to observe prey deliveries and to collect blood from the male. Weather: drizzling, 100%, no wind, 52 degrees F.

2040—Male enters the nest area.

2041—Female gives FS call, Male gives LC. We see female in cavity entrance.

2042—Same; Female leaves the cavity to the NW.

2044—Katie assumes capture position. Miriam has the rest of the notes.

2045-2052—M gives 3 note calls and 1 note calls from closeby the nest

2055—M gives LC from near the nest. F flies east, give food solicitation calls, M follows her.

2058—M feeds F, and F returns to cavity.

2123—Capture M.

2125—M out of net—**Band # 92296.**

2141—Release M after obtaining blood sample.

2143—M and K leave nest area.

## 24 June 2003

(Miriam)

## 30 June 2003

2155—Katie and Mike arrive at B7 nest to observe prey deliveries. No deliveries are seen for first 24minutes.

2219—We begin to see prey deliveries. Four total were observed. Female does not appear to be foraging.

2230—We leave.

## 2 July 2003

2025—Miriam and Katie arrive at nest to capture female.

2042—We capture female—previously unbanded.

2048––Out of net. We band and bleed female—**Band # 92305**.

2057—We release female and leave.

## 8 July 2003

1542—Miriam, Jake and BL arrive at B7 nest to band and bleed owlets.

1543—F flushes. Miriam enlarges the cavity; three owlets in brood.

**Orange Blue Black**

65.0 66.0 35.0

-16.5 -16.5 -16.0

48.5g 49.5g 19g

Flight feather measures?

## 11 July 2003

2009—Jake, Miriam, Katie, and BL arrive at B7 nest to mass/measure owlets. F in cavity entrance as we approach, and she flushes when ladder is raised.

**Red Black Blue**

76.5 g 48.5 g 79.0 g

-22.5 -22.5 -22.5

54.0 g 26.0 g 56.5 g

LLP= 42 mm LLP= 7 mm LLP= 39 mm

Lrect= 16 mm Lrect= 4 mm Lrect= 19 mm

2020—Owlets returned to cavity and we leave.

## 13 July 2003

1130—Katie, Miriam, Meg and Daniel arrive at B7 nest to show off the owlets and measure and weigh.

**Orange Blue Black**

83.5 87.0 57.5

22.5 22.5 22.5

61.0g 64.5g 35.0g

LLP 50mm LLP 48mm LLP 13mm

Rect 22mm rect 21mm rect 4mm

1150—We leave nest area.

## 14 July 2003

1340—Jake, Miriam, Katie, and BL arrive at B7 nest to band, bleed, and mass/measure owlets. F in cavity entrance as we approach, and she flushes when ladder is raised. (All banded on **left leg**).

**Band#: 92348 (Red) Band#: 92349 (Black) Band#: 92350 (Blue)**

78.0 g 55.5 g 81.5 g

-18.5 -18.5 -18.5

59.5 g 37.5 g 63.5 g

LLP= 55 mm LLP= 17 mm LLP= 54 mm

Lrect= 25 mm Lrect= 5 mm Lrect= 24 mm

(Blood sample) (No blood sample) (Blood sample)

1405—Owlets returned to cavity and we leave.

## 15 July 2003

1228—Miriam and BL arrive at B7 nest to mass/measure owlets. F in cavity entrance as we approach, and she flushes when ladder is raised.

**Band#: 92348 (Red) Band#: 92349 (Black) Band#: 92350 (Blue)**

77.0 g 57.0 g 79.5 g

-16.0 g -16.0 g -16.0 g

61.0 g 41.0 g 63.5 g

LLP= 58 mm LLP= 22 mm LLP= 55 mm

Lrect= 25 mm Lrect= 6 mm Lrect= 27 mm

1237—Owlets returned to cavity and we leave.

## 19 July 2003

1542—BL and CC Bridge Program arrive at B7 nest to mass/measure the remaining owlet.

**Band#: 92349 (Black)**

65.5 g LLP: 39 mm

* 16.5 g Rect: 15 mm

49.5 g

1615—We return owlet and leave.

## 24 July 2003

0735—Katie, Miriam, Jake, and BL arrive at B7 nest to mass/measure owlet and take blood.

**Band#: 92349 (Black)**

72.5 g LLP: 56 mm

* 16.0 g Rect: 25 mm

56.5 g

0747—We return owlet after obtaining blood, and leave. **Note**: This owlet, the last owlet of the 2003 field season, will likely fledge in 2-3 nights.

# B7—2004

## 24 May 2004

1430—The flam crew peeps trees in the *Potr* bottom around the N end.

## 25 May 2004

1400—The flam crew peeps trees in the Potr bottom. EP finds a previously unmarked tree w/cavity. EP and KS tap tree and F comes up to entrance**—this is the B7\_2004 nest**.

2033—The flam crew arrives at B7 nest for observation and to peep while F is away from nest.

2035—M calls off his roost from E of nest.

2037—F leaves cavity.

2037—The flam crew approaches nest tree to peep the contents. During this time we hear M give LC from E of nest.

2043—We lower peeper.

2044—We back off and wait for F to return to the nest.

2100—The flam crew leaves the nest vicinity. WE did not see the F return.

2132—SY and KS arrive on Lodgepole ridge about ½-2/3 up the ridge. Conditions are slightly windy.

Brian or Erin have songpost data

## 25 May 2004

1430—EP finds B7 nest in a non-enumerated tree on the north side of large aspen in south end of territory. Female responded to tapping and continued to look out of cavity for approximately 15 minutes after nest discovery.

## 31 May 2004

2036—BL arrives at B7 nest to observe nest activity. Mostly clear, breezy only on ridgetops, 10 C.

2039—M calls from his roost, approximately 200 m to the NW, near the top of Turkey Ridge. He gives TC from this vicinity for about the next 15 min.

2055—F leaves cavity, and flies E.

2100—M arrives in the nest area, and then flies to the E about 75 m where he starts giving TC. Based on the associated vocalizations from both sexes, the M apparently delivers prey to the F in this vicinity at 2110.

2113—F reenters nest.

2146—I leave. M made 2 prey deliveries in the interim time (see PD data sheet).

## 1 June 2004

2034—Flam crew arrives to nest area it is 18°C and cloudy

2043—M gives TC to the E

2044—M gives LC from the E. BL captures the F as she flies from nest with a capture pole. **She is banded with band # 92305—this is the B7-2003 female.**

2048—M gives TEC and TC from the East. EP and EE peep the nest and find three eggs all touching in the middle of the nest.

2049—BL untangles F from the mist netting and she is released. Flam crew quickly leaves.

## 7 June 2004

2113—BL arrives at B7 nest to observe nest activity (see PD data sheet). Mostly clear, light breeze on ridgetops, 18 C.

2114—F returns to cavity.

2140—I leave. Two prey deliveries during this interval.

## 14 June 2004

2314—Flam Crew arrives to attempt spot-mapping of B7 male. We position ourselves across Turkey and Genesis Ridges. SY arrives on upper third of Genesis R., S end.

2434—Male gives TC nearby to the ENE, upslope.

2443—SY locates general location of singing male (within 5m accuracy) and songposts location, (B7\_1).

2445—We leave. **Note—**from approximately 2220-2235, JM heard B12-M calling just to the W of Turkey Ridge, where she was positioned. She marked general songposts on this male (see B12 entry).

## 15 June 2004

2137—EP and SY arrive at B7 nest to attempt capture of male. Prey delivery.

2138—Prey delivery. SY puts up the net for capture.

2146—Prey delivery and capture. **Bird is the B7 male from 2003 (band 92296). Wing cord: 141mm, LLP: 94mm, center ret: 55mm**.

2202—Release.

2145—KS and EE arrive to attempt to capture and bleed M.

2146—F giving warning calls about 15m from nest.

2149—M gives TEC.

2151—F returns to nest.

2206—F flushes nest.

2213—F gives 3 FS calls about 20m from nest.

2220—We leave.

## 7 July 2004

2037—JM and volunteer Allison arrive to B7 nest for observation. F was up.

2050—M gives LC.

2052—F gives a call and flushes.

2052-2229—46 prey deliveries are made during this time, mostly by the male, to the young.

2139—Two males fly around the nest and run into each other during flight. M then gives three TECs from the E of the nest.

2157—F was heard away from the nest. One male to the nest, another M flies to the nest they run into each other, the second M flies away and the first remains at the nest till 2158.

## 9 July 2004

1948—Flam crew arrives to B7 nest to bleed, band and measure owlets. F is up.

1952—F takes off from nest.

Cavity dimensions: Horizontal vs. vertical-6.0cm x 5.5cm

Entrance thickness-8cm

DOH- 38.0 cm

2008—Owlets are retrieved from nest.

**Band#92383 Band#92384 Band #92385**

69.0g 70.0g 72.0g

-12.5g -12.5g -13.0g

56.5g 67.5g 59.0g

LLP 49mm LLP 59.0mm LLP 63.0mm

Rect 8m rect 26mm rect 30.0

2030—Owlets are returned to nest.

# B7—2005

## 31 May 2005

1345-1500: Flam Crew attempts to find B7\_2005 nest by tapping on all marked cavity trees within the presumed territory. Nothing found.

## 6 June 2005

1415-1640: Flam Crew peeps cavity trees in the B7 territory. Nothing found. Cavity trees also enumerated and peeped for approximately 250 m down the N Missouri drainage from the B7\_2004 nest tree.

## 13 June 2005

2235—DF, SY, and BL arrive in the B7 territory to listen for nest activity and attempt spot-mapping. We spread out along the lower mid-slope of the E-facing side of Turkey Ridge, just due W of the B7\_2004 nest.

2245—MS and EE arrive and spread out in the *Potr* drainage to listen.

2255—MS is in *Potr* drainage and hears M LC and F FSC. **EE runs to join and finds nest tree: B7\_20. Tree is about 40m WNW of last year’s (2004) nest tree. Cavity is facing west and is about 30 feet off the ground (Correction: Cavity is E facing ~21ft from the base of the tree: 6/17/19 KC). DBH is approximately 30 cm**.

2255-2421—EE observes nest and sees 19 prey deliveries by B7 M to B7 F in nest cavity.

2300-2430: After the nest was found, we had spread out along Genesis and Turkey Ridges to elicit calling from the B7 male, but he was not heard singing during this time.

(MS entry)

2307—I give hoots from eastern ridge.

2322—I give hoots.

2355—I give hoots.

2401—I give hoots.

## 15 June 2005

2015—MS enters nest area to peep the B7 nest cavity. Light winds in top of aspens, clear with thunderhead and lightning storm brewing in the south, 14 deg. C.

2052—B7 F gives FSC’s, male aborts on prey delivery.

2053—F leaves the nest cavity and male follows: they fly to the south.

2054—Peeped nest: two eggs touching, no cracks in eggs.

2055—Peeper down and out.

2057—EE enters nest area to capture M.

2105—Female returns to nest.

2106 -2116—6 prey deliveries by B7 M.

2118—EE raises net to capture M.

2121—Prey delivery.

2126—Aborted prey delivery.

2127—Captured M. **He was previously banded—band # 92296**; **this was the B7\_2003 male**.

**Band #92296**

**83.5g WC: 140mm**

**-34.5g LLP: 109mm**

**49.0g Retr: 59mm**

2135—B7 M released.

2136—We leave in a hurry due to storm entering territory.

## 23 June 2005

2023—MS and EE arrive at B7 nest to attempt to capture and possibly band the F. 20 degrees C. Mostly cloudy with light misting of rain.

2040—MS raises net is over hole.

2043—EE taps on tree🡪no response.

2123—Net is taken down after 40 minutes of not hearing or seeing any sign of the F or M. Speculations of abandonment.

2124—We leave.

## 27 June 2005

1953—Flam crew arrives to peep the B7 nest and find out if it’s been abandoned.

1958—We peep and see no sign of nesting🡪no egg fragments in or around nest.

2003—We leave.

# B7—2006

## 13 June 2006

2330—From B7 parking spot Flam Crew hears nesting vocalizations nearby to the north. After a brief listening period **we locate the B7\_2006 nest** by prey delivery in cavity tree B7\_15. Cavity is W facing approx 20ft high. We leave.

## 15 June 2006

2023—SY and KC arrive at B7 nest tree to attempt capture of the female. Weather: 50% cloud cover, calm, 20 C.

2040—Net in capture position. Cav. Height is 23 ft. 5 in.

2041—F rises to cavity entrance.

2045—F down.

2046—F returns to cavity entrance.

2048—F gives a scold call.

2051—F flushes cavity and evades capture. We peep cavity: **three eggs, centered and touching**.

2054—As we are leaving we see the female return to cavity entrance. M gives several LCs to the W of the nest site.

2113—We return to nest site to attempt capture of the M. M is at the nest tree giving TCs. He flies to cavity then leaves to the E.

2115—I get in capture position.

2116—M flies to cavity. While he is in entrance another bird (presumably the F) comes to cav. Entrance. Both birds flush to a live Potr approx 3m S of nest tree. Then M then feeds the F. Both birds flush to a Potr snag approx. 7 m S of nest tree. We leave.

2126—We return to nest site for another attempt at the M.

2128—See a prey delivery, the M had given a LC and the female responded. She is up in the cavity after he leaves.

2131—Another prey delivery with LC from M and begging from F. The F is down afterwards. Scott is in place for capture.

2134—Prey delivery with more vocalizations leads to a capture of the M. **Band #92296—this is the B7\_2003 M.**

**69.0g LWC: 134mm**

**-17.0g LLP: 102mm**

**52.0g Retr: 5.3cm**

2141—We release the M, who makes a strong flight to the N, we leave the area.

## 19 June 2006

2038—BL and Dave Phillips (Gazzette reporter) arrive at B7 nest to attempt capture of F. PC, calm, ~25 C.I raise the capture net at this time. F rises to the cavity entrance a few minutes later, where she appears to stay until she is captured (see below).

2051—F gives LC from cavity, and the M responds with LC from approximately 50 m to the ESE (from the E side of the Missouri Cr riparian bottom).

2100—F flushes the cavity into the net. **F was not previously banded—she is given band # 64489**.

92.0 g **3 eggs in cavity—they appear unpipped** (although cavity 26.5 g

65.5 g

is deep, and Fieldcam was used)

2109—We release F and leave.

## 27 June 2006

2256—EE and EM arrive at B7 nest tree to peep cavity and check on nestling status. F was on top of nestlings, preventing a very clear view of them. Egg fragments were visible. However, at one point she did move and exposed one nestling. **The nestling has no apparent grey plumage, indicating the nestlings are about 6 (or less) days old.**

2309—EE and EM begin observing prey deliveries.

2111—F is apparently out of the cavity and she return at this point. We must have flushed her after peeping.

2313—M makes prey delivery. F is up in cavity entrance.

2316—M makes another prey delivery and F goes back down into cavity.

2318-2330—M makes 4 prey deliveries during this time.

2332—We leave.

## 6 July 2006

1034—Flam Crew arrives at the B7 nest to band and bleed F and nestlings.

1035—Capture net in position.

1050—**When BL has enlarged the cavity it is found to be empty – probable predation**. We leave.

# B7—2007

## 1 June 2007

1500-1700: Flam Crew arrives in the B7 territory to peep cavity trees. We eventually find what we later judge to be the B8\_2007 nest—see B8 notes.

## 18 June 2007

1430—Flam crew arrives in southern B7 territory to tap, peep, and enumerate new cavities. Nothing found in B7.

1630—Flam crew leaves southern B7.

2345—CB and EM arrive at B7 again to TL and C. Nothing seen nor heard by either person. We worked all the way down the creek similar to where we peeped in the afternoon.

0110—We leave B7 site.

## 18 July 2007

2027—SY and KB approach the B7 (now B8) nest tree to peep. We hope to observe the cavity and listen in the drainage to determine if there is a fledgling about. We also hope to listen downstream for another nest site, which would be B7. The peeping reveals one owlet in gray plumage with a facial disc. SY heads downstream to listen for nestling begging, KB stays at the nest site to observe It is 15C, with light drizzle.

2038—M in area gives LC’s. The nestling begins to beg, however it is not up in the cavity.

2045—F comes into the cavity, gives FSC’s, and stays in the cavity.

2046-2104—8 PD’s are made by M and F. It seems unlikely that there is another fledgling since both owls were in the site with frequent PD’s.

2118—KB taps the tree to see if the F is still in the cavity. No one rises. I leave the nest site and head south.

2138—From Rd. in the traditional B7 nest area, SY hears nestling begging from the drainage bottom. I follow them to cavity tree B7\_13. Begs seem to be coming from a NW facing cavity ~18ft high on a potr snag.

2158—We **peep cav: 2 owlets, 1 all in gray juv. plumage, 1 mostly gray juv.** Plumage w/ some white fuzz on the edges. **This is the 2007 B7 nest.**

2201—Owl delivers a silent PD.

2205—SY has the **net up in front of the cavity, 18’2”.**

2209—Owl makes a PD, probably the F, SY catches her in the net, but she rockets out of it before it is lowered.

2210-2228—F begins scolding and M gives some LC’s. We leave the area.

## 19 July 2007

2018—KB and I (SY) arrive at the B7 nest – Nestling is in entrance begging when we arrive. M gives LCs when we arrive. We intend to capture both the M and F at the site.

2020—Net in capture position.

2021—M is captured – he is previously banded.

**Band #92296 This is the 2003 B7 M**

61.0g LP(5): 101mm

-15.5g LP(6): 109mm

45.5g Rect.: 55mm

WC: 134mm

2031—M is released.

~2033-2037—We observe a PD by the F which results in a nestling hanging from the cavity entrance. The nestling vocalizes loudly and the F comes back to the cavity at least 3 times. We are unsure of exactly what was happening, but she appeared to be pushing the nestling back in. After hanging by one leg and flapping for two minutes, the nestling makes it back into the cavity. The F was vocalizing loudly the entire time.

2047-2154—Five PD’s are observed: 2 from M and 1 from F, other 2 unknown.

2103—F is captured. She is unbanded

**New Band #64546 on L. Leg**

68.0g LP(5): 95mm

-15.5g LP(6): 105mm

52.5g Rect.: 58mm

WC: 130mm

We bleed this F.

2127—F is released, we leave.

## 20 July 2007

1453—Flam crew approaches the B7\_2007 nest tree. BL intends to enlarge the cavity and remove the nestlings so they can be measured, banded and bled. BL notices a dead nestling on the ground approximately 1m from the base of the nest tree.

Cavity entrance dimensions:

Entrance: 65mm x 65mm

Thickness: 30mm

Horiz. Depth 115mm

Doh: 24.5cm

Height: 18’2”

1511—Cavity enlargement complete. Two live owlets removed (total brood size 3, counting the dead owlet found on the ground beneath the cavity.) Both owlets (live ones) bled.

**#64547 #64548**

59.5g 55.5g

16.0g 16.0g

43.5 39.5

LP(5): 58mm 53mm

LP(6): 58mm 54mm

Rect.: 25mm 21mm

Dead owlet

44.0g

16.5g

27.5g

LP(5): 43mm

LP(6): 43mm

Rect: 14mm

1548—Flam crew leaves the area.

# B7—2008

## 27 May 2008

1530—DH, KB T&P; SC, BL, QB, CB cavity search.

2020—SY, CB, QB & KB set up a mist net in the B8 area. See B8 notes for captured and banded birds.

2350—entire crew spreads out to listen along the west side of the road in southern part of B7; we do not hear anything

2423—we leave area.

## 3 June 2008

1458—Flam Crew begins peeping the B7/B8 area.

1502—KB peeps B7\_793. It has 2 eggs in it, but they are too small and ovular to be a flam.

1511—KB peeps B7\_399. It has 1 eliptical egg in the S facing cavity.

1600—Potential B8\_2008 nest found in cavity tree B7\_8 – no other nests were found. Nest cavity is ~5 meters high.

## 24 June 2008

2230—QB and SY arrive in B7 territory to run a lure net targeting a possible B7 M. We begin setting up the net.

Weather: Clear, calm, 6C. Vegetation has mostly dried out since rain earlier in the night,

Site Description: Sm (~12m in diameter) clearing on very low slope of a runner coming off the E side of Turkey R. Just S of the B7 parking area. Clearing is surrounded by sm. Pifls w/ a couple of pipo and psme interspersed. Net is set up along the edge of 2 sides of the clearing.

X: 495941

Y: 4332342 +/-6m

2256—Begin playback. Sy remains in net site to observe. QB moves up north in the drainage to listen for nest vocalizations.

2259—M begins giving TCs to the WSW on slope of Turkey R. Sounds like he is 100+m away. He approaches the nest site giving TC/TECs.

2300—M is w/I 15m of the net.

2305—QB hears M giving TC’s from the North, he moves down the drainage towards the net. Likely the B8 M.

2307—SY can hear a 2nd M approach the net from the N (this is likely the B8 M). He enters the net site giving TECs

**Note: The 2nd M has a lower pitched voice than the 1st.**

2323—1st M begins moving off the the SW then goes quiet. 2nd M remains in the net site.

2328—2nd M begins moving NE (possibly into the drainage) and continues calling from farther away.

2330—QB has heard nothing else North of the net and returns to the net area.

2333—Sy leaves the net site and heads to the S to listen for nesting vocalizations.

2352—QB no longer hears M calling from the N of the net.

2354—QB hears M giving TC’s from the West (turkey ridge), he moves into the nest sight but stays in the large trees and is never captured.

2403—Having heard nothing to the S, SY returns to the net sites.

2406—“2nd” birds enters the net site from the N again. 1st bird goes quiet.

2408—Stop playback and begin breaking down the net.

2418—Net is broken down, we leave.

## 21 July 2008

2255-2445: Flam Crew spreads out across the B7 territory to listen for possible nesting behaviors/vocalizations. **NOTE: We heard and followed a F giving FSC intermittently over nearly ½ time span, and a M approached her on several occasions giving LC, apparently attempting to deliver prey to her on these occasions. These observations suggested the F was without young, and her nest likely failed at some point earlier this season. We surmised this F may have been the B8 F, but her ID could not be determined.**

2340—From central B&, SY sees a bird silently approach a sm. Potr. I follow the bird for several perches. This bird is unbanded. Bird flushes to the E after ~5m.

2415—2 M are heard having a territorial encounter on low slope of Genesis R. 1 (B7?) has a higher voice and is slightly upslope. I mark 2 songposts (one on each).

2420—F begs N of the encounter, ~5min. after the M’s have stopped calling.

2445—We leave.

# B7—2009

## 26 May 2009

1500—Crew arrives B6/ B7/ B8 to tap and peep. 15C and cloudy.

1647—After finding nothing, we stop peeping and leave.

## 15 June 2009

1430-1700—Flam Crew peeps B7 area – nothing found.

# B7—2010

## 7 June 2010

2202—SY and BG get lure net set up at edge of B7/B8 and begin playback. More in B7 than in B8. Small to medium psme and pipo.

X:

Y:

+/-:

Weather: clear, warm 15C.

Vegetation:

2204—TC response from N (B7?)

2209—TECs mixed with TCs

2211—vocalizations stop

2248—On the E side of the creek and about 200 meters N of the lure net site, JG hears M TCs.

2309—JG begins making a general area songpost, but then locates the M in a nearby Pico and songposts B8\_1. From 2309-2355, JV and JG songpots 4 locations from which we believe two males were singing from and engaging in a territorial dispute. We songpost the two males as B6 and B8. Refer to the Missouri Gulch master songpost sheet for further information.

2318—TC from WSW

2333—While songposting what JG believes is the B8 M, JV confirms another M S of her and JG on the E side of the creek. We check with SY and BG who are back at the lure net and they confirm a third M that has approached from the S of the net.

***\*Note: At this point we believe that there are three territorial males in the area, at least two of which are engaging in a territorial dispute. We presume these birds to be the B6, B7, and B8 males.***

2336—JG has a clear look at what he believes is the B6 M and notices that he is unbanded.

2341—TCs that began S of the lure net stop.

0007—**Capture in lure net from south, 1st shelf (B7?)**

0011—End playback.

Bird is **unbanded**, BG bands left leg.

SY bleeds left wing, doesn’t get enough blood so tries right wing. Blood clots very quickly and blood sample is poor. This bird should be re-bled if we re-capture.

BG makes blood smear.

BG bands the left leg with **Band # 64727**

85.5 g LWC: 124mm

- 28.5 g LLP(5): 87 mm

57.0 g LLP(6): 95 mm

Rect: 57mm

## 15 June 2010

1521—Flam Crew arrives at the S end of B7 to tap/peep our way through B7, B8, and into B6.

1553—KB and JSG see F up in cavity of B7\_13, tag #104. **This is the 2010 B8 nest tree. This was the B7 nest tree in 2007. The nest cavity is an old keyhole cavity, about 7 meters off the ground and W-facing. The tree is just E of N. Missouri Creek and about 50 meters E of the road. It is a dead Potr, full snag, in the drainage bottom surrounded by young live Potr and mature Psme.**

1554—F goes back down.

1753—We finish peeping for the day, having found nests in B8 and B6.

# B7—2011

## 31 May 2011

1500—BL, BG, JV, EE, AW arrive at B7 to peep.

1525—**EE finds nest in B7\_793 (Tag #793)! F did not come up to tap so nest was found by peep. F did not come up after peeping. Nest tree is at South end of B7 territory right by B7 parking spot, about 20m E of Missouri Road. DBH of tree is 32. Cavity is a flicker-sized hole approximately 22ft high facing East.**

***\*Note – on 1 June 2011 SY captured the male at this nest tree with band # 1593 – 64431, the B8\_2005 male. As a result, this is in fact the B8\_2011 nest tree.***

2035—SY, EE, JR, and JV arrive at the B7 nest tree to attempt a capture of the M.

Weather: wind at about 5 mph, somewhat cloudy, 18 C

2041—SY has the net up at nest.

2042—M comes silently into nest site.

2046—M comes to nest cavity and perches to look at SY. M aborts PD.

2047—M aborts PD.

2048—M aborts PD.

2049—F flushes from cavity.

2050—**JV peeps nest. There are 3 eggs touching in the center.**

2052—Team backs off about 15m to wait to for the F to come back on.

2116—Team decides to leave the nest site because F as not returned and a lure net needs to be set up on Bermuda.

2220—PS and JG begin spotmapping in B7 beginning at junction of the road and E Missouri Creek moving south. TCs made periodically after every 50m of travel by PS and JG. No responses heard.

2252—Having heard no responses to our TCs, JG and PS leave B7 to return to B6.

# B7—2012

## 1 June 2012

~1500-1730—Whole crew minus awesome SY and JV peep parts of B8 and B7. No nests are found.

## 18 June 2012

**Note: These notes are entered in B7 and B8 based on multiple observations of both birds (as well as a third unknown territorial male throughout the night. Several fixes on these individuals were recorded as telemetry fixes despite the birds not being radio tagged.**

~2255—CC, AP, MD, AW and SY arrive in S end of Missouri study area to set up lure net for B7/B8. We stop car to check GPS and hear several quiet TCs from drainage bottom ~30m SE of our location on the road. We locate M perched in a small pico (telem and songpost B7\_1). We observed a second bird fly past M – suspected F. Within minutes we locate M and F perched in sm. Potr (telem B7\_2). We follow the M and F over the next 9 minutes (2400-2409) on several perches (telem B7\_2-4). M makes a PD in B7\_2, F begins giving consisten FSCs in B7\_4. We eventually lose track of the F but immediately locate the M in a nearby psme (B7\_5). We follow M until 2332 and log 5 additional fixes (B7\_6-10). M makes several forages and gives several TCs including once at a M located to the N on the upper slope of Genesis R. (this other M is of unknown ID and had a notably higher pitched call). On a couple instances M gives TECs and HECs in short bursts form the drainage bottom – likely we were close to the F?

2320—2nd M giving Tcs to the N or NE – B7 gives TCs and TECs from B7\_7.

2330—CC, MD, and AW start playback. Net is located on low slope of Turkey Ridge just W of road and slightly S of project boundary.

X: 495902

Y: 4332033

+/- 4 m

Vegetation: open with young to mature pipo/psme

Weather: calm, clear, 13 C

2332—We stop following M as he begins to clearly respond to the lure net and moves in that direction.

2333—M (presumably B7) responds to playback with TECs W of net within 5 m.

2334—2nd M (presumably B8) begins responding with TCs from mid to high slope of Genesis Ridge approximately 150-200 m to the NE.

2337—B8 M moves lower on E slope of Genesis to approximately 100 m E of lure net.

2336—B7 M goes silent at net.

2339—B7 M gives TCs at net.

2340—B7 M perches on psme 15 m N of net and continues to give TCs.

2343—B7 M gives TCs from lower slope of Genesis Ridge.

2347—**B7 M is captured in lure net. He is unbanded and was captured in the 3rd shelf coming in from the E.**

**Band # 1593-64882 (on R leg)**

xx.x g LWC: 134 mm

- xx.x g LLP(5): XX mm

xx.x g LLP(6): XXX mm

Rect: XX mm

**NOTE: M escapes during 2nd wing cord measurement by CC. We are therefore unable to mass or take additional measurements. Blood was also NOT taken.**

2358—M escapes during wing cord measurements.

2408—CC and MD go to listen in the B7 drainage near location where SY and AP picked up M and F earlier. AW remains at lure net.

2413—B7 M gives TCs from E of road.

2418—B7 M approaches net and begins giving TECs. At same time, unknown “high-pitched” M gives TC/TEC from 150-200 m NE of net from mid-slope on Genesis Ridge.

2419—B7 M jumps E across road and appears to approach B8 M for a territorial encounter.

2423—SY changes TC/TEC playback to FSC playback with intention of luring in both the B7 M and F as well as the B8 M or unknown “high-pitched” M.

2435—AP and SY head N into B8 to listen for nesting vocalizations.

2430-2445—MD chases B7 M to upper E slope of Genesis. M gave multiple sets of several TCs from on this ridge. **2nd “high-pitched” M at same time?**

2445—From central B8, SY hears a few quiet TCs in middle of drainage, in vicinity of Cavity Tree #102. I can hear the “high-pitched” M at same time. MD and AW report that “high-pitched” M is in encounter with presumed B7 at same time.

2445—MD possibly hears F give 2 FSCs from upper slope of Genesis R. but it is too faint to confirm.

2449—While writing notes, SY hears wing flaps overhead, SY locates silent bird fly over and land on small branch coming off of cavity tree #102.

2452—M makes short flutter flight to W side of tree – goes missing for ~20 seconds then flushes to the SW. Cavity? Nest?

2454—SY locates a possible cavity on W side of tree 30-35 feet up.

2455—End playback.

0102—SY observes M return to site and makes a PD to the suspected cavity. **This is the B8\_2012 nest. Cavity Tree #102. Tree is a potr snag located in the N Missouri drainage bottom. Cavity is 30-35 feet up on the W side of tree. View of cavity and potential net access are severely obstructed by young live potr in th drainage bottom.**

0104—SY leaves B8 nest area.

# B7—2013

## 29 May 2013

1600—BL, RC, BDG, and AW arrive at the S end of B7 territory to peep.

1630—Tree #801 is peeped. F is down, but looking up at the camera. **This is the B7/B8\_2013 nest tree (tag #801). *Note: later capture of the M at the nest site confirms this nest as B8\_2013 (not B7). M is the B8\_2005 bird (9 years old).* Nest tree is a potr snag located 10 m E of Missouri Creek and 60 m N of the B7 parking spot. Nest height is 22’. The cavity is W facing and has a flicker-sized entrance.** F remains down the entire time.

~1635—BL, RC, BDG, and AW resume peeping approximately 100 m N.

~1715—We end peeping.

2026—CK and BL arrive at the B7/B8\_2013 nest to peep status of nest. F is in entrance when we arrive. *Note: the identity of the M at this nest has confirmed this nest as the B8\_2013 nest, NOT the B7\_2013 nest. From this point on, all notes regarding this nest will be listed in B8 territory field notes.*

Weather: Mostly clear, calm, 4 C.

2034—We hear M call off his roost approximately 60 m to ENE of nest—he gives 6-8 TC before quieting.

2038—F gives several FSCs (still in cavity entrance).

2040—M flies into the nest area giving LC, and makes PD at cavity entrance at this time.

2043—M makes another PD at the cavity entrance (accompanied by LC), and F subsequently flushes to a Potr 10 m to the S. She remains perched here for 1-2 min before flushing from the nest area to the S (in the direction the M flew). **We peep cavity and find 2 eggs touching in the center of the cavity.**

2046—We leave.

## 4 June 2013

1500—Flam crew arrives in the B7/B8/B19 aspen flat to peep. BL, AW, BDG, and RC begin peeping where we left off on 5/29/13 just N of the B7\_2013 nest tree moving N while LL, SY, and CK begin where we left off on 5/29/13 near the confluence of E Missouri and Missouri Cr moving S.

~1625—We leave after finding nothing.

2015—BDG and BL arrive at the B7/B8\_2013 nest to attempt capture of F and assess status of clutch size.

Weather: partly cloudy, calm, approximately 12 C.

2032—After slowly approaching the nest tree from the E side, BL raises the capture net over the cavity entrance at this time. F stays down in the cavity.

2041—M heard calling off roost up drainage from cavity tree.

2041—M heard calling off roost up drainage from cavity tree.

2048-2052—Male heard giving two and three note calls slightly closer to the cavity tree than previous position.

2052—F rises to the cavity entrance.

2053—**F attempts to exit cavity and is captured. After taking a couple of minutes to extract her we see that she was previously unbanded. We band her with Band # 1783-64392. BDG peeps cavity at this time and observes 2 eggs in the center, touching.**

**Band # 1783-64392** (on L leg)

**~**100.5 g

- 34.5 g

66.0 g

2059—We release F without taking any further measurements, and no blood drawn. We immediately leave area.

*Note: all further field notes pertaining to this nest are listed in B8.*

# B7—2014

## 28 May 2014

1530—Flam crew arrives in E Missouri Creek with purpose of peeping B6/19/8/7 territories. BL, AW, RD, and MP begin peeping at the southern end of B7 and proceed N while SY, LL, RC, JS, and ER begin peeping at the B6 parking area and proceed N.

1730—End peeping having found nothing.

## 6 June 2014

2040—Most of the Flam Crew spreads out in 100m increments along Missouri Cr from B7 up to B6 to listen for nest vocalizations. LL gets dropped off on the road across from the B8\_2013 nest tree. ER is stationed at S most point about 100m down drainage from LL in B7. RD (with friends) is stationed 100m up drainage from LL.

2051—LL hears a F give FSCs ~40m NE of the B8\_2014 nest. The F is very mobile making ~20m flights and giving FSCs in the area as she goes. ER comes up to join LL from her position 100m S in the drainage and RD and his friends come to join LL from their position ~100m N in the drainage.

2058—RD hears one FSC near his position about 50m updrainage from LL and ER, but immediately loses F afterward. LL and ER hear M give LCs in the vicinity of the F, but he never gets within 5m of her. **ER flags the tree that he was singing in**. This is songpost B8\_1 in a fully live potr with a dbh of 17.4 cm.

X: 496048

Y: 4332377

+/- 6m

~2100—The M and F both go silent and we lose sight of them.

2110—LL hears a M give TCs ~150m E of the B8\_2013 nest up the slope of Genesis R.

2112—LL hears M LCs and F FSCs in a small drainage ~30m S of her position, which is ~50m upslope (E) from the B8\_2013 nest.

2118—ER and LL hear FSCs ~40m upslope in a patch of young potrs (this patch is ~100m up the slope of Genesis in the small drainage).

2125—ER hears a quiet FSC from the same patch of potrs. We move upslope to explore for possible cavity trees.

2154—After exploring the potr patch, finding no cavity trees (trees are too young, small, and alive), and hearing nothing more, we head back down and across the road to set up a lure net with MC.

2227—PB started. Our net is 10m W of the road across from the B8\_2013 nest.

Vegetation: Young-medium potr/psme, open

Weather: Clear, calm, 9.5C

X: 495982

Y: 4332402

+/- 3m

2230—M gives TCs from drainage SE of net.

2238—LL and ER go to listen near where we heard and saw F giving FSCs earlier.

2254—M gives TCs up on Genesis ~150m E/SE of PB.

2256—M gives TCs SE of net in drainage bottom ~50 SSE of PB.

2300—M goes silent.

2301—M (potentially different from M upslope) gives a few angry-sounding (very low) TCs ~50m E of B8\_2013.

2303—M starts giving TCs up on Genesis ~150m E/SE of PB again.

2304—M gives TCs from drainage bottom ~50m SSE of net from drainage bottom.

2306—While the other M is TCing on Genesis a second M gives TCs ~60m SE of B8\_2013. ER follows more S male and LL stays near original M on Genesis.

2307—Both Ms go silent.

2311—M begins giving TCs on Genesis again ~120m E of PB.

2314—M then moves, giving TCs ~90m E of PB.

2316—M goes silent.

2319—We turn the PB off and move our net ~100m further S in order to target the southern M that has been calling all night.

2322—M gives TCs ~60m SE of the net as we’re taking it down.

2329—PB restarted in new location. Two Ms begin to call, one ~50m up drainage and the other ~50m down drainage.

Vegetation: Young-medium potr/psme, open

Weather: Mostly cloudy, slight breeze, 9C

X: 495950

Y: 4332272

+/- 3m

2334—Ms that were calling are both silent.

2343—ER and LL head back into the drainage to listen. ER goes into E side of drainage right across from new lure net site, while LL goes back to the vicinity of the B8\_2013 nest to tap and listen.

2354—LL hears wing flaps over her head when she is ~20m SE of the B8\_2013 nest. She is unable to identify what type of bird flew over her, so it was not necessarily a FLOW.

2406—MC goes to d a final net check, a FLOW flushes from a low potr snag ~1m off ground, it flies under the net, E into drainage bottom.

2408—We turn off the PB and take down the net.

2416—We hear a M give TCs in the drainage after the net is completely taken down.

## 20 June 2014

~1530—Flam Crew (minus BL) begins peeping B7 and B8 along the main stem of E Missouri Cr.

1549—SY taps a previously unenumerated cavity tree in B7 and a F rises to cavity entrance. **This is the B7\_2014 nest!** **Tree is a broken top potr snag. Cavity is a flicker hole ~35 feet up the tree on the SW side. ~0.25m down from the very top of the tree. The tree is ~3m up from the bottom of the drainage on the E side of the creek at the “first” bend in the road on the way north. It’s approximately 325m S of the B8 parking area.** This is right where LL and SY had followed a M and F during the 2013 field season. Perhaps we missed a nest here last year?

X: 495910

Y: 4331999

+/-8m

2200—SY arrives at the B7\_2014 nest to attempt to capture the M. F comes up to the cavity entrance as I approach. I shut off my light and wait. I soon thereafter hear wingflaps near my head so I turn light back on – F is no longer in cavity entrance but there is a silent FLOW perched ~2m from the nest tree at eye level. Fearing this may have been the F – I tap the tree to see if she is still in the cavity. As one might expect, the F then rises to the cavity entrance (meaning the silent FLOW was likely the M) and immediately flushes. Feeling like a dummy, SY leaves.

2313—RD, SY, and LL approach B7 nest, SY intending to capture the M.

2314—F comes up in cavity on SYs approach of cavity w/ net.

2316—F down, SY raises net.

2350—SY brings net down, no sign of the M the entire period. F comes up as SY lowers net.

LL, RD, and SY leave nest site for the night.

## 23 June 2014

~2120—AW and RC arrive at the B7\_2014 nest intending to capture M on PD. We observe nest to confirm F is back on cavity after flush.

2129—M gives PD. RC begins approach to nest tree.

2133—RC has net in capture position. While raising net, M gives 3 PDs. ***Note: the high rate of PDs observed early in the evening suggests that hatching may have already happened. Because this sustained rate does not keep up for the duration of the night, the owlets are probably very young and may have just recently hatched.***

2136—M flutters at cavity entrance, aborting PD.

2147—F flushes and gives loud FSCs from off cavity, just adjacent to nest tree. M gives at least

1 PD to her while she is off. RC lowers net to allow F to go back on. *Note: F most likely flushed on her own to receive PDs from M who appeared hesitant to give her PDs in the cavity.*

Weather: calm, slightly cloudy from recent rain/storm, 13C

2212—RC has net in capture position. We did not notice F coming back on, but since we do not hear any FSCs, we assume F has made it back in cavity.

2240—RC takes net down. There has been no sign of M since 2147 when M gave F PD off cavity. We leave to lure for BG6 M.

2455—JS and BL arrive just S of the B7\_2014 nest area on the Missouri Gulch Rd to attempt spot-mapping of B7 M and his neighbors. We spread out to listen and elicit territorial song.

0105—JS hears M give TCs ~100m NW from her position on the W side of the road. She pursues but nothing more heard.

0112—BL hears M give TC just S of the B7\_2014 nest area. He goes quiet after 2-3 min.

0117—We leave.

## 25 June 2014

2144—JS and SY arrive at the B7\_2014 nest to attempt to capture the M.

Weather: ~14C, mostly clear, mostly calm with occasional gusts up to 5mph.

2151—F up so we shut off lights and wait a few seconds for her to go down before proceeding with raising the net.

2152—Net in capture position.

2155—We hear 1 TC ~75m to the S.

2206—Aborted PD

2208—PD – missed capture attempt.

2221—PD – missed capture attempt.

2128—PD – M is captured – **he is unbanded. He is the B7\_2014 M.**

**New Band #1783-64499**

73.0 g LWC: 127

- 16.0 g LLP(5): 96

57.0 g LLP(6): 104

Rect.: No measure taken as he was missing several rectrices including center feather.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2.5 | 3 |
| P5 | 2.5 | 2 |
| P6 | 2 | 2 |
| P7 | 1 | 0.5 |
| P8 | 1 | 0.5 |
| P9 | 1 | 0 |
| P10 | 0 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 2 |
| P2 | 0.5 | 1 |
| P3 | 0.5 | 1 |
| P4 | 0.5 | 2.5 |
| P5 | 1 | 1.5 |
| P6 | 1 | 1.5 |
| P7 | 2 | 2 |
| P8 | 3 | 2 |
| P9 | 3 | 2.5 |
| P10 | 3 | 3 |

We bleed the M’s L wing – no hematoma.

2301—M released, strong flight W.

## 27 June 2014

2022—RC, MC, and JS arrive in B7\_2014 nest area to capture F on flush. F down on arrival.

2025—JS reaches base of tree. F still down.

2039—Net up. F up.

2042—F down, up, down.

2044—F up, down.

2055—F gives some FSCs in cavity.

2057—M arrives in nest area with moth, perching silently in potr just S of nest tree.

2059—M gives single LC.

2101—M gives some more LCs and moves around close to nest tree.

2102—**F up and in! Previously unbanded. This is the B7\_2014 F.**

**Band # 1783-64537 (on L leg)**

76.0 g

- 16.0 g

60.0 g

**Peep reveals 1 nestling and 2 unhatched eggs. Nestling is face-down, all white, and moving a bit.**

2105—F released with strong, ascending flight S. We leave nest area and walk ~150m up drainage to listen near B7-B8 boundary.

2135—Having heard nothing except a brief burst of TCs from B7 M near nest around 2115, we leave for BG5/6.

## 7 July 2014

2237—AW and JV arrive at the B7\_2014 nest to observe and possibly capture the F. It is cloudy and drizzling.

Weather: cool, drizzling, cloudy

~2251—M gives two LCs from trees just E of nest tree.

2255—M PD.

2256—A bird (most likely the M) flies into trees E of nest tree.

2258—AW starts to go peep cavity because rain has stopped but then is starts to drizzle more and we see that the F is actually on the cavity and she is up (we had previously thought that she was off). F gives three low-intensity scolds with a mixture of FSCs.

2303—We had lights off and couldn’t see the cavity directly but F is no longer in entrance and nestlings can be heard begging.

2315—It starts to rain in earnest and we leave to sit in the truck.

2345—AW and JV go back into B7\_2014 nest site because the rain has stopped.

2353—F comes up to cavity entrance as AW is creeping in with capture net.

2357—F flushes.

2358—JV peeps. **Three nestlings in cavity two eldest on either side of the runt. All three still have some natal down but they have grey plumage coming in heavily on their heads and backs. No sign of facial disks on any of the nestlings.**

2405—AW has capture net in place in to capture F.

2411—Starts to rain for real again and AW takes the net down. UGH!

2412—We leave.

## 9 July 2014

2026—AW and JS arrive at the B7\_2014 nest to capture and process the F.

Weather: wind 5 mph, partly cloudy, 20C

2030—JS begins to raise the net intending to capture F on flush.

2033—F rises to entrance.

2044—F never goes down and flushes before JS has net at correct height.

2050—**We peep and find 3 nestlings. The eldest 2 have extensive juvenile plumage coming in below downy feathers. The runt has a little juvenile plumage coming in on head and wings. I suspect the eldest are about 12-14 days while the runt is 9-11 days. Previously, we had an expected hatch date of 6/26. This would put the eldest nestling at ~13 days. Our observation tonight is consistent with that hatch date.** JS keeps net up to attempt capture of F on PD.

2056—F PD. M vocalizes off cavity.

2058—M is captured on a PD. **Band # 1783-64499 (“Eddy”). This is the B7\_2014 M.** We hold on to him. JS raises capture net.

2103—**F is captured on a PD. We name her “Henrietta”. This is the B7\_2014 F.** We release M when we confirm her identity.

**Band # 1783-64537 (on L leg)**

89.5 g LWC: 129 mm

- 34.5 g LLP(5): 100 mm

55.0 g LLP(6):108 mm

Rect: 61 mm

Note: Bled for genetics and parasite smear. P3 in molt.

2120—F released. We leave.

## 19 July 2014

2022—RC arrives in B7\_2014 nest area to fledge watch. F off cavity. **Peep reveals 2 Ns. 1 appears ready to fledge (~22 days old) while the second appears several days younger with only the beginnings of a facial disk and a good amount of natal down remaining mostly on the head (~18 days?)**. RC backs off to silhouette.

2030—M LCs nearby.

2031—N up. Bobs and begs.

2033—N scared back into cavity by passing dune buggy.

2037—FSCs nearby to S. Dune buggy passes again.

2039—N up.

2041-2148—M and F bring 43 PDs. N goes down briefly a couple of times, then stays down after 2114.

2156—**Peep confirms that both Ns remain in cavity.** I leave.

## 20 July 2014

2318—**RC peeps B7\_2014 and only sees one nestling. One nestling has fledged earlier in the**

**night.**

2325—MC hears F LC ~45m S of the cavity and givces chase. As he approaches the general area

F begins to scold. MC spots F and RC comes to help.

2330—F moves to two different trees still scolding. **We begin to search and find the fledgling**

**on the same tree she is on ~50m SE of the nest in a large pipo ~5ft off the ground.**

**Band #: 1833-03102**

63.0 g

P#5: 69 mm (15 in shaft)

P#6: 68 mm (16 in shaft)

Rect: 39 mm (11 in shaft)

Band#: 1833-03102

Notes: MC displays his excellent owl parenting skills and feeds the fledgling a grasshopper and de-winged moth.

2356—We put the fledgling back on the same branch and leave.

## 21 July 2014

2023—RC arrives in B7\_2014 nest area to fledge watch. **Peep reveals 1 N remaining in cavity. Facial disk is becoming more prominent and N is losing some of the remaining natal down on the head (though some still remains).** I back off W across the stream to silhouette.

Weather: slight breeze, clear, ~11C.

2038—Begs begin in cavity.

2051—N up. Attending parent is being mobbed by AMROs in the nest area and so is not making PDs.

2054—N down.

2101—N up.

2105—N down.

2109—PD.

2111—PD.

2114—PD.

2118—PD.

2120—N still down. ER and LL have heard LCs in B21 and this N does not seem eager to jump so I leave to join them. N is still clearly begging from the cavity.

2329—RC, LL, and ER return to B7\_2014 nest area to peep. **Peep reveals that N still remains in the cavity.** We leave.

## 22 July 2014

2040—RC and MP arrive in B7\_2014 nest area to fledge watch.F off. **Peep reveals 1 remaining N—**still some white remains on head, facial disk is fairly well-developed. We silhouette.

Weather: overcast, calm, 13C.

2042—PD.

2045—N up.

2048-2050—N up and down. 3 PDs. N stays down at 2050.

2053-2056—3 PDs.

2058—PD, N up, PD, N down.

2100—PD.

2101—N up.

2102—N down and stays down until we leave.

2103-2129—10 PDs.

2129—**We peep again and find N still in cavity**. N was up for ~7 minutes total for the second night in a row. We leave. *All of these PDs were made by the same parent. Based on observations on 7/20/14, we believe that the F is tending to the first fledgling, and so is away from the nest. However, this parent never LCs so we cannot confirm identity as M. We do get scolded by this bird as we go in to peep and it sounds like M, but this is not a sure thing.*

## 23 July 2014

2024—RC and ER arrive at B7\_2014 nest area to fledge watch. **Peep reveals that the 1 N still remains in cavity and has lost most of the down on his head.** We silhouette from W across the creek.

Weather: overcast, calm, ~12C.

2036—N begging.

~2042—Single scold in nest site, likely not directed at us (again, probably M, but we hear no other vocalizations all night).

2045-2130—23 PDs by single adult. N up and down between 2046 and 2057 (up for ~7min total…for the 3rd night in a row).

2130—N hasn’t jumped, and is still begging in cavity. We leave.

# B7—2015

## 27 May 2015

~2045—LP and RC arrive at boundary of B8 and B19 polygons on W side of Rd to lure net and later spot map in the area. We set up lure net in small potr flat 5m W of Rd, 20m N of two broken top potr cavity trees #865 and #96. Net opens NW/SE.

2127—PB begin.

Vegetation: young-mature potr, mature pipu nearby, fairly open

Weather: mostly clear, calm, 3.5C

X: 496081

Y: 4332870

+/- 9m

2130—TCs 100m NE near base of Genesis R. This M continues TCing and moves ~500m S then back to original position, staying on E side of creek near base of R.

2200—RC leaves to tap and listen on E side of Cr moving S toward B8 proper.

2218—After losing TCing M briefly due to creek noise, RC picks up M TCing ~200m S near Rd.

2223—RC pops out on Rd just S of cavity tree #2 and hears 2 Ms encountering. First M, which is likely original M we heard from net, is perched high in a 59.5 dbh pipu just off E side of Rd, giving TCs and some TECs. Second M gives TC/TECs briefly 100-200m NE near base of Genesis R. **RC hangs song post B8\_1**.

X: 495995

Y: 4332442

+/- 9m

2229—2nd M begins TCing again near base of Genesis, now ~150m SE of B8\_1. M goes silent shortly and RC heads back up to break down net.

2233—RC arrives back at lure net. Presumed B8 M has been audible to S TCing, but no action at net.

2237—PB off. We hear FSCs <20m away from location of the two potr broken tops #865 and #96. Vocalizations continue for a minute or two in immediate vicinity of these trees, the F flies N without being spotted. SY is on presumed B19 F at N end of B19 until 2219. This F could possibly be the same F, but she would have to have moved several hundred meters in a relatively short time period.

2242—RC spots F, still vocalizing, in small potr 25m N of these cavity trees and flags tree. F flies E on spot light and goes silent. We head back down to net and break down.

2300—We tap #865 and #96, both of which appear to have nice looking cavities, but see and hear nothing. F silent since 2242.

2320—After listening in this area and hearing nothing, we move to E side of Cr and then move S, tapping and listening on our way down drainage.

2414—While tapping **tree #1077** in mouth of side drainage that leads to B8\_2014 nest tree, LP **flushes owl from S-facing cavity ~7m up**. LP remains near tree and RC moves in direction of flush. We hear FSCs in small pipu 10m S of tree and brief, simultaneous TECs 50m E up Genesis R near B8\_2014 nest. F near #1077 flushes S upon spotlighting tree. **Later tap confirms that this is a FLOW nest tree (likely B8\_2015)!**

2424—After F flies S a second time, we back out of nest area. LP remains in drainage bottom and RC moves up Genesis toward direction that TECs were heard. Around mid-slope, RC hears LCs and FSCs 60m ENE toward B8\_2014 and a faint second set of FSCs to E.

2426—After following LC/FSCs upslope, RC spots two FLOWs perched low in a large psme. Both birds flush on spot light and RC chases up R. This is likely a PD.

2430—PD observed on another low psme branch 20m E up slope. F flushes S first, then M flies down and perches briefly on ground before flying NE in the direction of the B8\_2014 nest. Both individuals go silent after this. Brief FSCs heard again distantly to S. LP moves back down toward drainage while RC goes to tap B8\_2014 nest. Nobody home.

2457—Having heard nothing in B8 for several minutes, we move S toward B7. We hear brief TCs distantly to S, but Cr is too loud to hear well.

0106—RC heads S into B7 and taps B7\_2014. Nobody home, no vocalizations heard in area. RC moves back up toward B8 as SY and BH arrive. We meet briefly, then RC heads back up to lure net site to grab gear. LP, SY, and BH remain in B8 nest area.

0120—LP and RC tap nest tree #1077 to confirm nest. F comes up to entrance, then quickly flushes S. **This confirms location of likely B8\_2015 nest tree** (mentioned above). We then back out of area. F returns to cavity within ~3 minutes after flushing. *Observations of F returning to nest within 1-3 minutes after each flush suggests that she is currently incubating. This also supports the idea that there is a second mating pair in the area.*

0127—From B8\_2014 nest site, Sy hears TCs upslope to SE. SY moves upslope, but M goes silent.

0145—Crew departs.

## 2 June 2015

2423—We tap B7\_2014 and flush a likely NOFL from last year’s nest cavity. RC listens in this area and ER moves N to listen on low W-facing slope of Genesis R.

2443—Nothing seen or heard in B7\_2014 nest area. RC moves S to tap some cavity trees and hears intermittent TCs ~100-150m S of B17\_2014 tree. Creek is loud and M seems to be giving only 1-2 TCs at a time and jumping back and forth over the creek. M goes silent quickly without RC being able to get close.

0108—We leave.

## 15 June 2015

2451—RC and DL arrive in B7 to listen and spread out along the length of the territory. DL starts in patch of cavity trees ~100m N of B7\_2014 nest tree, and RC starts ~150m S of same tree.

~0105—DL may hear a single TC ~50m N of her position, but it is unclear, creek is loud, and nothing else is heard.

0115—Nothing significant seen or heard. We leave.

## 10 June 2015

Afternoon—Flam Crew peeps out the B7 territory down to the edge of BG4 and up until the failed (Likely B7) nest.

~1605—While RC is peeping B8\_2014 nest tree #1336, RC and LP hear M giving TECs 5-10m N of nest tree. RC has peeper up ~40ft when calls are given. LP pursues and quickly spots M roosting in ~15cm dbh live psme. M is perched ~8m up in tree against the trunk on a small branch. RC has already peeped all but the highest cavity in tree and found nothing. The rest of the crew joins RC and LP to observe M. RC re-peeps highlight cavities in tree, including 2014 nest cavity, with several spectators.

## 01 July 2015

2209—BL and LP arrive to B8\_2015 nest area with intent to capture B8\_2015 M at PD.

2216—BL approached nest tree and begins raising capture net. We hear FSCs off cavity (~15m to the W). We also hear a few LCs coming from same area as FSCs. BL lowers net to ~15 ft, while LP spots. We continue sitting in our positions to observe until 2232.

~2225—Two birds (assumed M and F) seen flying in tandem from conifers to the S.

2232—F still has not entered cavity so we leave nest area. We hear LCs from ~25m down drainage (W) as we are leaving. **NOTE: Behavior of F is suspicious, and suggestive of possible nest failure.**

2245—We gather lure net supplies from car with intent to capture B8\_2015 M. We begin setting up lure net approximately 20 m W of Missouri Cr Rd (FS347), and ~ 100 m W of the B8\_2015 nest tree.

2255—Lure net is set up. PB (track 42) turned on. Net opens E/W.

Vegetation: net flanked by three young potr on W side with young-medium psme, open

Weather: calm, partly cloudy, full moon, 9.0C

X: 495972

Y: 4332438

+/- 9m

2257—We hear TCs and FSCs from ~70m ESE of net. We presume this is either the B8\_2015 pair or the B7\_2015 pair (who failed earlier in June).

2300—We hear another M giving TCs ~150 NNE of net in drainage (possibly B19\_2015 M). ESE M begins giving TECs at this time. This M is subsequently joined by another M giving TC directly W of the net (B7\_2015 M?). The distant M to the NNE is still heard calling periodically—is the Western M the failed B7 M?

2302—Two Ms and one F in net area at this time all calling.

~2304—**Net check reveals two birds in net. Bird #1 is unbanded M (new band #1833-03286) caught in 2nd shelf on E side.** **Bird #2 is previously banded F, with Band #1783-64392, who was the B8\_2013 and 2014 F, and captured in 1st shelf on E side**

**Bird #1: Band # 1833-03286 (on x leg)**

68.0 g LWC: 130 mm Rect: 54 mm

- 7.5 g P5: 101 mm

60.5 g P6: 112 mm

**Bird #1: Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.0 |
| P5 | 2.0 | 1.5 |
| P6 | 1.0 | 1.0 |
| P7 | 1.0 | 1.0 |
| P8 | 1.0 | 1.0 |
| P9 | 1.0 | 1.0 |
| P10 | 1.0 | 0.5 |

**Bird #1: Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1.0 | 1.0 |
| P6 | 1.5 | 1.5 |
| P7 | 1.0 | 1.5 |
| P8 | 1.5 | 2.0 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

**Bird #2: Band # 1783-64392 (on R leg)**

75.0 g No measurements or blood, due to presumed F status

- 7.5 g

67.5 g

2313—Bird #2 released to SE with strong, ascending flight.

2319—**Net check reveals another bird in net. This bird is unbanded and was caught in 2nd shelf on E side. New band #1833-03287. NOTE: This was presumed to be F, based on the large incubation patch (which had pin feathers filling in on perimeter).**

**Bird #3: Band # 1833-03287 (on R leg)**

72.5 g No measurements or blood, due to presumed F status

- 8.0 g

64.5 g

2321—M giving TCs consistently on W side of net. This M continues to vocalize throughout lure net disassembly.

2324—Bird #3 released with strong, ascending flight to SW.

2339—Bird #1 released with strong, ascending flight to S.

~2344—PB is turned off and lure net is taken down.

2348—We leave net area to walk towards car. This is the end of our night.

# B7—2016

## 01 June 2016

~1530-1715—Flam Crew peeps along N. Missouri Cr. from B7 to B6. **The B6\_2016, B21\_2016, and B8\_2016 nests are found**. Past nest trees and other appealing cavity trees are cherry picked in B19 and B7.

# B7—2017

## 31 May 2017

1530—BL, KM, ES, and JE cherry peep B7, B8, and the southern part of B19. We do not find any nests.

1730—We end the peep day with anticipation to find the E Missouri nests in the future.

2035—ZM and ER arrive at Missouri Cr in the B7 and B8 territories to listen for courtship behaviors and nest search with ZM starting more S in B7 and ER heading N towards B8.

Weather: 40% cloud cover, calm, 12 C.

2046—ER hears M LCs ~30m S of the B8\_2015 nest drainage ~30m up the slope of Genesis R. I hear about three consecutive LCs as the M moves downslope into the drainage. ZM starts to head N to move toward action.

2057—ZM sees a FLOW (suspected F) flitting from tree to tree about 10 m E of the creek and about 100 m N of the B7 Parking spot in the B7 aspen flat. ZM also hears M LCs N of the silent FLOW in sight. She pursues the owl as it flies in short flights N towards the LCs. Within a couple of minutes, the owl was out of sight and the calls ended.

2200—ZM and ER return to car after continuing to listen in the B7 aspen flat and surrounding area. We do not hear any more vocalizations for the remainder of our listening time. We collect net gear.

2240—Started playback low on E-facing slope of Turkey Ridge about 100 m N of B7 parking spot and 15 m W of Rd. Targeting B7 and B8 territories.

Vegetation: Mixed age Psme, Pipo, and Pifl. Fairly open.

Weather: partly cloudy, calm, 10 C

X: 495980

Y: 4332471

+/- 3 m

2302—Hear intermittent M TCs due east of lure net for about 4 min.

2306—ER leaves to go listen along the E side of Missouri Cr where we last heard the M.

2325—ER hears a series of four FSCs starting near the confluence of the B8\_2015 nest drainage and moving N about 50m along the base of the slope. I hear the last vocalization near cavity tree B7\_820.

2338—ER hears FSC up slope from cavity tree B7\_820. I pursue.

2340—ER spots F FLOW about 40m up slope. F flies from ground to a low perch in a psme, giving FSC. M is in area giving LC. He gives F a PD at her perch. Both M and F fly S along contour, both vocalizing often.

2350—M and F FLOW vocalizing around the B8\_2015 nest tree. ER spots F giving FSC on a low perch 10m upslope of the past nest tree. M giving four note LCs in area. F flies to cavity tree and perches on the side of the tree near the height of the past nest cavity, giving FSC. She flies back to the ground, and both M and F move around the site in a 10m radius. F flies back up to the tree and perches in the entrance of the NOFL cavity about one meter higher than the past nest cavity. She flies around a bit more before flying back up the past nest cavity and perching in the entrance.

2400—F goes down in the past nest cavity where seems to remain for the next ten minutes, continuing to beg. M gives her two PD in the cavity. **This is the suspected B7/B8\_2017 nest!** The tree is about 30m up the slope in a small drainage on Genesis R E of the B7 aspen flat. The nest tree is a pipo full snag. The cavity faces N and is about 45’ high in a sapsucker cavity.

~2410—ER leaves pair to their courting and returns to the lure net.

2427—We stop PB and break down the net. For the remainder of the night, we give some hoots within 100m S of the B7 parking spot to solicit a response from a possible more southerly M. We do not hear anything

2445—ZM and ER return to the car to meet up with Flam Crew.

## 8 June 2017

2034—ER and ES arrive at the suspected B7/B8\_2017 nest site. We silhouette the cavity that ER saw F entering on 5/31/17 and wait for F to flush. The tree is about 30m up the slope in a small drainage on Genesis R E of the B7 aspen flat. The nest tree is a pipo full snag. The cavity faces N and is about 45’ high in a NOFL cavity.

2046—We hear LCs coming from down drainage to the W, about 50 m away.

2100—We hear LCs much closer to us, still down drainage.

2115—Female has not flushed, so ES and ER tap the suspected nest tree. There is no response.

2119—**ES peeps the suspected nest cavity, and it is empty. This means that this is likely not the B7/B8\_2017 nest site.**

2120—ES and ER walk about 50 m down the drainage to listen and tap around where we heard the earlier LCs. We don’t observe or hear anything definitive.

2218—ES and ER return to the vehicle to get lure net equipment.

2243—While KM and ES scout a lure net site, ER returns to the B7 aspen flat where we heard vocalizations earlier in the night. As soon as I stop walking, I hear two loud FSC within 10m of the B8\_2016 nest tree. I suspect that the source is near an unenumerated cavity tree 5m NW of the B8\_2016 nest tree. I get a silhouette of the cavity trees in the area and listen, but do not pick anything up for the remainder of our time.

2252—ES and KM set up a lure net on the low, S facing slope of Turkey ridge about 20m from the road. We are in the northern part of the B8 territory.

2253—Playbacks start.

Vegetation: mixed age pipo, potr

Weather:15C, mostly clear, calm

X: 495971

Y: 4332450

+/- 3m

2340—PB off. We hear nothing the entire time we lure net, so we break down the net and head to BG5.

# B7—2018

## 12 June 2018

2036—BL and ON arrive at the northern end of the B7 territory/southern end of the B8 territory to tap trees and listen for FLOW nesting vocalizations in the drainage bottom of N Missouri Cr.

Weather: 50% cloud cover, calm, 15C

2046—BL hears a M FLOW call off roost upslope ~60 m upslope to the E. He gives 6-8 TC then quiets.

2116—ON hears distant M TCs ~50m W of Missouri Rd.

2150—No more vocalizations are heard, so we meet up and head up drainage.

2155—We listen in the vicinity of the vehicles for vocalizations, but all is quiet.

2227—We finish setting up the lure net on a small knoll 20m W of Missouri Rd and 30m S of the B8/B7 parking spot and begin PB T42. The net is open E/W.

Vegetation: mixed age psme

Weather: clear, breezy (twigs and small limbs moving) for first 20 minutes and then calm, 19C

X: 495927

Y: 4332253

+/- 3m

2249—BL heads N (?) up drainage to listen for vocalizations. All is quiet.

2310—ON heads N along road to listen for vocalizations.

2319—ON hears M TCs NE that continue for several minutes but never get closer than ~60m from net site.

2325—M makes a few more TCs ~60m NE of net before going quiet again.

2327—Change PB to Megascops.

2349—We cut PB after no more vocalizations are heard.

2357—We break down the net and leave the B7 territory.

# B7—2019

## 29 May 2019

1530-1700—ON, KC, AM, SL, and BL tap and cherry peep cavity trees throughout the B7/B8 territory. No FLOW nest found.

## 14 June 2019

1546—KC, BL, AM, SL and ON arrive in B7 territory to cherry peep and tap past nest trees in order to find a B7\_2019 nest.

1600—**KC taps tree #4 and does not see any signs of FLOWs. KC raises peeper to peep a cavity on the W side of tree, and a gorgeous F FLOW flushes from an E-facing cavity. This is the B7\_2019 nest! Hurray. KC peeped to find three eggs centered and/or touching/adjacent.** **The nest cavity was previously used for the B7\_2005 past nest. Cavity is a NOFL excavation 21 ft from the base of the tree and is the only E-facing cavity. Tree is a potr snag on the low slope E of N Missouri Cr ~30m and ~50m NE of the B7 parking spot.**

X: 496029

Y: 4332332

+/- 3m

Vegetation: Mixed aged pipo, potr, and psme

2125—ES and SL arrive in B7 territory to lure net with the intention of capturing the B7 M. ON and KC have a lure net ~250 m N of us (in B8) and we hope to play off of each other throughout the night to capture B7 and/or B8. We hear M TCs ~ 25m NE.

2129—Start PB T42. The lure net is on an E facing slope, open E/W, ~ 10m W from FS 347 and ~ 50m SW from the B7/B8 parking spot. The net is ~100 m SW of the B7\_2019 nest tree.

Vegetation: young/mature pifl, psme

Weather: calm, 10% cloud cover, 10 degrees C

X: 495939

Y: 4332257

+/- 3m

2135—We hear M TCs ~ 150m SE.

2137—M TCs ~ 30m N.

2138—The calling M goes quiet. ES changes the PB to megascops.

2143—TCs ~ 30m N. We hear both high and low pitched TCs at the same time, from approximately the same location, therefore we assume that there are two males calling, most likely the B7 and B8 M.

2145—We hear wing-flaps ~15m W of the net—lure net is empty.

2150—All is quiet by our net site, but ON and KC are now hearing a M FLOW in their net site ~ 200m N of our net, so we turn off PB is hopes they will capture the calling M.

2152—Despite turning off our PB, we hear a M reenter the area, giving TCs ~ 50m N.

2152—We hear TECs ~ 20m N.

2155—We turn our PB back on, Psciloscops AZ, in hopes to lure the M closer. We also decide to alternate PB with ON and KC every 5 min.

2156—ES walks PB N ~ 50m towards the vocalizing M, giving TCs, in hopes of luring him closer to the net site. There is no response.

2200—We turn off PB and ON and KC turn back on their PB.

2203—M TCs ~ 45m N.

2205—We turn PB back on, T42. ON keeps her PB running too.

2211—M TCs ~ 75m NE.

2215—SL walks the PB ~50m N, no response.

2220—We stop PB because ON has a calling M in her net site.

2223—M TCs ~ 25m NE.

2225—We turn PB back on and ON kills PB. We get eyes on the vocalizing M, giving HECs, bouncing around the lure net from all directions within ~ 5m of the net.

2230—M FLOW retreats to the S ~ 25m.

2232—ES walks the PB to the S towards the M FLOW giving TCs.

2233—M HECs and TCs ~ 10m from the net.

2254—M TCs and HECs within 5m W of the lure net.

2235—The M retreates ~ 15/20m E.

2237—M TCs 25m E.

2238—All is quiet. We turn off PB and ON turns her PB back on.

2242—We turn our PB back on and run both nets simultaneously for the last few minutes of the night.

2246—We kill PB and start taking down the net. M TCs ~ 30m NE. We stop taking down lure net and start PB back on to see if we can lure him back in.

2248—He has not come any closer, so we stop PB and leave the B7 territory.

## 18 June 2019

2030—ES, KC and AM arrive at B7\_2019 nest to attempt a F capture. Upon arrival F is up at the cavity and there is a slight drizzle.

Weather: 100% clouds, slight rain, leaves blowing

2033—The F goes back down into the cavity. AM begins to creep into position under the nest tree for the F capture. As AM reaches the nest, the rain begins to pick up.

2039—M gives PD on cavity.

2048—The rain seems to let up, and AM begins to raise the capture net.

2051—There is a misty drizzle again, so AM does not raise capture pole completely. M PD on cavity. F flushes after M. No capture.

2057—**KC peeps the nest to find that there are still 3 eggs, centered and toughing. We leave the site.**

## 20 June 2019

2024—KC, ES and AM arrive at B7\_2019 nest to attempt a F capture. Upon approach F is up.

Weather: 15%, leaves blowing, 13 C

2028—AM repositions to wait behind the nest tree where the F can’t see him.

2034—KC and ES reposition ourselves further from the cavity. F goes down.

2040—AM is in position under the tree. AM begins to slowly raise the capture net

2045—AM has capture net almost in position in front of cavity and F comes up.

2048—M calls off roost ~15m E. F is still up.

2049—M gives LCs ~15m E.

2050—F goes down.

2051—AM gets net into position in front of cavity. F flushes but slips out the side of the capture net. No successful capture.

2053—**We peep B7\_2019 nest while F gives FSCs E of us. There are three eggs centered and touching with a possible pip on one of the eggs. Cavity is 30ft 3in.** We leave the nest site and head to B8.

## 27 June 2019

2142—KA, AM and SL arrive in B7 territory to attempt M nest capture. F is down when we arrive and all is quiet.

Weather: 5% cc, slight breeze, 12 degrees C.

2145—We hear TCs ~10m S.

2146—M makes PD while perched on cavity entrance.

2148—M makes PD from cavity entrance.

2149—M reenters nest site, we keep a dim spot on the cavity entrance to keep eyes on him. He bounces around to adjacent trees between 0-5m from the nest tree giving TCs.

2150—M flushes to the E.

2208—We hear M TCs ~ 100m S.

2210—KA begins her approach to the nest tree for the M capture. AM keeps a dim spot over the cavity entrance, as it is difficult to see the M fully enter the cavity from the base of the tree.

2213—KA begins raising capture pole.

2217—The net is at cavity height. All is quiet; F is down. AM turns off light.

2222—We hear TCs ~5m S.

2224—M reenters site giving TCs. We think he has gone into the cavity, AM turns on light and KA swings. We see that the M is perched on the cavity entrance giving a PD and flushes E before KA can capture him.

2230—We hear TCs ~10m S.

2231—We hear TCs ~ 75m NW. It is unclear if this is the B7\_2019 M or a different calling M in the area.

2315—It has been quiet for ~45 min and the M has not reentered the site, so we decide to take down the net and leave.

## 1 July 2019

2306—ES, ML, AM arrive in B7 to attempt to capture the B7 M at the nest.

2311—We arrive at the B7 nest. M TC’s are heard ~ 30 m N and the F is down upon arrival. The male’s vocalizations are continuous for our entire time in the territory, save for a few breaks no longer than a few minutes. AM puts a dim spot on the cavity entrance, which is empty.

Weather:12 C, 70% cc, calm

2315—ES approaches nest for M capture with M still giving TC’s.

2316—M TC’s move closer ~15 m N of nest.

2319—Net is raised to cavity height.

2322—TC’s change to TEC’s. Still continuous.

2326—AM kills dim spot and ES lowers the net to half of the cavity height to convince the M to start doing PD’s and be less wary of the net.

2330—M vocalizations stop temporarily.

2332—ES hears M give a PD and F possibly gives a quiet FSCs on cavity. After the PD, ES raises net to cavity height again and AM turns on dim spot. (**7/15/19 Note: Due to the discovery of nest failure on 7/9, it seems more likely that the PD ES heard was just wing flaps near the nest tree and a trick of the ears rather than an FSC. Based on lack of confirmed M PDs on this night and the FSC heard off cavity at 2407, it’s possible the nest had already failed by 7/1).**

2334—Distant TC’s are heard, ~45 m E of the nest.

2338—TC’s get farther. ~70 m E from the nest.

2345—The TC’s get closer again. ~50 m E.

~2350—A second M gives TCs ~100 m NE, presumably the B8 M.

2354—TEC’s ~25 m N of the net. At this point ES has capture net almost 3m away from the cavity.

2357—TC’s ~15 m E. F gives quiet FSCs on cavity.

2406—TEC’s ~10 m N.

2407—As TEC’s continue, FSC’s are heard from off cavity, ~15 m N in the vicinity of the calling M. We never saw the F flush. Most likely, we either missed the F flushing or it’s the F from the B8\_2019 nest, which failed around 6/24/19.

2409—We leave the nest site. M does not seem too keen on delivering prey tonight.

## 9 July 2019

2124—KC, ON, and JE arrive at B7\_2019 nest to observe PDs and attempt a M capture. Upon arrival F is presumably down or off the nest and all is quiet.

Weather: Clear, Calm, 16 C

2155—JE begins to approach the nest to get into capture position.

2202—JE begins to raise capture net.

2205—JE has capture net in position.

2214—M TCs ~80m NW. This continues for several minutes.

2248—**All is quiet and after observing no signs of nest activity, we tap the tree and no F comes up to the cavity entrance. We peep the nest to find that it has failed and the cavity is empty, with no signs of egg fragments inside the cavity or at the base of the tree.** **This failure is presumed to be due to nest predation.** We leave the territory to lure between B7\_2019 and B8\_2019 nest sites.

2300—ON, JE, and KC arrive in the S terminus of the B8 territory to lure for the B7 and B8 Ms who we never caught at the nest before predation events.

2310—We set up net and begin PB T42. Net is open N/S in drainage bottom E of FS Rd 347 but W of N Missouri Cr. It is ~150 m N of the B7\_2019 nest and ~75 m S of the B8\_2019 nest.

Vegetation: Young potr/pipo, open

Weather: Clear, slight breeze, 14 C

X: 496016

Y: 4332479

+/- 3 m

2340—As all is still silent, we switch PB to Psiloscops.

2400—We cut PB after a completely silent night at the lure net and begin to break down.

2403—As we break down the net, we start hearing M TCs ~40 m NE. He calls for a couple minutes before going quiet again.

2410—We head out for the night to meet up with the rest of the crew.

## 12 July 2019

2230—AM, JE, ON, and guests start PB, T42 150m NW of the B7\_2019 nest and 10m W of USFS Rd. 346, on the low E-facing slope of Turkey Ridge, net open E-W.

Vegetation: open, mixed age pipo, potr, psme, pifl

Weather: 20% cc, calm, 12℃

X: 495976

Y: 4332401

+/- 3m

2243—Batteries in the PB die.

2245—We install new batteries in the PB and it starts playing again.

2255—All is quiet so we switch PB to Psiloscops AZ.

2307—No signs of FLOW activity so we cut PB and break down.

## 18 July 2019

2322—ES, BL, KA, and Ethan Cutler arrive at the B8 parking spot on the W side of the road (~150 m N of the B7 parking spot) to play PB for a few minutes and listen for activity. This is where JE and crew had their lure net on 7/12/19. All is quiet when we arrive.

2325—Start PB (T42). We spread out near the parking spot to listen.

2327—We hear TCs ~200m S, seeming to come from the B7 territory E of Missouri Cr.

2329—TCs move a bit closer, at ~150 m S of our location. We pause PB and walk S along the road to listen. TCs continue off and on for ~5 minutes.

2337—At our location ~50 m S of the B8 parking spot, we turn PB back on and play T42 for ~30 seconds before turning it off again.

2341—All remains quiet. We head back to the vehicles and leave the area. We don’t hear any M calling from B8 tonight.

# B7—2020

## 16 June 2020

2123—From the B8 parking spot, we hear TCs ~150m S. This could be the B7 or B8 M.

## 7 July 2020

1600—Flam Crew arrives to systematically peep B7 for a possible FLOW nest. We start just south of the B8\_2020 nest and work our way S. We do not find any nests.

1720—We leave to peep in B4.

# B8—2005

**NOTE: The entry for the B6 territory in 2005 was moved to B8 territory, reflecting the parsimonious hypothesis that we have two territories in this portion of the study area (B8 and B6), and not just one (B6). The basis for this hypothesis is that the male (band # 92356) from the B6 territory in 2004 was recaptured in the northern portion of the territory in 2006, while the purported B6 male in 2005 (band # 64431) was recaptured in 2006 and 2007, along with the same female (band # 64430) over these three years, in the southern portion of the territory.**

## 31 May 2005

1500-1545: Flam Crew attempts to find B6\_2005 nest by tapping on marked cavity trees within the presumed territory. (**need Makendra entry here!**)

## 3 June 2005

2026—EE, SY, and MS enter area of B6 2005 nest tree in order to capture B6 F. High Cloud cover, wind moving pine limbs, 9 deg. C.

2028—SY waits with mist net over cavity.

2052—B6 M flies into tree 5m W of nest tree with Lepidoptera in beak. Deterred by flam crew he eats prey himself and leaves area (direction not known).

2104—EE knocks tree and B6 F leaves cavity and enters net**—she was not banded.**

2107—**F banded on left leg with band #64430**. Weighed in over 100g (sock weighed 33g).

2114—B6 F released and flies to N (unable to see in which tree she lands).

## 7 June 2005

2026—DF and SY arrive at B6 nest tree to peep cavity and attempt capture of the M. Clear sky, almost no wind, 15°C.

2055—M arrives at nest site, perches in sm. POTR approx. 2m N of nest tree for <1min. then makes prey deliv. Accompanied by LCs – M quickly leaves to the S. F rises to cavity entrance and gives several FSCs then follows M to the S. FSCs heard for approx. 2min. to the south.

2059—**Peeper in the cavity: 3 eggs, center, touching.**

2103—SY in position for netting.

2129-2150—M makes 8 prey deliv, 4 of which are aborted. See prey delivery data sheet.

2134—M is netted after entering cavity for prey deliv but escapes in <1min.

2150—M netted successfully after making prey deliv, placing only his head inside cavity.

2153—M removed from net—**he was not banded**.

2154-2200—**M banded on left leg with band #64431**. Blood taken from left wing.

**Band** **#64431**

89.0g

-31.0

58.0g

2200—M makes strong flight to tree 7m S.

2201—DF and SY leave nest site.

## 29 June 2005

2028—SY and DF arrive to capture F. F not visible.

2035—Net in position, tree tapped but no F.

2120—Cavity peeped, finding no birds and only eggshell fragments. We leave.

## 22 June 2005

1300—EE and MS enter E. Missouri drainage to peep and tap in attempt to locate a nest tree in B8 territory.

1530—We leave area after finding no sign of a flam.

# B8—2007

**NOTE: We believe that the nest we found in northern B7 territory may actually be the B8 nest in B8 territory, because this provides the most parsimonious explanation for the presence of the banded adults (who both came from the “B6\_2005” nest), and are seeking to determine whether the B7\_2007 nest exists. IN THE FIELD NOTE ENTRIES BELOW, THE NEST ID WAS MODIFIED TO REFLECT THIS INTERPRETATION (ON 7/20/2007).**

## 1 June 2007

1700—EE walks by tree **B7\_367** and F is up in entrance hole south facing approx. 15 ft from ground—this is the **B8\_2007 Nest Tree**.

2032—EE and KB approach nest site in attempt to capture the B8 F. F is up.

2045—F flushes. **One egg in nest.**

2053—EE and KB back away from tree to observe.

2057—M gives LC’s , flies up to the cavity, and flies away.

2103—M returns again to cavity, and flies away.

2130—EE and KB leave nest site in order to songpost the B7 territory

## 5 June 2007

2025- EM and CB arrive at B8\_2007 nest tree (B7\_367) Cloudy, still, 20C.

2033- EM puts net up and female is immediately captured—**she was previously banded**.

**Band # 1593-64430 (B5\_2005 female)**

2039- F released.

2040- Cavity peeped. **Three eggs,** center two touching.

2050- M calls off roost 30m East.

2055 PD.

2107 We leave.

## 12 June 2007

2122—EM and CB arrive at nest tree to attempt capture of the B8 male. Temp is 11C, cloudy with increasingly heavy rain showers.

2133—CB takes net down b/c of rain.

2141—M makes PD and stays hanging on the cavity for several seconds. F makes several FSC’s.

2145-2150—M sits on perch near cavity, F makes repeated FSC’s but M never approaches cavity.

2155—We leave the site.

## 13 June 2007

2027—KB and SY arrive at B8 nest site to attempt capture of the M. Weather: calm, mostly clear, 14 C.

2040—Net in capture position.

2051—M enter site from the E.

2053—M makes a PD – we capture M. Note: F flushed nest during capture and briefly entered the net. However, she escaped the net through a hole. **Male is a previously banded bird: Band #64431—this is the B6\_2005 M.**

71g LLP: 94mm

-11g Rect: 56mm

60g WC: 128mm

2109—We release M – he flies to the NE. We leave.

## 4 July 2007

2103—SY and KB peep the B7 (now the B8) nest tree. The F is still on, so we back off to observe.

2109—M in area.

2111—PD.

2115—F flushes, **we peep and find two nestlings**. One is alert, white down, eyes open. The other has white down and is not alert. It looks like there is also an unhatched egg in the cavity. There are eggshell fragments in the cavity.

2119—We leave the area.

2130—We begin moving through the southern portion of B7 terr. to listen for nesting/occupancy. Weather: Clear, calm, 15 C.

2204—M gives TCs E of me on lower slope of Genesis R. I move to area and am able to see a flam fly silently over me.

2222—M gives TCs/TECs/HECs and I mark 3 songposts (see data sheet).

2235—Rest of flam crew arrives and we peep cavity tree B7\_978 (tag #978) which is unoccupied. We leave.

## 16 July 2007

1442—Flam crew arrives to peep and bleed/band the owlet in the B7 (now B8) nest tree. **Peeping reveals only one owlet**. BL climbs the ladder to enlarge the cavity entrance

**Cavity entrance dimensions:**

Horizontal x vertical: 70 mm x 60 mm

Thickness: 35 mm

Horizontal depth: 120 mm

1452—BL removes the nestling from the cavity. Its facial disc is just becoming evident. Adult coloration just starting on scapulars, already evident on wings.

**Band #64564**

**79.0 g LP#5:46 mm**

**-29.5 g LP#6 45 mm**

**49.5 g Retr: 14 mm**

1515—Owlet returned to cavity after we get blood sample, and we leave.

## 18 July 2007

2027—SY and KB approach the B7 (now B8) nest tree to peep. We hope to observe the cavity and listen in the drainage to determine if there is a fledgling about. We also hope to listen downstream for another nest site, which would be B7. The peeping reveals one owlet in gray plumage with a facial disc. SY heads downstream to listen for nestling begging, KB stays at the nest site to observe It is 15C, with light drizzle.

2038—M in area gives LC’s. The nestling begins to beg, however it is not up in the cavity.

2045—F comes into the cavity, gives FSC’s, and stays in the cavity.

2046-2104—8 PD’s are made by M and F. It seems unlikely that there is another fledgling since both adults were in the site with frequent PD’s.

2118—KB taps the tree to see if the F is still in the cavity. No one rises. I leave the nest site and head south.

# B8—2008

## 27 May 2008

1515—Entire Flam Crew prep net near road at southern end of territory.

2020—CB, KB, SY, QB set up mist net.

Weather: 12 C, cloudy, calm

Surroundings: mixed-age, smallish blue spruce and aspen; east-facing slope

Coordinates: 0496051

4332655 ±6m

2050—Start playback, CB and SY begin spot-mapping, moving south into B7; KB and QB begin spot-mapping moving north, one on either side of the creek.

2113—KB and QB check net; one bird caught. **Bird is banded; he is the 2005-07 B8 M.**

**Band #1593-64431**

**76.0 g LWC: 131 mm**

**-15.0 g Retr: 65 mm**

**61.0 g LC (#5): 98 mm**

**LC (#6): 105 mm**

2125—Bird released; flies back towards net, begins giving TCs almost immediately; CB stays at

net, SY, QB, KB continue spot-mapping to the north.

2154—**Unbanded bird** caught; we think it is a female; brood patch, very feisty; bird seemed to have very small, light brown mites crawling off of it onto our hands; we turned off the playback while processing the female because the male was calling in the area and we didn’t want to have our hands too full. We band the bird:

**Band #1593-64616**

**76.0 g LWC: 137 mm**

**-15.0 g Retr: 64 mm**

**61.0 g LC (#5): 98 mm**

**LC (#6): 107 mm**

2214—Bird released; we turn playback back on and SY,QB, KB continue spot-mapping to the north of the net while CB monitors net; we work north on either side of the road. SY sees an owl fly in front of him near the junction of Missouri Creek with East Missouri Creek. All 3 of us searched and SY called periodically for about 20-30 minutes, but no further sign of the owl.

2320—Stopped spot-mapping.

2330—Broke down net, left B8.

## 1 June 2008

1535—Flam Crew begins peeping the B8 area.

1735—Having found nothing, we leave.

## 3 June 2008

1458—Flam Crew begins peeping B7/B8 territory.

1600—**Nest found in cavity tree B7\_8 (tag # 100) – this is likely the B8\_2008 nest, no other nests found. Nest was found by peeping cavity. This nest tree—and nest cavity—was also the B7\_2003 nest tree. Nest tree is a Potr snag, approximately 23.5 cm, and cavity is ~ 3 m above ground, facing ENE.**

1610—While showing the rookies what a flam looks like in the cavity on the peeper screen, the F flushes and we all leave the territory.

## 11 June 2008

2034—DH, CB and I arrive at the B8 nest to attempt capture of the F.

Weather: clear, wind <5mph, 8C

2040—Net in capture position.

2100—SY taps tree – no response.

2104—M gives a couple TCs to the E, nearby. Then more TCs farther up Genesis R.

2107—F gives FSC from cavity. M enters site – F continues to beg.

2111—We pull net back to allow PD but M does not approach the cavity – net replaced to capture position.

2120—We peep cavity – no eggs visible, F present.

2129—We leave.

## 12 June 2008

2033—DH and SY arrive at the B8 nest to attempt capture of the F.

Weather: clear, wind <5mph, 1C.

2047—Net in capture position.

2048—M calls off roost to the E, >100m.

2109—M enters nest site, gives LCs. F begins giving FSCs.

2111—M comes to nest tree – DH pulls back net to allow a PD. M flies around several trees in site (including nest tree), giving TECs but does not make a PD.

2115—We leave.

## 16 June 2008

2107—DH and EM arrive at B8 to attempt capture of the M. Cloudy, temp 20C. As we approach, an owl is seen flying over the road SW of the nest tree—hawking? Owl lands on road about 25m ahead of us for a minute, then continues to fly overhead. No vocalizations.

2126—We arrive at the B8 nest. We wait and observe ~15m from nest tree.

2128—Hear M calling in the distance to the E up on the ridge.

2129—F returns to the nest—same bird we saw on the road?

2139—M enters nest site. PD. F gives a few begs. Briefly I turn on my headlamp, and M immediately leaves nest, perches and gives TCs in the area. Then goes back to nest—another PD?

2141—M leaves area.

2148—Net in position—EM on net.

2151—PD, missed him with net.

2154—Bird captured during PD. **Band #1593-64431. This is the B6 2005 male.**

78.0 g LLP(#5): 91 mm

- 16.0 g LLP(#6): 102 mm

62.0 g Rect: 61 mm

WC (estimated): 131 mm

2203—Released. Strong flight to the N.

## 23 June 2008

2034—SC and SY arrive at the B8 nest to attempt to capture the F.

Weather: Recent thunderstorm, cloudy, calm ~15C.

2041—Net in capture position.

2055—M gives a single hoot to the S of the nest then comes to a potr snag ~10m S of the nest tree. M has very lg. (2+cm) lepidopteran prey in talons. He eats this prey at that perch (biting and tearing pieces off the moth). He then gives a few LCs. He calls for ~3 minutes the leaves the site.

2112—M silently reenters the site on the E side of the nest,~10m away.

2114—M gives several TECs, presumably directed at us.

2115—We peep – F is present she briefly moves and I can see 3 eggs centered and touching. We leave.

## 1 July 2008

2030—DH and SC arrive at B8 nest to attempt capture of the F. Weather: overcast, calm, 17C.

2035—Net in capture position—SC on net.

2048—We hear a bear (?) upslope to the E ~30m away.

2051—M calls off roost—close, SE of nest tree.

2058—Bobcat (?) sneaks up us, takes off after coming w/in 10ft of DH.

2105—M is in the area, giving TCs and TECs from various perches.

2112—He perches next to cavity, we move net, he flies off.

2116—He approaches nest again, will not enter cavity. We back off to ~10m.

2121—PD, aborted.

2125—We peep, she is in the hole, we do not see any nestlings but cannot be sure as she is

taking up most of the space in the cavity.

2126—We leave.

## 7 July 2008

2338—BL, SC, and DH arrive at B8 to peep nest. We peep: she is sitting tight in the hole, likely incubating or brooding young owlets. We cannot see anything else in the cavity.

2342—We leave. M enters nest site silently as we leave.

## 8 July 2008

2035—DH and CB arrive at the B8 nest site to attempt capture of the F. Weather: Scattered clouds, 5 mph winds, 7C. M calls off roost, just once, ~15m S of nest tree.

2038—Net in capture position.

2058—M silently perches right next to cavity, prey in mouth. Flies off.

2059—M returns w/ moth in beak, flies off.

2102—M returns w/ another moth, perches next to cavity for ~2min. We move net away from cavity, he flies to a different perch.

2103—M gives TCs in the area. He is calling with a moth visibly in his beak.

2106—We move net off cavity, she flushes, flying right past our net. Nice move.

2108—**We peep: one nestling alone in cavity, eyes open, grey coloring on the wings, otherwise white-ish.**

2110—F perched on cavity tree, we back off to ~30m to observe.

2122—M is giving quiet TCs in the area.

2129—We leave.

## 11 July 2008

2026—DH and KB arrive at the B8\_2008 nest site with intentions to capture the F and peep the cavity. Weather: overcast, gusts of 20mph, 24C

2053—M calls to the SE of the nest tree.

2102—M enters nest site. F flushes and we capture her. She is the previously banded B7 2007 female. **Band # 64546**

75.0g LLP (5): 99mm

- 16.5g LLP (6): 110mm

58.5g LWC: 126mm

Rect: 65mm

2103—Peeping reveals one nestling in the cavity. Still fuzzy, developing some dark grey on the wings and head.

2110—F is released. Strong flight to the S.

2113—We leave the site.

## 14 July 2008

1650—Flam Crew arrives at B8 nest to peep contents. **Peeping reveals an empty cavity, with no eggshell fragments or remains of nestling. F was not in cavity when we arrived, and is not visible in adjacent trees. Nest apparently has been preyed upon.**

1700—We leave.

# B8—2009

## 26 May 2009

1500—Crew arrives B6/ B7/ B8 to tap and peep. 15C and cloudy. Nothing found after tapping

and peeping 2008 nest tree.

1647—After finding nothing, we stop peeping and leave.

2015—QB, BR and SY begin setting up lure net in B8 terr. Net is in mixed age pipo/psme <10m W of rd. (same B8 location as last year). Site is relatively open.

X: 496037

Y: 4332657 +/-11m

SY backs upslope to observed net while QB and BR head up and down drainage to listen.

2112—Weather: 9 C, clear, calm, high humidity (slightly misty) – rain earlier in day.

2136—M begins giving TC directly E of the net either in drainage or on low slope of Genesis R. calls for ~7 min. then goes quiet. M never crosses to the W side of the rd.

2150—BR takes over at lure net; SY heads to low slopes of Genesis R.

2200—QB returns to lure net.

2201—M begins giving TCs/TECs from SY’s location ~100 m SE of lure net. M is located in potr snag. On low slope of Genesis R. B8? (B7 can be heard very far S at same time).

2212—Both B7 and B8 go quiet.

2220—Stop playback, break down net.

2245—We begin spot-mapping in B8/B6 area – SY positioned on top of Turkey R., QB on low slopes of Turkey R. and BR on ½ slope of Genesis R. We slowly work N towards/into B6.

2345—Weather on top of Turkey R.: 7C, clear, calm.

2347—SY hears B12 (?) giving TCs distant to the NW – likely on SS R.

2410—Finish spot-mapping, return to vehicle.

# B8—2010

## 15 June 2010

1521—Flam Crew arrives at the S end of B7 to tap/peep our way through B7, B8, and into B6.

1553—KB and JSG see F up in cavity of B7\_13, tag #104. **This is the 2010 B8 nest tree. This was the B7 nest tree in 2007. The nest cavity is an old keyhole cavity, about 7 meters off the ground and W-facing. The tree is just E of E. Missouri Creek and about 50 meters E of the road. It is a dead Potr, full snag, in the drainage bottom surrounded by young live Potr and mature Psme.**

1554—F goes back down.

1753—We finish peeping for the day, having found nests in B8 and B6.

~2035—BG and SY enter B8 to capture F or M at nest.

2049—We locate nest tree

Weather: clear, some wind, 16C

2056—**BG captures F in net. She is unbanded, SY bands her right leg. She is calm**.

Bird data:

**Bird is unbanded, we band her with Band # 64748.**

We do not take measurements or blood in order to keep capture time to a minimum.

2059—We release F, strong flight to the NE.

2103—We arrive back at vehicle and leave B8 area.

2128—SY and BG start playback across road (on the west side) and north from nest. Low on

slope.

X: 496032

Y: 4332636

+/-: 5m

Weather: clear, wind <5, 13C

Vegetation: mixed large and very small pipo/psme

2205—We hear TC close to net. We continue to hear TCs over the next few minutes to the NW

up on Turkey Ridge

2239—We hear TCs SW

2243—The vocalizing M moves NW and very close to net.

2245—M backs off from net

2248—We move playback to tree from previous position on ground. TCs stop.

2325—We stop playback.

2339—We leave net area after packing up net.

## 22 June 2010

2135—BG, DW and SY arrive at the B8 nest site to attempt to capture the M.

2140—Net in capture position.

2142—Aborted PD. FSCs.

2145—PD – failed capture attempt. Preceded by FSCs.

2147—DW retrieves hastings capture pole.

2152—Aborted PD/M perches, FSCs.

2154—Aborted PD/M perches, FSCs.

2158—**BG captures B8 M on PD preceded by FSCs.**

2215—Release with strong flight after blood smear.

**Band # 1593-64431—this is the B6 (sic)—2005 M:**

73.0 g LWC: 133 mm

- 16.0 g LLP(5): 96 mm

57.0 g LLP(6): 104 mm

Rect: 65 mm

## 25 June 2010

2017—DW and BG arrive at B8 vicinity to record female vocalizations and observe.

2040—In position with parabolic disk.

2051—FSCs from cavity.

2052—M forages in adjacent snag potr.

2054—M perches on cavity entrance, continued FSCs.

2055—M flies off.

2058—M comes in, makes PD, F flushes.

~2100—F flushes. **We peep: 2 nestlings, pink/grey with no feathers, floppy heads, eyes closed, very little movement. Possible third egg under nestlings?**

2112—BG and DW return to B8 nest tree so DW can try recording. We are at first unsure if she has flushed so we remain very quiet and not too close.

2114—PD w/ begging, so F had already returned from flush.

2115—PD w/ begging.

2117—TECs from M, begs from F.

2124—We pack up and leave.

## 8 July 2010

2039—JG, DW and JEV arrive at B8 nest tree to attempt to capture F.

2040—F comes to cavity entrance as JEV is raising capture net. JEV brings net down and we move away ~30 m E up hill.

2046—FLOW seen fly E up hill from nest tree and perch in conifer ~20 m south of us.

2047—LC from nest tree direction.

2048—FLOW perched in conifer to S flies off to S.

2050—We move back to nest tree vicinity.

2051—PD by M to cavity (nestlings) preceded by LC.

2052—JEV net up.

2053—JG taps nest tree. No one comes to the entrance or flushes.

2054—**We peep cavity and see three nestlings. One is much smaller and underneath the other two. All nestlings have their eyes open. The youngest of the three still has an egg tooth and very little juvenile plumage whereas the older two appeared to be very similar in age to the nestlings at A18, mostly covered in juvenile plumage, but not beginning to develop facial disks yet.**

2056—PD by silent bird to nestlings in cavity.

2058—Nestling vocalizations from cavity. They are persistent through our leaving.

2101— PD by silent bird to nestlings in cavity.

2103— PD by silent bird to nestlings in cavity.

2106—F comes in to area and gives a couple FSCs. Both M and F make PDs to cavity.

2107—PD by silent bird to nestlings in cavity.

2110—We move back in to position for capture.

2111—PD by to nestlings in cavity. F FSCs heard.

2112—Net up, F FSC off cavity.

2113—Failed capture attempt on PD to cavity.

2120—F makes PD to cavity. Gives FSC after.

2121—Capture F on PD to cavity.

2127—F out of net (we banded her on 6/15/2010).

**Band # 1593-64748 (on x leg)**

70.5 g LWC: 135 mm

- 12.5 g LLP(5): 100 mm

58.0 g LLP(6): 108 mm

Rect: 65 mm

2142—Released with strong flight after genetic blood and smear. We leave.

Weather: 9 C, light breeze, mostly clear

## 13 July 2010

2035—SY, JSG, and DW arrive at the B8 nest to attempt to capture the M in order to affix a geolocator.

Weather: 16C, calm, mostly clear

2103—Having heard/seen no activity we peep the nest: cavity is empty. We spread out in the vicinity of the nest to attempt to determine if Fls are present in the vicinity.

2126—SY hears 2 M LCs ~75m S of the nest in the drainage bottom.

2137—JSG hears a M LC ~20m SE of the nest.

2155—JSG hears 2 M LCs ~40m SE of the nest.

2205—JSG hears wing beats leave a tree ~25m E of the nest.

2230—We depart the area.

NOTE: M was heard 3 or 4 times giving short bursts of LCs in very different locations around the nest area. No Fls were heard. Based on the disparate locations where the M was heard, it seems as though the M may have been provisioning a F, and not Fls. Nest likely failed.

# B8—2011

## 31 May 2011

1500—BL, BG, JV, EE, AW arrive at B7 to peep.

1525—**EE finds nest in B7\_793 (Tag #793)! F did not come up to tap so nest was found by peep. F did not come up after peeping. Nest tree is at South end of B7 territory right by B7 parking spot, about 20m E of Missouri Road. DBH of tree is 32. Cavity is a flicker-sized hole approximately 22ft high facing East. This was originially thought to be the B7\_2011 nest tree, but upon capturing the B8\_2005 male with band # 1593 – 64431 at this nest on 1 June 2011, it was determined to be the B8\_2011 nest tree.**

## 1 June 2011

2032—SY, PS, AW, and BG arrive at B7 nest area to attempt to capture M. Partly cloudy, some wind, 19C.

2034—SY has net up and in position. F is down.

2043—M gives LCs from across creek (East of nest ~20m).

2045—Attempted PD. SY moves net and M aborts.

2046—More TC/LCs from across creek.

2047—F flushes, SY takes net down and we back off to wait for F to return to cavity.

2103—F returns to cavity, goes down.

2110—PD, capture attempt unsuccessful.

2115—PD, no capture attempt.

2120—M comes to tree and sits staring at net. Then PD abort, no capture attempt.

2129—PD attempt but abort, capture attempt unsuccessful.

2131—PD, capture attempt unsuccessful.

2133—PD, M finally enters cavity instead of just sticking head into cavity, SY captures M!

**M is previously banded with band # 1593-64431. This is the B8\_2005 male.**

73.0 g LWC: 131 mm

- 19.0 g LLP(5): 98 mm

54.0 g LLP(6): 106 mm

Rect: 66 mm

2151—We release M, strong but low flight across creek to the East. We leave.

## 7 June 2011

2035—JV, BG, KB, and CB arrive at B8 nest to attempt a capture of the F. **F is up.** BG stays with the net behind the nest tree and creeps around to get the net up.

2044—BG has net in position and F is down.

2046—M calls off roost down drainage to the S.

2051—M comes into nest site just across the creek.

2053—An angry robin attacks the M and scares him away.

2006—M comes back into nest site.

2008—F flushes out of the corner of the cavity and sneaks past the net.

2009—BG takes down net and crew leaves to go lure net on Biker Ridge.

## 13 June 2011

2020—JV, IJ, and SY arrive at B8 nest to attempt a capture of the F.

2041—IJ has the net up.

2042—F flushes into net.

2043—JV peeps the nest. **There are 3 eggs in the center touching.**

2046—Have the female out of the net. **She is previously banded**

**Band #: 1593-64748**

**This is the 2010 B8 female.**

100.0 g

- ­16.0 g

84.0 g

2048—SY releases F. Strong flight to the S.

## 28 June 2011

2035—AW arrives at the B8\_2011 nest attempting to peep after the F flushes.

2056—F is up.

2057—F flushes. **AW peeps and finds 3 nestlings. All 3 have their eyes open. Feathers are entirely grey with all 3 nestlings having some black horizontal striping on their breasts. The nestlings are standing up (except for one that fell over while the sandpiper was in the cavity) and are separated. Egg teeth were not present on any of the 3 nestlings.**

2100—AW leaves to meet up with JR and JG at the B6 parking lot.

## 30 June 2011

2040—The Bear Cr Nature Center/Aiken Audubon Society and BL arrive at the B8\_2011 nest to check on status of nestlings. Before raising the peeper, I tap the tree and the F rises to the entrance. **She then flushes to an adjacent conifer as I raise the peeper to the cavity. Owlets are clearly the oldest of all the broods we’ve seen thus far this year—two of the three visible owlets were completely in juvenile grey plumage and were quite attentive, staring/bobbing at the camera head. No facial disk was yet visible, and from what I could see of the primaries indicated they were just starting to develop. Nonetheless, I estimated their age at 12-13 days, suggesting they will be eligible to fledge on/around 10 July.**

2050—We leave for B19\_2011 nest.

Weather: overcast, lightning appearing on horizon to W accompanied by thunder. Thundercells appear to be moving in.

2155—The Bear Cr/Aiken group and BL return to the B8\_2011 nest (following the passage of ~4 rather intense thundercells (only light rain) to attempt capture of M or F. BL gets in capture position as one of the adults flushes from the cavity.

2205—**F is captured following a PD (which followed the transfer of prey from M to F in the nest site, and following LC and FSC from the respective adults)—she is banded with band # 64748, confirming her status as the B8\_2011 F (and originally the B8\_2010 F).**

**Band # 64748**

84.5 g LWC: 131 mm

- 22.0 g LLP(5): 102 mm

62.5 g LLP(6): 111 mm

Rect: 65 mm

Blacklight data: P1-3 were clearly more pink on the lower portion of the feather/shaft than the other primaries, with only faint pink showing up on P4-10. This was true for both wings. I took several fuzzy photographs.

2033—F released. We leave.

## 5 July 2011

1400—Flam Crew arrives at the B8\_2011 nest to attempt to band/bleed owlets. **However, upon peeping, we discover the contents empty, and no F visible in the surrounding area—the nest apparently has been depredated. An intensive 20 min search in a 30+ m radius revealed only two small bunches of FLOW juvenile plumage contour feathers (breast), which were found on the ground within 3 m of the nest tree. Cause of the predation was unknown, but Red Squirrels might be most likely despite the relative openness of the site. A GHOW pellet (apparently a few weeks old) was found on the ground beneath the nest tree, but any predation by this owl would probably only have resulted in the loss of an owlet or two at the cavity entrance (unless it could have inserted its entire head into the cavity and reached the bottom), rather than the entire brood.**

1440—We leave to peep B18 territory.

# B8—2012

## 1 June 2012

~1500-1730—Whole crew minus awesome SY and JV peep parts of B8 and B7. No nests are found.

## 4 June 2012

~1500-1700—JV, SY, MD, NS, PPS, and Scientists Markus and William peep in B19 and B8. Most of B19 in East Missouri Creek was peeped as well as the rest of B8 from the crew’s peeping attempt on 1June 2012. No nests were found.

## 18 June 2012

**Note: These notes are entered in B7 and B8 based on multiple observations of both birds (as well as a third unknown territorial male throughout the night. Several fixes on these individuals were recorded as telemetry fixes despite the birds not being radio tagged.**

~2255—CC, AP, MD, AW and SY arrive in S end of Missouri study area to set up lure net for B7/B8. We stop car to check GPS and hear several quiet TCs from drainage bottom ~30m SE of our location on the road. We locate M perched in a small pico (telem and songpost B7\_1). We observed a second bird fly past M – suspected F. Within minutes we locate M and F perched in sm. Potr (telem B7\_2). We follow the M and F over the next 9 minutes (2400-2409) on several perches (telem B7\_2-4). M makes a PD in B7\_2, F begins giving consisten FSCs in B7\_4. We eventually lose track of the F but immediately locate the M in a nearby psme (B7\_5). We follow M until 2332 and log 5 additional fixes (B7\_6-10). M makes several forages and gives several TCs including once at a M located to the N on the upper slope of Genesis R. (this other M is of unknown ID and had a notably higher pitched call). On a couple instances M gives TECs and HECs in short bursts form the drainage bottom – likely we were close to the F?

2320—2nd M giving Tcs to the N or NE – B7 gives TCs and TECs from B7\_7.

2330—CC, MD, and AW start playback. Net is located on low slope of Turkey Ridge just W of road and slightly S of project boundary.

X: 495902

Y: 4332033

+/- 4 m

Vegetation: open with young to mature pipo/psme

Weather: calm, clear, 13 C

2332—We stop following M as he begins to clearly respond to the lure net and moves in that direction.

2333—M (presumably B7) responds to playback with TECs W of net within 5 m.

2334—2nd M (presumably B8) begins responding with TCs from mid to high slope of Genesis Ridge approximately 150-200 m to the NE.

2337—B8 M moves lower on E slope of Genesis to approximately 100 m E of lure net.

2336—B7 M goes silent at net.

2339—B7 M gives TCs at net.

2340—B7 M perches on psme 15 m N of net and continues to give TCs.

2343—B7 M gives TCs from lower slope of Genesis Ridge.

2347—**B7 M is captured in lure net. He is unbanded and was captured in the 3rd shelf coming in from the E.**

**Band # 1593-64882 (on R leg)**

xx.x g LWC: 134 mm

- xx.x g LLP(5): XX mm

xx.x g LLP(6): XXX mm

Rect: XX mm

**NOTE: M escapes during 2nd wing cord measurement by CC. We are therefore unable to mass or take additional measurements. Blood was also NOT taken.**

2358—M escapes during wing cord measurements.

2408—CC and MD go to listen in the B7 drainage near location where SY and AP picked up M and F earlier. AW remains at lure net.

2413—B7 M gives TCs from E of road.

2418—B7 M approaches net and begins giving TECs. At same time, unknown “high-pitched” M gives TC/TEC from 150-200 m NE of net from mid-slope on Genesis Ridge.

2419—B7 M jumps E across road and appears to approach B8 M for a territorial encounter.

2423—SY changes TC/TEC playback to FSC playback with intention of luring in both the B7 M and F as well as the B8 M or unknown “high-pitched” M.

2435—AP and SY head N into B8 to listen for nesting vocalizations.

2430-2445—MD chases B7 M to upper E slope of Genesis. M gave multiple sets of several TCs from on this ridge. **2nd “high-pitched” M at same time?**

2445—From central B8, SY hears a few quiet TCs in middle of drainage, in vicinity of Cavity Tree #102. I can hear the “high-pitched” M at same time. MD and AW report that “high-pitched” M is in encounter with presumed B7 at same time.

2445—MD possibly hears F give 2 FSCs from upper slope of Genesis R. but it is too faint to confirm.

2449—While writing notes, SY hears wing flaps overhead, SY locates silent bird fly over and land on small branch coming off of cavity tree #102.

2452—M makes short flutter flight to W side of tree – goes missing for ~20 seconds then flushes to the SW. Cavity? Nest?

2454—SY locates a possible cavity on W side of tree 30-35 feet up.

2455—End playback.

0102—SY observes M return to site and makes a PD to the suspected cavity. **This is the B8\_2012 nest. Cavity Tree #102. Tree is a potr snag located in the N Missouri drainage bottom. Cavity is 30-35 feet up on the W side of tree. View of cavity and potential net access are severely obstructed by young live potr in th drainage bottom.**

0104—SY leaves B8 nest area.

## 20 June 2012

2011—SY and PPS enter B8\_2012 nest area and wait W of cavity.

Weather: mostly clear, some wind, 15C

2032—SY starts to move near nest to put up the capture pole.

2037—SY gets capture net in place. Capture pole height of 28’6”.

2054—M TCs to SE.

2100—M giving TECs to E.

2103—M flew into the area from the S.

2104—M flew to nest tree.

2107—M flew away to S.

2108—M came back giving LCs, perching on surrounding potrs.

2110—M gives HECs and SY moves the net away from the cavity.

2117—M makes aborted PD.

2124—M makes PD.

2125—M gives TECsfrom nest area.

2127—M gives TECs and F flushes.

2130—PPS peeps cavity. Two nestlings all white natal down, eyes closed, very small, likely 2-3 days old. Potentially one unhatched egg or large eggshell fragment.

2134—F comes back on.

2136—M makes PD. Sneaks under the net and flies away S.

2143—M makes PD. Almost caught in net.

2149—M makes aborted PD.

2150—M makes PD.

2218—M makes aborted PD.

2220—M makes aborted PD.

2221—M gives TCs down drainage.

2227—**M Makes PD and is caught. He is a banded M. This is the B8\_2005 M!** Black light test: P1-P2 very light, P3-P5 moderately strong pink, P6-P10 almost none, with secondaries and coverts very strong pink.

**Band # 1593-64431** (on L leg)

92.0 g LWC: 130 mm

- 29.0 g LLP(5): 96 mm

63.0 g LLP(6): 104 mm

Rect: 62 mm

2235—MD, CC and AW leave the lure net in B6 to listen further S in N. Missouri drainage.

̴ 2240-2310—CC listens near B19\_2012 nest tree and hears nothing. CC then hikes ̴ 20m up

Lodgepole Ridge to give hoots and listen for M but hears nothing. CC leaves to assist AW further S.

2251—SY releases M at the B8 nest. Strong ascending flight to the SW. PPS and SY leave.

2253—AW arrives at B19/B8 boundary to listen. AW picks up M TCs on low slope of Genesis

Ridge.

2318—AW song posts B19 M (B19\_1) giving TCs in a live pico.

2318-2330—AW observes M as he makes a forage in a live pico near B19\_1. M proceeds to eat

forage in a small potr. M perches low on approximately 6 small potr before making a

short flight to a large potr snag. These observations occurred at the confluence of N. Missouri and E. Missouri NW of the B19\_2011 nest tree.

2333—B19 M gives TECs from the N terminus of Genesis Ridge.

2337—AW and CC observe B19 M as he gives HECs from small potr (B19\_2 songpost). We

observe a second silent bird flying W to E just above the B19 M as he continues to give

HECs.

~2339—B19 M follows silent bird to a potr snag approximately 20 m up the N terminus of

Genesis (B19\_3 songpost) and continues to give HECs from this location. M flies to a

second potr snag before chasing silent bird N across E Missouri Creek.

~2340—M goes silent.

2404—AW hears TCs approximately 250 m to the S. This is most likely B8.

2414—AW songposts B8 M (B8\_1) giving TC/TECs in a potr snag for approximately 3-4

minutes.

2416—B8 M flies E across N Missouri Creek then gives a few TCs and goes silent.

2443—As AW walks towards lure net in B6, AW picks up who we believe to be the B19 M

giving consistent TCs from approximately 150 m up the W slope of Genesis. AW takes

GPS from her position in the drainage bottom to help estimate the N boundary of B19

territory. X: 496308, Y: 4333589 +/- 3m.

2352—M goes silent. AW leaves.

## 22 June 2012

2035—NS and BL (and Debbie Barnes, CC employee) arrive at the B8\_2012 nest to attempt capture of F. Weather: calm, clear, and warm.

2157—M calls off roost. Makes series of 2-3 TCs every few minutes, ending with series of TECs.

2109—**F attempts to exit cavity and we capture her. F was previously banded—her band # was 64748; this is the B8\_2010 and 2011 F! NS peeps nest; 3 nestlings, cannot hold heads up, white natal down.**

**Band # 1593-64748**

92.0 g

- 22.5 g

69.5 g

2121—F released, and we leave.

## 29 June 2012

2210—BL, AW, PPS, and MD arrive at the B8\_2012 nest to determine the status of the brood.

2214—AW peeps the nest and there is nothing in there. **The B8\_2012 nest has been predated.**

2215—We confirm that this is indeed the correct cavity and then leave.

# B8—2013

## 29 May 2013

1600—BL, RC, BDG, and AW arrive at the S end of B7 territory to peep.

1630—Tree #801 is peeped. F is down, but looking up at the camera. **This is the B7/B8\_2013 nest tree (tag #801). *Note: later capture of the M at the nest site confirms this nest as B8\_2013. M is the B8\_2005 bird (9 years old).* Nest tree is a potr snag located 10 m E of Missouri Creek and 60 m N of the B7 parking spot. Nest height is 22’. The cavity is W facing and has a flicker-sized entrance.** F remains down the entire time.

~1635—BL, RC, BDG, and AW resume peeping approximately 100 m N.

~1715—We end peeping.

2026—CK and BL arrive at the B7/B8\_2013 nest to peep status of nest. F is in entrance when we arrive.

Weather: Mostly clear, calm, 4 C.

2034—We hear M call off his roost approximately 60 m to ENE of nest—he gives 6-8 TC before quieting.

2038—F gives several FSCs (still in cavity entrance).

2040—M flies into the nest area giving LC, and makes PD at cavity entrance at this time.

2043—M makes another PD at the cavity entrance (accompanied by LC), and F subsequently flushes to a Potr 10 m to the S. She remains perched here for 1-2 min before flushing from the nest area to the S (in the direction the M flew). **We peep cavity and find 2 eggs touching in the center of the cavity.**

2046—We leave.

## 4 June 2013

1500—Flam crew arrives in the B7/B8/B19 aspen flat to peep. BL, AW, BDG, and RC begin peeping where we left off on 5/29/13 just N of the B7\_2013 nest tree moving N while LL, SY, and CK begin where we left off on 5/29/13 near the confluence of E Missouri and Missouri Cr moving S.

~1625—We leave after finding nothing.

2015—BDG and BL arrive at the B8\_2013 nest to attempt capture of F and assess status of clutch size.

Weather: partly cloudy, calm, approximately 12 C.

2032—After slowly approaching the nest tree from the E side, BL raises the capture net over the cavity entrance at this time. F stays down in the cavity.

2041—M heard calling off roost up drainage from cavity tree.

2041—M heard calling off roost up drainage from cavity tree.

2048-2052—Male heard giving two and three note calls slightly closer to the cavity tree than previous position.

2052—F rises to the cavity entrance.

2053—**F attempts to exit cavity and is captured. After taking a couple of minutes to extract her we see that she was previously unbanded. We band her with Band # 1783-64392. BDG peeps cavity at this time and observes 2 eggs in the center, touching.**

**Band # 1783-64392** (on l leg)

**~**100.5 g

- 34.5 g

66.0 g

2059—We release F without taking any further measurements, and no blood drawn. We immediately leave area.

## 7 June 2013

2138—BDG and BL arrive at the B8\_2013 nest to attempt capture of M. As we approach the

nest tree, a FLOW flushes the cavity—initially BL thinks this is the M, but he gets in

capture position we hear the F fly into the nest area so BL and BDG back away from the

tree.

2145—F reenters cavity.

2149—6-8 TCs are heard ~60m to the SE.

2151—More TCs are to the SE as M makes a PD.

2154—Additional PD is made.

2200—BL gets back into capture position.

2204—PDs are made at 2204,2205 and 2206 with M only perching in the cavity entrance.

2207—**M is captured after he makes a PD in which he enters the cavity (F stays in the**

**cavity), and we take him ~ 40 m away from the nest to process. Male was previously**

**banded with Band # 1593-64431—this is the B8\_2005 M (originally IDed as the B6**

**M)! He is now at least 9 yr old!** *Note: this confirms the identity of this nest at*

*B8\_2013.*

**Band # 1593-64431**

94.5 g LWC: 131 mm

- 34.5 g LLP(5): 97 mm

60.0 g LLP(6): 103 mm

Rect: 62 mm

Male is bled on the R wing (failed on L wing). Wear: P6-10, score 2 (scale 1-3). P1-5, score 1 (scale 1-3).

2239—We release M, and he shows strong flight to the WSW (toward nest). We leave.

## 24 June 2013

2328—LL and SY arrive at the B8\_2013 nest to attempt to peep. F is in entrance when we arrive.

2329—F flushes as peepr us being raised. **We peep: at least 2 Ns, possibly a 3rd but can’t quite tell. The two that are clearly visible are in all white down, eyes closed. One has head up. They look to be 3-4 days old.** **Estimated hatching date is 6/20.** M gives TEC and F gives FSC as we depart.

## 8 July 2013

2346—AW and BDG arrive at the B8\_2013 nest intending to recapture the F to obtain genetics/parasite smear. While approaching nest tree, AW spots a dead owlet ~2 ft from the base of the nest tree. The dead nestling appears to have damage to the skull with the upper mandible and front of skull having been removed. Ants were decomposing the interior of the skull although the rest of the nestling appeared intact. Rigor mortis was beginning to set in, but nestling still had some flexibility in wings. **It appears death occurred approximately 2-4 days prior (4 July – 6 July 2013).** A LP5 measurement was later taken by SY and BL on 9 July 2013 (when owlet was collected) – LP5: 45 mm. **Because the LP5 measurement was smaller than the average LP5 measurement at fledging (65 mm) and because of apparent head trauma, it appears the nestling died due to incomplete predation. Further, we peep the nest cavity and find it empty.** BDG and AW spread out around nest tree to look for the other 2 nestlings in case they fledged successfully.

~2427—AW gives a few hoots and picks up the B8 M responding from NE of the nest tree. M beginning giving TC/TECs and continues calling almost continually until ~2446.

2430—AW and BDG pick up the B8 M and F pair in a psme ~ 100 m NE of nest tree. At one point, M gives F a PD. The pair fly between a number of dense psme/potr. The F begs continuously during this time. We observe the pair for approximately 10 minutes. Neither adult vocalized aggressively towards us (indicating that we were not close to any fledglings). **Based on our observations of pair bonding behavior, partial predation of one nestling, and empty nest cavity, we conclude that the B8\_2013 nest was predated during the nestling stage.**

~2446—M stops calling. We end observation and leave.

# B8—2014

## 28 May 2014

1530—Flam crew arrives in E Missouri Creek with purpose of peeping B6/19/8/7 territories. BL, AW, RD, and MP begin peeping at the southern end of B7 and proceed N while SY, LL, RC, JS, and ER begin peeping at the B6 parking area and proceed N.

1730—End peeping having found nothing.

## 6 June 2014

2040—Most of the Flam Crew spreads out in 100m increments along Missouri Cr from B7 up to B6 to listen for nest vocalizations. LL gets dropped off on the road across from the B8\_2013 nest tree. ER is stationed at S most point about 100m down drainage from LL in B7. RD (with friends) is stationed 100m up drainage from LL.

2051—LL hears a F give FSCs ~40m NE of the B8\_2014 nest. The F is very mobile making ~20m flights and giving FSCs in the area as she goes. ER comes up to join LL from her position 100m S in the drainage and RD and his friends come to join LL from their position ~100m N in the drainage.

2058—RD hears one FSC near his position about 50m updrainage from LL and ER, but immediately loses F afterward. LL and ER hear M give LCs in the vicinity of the F, but he never gets within 5m of her. **ER flags the tree that he was singing in**. This is songpost B8\_1 in a fully live potr with a dbh of 17.4 cm.

X: 496048

Y: 4332377

+/- 6m

~2100—The M and F both go silent and we lose sight of them.

2110—LL hears a M give TCs ~150m E of the B8\_2013 nest up the slope of Genesis R.

2112—LL hears M LCs and F FSCs in a small drainage ~30m S of her position, which is ~50m upslope (E) from the B8\_2013 nest.

2118—ER and LL hear FSCs ~40m upslope in a patch of young potrs (this patch is ~100m up the slope of Genesis in the small drainage).

2125—ER hears a quiet FSC from the same patch of potrs. We move upslope to explore for possible cavity trees.

2154—After exploring the potr patch, finding no cavity trees (trees are too young, small, and alive), and hearing nothing more, we head back down and across the road to set up a lure net with MC.

2227—PB started. Our net is 10m W of the road across from the B8\_2013 nest.

Vegetation: Young-medium potr/psme, open

Weather: Clear, calm, 9.5C

X: 495982

Y: 4332402

+/- 3m

2230—M gives TCs from drainage SE of net.

2238—LL and ER go to listen near where we heard and saw F giving FSCs earlier.

2254—M gives TCs up on Genesis ~150m E/SE of PB.

2256—M gives TCs SE of net in drainage bottom ~50 SSE of PB.

2300—M goes silent.

2301—M (potentially different from M upslope) gives a few angry-sounding (very low) TCs ~50m E of B8\_2013.

2303—M starts giving TCs up on Genesis ~150m E/SE of PB again.

2304—M gives TCs from drainage bottom ~50m SSE of net from drainage bottom.

2306—While the other M is TCing on Genesis a second M gives TCs ~60m SE of B8\_2013. ER follows more S male and LL stays near original M on Genesis.

2307—Both Ms go silent.

2311—M begins giving TCs on Genesis again ~120m E of PB.

2314—M then moves, giving TCs ~90m E of PB.

2316—M goes silent.

2319—We turn the PB off and move our net ~100m further S in order to target the southern M that has been calling all night.

2322—M gives TCs ~60m SE of the net as we’re taking it down.

2329—PB restarted in new location. Two Ms begin to call, one ~50m up drainage and the other ~50m down drainage.

Vegetation: Young-medium potr/psme, open

Weather: Mostly cloudy, slight breeze, 9C

X: 495950

Y: 4332272

+/- 3m

2334—Ms that were calling are both silent.

2343—ER and LL head back into the drainage to listen. ER goes into E side of drainage right across from new lure net site, while LL goes back to the vicinity of the B8\_2013 nest to tap and listen.

2354—LL hears wing flaps over her head when she is ~20m SE of the B8\_2013 nest. She is unable to identify what type of bird flew over her, so it was not necessarily a FLOW.

2406—MC goes to d a final net check, a FLOW flushes from a low potr snag ~1m off ground, it flies under the net, E into drainage bottom.

2408—We turn off the PB and take down the net.

2416—We hear a M give TCs in the drainage after the net is completely taken down.

## 20 June 2014

~1530—Flam Crew (minus BL) begins peeping B7 and B8 along the main stem of E Missouri Cr.

1652—SY approaches a previously unenumerated cavity tree very close to where LL and ER followed F vocalizations a couple weeks ago. SY call his shot. As he circles the tree, SY notices a F in the entrance of a cavity – **This is the B8\_2014 nest! Cavity is a “smallish” cavity ~40 feet up the N side of the tree. It is the lower and smaller of the two cavities on this side of the tree. Tree is a full pipo snag ~50m E of the B8\_2013 nest tree ~35m out of the bottom of Missouri Cr. on the low slope of Genesis R.**

X: 496086

Y: 4332328

+/-7m

1708—F goes back down.

1710—F comes back up to the entrance as I hang a flag on the tree. We depart.

2017—SY arrives at the B8\_2014 nest to attempt to capture the F.

Weather: ~16C, clear, wind <5mph.

2033—Net in capture position.

2042—M gives TECs from ~7m NW of the nest (Calling off roost?)

~2050—M attempts to make a PD but is blocked by my net. He then departs the nest site.

2115—M comes back into the site and I pull the capture net back to allow the M to make a PD.

2119—M makes a PD accompanied by LCs and FSCs from the F. I get the net back over in time for the F to rise to the entrance and flush into the net – however, she is able to escape out a hole in the net… very frustrating.

**I peep the nest: 2 eggs and 1 very young nestling! First observed hatching of 2014! Eggshell fragments still in the cavity. N is motionless at bottom of cavity and does not yet seem capable of holding his head up. N appears to have hatched within the last 24-36 hours.**

I depart.

## 23 June 2014

2028—AW and RC arrive at B8\_2014 nest site to capture F on flush. F down on arrival.

2029—F up.

2031—F down.

2034—F up again as AW approaches nest tree.

2040—F down. M enters site.

2041—PD, then M stays in entrance for a few moments.

2042—M leaves cavity, flying E.

2046—AW reaches nest tree.

2052—Net up. **F up and out. Captured! F is previously banded as the B8\_2013 F (having returned to the same territory after a 2013 nest failure).**

**Band # 1783-64392 (on R leg)**

**Peep reveals egg fragments and at least 2 all-white nestlings—all face down, one moving, one stationary (no evidence of whole egg). Clutch size here is 3; we suspect third nestling has hatched, but is obscured by the other two nestlings or not visible due to our foggy camera.**

2056—F released. Slightly off-balance, but okay flight. We leave.

## 25 June 2014

2053—SY and JS arrive at the B8\_2014 nest site with intent to capture M. F is up as we approach and M is in vicinity.

Weather: mostly clear, no wind, 14C

2054—M gives a PD. F is down now.

2101—SY ready with capture net up at cavity, F stays down.

2107—**Banded M captured on the way out of a PD! Band #1593-64431 (on L leg) is the B8\_2013 M and also the B8\_2005 M which is evidence that he is at least 10 yrs old.**

**Band # 1593-64431 (on L leg)**

75.5 g LWC: 129 mm

- 16.5 g LLP(5): 99 mm

59.0 g LLP(6): 106 mm

Rect: 66 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 0.5 |
| P5 | 1 | 1 |
| P6 | 2.5 | 1.5 |
| P7 | 2.5 | 2.5 |
| P8 | 3 | 2.5 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

Note: No blacklight.

2126—M released, strong flight NW. We leave.

## 30 June 2014

2210—SY and JS arrive at B8\_2014 nest with intent of capturing the F for processing and blood.

Weather: clear sky, subtle wind gusts, 16C

2214—SY ready with the capture net up at the entrance. No sign of M or F.

2220—M flushes SW from nearby tree.

2229—We peep to determine Fs whereabouts. She is on and the nestlings are beneath her. From the small part of them we could see they are white and fluffy.

2230—M in vicinity. SY moves the net from the cavity to allow for a PD.

2235—M left vicinity, no PD.

2237—M back in vicinity.

2240—M gives a PD and stays in cavity with head peering down on SY until 2243.

2300—Capture net taken down. M seen flush in vicinity. F held tight the entire time and gave no indication that she was going to flush. We leave.

## 7 July 2014

2125—JV and AW arrive at the B8\_2014 nest to capture the F and peep.

Weather: stormy, gusts 15-20mph, 18 C

2130—F PD.

2134—AW has capture net up at what we think is the nest cavity.

2135—It is getting really stormy and windy and is about to start raining. AW takes down the capture net to wait out the weather.

2140—JV laboriously peeps the upper of two cavities. ***Turns out the nest cavity has a double entrance and the better entrance that the owls use most of the time is the lower of the two. Inside of the upper entrance is an awkward crack that opens up below the lower entrance.* After peeping the lower entrance, we see at least 2 nestlings. It is unclear if there are 3 nestlings but we only see two clearly defined. Both have juvenile plumage on their heads and backs and as well as facial disks. The eldest didn’t seem to have any down plumage left but the youngest did have some down on the lower back. Both owlets were relatively sleepy, but they did move around and look up when the peeper was moved about. Our peeper head was somewhat fogged. The cavity was peep on 23 June 2014 with a similar result (at least two, but possibly three nestlings). *We need to get a better peep on B8\_2014 to discern if there are indeed 3 nestlings.***

2145—AW and JV back off a bit to observe.

2151—M PD.

2153—M PD.

2159—M PD.

2210—We decide to leave because the weather is getting worse. Depart nest site.

## 14 July 2014

1945—SY arrives at the B8\_2014 nest to fledge watch. **I peep on arrival: 2 Ns. Both are very well developed with full facial disks. Both appear close to fledging age.**

***Note: there*** ***should have been 3 Ns in this nest so either one has fledged or brood reduction has occurred.***

***Note on 24 July: it appears we never had a clear view of 3 hatched nestlings in the cavity. There were 3 eggs, although it is unclear whether brood reduction occurred after hatching or if one of the eggs was a dud and subsequently ejected. Regardless, it appears there are only 2 nestlings in the B8\_2014 nest.***

I begin searching for a fledged Juvenile.

2017—M gives TCs to the SE ~40 m from the nest.

2022—I locate the M’s roost in a large psme ~40m SE and upslope of the nest. M is about ½ way up the E side (~30ft high) against the trunk.

2033—While I’m searching for FLs in the area I notice that the M has left his perch.

2040—I return to the nest site and find the M perched ~5m N of the nest, ~3m high. M flushes to the N – I follow. Eventually I see the m flying back towards the nest, prey laden.

2048—I return to the nest site to watch the remaining Ns. 1 N is in the entrance and the M makes a PD in the entrance.

***Note – due to my being solo I did not keep a complete PD record – just important/noteworthy PDs.***

2049—I hear F FSCs ~7m W of the nest.

2050—A brief, light rain starts. N goes down.

2051—N back up – M back in site.

2052—While M is perched near the nest giving LCs and and the F is down drainage giving FSCs a 3rd silent FLOW approaches the cavity as though to give a PD – unclear if the PD was successful. The M then gives a tail-chase but does not follow up with any aggressive calls. Both the M and the 3rd bird are then perched ~4m N of the nest and a second tail chase ensues but again there are no aggressive vocalization.

2103—With eyes on the M and the F giving FSCs I see the 3rd FLOW makes an aborted PD.

2104—F makes a PD – this is the first PD I observed the F make tonight.

2130—**I re-peep to make sure all the Ns are still there (since I periodically was searching for a possible FL. Still 2 Ns.**

2145—I stop consistent observation of nest in order to focus more on the missing N.

2203—TCs fairly distant to the E.

~2215—LL and MP arrive to assist. We briefly put a capture pole up in case a 3rd bird comes in but no PDs happen during this time.

***Note: The Ns were in the entrance consistently until ~2130 then went down. The f was in the site more or less the entire night giving FSCs and she gave a few PDs later in the evening. The M was also making PDs (every 3-4 minutes). I was only ever scolded by an adult (F) when touching the nest tree. I listened and searched the trees surrounding the Ms roost on two occasions – I heard and saw nothing and was never scolded. I never saw the M depart the nest site in that direction. I suspect that missing N represents brood reduction rather than a missed fledging event based on the lack of vocalizations, or evidence of a FL as well as both parent’s near constant tending to the nest.***

~2230—We leave.

## 16 July 2014

2108—RC and ER arrive in B8\_2014 nest area to fledge watch. **Peep reveals an empty cavity** **while last peep showed 2 owlets (7/14/14).** We spread out and begin searching for fledglings. There have been recent heavy rains and tree drip, increased stream flow, and wind gusts contribute to very poor listening conditions.

2147—From N side of side dr with nest tree and 20-30m W, RC hears M TCs from ~80m NNW on low W-facing slope of Genesis R near drainage bottom. RC pursues and hears a couple more quiet hoots, but the M goes quickly silent. We hear nothing else all night and continue sweeping area surrounding nest tree, finding nothing.

~2221—We leave.

## 17 July 2014

2109—SY, RC, and ER are stationed at vertical intervals up the B8 side drainage with RC near the B8\_2014 nest, SY at the confluence of the side drainage and Missouri Creek, and ER in between. Having peeped the B8\_2014 nest on 7/16, we know that the two nestlings have both fledged and are trying to locate them to band and bleed.

2114—ER and RC hear a few begs in the drainage in between our listening stations. We then pick up the begs up the slope, above the nest tree. The fledgling seems to be making relatively significant jumps up the slope.

2122—**We eventually find the fledgling about 100m E of the nest tree upslope on Genesis R perched in a Pipo.**

2124—**After SY refuses the request to run back to the car to get a peeper pole, RC substitutes a long stick as the flamevator to get the fledgling down from the tree.**

**Conspicuous Owlet**

**Band #: 1783-64556**

51.0 g

P#5: 72 mm (14 in shaft)

P#6: 73 mm (16 in shaft)

Rect: 33 mm (11 in shaft)

**New Band#: 1783-64556**

Notes: Band on the R leg. We bled for genetics and parasites.

2142—From the vicinity of the nest site, SY hears M TCs and TECs to the Se, sounds like S of RC and ER.

2144—We perch the fledgling in a Psme within 5m of the pipo where we found it. RC and ER then spread themselves N and S at approximately the same elevation we found the first fledgling to listen for the second. SY is listening downslope of the nest.

2149—ER hears wing flaps about 5m S of where she is listening about 30m SE from where we left the first fledgling. The wing flaps sound uncoordinated and sound like they are falling down slope.

2151—ER hears a beg about 10m down slope in the direction of the wingflaps.

2159—RC and SY converge where ER is listening and we all hear a fledgling beg to the S while the first fledgling can still be heard begging approximately where we left it.

2252—After only hearing a couple, infrequent begs from the second fledgling, we were never able to locate him. We pretty consistently heard the first fledgling always begging in the area where we left him. Already running late to meet back at the lodge, we leave. *When SY peeped on 7/14 and only found two nestlings in the cavity, he then thoroughly searched the nest area to found no evidence that a fledging has occurred. Through peeping efforts on 7/16 we found the cavity empty and then subsequently we heard two fledglings relatively close to each other on Genesis tonight, we suspect that these two fledged together on 7/15 (banded fledgling had P5=72mm, suggesting he fledged in the past 2 days), leading us to have even more evidence of a potential brood reduction.*

## 18 July 2014

2025—RC and ER return to B8 to search for the missing fledgling. We station ourselves at the elevation we found the first nestling with RC ~65m E of the nest site and ER about 50m S or RC.

2043—LCs and possible beg 15m downslope from RC.

2044—M flies in to perch 5m W of area where fledgling #1 was found previously.

2046—Begs near where FL#1 was found.

2047—F scolds in this area before flying S. M flies in to this area and perches on small potr snag.

2050—Previously banded fledgling located ~20ft up live pipo. FL begins begging consistently.

2124-2153—M heard giving a couple more LCs from the drainage. ER hears M give an occasional LC from the drainage but cannot locate him.

2148—F flies in to scold RC, situated near FL#1. RC moves S toward LCs heard by ER.

2157—LCs near FL#1.

2208—TC/TECs begin by FL#1.

2220—The B8\_M gets into a territorial encounter with a bird coming from the N (possibly B19). He is giving TC/TECs near the first fledgling above the nest site.

2231—More TCs distantly to N (presumed B19 M).

2250—As we are preparing to leave, we think we hear a second fledgling ~15m W of FL#1. We listen and look, but find nothing.

2320—We leave.

# B8—2015

## 27 May 2015

~2045—LP and RC arrive at boundary of B8 and B19 polygons on W side of Rd to lure net and later spot map in the area. We set up lure net in small potr flat 5m W of Rd, 20m N of two broken top potr cavity trees #865 and #96. Net opens NW/SE.

2127—PB begin.

Vegetation: young-mature potr, mature pipu nearby, fairly open

Weather: mostly clear, calm, 3.5C

X: 496081

Y: 4332870

+/- 9m

2130—TCs 100m NE near base of Genesis R. This M continues TCing and moves ~500m S then back to original position, staying on E side of creek near base of R.

2200—RC leaves to tap and listen on E side of Cr moving S toward B8 proper.

2218—After losing TCing M briefly due to creek noise, RC picks up M TCing ~200m S near Rd.

2223—RC pops out on Rd just S of cavity tree #2 and hears 2 Ms encountering. First M, which is likely original M we heard from net, is perched high in a 59.5 dbh pipu just off E side of Rd, giving TCs and some TECs. Second M gives TC/TECs briefly 100-200m NE near base of Genesis R. **RC hangs song post B8\_1**.

X: 495995

Y: 4332442

+/- 9m

2229—2nd M begins TCing again near base of Genesis, now ~150m SE of B8\_1. M goes silent shortly and RC heads back up to break down net.

2233—RC arrives back at lure net. Presumed B8 M has been audible to S TCing, but no action at net.

2237—PB off. We hear FSCs <20m away from location of the two potr broken tops #865 and #96. Vocalizations continue for a minute or two in immediate vicinity of these trees, the F flies N without being spotted. SY is on presumed B19 F at N end of B19 until 2219. This F could possibly be the same F, but she would have to have moved several hundred meters in a relatively short time period.

2242—RC spots F, still vocalizing, in small potr 25m N of these cavity trees and flags tree. F flies E on spot light and goes silent. We head back down to net and break down.

2300—We tap #865 and #96, both of which appear to have nice looking cavities, but see and hear nothing. F silent since 2242.

2320—After listening in this area and hearing nothing, we move to E side of Cr and then move S, tapping and listening on our way down drainage.

2414—**While tapping Potr cavity tree (snag) #1077 at mouth of side drainage that leads to B8\_2014 nest tree (approximately 20 m E of E Miss Cr), LP flushes owl from S-facing cavity ~7m up. LP remains near tree and RC moves in direction of flush. We hear FSCs in small pipu 10m S of tree and brief, simultaneous TECs 50m E up Genesis R near B8\_2014 nest. F near #1077 flushes S upon spotlighting tree. Later tap confirms that this is the probable B8\_2015 nest tree!** Cavity is NOFL cavity, ~7m up, S-facing.

2424—After F flies S a second time, we back out of nest area. LP remains in drainage bottom and RC moves up Genesis toward direction that TECs were heard. Around mid-slope, RC hears LCs and FSCs 60m ENE toward B8\_2014 and a faint second set of FSCs to E.

2426—After following LC/FSCs upslope, RC spots two FLOWs perched low in a large psme. Both birds flush on spot light and RC chases up R. This is likely a PD.

2430—PD observed on another low psme branch 20m E up slope. F flushes S first, then M flies down and perches briefly on ground before flying NE in the direction of the B8\_2014 nest. Both individuals go silent after this. Brief FSCs heard again distantly to S. LP moves back down toward drainage while RC goes to tap B8\_2014 nest. Nobody home.

2457—Having heard nothing in B8 for several minutes, we move S toward B7. We hear brief TCs distantly to S, but Cr is too loud to hear well.

0106—RC heads S into B7 and taps B7\_2014. Nobody home, no vocalizations heard in area. RC moves back up toward B8 as SY and BH arrive. We meet briefly, then RC heads back up to lure net site to grab gear. LP, SY, and BH remain in B8 nest area.

0120—LP and RC tap nest tree #1077 to confirm nest. F comes up to entrance, then quickly flushes S. **This confirms location of likely B8\_2015 nest tree** (mentioned above). We then back out of area. F flys back into nest area to perch on potr ~6m S of cavity for ~1 minute before returning to cavity. F returns to cavity within ~3 minutes after flushing. *Observations of F returning to nest within 1-3 minutes after each flush suggests that she is currently incubating. This also supports the idea that there is a second mating pair in the area.*

0127—From B8\_2014 nest site, Sy hears TCs upslope to SE. SY moves upslope, but M goes silent.

0145—Crew departs.

## 2 June 2015

~1700—Flam crew peeps B8\_2015 nest tree #1077 found by LP on 5/27/15 on our way out of Missouri. **Peep reveals fragments of 2-3 eggs and no sign of an adult. This nest has been predated.** We leave. *Note: based on nesting vocalizations heard on Genesis R by RC on 5/27/15, it is possible that there is a second nest in this B8 area. Until we have additional information to suggest otherwise, this is the B8\_2015 nest.*

2248—RC and ER erect lure net on low E-facing slope of Turkey R, 10m off W side of Missouri Gulch Rd and 50m N of B8\_2015 nest. Net opens N/S. PB begin.

Vegetation: young-mature pipu, psme, pifl, potr (mostly snags), open.

Weather: Clear, calm, 3C.

X: 495971

Y: 4332410

+/- 9m

2253—M begins TCing N of lure net 40m, backing off to N by 2258.

2256—ER leaves net to listen N up the road, following M calling to the N. He goes silent after two minutes. ER listens E of the drainage across from the net and hears nothing.

2304—Brief TC/TECs NW of net 40m.

2314—Brief TCs about 60m N of net.

2322—TCs N of net again, retreating distantly to N by 2326.

2330—RC leaves net to listen in B8\_2015 failed net area, B8\_2014 nest area and on Genesis R mid-slope where mating pair was heard on 5/27/15.

2333—Brief TCs NE of net 60m.

2337—RC hears distant TCs to N from Genesis mid-slope. Possibly B19 M.

2338—ER hears three distant TCs from S of the net on the W slope over 200m S. This is possibly the B7\_M.

2345—TCs for two minutes from the N about 40m from the net

2350—TCs within 100 m N of net, heard from Genesis mid-slope.

2353—ER hears several more TCs from southern M from his original position.

2400—RC arrives back at lure net.

2405—PB off momentarily. We hear TCs near base of Genesis R ~60m S of net. We turn PB back on until 2408, but M goes silent. We break down and move down to B7 to listen.

## 10 June 2015

Afternoon—Flam Crew peeps out the B7 territory down to the edge of BG4 and up until the failed (Likely B7) nest.

~1605—While RC is peeping B8\_2014 nest tree #1336, RC and LP hear M giving TECs 5-10m N of nest tree. RC has peeper up ~40ft when calls are given. LP pursues and quickly spots M roosting in ~15cm dbh live psme. M is perched ~8m up in tree against the trunk on a small branch. RC has already peeped all but the highest cavity in tree and found nothing. The rest of the crew joins RC and LP to observe M. RC re-peeps highlight cavities in tree, including 2014 nest cavity, with several spectators.

1635—M has not vocalized again, but is still perched in same location. *Very* suspicious behavior, especially considering the two breeding pairs heard by RC on 5/27/15 on the slope of Genesis R, with one pair seeming to favor this nest area. We leave.

## 15 June 2015

2430—RC and DL arrive in B8 to listen/nest search/figure out whats *really* going on here. We head up to tap the B8\_2014 nest tree where we previously had M give TECs on day roost (6/10/15).

2434—We approach B8\_2014 nest tree and DL is about to tap when RC spots silent FLOW fly in to perch ~15m up in tree 2m NNE of nest tree. We keep a dim spotlight on N side of tree. FLOW gives some 3-note LCs from his perch (this is the M) then makes a PD to the 2014 nest cavity! DL taps tree gently and F comes up to entrance and gives FSCs. **This is the (real) B8\_2015 nest! Nest found by LP on 5/27/15 at base of this drainage in tree #1077 and previously called B8\_2015 is now the presumed B7\_2015 nest.** B8 nest cavity is the 2014 nest cavity, ~40ft up N side, ~3ft above mossy elbow in tree and ~1ft below crooked 8” stob on SW side. Cavity is sapsucker-sized and is below NOFL cavity on same side of tree.

2438—M makes 2nd PD to F in cavity entrance. We leave to listen in B7.

## 19 June 2015

~2205—RC, ER, and NS arrive in B8\_2015 nest area to capture M on PD. F down on arrival.

2209—ER reaches base of nest tree and begins raising capture pole.

~2215—Net at approximately cavity height. F comes up and immediately flushes W. ER lowers net and backs 10m out of nest site to join RC and NS. ER leaves capture pole at base of tree.

~2217—LCs and FSCs in nest site. F returns to cavity. Maybe gets a PD?

2225—RC approaches nest tree to collect capture pole.

2228—M enters nest site and gives a few LCs/TECs and perches in pipo a few meters N of the nest tree.

2233—M makes PD to cavity as RC is leaving nest tree.

2235—We leave.

## 30 June 2015

2309—RC and LP arrive to B8 parking spot with intent to capture B8\_2015 M at PD.

2315—We arrive to nest area. Following a brief observation period, RC approaches nest tree with capture pole while LP spots.

2328—Net is positioned ~2 m from cavity. M is heard giving TCs ~30m away in Missouri Cr drainage.

Weather: slight breeze, cloudy, brief bout of very light rain, 17.5C

2338—RC lowers as rain becomes more consistent. Rain tapers off and only lasts for a few minutes, so RC re-raises capture pole almost immediately after lowering it.

2349—M gives LC ~10m from cavity. He then comes in and gives PD. LP lights up cavity, RC swings, but M quickly flies away and is missed by the net. F flushes to E after net collides with tree. We leave nest area to wait for F to come back on cavity.

~2400—A few LCs heard in vicinity of nest tree.

~2410—A few LCs heard in vicinity of nest tree.

2413—We re-enter nest area. We immediately see M give PD (he flies in from S) after several LCs.

2420—Net is re-raised at this time. M immediately begins giving few LCs. He gives PD. LP lights up cavity, RC swings, but M is missed as net hits tree. F flushes. Net is lowered. We immediately leave area for cars.

## 01 July 2015

2209—BL and LP arrive to B8\_2015 nest area with intent to capture B8\_2015 M at PD.

2216—BL approached nest tree and begins raising capture net. We hear FSCs off cavity (~15m to the W). We also hear a few LCs coming from same area as FSCs. BL lowers net to ~15 ft, while LP spots. We continue sitting in our positions to observe until 2232.

~2225—Two birds (assumed M and F) seen flying in tandem from conifers to the S.

2232—F still has not entered cavity so we leave nest area. We hear LCs from ~25m down drainage (W) as we are leaving. **NOTE: Behavior of F is suspicious, and suggestive of possible nest failure.**

2245—We gather lure net supplies from car with intent to capture B8\_2015 M. We begin setting up lure net approximately 20 m W of Missouri Cr Rd (FS347), and ~ 100 m W of the B8\_2015 nest tree.

2255—Lure net is set up. PB (track 42) turned on. Net opens E/W.

Vegetation: net flanked by three young potr on W side with young-medium psme, open

Weather: calm, partly cloudy, full moon, 9.0C

X: 495972

Y: 4332438

+/- 9m

2257—We hear TCs and FSCs from ~70m ESE of net. We presume this is either the B8\_2015 pair or the B7\_2015 pair (who failed earlier in June).

2300—We hear another M giving TCs ~150 NNE of net in drainage (possibly B19\_2015 M). ESE M begins giving TECs at this time. This M is subsequently joined by another M giving TC directly W of the net (B7\_2015 M?). The distant M to the NNE is still heard calling periodically—is the Western M the failed B7 M?

2302—Two Ms and one F in net area at this time all calling.

~2304—**Net check reveals two birds in net. Bird #1 is unbanded M (new band #1833-03286) caught in 2nd shelf on E side.** **Bird #2 is previously banded F, with Band #1783-64392, who was the B8\_2013 and 2014 F, and captured in 1st shelf on E side**

**Bird #1: Band # 1833-03286 (on x leg)**

68.0 g LWC: 130 mm Rect: 54 mm

- 7.5 g P5: 101 mm

60.5 g P6: 112 mm

**Bird #1: Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.0 |
| P5 | 2.0 | 1.5 |
| P6 | 1.0 | 1.0 |
| P7 | 1.0 | 1.0 |
| P8 | 1.0 | 1.0 |
| P9 | 1.0 | 1.0 |
| P10 | 1.0 | 0.5 |

**Bird #1: Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1.0 | 1.0 |
| P6 | 1.5 | 1.5 |
| P7 | 1.0 | 1.5 |
| P8 | 1.5 | 2.0 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

**Bird #2: Band # 1783-64392 (on R leg)**

75.0 g No measurements or blood, due to presumed F status

- 7.5 g

67.5 g

2313—Bird #2 released to SE with strong, ascending flight.

2319—**Net check reveals another bird in net. This bird is unbanded and was caught in 2nd shelf on E side. New band #1833-03287. NOTE: This was presumed to be F, based on the large incubation patch (which had pin feathers filling in on perimeter).**

**Bird #3: Band # 1833-03287 (on R leg)**

72.5 g No measurements or blood, due to presumed F status

- 8.0 g

64.5 g

2321—M giving TCs consistently on W side of net. This M continues to vocalize throughout lure net disassembly.

2324—Bird #3 released with strong, ascending flight to SW.

2339—Bird #1 released with strong, ascending flight to S.

~2344—PB is turned off and lure net is taken down.

2348—We leave net area to walk towards car. This is the end of our night.

## 2 July 2015

2145—SY arrives at the B8 nest to check the status of the nest. **I peep: only eggshells remain in the cavity bottom**. *Note: This confirms suspicions from 7/1/2015 that the nest had possibly been depredated.*

# B8—2016

## 1 June 2016

~1530-1715—Flam Crew peeps along N. Missouri Cr. from B7 to B6. **The B6\_2016, B21\_2016, and B8\_2016 nests are found**. Past nest trees and other appealing cavity trees are cherry picked in B19 and B7.

1635—While peeping/tapping select cavity trees in the B8 territory, **BL taps the #1077 POTR snag tree. F FLOW rises to the entrance of the B8\_2015 nest cavity—this is the B8\_2016 nest tree! F remains in entrance for 1-2 min, then descends. Nest cavity is approximately 8 m high, faces S, and is a NOFL excavation. Nest tree has ~ 34 cm dbh, and is located approximately 60 m N of the B7 parking area, ~25 m E of Missouri Cr, and is adjacent to the E side drainage that leads to B8\_2014 nest tree.**

1640—BL, KM, and RC leave.

2025—BH and RC arrive at the B8\_2016 nest tree to peep the nest cavity upon F flush.

2027—M calls off roost near B8\_2015 nest. RC pursues to determine if there are two nests in this area, similar to 2015. RC picks up B8 M LCing 50m S of B8\_2015 nest, then M drops into dr bottom and heads N into B8\_2016 nest site. No second M at any time.

2038—F flushes, makes long descending flight E. **We peep to find 3 eggs, off-centered and not quite touching, but evenly spaced. Incubation seems to have begun**

2041—We leave B8 to listen for nesting behavior in B5.

## 6 June 2016

2028—RC arrives in B8\_2016 nest area to capture F. F down on arrival.

2035—RC approaches nest tree. F stays down.

2037—At tree, net going up.

2040—Net in place. F up and out. **Captured! This F is previously banded as the B8\_2013, 2014, & 2015 F.**

**Band # 1783-64392 (on R leg)**

85.0 g

- 15.5 g

69.5 g

2042—M enters site LCing.

2043—F released with low, but SAF (SW). M and F vocalize nearby while I peep.

2044—**Peep reveals 3 eggs near center of cavity, same as previous peep on 6/1/16.** I leave nest area, then drive to meet ER and MC in B19.

## 14 June 2016

2027—RC arrives in B8\_2016 nest site to attempt M capture. F down on arrival.

2029-2032—Approach nest tree. F stays down.

2034—Net going up.

2037—Net up.

2048—M calls off roost 80m E of nest site.

2052—M in site, giving LCs with a few TCs mixed in. F FSCs in cavity, stays down.

2053—M on approach perch.

2054—M bounces off cavity entrance, aborting PD and perching 1m away in small potr. F comes up and flushes almost immediately. I back out.

2058-2100—Pair moves 30m SE, still vocalizing. I move in for a peep. **Peep reveals 3 eggs, c&t with no signs of cracking.** I back off of nest again. Pair continues to vocalize nearby, moving to the S.

2109—No sign of pair since I backed off. I retreat further out of nest site to ~30m S.

2123—M LCs and F FSCs 40m SSE of nest. M moves E LCing and F flies N toward nest FSCing.

2126—LOUD FSCs. F back on.

2129—I approach tree to retrieve capture pole.

2131—On approach, I see M make a PD, staying down for a few seconds in cavity. FSCs in cavity.

2134—At base of tree. M makes another PD. I decide to take a quick swing at him, begin raising net. FSCs continue.

2135—I have net up ~5ft when F comes up and flushes without warning. Bummed, I leave.

## 21 June 2016

2025—DL and ER arrive at the B8\_2016 nest tree to capture the M, watch the F flush, and peep.

2040—ER approaches nest tree with the capture pole.

2044—ER has net up and is in capture position.

2104—**M makes a PD, ER swings and captures the unbanded M. F also flushes into the bag. DL peeps and sees that all 3 eggs have hatched. All nestlings are in white down, some movement of the head is seen, but all eyes are still closed.**

**Female:**

**Band # 1783-64392 (on R leg)**

**Male:**

**Band # 1833-03382 (on L leg)**

80.5 g LWC: XXX mm

- 29.5 g LLP(5): XX mm

51.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: Did not take measurements other than mass because we wanted to get him out of hand as soon as possible so that he could make PDs to the nestlings.**

2109—Release F

2111—Release M. We back out of nest site to observe.

2134—M and F both vocalize ~20m SE of the nest tree.

2135—F comes back on cavity.

2150-2154—M completes 4 PDs and aborts one.

2208—We leave to meet flam crew at B6 parking lot and then go to B12.

## 12 July 2016

2030—MC arrives at B8\_2016 to listen for fledgling vocalizations and activity.

2114—MC hears 2 TCs at the tope of Genesis Ridge, DL joins the effort.

2145—After no apparent activity we leave. *Our estimated fledge date was 7-11-16. With no activity in the area, especially with the runt not still in the cavity, this implies that the nest was likely predated sometime after 6-21.*

# B8—2017

## 31 May 2017

1530—BL, KM, ES, and JE cherry peep B7, B8, and the southern part of B19. We do not find any nests.

1730—We end the peep day with anticipation to find the E Missouri nests in the future.

2035—ZM and ER arrive at Missouri Cr in the B7 and B8 territories to listen for courtship behaviors and nest search with ZM starting more S in B7 and ER heading N towards B8.

Weather: 40% cloud cover, calm, 12 C.

2046—ER hears M LCs ~30m S of the B8\_2015 nest drainage ~30m up the slope of Genesis R. I hear about three consecutive LCs as the M moves downslope into the drainage. ZM starts to head N to move toward action.

2057—ZM sees a FLOW (suspected F) flitting from tree to tree about 10 m E of the creek and about 100 m N of the B7 Parking spot in the B7 aspen flat. ZM also hears M LCs N of the silent FLOW in sight. She pursues the owl as it flies in short flights N towards the LCs. Within a couple of minutes, the owl was out of sight and the calls ended.

2200—ZM and ER return to car after continuing to listen in the B7 aspen flat and surrounding area. We do not hear any more vocalizations for the remainder of our listening time. We collect net gear.

2240—We start playback low on E-facing slope of Turkey Ridge about 100 m N of B7 parking spot and 15 m W of Rd. Targeting B7 and B8 territories.

Vegetation: Mixed age Psme, Pipo, and Pifl. Fairly open.

Weather: partly cloudy, calm, 10 C

X: 495980

Y: 4332471

+/- 3 m

2302—We hear intermittent M TCs due east of lure net for about 4 min.

2306—ER leaves to go listen along the E side of Missouri Cr where we last heard the M.

2325—ER hears a series of four FSCs starting near the confluence of the B8\_2015 nest drainage and moving N about 50m along the base of the slope. I hear the last vocalization near cavity tree B7\_820.

2338—ER hears FSC up slope from cavity tree B7\_820. I pursue.

2340—ER spots F FLOW about 40m up slope. F flies from ground to a low perch in a psme, giving FSC. M is in area giving LC. He gives F a PD at her perch. Both M and F fly S along contour, both vocalizing often.

2350—M and F FLOW vocalizing around the B8\_2015 nest tree. ER spots F giving FSC on a low perch 10m upslope of the past nest tree. M giving four note LCs in area. F flies to cavity tree and perches on the side of the tree near the height of the past nest cavity, giving FSC. She flies back to the ground, and both M and F move around the site in a 10m radius. F flies back up to the tree and perches in the entrance of the NOFL cavity about one meter higher than the past nest cavity. She flies around a bit more before flying back up the past nest cavity and perching in the entrance.

2400—F goes down in the past nest cavity where seems to remain for the next ten minutes, continuing to beg. M gives her two PD in the cavity. **This is the suspected B7/B8\_2017 nest!** The tree is about 30m up the slope in a small drainage on Genesis R E of the B7 aspen flat. The nest tree is a pipo full snag. The cavity faces N and is about 45’ high in a sapsucker cavity.

~2410—ER leaves pair to their courting and returns to the lure net.

2427—We stop PB and break down the net. For the remainder of the night, we give some hoots within 100m S of the B7 parking spot to solicit a response from a possible more southerly M. We do not hear anything

2445—ZM and ER return to the car to meet up with Flam Crew.

## 8 June 2017

2034—ER and ES arrive at the suspected B7/B8\_2017 nest site. We silhouette the cavity that ER saw F entering on 5/31/17 and wait for F to flush. The tree is about 30m up the slope in a small drainage on Genesis R E of the B7 aspen flat. The nest tree is a pipo full snag. The cavity faces N and is about 45’ high in a NOFL cavity.

2046—We hear LCs coming from down drainage to the W, about 50 m away.

2100—We hear LCs much closer to us, still down drainage.

2115—Female has not flushed, so ES and ER tap the suspected nest tree. There is no response.

2119—**ES peeps the suspected nest cavity, and it is empty. This means that this is likely not the B7/B8\_2017 nest site.**

2120—ES and ER walk about 50 m down the drainage to listen and tap around where we heard the earlier LCs. We don’t observe or hear anything definitive.

2218—ES and ER return to the vehicle to get lure net equipment.

2243—While KM and ES scout a lure net site, ER returns to the B7 aspen flat where we heard vocalizations earlier in the night. As soon as I stop walking, I hear two loud FSC within 10m of the B8\_2016 nest tree. I suspect that the source is near an unenumerated cavity tree 5m NW of the B8\_2016 nest tree. I get a silhouette of the cavity trees in the area and listen, but do not pick anything up for the remainder of our time.

2252—ES and KM set up a lure net on the low, S facing slope of Turkey ridge about 20m from the road. We are in the northern part of the B8 territory.

2253—Playbacks start.

Vegetation: mixed age pipo, potr

Weather:15C, mostly clear, calm

X: 495971

Y: 4332450

+/- 3m

2340—PB off. We hear nothing the entire time we lure net, so we break down the net and head to BG5.

## 13 June 2017

~1700—KM taps then peeps tree #49 and finds a beautiful, majestic, ethereal FLOW looking down at her. **This is the B8\_2017 nest tree! The potr snag (DBH 28in) is about 15m E of E Missouri Cr, about 150m N of the B7/B8 parking spot. The NOFL excavation cavity is about 18 ft high facing N and is about the same height as the first branch pointing S on the tree. The nest tree is in a moderately open spot with a number of psme trees in the vicinity. The tree is about 5m N of another marked cavity potr and 8m NE of a marked cavity potr snag.**

X: 496054

Y: 4332547

+/- 3

2026—ES arrives at B8\_2017 nest site to silhouette and peep nest. Weather: clear, gentle breeze, 9C.

2035—LCs come from about 20 m away from nest tree.

2037—B8\_2017 F begins making FSCs from inside cavity. These continue, about once every 10-20 seconds, until she rises to the cavity entrance.

2046—F rises to cavity entrance.

2048—F flushes.

2049—ES peeps nest cavity to find **two eggs, centered and touching, in a very deep cavity.**

2150—KM, ES, and JE meet at the B8 parking spot and head into the territory to attempt a nest capture of the M.

2159—With ourselves in position, we hear the M begin giving TCs. He is initially heard W of the B8\_2017 nest, but quickly begins calling from a few different positions.

2202—The F, while down in the cavity, begins giving FSCs. She continued giving FSCs throughout just about the entire night.

2235—The M is still flying around the nest site, calling from all directions and from a variety of distances, giving TCs and occasionally a couple TECs. Although he approaches the nest site several times, he comes and goes.

2253—The M approaches the nest, but spots the capture net, hovers for a second around the cavity, and flies away. With our failed attempts to capture him, we decide to use the tried and true method of building him up and breaking him down. We back off to let the M come in for a PD.

2303—The M delivers a PD. Once he leaves, we get back into position to try once again to capture him.

2319—The M approaches once again and KM is in position. KM gets the M into the net, but a large hole allows him to escape.

2343—JE leaves to join ZM for a B8 lure net set up. 8\_2017 nest tree. The F stays down as KM raises the net.

2345—KM and ES fix the hole in the capture net and KM resumes her position at the base of the B

2354—ZM and JE start PB targeting B8. The lure net is set up about 200m N of the B8\_2017 nest and about 10m W of the main road on an E facing slope. The net was set up low on the slope open to N and S.

Vegetation: young to mature psme potr

Weather: clear, calm, cold (no temp)

X: 496044

Y: 4332751

+/- 3m

2350—M silently enters the nest site. He circles the nest tree a few times.

2400—M makes a PD and KM snags him in the capture net. **He is the B8\_2016 M!** We contact the rest of the crew and drive the M to BL et. al. at the B21 parking spot.

**Band # 1833-03382 (on L leg)**

88.5 g LWC: XXX mm

- 34.0 g LLP(5): XX mm

54.5 g LLP(6): XXX mm

Rect: XX mm

**Notes: MC and ER put a pinpoint on the very unhappy FLOW.**

2404—ZM and JE stop the PB because ES and KM have caught the B8 male at the nest! We collapse the net and head towards them.

2247—JE releases the M just W of the B8\_2017 nest tree on the road. He makes a strong ascending flight into a potr just off the road. He stays in that tree for a while preening and lamenting his new accessory.

## 19 June 2017

2030—KM, LD, RC, and RC’s mom arrive at the B8\_2017 nest site.

2033—KM begins her approach to the nest tree while LD spots the cavity. Upon raising the capture pole, the F pops up. KM stops raising the net but F does not go down.

2035—F flushes to a conifer just N of the cavity tree. RC peeps the cavity, but the camera ceases to work for a moment. For the sake of getting out of the nest vicinity as quickly as possible, we leave the site. We had gotten a final peep the previous week that showed three eggs (*MC 6-26-17—The previous peep on 6-13 only had two eggs, so this appears to be an innacurate statement.)*. In future F capture attempts, it will be beneficial to raise the net further from the cavity as the F seems to be sensitive to sound.

## 24 June 2017

0110-0130—JE and KM arrive B8, where KM is attempting to snag the M with a capture net at the B8\_2017 nest tree and JE is walking with the PB near the B8 parking spot. The M does not make any PDs, but JE hears a M giving TCs E of the parking spot, maybe ~70m away.

## 25 June 2017

2035—MC and ER arrive at B8\_2017 to attempt to capture the M and return a pinpoint.

2045—ER moves to the nest and raises the capture pole.

2052—The F rises to the entrance and flushes.

2110—The F returns to the cavity.

2112—The M comes into the site and makes a PD.

2120—Two Ms have an encounter ~50m NE of the nest, switching between TC and TEC calls. Another M calls ~200m S.

2130—ER moves back into the nest site to get the net up. One M is still calling to the NE.

2139—The M comes into the site and makes a PD. ER swings the pole and the M is captured!

**Band # 1833-03382 (on x leg)**

67.5 g LWC: 128 mm

- 15.0 g LLP(5): 97 mm

52.5 g LLP(6): 104 mm

Rect: 56 mm

**Notes:** Pinpoint #48204 is removed! The unit was sitting well on the bird and did not appear to be causing any wear or irritation.

2148—M is released with a SAF N. MC and ER leave.

## 26 June 2017

2028—ER and ES arrive in the B8\_2017 nest site with the intent to capture the F on her flush and peep the nest to view hatching status. F is down in the entrance upon our arrival.

2030—ES begins approaching the nest tree.

2032—ES is positioned at the nest tree and begins raising the net.

2036—ES has the net at capture height and places the pole against the tree. The F pops up in the entrance. **ES does a superhero adjustment to the net height and the F flushes into the capture bag! She is previously unbanded, we dub her the B8\_2017 F.**

**Band # 1833-03547 (on R leg)**

85.5 g LWC: XXX mm

- 15.0 g LLP(5): XX mm

70.5 g LLP(6): XXX mm

Rect: XX mm

2039—**ES peeps cavity to see two eggs (the final clutch size), one with a possible pip mark.**

2041—We release the F with a SHF N.

## 29 June 2017

2303-2335: Emilio (CSU intern) and BL arrive at the B8\_2017 nest to assess status of hatching. F in cavity entrance when we arrive, and we back away from nest area to observe. M made one PD in the cavity at 2319, but other than that we gave TC for ~ 10 min approximately 50 m S of the nest site. We leave for B10\_2017 nest.

## 4 July 2017

2024—KM and JE arrive at the B8\_2017 nest to peep and capture the M to recover and replace a pinpoint.

2044—F rises to entrance of cavity.

2050—FSCs.

2051—F flushes. **Peep shows 2 nestlings, bobbing their heads. It looks like their eyes were closed but it was hard to be sure due to the depth of the cavity.** The F returns to the nest site almost immediately.

2054—F comes back on and stays up in the entrance of the cavity for a minute.

2058-2118—KM and JE watch the M make 6 PDs. See PD sheet for more details.

2124—KM approaches the nest tree and positions herself for a M capture.

2126— The F makes a few FSCs from the cavity and the M responds with some LCs and enters the site. He perches on both the nest tree and a nearby potr. The M then approaches for a PD but aborts and does not enter the cavity.

2128—We hear a few FSCs and the M makes a full entrance into the cavity on a PD**. The M flushes into the net and the F follows. The F is able to extricate herself from the net. She seems to stay in the vicinity of the nest tree as we extract the M from the capture bag.**

2131—JE sees the F come back after perching on the nest tree and a nearby tree for a couple minutes, watching us.

2133—After extracting the M from the net, we head over to meet up with the rest of the crew at the B21 parking spot to remove the pinpoint and attach a new one.

**Band # 1783-03382 (on x leg)**

87.5 g LWC: XXX mm

- 31.0 g LLP(5): XX mm

51.5 g LLP(6): XXX mm

Rect: XX mm

**Notes: New pinpoint is #48204**

2117—ER and JE drive back down towards B8 to release the M. He has a SAF.

## 13 July 2017

2141—MC and ES arrive at B8\_2017 to attempt M and or F capture. The F is up in the entrance when we spot the cavity from far out. She stays up as we approach.

2142—The F is beggin from the entrance, the M makes a PD at the cavity entrance, and leaves. The F takes the prey down to the nest then flushes. **We peep, revealing two owlets. The eldest is in ~50% juvenile plumage, with significant natal down still present on the head. The younger is in ~30% juvenile plumage, also with significant down on the head.** We back off to observe.

2147—The makes a PD, we think that she stays down but a later observation shows that she likely left the cavity and we missed it.

2150—The M makes a PD.

2152—The M makes a PD.

2155—The F makes a PD and stays on the cavity. The M makes a PD.

2204—There are 4 more PDs, the F flushes and ES approaches with the net.

2219—A silent bird makes a PD. We do not swing.

2236—The F comes back on cavity.

2238—The M makes a PD, ES captures him!

**Band # 1833-03382 (on x leg)**

73.5 g LWC: 131 mm

- 20.0 g LLP(5): 92 mm

53.5 g LLP(6): 103 mm

Rect: 55 mm

**Notes: The M was not bled in 2016 so we bleed his L wing.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | Molt |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 2 | 1 |
| P5 | .5 | .5 |
| P6 | .5 | .5 |
| P7 | .5 | .5 |
| P8 | .5 | .5 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | Molt |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | .5 |
| P5 | 2 | .5 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2303—We release the M with a SAF N.

## 19 July 2017

2028—ER and JE arrive at B8\_2017 to attempt a F capture and peep the nest. Paul Bannick and Lulu are there. The F is up in the entrance of the cavity.

2033—JE gets a capture net over the cavity, the F flushes, but she escapes through a hole in the net.

2035—**Peep shows 2 owlets, one had a pretty well developed facial disk and the other still had some natal down attached**. We leave for B21.

~2145—ER and JE return. Paul and Lulu are still there. We hear the owlets begging from the cavity but observe no PDs and no signs of fledging.

2202—We head out.

## 20 June 2017

1348—Flam Crew gets to the B8\_2017 nest site. There is a FLOW in the nearby tree (possibly the F). We peep the cavity to find two nestlings inside. ER proceeds to climb up to the cavity and cut a keyhole. She extracts the nestlings.

**Owlet**

51.7 g

P#5: 58 mm (xx in shaft)

P#6: 57 mm (xx in shaft)

Rect: 27 mm (xx in shaft)

Band#: 1833-03542

Notes: ES bled the L wing (small hem.)

**Owlet**

48.8 g

P#5: 50 mm (xx in shaft)

P#6: 49 mm (xx in shaft)

Rect: 21 mm (xx in shaft)

Band#: 1833-03543

Notes: ZM bled the L wing (small hem.)

**Cavity measurements:**

Cav. Ht: 19.0 ft

Horizontal x vertical: 80mm x 60mm

Entrance thickness: 30mm

Horizontal depth: 145mm

Vertical Depth: 32.5cm

DOH: 24.0cm

~1500—The nestlings are returned to the cavity and flam crew heads out of the site.

# B8—2018

## 30 May 2018

1530-1700—Flam Crew cherry peeps cavities in B5, B6, B8, B19, and B21 territories. No nests found.

2040—ON and BL arrive in B8 territory to listen for nesting vocalizations and tap prospective nest trees. ON starts listening in the vicinity of the B8\_2017 nest tree while BL moves approximately 80 m S in the vicinity of other previous nest trees.

Weather: Clearing (15% cloud cover, calm, 13 C).

2050—BL hears the presumed B8 M give 2 LC ~ 60 m S of the B8\_2017 nest tree, with no accompanying FF vocalizations.

2055—M gives several TC about 20 m S of the previous location before quieting. ON arrives in the area to help listen.

2115—BL moves to the B8\_2014 nest tree (tag # 1336; large PIPO snag on lower slope of Genesis Ridge) to tap and listen. Nothing heard or seen.

2120—ON hears a distant single M vocalization.

2126—ON briefly hears vocalizations from two distinct M FLOW’s. She continues to hear one M give territory calls NE of the Missouri Cr drainage and follows it but does not catch a visual.

2131—M FLOW goes silent.

2136—ON briefly hears M FLOW vocalization W of Missouri Cr drainage and briefly follows it before he goes silent.

2140—BL returns to the Missouri Cr drainage to listen with ON.

2202—We hear three distant M vocalizations.

2244—We start playback with lure net on small knoll approximately 75 m NW of the B8\_2017 nest, and ~ 20 m W of the MGSA Rd (FS 347).

Vegetation: Mature overstory of PSME/PIPO, with scattered small POTR and PSME

Weather: Clear, calm, 10 C

X: 496029

Y: 4332661

+/- 8 m

2249—We hear the presumed B8 M respond with HEC in the Missouri Cr drainage to the E, and within a couple of minutes he comes into the net area, giving TC.

2253—A second territorial M approaches the net giving TEC, apparently from the W or SW (B12 M??). Both of these MM call vociferously for several minutes, but neither approached closer than 10 m to the net. During this time we also hear a M giving TC to the S (B7??), first about 50 m away, then he retreats farther to the S.

2256—The possible B12 M goes silent, while the B8 M continues singing.

2307—B8 M returns to the Missouri Cr. Drainage bottom to the ESE where he goes silent.

2331—We break down the lure net and leave for B5 territory.

## 12 June 2018

~1500-1710—Flam crew does a full peep of the B8 territory. We peep out almost all of the cavities between the B8 parking spot and tree #1006. All past nests were hit, and a number were felled. We do not find the nest.

2036—BL and ON arrive at the northern end of the B7 territory/southern end of the B8 territory to tap trees and listen for FLOW nesting vocalizations in the drainage bottom of N Missouri Cr.

Weather: 50% cloud cover, calm, 15C

2046—BL hears a M FLOW call off roost upslope ~60 m upslope to the E. He gives 6-8 TC then quiets.

2116—ON hears distant M TCs ~50m W of Missouri Rd.

2150—No more vocalizations are heard, so we meet up and head up drainage.

2155—We listen in the vicinity of the vehicles for vocalizations, but all is quiet.

2227—We finish setting up the lure net on a small knoll 20m W of Missouri Rd and 30m S of the B8/B7 parking spot and begin PB T42. The net is open E/W.

Vegetation: mixed age psme

Weather: clear, breezy (twigs and small limbs moving) for first 20 minutes and then calm, 19C

X: 495927

Y: 4332253

+/- 3m

2249—BL heads N (?) up drainage to listen for vocalizations. All is quiet.

2310—ON heads N along road to listen for vocalizations.

2319—ON hears M TCs NE that continue for several minutes but never get closer than ~60m from net site.

2325—M makes a few more TCs ~60m NE of net before going quiet again.

2327—Change PB to Megascops.

2349—We cut PB after no more vocalizations are heard.

2357—We break down the net and leave the B7 territory.

## 13 June 2018

1445—KM, JE, KA, AM, ON, ES (the flamily) arrive at B21 parking spot to peep remainder of B8 territory, B19 territory, and B21 territory. Group peeps the N portion of A8 (beginning where the group left off peeping on June 12th). Group worked N and peeped all past nest sites and known cavity trees, as well as enumerating new trees, in B8, B19, and worked halfway up B21 into the central potr stand of the territory.

1511—**KA finds B8\_2018 nest tree in new cavity tree. As KA stands at base of tree looking for tag (none found) F FLOW pops up in cavity entrance. Tree is live potr with snag top. 31.0 dbh. Located 5 m W of study road, ~75 m S of confluence of E Missouri Cr and N Missouri Cr. KM flags tree. 3 cavities are visible from the road. Highest cavity is sapsucker cavity with RNSA nest inside. Middle cavity is NOFL cavity facing NE, which is the FLOW nest. Approximately 15-20 ft high. Lowest cavity is sapsucker hole with unknown songbird nest, potentially a PYNU. Wow condominium!** This is near the location where flam crew suspects that we saw a FLOW fly across the road while driving the night of 06/12/18. Group leaves to avoid disturbing F, but later should examine tree for more cavities and take a second GPS.

Vegetation: open, mixed potr, pipo forest

X: 496088

Y: 4332848

+/- 3m

Note: GPS coordinates taken from 5m E of nest at vantage point on road.

## 15 June 2018

2030—BL arrives at the B8\_2018 nest site to peep status of the nest. F not in entrance when I arrive. Weather: Overcast (hot day with light showers in late pm and early eve), calm, 16 C.

2053—M arrives in POTR adjacent to nest tree giving quiet LC. F rises to entrance.

2054—M makes PD at cavity entrance, and F flushes about 30 sec later. **BL peeps—3 eggs near cavity center, and 2 eggs MAY may have been pipped (or specs of dirt).** F scolds me from ~20 m upslope to NW. **CAVITY HEIGHT: 13’6”.**

**I enumerate nest tree with TAG #1794 (B8\_1794). GPS coordinates from KA on 6/13:**

X: 496088

Y: 4332848

+/- 3 m

2058—I leave nest area.

## 16 June 2018

1500-1800—KM, ES, and JE peep the rest of B6. We hit almost all of the cavity trees on record and enumerated a handful of new trees. We additionally do a quick peep of the cavity trees left in the S part of B8, hitting past nest trees in B7. Goose eggs. Womp womp.

## 19 June 2018

2027—BL arrives at the B8\_2018 nest to attempt capture of M. F rises to the entrance as I drive by to park on FS347. Weather: Completely overcast with bands of dense fog, very breezy, 10 C (strong PM T-shower with hail—remnants of Tropical Storm Ben coming up from the Baja).

2030—F goes down.

2052-2054: F rises to entrance, then descends.

2057—M flies to the nest cavity and makes PD (no vocalizations heard in the wind) in cavity—he does not go all the way in, but rather leans in far enough while perching in the entrance to apparently complete PD before flying off seconds later. PDs and same behavior at 2101, 2102, 2107, 2108, 2110, 2112, 2115, and 2019.

2121—**F finally flushes, and I peep—1 owlet sprawled out, face down next to 2 unhatched eggs. Owlet appeared to be 1 day, maybe 2 days old (Hatch date: 6/17 or 6/18).** I back away and leave nest area.

2200—I return to nest area and get into capture position. Winds mostly calm now, and moon/stars beginning to peak through.

~2215—I allow M to make PD, who again leans into cavity to apparently complete PD.

2243—**M captured after leaning in cavity to make PD (1st PD since last entry). M was previously banded with Band #1783-74329 after being captured in a lure net off the SW side of Grave Ridge in B5 territory on 7/12/2016! M sang going into net, but he was not the B5 territory holder that year. NOTE: he may have been a floater attempting to establish late-nestling period occupancy in the area, in which case this would constitute another example of a floater M eventually transitioning into a breeding M in a subsequent year.**

**Band # 1783-74329 (on L leg)**

61.0 g LWC: 134 mm

- 8.0 g LLP(5): 100 mm

53.0 g LLP(6): 110 mm

Rect: 59 mm

**Notes: M was bled in 2016, so no blood taken.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2.5 | 2.5 |

2308—M released, and he shows strong ascending flight away from the nest tree.

2315—I leave nest area.

## 21 June 2018

2020—BL arrives in the B8\_2018 nest area to assess status of hatching. F rises to entrance when I arrive in the site, but goes down within a couple of minutes.

Weather: 60% cloud cover that appears to be thinning (dry day), calm, 16 C.

2059—M makes a silent PD, by only perching in the entrance and reaching in (as on previous nights). Quiet, brief chitter call heard from F, but no FSCs.

2102, 2104, 2108, 2110—Same, but no vocalizations from either M or F. **I peep after the last PD, and find that the F flushed sometime in the past few minutes. Two owlets—the eldest owlet is covered in white down and is sprawled out, face down, and partially covering the unhatched egg, while the 2nd owlet appears to have hatched in the past several hours—it is still mostly naked and pink, and wiggling sporadically while sprawled out on the cavity floor. Two large egg fragments visible off to the side.**

2112—I leave area, as one adult flies into an adjacent POTR.

## 28 June 2018

2015—ES and ON drive past the B8\_2018 nest tree on our way to drop off JE and KA at the B4 parking spot. The F is up in the entrance when we pass.

2030—ES and ON arrive at the B8\_2018 nest site, having parked the car near B19 so as to avoid driving by the nest again. The F is still up in the entrance, with her eyes appearing to be closed. We wait to see if she’ll go down.

2050—The F hasn’t moved, so ON (aka Creepy Olivia) begins the creepiest approach seen in recent Flam Crew history. She arrives at the base of the nest tree, and the F perks up but doesn’t see ON, who is hiding behind the tree.

2056—Creepy ON slowly raises the net and gets it to cavity height.

2058—It appears the F isn’t going down anytime soon, so ES instructs ON to swing the net around to try to cover the cavity entrance before the F can flush. Unfortunately, when Creepy ON is just inches away from the capture, the F flushes and gets away**. We peep the nest to find two nestlings and one egg. One nestling has some gray on the scapulars and head, and the other nestling is still in all white natal down. We presume that the remaining egg is a dud.**

2101—We pack up and leave the area.

## 3 July 2018

2041—KM and BL arrive at the B8\_2018 nest tree to capture the M and throw a pinpoint on him. F is up upon arrival (and was up as we drove by earlier in the night before dropping KA and ES off at the B4 parking spot).

Weather: calm, 70% cloud cover, 19C

2051—F makes FSCs from cavity entrance. M flies into young live potr just SW of the cavity tree. He then flies into the young potr just NE of the cavity before making a PD.

2053—F flush. We peep. **We see two grey blobs of nestlings that take up most of the monitor’s screen. The eldest of the two is mostly grey with obvious juvenile plumage all over the body. BL estimates age to be around 15-16 days. The younger nestling is about 65% grey and around 13 days old. Both have their heads down, so we did not see any facial disks.**

2057-2120—The M and F both make at least 8 PDs. They approach from the young potr just NE of the nest tree. They do not fully enter the cavity as they deliver prey to the nestlings. The M is less vocal than the F, so we have a pretty clear idea of the identity of the parents as they deliver prey. The parents take a pretty long break from PDs between 2107-2117.

2139—Since no PD has been made by either adult since 2120, we forego attempting to log 9 PDs (3 x 2 owlets plus F) before getting into capture position, and KM makes approach to the nest tree. KM stands about 3m SE of the nest tree with an angled net as she awaits another bird to enter the site.

~2148—Silent bird, whom she presumes is the M, aborts 4 PDs. Between each aborted PD, he remains in the young potr approach tree. I note that the prey is Lepidopteran.

2154—**M makes a full PD and we snag him—we confirm his ID as A8\_2018 M with Band # 1783-74329.** Upon lowering the capture bag, he makes a high pitched vocalization that sounds like a scold.

**Band # 1783-74329 (on L leg)**

59.0 g

- 7.0 g

52.0 g

**Notes: No measurements or blood sample taken. We deploy Pinpoint #49000. KMs first attempt is compromised when the ventral crimp breaks at the seal, resulting in an exposed and sharp metal piece resting just above the keel. We cut the harness. The second attempt is smooth. The anterior end of the pinpoint is loose, but the dorsal end of the pinpoint is stable. M seems to be molting body feathers.**

2249—KM releases M. SAF into a clump of young potrs. We dip out and head to B4 parking spot to pick up ES and KA.

## 4 July 2018

1510—Flamily heads to B8\_2018 nest to attempt F capture and process owlets. Group waits a t the vehicles while KA and KM go nest site to attempt capture. F is up and looking at us, despite a creepy approach. The F goes down into the cavity, so KM begins approach.

Weather: breezy, 80% cloud cover, 28 C

1512—KM reaches the base of the tree. She begins to raise the net, but the F pops up and flushes NW to a psme perch.

1515—The rest of flam crew arrives at the B8 nest.

1516—ON peeps the cavity. There are two nestlings visible, with lots of gray plumage and some natal down remaining on the smaller owlet. The dud egg is not visible, so we assume the owlets are covering it.

1518—KM climbs the ladder. She gives the dimensions of the cavity:

**Vertical x horizontal: 50 mm x 70 mm**

**Horizontal depth: 95 mm**

**Vertical depth: 190 mm**

**Entrance thickness: 55 mm**

**DOH: 30 cm**

**Cavity height: 13.50 ft**

KM then cuts a small keyhole into bottom of cavity entrance.

1525—**KM extracts two owlets and dud egg. The dud egg weighs 8.6 g.**

**Black Owlet**

43.0 g (very poopy owlet, attempted to clean before massing)

P#5: 29 mm (24 in shaft)

P#6: 30 mm (24 in shaft)

Rect: all natal down, too young to measure

Band#: 1833-32544 (banded R leg)

Notes: AM processes. Bled R, small hematoma. No signs of parasites.

**Blue Owlet**

50.9 g

P#5: 40 mm (22 in shaft)

P#6: 39 mm (25 in shaft)

Rect: 15 mm (7 in shaft)

Band#: 1833-32543 (banded L leg)

Notes: ON processes. Bled L, small hematoma. No signs of parasites.

1602—The owlets are returned to the cavity. KM takes new cavity dimensions post keyhole:

**Vertical x horizontal: 70 mm x 70 mm.**

1610—Flam stashes the ladder in the willows E of the road, W of the creek. Ladder is locked to a ~15 cm dbh pipo, ~15 m SE of the B8 nest.

## 5 July 2018

2010—BL and the Aiken Audubon Society arrive at the B8\_2018 to process owlets and attempt capture of F. F is in cavity entrance when we arrive. BL sneaks around the backside of the nest tree, and swings the capture net around the tree—instead of flushing, the F descends down into the cavity. I proceed to retrieve the ladder, and then reach in to remove the F and owlets.

2020—**BL removes F from the cavity—she is previously banded, with Band # 1833-03547; this is the B8\_2017 F!**

**Band # 1833-03547 (on R leg)**

57.4 g LWC: XXX mm

- LLP(5): XX mm

LLP(6): XXX mm

Rect: XX mm

**Notes: F Bled; small hematoma on L wing. Measurements were not taken due to limited time.**

2030—We held onto the F, and proceeded with processing of owlets:

**Band #1833-32544**

53.3 g

P#5: 35 mm

P#6: 35 mm

Rect: all down

Notes: Mostly (75%) juvenile plumage

**Band #1833-32543**

43.4 g

P#5: 45 mm

P#6: 45 mm

Rect: 19 mm

Notes: All juvenile plumage

2040—We return owlets to cavity, release F, and leave.

## 6 July 2018

1230—ES, ON, and JE arrive at B8\_2018 for daily measurements on the owlets. We remove the owlets for processing.

**Black Owlet**

55.3 g

P#5: 38 mm (31 in shaft)

P#6: 36 mm (30 in shaft)

Rect: 13 mm (8 in shaft)

Band#: 1833-32544

Notes:

**Blue Owlet**

47.1 g

P#5: 47 mm (25 in shaft)

P#6: 48 mm (28 in shaft)

Rect: 19 mm (9 in shaft)

Band#: 1833-32543

Notes:

1300—Owlets are returned, and we leave to do some peeping.

## 7 July 2018

1530—JE, ON, AM and his friend Awais arrive at B8\_2018 for daily owlets. Owlets are removed and measurements are taken.

**Black Owlet**

48.7 g

P#5: 43 mm (28 in shaft)

P#6: 43 mm (28 in shaft)

Rect: 15 mm (8 in shaft)

Band#: 1833-32544

Notes:

**Blue Owlet**

55.5 g

P#5: 53 mm (22 in shaft)

P#6: 52 mm (22 in shaft)

Rect: 23 mm (9 in shaft)

Band#: 1833-32543

Notes:

1555—Owlets are returned, and we leave.

## 8 July 2018

1215—KM, ON, JE, and Brae get to B8\_2018 for daily owlets. They are removed and measured.

**Black Owlet**

52.1 g

P#5: 48 mm (26 in shaft)

P#6: 47 mm (24 in shaft)

Rect: 18 mm (10 in shaft)

Band#: 1833-32544

Notes:

**Blue Owlet**

58.7 g

P#5: 56 mm (24 in shaft)

P#6: 55 mm (23 in shaft)

Rect: 24 mm (10 in shaft)

Band#: 1833-32543

Notes:

1245—Owlets are returned, and we leave.

## 9 July 2018

~1530—Flam crew, with guests from ABC group and CC communications and photography, arrive at B8\_2018 nest site to process owlets and attempt a F capture. KM goes ahead to check on F. F is down, likely off cavity (due to age of owlets and hot afternoon).

1533—**JE climbs ladder and extracts one dead owlet. No other owlet is in the cavity**. F is nowhere to be seen.

**Owlet**

62.3 g

P#5: 60 mm (21 in shaft)

P#6: 60 mm (24 in shaft)

Rect: 27 mm (9 in shaft)

Band#: 1833-32543

Notes: **This dead owlet is the older owlet of the clutch. No evidence of ectoparasites. Some blood and possible injuries on the owlet, but it is difficult to determine if this is from decay, caused by insects, or injury from predation. DL collects specimen so that BL can inspect the owlet further. The owlets were processed on the previous day (see field notes 7/8/18), so the owlet must have died within the 24 hours previous to our arrival. Most likely, a red squirrel predated the nest, killing both owlets. Since the smaller runt is not in the nest but is too young to have fledged, the squirrel likely killed and removed the runt from the cavity, but was unable to remove the larger owlet.**

1540—We were initially mistaken and though that the dead owlet was the runt, so flam crew and guests searched the surrounding area for a possible fledgling. We realize our mistake (that the dead owlet was the older owlet), and instead search the surrounding area for squirrel middens, owlet remains, or any other evidence of predation. Nothing notable is found.

1600—The group packs up and leaves the site.

2030—KM, SF, and SC arrive at the recently failed B8\_2018 nest site. We plan to watch activity around the nest site to estimate when the nest was potentially predated. We will attempt to recover a very important piece of equipment that is currently attached to the B8 M.

Weather: clear, calm, 19C

2036—KM hears quiet FSCs on the low slope of Turkey just W of the nest tree. I investigate. F begins begging pretty consistently from a potr just a few meters W of the nest tree.

2045—M flies into site and makes LCs. Both birds fly around the site, the M following the F with PDs.

2050—KM hedges her bets and gets into capture position. The F scolds once and the M starts making HECs. I get a visual on both M and F. The F flies between potrs in the immediate vicinity of the nest tree making very loud FSCs. She occasionally makes call that sounds like three longer, louder FSCs that aren’t quite scolds. She investigates the nest tree but does not fly into the cavity. The M flies into the same clump of potrs. He feeds and copulates with F at least twice. We all deal with grief differently. He makes a few HECs. I move the net very far away from the cavity but he still seems wary of the net. He aggressively flies at the capture pole once, then flies up Turkey Rd to songpost. The F remains around the site making FSCs and LCs at the nest tree.

2105—I back off to see if the absence of the capture pole changes their behavior. The F remains in the site but does not fly into the cavity. The M returns to the nest site after songposting and I get back into capture position… just in case. The same behaviors described above are repeated. For the next fifteen minutes, we listened to the unanswered vocalizations of a distraught mother FLOW. The M continues to make infrequent HECs and feed/copulate with the F. *Note: These behaviors suggest that the nest probably was predated on 7/8 because the F did not enter the cavity. She may have returned this night to confirm the state of her empty nest.*

2140—We start PB at a lure net set up about 15m N of the nest site and 5m W of the road. As we set up the lure net, the M makes HECs.

Vegetation: young potr, shrubs, open

Weather: calm, clear, 14C

X: 496096

Y: 4332864

+/- 3

2150—M comes into the site making HECs. He hangs out about 15-20m SW of the net before flying to a clump of potrs about 15m N of the net. He loses interest after about 5 min and flies up Turkey to songpost.

2230—F comes into the net site making FSCs. KM tries to flush her away from the net. She backs off for a few minutes then returns.

2250—F hops around a few of the potrs near the net site making FSCs.

2305—F flushes from a perch in a potr snag into the lure net. We quickly extract her and get a quick weight. The M returns to the net site to make LCs for about three minutes before flying away.

**Band # 1833-03547 (on R leg)**

87.5 g

- 29.0 g

58.5 g

**Notes: F very vocal in hand. BL obtained blood the previous week, so we do not bleed.**

2312—SC releases F, who makes a SAF to the S.

2312-2345—M does not make vocalizations in the net site. The F returns making more FSCs and we flush her away from the capture net.

2345—We break down the lure net and call it for the night. SC eats a moth.

## 11 July 2018

2039—AM and KM arrive in B8 territory to attempt a lure net capture of B8 M who is carrying a PinPoint. We start PB on Turkey Ridge 200m W of road and 60m N of B8\_2018 nest site, T42. Net is open E-W on a SE facing upper slope position.

Vegetation: young pipu, mixed age conifers, open stand.

Weather: 20.0 C, 70% cloud cover, no wind.

X: 495939

Y: 4332954

+/- 3m

2107—F LCs 20m from the E.

2110—F flies back and forth over the lure net several times making LCs. **We check the net and find a FLOW, third shelf from the E. F is previously banded on L leg and has quite the interesting history. She is the B20\_2013, B17\_2015, B1\_2016, and B17\_2017 F.** As we process F, a M starts coming in from the E making TCs. AM switches playback to FLOW HEC call, but the M backs off to the S and doesn’t return the rest of the night.

**Band # 1783-64411 (on L leg)**

95.0 g LWC: 135 mm

- 34.5 g LLP(5): 103 mm

59.5 g LLP(6): 113 mm

Rect: 62 mm

**Notes: F has pin feathers growing in on her stomach. Bled on L leg, no hematoma. LP1, LP2, and RP1-RP5 are all in molt.**

**Due to the still evident brood patch, predation event at B17 earlier in 2018, and this individual’s previous history at B17, we speculate that the FLOW might be the B17\_2018 F prospecting. The B17\_2018 nest was predated before we could capture the F, so there is no way to know for certain.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | molt | molt |
| P2 | molt | molt |
| P3 | 2.5 | molt |
| P4 | 2.5 | molt |
| P5 | .5 | molt |
| P6 | 1.5 | .5 |
| P7 | 1.0 | .5 |
| P8 | 1.0 | 1.0 |
| P9 | 1.0 | .5 |
| P10 | 1.0 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | molt | molt |
| P2 | molt | molt |
| P3 | 1.0 | molt |
| P4 | .5 | molt |
| P5 | 1.0 | molt |
| P6 | 1.5 | 1.0 |
| P7 | 2.0 | 2.0 |
| P8 | 2.0 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2140—Playback is changed to T42.

2200—We stop playback and start breaking down the net.

2210—We leave B8.

## 14 July 2018

2224—ON, KA, and JE set up lure net open N/S on mid slope of a Turkey Ridge side drainage ~200m NW of B8\_2018 nest site to try to capture the B8\_2018 M to retrieve a pinpoint. We start PB T42.

Vegetation: mixed age potr/psme/pipo

Weather: clear, windy, 18C

X: 495988

Y: 4332923

+/- 3m

2355—We give some hoots of our own throughout the rest of the night but get no response.

2314—Cut PB after a completely silent night.

2321—Break down net and head out.

## 24 July 2018

2115—AM and KM set up a lure net in B8 territory. We start PB, T42, 10m E of the road and 75m N of B8 nest. Net is open E-W.

Vegetation: mixed age pipu, potr, psme. Fairly open.

Weather:

X: 496123

Y: 4332959

+/- 3m

2145—AM walks PB S down road.

2200—AM returns. No vocalizations are heard during this time. We break down net, cut PB, and move upslope.

2230—We start new PB, T42, 50m N of B8 parking spot and 75m W of the road on Turkey Ridge.

Vegetation:

Weather:

X: 496048

Y: 4332938

+/- 3

2239—A silent FLOW flies from the S into the lure net, 2nd shelf. FLOW is previously unbanded.

**Band # 1833-32551 (on R leg)**

93.5 g LWC: 130 mm

- 35.5 g LLP(5): 102 mm

58.0 g LLP(6): 109 mm

Rect: 47 mm

**Notes: We check for brood patch and find some pin feathers growing in. We are unsure of the sex, but we presume it is a F. P3 and P4 are in shaft on both wings. We bleed R wing.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | In shaft | In shaft |
| P4 | In shaft | In shaft |
| P5 | 1.0 | 1.0 |
| P6 | 1.0 | 1.0 |
| P7 | .5 | .5 |
| P8 | .5 | .5 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | In shaft | In shaft |
| P4 | In shaft | In shaft |
| P5 | 1.5 | 1.0 |
| P6 | 2.5 | 1.5 |
| P7 | 2.0 | 2.0 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2307—We release FLOW, SAF to the S.

2320—Cut PB and break down net. We leave.

# B8—2019

## 29 May 2019

1530-1700—ON, KC, AM, SL, and BL tap and cherry peep cavity trees throughout the B7/B8 territory. No FLOW nest found.

1530-1430—ML and JE cherry peep starting at B8\_2018 nest and moving N into B19. We check known past nests that we can find. No signs of FLOWs are found.

2041—ON, KC, and BL arrive at the parking area on FS 347 near the B8\_2018 nest to tap cavity trees and listen for nesting vocalizations. All quiet on arrival; ON leaves to listen in the vicinity of the B8\_2018 nest area, while KC and BL move to the POTR dominated riparian area along Missouri Creek in the central/southern portion of the territory. Weather: Heavily overcast, lightly misting, calm, 6C.

2128—From ~20 m away, BL hears a M give two single-note LC, separated by about 10 sec, in the S portion of the territory. BL moves to the apparent focal point of the vocalizations, but nothing more is heard or seen over the next half hour. BL locates an unflagged cavity tree near the focal area (which was missed during the PM cherry peep)—this POTR snag (#1077) contained a beautiful NOFL cavity ~7 m high (SW side of tree), but no response to a tree tap.

2205—We all return to the vehicle, and proceed to walk into the B19 territory.

## 31 May 2019

2113—ES and KC start PB in B8 territory. We hope to draw in the B8\_2019 male and are optimistic that he will be last year’s male caryring our PinPoint. Net is placed on the drainage bottom next to a grouping of aspen 5m E of Missouri Rd, 10m W of Missouri Cr and 100m S of the confluence of E and W Missouri Cr. The net is open N/S.

Vegetation: Young to Mature POTR

Weather: Slight rain for 10 minutes. Calm. 40% cloud coverage. 9c.

X: 496120

Y: 4332984

+/- 3m

2129—TCs heard 10m E of net. TCs continue while moving 50m S.

2131—TCs are heard within 10m of the pb. TCs continue for another 5 minutes until all is quiet.

2143—It seemed the M came from further S and then retreated S so KC walked PB S 50m to draw in the M.

2151—ES hears TCs near KC and PB. KC walks PB back to net. M stays 50m S.

2200—TEC is heard 25m E. Switched track to HECs. TECs move N calling for about 30 sec. Then all is quiet again.

2220—TC is heard 50m E. After 2 minutes TC moves S. After another minute all is quiet.

2225—Switched back to T42

2245—ES and KC pack up PB and leave B8 territory.

## 14 June 2019

1615—While AM, KC, ON, SL, and BL were cherry peeping the B8 territory, **BL taps the B8\_2017 nest tree (Tag #49) and a F FLOW rises to the entrance of the 2017 key-holed nest cavity—this is the B8\_2019 nest! The potr snag (DBH 28in) is about 20 m E of E Missouri Cr, and about 150m N of the B7/B8 parking spot. The original NOFL excavation cavity is 18 ft 7 in high, facing N and is about the same height as the first branch pointing S on the tree. The nest tree is in a moderately open spot with a number of psme trees in the vicinity. The tree is about 5m N of another marked cavity potr and 8m NE of a marked cavity potr snag.**

X: 496054

Y: 4332547

+/- 3

1637—We leave with the F still in the cavity entrance.

2042—ON and KC arrive at B8\_2019 nest tree to peep the cavity. F is down upon arrival and all is quiet.

Weather: 95% cloud cover, calm, 12C

2048—M calls off roost ~40 m NE of nest.

2051—M gives some TCs NE of nest, then F pops up in cavity.

2052—F flushes and we peep to find **2 eggs centered and touching.** We head back towards the road to set up a lure net targeting the B8\_2018 M who is still carrying a pinpoint.

2130—As we finish setting up our net, we hear a M giving TCs from the N right after ES and SL start their PB in B7. He seemingly heads toward their net and goes quiet quickly.

2137—Begin PB T42. Net is open E/W on the W side of FS Road 347 200 m NW of the B8\_2019 nest. It is set up on the low E-facing slope parallel to the road.

Vegetation: Mixed age potr/psme/pifl/pipo

Weather: Clear, calm, 10C

X: 496056

Y: 4332768

+/- 3 m

2140—M starts giving TCs from E across N Missouri Cr. but he goes quiet quickly.

2143—M TCs from S ~70 m, but he too goes quiet quickly.

2155—We cut PB as ES and SL have a bird in their B7 net site.

2203—We start PB again and change track to Psiloscops.

2208—As all is still quiet, ON walks the PB S along road ~50 m.

2212—Change PB to T42 while walking PB.

2217—M follows PB back toward net and starts calling from the SE while moving closer with TCs and HECs. He stays on the E side of the creek and never comes closer than ~30 m of the net site.

2221—M goes quiet.

2223—We walk the PB S again but all stays quiet.

2225—Cut PB while ES and SL have a M in their site.

2239—Begin PB again T42.

2248—We cut PB to break down the net.

2250—M TCs ~40 m S of net so we start PB again T42.

2253—We cut PB for good this time and break down the net. We head out for the night to meet up with the rest of the crew and no signs of FLOW activity are seen nor heard for the rest of the night.

## 18 June 2019

2120—ES, AM, and KC arrive at the B8\_2019 nest site to attempt a M capture. There is no one in the cavity entrance when we arrive. We settle down to observe the nest.

Weather: 90% cloud cover (had been raining in the afternoon and evening), calm, 8C

2121—M HECs in the area, presumable at us. We hear FSCs off cavity, ~20 m E of the nest tree. M gives LCs near the F.

2124—A FLOW goes into the nest cavity and stays down. We presume this to be the F going back on. We will give her 30 minutes to warm the eggs before going in for the M capture.

2128—M gives HECs ~30 m SE of the nest tree.

2230—HECs from the same location.

2154—AM starts his approach with the capture pole. By this time some low fog has begun to roll in over Turkey Ridge.

2200—AM begins to raise the capture pole, and it starts to rain. He lowers the pole and backs off the nest tree to wait out the rain.

2209—The rain picks up, so we leave the nest area and wait under a large psme.

2220—The rain has stopped and the skies are all clear, so we reenter the nest site. The F is down when we arrive.

2222—AM raises the capture pole once again.

2228—A silent bird (presumably the M) flies through the nest site. The F gives very loud FSCs. We shine a dim spot on the cavity and observe that she’s still down. She continues to give loud, consistent FSCs for most of the time we’re in the nest site.

2233—M gives LCs near the cavity, shortly followed by a PD. He perches at the entrance but doesn’t go all the way into the cavity.

2236—M PD. AM swings the net but M only gets caught in the very edge of the net. He’s able to escape as AM is lowering the net. F stays down.

2240—TCs ~75 m E of the nest site, immediately followed by TCs in the nest site. We think there is a second M calling to the east. F gives some more loud FSCs.

2249—M gives HECs ~20 m E of the nest.

2255—M perches at the cavity entrance. AM begins to move the net into position, but the M aborts the PD and flushes before AM can bring the net over the cavity.

2300—M flies back into the nest site and gives HECs at the net.

2302—We hear TCs ~100 m to the E.

2304—Eastern bird moves in and gives TCs ~50 m E of the nest. The presumed B8\_2019 M gives HECs ~30 m E and moves in the direction of the other calling M, making TECs.

2305—The F flushes to the E and gives FSCs, seeming to move farther to the E as she begs. Apparently she’s taking feeding matters into her own hands. AM lowers the capture pole and we leave the site.

## 20 June 2019

2108—ES, AM, KC, and Max Stein arrive at the B8\_2019 nest site to attempt a M capture. The cavity entrance is empty when we arrive, and we think that the F may be off cavity feeding. We keep a dim spot on the cavity because it’s a dark night and the silhouette isn’t great.

2124—A silent bird goes into the cavity and stays down. We think this is the F coming back on.

2126—M gives a PD and F vocalizes inside the cavity.

2129-2148—M gives 7 PDs and F consistently gives very loud FSCs from the cavity. At 2139 M gives LC ~20m S. At 2143 we hear chittering inside the cavity while the M and F do some pair maintenance.

2155—AM begins approach with the capture pole.

2200—AM gets the capture pole up to cavity height. F stays down.

2205—M comes into the site and gives HECs. We turn off our dim spot.

2213—We hear TCs ~200 m E, presumably from the B18 territory.

2217—M gives a PD. AM swings capture pole but the bird is a sneaky one and flushes before the net is over the cavity.

2218—M gives another PD. AM begins to move capture pole but M flushes.

2220—We hear TCs again ~150 m E.

2230—ES switches out with AM at capture pole. As ES is checking the net height, the F pops up in the cavity entrance. We wait for ~30 seconds and she goes back down.

2249—M gives PD on cavity but does not go into the cavity. F pops up after for the second time. We need the capture attempt and leave the territory.

## 24 June 2019

2152—ES and ML arrive at B8 to capture M at nest.

2157—We arrive at the B8\_2019 nest.

Weather: 7 C, 10% cloud cover, calm to slight breeze

2159—Continuous TC’s with interspersed HEC’s heard ~10 m of nest, likely directed at ES and ML.

2201—Aborted PD, M goes to entrance of cavity but not all the way in.

2205—TC’s move to ~20 m NE of nest. Still continuous.

2208—TC’s move back to ~10 m of nest.

2211—TC’s move back to ~20 m NE of nest.

2214—TC’s stop

2228—ES hears TCs ~150 m N.

2230—ES approaches tree for M capture at nest.

2234—Net at cavity height.

2235—LC’s heard ~40 m NW of nest tree. Continue for about a minute before stopping.

2237—Move position of pole and adjust height.

2327—After an hour with the net up, nothing else seen or heard. M and F remain silent and unseen. Take down net and leave for B6.

## 27 June 2019

2030—AM, KA, and SL arrive at B8\_2019 nest site to attempt a F capture. F is down.

Weather: Breezy, 10% cloud cover, 14 C

2038—AM begins his approach.

2040—AM begins to raise the net.

2042—Net is over the cavity.

2059—M calls off roost ~50 m S of the nest, then quiet.

2100—AM taps the nest. F does not rise to cavity entrance.

2104—Some noisy cars vroom past, F is unfazed and stays down.

2113—AM taps the tree again. F does not rise. It has been completely quiet around the nest with no signs of FLOW nesting behavior, so SL approaches to peep the nest with the net still in position.

2116—**SL peeps the cavity. It is empty, likely nest predation. One adult flam feather remains in the cavity, no eggshell fragments.** We search the base of the tree for a few minutes, then somberly leave the site. Given the previous observations of ES and ML, we can now assume that the predation event had already occurred by the time they visited the nest earlier this week. (See B8\_2019 field notes 6/24/19).

## 9 July 2019

2300—ON, JE, and KC arrive in the S terminus of the B8 territory to lure for the B7 and B8 Ms who we never caught at the nest before predation events.

2310—We set up net and begin PB T42. Net is open N/S in drainage bottom E of FS Rd 347 but W of N Missouri Cr. It is ~150 m N of the B7\_2019 nest and ~75 m S of the B8\_2019 nest.

Vegetation: Young potr/pipo, open

Weather: Clear, slight breeze, 14 C

X: 496016

Y: 4332479

+/- 3 m

2340—As all is still silent, we switch PB to Psiloscops.

2400—We cut PB after a completely silent night at the lure net and begin to break down.

2403—As we break down the net, we start hearing M TCs ~40 m NE. He calls for a couple minutes before going quiet again.

2410—We head out for the night to meet up with the rest of the crew.

## 12 July 2019

2230—AM, JE, ON, and guests start PB, T42 150m NW of the B7\_2019 nest and 10m W of USFS Rd. 346, on the low E-facing slope of Turkey Ridge, net open E-W.

Vegetation: open, mixed age pipo, potr, psme, pifl

Weather: 20% cc, calm, 12℃

X: 495976

Y: 4332401

+/- 3m

2243—Batteries in the PB die.

2245—We install new batteries in the PB and it starts playing again.

2255—All is quiet so we switch PB to Psiloscops AZ.

2307—No signs of FLOW activity so we cut PB and break down.

## 18 July 2019

2322—ES, BL, KA, and Ethan Cutler arrive at the B8 parking spot on the W side of the road (~150 m N of the B7 parking spot) to play PB for a few minutes and listen for activity. This is where JE and crew had their lure net on 7/12/19. All is quiet when we arrive.

2325—Start PB (T42). We spread out near the parking spot to listen.

2327—We hear TCs ~200m S, seeming to come from the B7 territory E of Missouri Cr.

2329—TCs move a bit closer, at ~150 m S of our location. We pause PB and walk S along the road to listen. TCs continue off and on for ~5 minutes.

2337—At our location ~50 m S of the B8 parking spot, we turn PB back on and play T42 for ~30 seconds before turning it off again.

2341—All remains quiet. We head back to the vehicles and leave the area. We don’t hear any M calling from B8 tonight.

## 25 July 2019

~2215—BL, SL, and KA arrive at the B8\_2019 territory to set up a lure net. The goal is to capture the B8 M and hopefully recover a Pinpoint. We suspect the B8 M is carrying the breeding schedule pinpoint attached during the 2018 field season.

2222—KA and SL start PB of T42 in the meadow N of the B8\_2019 nest tree. We wait for BL to return with poles before setting up the lure net.

2234—Lure net set up. Track switched to the first psiloscops track. Net located ~60 m N of the B8\_2019 failed nest on the edge of the meadow. Net ~50 m E of FS 347. Net in drainage bottom, open E/W.

Vegetation: open, mixed age pipu and potr

Weather: calm, clear, 12 C

X: 496072

Y: 4332585

+/- 4m

2243—BL checks the net and then heads S past the B8\_2019 nest tree to listen.

2304—Track switch to the second psiloscops track.

2310—M gives a few TCs ~70 m NE of the net. He then goes quiet.

2320—KA switches the track to megascops and walks the PB NE towards where we hear the M calling.

2324—A M begins giving TC and TECs from the SE (~50 m SE of the net). KA returns PB to the net. The M moves within 20 m of the net and gives HECs.

2330—KA hears a few far off TCs from the N (~80 m) while the SE M is still giving HECs near the net. The SE M does not get any closer than ~20 m S of the net.

2333—The SE M (presumed B8 breeding M) backs off to the SE again and goes quiet.

2345—We cut PB and leave the site.

# B8—2020

## 16 June 2020

1610—While cherry peeping in B8, AM taps tree #1722. No one rises to the entrance. I peep a nice looking NOFL cavity, and I see a momma flam looking up at the camera! **I have found the B8\_2020 nest! #1722, a LIVE potr snagtop with a DBH of 30.5cm. 10m E of N Missouri Cr and 80m S of the B8\_2019 nest, and nearly directly across (E) the creek from the B8 parking location. Nest is a west facing NOFL cavity 24’ 8” high. F FLOW never rises to the entrance.**

1620—We leave.

2030—ES and BL arrive at the B8\_2020 nest to assess status of nest and attempt capture of M. F down on our arrival.

Weather: Light breeze, 15 cloud cover (clearing), dry conditions, ~20 C.

2045—We hear M call off his roost about 60 m to the ENE. He continues to give TC until 2050.

2051—M arrives in nest site giving LC, and lands in adjacent tree to nest before flushing off to W. F makes FSC on cavity.

2052—M makes PD in cavity.

2053—F flushes from nest. **We peep—3 unhatched eggs in cavity. Nest height is 24’7”.**

2056—We back away from nest tree.

2115—We leave nest site; F is still off, and M has not returned.

2123—From the B8 parking spot, we hear TCs ~150m S. This could be the B7 or B8 M.

## 23 June 2020

2043—AM arrives at B8\_2020 nest to observe nest behavior and peep. M PD.

Weather: 90% cc, calm, humid from T-storms, 8℃.

X: 496020

Y: 4332424

+/- 3m

2045—M PD.

2047—M PD.

2050—M PD.

2052—M PD.

2055—M PD.

2056—M PD.

2058—M PD.

2059—F flushes from the nest cavity to the W. **I peep, 3 nestlings in snowy white natal down can be seen wiggling in the bottom of the cavity. Two of the nestlings have their eyes open, and the runt has its eyes closed.**

2102—I leave nest site and completely back off to Rd. 347 to allow the F FLOW to come back on cavity.

2130—AM returns to the B8\_2020 nest site to observe behavior and attempt a M capture. Upon entering the nest site, AM sees two FLOWs enter the cavity within seconds of one another, then both leave the cavity. *Note: It appears both the F and M are off cavity giving PDs to the nestlings. Both birds are silent.*

2131—Unknown PD.

2132—Unknown PD.

2135—Unknown PD.

2138—Unknown PD. KC arrives from B21.

2139—Unknown PD.

2141—Unknown PD.

2142—A silent bird enters the nest cavity and stays down. We presume the F to be back on.

2145—M PD. KC begins his approach with the capture net.

2149—M PD. KC raises the net into capture position.

2152—A FLOW flies from the SE. As we weren’t sure if it was the F flushing the cavity or the M aborting a PD, KC begins to lower the net to half the height of the cavity.

2153—A silent bird gives a PD. As it again came from the SE, we presume this to be the M, along with the previous aborted PD at 2152. KC raises his net back into capture position.

2156—Aborted M PD. KC moves the net 6 feet away from the cavity to give the M more space.

2157—M PD. M does not go down all the way into the cavity, so KC does not swing.

2202—M enters the cavity from the W to deliver a PD. KC swings the net, and places it over the cavity entrance. The M flushes into the bag! **KC gets his first M nest capture! He is previously banded (#1833-03382) and was the B8\_2016-2017 M (not captured 2018-2019). The B8\_2018 M was not captured after the nest was predated and the B8\_2019 M was a DIFFERENT M.**

**Band # 1833-03382 (on L leg)**

81.0 g LWC: 135 mm

- 29.0 g LLP(5): 97 mm

52.0 g LLP(6): 106 mm

Rect: 57 mm

**Notes: Bleed on R wing. Small hem**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.0 | 2.0 |
| P4 | 2.0 | 2.0 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.0 | 1.0 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1.0 | 1.0 |
| P5 | 1.5 | 1.5 |
| P6 | 2 | 2 |
| P7 | 2.5 | 2.5 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2237—Strong horizontal then ascending flight to SW.

2318—KC and AM start PB between B7 and B8. Lure net is ~50 m SW of B7 parking spot and ~15 m W of the road. Net is on the midslope of a ridge and open E/W.

Vegetation: Mixed age pipu

Weather: clear, no wind, 8C

X: 495945

Y: 4332260

+/- 3

2345—KC leaves the lure net to listen and tap trees in the S end of B7 territory.

2355—AM goes to check net and finds a silent unbanded FLOW in the 1st net from E. I cut PB.

**Band # 1833-32669 (on R leg)**

88.0 g LWC: XXX mm

- 29.5 g LLP(5): XX mm

59.5 g LLP(6): XXX mm

Rect: XX mm

**Notes: Captured in 1st shelf from the E. Previously unbanded. Brood patch present. Since we presume the FLOW to be F, we mass and band her, then release. In hand for 15 min.**

2411—We release FLOW, SHF to E.

2415—Resume PB, TC AZ track.

2419—M TCs 30m SW on Turkey Ridge.

2420—Switch PB to TEC track.

2424—AM goes to check net. A silent FLOW is perched in a small pipu 5m E of the net. I attempt a hand capture, but the FLOW flies directly into the second shelf from the E. **He is previously unbanded. Due to TCs 5 min prior and lack of brood patch, we presume the FLOW to be a territorial male. Presumably B7\_2020 M.**

**Band # 1833-32645 (on L leg)**

83.5 g LWC: 132 mm

- 30.0 g LLP(5): 98 mm

53.5 g LLP(6): 106 mm

Rect: 55 mm

**Notes: Previously unbanded. Bled L, small hematoma. P3 and P4 in molt on both wings.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | 2.0 | 2.0 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.0 | 1.0 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | 1.0 | 1.0 |
| P6 | 1.5 | 1.5 |
| P7 | 2.0 | 2.0 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 3.0 | 3.0 |

0101—SAF to NW.

## 7 July 2020

1510—Flam Crew arrives at the B8\_2020 nest site to process nestlings. **We peep to find three nestlings all in gray.** The owlets appear old enough to be processed.

1518—BL begins to tree hook his way up to the nest.

1522—BL reads off measurements before making alterations to the cavity.

**Entrance Dimensions (Horizontal x Vertical): 58mm x 70mm**

**Entrance Thickness: 40mm**

**Horizontal Depth: 120mm**

**Vertical Depth: 33.0cm**

**DOH—23.0cm**

1531—Nestlings are extracted and lowered down to the ground.

**Black Owlet**

56.5 g

P#5: 53 mm (22 in shaft)

P#6: 55 mm (22 in shaft)

Rect: 22 mm (13 in shaft)

Band#: 1833-32690 (on L leg)

Notes: Bled both, small hematoma on both

**Blue Owlet**

55.5 g

P#5: 56 mm (26 in shaft)

P#6: 56 mm (23 in shaft)

Rect: 21 mm (xx in shaft)

Band#: 1833-32692 (on L leg)

Notes: Bled L, small hematoma

**Red Owlet**

57.4 g

P#5: 48 mm (24 in shaft)

P#6: 48 mm (25 in shaft)

Rect: 17 mm (12 in shaft)

Band#: 1833-32689(on L leg)

Notes: Bled L, small hematoma

1556—Nestlings are back in the cavity. BL tree hooks down, and we leave.

2015—ON and SL arrive at B8\_2020 nest site to attempt a F capture. No one is up in cavity entrance upon arrival and all is quiet.

Weather: Clear, light breeze, 19°C

2030—SL begins capture approach in case the F went back on cavity after we processed nestlings.

2036—Net in place over cavity. It was knocked around against the trunk quite a bit and no one popped up in the entrance, so we presume the F never went back on cavity.

2040—We tap the trunk and no one pops up, so we decide to give the cavity a peep. **We peep to find three sleepy nestlings in all gray with facial disks.** SL lowers the capture pole and we observe the nest.

2047—F gives FSCs N of nest tree ~30 m.

2051—F comes into the nest site and gives FSCs and LCs. Meanwhile the M calls off roost then comes into the nest site giving LCs.

2055-2104—The M and F give five PDs.

2106—A N pops up in the cavity entrance bobbing and begging. F gives it a PD.

2108-2112—The birds give three more PDs to the nestling in the cavity entrance. The F also gives some scolds.

2112—A second N comes up in the cavity entrance and we see two little heads bobbing around.

2113—F PD.

2114—M PD.

2114—One N goes down in the cavity, so only one remains in the entrance. SL begins her capture approach.

2115—M PD.

2116—F PD.

2117—The N in the cavity entrance goes down. SL is now standing at the base of the tree and the F starts scolding her as the M gives HECs. She keeps the net down for now.

2126—F PD.

2127—M PD. SL begins raising the net.

2136—Silent PD.

2141—Silent PD. SL swings and snags the bird, but it flies out as she starts lowering the pole.

2149-2203—The M gives four PDs.

2206—With the F seemingly not giving any more PDs with the net up, SL decides to swing on the M to try to entice the F to give PDs again. **M gives another PD, and SL swings and he flushes into the bag! ON holds him as SL gets the net back up to height.**

**Band # 1833-03382 (on L leg)**

95.0 g

- 40.0 g

55.0 g

**Notes:** No other measurements taken.

2239—With the F just flying around the site giving FSCs and not trying to give any PDs, we decide to release the M and take the net down for a bit. M has a SAF S and gives some TCs/TECs in the nest site.

2243-2246—The F gives two fly-by PDs at the nest!

2256-2259—Two silent birds give PDs.

2312—ON is now in capture position and gets the net to height.

2318—ON thinks she sees a silent bird go into the cavity, she swings and get the net over the cavity entrance. She asked SL if she saw a bird go into the cavity, SL is unsure, so ON moves the capture pole and immeditly after, the F escapes! ☹

2323-2349—We observe 13 PDs by the M and F during this time.

2350—F PD, ON swings and misses.

2352—A silent bird gives a PD, ON swings and gets the bird in the bag. It’s the M ☹. She immedatly releases him.

2403-2414—F gives 4 PDs and aborts 2 PDs.

2422—ON brings the net to half height.

2424—Both M and F are scolding in site. The F gives a few calls – possibly scolds – that mimick a M TEC. We know it’s the F because they were very high pitched we were simultaneously hearing the M call in site.

2426—ON brings the net back up to height as a last ditch effort to snag the F.

2427-2428—F aborts two PDs.

2431—**F gives another fly-by PD, and this time ON manages to quickly swing the capture pole and snag her! She is previously banded #1783-64411 on the L leg. She was originally captured as the B20\_2013 F and was also the B17\_2015 and 2017 F as well as the B1\_2016 F. Additionally, she was captured in a B8 lure net by AM and KM on 7/11/2018, but she was not the B8\_2018 breeding F. Given this long history, she must be at least eight years old!**

**Band # 1783-64411 (on L leg)**

76.0 g LWC: 133 mm

- 20.0 g LLP(5): 101 mm

56.0 g LLP(6): 111 mm

Rect: 66 mm

**Notes:** Last bled in 2018.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.0 |
| P2 | 2.5 | 1.0 |
| P3 | 1.0 | 1.0 |
| P4 | 2.5 | 1.5 |
| P5 | 2.0 | 1.5 |
| P6 | 1.5 | 1.0 |
| P7 | 1.0 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 1.5 |
| P3 | 1.0 | 1.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1.0 | 0.5 |
| P6 | 1.5 | 1.5 |
| P7 | 2.0 | 2.0 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2450—We release the F and she has a SAF E. We back up and debrief with the rest of Flam Crew who was since joined us at B8.

# B10—2003

## 17 June 2003

1115—**BL finds B10\_2003 nest near the S end of Shooting Star Ridge**. **F flushed cavity as I attempted to flag the snag during cavity enumeration—she came back to the nest by 1125 (after unsuccessfully attempting to enter a cavity ½ m above the nest cavity on several occasions). Nest tree is a broken top *Pipo* snag, approximately 32-34 cm dbh, and about 3 m tall. Cavity is facing due E, is approximately 2.5 m above the ground, and the entrance is about 6 cm in diameter.**

1130—BL and Katie leave.

2050—Miriam and Katie arrive at nest to capture male and make prey delivery observations. F leaves nest shortly after we arrive.

2051—We hear a few FS calls from E of nest.

2055—We hear M give LC calls to the NW of nest.

2059—M gives LC to N. Female returns to nest area and fives loud scolding calls at us.

2100—F gives more scolding calls and we back off.

2107—F appears to re-enter the nest.

2110—M feeds F.

2111—Same.

2112—Same.

2114—Same.

2116-2120—We hear M giving TC to the SW.

2130—WE hear M giving TC to the S.

2132—We hear M giving TC to the NE.

2135—Same.

2137—Same.

2140—Same.

2144—Same.

2145—We assume capture position.

2235—We leave. We do not see any prey deliveries during this time. We hear M giving TC intermittently during the whole capture period.

2240—Miriam and Katie start spotmapping on shooting star ridge

2312—Songpost #1, not exact tree, but I flagged it.

2325—Songpost #2, not exact tree, (494597, 4333276, 36ft)

2336—Songpost #3, not exact tree, but we flagged it.

2438—Songpost #4, PSME

## 19 June 2003

2345-0110: Jake and BL attempt to mark song posts in the vicinity of B1, B10, and B11 territories, and listen from various areas on the Shooting Star Ridge. B1-M periodically calls from the SW end of Vista Ridge, and at one point BL hears him having a territorial encounter with another M on Sharp Shinned Ridge.

## 23 June 2003

2041—Katie and Miriam arrive at B10 nest to attempt capture of M and observe prey deliveries. Clear, some wind, 68 degrees F.

2058—M gives LC from S.

2100—F sticks her head out and leaves cavity flies N.

2105—M in nest area.

2107—M and F in tree W of the nest tree. M gives LC, F gives FS call. M delivers prey on branch. Between 2107 and 2135 M delivers prey 8 times.

2109—F flies to nearby nest.

2110—M gives HEC and female gives FS calls.

2111—F back in cavity.

2115—M aborts a prey delivery.

2135—Capture of owl.

2145—Out of net.

75.5

19.0

56.5g

2152—Release what we think might be the F because of weight and somewhat of a brood patch. Brood patch was dry and feathers were molting in on the sides. Shortly after capture both birds were calling and it was difficult to tell which was in the net.

## 26 June 2003

2043—Miriam and Katie arrive at B10 nest to attempt to capture the M. 90 percent clouds, calm, 14 degrees C.

2046—F leaves cavity

2055—M gives LC from the tree E of nest tree. M stays in nest vicinity and gives LC until 2058

2100—F gives FS calls from NE, then flies to the cavity, perches on the outside for 15 seconds, then flies to the tree E of the nest tree.

2103—Female does the same as 2100, then gives 2 loud calls from tree NE of nest tree.

2104-2112—F gives 5 prey deliveries and is off her brood for this time.

2104-2138—M gives 12 prey deliveries, never vocalizing while delivering. It appears that hatching has occurred.

2113—Female returns to cavity.

2120—F leaves cavity, and gives FS calls from NE.

2121—F back in cavity.

2125—F leaves cavity. M aborts prey delivery.

2127—F back in cavity.

2135—M aborts prey delivery.

2138—Capture unbanded M**—GIVEN BAND #92298**

2144—M out of net.

73.5g LWC 136mm

19.5g LLP 103mm

54.0g Rects 60mm

2206—Release M after bleeding him.

## 30 June 2003

2033—Miriam, Katie and Michael (mini flam) arrive at B10 nest to attempt to capture F. 20 percent clouds, slight wind, 18.5 degrees C, thunder and lightening coming towards us.

2034—F is at cavity entrance.

2035—F leaves before Katie is able to put the net up.

2058—M comes to nearby branch. We leave due to lightning.

## 1 July 2003

2025—Miriam and Katie arrive at B10 nest to attempt to capture F.

2028—F is at cavity entrance, Katie gets into capture position, F goes back into cavity.

2030, 2045, 2050—Miriam scratches tree and F stays inside cavity

2057—F comes to entrance and tries to leave, we capture her—previously unbanded.

**Band # 92300**

2114—Release F after banding left leg and bleeding.

## 9 July 2003

1515—Katie peeps B10 nest. Female is not in nest. Can hear female scolding very softly from pipo to the south. Three owlets are in nest who are all old enough for banding and bleeding.

## 10 July 2003

1405—Katie and Jake have owlets out of the B10 cavity.

**Band#92331 Band#92332 Band#92333**

76.5g 74.0g 64.0g

-16.5g -17.0g -17.5g

60.0g 57.0g 46.5g

LLP 55.0mm LLP 51.0mm LLP 41.0mm

Rect 24m rect 13mm rect 14mm

Cavity Dimension

Entrance width---50mm

Entrance thickness---60mm

Horizontal depth---35mm

Vertical depth---154mm

1500—Owlets are back in cavity after bled.

# B10—2004

**NOTE: The 2004 field note entries for B10 territory have been copied and inserted into the B17 entry, reflecting the fact that (1) the male from the B10\_2003 nest was found nesting in 2005 ~ 200 m from the 2003 nest tree, and (2) on 11 July 2005, the Flam Crew discovered a nest ~ 15 m from the so-called B10\_2004 nest whose tending adults had the same identity as in 2004. Consequently, we retained the B10 identity for the former male/territory, and gave a new identity (B17) for the latter male/territory.**

## 31 May 2004

2325—From the S end of B4 territory, BL hears a M calling from the E end of Sharp-shinned Hawk Ridge. I pursue and mark one songpost on the crest of the ridge. Shortly after he quiets, I hear a F give BC approximately 50 m to the S; the M flushes in this direction, and apparently delivers prey to her a few minutes later. Over the course of the next hour and one-half, I mark 5 additional song posts on Sierra Madre Ridge to the S and SW, and on the W end of Sharp-shinned Hawk Ridge (the first four flags are incorrectly marked as B1 male). At approximately 0105, B10-M had a territorial encounter with the high-pitched B1-M (Erin joins me at this time) on the W end of Sharp-shinned Hawk Ridge. At most of these locations, I heard a F giving sporadic BC.

0110—We leave.

## 7 June 2004

2215—The Flam Crew leaves from the Weir in B2 territory to attempt spot-mapping on Shooting Star Ridge and PPG Ridge (B1, B10, and B11 territories). We tap obvious cavities in the vicinity of the Homestead.

2250—We split up on Shooting Star Ridge, with two of us (JM and BL) going to PPG Ridge, and the other three (EC, EP, and SY) staying on the former ridge.

2254—From the N end of Shooting Star R SY hears a TC to the SE. I give chase approximately 250m but hear no further calling.

2303—EE songposts what is likely the B10 M on the SE side of Sharp-shinned Hawk Ridge as B4?\_1. M was giving TEC and EE heard another M nearby but could not get to it in time

2317—EE songposts the general location of the purported B10 M on the NE side of Sharp-shinned Hawk Ridge as B4?\_2.

2322—JM hears M giving TC from the small ridge top directly W of PPG. She runs to the small ridge, but hears no further calling.

2405—EP hears B10 male singing to south in W Missouri Creek. B4 male is also calling simultaneously from SE side of Vista Ridge. EP chases after B10 and follows him west along W Missouri Creek until out of range.

2445—SY, from the southern end of Shooting Star R hears TC to the S, downslope.

2450—BL locates B10-M giving TC from the S-facing midslope of Shooting Star Ridge (B10\_1), after EP had been pursuing him W along the Missouri Cr bottom. He then moves upslope to the N on the ridge.

2452—SY locates B10 male approximately 15m N of where BL had done previously (B10\_2).

0110—EP moves upslope onto south end of Shooting Star Ridge and hears male close by. Marks B10\_3 songpost in a large PIPO.

## 17 June 2004

1552—**While peeping SY finds B10\_2004 nest with peeper** in an illegibly flagged and untagged tree on Sharp-shinned Hawk R. Peeper causes female to flush. Tree is reflagged as B10\_404 and given tag #404. Tree is a broken top limber pine snag with a DBH of approx. 35cm. The cavity is SE facing and approx. 7cm in diameter (flicker hole?). SY leaves.

## 21 June 2004

2350—From Sierra Madre R. SY hears TC to the N. I chase to Sharp-shinned Hawk R. EE also hears TC from same ridge.

2353—EE arrives at B10 nest near where M was calling. M stops calling.

2356—B10 M gives HEC from PIPO 15m from nest. EE observes owl (UFO?) sitting on a branch of the nest tree and then flies E. B10 M stops HEC

2402—B10 male gives TC in tree just N of the B10 Nest (B10\_404). SY songposts tree (B10\_1)

2406—M makes prey delivery to nest. Stays down for 2.5 minutes. F continuously gives FC

2414—M makes PD

2420—M makes PD, F gives FC

2423—M gives TC to NE on SS Hawk R. EE pursues.

2424—B10 male gives TC while B1 male gives TC on SS Hawk R. crest. SY songposts B1 male (B1\_1)

2427—EE marks songpost B10\_2. M giving TC and TEC

2135—SY chases B10 male to the E as he gives TC near EE. SY songposts him (B10\_3). EE songposts B10\_4. As SY marks songpost EE heads back to nest. Upon returning EE finds F (UFO?) in tree near nest. F gives quite FS while B10 M gives LC from the same tree. Every time the B10 M gives LC, F in B10 nest cavity gives FS, indicating two F in area. EE and SY watch as B10 M moves closer (.5m) to UFO F. Eventually M and F right next to each other. M continues LC and touches F beak (~5 sec). There was no indication of the M making a prey delivery as he did not appear to have an arthropod in his beak. Both birds fly to NE along SS Hawk RR.

2450—EE marks B10\_5 songpost where the above interaction occurred. EE hears M giving TC in the direction he flew off in. EE and SY pursue.

2455-0107—EE and SY arrive at tree where M is giving TC and put flashlight on another flam further down the tree not calling. M stops giving TC and flies down close to other flam (same F UFO?). M and F have physical interactions, but our view was partially obstructed by branches. Appeared that M and F would touch and F would give a high chittering sound. Over this period she gave between 5-7 of these chittering calls.

0107—The two flams fly off in opposite directions (N and S). EE marks B10\_6

0112—M gives TC to the S on Sierra Madre Ridge indicating that M flew to S after dispersal with F.

## 24 June 2004

2050—EP and SY arrive at B10 nest to attempt capture of female. She is at cavity entrance when we arrive.

2052—Male calls of his roost to the S.

2054—Female flushes. We leave.

## 28 June 2004

2217—EP and SY arrive at B10 nest to attempt capture of male.

2219—Pygmy Owl flies into tree approx. 4m N of nest tree. Male makes a prey delivery and then flies to same branch as Pygmy Owl (w/I 1.5m) and begins giving TEC and HEC. The Pygmy Owl moves to within .5m of the male flam and the male begins call more vehemently and raises his feathers to appear larger. The Pygmy Owl flies at the flam which results in chasing the flam away.

2230—Pygmy Owl lands in nest tree. He moves to different perches while female flam gives FS. Pygmy Owl lands on one perch within 6in. of the cavity. Pygmy Owl flushes.

2233—Pygmy owl returns to nest tree for <30s.

2245—Attempted prey delivery.

2250— Attempted prey delivery.

2331—Male gives TEC from tree approx. 6m S of nest. He continues calling while another bird (presumably Pygmy Owl based on audible wing flaps) flies N to a tree E of the nest. Male makes a very cautious prey delivery.

2339— Attempted prey delivery.

2342— Attempted prey delivery.

2343—Prey delivery. Also at 2345(aborted), 2347, 2348, 2351, 2354.

2357—Capture of male **Band #92363** (New)

**Weight**

Gross 91.0g

Tare 31.0g

Net 60.0g

LLP 98mm

WC 128mm

Ret 57mm

2412—Release male. Strong flight after brief pause on ground.

**2 July 2004**

2043—KS and EE arrive to capture and bleed M or F.

2046—F flushes after branch is touched with capture net. **We peep and find 2 eggs touching in the middle with no signs of hatching.**

2051—M gives 5-10 TC off of roost.

2100—M gives 10-15 TC from the top of Sierra Madre Ridge.

2114—F still has not returned so we leave the area.

## 7 July 2004

2049—SY and BL arrive at B10 nest to attempt capture and bleeding of M.

2058—M arrives on nest tree, giving LC.

2059—F ascends to entrance, as M continues to give LC, and then flushes.

2101—M delivers prey to nest—confirming that at least one egg has hatched (see PD data sheet for other deliveries).

2116—F returns to cavity.

2140—SY captures M (**Band #: 92363**) after he delivers prey.

2150—Bleeding procedure complete.

2205—We release M and leave.

## 15 July 2004

2040—KS and EE arrive at B10 nest to capture and bleed F. F flushes immediately.

2046—M gives TEC.

2053—Pygmy owl lands in nest tree.

2054—F makes PD and pygmy owl flies off.

2055—Pygmy returns and flies off again about 30 seconds later.

2056-2118—M makes 5 PD in 20 minutes.

2120—F makes PD.

2122-2123—M makes PD.

2130—F makes PD and we capture her. We band her left leg with # **92393**

2145—We release her after bleeding and leave.

## 22 July 2004

0910—JM, EP, and EE arrive to B10 nest to measure, band and bleed owlets.

0917—EE removes owlets from nest. Owlet band # 92397 was bled.

**Band#92397 Band#64416 (new band)**

85.5g 70.5g

-27.5g -27.5g

48.0 43.0.5g

LLP 42mm LLP 19mm

Rect 17mm

0941—Owlets were returned to the nest.

# B10—2005

## 15 June 2005

1300—MS and EE arrive to peep cavities in B10. **We find the nest in the B9\_22 *Potr,* approximately 60 m from the very western edge of the drainage (Columbine Creek) between Sharp Shinned Hawk Ridge and Sierra Madre Ridge. The hole is about 10m off the ground in a nice flicker hole facing west.**

## 20 June 2005

2405—EE and MS enter area to capture B10 M. Calm, clear (rained heavily all afternoon), and 15 deg. C.

2408-09—2 prey deliveries (B10 M stays in longer during 2nd PD)

2415—Aborted P.D.

2418—B10 M gives LC’s 8m to north for <1 min.

2431—Net up.

2435—Aborted P.D.

2439—EE capture B10 M. **He was previously banded—band #92298**. **This was the B10\_2003 male, and raises the prospect that either we failed to find the REAL B10 nest in 2004, or he did not nest.**

**Band #: 92298**

**97.0g WC: 142.5mm**

**-36.5g LLP: 92 mm**

**60.5g Ret: 59mm**

2451—Release.

2458—We leave.

0106—EE and MS hear M to west (EE gets song post).

0145—We leave B10 area.

## 23 June 2005

2046—DF and SY arrive at B10 nest tree to attempt capture of the female. Recent rain (still tree-drip), partly cloudy 17°C.

2047—M makes a PD.

2048—Same.

2050—DF has net in position.

2055—We peep: F is not in cavity, **2 nestlings and 1 unhatched egg.**

2059—We leave.

2350—MS and EE arrive to spot map B10 M and surrounding territories. MS is on Sharp Shin Ridge.

0005—EE makes song post on B10 M at the head of the Columbine Creek drainage.

0025—EE makes songpost in similar area.

0116—EE is on Sierra Madre ridge when an unidentified flam lands about 5m from me in a small *Pifl*. I chase it around for ~15minutes. I note that he does not appear to be banded. GPS coordinates were taken: 497074 and 4326894.

## 23 June 2005 (MS notes)

2350—EE and MS go to Sierra Madre (EE) and Sharp-shinned Ridge (MS) from Biker ridge to listen for flams. Clearing high clouds, 17 deg. C and calm.

0015—MS hears hoots from W of biker ridge- follows and then hears no more.

0020—MS gives hoots from North of Biker Ridge

0105—MS gives hoots from middle of Sharp-shinned ridge.

0126—MS gives hoots from west end of Sharp-shinned ridge; hearing only poor wills.

0145—We leave.

## 7 July 2005

2039—EE arrives at B10 nest to do prey delivery observations. F is up in cavity entrance upon my arrival.

2040—F flushes from cavity.

2047-2209—34 prey deliveries during this time. Appears that is was mostly M giving prey deliveries (see prey delivery sheet).

2209—I leave.

## 8 July 2005

1420—SY and MS enter to band and bleed B10 owlets.

1422—Ladder doesn’t reach (12ft short) nest cavity.

1424—Peep nest to find B10 F and 2 owlets in cavity. Owlets have some natal down left, no facial disks visible, eyes open but appear at least several days from fledging.

1436—We leave.

**WHERE IS THE INFO ON THE CAPTURE OF THE B10 FEMALE??**

## 11 July 2005

1950—EE, DF, BL, SY and MS enter B10 area to mass, measure, band, and bleed owlets.

1956—We peep and see 2 older owlets with adult plumage.

1957—BL opening cavity entrance.

**B10 cavity dimensions**

Entrance: 5.5 x 4.5cm

Entrance thickness: 7cm

Horiz. Depth: 15cm

Vert Depth: 23cm

DOH: 29.5

2008—2 owlets out, the third egg, which did not hatch, was not found in the nest. Band #64469 was passive, displaying adult like behavior when handled, while band# 64470 was more active, showing fledgling like behavior.

**Band #64469 Band #64470**

**71.0g 71.5g**

**-11.5 -12.0**

**59.5 59.5**

**LLP: 66mm LLP: 57mm**

**Rect: 38mm Rect: 26mm**

2018—Owlets returned to nest, blood samples of each were successfully obtained.

2021—Owlet in entrance of cavity.

2025—We leave.

# B10—2006

## 29 May 2006

See entry for territory B17 on 29 May 2006.

## 2 June 2006

1505—Flam crew enters B10 area with peepers to search for 2006 nest.

## 14 June 2006

1200—Flam crew enters B10 area with peepers to search for 2006 nest.

1303—EM begins to peep **B10\_444**, and as he approaches cavity with peeper, the F pokes her head out of cavity. **This is the B10\_2006 nest cavity**. Cavity is about 20ft up, on the N facing side. Nest tree is approximately 50 m downstream of the confluence of Columbine Cr and Missouri Cr, and approximately 15 m E of Missouri Cr in the bottom of a small tributary drainage (paralleling Columbine Cr).

1305—F goes back into cavity completely.

## 15 June 2006

2238—BL arrives at the B10\_2006 nest to attempt capture of M. Over the next 90 min, on two occasions I observe what appears to be two males in the nest area. On one of the occasions, the resident M was giving TC and LC calls in the nest area, while the 2nd owl was perched quietly in the nest area (F was in cavity—I tapped to make sure), and on the other occasion, the resident M was giving TC 50 to the E of the nest area while the 2nd owl approached the cavity three different times before the resident M returned to the nest area. Each time the resident M was in the nest area, there was no evidence of aggressive behavior directed at the 2nd owl, either through vocalizations (no HECs) or flight (no tail chases), even though the two owls were only separated by a few meters on some occasions. One time, when the resident M was giving TC to the E, the 2nd owl actually gave LC in the entrance of the hole (but he was not there long enough to permit capture) before flying to an adjacent tree. It appeared the 2nd owl spent most of the time just hanging around the nest area, occasionally capturing prey based on the occasional sound of wings hitting foliage. These observations strongly suggested the 2nd owl was functioning as a helper M at the nest.

2359—I mark one song post on the B10 M, approximately 150 m to the SE of the nest on Sierra Madre Ridge (the B17 M was calling incessantly for most of the night—see B17 notes).

2353—I leave.

2416—While helping EE mark songpost B10\_2 on central Sharp Shinned R. SY hears B10 M give TCs to the W on ridge top. I mark songpost B10\_3 while B17 M continues to sing approx 75 m E. (See data sheet and also B17 notes).

## 19 June 2006

2205—BL and Dave Philips (Gazzette reporter) arrive at the B10 nest to attempt capture of resident M or suspected helper. When we arrive, and as we passed Columbine Cr., we heard a M singing from the W end of Sharp-shinned Hawk Ridge.

2215—Capture net is raised.

2245—M (suspected helper?) attempts to deliver prey at the cavity, after giving a couple of LC. He bounces out of the capture net.

2311—M (suspected helper?) is captured after he attempts prey delivery (during each attempt, the M just leaned into the cavity—cavity may be shallow). No LC this time. **M was not previously banded—we give him Band # 64490 (r leg)**.

85.5 g LLC: 127 mm

* 26.5 g LLP: 104 mm

59.0 g

2335—We release M after taking blood sample.

2340—We leave. During most of the time when capture was attempted, as well as when the M was captured in the net, a M was singing to the NE and to the W (probably toward the S end of Shooting Star Ridge)—this was suspected to be the B10 M (but not known). No more than one M in the nest site at a time tonight, and his behavior and flight pattern was suggestive of the presumed helper M on 15 June.

## 20 June 2006

2035—BL arrives at B10 nest to attempt capture of F. MC, breezy on ridgetops, 28 C.

2038—I raise capture net over cavity entrance, and the F ascends to the entrance and flushes into the net. **Previously unbanded—given Band # 64491**.

100.0 g

* 26.5 g

73.5 g

2045—I release F and leave.

## 22 June 2006

2046—SY and Jim (Steve Tapia’s assistant) arrive at B10 nest to peep. Weather: Clear, recent rain, calm 14 C.

2050—F flushes, we peep: 2 eggs center and touching. We leave.

2114—We open lure net on side ridge of Sierra Madre R. just NE of the nest site (approx. 65m)

2116—We arrive at B10 nets site to attempt capture of M and/or helper.

2125—While setting up the net I flush the F (to the S.) – we back off.

2135—Capture in the lure net. M is in the second shelf from the top on the outside of the net near a large psme. This bird is previously banded.

**Band #92298 – this is the 2003 B10 M!!**

72.0g LWC: 135mm

17.0g LLP: 95mm

55.0g Rect.: 60mm

2146—We release, strong flight to the W.

2152—We return to the B10 nest site to attempt capture of the M and/or helper.

2155—While setting up the net I flush the F (again).

2212—I return to the nest site, F is in the entrance when I arrive. We back off.

2300—We return to the nest site.

2301—PD – HECs before the delivery.

2311—PD – (suspected helper?)

2328—PD – HECs before the delivery.

2330—I get in capture position.

2343—PD, (suspected helper?), another M (B10?) Is giving TCs to the W (lower slopes of Shooting Star R.) during the delivery.

2403—PD (suspected helper?) another M (B10?) is giving TCs to the E (near the lure net).

2413—PD (suspected helper?)

2422—PD (suspected helper?)

2432—PD (suspected helper?), capture attempt flushes the F we leave the nest site.

2448—We break down the lure net and leave.

## 26 June 2006

2105—SY and EM arrive at nest site. As we arrive, we see an owl go from the near PSME to the nest. The owl stays down in the nest.

2106—prey delivery, preceded by LC’s. F does not return the calls. After delivery, M goes to Eastern POTR, giving EC’s, suggesting that he is the territory M.

2110—F flushes cavity while SY sets up the capture net. We leave the nest site.

2123—we arrive at nest again.

2124—Prey delivery.

2130—Prey delivery proceeded by one, quiet LC (helper M?)

2132—Prey delivery with a louder LC. F then flushes the nest for no apparent reason.

2133—we leave the area and go about 50m away.

2145—We arrive back at the nest site.

2146—F comes up to cavity entrance and looks at us. We start to set up net but then back out to let her go back down.

2147—SY is in position to capture again.

2151—Prey delivery.

2154—Prey delivery, capture attempt is unsuccessful and the F flushes.

**\*\*first 3 of 4 Prey deliveries, the M enters site directly to the nest tree at about cavity height. The F then began making begging calls and then the M flies directly across from the cavity to the near PSME. Here he gives a few LC’s while the F continues giving FSC’s. He then makes a flutter flight to the cavity. On the 4th prey delivery, the M perched on the POTR about 5m away form the nest tree first, then he moved to a POTR NE of the nest tree (N of POTR used for first 3 prey deliveries). At this point, the F begged and the M only sometimes responded with LCs. He then makes a similar flutter flight to cavity entrance. It is unclear whether this is the same individual or not. Possibly, the 1st male is territory M while the 2nd bird is helper. No aggressive behavior or vocalizations from either bird. In retrospect, it appears than these patterns exemplify behavior of the helper M, and he was the only owl making PD’s thus far.**

2240—We arrive back at nest site to capture the M.

2244—Prey delivery.

2256—Prey delivery. SY captures M on the delivery. F flushes in the process. **Previously banded M tag #64490, the supposed helper M**.

2327—We arrive back at nest site. F comes up to cavity entrance. \*\*We hold on to M while going back to nest site\*\*

2342—SY hears nestlings chirping at cavity.

2345—we release captured helper M. he flies to PSME to S of nest.

2351—F gives FSC’s from nest.

2352— F gives FSC’s from nest.

2355— F gives FSC’s from nest. Nestlings also start chirping.

0000—F gives more FSC’s.

0026—F flushes cavity for no apparent reason. We leave nest site.

0041—We arrive back at nest site.

0055—F gives many begging calls from nest tree.

0058—M flies to a perch on the nest tree, gives quiet LC’s, then a quick prey delivery.

0100—M gives another prey delivery in a VERY similar manner as the 0058 prey delivery.

0105—we her quiet TC’s from about 5-10m to the W of the nest tree. This M never approaches the nest.

0109—We leave the nest site for the night.

## 29 June 2006

2027—EE and EM arrive to capture resident B10 M and helper. We also wanted to peep the nest and see how far along the owlets are.

2034—F comes up to cavity entrance

2036—F goes back down.]

2052—Probable resident M comes into area and lands on *Potr* 5m E of cavity tree. Give LC’s and then flies to perch on nest tree (5in from cavity) and then into PSME 1m N of cavity and giving LC’s finally makes PD. F responds with FSC. F flushes to N.

2053—We peep and find 2 eggs off to the side but touching. LATE NEST!

2057—Probable resident M flies in and perches 2m above cavity on N side and begins giving hoarse TC;s. M flies to E to *Potr* 5m away and then leaves.

2058—Probable resident M comes from E, perches 2m above cavity giving TCs and then flies to *Psme* 3m to N giving TCs. He then flies off to N.

2104—F fives FSC to the NW 3 times.

2106—F flies in from S and lands in *Potr* 5m S of cavity. She then flies to *Psme* in N and then into cavity. No vocalizations were made.

2111—M flies into area from N and perches in *Psme* 1m from cavity. M, giving LCs. F responds w/ begging calls. As EM sets up net the F flushes to the N w/ the M. (M identity unknown). We back away 20m.

2116—Probable resident M is giving TCs ~30m to W about 10 times.

2124—F gives FSC what sounds like from nest vicinity while we are still away from nest. M (identity unknown) is giving LCs from same area.

2139—We move back and have net set up.

2144—M (probably helper) flies in from S and lands 5in from cavity in same tree. He goes to N 1m to *Psme*. Gives 1 note LC and then makes prey delivery. F gives 3-4 FSC. She then flushes to E and gives FSC ~5m away.

2145—As we move to leave she returns.

2146—M (probably helper) makes prey delivery giving only LCs.

2150—M (probably helper) comes from S and lands 5in from cavity in the same tree. He flies to *Psme* 1m N of cavity and then makes prey delivery. There were no vocalizations.

2155—M (probably resident M) flies in from S and lands 5in from cavity in same tree. He gives HEC. F responds with begging. He flies to *Psme* 1m N and then makes prey delivery.

**Note: All prey deliveries have been passed to F in cavity while M(s) is still in flight fluttering next to the hole. Both Males appear to be using the same perch (5in from cavity and then to *Psme*). Vocalizations appear to be the best way to differentiate. Apparent resident M would give HEC and TCs. The helper M would only make LCs or no vocalizations at all. Also, resident M seemed to only be present in the beginning of activity at night, making first prey deliveries and then checking to see if F was back in cavity.**

2208—M (probably helper) comes from S and lands 5in from cavity in same tree. While M is giving LCs the F responds with begging. M makes prey delivery.

2211—M (probably helper) comes from S and lands 5in from cavity in same tree and then to N 1m where the *Psme* is before making prey dlievery. M makes no vocalizations. F gives FSCs.

2218—M flies in from W and lands 5in from cavity in same tree then to *Psme* 1m N and give 3 LCs before making prey delivery. EM captures and it is the helper M (band # 64490). F flushes as we take net down with M in it. We hold on to helper.

2229—Likely resident M is calling to the W on the bottom edge of Shooting-Star Ridge (~100m away).

2240—We arrive back at nest and EE sets up net.

2249—Likely resident M is calling from W again.

2318—We release captured helper M. He flies off to the S.

2320—Likely resident M is calling to the W again, this time only about 50m away.

2329—Likely resident M is still calling to W.

2335—M still calling ~100m to the W now.

2405—After nearly 2 hours of no prey deliveries (~50 minutes after helper M is released) we leave.

## 10 July 2006

2038—EE and KC arrive at the B10 nest site to capture the resident M making prey deliveries to the nest. There is partial cloud cover, calm with recent rain, 18 C.

2048—After EE has set up for capture, we peep the nest. It is full of grass, with ants. Cannot see any evidence of the owls, or owlets. There is a squirrel in the area. We watch it for a while, and then it makes it’s way into the nest cavity. Must have preyed on the eggs. We leave the area, saddened.

# B10—2007

## 5 June 2007

2315-2400—BL taps on cavities in Columbine Cr, and the W Missouri Cr drainage, within the B10 territory. Nothing seen or heard.

2320-2410—SY and KB enter the B10 territory by traveling west along Sharp-shinned Hawk Ridge. We listened for TC’s and heard nothing from the territory. Several hoots might have been coming from the B2 territory (Vista or South Goshawk Ridge?).

## 13 June 2007

1415—Flam Crew peeps cavities in Columbine Cr. and W. Missouri Cr. – we find nothing.

# B10—2008

## 28 May 2008

1530— DH, KB & friends prepare a mist net on the western end of Sharp-shinned Hawk Ridge in the area of B10, B17 and B1.

Coordinates: 495134

4333292 ±15m

2058—DH, KB & friends set up the mist net and start playing male calls. It is clear, calm with occasional strong gusts (<10mph), 16C. DH and co head out to Biker Ridge and drop down into B17 to listen. KB and Conor head out to the western edge of Sharp-shinned Hawk Ridge and the B10 area to listen.

2141—DH checks net and finds it empty.

2215-2240—As KB and CB approach the net for checking, a male is heard in the area giving TCs. We silhouette the net and observe the bird bounce out of the net three times. The male had a unique call, but identity of the bird is unkown. Last calls were heard to the west of the net.

2340—We collapse the net and leave the area.

## 3 June 2008

2203—QB and KB set up a lure net on top of Sharp Shinned Hawk Ridge, approx. 25m NE of B17\_\_2004 nest tree. We start the playback.

2210—QB and KB hear a M off to SW of Sharp Shinned Hawk Ridge. He goes quiet quickly, but we follow him on to the NE side of Sierra Madre Ridge. We were unable to get any songposts. KB heads back to the lure net while QB slowly follows, listening on her way. **Note: This is possibly the B10 Male.**

**Note: See B17 3 June 2008 for details.**

## 23 June 2008

Lure net run on W end of Sharp-shinned Hawk R. – see notes under B17 for this night.

## 7 July 2008

1530-1800: Flam Crew peeps the S end of Shooting Star Ridge and Picnic Cr S to Missouri Gulch in attempt to find B10 and B15 nests. **FLOW nest found on the SW end of Shooting Star Ridge on the lower SW-facing slope, approximately 60 m N of Missouri Gulch (given its intermediate location, we are initially uncertain whether the nest is the B10\_2008 or B15\_2008).** Nest tree is flagged (B10\_721), and tagged (#721), but does not appear in the Excel spreadsheet or GIS map. (UTM: X=494485, Y=4333073, + 6 m). **Cavity is ~23ft above ground in a lightning scar. F flushed during peep attempt. 2 unhatched eggs, center touching.**

2010—BL arrives at the B10/B15 nest to attempt capture of F and/or M.

2020—Light drizzle starts (continues for ~ 15 min), calm, 16 C.

2035—I get into capture position, but F flushes as the net is raised. I back away from nest area.

2036—M calls off roost ~ 60 m to the WNW. He arrives in the nest area with LC ~ 6-8 min later.

2046—F returns to cavity.

2048—M arrives with LC and makes PD in nest cavity.

2049—Same.

2055—I return to nest area and get into capture position.

2100—F flushes from nest, and I move ~ 20 m from nest. She appears to return to the nest.

2110—F gives SC from ~ 20 S of the nest, and then she flies low over my head continuing to give SC. I back away to 60 m from nest.

2130—I return to nest area, but F immediately flushes to branch outside nest cavity. I leave.

## 14 July 2008

2015—SC, CB, and BL arrive on the S end of Shooting Star Ridge to set up lure net and attempt capture of M and/or F at the B10/B15 nest. Partly cloudy, calm, approximately 22 C.

2040—CB and BL leave lure net to raise net over the B10/B15 nest; F flushes as net is raised over cavity, narrowly missing capture. **Peeping reveals 2 owlets in natal plumage with just a hint of grey appearing on wings, eyes wide open; owlets are probably 5-6 d old.** CB returns to lure net while BL awaits arrival of M at the nest.

2045—start playback at lure net. Within 10min. M comes into vicinity of lure net giving TECs and TCs

2050—M arrives in nest tree giving a couple LC, and makes PD in nest cavity (F off). BL gets in capture position.

2057—**M is captured after he makes PD in cavity, and extracted from net a minute later. M was banded previously—Band # 64490; this is possible helper male in B10 in 2006 (this M was captured at nest, while the B10\_2003 M was only captured in a nearby lure net).**

83.5 g LWC: 130 mm

- 29.5 g LLP(5): 95 mm

54.0 g LLP(6): 105 mm

Rect: 59 mm

Both wings are in molt; L wing: 1st three primaries are completely in shaft; R wing: 1st four primaries are new and are approximately 40% of full length.

2118—M is released. BL leaves to assist CB and SC at the lure net. **NOTE: GIVEN THIS MALE’S B10 ASSOCIATION, AND THE FACT THAT A MALE WAS HEARD SINGING DOWN NEAR THE CONFLUENCE OF CATAMOUNT AND MISSOURI CREEKS WHILE THE MALE WAS IN HAND, WE NOW REFER TO THIS NEST AS B10.**

2107—M at lure net seems to have left the vicinity.

2111—Bird silently flies into vicinity of lure net.

2112—Capture bird. **This is an unbanded M. We band him.**

**Band # 64613**

Mass 74.0 g LWC: 131 mm

- 20.0 g

54.0 g LLP(6): 106 mm

Rect: 65mm

First 5 primaries on both R and L wings are in molt. Approx 50% length.

We bleed him.

2119—Another M flies into vicinity of net giving TCs.

2137—Release M.

2140--2nd M from WSW gives TC’s in net area. This is possibly B11 M.

2203—After M does not fly into net, we stop playback and collapse part of net. M is still calling and has moved E.

2200—BL returns to B10 nest to attempt capture of F.

2204—**F flushes into capture net as it is raised over cavity. F was not previously banded—I band her with # 1593—64649.**

97.5 g LWC: 122 mm

- 29.5 g LLP(5): 95 mm

68.0 g LLP(6): 100 mm

Rect: 55 mm

F is not bled.

Remiges are in molt: both L and R wings show 1st four primaries in shaft.

2214—F is released. CB and SC join BL shortly thereafter, and move down to B15 to listen.

## 22 July 2008

1445—BL and KB arrive at the B10\_2008 nest site to capture the F and process nestlings.

1448—BL approaches the nest tree, F is up in the entrance, KB tries to divert the F so BL can put up the net.

1450—F flushes.

1454—**Peeping reveals two nestlings, youngest has developed dark gray plumage on wings.**

1505—BL reaches cavity which is in an old lightning scar.

Cavity entrance: h x v: 60mm x 15mm

Cavity thickness: 8.0cm

Horizontal depth: 14cm

Vertical depth: 40cm

DOH: 48.5cm

1515—Owlets are removed from cavity.

Band # 64608 left leg

74.5 g LLP(5) 30 (23)mm

- 16.0g LLP(6): 30 (24) mm

58.5g RECT: 10 mm

Bled on Right wing.

Band # 64609 left leg

69.5 g LLP(5) 39 (22)mm

- 17.0g LLP(6): 33 (23) mm

52.5g RECT: 11 mm

Bleed on Left wing failed. Bled on Right wing.

4 parasites found on owlets feather shafts: hipobopsid larvae.

1606—Owlets returned to cavity. We leave.

**B10—2009**

## 26 May 2009

2314—BL, SR, and KG arrive at Vista Ridge from B2 territory to listen for singing M’s. Heard T calls from B1 or B10 from our position on Vista Ridge—one M is singing from opposite side of creek bottom on Shooting Star Ridge, and one M is singing from Sharp-shinned Ridge. Weather: No rain or wind, a little damp. BL pursues B14 M on S Goshawk Ridge (see B14 entry).

2410—We leave from Vista Ridge for B1.

## 2 June 2009

2114—BL, SR, and JG arrive on N-end of Shooting Star Ridge (between B11, B2, and B1) to set up lure net. GPS: X=494494, Y=4333752, +/- 5m. Weather: Overcast and fine mist, 14C, no wind.

2210—BL and SR leave JG at net to tap cavities and mark songposts on S end of ridge.

2227—We hear the presumed B10\_M giving TC to the SW from our position on the mid-section of Shooting Star Ridge.

2245—BL arrives at the B10\_2008 nest tree (large *Pipo* on SW end of Shooting Star) to tap, but no response.

2255—BL locates B10\_M calling in *Pipo* on S end of Shooting Star R. Songpost is B10\_1 (see songpost data sheet).

2300—SR locates M giving TC and TEC in *Psme* (B10\_2) and P*ipo* (B10\_3, see songpost data sheet) on S end of Shooting Star R.

2315—We leave to assist JG at lure net.

## 8 July 2009

1440—SY, QB and KB arrive Sierra Madre to peep.

1540—QB and SY peep and unenumerated cavity and find a dead adult flam in the cavity – F? She is on her back. Distinct wing and breast feathers are very apparent. Face looks fairly dessicated and decayed. Legs are not visible – cannot see if the bird is banded. The bird does not look preyed upon. Tree gets enumerated as B17\_1141. Cavity is S facing ~30ft. high in a potr snag. We leave.

1730—Crew stops peeping and leaves.

## 9 July 2009

2258—QB and JG arrive to lure net for M on ridge one S of Sierra Madre (we are hoping to catch the mate of the dead FLOW found in new cavity tree near goshawk nest in drainage). As we arrive, we hear M singing (consistent TCs) to W of ridge (sounds very near to the dead FLOW tree); M continues singing as we assemble net.

Site Description: top of ridge, fairly open, large pipo, psme, a few smaller trees.

X: 495156 Y:4332934 + 6m

2313—Playback on. M in drainage now quiet.

2319—M responds far to SW, does not approach net.

2328—Check net; empty. No FLOWS in area.

2332—M responds from NE (over top of Biker ridge); approaches net giving TCs, HECs.

2337—M quiet. Check net; empty.

2342—M in net area resumes calling, perch changing. Hear second M far to SW of net again; does not approach.

2344—Playback off, both Ms quiet.

2358—We leave, all is quiet.

## 13 July 2009

2235—SR and BL arrive on the southern terminus of Shooting Star Ridge to set up lure net and attempt capture of B10 M, and possible B15 M.

2300—We start playback. Weather: Clear and calm, 14C.

2304—We hear M approaching from the E (in the direction of B1), giving TC, eventually calling in the vicinity of the lure net.

2309—**M captured in the top shelf, S side of net. He is a previously banded M—Band # 64679; this is the B1\_2009 M.**

87.0 g

- 29.5 g

57.5 g

2313—Another M starts giving TC to the S of the net ~ 60 m—from the direction of B10, or possibly B15. He eventually enters the immediate net area, calling intermittently. We wait on releasing the B1 M to increase our chances of capturing this 2nd M.

2345—We release the B1 M, after unsuccessfully attempting to lure the 2nd M into the net. We start to break down the lure net.

2405—We leave. M giving TC to the S ~ 60 m.

# B10—2010

## 7 June 2010

2325—As BL approaches the B10\_2008 nest tree, **I see F perched in the entrance of the 2008 nest cavity—this is the B10\_2010 nest tree!** Nest tree is B10\_721, tag #721, and is a dominant *Pipo* with a lightning stripe all the way down the trunk—the nest cavity is approximately 7 m above ground in the stripe, on the NNE side. Nest tree is on the very S end of Shooting Star Ridge, 2/3 of the way down the SW ridge line that terminates just N of W Missouri Cr. (nest is approximately 75 m from the creek). F remains in the entrance for ~ 1 min, then she descends.

2335—I leave.

## 15 June 2010

2041—BL and DW arrive at the B10\_2010 nest to attempt to capture of the F or M and peep cavity.

2053—B10 M heard from nest area calling off roost.

Weather: 17 C, Light breeze, Clear

2054—DW gets capture pole in position over the nest cavity, but the F does not rise.

2058—**BL peeps the cavity to find F gone—cavity contains 3 eggs, touching in the center of the cavity**. We proceed to get the capture pole situated to attempt capture of the M, and back away from the nest.

2113—M enters the nest area and gives a few LCs on branch near cavity. He then flies off.

2115—F returns to the cavity.

2118—M makes PD in the nest cavity preceded by one LC.

2119—M makes PD in the nest cavity preceded by a few LCs.

~2121—DW approaches the nest tree and gets capture net back in position.

2123—M makes PD in the nest cavity, DW moves net over cavity and captures B10 M as he exits.

2126—M removed from net. **M is previously banded—he is Band # 64490, and is the B10\_2006 M**.

Bird data:

**Band # 1593-64490**

68.0 g LWC: 130 mm

- 12.5 g LLP(5): 96 mm

55.5 g LLP(6): 106 mm

Rect: 60 mm

Got blood smear from right wing.

2142—Another M is heard down toward PPG ridge (to W).

2150—B10 M released with strong flight after successful blood smear.

2156—BL and DW leave nest area for B15.

## 25 June 2010

2025—BL arrives at the B10\_2010 nest to attempt capture of F. Weather: Overcast, calm, ~ 23 C.

2034—Capture net is in place. I tap tree, but there is no response.

2053—M arrives, perching on a limb 1 m from the nest cavity, and he is prey-laden. Shortly thereafter he attempts a PD, but flies off to an adjacent *Psme*, where he begins giving LC.

2115—I lower capture net—F is sitting tightly and has not ascended to the entrance. During the interim time, the M seemed to remain in the nest site (in fact in the same adjacent *Psme* to the N), occasionally giving LC or TC (in response to B15 M, who was giving LC from the S end of PPG Ridge).

2126—M makes PD (in the cavity). Same at 2128, 2130, 2131, 2134, 2138, 2140, and 2141. F could be heard giving quiet, long/descending notes from the cavity.

2145—I leave.

## 28 June 2010

2030—DW and BL arrive at the B10\_2010 nest to attempt capture of F. Weather: partly cloudy, calm, 20 C, t-storm brewing off to SW (it threatens later, but moves S as it grows).

2032—DW has capture pole in place. We tap tree, but no response.

2040—We hear M calling off his roost to the SW on the lower slope flanking the W Missouri Cr—unclear whether he’s N or S of the creek.

2043—M arrives in the *Psme* just N of the nest tree. He remains quiet before flushing out of sight to the WNW at 2047.

2051—M returns to the adjacent *Psme*, this time giving a few LC upon arrival. Shortly thereafter, the M flies to the nest tree and perches less than 1 m from the cavity.

2052—M flies to the WNW, as an AMRO gives chase while it vocalizes incessantly—this chase apparently last several minutes.

2059—M returns and flies directly at cavity (net is still up), then stops short and perches near the cavity while giving a few LC.

2101—M flies off to the NW, still giving LC which gradually change to TC after ~ 30 sec.

2103—**F finally flushes into the net. We extract her and see that she was previously banded—she is band # 64752, who was originally captured by BL/Kevin Kritz at a lure net on 8/18/2009 on Camp Ridge (see B17 field notes). We peep the cavity and find 3 owlets—covered in white down, moving around and at least one holding up its head, eyes either not yet capable of being opened or just closed due to the bright peeper light. Age estimated at 4 days.**

2108—F released, and peeper removed from cavity.

2115—We leave the nest area for B15.

## 13 July 2010

~1610—BL, JG, JSG, Tyler, and Jennifer (RMBO) arrive at the B10 nest tree to attempt to capture the F and mass, measure, band, and bleed the nestlings. BL raises the capture net into position and JG taps the nest tree, but the F does not flush.

~1620—**We peep the cavity and see no owlets. We suspect that this nest has failed given the expected date of fledging, but will return later this evening to listen for any fledging vocalizations.**

2330—BL, Jennifer Blakesley and Tyler arrive at the S end of Shooting Star Ridge to set up lure net and attempt capture of B10\_2010 M.

2347—Playback started. Within minutes, we hear what seems to be B15 M giving TCs from the S end of PPG ridge—he calls intermittently for ~ 20 min.

2405—B10 M gives a few TCs to the S and down toward the W Miss Cr.

2415—We start breaking down the net—nothing captured, and no owls apparently approached the net.

2430—We leave area.

# B10—2011

## 1 June 2011

2251—JG hears TCs in Columbine Creek at the W terminus of Sierra Madre. The TCs continue for about 1 minute, and then I continue toward W. Missouri Creek.

2357—At the top of Sharp-Shinned Hawk ridge, JG hears TCs/TECs to the S in Columbine Creek.

## 7 June 2011

1500—Flam Crew begins peeping from the B4 parking spot into B1, B17, and up the Biker Trail into B10.

1720—We finish peeping, having not completely peeped these territories. Refer to Master Flam notes for additional peeping needs.

2040—PS and BY arrive where road meets Shooting Star Ridge.

2110—Lure net set up at west end of B1 and northern end of B10 territories on Shooting Star Ridge, approximately 120 m N of the southern terminus of the ridge.

2121—Playback started.

Vegetation: Mature psme and pipo, with stand of young psme near the nets.

Weather: Wind calm. Sky clear. Temp: 17 C

X: 494589

Y: 4333330

+/- 5m

2128—M heard calling from B1 from eastern direction with one or two vocalizations.

2141-2151—M TCs and TECs heard approaching from south part of ridge possibly from B10.

2200—BL leaves to tap and listen in B10 and B15 territories.

2207—**As BL approaches the B10\_2010 and 2008 nest tree, he sees a FLOW in the entrance of the previously used nest cavity—this is the B10\_2011 nest! This presumed F stays in the entrance until I leave (at 2213), perching quietly without vocalizing. Nest tree is a 54 cm live Pipo, and the nest cavity is approximately 7 m high in a lightning stripe; NOFL-sized cavity faces N. This nest tree (B10\_721, tag #721) is approximately 100 m out of the Missouri Cr bottom area, on a spur comes off the southern terminus of Shooting Star Ridge and that runs parallels to the creek bottom.**

2242—**Silent unbanded M caught in 3rd tier of net coming from western direction**.

2247—As PS works on extraction TCs heard from E side of net. Shortly thereafter a bird approaches net from North and strikes western side of net. Bird bounces off net and lands in a tree 3m from net. This was presumably the B10 M.

2253—BL returns to the lure net to assist extraction.

2256—**Silent M extracted—he is unbanded. Banded and bled from right wing.**

**Band # 1593-64868 (on left leg)**

**73.5 g LWC: 130 mm**

**- 21.5 g LLP(5): 97 mm**

**52.0 g LLP(6): 106 mm**

**Rect: 61 mm**

2318—Bird released. Strong ascending flight to west.

2353—Net taken down. BY and PS head towards B11 direction to tap and listen.

2353—BG and JV hear TCs from South tip of Sharp-shinned Ridge. Attempt to pursue for song posts but M stops giving TCs. He seemed to have brief territorial encounter with B1 also at this time, but was too far to song post.

0015—BY and PS leave area.

## 13 June 2011

2059—PS, AW, and BL arrive at the B10\_2011 nest to attempt capture of M. M arrives in Psme adjacent to nest tree and gives LC just as BL approaches with capture pole, and the M flushes shortly thereafter. BL extends the capture pole over the nest cavity in case the F is still in the cavity—nobody rises to the entrance.

2105—**AW peeps cavity and finds 3 eggs in close proximity and near the center of the cavity bottom.** BL readies capture pole, then backs away to await return of F.

2108—PS hears F approximately 10 m N of nesting tree. M responds from psme 3 m NW of nesting tree.

2110—F perches in psme approximately 3 m S of nest.

2111—F returns to nest cavity.

2115-2125: BL attempts to approach nest tree to get in capture position, but on three consecutive occasions the F rises to the entrance, forcing BL to back off.

2117—M gives LCs.

2119—M makes a PD.

2124—M perches on a branch of the B10\_2011 nest tree for about 45 seconds before aborting PD.

2125—M makes a PD.

2127—M perches on pipo N of nest for about 1 minute.

2129—BL returns to capture position. F down.

2130—PS hears F begging.

2132—BL puts up capture net.

2139—M makes a PD.

2143—M perches on pipo N of nest.

2145—M makes a PD.

2148—M male males a quick PD before BL can get net in place.

2150—We leave to set up lure net on S end of PPG ridge.

## 20 June 2011

Weather: 10C, slight rain with scattered rainclouds, no wind

2108—IJ, JR, BL arrive at B10\_2011 nest to attempt capture of either adult; M TCs heard.

2109—M TCs heard from N of cavity.

2110—F observed to fly into nest area, perches on branch above cavity. Therefore it is concluded that the F has already flushed for the night and a M nest capture during PD will be attempted.

2111—F enters cavity.

2112—M flies silently into PIPO N of cavity.

2113—M LCs from perch N of cavity.

2114—M enters cavity, aborts PD.

2115—M PD to F, exists cavity to W.

2117—M PD from N/NW, exists to W.

2120—BL gets into capture position.

2127—M flies into tree N of cavity.

2128—M aborts PD.

2129—M PD to female; **BL places capture net over cavity and captures the M. M is previously banded with band # 64761—this was an unbanded male captured in a lure net near the S end of Shooting Star Ridge on 6/7/2010 (we had labeled with as the possible B11\_2010 M) . It is thought that the male may have been a 2010 floater or helper male caught in the B11 territory for a B11 nest was never found during the 2010 season. Territory dispersal may be another possibility.**

**Band # 1593-64761** (on L leg)

78.0 g LWC: 130 mm

- 22.0 g LLP(5): 94 mm

56.0 g LLP(6): 105 mm

Rect: 61 mm

2204—After weighing and measuring the male and **using the blacklight to observe porphyrin** patterns on the male’s wings, M is released with a strong flight to the SW; IJ, JR and BL exit the area to begin listening in the B15 territory. **Wing blacklighting notes: both wings similar—P1-P6 were pinkish, while P7-9 were a little pink but mostly colorless (and somewhat of a declining pinkish gradient between P6 and P7).**

## 21 June 2011

2034—BL arrives at the B10\_2011 nest to attempt capture of F. I get into capture position.

Weather: mostly clear, calm, approximately 14 C.

2047—M begins calling off his roost approximately 50 m upslope to the ESE.

2106—M gives LC in the nest area.

2109—**Capture F as she attempts to exit cavity, with M perched 1 m away on an adjacent limb giving LC. F is previously banded—band # 64649. This is the B10\_2008 F—she represents a return dispersal, since she was replaced as the breeding F in B10 in 2010 (we did not find a nest here in 2009), and has now returned as the breeding F in 2011!!**

2112—She escapes from the holding bag as BL attempts to take a mass.

2115—BL leaves the area.

## 28 June 2011

2256—BL arrives at the B10\_2011 nest to assess status of hatching. As I approach the nest tree, I see a FLOW (sex unknown) flushing the cavity. **I peep the cavity and observe at least one owlet in white down, and possibly two, that were inactive. Because of the angle of the peeper (homemade peeper), I could not confirm whether the F was possibly off to the side of the cavity or if see had flushed.**

2303—I leave.

## 14 July 2011

1530—BL, BG, and AW arrive at the B10\_nest to capture the F and band/bled the owlets.

1537—F flushes. **We peep and find 3 owlets. The oldest 2 have well developed facial disks. The youngest has extensive grey juvenile plumage.**

1604—BL removes the owlets from the cavity.

**Band # 1593-64832** (on L leg)

64.5 g

LWC: 67

P#5: 48 mm

P#6: 48 mm

Rect: 20 mm

Notes: Bled R wing.

**Band # 1593-64833** (on L leg)

62.5 g

LWC: 69.0

P#5: 51 mm

P#6: 51mm

Rect: N/A

Notes: Bled L and R wing. R wing did not bleed.

**Band # 1593-64834** (on L leg)

40.5 g

LWC: 45.0

P#5: 29 mm

P#6: 30 mm

Rect: N/A

Notes: Bled L wing.

1635—BL returns the owlets to the cavity. **Note**: **eldest owlet was estimated at 18-19 days old.**

## 18 July 2011

2205—IJ and BL arrive at the B10\_2011 nest to assess developmental status of owlets, and attempt to capture/bleed the adults. All quiet in the nest area when we arrive—no owlet begging or adult vocalizations heard.

2207—**We peep the nest cavity—all 3 owlets still in the cavity, peering attentively up at the peeper. F comes into the nest area during time and starts giving SC, and soon the M also joins her.** We back away from the nest to observe activity.

2223—IJ gets into capture position at the nest. No PDs observed in the interim time.

2249—M comes into the nest area and vocalizations (LC by M, FSC by F) suggest he made PD to F.

2255—F flies to branch a meter from the nest cavity, then flushes.

2310—M makes PD to cavity entrance.

2325—F makes PD, perching on branch above cavity for ~10 sec before going to cavity entrance.

2329-2330—M makes two PDs, perching briefly at cavity entrance.

2333—**We capture M after he makes PD in the cavity. He is the previously banded B10\_2011 M (Band # 64761).**

**Band # 1593-64761** (on x leg)

83.0 g We take parasite blood smear sample on R Wing.

- 28.5 g

54.5 g

**Molt info**: **R Wing: both P2 (~ 68 mm) and P# (~ 44 mm) were being replaced; no molt on L Wing.**

2403—We release M, and he makes strong ascending flight back to the area of the nest cavity.

2405—We leave.

## 19 July 2011

2040—BL arrives at the B10\_2011 nest to assess status of owlets and attempt capture of F. F is off the nest when I arrive, and she scolds me frequently from her position in the nest area as I get the capture pole ready.

Weather: Partly to mostly cloudy (ground wet from early evening rain) but clearing, calm, ~ 19 C.

2047—M calls off his roost ~ 40 m to the NW.

2053—**I observe a 3rd FLOW approximately 10 m S of the nest tree—at this time, the F was giving FSC ~ 20 m SW of the nest tree, the M was giving LC ~ 15 m to the NW, and an owlet was begging at the cavity entrance. The UFO remained quietly perched on a dead limb for ~ 5 min before flushing out of view.**

2054—M makes PD at cavity entrance.

2056—Same.

2059—**Owlet in the cavity entrance fledges—it flaps/glides to the W (downslope),** and from the flight trajectory it appeared it could have flown ~ 20 m, but my view from upslope of the nest was obscured by an intervening subdominant Psme, and 10 min of searching for the fledgling was not successful. During the 10 min of searching, the M and F both scolded me incessantly in this area.

2110-2153: I return to nest tree to attempt capture of F. Owlet begging loudly from cavity entrance. During this time, the M made 10-12 PDs at the cavity entrance, while the F never approached the cavity (but she did continue to give intermittent SC within the nest area). **At ~ 2115, the UFO trailed the M to the nest cavity during a PD, stopping to perch ~ 0.5 m from the cavity on a dead limb. The M seemed to fly at the UFO as he exited the cavity, causing the UFO to flush to a different perch ~ 0.5 m farther away from the cavity, but otherwise the M did not seem overly aggressive toward the UFO. The UFO stayed here for 2-3 min before flushing, but then came back a few minutes later to again perch on a limb ~ 2 m from the cavity entrance for 2-3 min. I was uncertain, but the UFO did not appear to be prey-laden**.

2155—I leave.

## 21 July 2011

2041—BL arrives at the B10\_2011 nest to attempt capture of F. She’s off when I arrive, as I hear her scold me from a clump of dominant *Psme/Pipo* 20m S of the nest tree (there are also > 2 AMRO harassing her at this time). **I peep cavity—just one owlet left, sitting in the bottom while peering attentively up at the peeper and clicking his bill. Well-developed facial disk.**

Weather: Partly cloudy (no rain today), calm, ~ 19 C.

2054—Nestling ascends and perches in the cavity entrance and starts begging quite loudly. At this time, I also hear intermittent fledgling begging coming from the vicinity of where the F had been giving SC (until ~ 2110), but I don’t pursue.

2116—Nestling goes back down to cavity bottom, still begging.

2124—Nestling back up in cavity, perched in entrance, begging loudly.

2155—I leave. Nestling still perched in cavity entrance, but now giving only intermittent loud begging calls. **No PDs were made at the nest during my observation time, and neither the M nor F were heard/seen during this time (beyond the F’s vocalizations noted above).**

# B10—2012

## 4 June 2012

~1500-1700—BL, AW, JR, AP, CC, and Scientists David Johnson and Shannon peep portions of B10, B17, and B12 territories. The B17 nest is found. No nests are found in the parts of B10 and B12 that are peeped.

1519—**BL, AW, JR, CC, and AP arrive at B10\_1130. F is up. This is the B17\_2012 nest tree! Nest tree is a potr broken top snag. Nest is located in a flicker sized cavity approximately 6.5 m from the ground which faces N-NE and is located just beneath the fork in the tree. The nest tree is located approximately 50 m down drainage from the confluence of Columbine and Goshawk, and is just out of the bottom on Columbine on the N facing slope. We took new GPS.**

X: 494919

Y: 4333227

+/- 3 m

1526—While at the nest tree, we hear M give TCs from approximately 50 m to the SW.

1527—We leave to peep B12.

## 11 June 2012

2300—AP and BL arrive near the S end of Shooting Star Ridge (just over the E-facing side) to set up lure net to target B10 and B17 Ms and floaters. Weather: quite breezy on ridgetops, mostly clear. As we ascended the ridge from Columbine Cr, we could hear a M giving TCs back to our E, either on Sharp-shinned Hawk Ridge or Sierra Madre Ridge.

2317—We start playback.

~2330—BL leaves to check on the status of the B10\_2011 nest tree and tap other cavity trees.

~2425—We proceed to break down lure net.

2440—We leave. Nothing found or heard.

## 18 June 2012

2147—BL and PPS are walking to the confluence of Picnic Cr and W Missouri Cr to set up a lure net—we hear a M giving TCs on the top of Sierra Madre at this time (B15 M?).

2209—As BL and PPS are setting up the lure net, we hear a M calling up drainage to the E (B10 M?).

2219—Lure net set up and playback started. Lure net is at the base of Picnic Cr on the drainage bottom opening SW between B10 and B15.

Vegetation: grasses, young potr.

Weather: clear, no wind, 18C (dropped to 10C at the end of the night).

X: 0494387

Y: 4332996

+/-: 3m

2231—M giving TECs in line with Scorpio to the S (B15 M?).

2235—**Second M giving TCs immediately to the E of the net (B10M?), at the same time a 2nd M is calling to the S. We hear it hit the net and we capture it in the E side of the net, shelf 1. It is a banded territorial M, with band # 64761—he is the B10\_2011 M (originally B11\_2010 floater). He continues giving TECs while in hand.**

**Black light results** (R and L symmetrical): P1-5 strongest pink; P6-10 lighter pink, and decreasingly so.

**Band #1593-64761 (on L leg)**

83.5 g LWC: 126 mm

- 30.0 g LLP(5): 95 mm

53.5 g LLP(6): 103 mm

Rect: 60 mm (no blood taken; done prev.)

~2250—While we are processing the M, we hear two other MM near the net (one to S, one up-drainage to E).

2305—**Territorial banded M captured in the second shelf from the E. He is banded with # 64589—this is the B15\_2007 M!** While we process him we still hear one more M up slope (to SE on Sierra Madre).

**Black light results**: P1-P3 strongest pink, P4-P10 paler. **This color pattern was corroborated by the wear pattern on primaries—P1-3 were rounded on the tip and unfrayed, while P4-10 were worn and frayed on the ends.**

**Band #1593-64589 (on X leg)**

82.5 g LWC: 128 mm

- 29.0 g LLP(5): 96 mm

53.5 g LLP(6): 104 mm

Rect: 57 mm

2328—Both released (64589 released first and 64761 directly after and follows the other M). Strong ascending flight to the W. We still hear a third M to the E up Missouri.

2345—BL goes to listen down drainage in the vicinity of Catamount/W Missouri Creeks.

~2403—M gives a few TCs to W.

2408—**Unbanded silent M (banded with 1783-64319 caught in second shelf (?) from the E, but gives TECs in hand so presumed to be territorial M.** . Owl was bled.

**~2414—As PPS is extracting the 64319 M a silent unbanded M flies into the net in the third shelf? from the W.** He only has two tail feathers, both on the right side.

**Band #1783-64319 (on L leg)**

83.0 g LWC: 127 mm

- 29.0 g LLP(5): 92 mm

54.0 g LLP(6): 100 mm

Rect: 60 mm

**Black light results** (R wing): P1 was missing (in molt); P2 no pink; P3-4 strongest pink; P5-10 very little pink.

**Band #1783-64318 (on R leg)**

81.5 g LWC: 130 mm

- 30.0 g LLP(5): 98 mm

51.5 g LLP(6): 106 mm

Rect: Not sufficient tail feathers (only 2 outer R rectrices present!)

**Black light results** (R wing): P1 no pink; P2 -5 strongest pink; P6-10 very little pink.

**Both owlets bled** (genetic only—no screen).

0100—64319 released. Strong ascending flight.

0106—64318 released. Strong ascending flight.

0130—We leave.

## 2 July 2012

2200—From BL’s position at the B10\_2011 nest tree, a M is heard giving TCs from the vicinity of the junction of Picnic and W Missouri Creeks. Possibly B15 or B10 M? I move down to this location, but the M quiets when I arrive.

2215—M gives several TC/TEC from the S side of W Missouri, just W of the confluence with Picnic Cr.

2240—M gives HECs in the presence of a 2nd FLOW in the vicinity of the above location. This lasted for 3-4 min before both MM flew out of view.

2245-2259: M gives rather continuous TCs from the same vicinity. BL leaves to check cavity trees W of the confluence of Catamount and W Missouri Creeks.

2230—JV, NS, and MD arrive at the southern end of Shooting Star Ridge to listen for males or nesting vocalizations.

Weather: mostly cloudy, calm, 18 C

2315—NS hears quiet TCs up Picnic drainage from Shooting Star Ridge. After following further, nothing more is heard. *In retrospect, these were likely quiet LCs by the M near the B10\_2012 nest tree.*

2345—While on the SW end of Shooting Star Ridge JV hears several TCs from about halfway up the north-facing side of the ridge just S of PPG Ridge. JV, NS, and MD pursue but nothing is heard.

2435—While on the way back to the vehicles JV gives a couple of quiet TCs about 70m N of the B10\_2011 nest tree. A F responds with some FSCs about 20m NW. JV and NS pursue and the F begins scolding when in the vicinity of the cavity tree B10\_564. The M responds with LCs down slope about 40m from the suspicious cavity tree. MD comes up slope from Picnic Creek to join JV and NS.

2450—M goes silent. F continues to fly around in a circle with a radius of about 20m scolding the whole time.

~0115—JV comes back to the area of cavity tree #564 after searching around for a bit and the F comes back in giving FSCs. F lands on cavity tree #564 and JV hears one nestling beg and spots a better cavity in the tree. F does not fly to the cavity.

0117—M comes into nest site and lands on the cavity entrance. JV thinks this may be an aborted PD because he flies off without ever entering the cavity when she lights him up on the cavity. *In retrospect, after seeing a couple more PDs of the same manner, this was most likely a PD to the nest and the cavity is just quite shallow.*

0119—F comes to nest tree and makes a PD. BL joins JV, NS, and MD at the nest. **This is the B10\_2012 nest! The nest cavity (tag # 564) is sapsucker-sized about 30 ft up in a snag pifl facing SW. The nest tree is about 70m north of the B10\_2011 nest tree on the mid-slope of the W-facing slope of Shooting Star Ridge about 40m up from the bottom of Picnic Creek. Cavity seems to be very shallow because the adults never go all the way into the cavity when making PDs.** M begins giving TCs close to the nest site and B15 responds with TCs on the southern end of PPG Ridge.

0127—F makes another PD.

0130—Team leaves nest site.

2200—From BL’s position at the B10\_2011 nest tree, a M is heard giving TCs from the vicinity of the junction of Picnic and W Missouri Creeks. Possibly B15 or B10 M? I move down to this location, but the M quiets when I arrive.

2215—M gives several TC/TEC from the S side of W Missouri, just W of the confluence with Picnic Cr.

2240—M gives HECs in the presence of a 2nd FLOW in the vicinity of the above location. This lasted for 3-4 min before both MM flew out of view.

2245-2259: M gives rather continuous TCs from the same vicinity.

## 4 July 2012

2033—JV, AW, and NS arrive at the B10\_2012 nest in attempt to capture both of the adults.

2036—NS as net into position.

2038—AW peeps. **There is only one owlet. It is quite old with very clear facial discs and all grey juvenile plumage. We suspect that another nestling or two have already fledged earlier tonight or last night. The nestling is very active and is up at the cavity entrance for most of the latter part of the night.**

Weather: partly clear, calm, 24 C

2042—JV has net into position.

2056—Nestling begins begging after a silent bird (probably the F) flies off her roost in an adjacent psme about 5m W of nest tree.

2057—F begins begging up slope from nest tree.

2100—F comes into nest site. M comes in as well giving LCs.

2103—F makes a PD and gets caught in JV’s net. She is previously banded. **This is the B10\_2008 F who disappeared for 2009 and 2010 but showed back up again in B10 in 2011!** JV bleeds left wing for both genetics and parasite smear. Medium hematoma.

**Band # 1593-64649** (on x leg)

90.0 g LWC: 129 mm

- 34.0 g LLP(5): 95 mm

56.0 g LLP(6): 105 mm

Rect: 59 mm

Blacklight Information (same on both wings):

JV has pictures.

Ware on 0-5 scale:

P1 = 0

P2 – 6 = 1

P8 – 7 = 3

P9 – 10 = 4

0-5 scale:

P1 and P4 = 4

P2 – 3 & P5 – 6 = 3

P7 – 8 = 1

P10 = 0

0-3 scale:

P1 = 3

P2 – 4 = 2

P5 – 10 = 0

2147—JV releases F. Strong flight W to the nest.

2148—M gives LCs just S of nest tree. JV flushes him from a perch ~10ft off the ground in a psme about 25m S of nest tree. F scolds at the nest. He flies W down slope still giving LCs.

2202—Capture net is down since it is clear that the F is tending to the nestling. AW believes there was three fledgling begs just W of nest tree in the psme where the F was roosting. F scolds in adjacent psme.

2208—AW peeps to confirm that nestling is still in nest.

2221—JV, AW, and NS attempt to locate possible fledgling in psme where possible begs were heard from. We spend about 15-20 minutes searching but cannot locate a nestling.

2308—For approximately 15 minutes, JV and AW listen on the low slope to the SW of the nest tree. We hear possible begging from upslope (*after further consideration, this was probably the nestling in the cavity entrance).*

2328—We observe a silent unbanded bird perch in the psme directly NW of nest (same tree F roosted in). NS raises capture net attempting to capture silent bird

2339—Silent bird flies across nest site (about same height as cavity). *Possible floater or territorial M from adjacent territory.*

2344—NS takes capture net down.

2359—We raise hastings pole into psme where nestling begs were possibly heard previously. We shake hastings pole, but observe no movement.

2410—NS hears quiet LCs from S of nest. After moving towards site of calls, NS hears scold from F and locates F perched at top of psme just S of nest. F makes PD, then flies ENE of nest (upslope) and continues scolding. NS continues to follow scolding F for nest 15 min.

2418—JV and AW arrive back at nest to observe nest site. F scolds from NE-E of nest.

~2422—JV has a silent bird behind her while NS is with the scolding F.

2430—After flying into the tree that the silent bird (same perch as previous PD) is in F makes a PD.

2431—NS continues to follow F after PD. She scolds several more times, then remains perched silently in medium psme just E of nest.

2440—F leaves silently to N.

2443—After failing to find fledglings and to capture the B10 M, we leave.

## 5 July 2012

2023—JV, AW, NS, BL, and Mark (friend) arrive at B10\_2012 nest to perform fledge watch and watch/listen for any owlets that possibly fledged over the previous few nights.

2024—JV peeps. **There is one nestling. He is very active and has fully formed facial discs.**

2026—AW, NS, BL, and Mark spread out on the lower W-facing slope of Shooting Star, lower E-facing slope of PPG, and in Picnic Creek, to listen.

Weather: clear, calm, 23 C

2037—Nestling comes up to cavity entrance.

2048—Nestling begins begging.

2058—Presumed F PD.

2059—F PD.

2103—F PD.

2104—F PD.

2106—F PD.

2122—F PD.

2123—F PD.

2125—F PD.

2125.50—F PD.

2126—Nestling drops down to the bottom of the cavity. He is silent.

2144—JV peeps in case she has missed anything. There is still one nestling.

2152—JV has net up in case anyone comes in to make a PD.

2218—After fixing the net because it has been caught on the tree several times AW has the net up.

2226—F comes into nest site giving LCs.

2230—Net down. The M has not been present at all throughout the night. Flam Crew leaves and F scolds. **Note**: **Based on the absence of the M and the complete silence around the greater nest area, BL presumes that there has not been any fledging at B10 and the brood must have just been the one nestling. The M has been absent during our observations since 4 July 2012 when he gave LCs to the F after JV released her.**

## 9 July 2012

2030—JV, MD, NS, and PPS spread out in the area of the B10\_2012 nest to listen for a fledgling.

Weather: partly cloudy, calm, 18 C

2205—After hear nothing from either adults or young, team leaves.

# B10—2013

## 29 May 2013

2405-0100: CK and BL tap cavity trees and periodically give TCs to elicit territorial responses in the W Missouri Cr drainage through B1 territory, on Sharp-shinned Hawk Ridge, and in the Columbine Cr drainage north from the B17\_2012 nest site to the head of the drainage. At ~ 2415, we briefly hear M giving TCs faintly to the W in the area of the S end of Shooting Star Ridge (probably B10 M), but other than that, nothing was seen or heard.

## 4 June 2013

2149—BDG and BL walk down the S end of Shooting Star Ridge to set up lure net along W Missouri Creek, and at this time we approach the B10\_2011 nest tree. **As we get to within ~ 5 m, a F FLOW rises to the entrance of the B10\_2011 (as well as 2008 and 2010) nest cavity—this is the B10\_2013 nest!** Nest tree is a 54 cm live Pipo, and the nest cavity is approximately 7 m high in a lightning stripe; NOFL-sized cavity faces N. This nest tree (B10\_721, tag #721) is approximately 100 m upslope of the Missouri Cr bottom area, on a spur comes off the SW terminus of Shooting Star Ridge and that runs parallels to the creek bottom. We move back upslope ~20 m to observe.

2200—We leave. F is no longer in the cavity entrance, and M has not approached the nest area.

2210—We start to set up lure net in the area of the confluence of W Missouri Cr and Picnic Cr (between S ends of Shooting Star Ridge and PPG Ridge), adjacent to a patch of 5-15 cm dbh Potr and some subdominant Psme. Site is approximately 20 m N of W Missouri Cr.

2238—We start playback.

Weather: mostly cloudy, light breeze, 9 C. Currently a small thunder cell is moving W to E to the north of us. Several small, fast-moving storm cells moved through earlier in the afternoon and evening, each resulting in 1-5 min periods of light rain.

X: 494392

Y: 4332993

+/- 3 m

2300—BDG stays to monitor the net, as BL proceeds to visit cavity trees and listen for nest activity in B15 territory, particularly at the confluence of Catamount and W Missouri Creeks at the S end of PPG Ridge.

~2315—BDG turns playback off due to rain.

2331—BDG turns playback on.

2440—Nothing found in B15 territory, and all has been quiet at the lure net. We break down lure net and leave.

## 10 June 2013

2032—CK and BL arrive at the B10\_2013 nest to attempt capture of F (or M, if the first fails). She is not visible in the cavity entrance upon our arrival.

2037—F rises to cavity entrance as BL prepares to get into capture position. BL backs off.

2043—F flushes from cavity (she had been in the entrance since 2037).

2044—An adult FLOW flies into the nest tree and perches < 1 m from the cavity (this was probably the M, as BL thought he heard one quiet LC from his perch). He flushes about a minute later, leaving the nest area. **CK peeps the cavity and observes 3 eggs, centered and touching.**

Weather: Partly/mostly cloudy, slight breeze, 17 C.

2048—We hear M giving TC approximately 60 m to the NW.

2050—We back off the nest and wait for F to return to the cavity to attempt capture of the M.

2108—F returns to the cavity, after first perching nearby the cavity for ~ 1 min before entering.

2113—M returns to the nest tree and makes a silent PD in the cavity at this time. BL approaches nest and gets into position to attempt capture of M.

2117—M gives TCs to the S in the direction of B10/B15 ~50m away.

2117—2155—M makes several PDs during this period but does not stay in the cavity long enough for BL to make a successful capture.

2159—**M is captured after he makes a PD in the cavity. M was previously banded with Band # 1593-64761—this M was the B10 M starting in 2011 (note—we captured him in a lure net in 2012, but not at the nest), and originally was a B11\_2010 floater. This confirms another instance of a floater becoming a territory holder in subsequent years.**

**Band # 1593-64761 (on L leg)**

87.0 g LWC: 130 mm

- 34.5 g LLP(5): 95 mm

52.5 g LLP(6): 102 mm

Rect: 57 mm

We bleed on the R Wing—genetic and parasite screen.

2209—We hear M TCs on the opposite hill to the NW while we are processing the B10\_M. ~60m away.

2232—M released—he showed a strong, ascending flight (~ 20 m) to the S.

2240—As we leave, we hear what seems to be the B15 M giving TCs continuously from the SE midslope of PPG Ridge.

## 14 June 2013

2032—BL arrives at B10\_2013 nest to attempt capture of F. F not in the entrance when I arrive.

2035—BL raises net in capture position.

Vegetation: Mostly overcast, quite breezy, ~ 15 C.

2048—M arrives in nest area, and gives LCs as he flies from nest tree to adjacent trees. Net still over cavity.

2107—**Capture F as she exits cavity. The stiff breeze had greatly tangled the net against the nest tree and was greatly shredded as I attempt to lower the net—luckily the F is still attached to a few shards of netting and I extract her. F was previously unbanded, and I band her with Band # 1783-64395.**

**Band # 1783-64395 (on R leg)**

102.0 g

- 34.5 g

67.5 g

2111—I release F (no blood samples or measurements taken).

2115—I leave.

## 24 June 2013

2217—CK and BL arrive at the B10\_2013 nest to peep status of nest and see if hatching has occurred. All quiet in the nest site as we approach the nest. **Our peeping reveals the F brooding tightly in the cavity, with at least one owlet (possibly two) peeking out from underneath the F, and egg fragments surrounding the anterior end of the F (video taken).** **F held tightly through the peeping, peering up at the camera.** M arrives in nest area while we are peeping—be back off momentarily but he leaves nest area, still giving LC downslope.

2124—We leave. F still in the cavity bottom, brooding.

## 8 July 2013

1604—BL, AW, RC, and BDG arrive at the B10\_2013 nest to capture the F and band/process the owlets. F is down on arrival, and does not come up as BL approaches nest and raises capture pole.

1607—Net in capture position. We tap and F does not rise. RC peeps nest and finds F still down. F attempts to flush while peeper is still in cavity.

1609—When peeper is removed, **F immediately flushes and is captured.**

**Band # 1783-64395** (on x leg)

87.0 g LWC: 130 mm

- 33.5 g LLP(5): 100 mm

53.5 g LLP(6): 110 mm

Rect: 63 mm

AW attempts to bleed F, but does not get a successful bleed. BL ends up bleeding her at

1718. Genetics/parasite smear are obtained.

1627—BL removes owlets from nest cavity.

**1783-64382 (on L leg)**

45.7 g

P#5: 45 mm (20 in shaft)

P#6: 45 mm (20 in shaft)

Rect: 16 mm (9 in shaft)

Band#: 1783-64382

Notes: Genetics/parasite obtained from bleed on L wing.

**1783-64385 (on L leg)**

47.4 g

P#5: 46 mm (25 in shaft)

P#6: 46 mm (25 in shaft)

Rect: 15 mm (9 in shaft)

Band#: 1783-64385

Notes: Genetics/parasite obtained from bleed on R wing.

**1783-64386 (on L leg)**

39.9 g

P#5: 40 mm (22 in shaft)

P#6: 40 mm (22 in shaft)

Rect: 19 mm (16 in shaft)

Band#: 1783-64386

Notes: Genetics/parasite obtained from bleed on R wing. Attempted bleed on L wing.

1711—Owlets replaced in nest cavity. BL climbs down and bleeds F at 1718.

1723—F released with strong flight. We leave.

# B10—2014

## 2 June 2014

2120—ER, RC, and BL arrive at the B10\_2013 nest tree—we tap to see if F might be in cavity, but there is no response. We listen for a moment, but hear no vocalizations in the area.

2125—We arrive near the confluence of Picnic and W Missouri Creeks to set up lure net and attempt capture of B10 and B15 males.

**Vegetation**: Meadow adjacent to confluence of Picnic and W Missouri Cr. Lure net flanked by patches of subdominant (10-15 cm dbh) Potr on both sides, bottom of drainage.

**Weather**: Clear, calm, 11 C.

X: 494389

Y: 4333002

+/- 3 m

2134—We start playback.

2144—M starts giving TC approximately 50 m down-drainage to the W—we believe this to be B15 M.

2148—B15 M starts giving TC right at the confluence of the creeks, approximately 20 m from the net. He quiets after 3-4 min.

2201—BL and RC leave to tap and listen in Picnic Cr, and Catamount Cr, respectively. ER remains at the lure net.

2211—**ER checks the lure net and finds a FLOW captured in the 4th (top) shelf, north side. M did not vocalize prior to capture. M was previously banded—Band # 1593-64761; this was the B10\_2011-13 M, and originally was a B11\_2010 floater.**

**Band # 1593-64761** (on L leg)

68.5 g LWC: 128 mm

- 15.5 g LLP(5): 97 mm

53.0 g LLP(6): 106 mm

Rect: 60 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 0.5 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1 | 1.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1 | 1 |
| P7 | 2 | 1.5 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2 |
| P10 | 2.5 | 2.5 |

2237—We release M—he shows strong, ascending flight to the SE.

2245—BL and RC return to Picnic Cr and Catamount Cr areas to tap and listen.

2300—ER hears B10 male giving TCs NE of net from direction of Shooting Star R He goes silent after 4 minutes.

2350—PB off. RC and ER take down net and move S down drainage into B15 territory to join BL where BL has been hearing B15 giving HECs in large pifl in drainage bottom at confluence of W Missouri and Catamount Creeks.

2404-2416—RC and ER meet BL at confluence. We forego setting up a lure net and play the lure net in short bursts in an attempt to attract attention of M.

2408—B15 gives a single TC from the NE.

~2425—We head up PPG to listen on our way back to the vehicles.

2445—We meet SY 40m N of northward turn in PPG.

2452—We spread out to listen on PPG R top, but all the action is in the drainage bottom to the S\*\*.

~0140—We leave.

\*\*2458-0145—SY, MC and JS are on the saddle lure netting, after catching the presumed B2 male we spread out to listen. SY hears male TC on S end of Shooting Star ridge and sends MC after him. TCs heard across W Missouri Creek. MC gives chase, getting one song post at the lower end of Sharp-shinned Hawk Ridge. The bird moves up to the mid-slope of Sierra Madre. He gives TCs from cavity tree B10\_1324 for ~10 minutes before moving up the ridge further. I get one more general area song post higher up on Sierra Madre before leaving.

## 10 June 2014

2205—ER, MP, and BL arrive on the N end of Shooting Star Ridge, intending to enter the B10 territory to the S and listen for nesting activity. We pause periodically as we walk S down the ridgetop to listen and give sporadic TC.

Weather: Calm, mostly clear

~2225-2245: We peep contents of the B13\_2013 (live, lightning-struck Pipo) and B13\_2012 (Pifl snag) nest trees off the SE side of Shooting Star Ridge, but find the cavities empty. We spread out to listen, from Picnic Creek up to the Shooting Star ridgetop.

2231—We split up to listen around B10 territory. MC and ER listen from drainage working down and up stream respectively while BL listens from Shooting Star R.

2246—ER hears M give four LCs about 15m up Shooting Star R from where she is located in drainage below B10\_2012 and then M gives two more LCs from group of Psme about 20m downslope of B10\_2012.

2326—ER is positioned on the W side of the drainage in previous position below B10\_2012 and hears M give three LCs about half way up Shooting Star R again just downslope from B10\_2012. ER follows and repositions near Psme 20m downslope of B10\_2012 on Shooting Star R.

2405—From his position in Picnic Cr., MP hears a M giving TC up near the Shooting Star ridgetop.

2406—BL pursues and locates the M singing from a live Pipo just over the W-facing crest of the ridgetop, approximately 120 m N of the S end of Shooting Star Ridge. While BL is wrapping the flag around the songpost (one songpost marked—see Songpost Data Sheet), a F is heard giving FSC approximately 10 m to the S. BL pursues but she quiets after 3-4 calls, and the M goes silent as well.

2415-2419—ER hears and follows M giving LCs about 20m N of position below B10\_2012. Over the next four minutes, ER continues to hear LCs given consistently bouncing around slope near B10\_2012. M gives three LCs from drainage and then two more from beside B10\_2012. First LCs in this sequence heard 5m downslope of cavity tree #1018.

2431—MP joins ER on slope of Shooting Star R by cavity tree #1018 and both hear two FSCs to the S and just downslope from direction where ER originally heard LCs at beginning of night.

2434—ER standing 25m downslope of B10\_2012 and hears single FSC coming from Psme within 5m of position.

~2440—BL joins MP and ER downslope of B10\_2012. We peep large cavity in Psme broken top snag and repeep remaining cavities in B10\_2012 Pifl. Nothing found. We make our way N back up Shooting Star R listening on way out. **Note: BL suspects that the behavior observed tonight reflects a late-arriving F who may not have yet started to nest. One other possibility is that the nest has already failed, but I would have expected the F to have been giving FSC much more frequently/consistently if this had been the case.**

## 20 June 2014

2130-2335: BL arrives to search and listen for nesting activity in the B10\_2014 territory. I first tap and listen around the two past nest trees (live Pipo, snag Pifl) on the SE end of Shooting Star Ridge, where nothing was heard/seen, and then slowly move S to N up Picnic Cr from below the B10\_2013 nest tree to near where Picnic Cr broadens out below the B11\_2013 nest tree. I also travel over top of Shooting Star Ridge to the E-facing mid-slope where I tap and listen around cavity trees along a N to S axis commensurate to that described on the other side of the ridge. Nothing seen or heard.

## 7 July 2014

1430—Flam Crew begins peeping W. Missouri territories including B15 and B10. We spread out along Shooting Star, PPG, and Picnic Cr with all crews moving S. Almost all trees in this area are peeped – there were a few missed at the confluence of Picnic Cr and W. Missouri. The majority of the crew leaves to go back to the lodge while BL and SY peep Catamount Cr and W. Missouri. Nearly all trees are peeped in these drainages. Some trees at the confluence of Columbine Cr and W. Missouri were peeped, but this area could use additional peeping.

~1900—We end peeping having found nothing.

## 18 July 2014

2148—RD and SY begin searching tapping and listening in lower Homestead Cr. and lower Columbine Cr for a possible nest.

~2245—Nothing heard, we head into upper Columbine to assist at the fledgling search in B17.

## 30 July 2014

*End of season note: No nest was found in B10 in 2014 although the previously banded B10\_2011, 12, 13 (and now 2014) M was captured in a lure net. In addition, on 6/10 BL, ER, and MP picked up a F giving FSCs on the W slope of Shooting Star with a M responding with LCs. The presence of a F in this territory suggests either 1) an early nest failure or 2) a late arriving F who had not yet laid eggs. In the case of #1, as expected, no nest would be found. If #2 was the case, we would expect to have found a nest in the area during our W Missouri peeping effort on 7/7. It is a possible that we missed a nest in an unenumerated conifer cavity tree in the area. It is potentially more likely, however, that B10 suffered from early nest predation – this seems to be our current understanding of the 2014 territory status.*

**B10—2015**

**28 May 2015**

~1545—Flam crew arrives at parking spot at top of Shooting Star R to peep for nests primarily in B2/B10. Most of the crew drops into Homestead Cr and moves NE, focusing on B2 trees in the drainage bottom but also hitting a few trees, including past nest tree #61, in B1. BL and MC focus on past nest trees on Shooting Star R (B2, B11, B10, B15), moving S from parking area and eventually dropping W toward Picnic Cr.

~1715—Nothing found. We leave.

2105—MC and BH arrive at net site on Shooting Star ridge with intent to net for territorial Ms in the area and attempt to listen for nesting vocalizations. The net is located ~150 S of the road on the ridgetop, ~5m N of where the road cut joins with the ridge.

Vegetation: young-medium pipo/psme, open

Weather: 6C with a strong wind ~3-5mph, partly cloudy

X: 494579

Y: 4333594

+/- 8m

2112—PB starts.

2119—M TCs ~50m S of net, possible B10\_M.

2128—Our PB dies, BL makes his way to Shooting Star with a fresh PB. MC returns to road, giving hoots along the way while BH stays at the net and does the same. No response heard.

2206—BL brings phone to replace PB, we restart. The phone is slightly quieter than desireable.

2227—MC walks ~50m S to listen. M heard giving consistent TC/TECs from ~100m SE.

2237—MC hangs songpost B10\_1 on singing M.

2245—M moves ~10m SE into a low branch, MC spotlights the bird who then takes off, SE down drainage.

2247—M gives TECs from cavity tree #1231. MC kills light in anticipation of hearing FSCs.

2252—M continues to give TECs from the same cavity tree, MC circles tree to find F up in a cavity entrance, **This is the B10\_2015 Nest Tree! The cavity is a NOFL excavation ~20ft. up facing SSE. Tree #1231 is a full potr snag ~26cm DBH. The tree is located on the E side of W Missouri Creek ~100m down drainage from the confluence with Columbine Creek.**

2254—MC kills headlamp and crouches down, after 2 minutes the F flushes her cavity, MC leaves.

2303—MC returns to the net and we kill PB to break down and move net to target the probable B10\_M.

2323—The net is moved ~200m S down Shooting Star Ridge, just upslope of past B2 nest tree #333. PB starts.

Vegetation: young-medium pipo/psme, open.

Weather: 4C, clear and calm.

X: 494591

Y: 4333340

+/- 10m

2335—M TCs ~30m SW of net. Possibly either B11 or B10 M.

2341—M continues to move further towards net, but heads W as well, possibly B11\_M.

2343—Presumed B11\_M goes silent.

2346—M gives 2 TCs from lower Picnic Cr. Due W of net.

2350—Possible FSC in Picnic, MC leaves net to head towards that area, around the same area as M was giving TCs from. M gives a 3 note call from vicinity of cavity tree #503 and 1293. At the same time BH has two birds at the net.

2355—BH hears TECs (3-4) and single FSC in net vicinity, ~5-10m E.

2357—BH hears TCs (2-3) ~10m E of net, possibly indicating B10 M.

2408—BH hears TCs (4-5) ~50m W, possibly indicating B11 M.

2411—PB stopped and begin breaking down net.

2433—BH heads W towards Picnic Creek ~150m down Shooting Star into drainage.

2440—BH hears single TC from W, waits and listens for 6 minutes before heading back up Shooting Star to meet MC.

2448—MC gives TCs from the roadcut, one spur off of Shooting Star ridge, M responds down drainage from the same area as the original TCs.

## 8 June 2015

2041—BH and BL arrive at **B10\_2015 nest** intending to peep nest cavity and attempt nest capture of B10 M.

2049—M calls off roost approximately 50 m NW of the nest tree, and nearly immediately BL hears F give FSC off cavity to the SW.

2050—**We peep nest cavity immediately to find it devoid of FLOW eggs; all that is present is a layer of grass in the cavity bottom, and after a moment BL observes movement under the grass—probably small mammal young. The owl cavity appears to be occupied by a red squirrel nest. At this time, the F is heard giving 4-note LC and FSC within 20 m of the nest tree.**

2055—We wait and watch the nest cavity on low slope ~3m due S.

2058—**FLOW (probably the F) dive bombs an adult red squirrel that is attempting to scurry up the trunk of the nest tree, presumably headed for nest cavity ~7m up on S face of tree. Squirrel is forced back down to the ground and FLOW flies E away from B10\_2015 nest tree. This occurs on TWO additional occasions before 2105, and each time the squirrel’s ascension on the trunk is prevented.**

2100—B10 M gives LCs in nest vicinity, ~5m from nest tree. F gives LC nearby.

2102—B10 M gives 2-3 TECs, B10 F begins giving LCs heard ~5m SSW of nest tree.

2109—**BH and BL witness red squirrel scrambling up B10\_2015 nest tree and entering previously documented FLOW cavity—it is now nearly completely dark, and no FLOW were in close vicinity to thwart the squirrel (we hear them giving pair vocalizations ~ 30 m to the N along W Miss Cr), as observed earlier. Squirrel is not seen leaving cavity for the rest of the observational period.**

2112—B10 F lands in potr snag ~6m due S of 2015 nest tree. Perches on N facing branch ~3m up tree directly above BH. Gives consistent FSCs and LCs.

2114—B10 M arrives with PD.

2117-2325—B10 M arrives with7 PDs over the span of 9 minutes, indicating that the F has high energy demands and might not yet be finished completing her clutch.

2126—F leaves perch, lands in neighboring tree ~2m E. Resumes giving LCs interspersed with FSCs.

2135—**F attempts to enter B10\_2015 nest cavity, does not successfully enter.**

2137—F returns to high branch of initial perch tree S of nest tree. The FLOW pair hops between trees on low slope S of nest tree.

2152—M gives rapid HECs ~10m due S, goes silent after approx. 15 sec.

Note: *Throughout observational period B10 F gives consistent LCs and M makes PDs.*

2200—BH and BL leave B10 nest location to set up lure net with the intent of capturing B11/B15/B1 Ms.

**NOTE: BL speculated that perhaps RESQ preyed upon a partially completed clutch and subsequently took up residence afterwards, and the F FLOW is now attempting to reinter the original nest cavity to lay another egg. During our hour+ period of observation tonight, the F never strayed from a ~30 m radius of the nest tree. It remains to be seen whether or not she take up residence in another available cavity tree.**

2237—Finish lure net set up on the SW side of Shooting Star R., at the confluence of Picnic Cr. and W. Missouri Cr.

**Vegetation: Open, young potrs/pipos.**

Weather: Calm, clear, 12C

X: 494386

Y: 4333001

+/- 3

2332—BH hears M give 2-3 TCs ~40-50m NNW of net site. Goes silent and is not heard again.

2336—BH checks the net and sees silent FLOW perched in PB tree. Gave no detectable vocalizations coming into net area; presumably floater M.

2355—BH begins moving PB in order to solicit FLOW activity on all sides of net site, when floater M flies from PB tree into adjacent potr.

2357—BH moves PB to N side of net in an attempt to lure floater M into net.

2411—BH walks loop around net with PB, no sign of floater M again. Returns PB to original spot on S side of net.

2422—PB off, begin breaking down net.

2430-0100: As we leave the area, we tap both of the past B10 nest trees (live Pipo and Pifl snag) on the W-facing slope of Shooting Star Ridge, with no response, and we periodically call as we walk up the ridge top to our vehicle at the N end. Nothing heard.

## 15 June 2015

Afternoon—The Flam Crew peeps out the eastern patch of cavities in B1 from the confluence of Fallen Squirrel Cr and W Missouri Cr working W in the drainage to about 75m E of the base of Sharp-shinned Hawk R. MC peeps the predated B10\_2015 nest #1231 and a few more trees in the vicinity of the predated nest. We find nothing.

2252—BL, LP, and SH (Luke’s friend) arrive at the parking spot at confluence of Falling Squirrel Cr and W Miss Cr with intent to listen for vocalizations and locate nests in the B10/B1/B17 territories. We hike over Sharp-shinned Hawk R and drop into Columbine drainage.

~2305—We arrive in Columbine drainage. LP and SH listen and tap trees in vicinity lower portion of Columbine Cr, including the B17\_2013 nest tree. BL listens and taps trees upstream of LP in vicinity of the B17\_2014 nest tree. Nothing is heard. We continue to tap and listen as we move down Columbine Cr to the confluence with W Missouri Cr. Nothing is heard.

2420—LP and SH cross W Missouri Cr and move up the SE slope of Shooting Star R with intent to tap past nest tree B10\_333.

2430—LP shines headlamp on #333 while ~10m downslope of tree. A downslope-facing cavity is spotted near the top of the broken-top PIPO snag. LP then takes eyes off of cavity and immediately gets clear view of FLOW overhead flying S away from the cavity area. One FSC is heard from near where this individual flushes towards. A single TEC is then heard ~2 minutes following flush in vicinity of hypothesized nest tree. Although confirmation is needed, **this (#333) is a FLOW nest tree, and possibly the replacement nest site for B10\_2015.** **Cavity is a NOFL excavation ~10 ft. from base, ~3ft. from top of brokentop. Nest tree is located approximately 80 m N of the S terminus of Shooting Star Ridge, and approximately 25 m E of the crest of the ridge top on the E-facing upper mid-slope. NOTE: This is the same nest tree, and cavity, as used by the B1\_2003 nesting pair—which was not subsequently used until now!**

**\*Note 1: LP quickly assumes this bird must have been the F flushing from cavity. Upon further reflection, it is realized that this bird could have been M perched in very close proximity to cavity that got flushed from perch.**

**\*Note 2: This cavity is ~100m up slope from the B10\_2015 that was found to be predated by red squirrels on 6/8/2015. Could this pair be completing their clutch in tree #333, or is this a different pair?**

~2440—We briefly observe area in vicinity of confluence of W Missouri Cr and Homestead Cr for ~8 minutes, but nothing is heard.

2452—We begin our hike out of W Missouri Cr towards the vehicle. Our night ends here.

## 19 June 2015

2045—J Salgado and BL arrive at the B10\_2015 nest to attempt capture of M. F not in entrance. Weather: Clear, calm, and warm (1st really warm/hot day of the year)—18 C.

2103—F flushes after M gives TC/LC from ~ 60 m S of the nest tree (M did not approach any more closely).

2131—F returns to cavity.

2132—M makes PD in cavity.

2135-2145: F perches in cavity entrance more or less continuously in response to our initial attempt to approach the nest tree (F still in entrance when we back away to 25+ m). We back off to Shooting Star Ridge top at the end of this time.

2203—BL attempts to quietly approach nest tree, but F flushes. We leave.

## 24 June 2015

2145—J Salgado and BL arrive in the B10\_2015 nest area to attempt capture of M. We set up mist net on Shooting Star Ridge top, and then work slowly/stealthily to walk the mist net down into position in front of the nest cavity (4 poles). F rose to the cavity entrance on two occasions, but descended each time after 30-60 sec. M gave LC in the nest area on one occasion, but did not approach the nest cavity.

2247—Mist net in position, and we move away.

2256—**We capture M as he approaches the nest tree—3rd shelf, E-facing (downslope) side. M was previously unbanded.**

**Band # 1783-64599 (on l leg)**

59.0 g LWC: 128 mm

- 7.0 g LLP(5): 93 mm

52.0 g LLP(6): 102 mm

Rect: 58 mm

We take genetic blood sample.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2 | 2 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 0.5 |
| P6 | 2 | 1.5 |
| P7 | 2 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2330—We release M; he shows strong, ascending flight to the SE (from the ridgetop to the SW of the nest).

2338—We leave.

2400-2410: We hear a M giving TC near the N end of Shooting Star Ridge, just over the E-facing side, after BL had given some TC several minutes before farther south on the ridgetop. He quiets after 3-4 min—B2 M?

## 26 June 2015

2032—J Salgado and BL arrive at the B10\_2015 nest to attempt capture of F. F is not in the entrance.

Weather: Mostly overcast, calm, 16 C.

2040—F rises to entrance as BL attempts to sneak up from the back side of the nest tree (upslope to W). BL slowly backs away.

2043—F goes back down.

2045—BL attempts to sneak up behind the nest tree again.

2047—**We capture F as she flushes as soon as the capture net is raised over the cavity entrance. F was previously banded with Band # 1833-03122—this is one of the D13\_2014 fledglings! NOTE: This constitutes one of the few documentations of F natal dispersal, with a dispersal distance of approximately 25 km, and documents a F breeding in just her 2nd summer. Peeping reveals 2 eggs, nearly touching, in the center of the cavity.**

**Band # 1833-03122 (on x leg)**

76.0 g

- 7.0 g

69.0 g

No measurements, blood sample, or blacklight reading completed.

2053—We release F.

2057—We leave for B14\_2015 nest tree.

## 07 July 2015

2414—DL and BL arrive at the B10\_2015 nest to determine status of hatching. **We tap and the F rises; we raise the peeper and she flushes. Peeping reveals that both eggs have hatched. Neither owlet has its eyes open and an egg tooth may be present on one. Both have all white down. Eldest has some unsteady movement but is capable of holding his head upright. Runt shows little to no movement. BL estimates age of eldest is 2-3 days old.**

2416—We leave.

## 21 July 2015

1348—SY, RC, ER, and BH arrive at B10\_2015 nest tree to process nestlings. **We peep to find 1 N in cavity.**

*Note:* *We presume a brood reduction event occurred at this nest based on N’s p5 of 28 mm. It seems very unlikely for a fledging event to have taken place, because that would have left a 9-10 day spread between the first N and this last N.*

1353—ER extracts owlet.

Cav. Dimensions:

Entrance: 65 mm x 90 mm

Entrance thickness: 30 mm

Vertical depth: 265 mm

Horizontal depth: 110 mm

D.O.H.: 35 mm

Cavity height: 11’11”

Weather: Storm approaching from S, drizzling.

**Owlet 1**

55.1 g

P#5: 28 mm

P#6: 27 mm

Rect: N.A.

Band#: **1833-03192** (L. wing)

Notes: Bled L. wing, small hematoma.

1406—N returned to cavity.

1410—We leave B10.

# B10—2016

## 1 June 2016

2300—BL leaves KM on Shooting Star Ridge near the B1\_2015 nest area to check the status of past B10 nest trees on the lower SW-facing slope of Shooting Star Ridge.

2305—**BL taps the B10\_2013 nest tree, and a FLOW F rises to the entrance—this is the B10\_2016 nest tree! F stays in the entrance for 2-3 min, and then descends (this while steady, light rain is falling). This tree also was the past tree for B10\_2013, B10\_2011, B10\_2010, and B10\_2008.** Nest tree is a 54 cm live Pipo, and the nest cavity is approximately 7 m high in a lightning stripe; NOFL-sized cavity faces N. This nest tree (B10\_721, tag #721) is approximately 100 m upslope of the Missouri Cr drainage, on a spur comes off the SW terminus of Shooting Star Ridge and that runs parallels to the creek bottom.

2310—BL leaves to rejoin KM on Shooting Star Ridge.

2315-2330: BL and KM wait out light rain and winds before attempting to lure net.

2351—BL and KM begin playback on Shooting Star Ridgetop, just NW of the B1\_2015 nest tree (in broken top Pipo, about 4 m tall). Habitat is mixed age pipo/psme and the net backdrop is a young psme.

2358—M responds with TC ~40m NE of net. Moves closer with each call and goes silent. BL and KM check net.

2401—BL captures un-banded M FLOW in 3rd shelf on the E side. **This is the presumed B2\_2016 territorial M**. BL and KM begin processing the M.

**Band # 1783-74303 (on L leg)**

63.5 g LWC: 130 mm

- 7.0 g LLP(5): 98 mm

56.5 g LLP(6): 107 mm

Rect: 59 mm

Vegetation: Mixed age pipo/psme, net backdrop young psme

Weather: Moderate cloud cover progressively decreasing after rain, 8.5C

X: 494586

Y: 4333354

+/- 5m

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 2 | 2 |
| P7 | 1.5 | 2 |
| P8 | 1.5 | 2 |
| P9 | 1.5 | 1.5 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | .5 |
| P5 | .5 | .5 |
| P6 | 1.5 | 1 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

M successfully bled on L wing (small hematoma).

2428—KM releases M who flies strongly 15m SW to perch in tree about 30m NW of net. BL and KM return to vehicle.

## 6 June 2016

2035—BH and BL arrive at the B10\_2016 nest to peep contents. F down. Weather: overcast, vegetation wet from pm t-shwrs, calm, 12.5 C.

2044—M calls off roost from ~25 m upslope of nest tree.

2050—M gives one SC from ~20 m upslope of nest tree.

2051—M lands on limb just above nest cavity, and after ~30 sec he makes PD—M gives LC during entire time inside cavity (F not heard).

2059—M makes another PD, and ~30 sec after he exits, F flushes. **We peep—3 eggs near the center of the cavity, all in close juxtaposition.**

2102—We back away from nest tree, and hear F giving FSC off-site to the N.

2103—M lands near nest cavity giving LC, then flies in the direction of the F to make apparent PD.

2107—We leave to go listen in western portion of B1 territory.

## 14 June 2016

2226—BL arrives at the B10\_2016 nest to attempt capture of M. F not in cavity entrance when I arrive. Weather: Mostly clr, calm, ~15 C (1st dry day in several days).

2234—M lands on branch above cavity, and then silently makes PD in cavity (F gives FSC in cavity at this time.

2236—I get into capture position. F stays down.

2246—**I capture M after he makes PD. M was banded previously, with Band # 1783-64371—this was the B11\_2015 M!** **Note**: Does this constitute M breeding dispersal, or territory expansion?? F rises to entrance as M gives several HECs in bag while I lower capture net, and I haul him off-site to avoid a domestic disturbance.

**Band # 1783-64371**

59.5 g

- 7.5 g

52.5 g

**Notes:** Feather measurements not taken, nor was blood sample taken (done in 2015).

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2.5 | 2 |
| P5 | 2.5 | 2 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 3 | 2.5 |

2308—M released; he shows strong ascending flight.

2314—I leave.

## 6 July 2016

2037—BL arrives at the B10\_2016 nest to attempt capture of F and assess age of owlets. As it turned out, peeper had died, so age status was based entirely on sound of calls. F not at entrance when I arrive. Weather: Mostly clear, calm, ~20 C.

2038—I raise capture net over the cavity, and no response when it touches the tree. At this same time, I hear apparent FLOW fledgling BC ~20 m downslope from the nest tree. After I hear 5-6 of these, and without response at the nest, I quickly taken down the net and go downslope to listen. I hear nothing more once I get to the vicinity of where the apparent BC came from.

2051—I hear M arrive in the nest area giving LC, and then I see the F flush from the cavity (**NOTE: this surprised me—F ordinarily do not roost in cavity if fledging has commenced. Had at least one of the owlets already fledged??).** I leave the vicinity of the BC origin and go back to the nest to get in capture position. **At this point I start to hear BC from owlets in the cavity—number of owlets was uncertain, but these calls did not yet have the quality of the hoarse, raspy calls associated with late-stage nestlings. Nonetheless, owlets were old enough for F to stay off cavity.**

2053—Capture pole back in readiness.

2112—**Capture F after she makes PD** (**NOTE:** there were 8-10 PDs mostly by the M during the interim time, but F had stayed off cavity since she flushed at 2051. No M LC were heard outside the nest area, which I might have expected if he had been tending a fledgling). **F was unbanded.**

**Band # 1783-74321 (on L leg, unfortunately)**

65.0 g LWC: 127 mm

- 7.5 g LLP(5): 101 mm

57.5 g LLP(6): 110 mm

Rect: 60 mm

**Notes:** Took blood sample from L wing. Small hematoma. No wear data taken.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | 3 | 3 |
| P6 | 2.5 | 2 |
| P7 | 2.5 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 1.5 |
| P10 | 2.5 | 1.5 |

2144—F released; she shows strong, ascending flight away from the nest area.

2147—I leave nest area to listen downslope in the area of where fledgling BC were heard.

2158—Nothing heard. I leave to listen in B15 territory.

## 8 July 2016

1730—MC and BL arrive at the B10\_2016 nest to process owlets. F not in entrance when we arrive—**we peep and find that she is in the cavity, with the grey down of one owlet sticking out from underneath her**.

1732—MC starts to hook-climb to cavity, and F flushes as he approaches.

1741—MC at cavity entrance, and removes 3 owlets.

**Owlet: 1783-74363**

47.7 g

P#5: 35 mm

P#6: 34 mm

Rect: 9 mm

Band#:

Notes: Owlet in grey plumage with start of facial disk; 7-8 days from fledging based on P5

**Owlet: 1783-74364**

50.6 g

P#5: 37 mm

P#6: 36 mm

Rect: 9 mm

Band#:

Notes: Owlet in grey plumage with start of facial disk; 7-8 days from fledging based on P5

**Owlet: 1783-74365**

28.0 g

P#5: 15 mm

P#6: 15 mm

Rect: -- mm

Band#:

Notes: owlet with mix of white and grey plumage on body and head

1815—Owlets back in cavity.

1825—MC makes his way down.

1828—We leave for lodge

## 12 July 2016

2303—KM and ER set up a lure net about 20m S of the nose of Sharpshinned Hawk R. with the intent to lure for a suspected territorial M an listen for potential nesting vocalizations around the confluence of Columbine Cr. and W. Missouri Cr. Net opens E/W. PB begins.

Vegetation: Mixed age pipo and psme

Weather: Clear, calm, 16C

X: 494845

Y: 4333272

+/- 12m

2316—A M gives a handful of TCs from the confluence area ~150m SW of the net.

2320—M goes silent.

2323—KM heads down to the confluence area to listen and tap the cavity trees.

2326—The presumed same M gives TCs within 100m SW of the net, and calls his way up the slope giving TC and TEC.

2327—M gives HECs within 5m of the net. He swoops the net a couple times, but eventually perches W of the net, calling.

2330—M goes silent.

2342—ER hears an intense F SC at the top of Sharpshinned R. about 20m N of the net and where I am listening. I go toward the SC and begin concentric circles in the area, looking for cavities and possible fledglings. *There is one enumerated cavity tree #805 in the area, that looks pretty dismal, but there area quite a few conifer snags and lightening strikes that have cavity potential.*

2352—While listening on top of Sharpshinned, I hear a M giving TCs in W. Missouri Cr. N of Sharpshinned. I suspect this is likely the B1\_2016 M.

2357—During a net check, ER hears two F LCs within 10m of the lure net. I do not get eyes on the FLOW.

~2400—KM returns to the lure net.

2401—The M in the confluence of Columbine and W. Missouri gives a few more TCs from the drainage bottom, but does not approach our net. I pick up the B1\_M still calling from the N side of Sharpshinned, confirming the confluence bird is a distinct M.

2425—PB off. We break down the net and leave.

## 19 July 2016

~2120—MC and KM arrive in the confluence of W Missouri Creek and Columbine Creek. MC heads down drainage to the two 2015 nesting attempts in the area. KM stays in the confluence. We then work our way N in the drainage. MC goes up on the nose of Sharp-shinned Hawk Ridge. The whole way we are giving hoots, listening for vocalizations and tapping trees.

~2140—MC solicits hoots from the second B10 nesting attempt in 2015. A M responds with two TCs from the confluence of columbine. KM is in the area anmd cannot pic anything up.

2220—Nothing else is heard or seen. We leave.

## 20 July 2016

Afternoon—Flam crew peeps the remaining trees in Homestead Cr, the trees in the confluence of Columbine and W Missouri Cr, some on the SE slope of Shooting Star R, and about half the cavity trees in Catamount Cr. We do not find any signs of FLOWs.

## 22 July 2016

Afternoon—Flam Crew commences a cherry peeping effort of northern B10. We peep the highlights on PPG R., in upper Picnic Cr, and along the W-facing slope of Shooting Star R. We do not find any owls.

## 28 July 2016

1600—BL arrives in the B10\_2016 nest site to quantify nest habitat. **I peep contents of cavity—no owlets or remains present, suggesting all owlets successfully fledged.**

1645—I leave.

# B10—2017

## 5 June 2017

2040—ZM and BL arrive on the N end of Shooting Star Ridge to listen for courtship behaviors and possible nest in the B10 territory. ZM focuses on listening along the E-facing slope and ridgetop on the central portion of S Star Ridge, while BL listens near the S terminus of the ridge. Weather: mostly clear, calm, 14 C, ground still wet from PM showers.

2045—ZM taps the B10\_2003 nest tree (broken-top PIPO) on the S Star midlsope with no response.

2050—ZM taps a PIPO full snag cavity tree, just downslope from the now-fallen B10\_2013 PSME nest tree that was near the ridgetop with no response.

2055—ZM begins listening and watching for courtship behaviors at the two different trees that were tapped. Most of the time is spent at the full snag PIPO.

2047—BL arrives at the B10\_2016 nest tree. No response to tap. After 30 min here, BL moves to the B10\_2012 nest tree (PIFL).

2150—BL joins up with ZM to listen near a PIPO snag cavity tree, just downslope from the now-fallen B10\_2013 PSME nest tree that was near the ridgetop.

2205—While spotlighting possible cavities on the PIPO cavity tree noted above, we see a FLOW fly in and perch near the top of the PIPO. It (M?) silently perched there for 1-2 min before flying to a high section of the trunk, then returned to the same perch area for another 1-2 minutes, and then flying off to the E. **NOTE**: We were uncertain whether the FLOW (1) attempted to make a PD in a cavity we could not observe, or (2) made a prey capture on the trunk, but as ZM’s observation time passed this evening, the latter explanation made more sense.

2215—BL leaves ZM to observe the PIPO cavity tree while he went downslope to the E, in the direction the M flushed, to listen and look for possible cavity trees. Nothing found or heard, and BL rejoins ZM after ~20 min.

2245—BL moves to listen near the B10\_2003 nest tree (broken-top PIPO) on the S Star midslope. Nothing heard or seen here.

2300—ZM and BL start walking along the top of S Star Ridge while playing the playback, but without raising any mist net. BL leaves shortly thereafter to listen on PPG ridge.

2332—ZM stops playback after eliciting no responses along the S Star Ridge top. She makes her way back to the car.

## 8 June 2017

2120—MC begins listening in the confluence of Columbine Cr and W Missouri Cr. with ZM and JE further up Columbine Creek.

2128—M gives what sound like LCs ~50m N up W. Missouri Cr, MC gives chase. In the approximate location of the LCs I hear one more TC and then ~2 minutes later there a ~3 TCs on the W terminus of Sharpshinned Ridge.

2148—MC moves up to the confluence of W Missouri and Homestead and taps a few trees.

2207—MC returns back to the confluence of Columbine and W. Missouri Cr. I hear two LCs ~20m S. As I tap tree #1572 I hear an FSC ~5m SW of me. **I turn and see a F in the entrance of a cavity on a flagged tree just down drainage. This is likely the B10\_2017 nest! The tree is just S of the confluence of Columbine Cr. and W. Missouri Cr, along the dry creek bed of Columbine creek and only a few meters from W. Missouri Cr. It is a full and newly dead potr. The Cavity is SW of Tree #1572 and #1050, two live potrs in the confluence, but I do not get the tree number of the nest tree, it is flagged. The cavity is a freshly bear torn cavity ~20ft. high and faces W. Based on the GIS map we believe that the nest tree might be tag# 1573.**

2210—The M is in the site giving LCs. He makes a PD to the cavity. The F remains in the entrance and I leave.

## 19 June 2017

*The following account is describing a lure net record from 2040-2214*

2040—LD and KM leave B8 territory to join ZM and BL to attempt B17\_2017 M FLOW capture with capture pole, B1/B10/B17 lure net capture, and B10\_2017 M FLOW with capture pole.

2205—PB started on W side of Sharpshinned Hawk R. Net opens E/W with young psme trees as targets.

Vegetation: Mixed psme, mature pipo

Weather: Clear, calm, 13C

X: 495063

Y: 4333324

+/- 3m

2206—M FLOW responds to PB 60m+ SE of lure net giving TCs, presumed B17\_2017 M, possibly B20\_2017 M.

2208—Second M FLOW responds to PB roughly 60m W of lure net giving TCs, presumed B10\_2017 M.

2214—Third M FLOW responds to PB N of net location roughly 30m giving TECs, presumed B1\_2017 M.

2216—LD moves towards net to change to MEGA and to move PB around to further draw territorial M FLOW into net.

2218—M captured in net, territorial M came from W of net into 1st level. Possibly B1\_2017 M or B10\_2017 M.

2220—M escapes net prior to capture

2223—LD restarts PB after capture

2225—Bat is captured in net, LD turns off PB in an attempt to untangle bat

2226—ZM joins LD at net site

2227—PB restarted

2230—All 3 M FLOW resume vocalizing at roughly same time

2250—2 M FLOW within 20m of net from the S side of the net. Presumed to be B17\_2017 M and B10\_2017 M FLOW

2255—M FLOW vocalizations stop

2311—M FLOW starts giving TCs from S, stopped after giving a couple TCs

2318—M vocalizing from SSW, could have been B10\_2017 M or B17\_2017

2323—M stops vocalizing

2325—M begins vocalizing with TCs from N, presumed B1\_2017 M

2326—M from N stops vocalizing.

2330—M begins vocalizing from NE of net, presume B1\_2017 M, potentially B4\_2017 M. This M goes silent.

2336—**FLOW flies into 3rd shelf from W of nest previously unbanded bird.**

**Band # 1833-03575 (on L leg)**

94.0 g

- 31.0 g

63.0 g

2340—KM and JE arrive to assist with the tagging of the captured FLOW

2354—Newly banded FLOW released with a strong ascending flight towards the SE leaving a mint chocolate surprise

2359—PB restarted after release of bird

2406—M gives TC 150m+ to S of lure net, potentially B20\_2017, B17\_2017, or B10\_2017 M FLOWs

2410—M approaches net, LD switches PB to MEGA

2424—M from S gives HECs immediately but switches to TEC shortly after, KM switches PB to MEGA; bird moves closes, ~10m SW of net

2429—M stops vocalizing

0103—Stopped PB and to take down lure net

*The following account describes BL’s capture pole attempt on B10 M from 2215-0105*

~2215—BL arrives at the B10\_2017 nest to attempt capture of M. All is quiet in the nest area, and the F is not in the cavity entrance. **NOTE: The B10\_2017 nest tree is Tag # 1573, and has GPS coordinates of:**

**X: 494725**

**Y: 4333216**

**+/- 5 m**

**Height of Hasting’s capture net (place ~1 m downslope of nest tree): 23’3”**

~2225—While preparing to get into capture position, Flam Crew radios me that the B12\_2017 M has been captured at the nest by ER, JE, and ES—I leave for Sharp-Shinned Hawk Ridge to attach PinPoint.

2320—I return to B17 nest and again get in capture position; all is quiet again in the nest area.

2330-2420: M came into the nest area every ~10-15 min starting at 2330; he usually fluttered in front of the nest cavity, but he also perched in the cavity entrance 2-3 times—whether or not he successfully made PDs on these occasions was unknown. F gave audible FSCs every time the M approached the nest.

2422—**I capture M as he perches in cavity entrance, and F stays tightly in cavity as I lower him. M was previously banded, with Band # 1783-64371—this was the B10\_2016 M (nested in live, lightning-struck PIPO on SW terminus of Shooting Star Ridge), the B11\_2015 M (nested in live, lightning-struck PIPO on N end of PPG Ridge), and the BG7\_2013 M! I transport M to Sharp-Shinned Hawk Ridge to attach PinPoint (#48200).**

**Band # 1783-64371 (on x leg)**

69.5 g LWC: XXX mm

- 7.5 g LLP(5): XX mm

62.0 g LLP(6): XXX mm

Rect: XX mm

2435—KM, JE, and BL attach PinPoint. PinPoint attachment required ~20 min, and all appeared to go smoothly with harness attachment.

2457—I release M at S end of Sharp-Shinned Hawk Ridge, and he shows strong ascending flight of ~30 m to the W (down ridge top) before I lose his flight trajectory.

0105—We leave.

## 26 June 2017

2354—MC and ZM arrive at the B10\_2017 nest cavity tree with the intent of capturing the M. MC will be making the capture attempt while ZM spots the tree.

2355—The F pops up as MC is approaching the nest.

2402—The F is down in the cavity. MC resumes getting into capture position.

2404—MC is in capture position and we watch the cavity for the M.

2413—We hear a M (B20?) giving TCs ~150m S down drainage for a few min.

2433—The M comes into the nest site giving some LCs and the F gives some FSCs. He perches on a branch on the cavity tree, but never sits on (or enters) the cavity. He then gives some HECs and heads S.

2438—We hear a M (B17) giving TCs on Sharpshinned Hawk R. We also hear a M (B20?) giving TCs to our S. The B10 M is S of the nest, giving TCs.

2441—We hear a few more FSCs while the M is out of the site.

2443—MC lowers the capture pole and we leave the nest site. The M never entered the cavity while we were in the site.

## 29 June 2017

2403—Emilio (CSU intern) and BL arrive at the B10\_2017 nest to attempt capture of M and removal of PP GPS. F not in cavity entrance when we arrive; she pops up for ~1 min as I prepare to get in capture position, but then she goes down.

2437—We leave. M came into the nest area ~2415 hr giving LC, but left without going to the cavity. Just as we left, I saw him into the PSME adjacent to the nest tree.

## 4 July 2017

2311—MC and JE arrive at the B10\_2017 nest to capture the M to recover a pinpoint and attach another one. We see a FLOW leave the cavity and think it is a M making a PD.

2312—FLOW assumed to be the M is perched on the nest tree.

2313—We hear an FSC from the cavity, confirming that the bird in the site is the M.

2322—F makes another FSC and M enters for a PD.

2324—We see the M leave a cavity, likely after making a PD.

2328—MC gets into capture position. **Capture pole is at 21’5” from the base of the tree.**

2333—M aborts PD then perches nearby and makes HECs at the net.

2335—F makes a few FSCs and the M perches on a tree next to the cavity. He then flies away and gives more HECs.

2337—The M once again enters the nest site in response to the FSCs being made by the F, but quickly leaves to perch and give HECs.

2338—The M approaches to make a PD, but hovers outside the cavity and flies away.

2339—M aborts another PD to then perch and make more HECs. The F continues to make some FSCs.

2340—M makes a quick PD and leaves.

2341—M enters nest site and then leaves.

2346—M once again makes a PD without fully entering the cavity. He is too quick for the net. He makes more HECs at us.

2349—M comes into the site but aborts the PD attempt, hovering around the cavity, then perching to make HECs. The F is still making FSCs.

2350—The M makes another hovering aborted PD followed by HECs. He then approaches for a PD but does not fully enter the cavity.

2352—M approaches and hovers again, and makes more HECs. F makes some more FSCs.

2353—M makes a PD and fully enters the cavity. **MC captures him. We remove the pinpoint and attach another one.**

**Band # 1783-64371 (on x leg)**

74.5 g LWC: XXX mm

- 20.0 g LLP(5): XX mm

54.5 g LLP(6): XXX mm

Rect: XX mm

**Notes:**

2432—M is released. He has a SAF to the S. MC and JE leave to join ZM at the B17\_2017 nest.

## 11 July 2017

2054—MC and JE arrive at B10\_2017 with intent to capture the F and remove PP GPS from the M.

2057—JE approaches and gets the net over the cavity. A silent bird lands in a tree by the cavity. The M LCs in the area and the silent bird FSCs. The F is already off cavity, we peep. **Peep reveals three nestlings, all in gray plumage. The eldest two are in ~80% gray, and the youngest is in 50% juvenile plumage. All are lying face down. We approximate the ages to be ~14-15 days old for the eldest two.** We back off to observe.

2114—There have been 11 PDs since we started observing. A bird enters the cavity to make a PD, then a second bird enters. Both leave. Because the F is apparently making PDs JE moves in to again raise the net and attempt a F capture.

2120—The M comes in to the site.

2125—M makes a PD.

2131—The M makes another PD.

2134—The F and M both come in to the site, the F makes a PD, JE gets the net over the cavity. The F rises to the entrance and stays there, not flushing.

2145—The F goes down. We remove the net from the cavity. The F comes back up as we dislodge net from the cavity. We plan to go for a M capture now, or a F capture if she decides to come back off cavity.

2200—The M comes back in to the site, the F begins ton FSC at the cavity entrance.

2203—The F goes down and the M makes a PD. JE swings the net but misses the M.

2208—With the M out of the site we take the net down and leave.

## 13 July 2017

2342—MC arrives at B10\_2017 to attempt a F and or M capture. The F is up when I arrive.

2345—I begin my approach and the F goes down.

2350—The M makes a PD, I do not swing.

2357—The F leaves the cavity.

2400—The M makes a PD after being in the site for !5 minutes. I miss on my swing. He stays in the site giving periodic HECs.

2412—The F makes a PD, I get the net over the cavity, she flushes into the bag after ~30 seconds of being down. **She is an unabnded bird.**

**Band # 1833-03535 (on R leg)**

80.0 g LWC: 130 mm

- 20.0 g LLP(5): 98 mm

60.0 g LLP(6): 107 mm

Rect: 63 mm

**Notes: I bleed her L wing, no hematoma. She is not molting, and as I am on an abbreviated schedule I forego blacklight and wear. A quick blacklight does not immediately show more than one generation of flight feathers.**

2428—F released, SAF N.

## 15 July 2017

2045—KM gets to the B10\_2017 nest site to capture the M and take off his pinpoint. The F appears to be off already making prey deliveries.

2055—A silent bird enters the cavity, and KM snags it. It is the F, so I quickly extract and release her.

2100—I get the capture net back up. Another bird gives a PD, and a snag him. He is the B10\_2017 M and he most definitely has a pinpoint! I quickly extract him and remove the equipment.

**Band # 1783-64371 (on x leg)**

85.5 g LWC: XXX mm

- 30.0 g LLP(5): XX mm

54.5 g LLP(6): XXX mm

Rect: XX mm

2113—I release the M, who makes a SAF. I then head to B12\_2017 to attempt another pinpoint recovery, but the M doesn’t seem to be making PDs.

## 18 July 2017

~1620—Flam crew enters the B10\_2017 nest site. It is raining too hard so we seek shelter from the storm.

1725—The rain has subsided a little. ER extracts the owlets.

**Owlet**

54.4 g

P#5: 54 mm (xx in shaft)

P#6: 52 mm (xx in shaft)

Rect: 22 mm (10 in shaft)

Band#: 1833-03588 (L)

Notes: ES bled the L wing

**Owlet**

54.9g

P#5: 55 mm (xx in shaft)

P#6: 55 mm (xx in shaft)

Rect: 24 mm (xx in shaft)

Band#: 1833-03589 (R)

Notes: JE led unknown wing

**Owlet**

53.0 g

P#5: 37 mm (xx in shaft)

P#6: 32 mm (xx in shaft)

Rect: 15 mm (xx in shaft)

Band#: 1833-03590

Notes: ZM bled L wing

1745—The owlets are returned to the cavity and we all leave the site.

# B10—2018

## 4 June 2018

1500-1700—Flam crew cherry peeps the B10 territory, targeting past nest trees and optimal cavity trees. We don’t find any nests.

## 5 June 2018

1515-1705—BL and AM cherry peep and tap past nest trees and other optimal cavity trees in B10 and B17 territories along W Missouri Cr., Columbine Cr, and up Sharpshinned Hawk Ridge. No FLOWs respond to a tap, and no evidence of FLOWs are found from peeping.

## 25 June 2018

2120— SF, ON, JE, and Andy (our guest for the night) spread out throughout Columbine Cr to listen and tap. SF is around the confluence of DGF Cr and Columbine Cr, JE around the confluence of W Missouri Cr and Columbine Cr, and ON is in the middle. JE makes sure to tap the B10\_2017 and B10\_2015 nests.

2208—While waiting with SF in Columbine Cr for JE and Andy, ON hears M TCs coming from Sierra Madre Rdg ~75m SE. He goes quiet after a minute.

~2215—We meet back up and head back to grab the mist net to begin luring.

2219—TCs are heard S of us, across Columbine Cr, likely on one of the Sierra Madre Rdg spurs.

2245—PB begins. Lure net is located 300m W down Sharp-shinned Hawk Rdg from the B17\_2018 nest, on the ridgetop. Net is open SW/NE, with a young pifl flanking it. As we set up, a constant sound of a vocalizing M is heard from the NW, but this is likely pb from other groups out.

Vegetation: Mixed psme/pipo/pifl

Weather: calm, clear

X: 494964

Y: 4333308

+/- 3 m

2238—ON and Andy hear a few TCs coming from Sierra Madre Rdg while listening in Columbine Cr.

2252—M is heard W of net and is immediately toasty, on top of the net giving TECs.

2254—M is silent. Net is empty. PB is changed to the AZ FLOW HEC track.

2256—M from W is once again calling right on top of the net, this time giving HECs. A 2nd FLOW is heard giving TCs from the NE, presumably B17\_2018 M.

2258—Both Ms calling go silent for a minute. Then the M from W comes back, once again with HECs just on top of the net.

2300—M from E is now giving TECs, within 20m of the net.

2301—Both Ms are giving HECs.

2302—M from W goes silent. M from E backs off but continue to give some TCs and TECs.

2303—SF sees a FLOW fly from W to a tree just above his position ~10m E of the net. He shines his light and FLOW flushes E to W across the top of the net.

2304—HECs are heard just W on top of the net again.

2305—2 Ms are calling. One is E, seemingly on the slope of Sharp-shinned Hawk Rdg facing Missouri Cr. The other is S, around Columbine Cr.

2307—M from W is calling on top of the net once again.

2308—**M is silent so SF turns on headlamp to check net and watches an unbanded M fly into top shelf from SW!**

**Band # 1833-32550 (on L leg)**

69.5 g LWC: 124 mm

- 17.0 g LLP(5): 97 mm

52.5 g LLP(6): 102 mm

Rect: 63 mm

**Notes: Bleed attempt on L with tiny hematoma. Not enough blood, so R is bled. Small hematoma on R as well. P2 on R and L are both in molt and not far out of the shaft. This is presumably the B10\_2018 M, but there is no way to be entirely sure.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | - | - |
| P3 | 1 | 1 |
| P4 | 2.5 | 2.5 |
| P5 | 3 | 3 |
| P6 | 3 | 3 |
| P7 | 3 | 3 |
| P8 | 3 | 3 |
| P9 | 2.5 | 3 |
| P10 | 3 | 3 |

2336—M is released with SAF and PB is stopped.

2343—Net is packed up and we leave.

# B10—2019

## 3 June 2019

1510—Crew arrives at the parking spot on Shooting Star Ridge and proceeds to head into the B10 territory to cherry peep to try to find a FLOW nest.

1545—ON and ES tap tree B10\_333, but no FLOW rises to cavity entrances. ES leaves to peep elsewhere, while ON continues to peep the cavities of B10\_333.

1548—After peeping several cavities on **tree #333, a historic nest tree (B10\_2003, B10\_2015), ON peeps the historic nest cavity to find a F FLOW staring right up at the camera! This is presumably the B10\_2019 nest! The cavity is a NE-facing keyhole ~12 ft from the base and ~3 feet from the top of the tree. Nest tree is a broken top pipo ~15 ft tall located approximately 80 m N of the S terminus of Shooting Star Ridge, and approximately 25 m E of the crest of the ridge top on the E-facing upper mid-slope.** Given that the F did not come up to a tap, nor did she seem bothered by ON peeping the other cavities in the tree, we suspect that she could be deep in incubation.

Vegetation: Mixed age pipo/psme

X: 494619

Y: 4333273

+/- 3 m

1600—The rest of the crew joins to check out the nest cavity. F stays down the whole time.

1615—Crew leaves B10 to search for more FLOW nests in B2 and B14.

2042—SL, ES, and ML arrive on Shooting Star Ridge to peep and observe the B10\_2019 nest site.

2045—We approach the B10\_2019 nest site from the N on Shooting Star Ridge and F is clearly observed at the cavity entrance facing N. M is giving TCs ~75 m E of the nest site. The F is still for approx. 3 min and then flushes to the NE.

2048—**We peep the B10\_2019 nest cavity and find one egg centrally located in the cavity.**

2049—We hear F FSCs and M LCs to the NE.

2050—We sit and watch the cavity and wait for the B10\_2019 F to return.

2053—We hear FSCs from the NE and M LCs from the N.

2129—B10\_2019 F FLOW still has not returned to the cavity so we move farther upslope from the cavity entrance. We don’t have a silhouette of the nest cavity from our new location, so we listen for nesting activity but don’t know when the F comes back on the nest.

2144—We leave the nest site, it is unclear if the B10 F has returned to the nest site, vocalizations have stopped.

2220—While we are setting up a lure net on Shooting Star R, we hear TCs to the S in the direction of the B10\_2019 nest.

2228—We start T42 playback at our lure net 250 m N of the cavity on the upper W-facing slope Shooting Star Ridge with the intent to capture the B10\_2019 M. Net is open N/S.

Vegetation: Mixed aged psme and pipo

Weather: 0% CC, slight breeze, 11 degrees C

X: 0494575

Y: 433539

+/- 3 m

2236—M FLOW TCs from SW, ~10 m from the net.

2238—M FLOW vocalizations from SW shift from TCs to TECs. M moves to about 20 m N of the net.

2240—All is quiet.

2241—M FLOW HECs begin from ~20 m SW.

2243—Wing flaps are heard from the S, sounds like the vocalizing M has moved closer to the net.

2242—All is quiet.

2249—We switch the playback track to Psiloscops AZ. M returns from the W, first popping up ~50 W of the net site, giving HECs in the net site. He backs off the W and stops calling.

2253—**We hear wing flaps in the net site and check the net to find an un-banded M FLOW caught in the net on the lowest shelf on the N facing side.**

***NOTE: This bird was recaptured on 6/30/2020 at a lure net on Sharpshinned Hawk R and ID’ed as a F due to pinfeathers coming in fully on the breast. ES 7-16-20.***

**Band # 1833-32591 (on left leg)**

89.0 g LWC: 128 mm

- 35.0 g LLP(5): 99 mm

54.0 g LLP(6): 106 mm

Rect: 57 mm

**Notes: Hippoboscid flies. Bled left wing. Small hematoma.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2 | 2 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | .5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2.5 | 2 |
| P8 | 3 | 3 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2339—The captured M FLOW is released and displays a strong horizontal flight to the N.

## 20 June 2019

2037—BL, ON and SL arrive in B10 territory for F nest capture and to peep to the cavity. Upon arrival, all is quiet and the F is down.

Weather: calm, 10% cloud cover, ~16 C

2043—We hear M TCs ~ 150 m E. ON begins approach with capture pole.

2044—F is still down and quiet-ON moves net into position for capture over the cavity.

2045—M TCs continue ~ 100 m E.

2049—M TCs ~ 50 m E.

2050—M TCs ~ 30 m E.

2110—All is quiet in the nest site. ON taps on the nest tree. There is no visible or auditory activity by the F or M.

2115—Because we have not yet seen or heard the F we decide to peep the nest. We approach the nest and SL moves the peep into the cavity while still underneath the capture net.

2116—**We peep to find the cavity empty and BL finds 2 small eggshells remains on the ground beneath the cavity entrance. We presume that this nest was predated. We also hypothesize this predation occurred in the last few days given the TCs we heard close to the nest site from the presumed B10\_2019 M.**

2117—We leave B10 territory and move on to the B2\_2019 nest for a M capture.

## 15 July 2019

2308—SL, ES, and KA arrive at the B4\_2019 territory. From Fallen Squirrel Cr, we walk W down W Missouri Cr.

2312—SL hears a possible F FSC from W Missouri Cr near where the road begins to wash out E of Vista R. She gives a couple hoots. We do not hear a response in the immediate vicinity, but a M FLOW responds with TCs from ~100 m further W down W Missouri Cr. He approaches, but never gets closer than ~75 m, and then backs off again. We tap cavity trees in the area, but find nothing.

2324—We begin to climb S up Sharp Shinned Hawk Ridge and begin PB while still within ~40 m of the drainage bottom, near the large clump of potr cavity trees. After 5 minutes with no FLOW response, we cut PB and continue up Sharp Shinned Hawk Ridge to set up a lure net.

2342—PB starts. T42. Net is located on saddle of Sharp Shinned Hawk Ridge near the southern terminus of the ridge. Our goal is to draw FLOWs from multiple surrounding territories, including B4, B1, B17, and possibly B10. Net is located on the ridgetop, open N/S.

Vegetation: mixed age pipo, psme

Weather: 10% cc, 13 C, calm

X: 494903

Y: 4333293

+/- 3m

2357—We hear a M give TCs ~50 m E up Sharp Shinned Hawk Ridge. He gives a few sporadic TCs but never gets closer to the nest site.

2405—We cut PB and head back towards the car.

# B10—2020

## 30 June 2020

1608—KC, BL and ES head S on Shooting Star R to peep past nests on the southern terminus on Shooting Star and peep Columbine drainage.

1813—**KC taps tree #1572 and finds the B10\_2020 nest. New nest tree #1572 is a full snag potr with an enlarged sap sucker cavity facing W 22’5” high. Nest tree is located in the drainage bottom at the confluence of W Missouri Cr and Columbine Cr. Nest tree is also at the souerthn terminus of Sharp-Shinned Hawk Ridge.**

**X: 494730**

**Y: 4333223**

**+/- 3**

2016—KC and AM arrive at the B10\_2020 nest to peep and attempt a male capture. F is down upon arrival.

Weather: 10% cc, slight breeze, 13℃.

2024—F pops up to glance over at us, then goes back down.

2043—F pops up.

2048—F goes back down.

2050—F pops up. M FLOW flies into the site from the W and perches on a psme 10m SW of the nest. M LCs. M PD.

2053— 2 M PDs.

2054—M PD.

2056—M LCs. M PD.

2058—M PD, followed by the F flushing to the S. **AM peeps and finds 3 nestlings, 2 with 30% gray (mainly on the scapulars), and the runt in completely white down. The runt looks up at the camera, but the other two owlets are sleepy and keep their eyes closed.** We back off to observe.

2102—Unknown PD.

2104—Unknown PD.

2107—M LCs in a psme 10m W of the nest. F gives LCs 10m SW of the nest. Both FLOWs enter the cavity to give PDs before flushing several seconds later.

2108-2113—6 Unknown PDs occur during this time. See PD sheet for details.

2116—Both the M and F give LCs, followed by PDs. Both birds flush the nest.

2117—2134—7 unknown PDs occur during this time. See PD sheet for details.

2137—Both the M and F give LCs in the site, followed by PDs. Both birds flush the nest.

2140—2 unknown PDs.

2141—Unknown PD.

2142—Unknown PD.

2143—Unknown PD. KC starts his approach.

2144—Unknown PD.

2147—Unknown PD.

2148—KC has the net up to height.

2151—We hear M TCs 150m NW of the nest up on Shooting Star Ridge. Unknown PD at the nest.

2152—Unknown PD.

2153—Unknown PD.

2156—AM gets a look with his headlamp at the FLOW perched in a psme 10m SW of the nest and spots a band on the L leg. The M FLOW gives a PD. **KC swings the net and gets him in the bag. We catch the B10\_2020 M. He is indeed previously banded on the L leg. He was a floater caught at a lure net in B17 in 2017. #1833-03575.** We walk 30m S to process him.

**Band # 1833-03575 (on L leg)**

85.0 g LWC: 134 mm

- 28.5 g LLP(5): 99 mm

56.5 g LLP(6): 108 mm

Rect: 53 mm

**Notes: Bled L, large hematoma. P2 in molt on both wings.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | Molt | Molt |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2.0 | 2.0 |
| P6 | 1.5 | 1.5 |
| P7 | 1.0 | 1.0 |
| P8 | 1.0 | 1.0 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | Molt | Molt |
| P3 | 1.0 | 1.0 |
| P4 | 1.0 | 1.0 |
| P5 | 1.5 | 1.5 |
| P6 | 2.0 | 2.0 |
| P7 | 2.5 | 2.5 |
| P8 | 2.5 | 2.5 |
| P9 | 3.0 | 3.0 |
| P10 | 3.0 | 3.0 |

2232—We release the M. Strong ascending flight to the NE.

## 7 July 2020

2030—KC and AM arrive at the B10\_2020 nest to peep and attempt a F capture. Upon arrival F is up. AM gets into a position to observe the nest and KC approaches the nest tree for a F capture.

Weather: Clear, Calm, 15C

2050—F is still up. KC begins to raise the capture net on the back side of the nest tree.

2054—KC has the capture net up and swings but the capture net is above the cavity and the F flushes. **We peep the nest to find 3 nestlings in all gray. Eldest nestling has a clear facial disk.**

2058—M gives a PD

2059—F gives a PD

2100—M gives a PD

2101—M does a fly by past the cavity. M gives a PD which is followed by a F PD

2103—M gives a PD

2104—M gives a PD followed by F giving a PD

2105-2112—M gives 4 PDs

2116—F gives a PD

2120—Silent PD

2123—Silent PD

2125—M gives a PD. Then F gives a PD and AM swings and snags the F. F is previously unbanded (#1833-32673). We give her band #1833-32673 on the R leg.

**Band # 1833-32673 (on R leg)**

85.0 g LWC: 127 mm

- 29.0 g LLP(5): 97 mm

56.0 g LLP(6): 103 mm

Rect: 57 mm

**Notes: We bleed her on the R wing. Small hem.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3.0 | 3.0 |
| P2 | 3.0 | 3.0 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 2.0 | 2.0 |
| P7 | 1.5 | 1.5 |
| P8 | 1.0 | 1.0 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1.0 | 1.0 |
| P5 | 1.5 | 1.5 |
| P6 | 2.0 | 2.0 |
| P7 | 2.0 | 2.0 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2154—We release the F. Strong ascending flight N.

## 14 July 2020

2020—KC and ES arrive at B10\_2020 nest to peep and possibly recover fledgings. Upon arrival we tap the tree and the F is not on cavity. **We peep the nest to find 2 nestlings in all gray with facial disks coming in. It is presumed that one nestling has fledged**.

2044—M gives TCs ~20 m NW

2046—M gives TCs ~25 m N

2048—M gives TCs/HECs ~20 m E

2050—Nestling comes up to the cavity entrance and starts begging

2051-2105—During this time there is a nestling present at the cavity entrance begging. Silent bird gives 12 PDs.

2108—Nestling goes down into the cavity.

2109-2118—Silent bird gives 6 PDs

2120—**We peep the nest and there is still 2 nestlings**. We leave the territory.

# B11—2003

## 17 June 2003

1345—**BL discovers B11\_2003 nest in top of broken top *Pipo* (B10\_30) while enumerating cavity trees on the W facing side of Shooting Star Ridge,** approximately 400 m from the S end of the Ridge. F rose to the entrance as I approached. Cavity faces S, is approximately 1 m from the top of the tree, and is immediately under a limb. Nest snag is about 17 m tall. Limbs all around the vicinity of the hole (unfortunately for any capture attempts).

## 19 June 2003

2345-0110: Jake and BL attempt to mark song posts in the vicinity of B1, B10, and B11 territories, and listen from various areas on the Shooting Star Ridge. B1-M periodically calls from the SW end of Vista Ridge, and at one point BL hears him having a territorial encounter with another M on Sharp Shinned Ridge.

## 26 June 2003

2238—Katie arrives at nest to observe prey deliveries.

2248—Male feeds female.

2311—Katie leaves.

## 1 July 2003

2125—Miriam and Katie arrive at B11 nest to observe prey deliveries.

2126-2154—We observe 23 prey deliveries. Both the male and female are making prey deliveries.

2154—We leave and begin songposting on PPG and *Dodecatheon* Ridges.

2304—Miriam gets songpost on what is likely B11. He was making three note calls, about 5 minutes after I gave a couple hoots.

2305—M calling 20m N of previous songpost.

2400—We leave.

## 8 July 2003

1430-1545: BL arrives at B11 nest tree to attempt removal of some limbs to provide access for capture pole—tree is very fragile and only some of the smaller limbs are removed.

2230—Katie and BL arrive to attempt capture of B11 adults. M delivers prey at this time, and the F could be heard giving FS calls approximately 50 m to the N. Owlets could be heard begging from the cavity.

2249—M delivers prey. Same at 2251, 2254, 2255.

2300—We leave; the hoop of the capture pole cannot safely be placed over the entrance of the nest hole.

## 11 July 2003

2050—BL arrives at B11 nest to attempt capture of B11 adults. As I get into capture position, M delivers prey to owlet who is begging in cavity entrance.

2120—I leave; branches around cavity entrance make capture of adults improbable without incurring injury to owls. M made approximately 12-15 prey deliveries during this time to one or two owlets (**total of two owlets could be heard begging at any one time**) waiting at the cavity entrance. F only delivered prey once; otherwise, she was occasionally heard giving FS calls approximately 50 m to the N.

## 14 July 2003

2045—BL arrives at B11 nest to attempt last effort to capture adults. M calls off roost 50 m to the W at this time. Shortly thereafter, I move to area 20 W of nest and get scolded by M.

2046—Owlet at entrance starts to beg.

2055—Prey delivery at cavity entrance. Same at 2056, 2100, 2101, and 2103.

2110—I leave to assist Katie/Miriam at B1 nest. **Note**: Apparently one of the owlets has already fledged, judging from some occasional LC given by the M approximately 60 m W of the nest, and an occasional fledgling begging call. I only hear one owlet in the cavity, and based on owlet begging heard on 11 July, there appears to have been 2 owlets in this nest. F occasionally heard giving FS calls approximately 50 m to the N.

## 15 July 2003

2210—Miriam, Katie, Jake and BL arrive at B11 nest site to see if the owlets have fledged.

2212—Between 2212 and 2219 there are 3 prey deliveries and the owlet is begging periodically from the nest.

2219—We leave nest area.

# B11—2004

## 7 June 2004

2215—The Flam Crew leaves from the Weir in B2 territory to attempt spot-mapping on Shooting Star Ridge and PPG Ridge (B1, B10, and B11 territories). We tap obvious cavities in the vicinity of the Homestead.

2250—We split up on Shooting Star Ridge, with two of us (JM and BL) going to PPG Ridge, and the other three (EC, EP, and SY) staying on the former ridge.

2315—JM and BL hear what appears to be B11-M calling from the drainage between PPG and Shooting Star Ridges. We pursue, but the M moves up to the top of Shooting Star Ridge, where he apparently quiets, and the Shooting Star crew attempts to follow B1-M as he moves from the top of this ridge, down the E-facing side of the ridge, and over to Vista Ridge.

2420—JM hears what appears to be B11-M calling from the S end of PPG Ridge. She pursues but he quiets.

2445—We leave to pursue B10-M, who is having a TC with another M near the bottom of W Missouri Cr between Shooting Star and PPG Ridges.

**WHERE ARE THE REST OF THE NOTES???? 11/1/07—BL**

# B11—2005

## 17 June 2005

1500—BL, SY, DF, EE and MS enter B11 area to tap and peep in order to find nest tree.

1530—EE peeps tree B14\_7, tag #335 and female *Otfl* is seen looking up at camera. Tree is located on an open slope on “At last Ridge” (spur to the east of PPG ridge). Tree is 5.5m high, 57 cm DBH and cavity is located on the East facing side, about 5.3 m up.

## 20 June 2005

2335—BL arrives at the B11\_2005 nest tree to attempt capture of M. F does not rise to entrance when tree is tapped. Lightning approximately 8-10 km off to E and N.

2355—M enters nest site giving HECs. He flies to perch on nest tree as F quietly gives a few FSC, then he flies off. At this time I hear another M giving TC from what sounds like the N end of Shooting Star Ridge. He calls periodically from this area for the next hour.

0130—I leave. M approached the cavity tree 4-5 times and perched on a limb adjacent to the cavity, but never delivered prey. F never left the nest cavity.

## 23 June 2005

2045—BL arrives at the B11\_2005 nest tree to attempt capture of F. Mostly cloudy, lightning off to E and N, mostly calm, approximately 16 C.

2150—M calls off his roost approximately 50 m to the ENE.

2156—M gives LC in the nest area before approaching cavity, but aborts his delivery. He then proceeds to give TC and TEC at the N end of Shooting Star Ridge for the next 10 min.

2118—F finally flushes from the cavity, but manages to sneak between the net and several nest-tree branches in the process. I remove pertinent limbs.

2120—I peep cavity and find 2 unpipped eggs.

2130—F returns.

2135—I get into position to attempt capture of B11\_M.

2300—M delivers prey.

2330—I leave. M approached cavity in the interim time on several occasions, but did not make any prey deliveries.

## 27 June 2005

2038—BL and B/M Gress (photogr.) arrive at B11 nest to attempt capture of both adults. Mostly clear, calm, and approximately 20 C. I raise the capture net over the cavity entrance.

2056—M gives 4-5 TC off his roost, approximately 50 m to the E of the nest.

2102—Capture F as she attempts to flush cavity. **Previously unbanded—she is given band # 64460**.

90.0 g

* 26.5 g

63.5 g

2111—Release F, without bleeding or measuring her.

2114—M delivers prey in cavity; no vocalizations and F has not yet returned to cavity. He stays in the cavity for ~1 min before exiting.

2118—F returns to cavity.

2120—M delivers prey in cavity (no vocalization). Same at 2129 and 2137. BL gets into capture position after the latter delivery.

2225—Capture M after he delivers prey (no PD in the interim period). **Previously unbanded—he is given band # 64461**.

78.0 g LLP: 102 mm

* 26.5 g LWC: 123 mm

51.5 g Blood sample is taken

2252—M is released. BL leaves to spot-map on Shooting Star Ridge, and the Gresses stay behind to photograph.

2330—BL pursues singing M on N end of Shooting Star Ridge. Over the next 20 min, I mark 3 songposts (see songpost data sheet) on what appears to be two males singing in tandem—B1 possibly, singing from the E-facing side of Shooting Star, and B11, singing from the W-facing side of Shooting Star.

## 5 July 2005

2039—BL arrives at B11 nest to attempt bleeding of F. PC, calm, 21 C. F in entrance when I arrive, and she flushes as net is raised.

2042—I peep cavity and find that both owlets are hatched, and in grey/white down.

2056—F reenters cavity (no vocalization). Within a half-minute, the M flies into the nest area giving LC, then flies off a couple minutes later.

2058—F leaves cavity.

2117—F (**Band # 64460**) captured as she exits cavity after delivering prey. I bleed her.

LWC: 123 mm

LLP: 98 mm

2134—I release F.

2140-2220: I perform nest observations during this time—M makes 5 PD and the F makes 2 PD (see PD data sheet).

## 11 July 2005

2250—BL arrives at B11 nest to monitor nest activity. No adults seen upon arrival, and when I peep the cavity I find nothing—apparently the nest was preyed upon and abandoned. I moved slowly in a ~ 70 m radius around the nest (mostly downslope) for the next 40 min, but hear nothing.

2330—I leave for Shooting Star Ridge.

# B11—2006

## 5 June 2006

2300—EE, KC, and BL arrive in the NW end of the Missouri Study Area to attempt spot-mapping of A11 M and search for possible nest. EE and KC start on the N end of Shooting Star Ridge, and BL starts on the N end of PPG Ridge. BL taps on the B11\_2005 nest tree and other cavity trees on the E-facing mid-slope of PPG and in Picnic Creek (including the B11\_2004 nest tree) over the next hour, but no nest is found.

2302-0130—EE and KC place 8 songposts during this time on Shooting Star Ridge. We also hear the B2 M calling to the E.

2351—EE goes to 2003 B11 nest tree to observe any possible nest action. After 10 minutes of observation I leave.

2355—BL marks songpost on B11 M (B11\_#1) on the E-facing mid-slope of PPG Ridge, just due W of the B11\_2004 nest tree. Prior to this songpost, the M had been singing on the PPG ridgetop and in the bottom of Picnic Cr. The M flushed E from this songpost, and flew over to Shooting Star Ridge, where KC took pursuit.

0130—We leave the area.

## 19 June 2006

2406—KC and SY arrive at N end of Shooting Star R. to attempt to spotmap.

2420-0145—We mark 6 songposts on the B11 M on the northern portion of Shooting Star R. (see data sheet).

0150—We leave.

## 20 June 2006

1500-1700—Flam Crew arrives to check any cavities that we may have missed in our previous days of searching. We have no luck and leave.

## 22 June 2006

2440—BL arrives at the N end of Shooting Star Ridge to attempt spot-mapping of B11 M. I immediately hear M singing to the S, and pursue.

2443—I mark songpost #1 on the B11\_M approximately 20 m ESE of the B11\_2003 nest tree (B10\_30), on the Shooting Star ridgetop. He called for approximately 5 min before moving approximately 100 m downslope to the NW, where he sang for a couple of minutes before quieting.

2455—After listening in the vicinity of the B10\_30 cavity tree, I leave.

## 27 June 2006

2220—BL arrives in the area of the B11 territory to listen. I spend approximately 15 min each at the B15\_2003 and B15\_2004 nests, but I see/hear nothing.

2300—I leave. No vocalizations heard from the B11\_M.

## 13 July 2006

2100—SY begins playback of F FSCs at a lure net on N end of Shooting Star R. Weather: clear, calm, 21C.

2104—I begin observing a cavity on N end of Shooting Star R.

2125—Having observed nothing I leave.

2127—Check of net reveals nothing.

2231—I bird enters site silently while I am imitating TCs and TECs. I hear the bird make two short flights around the net site without vocalizing, then leave.

2250—I break down the net and leave, having heard nothing.

# B11—2007

## 26 June 2007

1400-1630: The flam crew peeped in B11 territory area. **We found B11 nest, tree # B11\_374.** The cavity is East facing, roughly 12m off the ground in a lightning struck portion of the tree. The F rose to the cavity shortly after the tree was flagged at 1600 and remained in the cavity until we left at 1620.

## 29 June 2007

2020—KB and SY arrive at B11 nest to attempt capture of M and F. Weather: Mostly cloudy, calm 20 C.

2041—Net in capture position. (Cav. Height 27’5”)

2051—M enters site with prey (Caterpillar/grub ~25mm)

2112—We allow M to make a prey delivery – F briefly rises to cavity entrance following PD but quickly returns to cavity bottom.

2117—Capture F directly following a PD. She is previously unbanded.

**New Band #64537.**

97.0g WC: 126mm

-27.0g P#5: 95mm P#6: 101mm

70.0g Rect.: 60mm

**We peep: At least 2 unhatched eggs (possibly 3?).**

2128—F is released – flies W. We leave.

## 4 July 2007

2031—BL arrives at the B11 nest to attempt capture of M. Mostly cloudy, calm, 20 C.

2045—M arrives in nest area, and makes PD in cavity at this time.

2048—I attempt to peep cavity, and F flushes cavity. **Cavity contains one owlet, in white down and with egg tooth—it is probably 3-4 days old.**

2053—M makes PD in cavity.

2055-2205: I attempt to capture M during this time, but I am unsuccessful. F returned to cavity at 2109, and M made PD’s approximately every 5-10 min. during this interval.

2208—I leave area.

## 10 July 2007

1610—Flam Crew arrives at the B11 nest to attempt capture of the F. Weather: cloudy, gusty winds (~10mph), 20 C, T-Storms approaching. We place net in capture position. F does not respond to net or tapping. **We peep the nest – F present, 1 nestling visible – white down with some grey juvenal plumage coming in.** We leave.

## 13 July 2007

2015—BL arrives at the B11 nest to attempt capture of M. Mostly cloudy, calm, 24 C. I spend the next 15 min attempting to reshape the net, and finding the best angle to cover the nest cavity.

2034—M makes PD.

2036—I capture the M after he makes a PD; M is unbanded. **I proceed to band/bleed the M.**

**Band # 64594**

79.0 g LP(#5): 98 mm

- 29.5 g LP(#6): 107 mm

49.5 g Rect: 62 mm

LWC: 131 mm

2058—I release the M.

2106—I return to the nest to monitor activity, and the M makes a PD at this time.

2112—Same.

2213—Same.

2114—Same.

2116—Same.

2121—Same. I leave.

## 17 July 2007

1519— Flam crew arrives B11 nest to capture female and band nestling. Sunny, windy 31C.

1523— We peep cavity, F is in cavity with nestling present.

1524—BY ascends tree via hooks to enlarge cavity (27’ 6”) and extract owls. The primary cavity entrance is enlarged and BY accidentally pushes F aside and down into lower cavity.

1539— Owlet out.

1540—BY descends to lower cavity and enlarges hole in order to extract F. He finds dead (and desiccated) two day old nestling.

**NESTLING Band # 64544**

75.5 g LP(#5): 38mm

- 26.0 g LP(#6): 39 mm

49.5 g Rect: 62 mm

LWC: 12 mm

OWLET BLED

**Female (previously banded) # 64537**

83.5 g LP(#5): 94mm

- 26.5 g LP(#6): 101 mm

57.0 g Rect: 60 mm

* + **number 3 primary molted, 50mm.**

**F was bled**

Lower cavity 50 cm below primary cavity took the life of a nestling after two days.

Entrance:: 60mm x 120mm

Entrance Thickness 50mm

Horizontal depth 100mm

Vertical depth 30cm

DOH 40.5 cm

1626 F released. We leave.

# B11—2008

## 3 June 2008

2100—BL, SC, and DH set up net on Shooting Star Ridge. Mixed conifer. 0-5mph winds, partly cloudy, 14 C.

2200—SC and DH arrive in B11 to search for nest and listen.

2215—Find B14\_7 (B11\_2005 nest). No activity.

2245—Find B14\_3. Tap and listen—no activity.

2245—BL starts playback on lure net on Shooting Star Ridge.

2300—Find B14\_2. Tap and listen—no activity.

2309—SC hears call from SE (direction of lure net—see notes for B2 3 June 2008).

2320—M is captured. **Male was previously banded—band # 64594; this is the B11\_2007 male.**

82.5 g LWC: 133 mm

- 29.5 g LLP(#5): 95 mm

53.0 g LLP(#6): 102 mm

Rect: 58 mm

2340—SC hears TCs near lure net. Playback is still going.

2351—Released the B11 male.

2353—Find a new bird in the 2nd shelf from the bottom. **It is unbanded. Banded it with band #64606.**

78.5 g LWC: 132 mm

- 16.0 g LLP(#5): 96 mm

62.5 g LLP(#6): 102 mm

Rect: 63 mm

The bird was successfully bled.

0030—Released the bird. Broke down net.

## 12 June 2008

2230-2400: BL passes through B11 territory (via PPG ridge) while traveling to B15 territory. I attempt to elicit singing a little while passing through, but nothing is heard.

## 16 June 2008

2215—CB and BL peep the B11\_2007 nest cavity, but find the contents empty. We leave for B15 territory.

## 24 June 2008

~1430—Flam Crew begins peeping B11 territory.

1445—SY peeps newly enumerated cavity tree B11\_830 on the top of Shooting Star R. There are two fairly round eggs present. 1 of the eggs appears to be damaged – possible predation.

1505—BL arrives to view the eggs – agrees that it remains ambiguous but are not likely to be Flam eggs. We continue peeping.

1630—Having found no nest, we leave.

# B11—2009

## 2 June 2009

2114—BL, SR, and JG arrive on N-end of Shooting Star Ridge (between B11, B2, and B1) to set up lure net. GPS: X=494494, Y=4333752, +/- 5m. Weather: Overcast and fine mist, 14C, no wind.

2126—TC and TEC from W (B11 M).

2140—Playback started.

2142—TC and TEC calls from N (W has stopped, same owl moving around?).

2145—TC calls from S (N has stopped or same bird moving around net). M continues to call from this location, approximately 30 m S of the lure net, for most of the duration of the playback.

2210—BL and SR leave JG at net to tap cavities and mark songposts on S end of ridge.

2227—B11 or B16 TC from SW.

2255—BL locates M calling in *pipo* on S end of Shooting Star R. Songpost is B10\_1 (see songpost data sheet).

2300—SR locates M giving TC and TEC in *psme* (B10\_2) and *pipo* (B10\_3, see songpost data sheet) on S end of Shooting Star R.

2330—BL and JG leave SR at net. SR hears TC close to S up until we leave.

2347—Playback stopped.

2402—We leave.

## 24 June 2009

1430—Flam Crew begins peeping B11 area (starting on Shooting Star R).

1645—Finish peeping, nothing found. Several cavities remain unpeeped in the NW corner of the territory. We leave.

## 29 June 2009

2242—JG and SY arrive at ~1/2 pt. of Shooting Star R. to run a lure net. B11 M is calling when we arrive (TCs) <50m S of us on the ridgetop. He continues to call during the net set-up process, N, S and W of net site.

Net site is on fairly open ridgetop – mixed size (sm. to very large) pipo/psme.

X: 494582

Y:4333535

+/-: 8m

2306—Begin playback of M TC**s/**TECs

2315—B10 M begins giving TCs to the SE.

2317—SY moves to the S end of Shooting Star R and S end of Picnic Cr. To listen for nesting vocalizations.

2335—JG hears B10 M give TCs to the SE of lure net setup.

2338—From side slope on SW end of Shooting Star R., SY hears B15 M give TCs to the SW.

2350—SY returns to net site.

2346—Discontinue playback, breakdown net, and leave.

## 29 June 2009

2238—QB, DH, SC arrive to lure net on PPG ridge and to listen/tap around cavity trees in the area. While walking down (S) PPG ridge, we hear M singing (consistent TCs) to E of PPG ridge, possibly in drainage or on Shooting Star ridge. He calls for ~10 m.

Weather: calm cloudy, 16 C.

Lure net site description: top of PPG ridge, ~150m from road, open area with small psme, pipu, mature pipo and pipu.

X: 494130 Y: 4333713 + 6m

2305—Playback started.

2315—QB and DH leave to listen/tap cavity trees on NE spur of PPG. SC stays to observe at net.

2318—QB and DH hear M giving TCs to E ( in drainage between PPG and Shooting Star). He sings for ~5 min.

2332—QB and DH hear M giving TCs far to NE (B2 area?). He singls sporadically for ~10-15 min.

2346—Playback off. We break down net and leave.

## 7 July 2009

2304—Playback started. SR, JG, KB, and BR have set up a lure net on Shooting Star R. Just before setting up net we hear TCs close from the S. Weather: Clear, calm, 12C. Veg: Psme/pipu, mature pipo

X: 494580

Y: 4333422

+/-: 5m

2308—TC from W toward Picnic Creek.

2309—TC/TEC moves to the E and on ridge top.

2310—TCs move to S and closer.

2313—TCs move back to the E (circling the net?)

2323—TCs from the W.

2327—Hoarse TC/TEC very close to net from W

2330—Captured banded M, **Band #64594. This is the B11\_2007 M. This is the first time this year we have captured him.** He flew in from the E and was caught in the top shelf of the net. NOTE: This owl was tangled very badly in the net. It took us 12 minutes to remove him, which we finally were able to do after making some minor cuts to the mist net.

115.0 g LWC: 132 mm

- 58.0 g LLP(#5): 96 mm

57.0 g LLP(#6): 105 mm

Rect: 60 mm

2331—We hear another M near the net giving TECs. This lasts for about 15 seconds.

2342—Discontinue playback, break down net.

2354—Release M, strong flight S to nearby tree, where we observe him perch.

2359—We leave.

# B11—2010

## 7 June 2010

2211—JSG, DW and BL arrive at B11 territory to set up lure net and listen on Shooting Star Ridge.

X: 494570

Y: 4333634

+/-: 7 m

**Weather: Calm, 21 C, Mostly Clear**

**Vegetation: Mature PIPO/PSME**

2237—Playback starts.

2245—M comes in to net area from E giving TC/TEC.

2052—After moving around a bit in the net vicinity M goes quiet.

2055—M heard up ridge to the NE with TCs

2351—M approaches net from SW down ridge giving TCs and then some HECs

0001—After moving around in net vicinity a bit, M goes quiet.

~0005—**JSG and DW find unbanded M captured in net in second shelf from bottom**. Entered from S.

0009—JSG and DW free M from net, turn off playback.

**Band # 1593-64761**

75.0 g LWC: 124 mm

- 16.0 g LLP(5): 93 mm

59.0 g LLP(6): 101 mm

Rect: 58 mm

0033—M released after measurements, banding by JSG with help from BL and successful bleeding by BL for DNA and slide smear.

~0050—We leave after dismantling lure net.

## 28 June 2010

2230-2410: DW and BL tap cavity trees and attempt to elicit singing from the B11 M in the northern portion of the B11 territory (from PPG Ridge to Shooting Star Ridge). Nothing seen or heard.

# B11—2011

## 28 June 2011

1440—Flam Crew begins tapping and peeping B11 and B15.

1730—We finish peeping, having not found a nest, but still needing to clean up a few remaining cavity trees to the S of the territory.

# B11—2012

***\*NOTE: All B11\_2012 field notes have been copied to B2\_2012 because the M is the B2\_2011 M. Notes after 1 July 2012 have been moved to B2\_2012.***

## 29 June 2012

1255—**While peeping a previously unenumerated cavity tree at the N end of PPG Ridge, JV observes what appears to be a F FLOW in the bottom of a cavity. While JV was convinced of its identity, BL required clarification, and elected to hook-climb the tree to verify. At ~1345 hr, it was confirmed—JV had peeped the B11\_2012 nest tree!** The nest tree is cavity tree # 1327, which is a live ~ 58 cm Pipo, located near the head of a side drainage that is between the PPG Ridge and the 1st ridge spur that comes off to the E (the ridge spur where the B11\_2007 nest—broken top Psme—was located). The nest tree is located approximately 60 m SW of the parking lot on the N end of PPG Ridge, and the nest cavity is located in an elongated lightning stripe on the E side of the tree, approximately 5.5 m above ground. The cavity appears to be the result of natural rotting inside the lightning stripe, without any woodpecker excavation, and the entrance is simply a relatively wide gap in a crack that actually extends down to the bottom of the cavity (there is ambient light entering the full length of the cavity). **F was sitting tightly on 3 young owlets—as best BL could tell from a restricted view through the crack in the tree, they appeared to be 4-6 d old (still covered in white down). BL lifted the previously unbanded F off the brood and proceeded to band her while at the cavity entrance.**

1324—BL returns from the vehicles and begins climbing the tree.

*1327—BL receives a phone call and answers it while sitting 20 ft up in the tree, about to cut into the cavity!*

*1329—BL is off the phone and begins sawing into cavity*!

1333—**BL has F out of cavity and bands her.** *This is the B11\_2012 F.*

**Band # 1783-64332** (on L leg)

1334—JV peeps **3 nestlings that are very small. All still have natal down. One is wiggling around but all have their heads toward the bottom of the cavity.**

1340—BL places F back into cavity and descends the tree.

1344—JV and BL leave the nest site, and resume peeping the S end of PPG ridge with the flam crew.

2300—BL, AW, and PPS arrive at the B11\_2012 nest attempting to capture the B11 M.

2307—PPS has net in capture position.

2318—PPS takes net down.

2319—F flushes and we leave. M did not approach nest area during our time in the nest site.

## 30 June 2012

2047—JV, JR and AW arrive at B11\_2012 nest to attempt to capture the M.

2049—JV has net up.

2050—M calling off roost from S.

2051—M lands in a live pipo to SE of nest tree giving TECS and scolding. He seems to use this tree as a perch before making PDs.

2054—M flies to branch on nest tree.

2055—F flushes, JV takes net down, no PD was made by the M.

2058—F PD and M PD

2104—M PD

2113—M in area, lands in pipo to SE and in nest tree and then flies away, gives scolds and TECs.

2116—M PD.

2118—F flushes, we leave.

## 1 July 2012

2103—JV net up, fairly windy but clear.

2107—F comes from W, lands on lower rung on capture pole, has the net blowing into her face,

and then flies into the net, catching herself.

2109—F released. **Band# 1783-64332**

2113—PD

2115—Silent bird perches by nest entrance looks at us, then flies off to the S.

2117—F PD and M PD

2119—F PD.

2123—PD, JV catches the F for a second time. **Band #1783-64332.** Team leaves after releasing her.

# B11—2013

## 4 June 2013

~2145—CK and SY arrive at N end of Shooting Star R. to lure and listen.

2201—Start playback at lure net.

Vegetation: Open, young to mature pipo/psme on ridgetop.

Weather: 7C, cloudy, wind 5-10mph, frequent small cells passing through area.

X: 494547

Y: 4333651

+/-4

2215—M giving TCs from the SW approaches net.

2223—M still giving TCs/TECs S in the vicinity of the net. M continues to call from several location in the immediate vicinity of the net on the ridgetop.

2236—M goes silent.

2238—M TCs to the SW for ~2min.

2245—SY heads to northern portion of PPG R. to listen in the vicinity of the B2\_2012 nest.

2255—M gives TCs at the net for ~1 min. SE of the net.

~2305—Fog and rain begin. SY returns to lure net area – we break down the net since it got wet.

2340—CK and SY spread out along the W flank of Shooting Star R.

Weather: 5C, foggy, wind 5-10mph, recent rain – still tree drip

2417—SY taps cavity tree #1065 and a FLOW flushes from an unseen cavity on the E side of the tree. I am able to locate the owl in a nearby tree on confirm it was a FLOW. I back out of the area to allow the (presumed) F to go back on the cavity.

2438—CK and SY return to **cavity tree #1065 and we locate a cavity with a F owl in the entrance on the E side ~20 feet up. Tree is a psme full snag on the top of Shooting Star R. This is the B2\_2013 or B11\_2013 nest!** *Note: later discovery of a B14\_2013 at the weir as well as a B11\_2013 nest near PPG confirms this nest as B2\_2013.*

2040—F goes back down.

2050—We depart.

## 10 June 2013

2032—RC, SY and Abby arrive at B2/B11\_2013 nest site with intent to capture nesting F. F is up in cavity upon arrival, and does not go down. Crew retreats behind tree to avoid F line of sight.

Weather: Mostly cloudy, very light breeze, 16C

2040—Quiet wing flaps heard 10m E of nest tree. No visual confirmation of flushing.

2042—SY approaches and moves capture net into place over cavity. F does not rise, and is assumed to have flushed. Peep attempted, but no signal transmitted by camera.

2046—Crew backs off 10m S of nest to wait for F to return for a capture attempt at B2/B11 M.

2057—M heard giving TCs briefly 50m SE of nest.

2058—F heard begging 15m E of nest.

2059—M approaches from SE.

2100—PD 15m E of nest.

2102—PD 18m E of nest.

~2107—F still has not returned to nest. Crew backs off 50m down ridge to allow F to return to nest.

2116—From midway down ridge top of Shooting Start R. we hear TCs distant to the SW – likely B15 on PPG R.

2120—SY returns to nest area. RC and AY remain at a distance.

2124—F gives 1 beg 15m E of nest.

2126—Capture net in place, away from cavity.

2130—Bird flies in to cavity, capture attempt hits branch, bird flushes to E, and is heard giving F vocalizations. Crew leaves to set up lure net 75 m N up Shooting Star R.

2149—We start playback at lure net on top of Shooting Star R. Approximately 75-100m N of the B2(?) nest. A M is immediately in the site giving TCs.

Vegetation: Moderately open pipo/psme on ridgetop.

Weather: 19C, mostly clear, calm.

X: 494569

Y:433486

+/- *estimated from nest tree*

2153—Second M with higher-pitch call gives TCs/TECs and approaches from SE (direction of B2/B11? nest site).

2200—Both birds move in and out of net area, calling simultaneously at times and alternatively at others for `20 minutes, without flying into net.

2213—SY reports 2 birds calling in net vicinity, as well as another M (presumed B15 M) giving TCs across drainage to S.

2220—All silent in net area.

2227— We hear wingflaps at the net – an unbanded FLOW is caught in the 4rd shelf, S side. We do not believe that this is one of our calling Ms (both had gone quite about 2 minutes prior and at least one continued to call while this bird was in hand. **Unbanded M**.

**Band # 1783-64371 (on R leg)**

74.0 g LWC: 127 mm

- 17.0 g LLP(5): 92 mm

57.0 g LLP(6): 102 mm

Rect: 59 mm

Notes: P1-4 moderately worn, P5-10 very worn, S1/P2 notched. Feather mites present, evidence of mite damage to feathers conspicuous.

~2245—BL and CK take the bird to blacklight him:

Right wing 1-4 = 2; 5 = 1.5; 6-9 = 1; 10 = 0. Left 1-4 = 2; 5-9 = 1; 10 = 0.

2242—Southern M is back at net giving TECs.

2320—Weather: 19C, mostly cloudy, wind has picked up, gusts 5-10.

2319-2327—Pause playback to try to renew interest at net. (No Ms heard since ~2245).

2334—TCs heard to the S ~100m

2336—TCs near net, to the NW

2340—M goes quiet.

2350—End playback. RC leaves to spotmap 150m N on Shooting Star R, SY and AY remain in net area to spotmap. Both groups work toward N.

2450—RC is giving hoots 30m S of road on top of Shooting Star R. M responds with TCs/TECs 30m to W. M briefly moves to N side of road while still calling and then back to S side, before moving SW down ridge toward drainage. RC pursues, but M goes silent before any songposts could be identified.

0100—SY and AY arrive to assist. RC moves down W side of R, hears nothing.

0101—From far N end of Shooting Star R. we hear TCs to the W (due west of B2\_2012 nest), near drainage bottom. We chase, but M goes quite before we locate him

0108-We depart.

## 14 June 2013

2235—BL arrives at the B2/B11\_2013 nest to attempt capture of M. F flushes as I approach the nest tree, and at this time the M enters the nest area giving LC and is prey-laden. I leave the nest site. Quite breezy in the nest area (it had been quite breezy since the evening started).

2245—Wind is finally calm.

2300—I return to the nest area, and I prepare to get in capture position the M makes 2 PDs in 5 min time.

2305—BL in capture position.

2400—**M returns to the nest area for the first time since I raised the capture pole, and I capture him after he makes a PD at the nest. M was previously banded—he has Band # 1783-64343; this was a floater captured in B14 territory on 7/9/2012 on S Goshawk Ridge! Note: this constitutes an additional record of a floater M transitioning to territorial status in a subsequent** **year!**

**Band # 1783-64343 (on x leg)**

92.0 g

- 34.5 g

57.5 g

No blood samples or measurements taken.

2406—BL releases M and leaves.

## 24 June 2013

2023—BL and CK arrive at B2/B11\_2013 nest tree (#1065) in an attempt to capture the B2/B11\_2013 F.

Weather: Some lingering smoke blowing in from the S. Mostly clear. 20C.

2030—CK approaches the cavity from the downslope side and places capture pole ~2m from the base of the tree. On our arrival, F is down. As the capture pole is raised to the cavity entrance, there is neither movement nor vocalizations from the M or the F. After 30 minutes of waiting with no vocalizations, we decide to wait until 2105 to peep the cavity.

2103—F flushes into the net and then escapes out the side.

2105—**CK peeps the cavity and finds two owlets and one FLOW egg (video taken)**. **One of the owlets is very active with its head up and a full natal down coat indicating 3-4 days old. The other owlet is not as active, but is still moving. The nest is scattered with egg shell fragments.** F gives SC from downslope of the nest while we peep.

~2110—CK and BL leave the B2/B11 nest tree to peep the B10 (#710) nest tree.

2219—While walking down PPG Ridge set up lure net for the B15 M, we hear a M (B11 M?) giving TC near the ridge top and ~ 200 m S of the 2-track road/parking area. We pursue and eventually mark five songposts on the M in an area bounded to the N by a songpost ~ 75 m S of the 2-track road on PPG, and to the W and NW by songposts ~ 150 m W and NW of PPG Ridge. We last heard him moving to the N of the 2-track road (~ 150 m W of PPG Ridge), possibly in response to a M we never heard.

2245—We leave singing M to return to PPG Ridge.

2446—While leaving our B15 lure net on the S end of PPG Ridge, we again hear a M giving TC ~ 200 m S of the N end of PPG Ridge. We pursue and locate the M (B11 M?) giving TC from the #3 songpost (66 cm dbh Psme) marked earlier in the evening.

2450—M quiets and we leave.

## 28 June 2013

~2020—AW and RC arrive at B2/11\_2013 nest site with intent to capture F and peep nest.

2025—Net is in capture position. Nearly immediately, **F flushes into net. Unbanded F. Peep reveals 3 nestlings—very active, with eyes open and heads lifted. Estimated hatch date June 20, so our age estimation is ~8 days. Peep recorded on monitor #2. Both M and F at this nest were newly banded this year.**

**Band # 1783-64383** (on R leg)

Weather: Mostly cloudy, warm, strong breeze swaying tree trunks, passing thunderstorms.

2032—F released. Flight to E descending for 4m, then ascending and strong.

2036—We leave to attempt to capture M at B1\_2013 nest.

## 9 July 2013

2230—LL, BL, and BDG arrive at B11 with the intention of luring for the M and listening for nesting vocalizations.

2244—We begin playback, which is a mixture of TCs/TECs and Whiskered Screech Owl Calls since we lack a ghettopod and are using Brian’s iPod Shuffle, on top of PPG R. ~80m from the parking spot.

Vegetation: Mixed pipo/psme, open, adjacent to young pifl.

Weather: Sprinkles, later clear, light breeze, 15C.

X: 494133

Y: 4333715

+/- 3m

2256—BDG and BL leave to listen for nesting vocalizations while LL stays at the net. BL listened along the road to the NE and BDG continued down PPG R staying near the crest on the E side.

2326—BDG returns to net and LL left to listen in Picnic Cr.

2357—We turn off playback and leave.

## 10 July 2013

~1430—Flam Crew begins peeping B11/B15 territories. One crew begins peeping in Catamount

Creek while the other crew begins peeping at the N end of PPG Ridge. Crews are

working towards each other.

~1600—**BDG taps B11\_1151 tree #1151 and a FLOW flushes from a cavity on the SW side**

**of the tree (BDG was on the N side at the time). This is the B11\_2013 nest tree!**

**Nest tree is a broken top pipo snag. Nest cavity is keyhole shaped, but is not a past nest tree. There are additional cavities on the tree, but nest cavity is the largest on the SW side. Nest cavity is approximately 12-14’. BDG peeps cavity while F is off and finds 2 eggs, centered, touching. This is, by far, our latest nest of the 2013 season. *Note: this nest find confirms the identity of the B2/B11\_2013 nest (B10\_1065 tag #1065) as B2\_2013.*** Northern PPG crew resumes peeping near the confluence of W Missouri and Picnic Cr.

1655—Flam Crew ends peeping. Catamount Creek crew finishes peeping at the confluence of

W Missouri and Catamount Cr having peeped all known cavity trees. North PPG crew finishes peeping just N of Picnic Cr and W Missouri Cr (we did not make it to the confluence).

## 12 July 2013

2153—SY and MC arrive at B11\_2013 with intent to capture the male.

2154—SY gets the net up.

2204—FLOW flies in to the site.

2208—FLOW lands on cavity but does not go in, flies off.

2210—Bird goes in to the cavity, we get the net over the cavity but no bird is coming out. We peep the cavity, there is only one adult in the cavity and it’s the female, one in tact egg is visible in the cavity.

2218—We get the net back up in capture position.

2221—FLOW comes into the nest site (B11 male), hopping around to four different trees around

the site.

2241—Male gives TC/TECs.

2244—Male gives TECs.

2245—Female flushes (likely from male’s calls as we did not make any noise). We back off of the nest to let the female back on.

2248—We decide to end our capture attempt and go back to the nest tree to collect the capture pole and peeper, female flushes again and scolds us, we leave.

## 15 July 2013

2220—BL, RReynolds, MSnyder, and Gazette reporters (Michael and Rian) arrive at the

B11\_2013 nest to attempt capture of M (with mist net). As BL approaches nest tree, I see

an adult FLOW perched in an adjacent Psme but is not prey-laden—probably the F. We

back off.

2235—We reapproach nest, and F flushes again. We back off.

2250—We reapproach nest, and F flushes yet again. We leave.

## 17 July 2013

2220—MC and SY begin setting up a lure net on the spur ridge of Shooting Star R. that leads to

the B11\_2013 nest.

2234—Start payback

Vegetation: moderate to very open young-mature pipo/psme. Some old trees on

periphery of the site.

Weather: 16C, clear, wind <5mph

2327—SY arrives at the B11\_2013 nest to observe. F is in entrance as I approach.

2333—F flushes.

2335—F returns to the site – she is unbanded.

2337—F returns to cavity and give a couple FSCs.

2342—SY returns to lure site. We switch playback to FSCs.

2400—We switch playback back to TCs/TECs

2416—We stop playback, break down net and leave. M was never observed in the territory.

## 18 July 2013

1600—JV and SY arrive at the B11\_2013 nest to install trail cams.

1620—As 2nd camera is being finished, the F rises to the entrance and flushes.

1622—We finish camera.

We peep: 2 unhatched eggs, 1 very young nestling. Probably hatched within 24-48 hours.2 cameras were installed. 1 ~1m behind the cavity facing the adults’ approach and 1 ~7m perpendicular to the cavity. We leave.

## 19 July 2013

2243—LL and BL start playback at this time for a Geolocator Lure Net approximately 100 m W

of the N end of PPG Ridge, just off the E-W running 2-track road, and adjacent to the B11\_2013 territory.

Vegetation: Mostly mature Psme/Pipo, with scattered young trees. We set up lure net adjacent to several ~ 15 cm dbh Psme’s.

Weather: Partly cloudy, calm, ~ 16 C.

X: 494015

Y: 4333774

+/- 3 m

2247—M starts giving TC just due E of lure net.

2311—M goes silent.

2312—**BL checks the net and finds FLOW captured in the lure net, 3rd shelf, E side.**

**FLOW was previously banded with Band # 1783-64371—this was one of two**

**territorial males captured in a lure net (by SY and RC) on the N end of Shooting Star Ridge on 6/10/2013, and is the presumed B11\_2013 M.**

**Band # 1783-64371 (on ? leg)**

91.0 g LWC: 126 mm

- 35.5 g LLP(5): 25 mm

55.5 g LLP(6): 105 mm

Rect: 57 mm

Note: P1-4 on both wings have already molted and have been replaced (these Ps are much more darkly pigmented in general across entire vanes), with P5 in shaft. P6-10 are all older, lighter in coloration, and worn.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 (90%) | 3 (90%) |
| P2 | 3(75%) | 3(75%) |
| P3 | 3 (75%) | 3 (75%) |
| P4 | 3 (75%) | 3 (75%) |
| P5 | NA | NA |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0 | 0 |
| P10 | 0 | 0 |

**Wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0 | 0 |
| P5 | NA | NA |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2346—We release M without bleeding him, since this was done in June.

2349—Back at lure net. We turn off playback, and break down net.

## 22 July 2013

2022—LL and SY arrive at B11\_2013 nest to try to capture the M. F flushes as we approach.

**We peep: 2 Ns all white natal down – look very young. 1 possibly unhatched egg**

**(could be a large eggshell fragment though).**

F scolding as we peep. We remove both the trail cams during the peep. We back off and

let the F go back down.

2050—We return to the nest and start setting up the net.

2102—F scolds from the E of the cavity – she was either off the whole time or flushed as we

approached without us seeing. We back off with the net extended but not up in a capture

position.

2120—We return to the nest site and begin working on the net again.

~2130—F scolds us from off cavity to the W – same situation as earlier. We break down net and

leave.

## 24 July 2013

2045—SY, MC and BDG arrive at junction between FR344 and FR348B with the intention of luring and placing geolocators on territorial males. Three males had been heard in the vicinity in 2012.

2059—We start playback just NE of junction between FR344 and FR348B.

Vegetation: young pipo/psme, fairly dense

Weather: light breeze, mostly cloudy, 13C

X: 493223

Y: 4332873

+/-3

2218—We hear a M giving TCs and TECs ~20m ENE of net.

2221—We begin hearing a second higher pitched M giving TCs NNW of the net.

2223—The two Ms have a territorial encounter to the ENE of the net giving each other TECs. SY begins giving TCs in an attempt to distract them from each other.

2224—The first male who originated from the ENE goes silent while the second higher pitched M who originated NNW of the net continues to give TCs to the ENE of the net.

2225—SY approaches net and sees the first bird perched next to the playback. SY attempts to flush him and he makes a short flight closer to the net.

2226—**SY flushes him again and he flies directly into the net and we successfully capture him. He was captured earlier in the season and is the presumed B11\_2013 M.**

2230—**The second higher pitched M goes silent and BDG finds him in the net.** The M gives TECs during extraction and once in hand gives chitters for at least three minutes. He defecates clear liquid several times during handling. *He also has a number of missing and/or damaged feathers on his head.*

First Male:

**Band # 1783-64371** (on ? leg)

78.0 g LWC: XXX mm

- 18.0 g LLP(5): 49 (25 in shaft) mm

60.0 g LLP(6): 108 mm

Rect: 61 mm

**We put geo 795 on the first male (presumed B11\_2013)**. We do not take blood or look at the wings under blacklight. LP5 was in molt. We did not look at the right wing. **He is the BG7\_2013/B11\_2013 M.**

Second Male:

**Band # 1783-64421** (on L leg)

78.5 g LWC: 130 mm

- 22.0 g LLP(4): 68 mm

56.5 g LLP(5): 37 (22 in shaft) mm

LLP(6): (22 in shaft, none out of shaft) mm

Rect: 56 mm

RLP(4): 74 mm

RLP(5): 37 (15 in shaft) mm

RLP(6): (22 in shaft) mm

**We put geo 793 on the second previously unbanded M**. He is molting P4-6 on both wings. We do not take blood or look at the wings under blacklight. **He is the BG8\_2013 M.**

2259—MC releases the presumed B11\_2013 M who has strong ascending flight to perch >9m in a pipo snag. He does not appear troubled by the geo. MC checks checks the net and returns to find that the presumed B11\_2013 M is no longer in the pipo snag. We are unable to locate him.

2312—We release the second male who has level fluttering flight to perch ~12m away ~2m high. He wobbles on the branch for 30s before perching well. He begins looking down at his chest, but does not appear to be tugging at the geo straps. After ~1min he makes another level fluttering flight N passed the net. We are unable to locate him.

2420—We take the net down and leave.

## 28 July 2013

2053—MC and RC arrive at B11\_2013 with intent to capture M and F and peep the cavity. **Peep reveals no nestlings in the cavity. There are egg shell fragments scattered in the cavity (video in dropbox).** Male and female were not heard or seen while we were at the nest site. Some egg shell fragments were found on the ground and collected. **It appears the B11\_2013 nest has been predated.**

# B11—2014

## 2 June 2014

2103—MC, SY and JS set out to run a lure net on top of northern Shooting Star R. targeting B11 and B2 Ms.

2124—PB started.

**Vegetation**: Young to mature psmes among ridge-top

**Weather**: sky clear, slight wind, 15C

X: 494585

Y: 4333595

+/- 3m

2136—MC and SY spread along ridge to tap and listen. JS stays at lure net.

2158—JS hears distant TCs E of net.

2200—JS hears TCs from SE slightly closer.

2205—**Unbanded M caught in second shelf**, approached from E,TCs in net and HECs in hand. **He is presumably the B2\_2014 M.**

**New Band # 1783-64457** (on L leg)

86.0 g LWC: 129 mm

- 34.0 g LLP(5): 94 mm

52.0 g LLP(6): 102 mm

Rect: 60 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2.5 | 3 |
| P5 | 1.5 | 2 |
| P6 | 1 | 2 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 1 | 0 |
| P5 | 1 | 1 |
| P6 | 2 | 1 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2 |
| P10 | 3 | 2 |

**Notes:** Blood taken from L wing, little to no hematoma. Very rufous bird. Possibly B2?

2230—M released, strong ascending flight SE

2238—MC departs for B11 to tap the nest tree and listen while SY heads to old pipo nest site and JS stays on Shooting Star Ridge. Nothing responds at B11\_2013.

2241—JS hears TCs from W

2309—MC and SY return to net site.

2327—PB off

2336—Lure net taken down

2343-0106—We spread out along B11 ridges. Listening and hooting along PPG, Shooting Star R and upper Picnic Cr.

2430-0106: BL, RC, ER join SY on the PPG ridge top, where we spread out along its N—S axis to listen and periodically call.

~2450—From his position near the N-most end of PPG, BL hears a M—possibly B11 M—give 8-10 TC, approximately 50 m to the W. He then goes quiet.

2458-0145—SY hears male TC on S end of Shooting Star ridge and sends MC after him. TCs heard across W Missouri Creek. MC gives chase, getting one song post at the lower end of Sharpshinned Ridge. The bird moves up to the mid-slope of Sierra Madre. He gives TCs from cavity tree B10\_1324 for ~10 minutes before moving up the ridge further. I get one more general area song post higher up on Sierra Madre before leaving.

0107—From northern Shooting Star R. JS hears TCs W in drainage bottom in response to BL calls.

0145—Nothing else heard, we depart.

## 20 June 2014

2130-2335: BL arrives to search and listen for nesting activity in the B10\_2014 territory. I first tap and listen around the two past nest trees (live Pipo, snag Pifl) on the SE end of Shooting Star Ridge, where nothing was heard/seen, and then slowly move S to N up Picnic Cr from below the B10\_2013 nest tree to near where Picnic Cr broadens out below the B11\_2013 nest tree. I also travel over top of Shooting Star Ridge to the E-facing mid-slope where I tap and listen around cavity trees along a N to S axis commensurate to that described on the other side of the ridge. Nothing seen or heard.

## 7 July 2014

1430—Flam Crew begins peeping W. Missouri territories including B15 and B10. We spread out along Shooting Star, PPG, and Picnic Cr with all crews moving S. Almost all trees in this area are peeped – there were a few missed at the confluence of Picnic Cr and W. Missouri. The majority of the crew leaves to go back to the lodge while BL and SY peep Catamount Cr and W. Missouri. Nearly all trees are peeped in these drainages. Some trees at the confluence of Columbine Cr and W. Missouri were peeped, but this area could use additional peeping.

~1900—We end peeping having found nothing.

**B11—2015**

**28 May 2015**

~1545—Flam crew arrives at parking spot at top of Shooting Star R to peep for nests primarily in B2/B10. Most of the crew drops into Homestead Cr and moves NE, focusing on B2 trees in the drainage bottom but also hitting a few trees, including past nest tree #61, in B1. BL and MC focus on past nest trees on Shooting Star R (B2, B11, B10, B15), moving S from parking area and eventually dropping W toward Picnic Cr.

~1715—Nothing found. We leave.

2105—MC and BH arrive at net site on Shooting Star ridge with intent to net for territorial Ms in the area and attempt to listen for nesting vocalizations. The net is located ~150 S of the road on the ridgetop, ~5m N of where the road cut joins with the ridge.

Vegetation: young-medium pipo/psme, open

Weather: 6C with a strong wind ~3-5mph, partly cloudy

X: 494579

Y: 4333594

+/- 8m

2112—PB starts.

2119—M TCs ~50m S of net, possible B10\_M.

2128—Our PB dies, BL makes his way to Shooting Star with a fresh PB. MC returns to road, giving hoots along the way while BH stays at the net and does the same. No response heard.

2206—BL brings phone to replace PB, we restart. The phone is slightly quieter than desireable.

2227—MC walks ~50m S to listen. M heard giving consistent TC/TECs from ~100m SE.

2237—MC hangs songpost B10\_1 on singing M.

2245—M moves ~10m SE into a low branch, MC spotlights the bird who then takes off, SE down drainage.

2247—M gives TECs from cavity tree #1231. MC kills light in anticipation of hearing FSCs.

2252—M continues to give TECs from the same cavity tree, MC circles tree to find F up in a cavity entrance, **This is the B10\_2015 Nest Tree! The cavity is ~20ft. up facing SSE. Tree #1231 is a full potr snag in the drainage bottom.**

2254—MC kills headlamp and crouches down, after 2 minutes the F flushes her cavity, MC leaves.

2303—MC returns to the net and we kill PB to break down and move net to target the probable B10\_M.

2323—The net is moved ~200m S down Shooting Star Ridge, just upslope of past B2 nest tree #333. PB starts.

Vegetation: young-medium pipo/psme, open.

Weather: 4C, clear and calm.

X: 494591

Y: 4333340

+/- 10m

2335—M TCs ~30m SW of net. Possibly either B11 or B10 M.

2341—M continues to move further towards net, but heads W as well, possibly B11\_M.

2343—Presumed B11\_M goes silent.

2346—M gives 2 TCs from lower Picnic Cr. Due W of net.

2350—Possible FSC in Picnic, MC leaves net to head towards that area, around the same area as M was giving TCs from. M gives a 3 note call from vicinity of cavity tree #503 and 1293. At the same time BH has two birds at the net.

2355—BH hears TECs (3-4) and single FSC in net vicinity, ~5-10m E.

2357—BH hears TCs (2-3) ~10m E of net, possibly indicating B10 M.

2408—BH hears TCs (4-5) ~50m W, possibly indicating B11 M.

2411—PB stopped and begin breaking down net.

2433—BH heads W towards Picnic Creek ~150m down Shooting Star into drainage.

2440—BH hears single TC from W, waits and listens for 6 minutes before heading back up Shooting Star to meet MC.

2448—MC gives TCs from the roadcut, one spur off of Shooting Star ridge, M responds down drainage from the same area as the original TCs.

## 8 June 2015

2041—BH and BL arrive at **B10\_2015 nest** intending to peep nest cavity and attempt nest capture of B10 M.

2049—M calls off roost approximately 50 m NW of the nest tree, and nearly immediately BL hears F give FSC off cavity to the SW.

2050—**We peep nest cavity immediately to find it devoid of FLOW eggs; all that is present is a layer of grass in the cavity bottom, and after a moment BL observes movement under the grass—probably small mammal young. The owl cavity appears to be occupied by a red squirrel nest. At this time, the F is heard giving 4-note LC and FSC within 20 m of the nest tree.**

2055—We wait and watch the nest cavity on low slope ~3m due S.

2058—**FLOW (probably the F) dive bombs an adult red squirrel that is attempting to scurry up the trunk of the nest tree, presumably headed for nest cavity ~7m up on S face of tree. Squirrel is forced back down to the ground and FLOW flies E away from B10\_2015 nest tree. This occurs on TWO additional occasions before 2105, and each time the squirrel’s ascension on the trunk is prevented.**

2100—B10 M gives LCs in nest vicinity, ~5m from nest tree. F gives LC nearby.

2102—B10 M gives 2-3 TECs, B10 F begins giving LCs heard ~5m SSW of nest tree.

2109—**BH and BL witness red squirrel scrambling up B10\_2015 nest tree and entering previously documented FLOW cavity—it is now nearly completely dark, and no FLOW were in close vicinity to thwart the squirrel (we hear them giving pair vocalizations ~ 30 m to the N along W Miss Cr), as observed earlier. Squirrel is not seen leaving cavity for the rest of the observational period.**

2112—B10 F lands in potr snag ~6m due S of 2015 nest tree. Perches on N facing branch ~3m up tree directly above BH. Gives consistent FSCs and LCs.

2114—B10 M arrives with PD.

2117-2325—B10 M arrives with7 PDs over the span of 9 minutes, indicating that the F has high energy demands and might not yet be finished completing her clutch.

2126—F leaves perch, lands in neighboring tree ~2m E. Resumes giving LCs interspersed with FSCs.

2135—**F attempts to enter B10\_2015 nest cavity, does not successfully enter.**

2137—F returns to high branch of initial perch tree S of nest tree. The FLOW pair hops between trees on low slope S of nest tree.

2152—M gives rapid HECs ~10m due S, goes silent after approx. 15 sec.

Note: *Throughout observational period B10 F gives consistent LCs and M makes PDs.*

2200—BH and BL leave B10 nest location to set up lure net with the intent of capturing B11/B15/B1 Ms.

**NOTE: BL speculated that perhaps RESQ preyed upon a partially completed clutch and subsequently took up residence afterwards, and the F FLOW is now attempting to reinter the original nest cavity to lay another egg. During our hour+ period of observation tonight, the F never strayed from a ~30 m radius of the nest tree. It remains to be seen whether or not she take up residence in another available cavity tree.**

2237—Finish lure net set up on the SW side of Shooting Star R., at the confluence of Picnic Cr. and W. Missouri Cr.

**Vegetation: Open, young potrs/pipos.**

Weather: Calm, clear, 12C

X: 494386

Y: 4333001

+/- 3

2332—BH hears M give 2-3 TCs ~40-50m NNW of net site. Goes silent and is not heard again.

2336—BH checks the net and sees silent FLOW perched in PB tree. Gave no detectable vocalizations coming into net area; presumably floater M.

2355—BH begins moving PB in order to solicit FLOW activity on all sides of net site, when floater M flies from PB tree into adjacent potr.

2357—BH moves PB to N side of net in an attempt to lure floater M into net.

2411—BH walks loop around net with PB, no sign of floater M again. Returns PB to original spot on S side of net.

2422—PB off, begin breaking down net.

2430-0100: As we leave the area, we tap both of the past B10 nest trees (live Pipo and Pifl snag) on the W-facing slope of Shooting Star Ridge, with no response, and we periodically call as we walk up the ridge top to our vehicle at the N end. Nothing heard.

## 2 July 2015

1214—**SY approaches cavity tree #1327 and a F comes up to the cavity entrance! This is the B11\_2015 nest! The cavity is ~15m up the E side of a live, lightening-struck pipo. The cavity is within the lightening strike in a natural cavity. The tree is just off the E side of the top of PPG Ridge, ~40m down the ridge from the road. This cavity is the same as the past B11\_2012 nest.**

2015—BH and BL arrive at the B11\_2015 nest tree to attempt capture of M. F is not in the cavity entrance when we arrive, and we quietly proceed to set up mist net 3-4 m E of nest tree (6 poles on uphill end, 5 poles on downhill end). F came up to entrance when we first started the process, but she descended after ~ 30 sec, and we continued with no further disturbances.

2040—Set up of mist net is completed, but net is lowered to allow F passage.

2055—F flushes. **We peep cavity, and observe 2 unhatched eggs, nearly touching in the center of the cavity.**

2117—F returns to cavity.

2120—We raise mist net to full height. Wind from thunder cell off to N over next 10-15 min causes mist net to fill out and get hung up on nearby branches.

2130—We break down net—M has not approached the nest, nor have we heard him vocalize, since we arrived.

2144—We leave.

## 7 July 2015

2200—DL and BL arrive at the B11\_2015 nest to attempt capture of M. F rises to the entrance when we arrive, but then goes down after ~ 1 min.

2206, 2215, 2221, 2223—M makes PD.

2213—BL leaves site to make radio contact with RS and LP.

Weather: Foggy (moderate late pm rains), calm, ~13 C.

2224—F flushes

2225—BL returns to site.

2226—F returns to cavity.

2235—DL approaches nest tree and assumes capture position with brown pole. F stays down.

2039—M arrives in nest area giving LC, to which the F responds in the cavity with FSC. Over the next 10 min (until capture at 2049), M approaches the nest tree on 6-8 occasions, and flies to the cavity entrance on 4 occasions—he aborts on 3 occasions, and completes a PD and escapes out of the net on one occasion, and after each failed approach he flew back to a more distant perch in the nest area followed by giving TCs and TECs in the crown of the nest tree.

2049—**M makes PD, and DL captures him as he exits. M was banded previously with Band # 1783-64371, and was carrying geolocator #F795! NOTE: This was the B11\_2013 M, as well as the BG7\_2013 M, and had been carrying the geo since 7/23/2013! This marks the 2nd occasion (following the geo recovery from B5\_2011) in which we have recovered a M carrying a geolocator for (nearly) 2 years! Unfortunately, we learned the next day that the geolocator’s battery has apparently expired on the F795 unit.**

**Band # 1783-64371 (on x leg)**

66.5 g LWC: 129 mm

- 7.0 g LLP(5): 99 mm

59.5 g LLP(6): 107 mm

Rect: 61 mm

**NOTES**:

**Got blood sample. Small hematoma on L wing.**

**We observed a small, dime-sized spot of bare skin where the geolocator had been resting on the dorsal surface of the M, with pin feathers growing in around the perimeter. Otherwise there were no signs of abrasions or callusing. When captured, the geo looked to be in its original, upright position.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | 1.5 | 3 |
| P6 | 1.5 | 2 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2.5 |

2348—M is released, and he shows strong, ascending flight to the N of the nest area.

2350—**We proceed to peep the cavity—F lunged at the camera on 2 occasions before finally flushing. We observe 2 owlets, both in all white plumage. Eldest owlet had eyes wide open, was up-right and attentive (it looked up at camera), and its stance was mostly steady—BL estimated its age at 4-5 days old, with the more unstable runt (whose eyes did not appear fully open) at 2-3 days old.**

2354—We gather our equipment and leave for B10\_2015 nest.

## 10 July 2015

2057—S Getty and BL arrive in the B11\_2015 nest area to attempt capture of F. BL immediately places capture net over cavity, but no response from F—**we peep cavity and see that she has already flushed. The 2 owlets are still mostly white, but grey juvenal plumage is filling in on wings and scapulars, and both are quite attentive and standing up. BL estimates age of eldest at 8-9 days.** M comes into nest area while we are peeping, giving a few LC.

2106-2125: M makes 9 PDs in cavity during this time (details on PD data sheet).

2135—We think F has returned to the cavity, as an adult FLOW flew into the cavity and we did not see it flush.

2143—**BL places the capture net over the entrance at this time, and we capture her as she flushes. F was not previously banded**.

**Band # 1833-03281 (on R leg)**

77.5 g LWC: 127 mm

- 7.5 g LLP(5): 97 mm

70.0 g LLP(6): 106 mm

Rect: 63 mm

**NOTES: P1-3 were molting on both wings, and were still completely in shaft. Incubation patch was filling in with pin feathers. No blood sample, blacklight, or wear measurements were taken.**

2156—We release F and leave.

## 13 July 2015

2419—DL and BL arrive at the B11\_2015 nest tree to peep status of owlets. F rises to entrance as we approach, and she flushes as DL raises the peeper. **Peep reveals 2 attentive owlets—eldest owlet still with white head, but grey juvenal plumage is visible nearly everywhere else, especially on wings. Younger sibling with less grey plumage, but it’s still prevalent.**

2425—F returns to cavity as we leave area, and M arrives and gives LC from an adjacent tree.

## 21 July 2015

1338—BL, MC, DL, and LP arrive to B11\_2015 nest site with intent to capture F and band/bleed owlets. F is down on arrival.

1340—F rises to entrance of cavity as we approach cavity tree.

1345—LP moves S side of tree to distract F, while BL raised capture pole. BL swings at F and she flies into the capture bag. F escapes from bag to the S on the pole’s descent.

1358—MC starts climbing tree.

1405—2 owlets extracted from cavity.

Cavity dimensions:

entrance (horizontal): 65mm

entrance (vertical):120mm

entrance (thickness): 11mm

depth (horizontal): 151mm

depth (vertical): 245mm

DOH: 52.0cm

**Owlet:** 65.9 g

P#5: 54 mm

P#6: 54 mm

Rect: 23 mm

Band#: 1833-03180 (on L leg)

Notes: Blood sample-L wing, small hematoma. Also poop sample.

**Owlet:** 61.1 g

P#5: 41 mm

P#6: 42 mm

Rect: 15 mm

Band#: 1833-03181

Notes: Bled sample-L wing, small hematoma. Also poop sample.

1427—Owlets back in cavity.

1435—We leave B11.

## 24 July 2015

2030—LP and BL arrive in the B11\_2015 nest area to attempt capture and bleeding of F. F is not in the entrance when we arrive. BL places the capture net over the cavity, but there is no response, even after tapping the tree. **LP peeps the cavity and we observe that the F is not present. Nest still contains 2 owlets, both of which have well-developed facial disks, and are quietly sitting in the bottom.**

2035—We leave to set up lure net in BG7\_2015.

2055-2150: BL returns to the B11\_2015 nest and gets in capture position for the F. **F never was observed approaching the nest cavity during this time, although she scolded me from about 30 m S of the nest area at ~2115. M made 5-6 PD, mostly after 2130, and all of which occurred inside the cavity—one of the owlets came to the cavity entrance on two occasions for about 5 min each, but otherwise they stayed down.** BL leaves at the end of this time to attach geolocator to BG7\_2015 M.

**B11—2016**

## 7 June 2016

Afternoon—BH and BL arrive at B11 parking spot to selectively tap past nest trees and nice-looking cavity trees in B11 and B14. We find nothing.

## 22 July 2016

Afternoon—Flam Crew commences a cherry peeping effort of northern B10. We peep the highlights on PPG R., in upper Picnic Cr, and along the W-facing slope of Shooting Star R. We do not find any owls.

~2230—DL and RC arrive on top of PPG ridge ~30m E of the parking spot to set up a pin point lure net.

2238—Begin playback.

Vegetation: mixed PSME, PIPO

Weather: breezy, partly cloudy, 16C

X: 494242

Y: 4333857

+/- 8

~2300—DL walks PB W for ~15 minutes and hears nothing.

2330—PB off. We break down and leave to meet flam crew.

# B11—2017

## 5 June 2017

2320-2345: BL taps on the B11\_2015 nest tree (large, live PIPO) near the N end of PPG ridge, and listens for courtship/nesting vocalizations. Nothing heard or seen.

## 21 July 2017

2227—ER, ZM, and JE set up a lure net and begin pb of T42 on PPG. The net is ~250m S down PPG and is open NE/SW.

Vegetation: mixed pipo/psme, young pifl

Weather: breezy, cloudy, 13C

X: 494194

Y: 4333537

+/- 3m

2243—We hear a M vocalizing very distantly S.

2245—It begins raining so we stop pb and collapse the net.

2259—Resume pb and raise net.

2205—M comes in pretty quickly from the NW, moving down the W slope of PPG, stopping ~20m from the net. We switch to megascops.

2206—M is now making TECs and enters the net site, perching just next to the net.

2208—M moves further W down the drainage, away from the net. ER walks the pb down to try and lure him back in.

2211—M returns to the net site.

2214—Just as it sounds as if the M has gone silent, a loud plane flies overheard.

2217—It is silent to we switch it back to T42.

2221—The M returns, but is 100+m W. He does not approach.

2225—We stop pb, break down the net and leave.

## 24 July 2017

2045-22:30: BL listens for nesting/fledgling vocalizations and taps cavity trees in the vicinity of past nest trees in the B11 territory (along PPG Ridge) and B15 territory (in Catamount and West Missouri Cr drainages). At 2115, and while listening near cavity trees at the confluence of Catamount and West Missouri Cr, I hear the presumed B15 M start to give TC near the B15\_2005-2007 nest trees (30 m N of the confluence of said creeks in a small drainage on the lower S-facing slope of PPG Ridge). M calls for ~10 min in this area before quieting. Nothing else heard or found.

# B11—2018

## 4 June 2018

1430—Flam crew taps and peeps the B11\_2015 nest tree, but there is no one home. We leave B11 territory to look for nests in other parts of W Missouri.

## 11 July 2018

1330-1730—Flam crew peeps out almost all of PPG, Picnic, Catamount, and a few past nest trees in W Missouri and Shooting Star. We do not find anything suggestive of a 2018 FLOW nest tree.

# B11—2019

## 3 June 2019

1430—Flam crew taps and peeps the B11\_2012, 2015 nest tree, but there is no one home. We leave B11 territory to look for nests in other parts of W Missouri.

## 9 July 2019

2303—ML, BL, AM, and their guest Rob Heavey arrive in B11 and begin lure net set up. We are on the ridgetop of PPG Ridge, 100 m S of FS 344.

Vegetation: pipo, psme, pifl, mixed age

Weather: 15 C, slight breeze, 10% cloud cover

X: 494134

Y: 4333727

+/- 3 m

2318—We begin PB T42. Net is open E / W.

2325—AM and BL go off to tap trees and listen elsewhere in B11. BL hears a M give TCs far off to the south in B15.

2348—Nothing is heard at the lure net, so we cut PB and break down the net. We leave.

## 15 July 2019

2255—ON, KC, and BL arrive at the B11 territory to lure for territorial M FLOWs and listen for nesting vocalizations.

2310—We set up the net and begin PB T42. Net is open E/W on ridgetop of S terminus of PPG Ridge just N of the terminal spurs at the end of the ridge.

Vegetation: Mixed age psme/pipo

Weather: 80% cloud cover, calm, 17 C

X: 494235

Y: 4333486

+/- 3m

2315—ON thinks she may hear a couple distant TCs from the SE but they are difficult to make out.

2319—We think we may hear another couple TCs to the E but we are still not confident.

2320—BL leaves the site and descends the S terminus of PPG Ridge to listen at the confluence of Catamount Cr. and W Missouri Cr. Throughout the night he works his way up Picnic Cr. but hears no sign of FLOW activity.

2330—KC leaves the lure net site and heads E down the slope of PPG Ridge to go listen in the vicinity of tree #1575 as well as in the Picnic Cr. drainage. He too does not hear any signs of FLOW activity throughout the night.

2351—Meanwhile, ON stays at the lure net and hears no FLOW vocalizations so she decides to nuke ‘em with the Megascops.

2400—ON hears 2 M TCs ~60 m E of the net, perhaps down in the drainage. She walks the PB down to the midslope of PPG Ridge towards where she heard the calls but hears nothing more.

2415—We cut PB and break down the net.

2424—We head out for the night. No more signs of FLOW activity are seen nor heard.

# B11—2020

## 30 June 2020

1500-1830—Flam crew taps and peeps historic nests and cavity trees on the W side of Shooting Star Rdge down to the confluence with Picnic Cr and W Missouri Cr. We find the B10 nest at the confluence of W Missouri Cr and Columbine Cr. No B11 nest is found.

# B12—2003

## 17 June 2003

2240—L. Biemiller and BL arrive on Sharp Shinned Ridge to pursue a male that we heard singing to the S from our original position on Vista Ridge.

2350—BL marks one song post on the Sierra Madre Ridge, in the general area where B12-M gave TC for 5-10 min.

2405—BL marks a second song post for the same M, approximately 100 m N of the first.

## 26 June 2003

2310—Katie and Miriam arrive to begin songposting from W sharp-shinned and sierra madre ridges.

2323—Miriam gives two hoots on north sierra madre, and owl flies RIGHT next to her on a branch, and stares. (495157-4333128, ac. 29ft)

2331—Owl flies N. Miriam may have heard FS calls, but may have been her imagination.

2350—B12? Songpost #1. He fluttered in the tree and then flew N

2400—B12? Songpost #2, not exact location, but w/in 20 m or so.

2420—Miriam elicits calls.

2421—Male gives 2 TC on top of sharp-shinned ridge. General area songpost marked #3.

2428—General songpost (#4) marked on top of sharp-shinned ridge.

2435—Actual songpost (#5) marked on top of sharp-shinned ridge.

0105—Actual songpost (36) marked on the S side of sharp-shinned drainage.

0125—We leave.

# B12—2004

## June 14 2004

2322—JM reaches the top of Turkey Ridge to songpost B7 male

2402—B12 M is heard on the NW side of Turkey Ridge. I mark a general area songpost

2406—B12 M is heard giving TC from drainage tot the W of Turkey Ridge

2434—M is heard giving TC in the drainage again.

2435—M is heard on the western side of Turkey Ridge, and JM marks a general area songpost about 100 m to the north of the previous songpost.

# B12—2005

## 13 June 2005

2320—SY arrives on the top of Turkey R. (southern portion of R.).

2326—I hear B12 M give TCs W of my position. I pursue. He calls for <1min. I am unable to songpost.

2346—I return to the top of Turkey R. – no further vocalizations are heard.

## 22 June 2005

1422—DF and SY tap tree **B5\_18** – no response. We peep, female is in cavity and she tries to get out. I remove the peeper and she flushes to a tree approx. 3m W of nest tree then flushes to the N. **We peep again, 2 nestlings and possibly 1 unhatched egg. Cavity is a lg. Beartorn cavity approx 20 ft. high in a Potr snag.**

1424—We leave.

## 23 June 2005

2129—SY and DF arrive to capture M.

2132—F gone, cavity peeped finding 3 nestlings.

2135—Net in position. M begins making HEC’s near nest tree.

2140—M flies to different perches around nest tree.

2142—M makes prey deliv., then leaves to the W.

2145—M makes prey deliv., captured upon exit.

2150—M out of net. **Previously unbanded, assigned band #64434**.

**Band #64434**

Wing Chord: 130mm

LLP: 95mm

Rectrices: 58mm

2203—M released.

2206—We leave.

## 30 June 2005

2020—BL arrives at B12 nest to attempt capture of F. PC, calm, 20 C.

2040—Capture nest in place over cavity entrance.

2101—M gives TC off his roost approximately 70 m to ENE.

2104—M flies into nest area, giving TEC. He leaves at 2107 without approaching cavity, and then proceeds to give TC near the saddle to the N, and approximately 100 m to E.

2115—M returns to nest area, giving TEC. He flies to tree adjacent to nest where he remains for 2-3 min, then flies to S. Moments later I hear him giving TC 100+ m down the drainage (S).

2145—I leave. No sign of F, and nothing is heard from the cavity. Nest is presumed abandoned.

# B12—2006

## 13 June 2006

1400-1700—Flam Crew peeps and taps cavity trees in B12 territory and we don’t find a nest. We leave

## 15 June 2006

**Note:** See B17 15 June 2006 entry. B12 M was caught there using lure net.

## 23 June 2006

0045-0110—EE and EM enter territory to listen for nesting activity. Nothing seen nor heard.

## 27 June 2006

2307-2320—KC and SY enter territory to listen for nesting activity. Nothing is seen or heard.

## 10 July 2006

2230—Flam Crew arrives in the vicinity of the B12\_2005 nest area to listen for possible nest activity. We spread out throughout the *Potr* bottom area.

2320—We leave. Nothing seen or heard.

# B12—2007

## 5 June 2007

2327-2400—CB and EM arrive at B12 to tap and listen for nest activity. Nothing seen or heard.

## 20 June 2007

1330—Flam Crew arrives to peep B12 terr.

1418—SY approaches cavity tree B5\_18 – F rises to entrance. **This is the B12\_2007 nest tree.** This is the same bear torn cavity as the B12\_2005 nest.

## 29 June 2007

2245—BL and the Florissant Fossil Beds class arrive at the B12 nest to attempt capture of adults. **However, we peep the contents of the cavity and find it empty—no egg fragments found in the cavity, or on the surrounding ground.** Nest has apparently succumbed to predation. We proceed to listen and call in the area.

2315—Nothing found. We leave.

# B12—2008

## 12 June 2008

2335—KB, SC set up net and start playback. Net is in a drainage on the Northern border of B12. Dense POTR and PSME X 495536

Y 4333072 +/- 8m

2347—Hear M TCs and TECs around net. He continues to call and fly over net, but we fail to catch him. Our net is only 3 sections high, so it is probably too low.

2410—although we still hear M, we fail to catch him. we decide to leave.

## 16 June 2008

2239—QB and KB start playback at lure net set up on saddle in middle of territory. (same location as 6/12/08 net). Weather: calm, partly cloudy, 18C.

2244—Silent M arrives near net. He does not call the entire time. Floater?.

2254—M captured in net. Third shelf from bottom. He is unbanded. We band him and bleed him.. **Band number : 1593-64627.**

71.0g Wing Chord: 131mm

-16.5g LLP: #5 96mm

54.5g #6 101mm

Rectrices: 63mm

2302—M in area giving TC’s.

2317—KB checks net. Empty. We no longer see or hear M calling.

2320—Newly banded M released. We stay in area to listen and watch net.

2343—QB checks net. It is empty.

2402—We break down net and leave.

## 24 June 2008

2245—KB and DH arrive at B12 to set up a lure net. X: 495562, Y: 4333087 +/-9m.

2313—Begin playback. We observer from ~20m away, good silhouette of the net and surrounding sky. We see and hear nothing.

2343—Stop playback and break down net.

2354—We leave.

# B12—2009

## 29 June 2009

1510—JG, BR, KB, SC QB and SY begin peeping B12 area.

1645—Finish peeping, nothing found.

2210—BR and KB arrive on the east side of Biker Ridge to set up a lure net in B12.

Upper slope, psme and pipo, mature and young. Weather: cloudy, calm, 17C

Gps: 495470

4333144 ± 10m

2249—Playback starts.

2254—We hear TCs down drainage to the South, most likely B12.

2257—M approaches from the South. KB hears Female vocalizations near the net.

2302—Net check, empty

2306—We capture a bird in the lure net, silently. We believe it is the F, so we band her and take a quick mass. **New band #1593-64691** (left leg).

89.5 g

27.0 g

62.5 g

2313—Bird is released. We hear the M still giving TCs around the net.

2318—Net check, empty. I hear a F vocalization again from near the net.

2329—Net check, empty. M still in the area with TECs, very hoarse.

2334—Net check, empty.

2351—Net check, empty. M stops calling near the net and we hear him slightly down the ridge.

2353—M back in the area, giving TCs.

2355—We have a bird in the net, unbanded. We band and bleed him. **Band # 1593-64692** (left leg). **We believe this is the B12\_2009 male.**

83.0 g LP5: 99 mm RECT: 65 mm

27.0 g LP6: 97 mm

56.0 g LWC: 131 mm

We notice this bird is molting several of his primaries, so we believe we have the correct ones for measurements, but are not positive.

2400—We might have heard a M call near the net, unsure. We turn off the playback.

2414—M is released. We break down the net.

2427—We leave the area.

## 7 July 2009

1440—SC, SR, JG and DH peep the remaining trees in B12.

1730—After finding nothing, we leave. Everything has been peeped except for a few trees that

do not have tags or accurate GPS.

# B12—2010

## 15 June 2010

*\*Note: See B17 15 June 2010 for notes on lure set up on Sharp-Shinned Hawk Ridge.*

## 22 June 2010

1607—Flam crew begins peeping B12.

1721—We leave having not had time to peep entire territory. We saw no signs of flams.

2246—JG, DW, and BG enter B12 to listen and watch.

2255—Hear TCs after dropping over saddle, lasts ~1-2min.

~2302—Silent flam flies in and perches near DW’s position ~20 m E. of B12\_878. DW lights him up briefly.

2304—DW lights up silent bird again to look for band. Can’t tell if he is banded but the light causes bird to fly away to the E. DW loses bird.

2322—We start moving back to vehicle and hear nothing on our walk out.

## 28 June 2010

1447—Flam Crew begins tapping/peeping B12 where we left off last week in B12, over/to the south of the Saddle in the Aspen drainage.

~1715—Finish tapping/peeping B12, no nest finds.

## 8 July 2010

~2140—SY, BG, and JSG arrive at Biker Ridge/Sierra Madre intersection to set up lure net. We are targeting B12 and B17.

Weather: mostly cloudy, light wind, 11C

Vegetation: mixed age (mostly small in microsite) Pipo/Psme

X: 0495419

Y: 4333090

+/- 6m

2208—Start playback

2215—B12 gives TCs and comes in towards net from the W. He is in the area until 2230 when he goes silent.

2319—SY and BG leave to tap cavity trees which have not yet been peeped down the ridge.

0000—SY and BG return to lure net to join JSG.

0002—We stop playback after no other owls are heard in the area.

0015—We leave the area.

# B12—2011

## 1 June 2011

2350—JV and JR arrive at the top of Biker Ridge and hear a M giving consistant TCs and TECs across the Beartorn Creek drainage in B12.

2352—JV and JR arrive at the bottom of Beartorn Creek and hear the same M calling but it seems he is on Turkey Ridge.

2400—JV gives four TCs and a M in the bottom of the drainage (probably B12 M) gives two TCs and two TECs.

## 7 June 2011

2157—BG, JV, KB, and CB start playback on Biker Ridge, hoping to target B12 and B17 Ms for lure net capture.

Vegetation: mature pipo, some psme, moderate ground cover

Weather: clear, calm, 14C

X: 495482

Y: 4333150

+/- 3m

2203—M comes into net area from B12 drainage area. Gives TCs and a few TECs.

2208—Bird in the net, probably B12 M. Caught in 4th shelf from SE. Takes 8 minutes to untangle him from net.

**Bird is unbanded, JV bands with # 1593-64826 (on L leg).**

90.0 g LWC: 134 mm

- 34.0 g LLP(5): 94 mm

56.0 g LLP(6): 103 mm

Rect: 64 mm

Bird has large pterolosis but not large enough to be F. BG bleeds left wing, results in hematoma.

2232—We release M, strong rising flight to the East.

2237—KB and CB drop down into B12 drainage to listen and tap cavity trees.

2247—TC response from SE, probably B12 M, he approaches and gives TCs.

2318—Playback off, break down net.

2332—BG and JV leave B12 (or top of Biker) to go listen for B17 on sharp-shinned ridge.

## 20 June 2011

2312—JG, JV, and AW depart B4 parking spot and head up the Biker Trail toward B12 to attempt to find the B12 nest.

2334—While in the Aspen flat to the S of the B12 saddle, we hear LCs and possible FSCs. We spread out to listen.

2413—We mark songpost B12\_1 on the supposed B12 territorial M. From 2413-2420 we place 4 songposts on this M. We believe that the B12 nest is somewhere in the immediate vicinity of these songposts.

2425—We leave.

## 21 June 2011

1445—Flamm Crew begins peeping B13, B12, and B17.

1513—**BG taps cavity tree B12\_749, this is 2011 nest!** **Cavity entrance is flicker size, E-facing, with a height of about 16 feet. Tree is in the bottom of Beartorn Cr approximately 35 meters S of the former bear torn nest tree. It is a potr snag. F came up to tap and no peep was necessary. She observed us until we left the nest site.**

1519—F goes down once we are out of area, we proceed to go peep B17.

1700—We finish peeping, having found nests in B12 (aspen flat of Beartorn Cr) and B17 (Columbine Cr) and having not found a nest in B13 despite a complete peep.

2025—BG, JV, and CB in B12 nest area to capture either M or F. F is down.

Weather: Clear, calm, 16C.

2032—JV has net up and over cavity entrance.

2055—We tap, F does not come up.

2057—We peep while still keeping net over cavity. F is sitting tight.

2058—M in site while we’re finishing the peep. We keep net over cavity for F.

2101—We move net away from cavity entrance to see if M will make PD and we can capture him.

2108—F flushes, JV almost catches her but she pushes off top of net and flies away.

2110—We peep nest, 2 eggs centered and touching.

2112—M scolds us, we back off to wait for her to come back on.

2127—We return to nest to attempt capture of M.

2128—JV has net up and in position. F appears to be down. M gives occasional TCs at us.

2130—We see two birds in site, this means F is still off cavity. We take down net and leave to allow her space to come back to nest. We continue on to B17 nest.

## 28 June 2011

2051—PS, BG, and JV (aka PB & J) arrive at the B12 nest for an attempted capture of the F. F is up upon arrival.

2053—M calls off roost.

2055—As BG is getting the net over the cavity the M gives a scold and the F flushes.

2056—PS peeps the nest. **There are 2 eggs touching in the center.**

2057—PB & J back off about 40 m away from the nest.

Weather: mostly calm, clear, 20 C

2100—M making TCs around area of nest.

2105—M briefly stops making TCs and lands in Potr near PB & J, looks at us for ~1 min, then flies away to N.

2110—M TCs near nest site.

2126—JV and PS start heading back to the nest.

2130—F is up at the cavity entrance when they arrive. BG starts quietly walking towards the nest to attempt a capture of the M.

2131—F goes down.

2135—F comes up.

2136—F goes down as M in for a PD and some pair bonding.

2137—M exits the cavity and then lands in a small potr just east of the nest. BG stands quietly and watches.

2144-M flies a little away to the east and BG begins putting the net up.

2148—BG has net in position and M is still perched in another potr to the NE.

2155—F flushes as BG is trying to reposition the net. The tree is not touched but F flushes. PB & J leaves. \**Note: It will be best to have the net to the east of the nest in order to stay out of the way of the M.*

## 30 June 2011

2039—PS, BG, and JV (aka PB & J) arrive at B12 for an attempted capture of the F. She is down.

2040—M calls off roost.

2041—PS has net in position and M comes silently into the nest site about 10 m to the east.

Weather: cloudy/sprinkling, windy, storms brewing to the SW, 16 C

2049—M comes back into nest site.

2059—M gives one LC. Thunder and lightning are coming closer.

2104—PS taps the tree and the F flushes into the net. Unbanded female.

JV bands her left leg. **Band # 1593-64869**

97.5 g

- 33.5 g

**65.0 g**

2108—Release F. She has okay flight to the north and then to the east. It seems that she just wasn’t quiet awake. She sat about 5 ft up in a psme for about 45 seconds to relieve herself then flew just fine back to the nest.

2109—PS peeps🡪**1 nestling fully hatched and 1 nestling just emerging from the egg.**

2110—F scolds and PB & J leave. The storm is coming in heavy now and PB & J hide underneath a tree until both storm cells pass over.

## 5 July 2011

2159—PS, BG, and JV (aka PB & J) arrive at the B12\_2011 nest for an attempted capture of the M. M comes into the site giving scolding calls.

2202—F comes up to the entrance of the cavity.

2203—F flushes.

2204—**PS peeps the cavity. There are 2 nestlings in the cavity. One nestling has his eyes open and is wobbily standing up looking at the camera. The other is face planted facing the back wall. Both nestlings are still all downy. PB & J back away.**

2225—After waiting awhile PB & J decide not to go back into the nest site to capture the M because the nestlings are not old enough to have the F flush again. They leave to go lure net for the B17 M on Sharp-Shinned Hawk Ridge.

## 6 July 2011

2350—BL arrives at the B12\_2011 nest to attempt capture of M (ground/vegetation still quite wet from late afternoon/evening thunderstorms). M scolds as I approach nest tree, and F is in entrance when I first see cavity.

2352—I get into capture position, and F has descended in cavity.

2417—I leave. M never approached cavity, although I heard his short flights and regular scolding calls from the nest area in the interim.

## 7 July 2011

2038—EDE, PS, BG, and JV arrive at B12\_2011 nest for an attempted capture of the M. The F is up.

2039—M scolds W of the nest.

2044—M comes into nest site scolding us and F starts begging.

2045—F flushes.

2046—EDE peeps the cavity and there are 2 nestlings. Both are standing with eyes open looking at the camera. The youngest is mostly all white and the eldest looks about 7 days old with some gray coming in on the scapulars. We back away.

Weather: cloudy, calm, 13 C

2112—Back in the nest site and M gives a couple of scolds.

2121—F comes into nest site and makes a PD.

2124—M makes a PD. F still off cavity.

2126—BG has net in place.

2134—M aborts PD.

2136—BG catches what is probably the F in the net but she escapes.

2142—It begins to rain.

2147—BG takes down net due to moisture.

2159—M gives F PD off cavity, rain has stopped but it is still cloudy and looks threatening.

2201—JV has net up and in position, M scolds from potr ~3m behind cavity to the S.

2204—F makes PD to nestlings.

2209—M gives PD to F off cavity.

2212—F makes PD to nestlings, stays in cavity.

2213—M gives F PD in cavity, JV attempts capture, hits nest tree, F flushes.

2214—We take down net to give F more freedom to come back on, also because it has started to rain again (slightly).

2217—F makes PD to nest, stays in cavity ~45 seconds (looking out) before flushing.

2218—F makes PD to nest, stays in cavity ~15 seconds before flushing.

2225—JV has net up again.

2226—JV catches bird (probably M) on PD, but he escapes through large hole in the edge of the net. We back off to patch net.

2242—JV has net up again.

2247—F is on cavity, making chittering noises to nestlings (bonding?).

2306—M scolds.

2307—M flies into site, F begs.

2316—F flushes.

2317—We shine light on cavity to observe F and M flushes from small potr ~1m N of nest tree. M scolds us a few times.

2320—Aborted PD from either M or F (could not tell who).

2330—F comes in, PS moves net, F aborts and flies out of site for ~10 seconds, then returns and makes successful PD to nest.

2333—F makes PD and PS catches her in capture net thinking she is M (the bird we are trying to catch). She is previously banded, we do not measure but detangle her from net which takes a few minutes.

**Band # 1593-64869.**

2338—We release F.

2345—We leave B12 to walk out to road.

## 8 July 2011

2045—BG, JV, and PS arrive at B12\_2011 nest to attempt capture of M. We are going to first capture and hold the F (who has been more willing to give PDs while we are present) in the hope that it will entice the M to give PDs directly to the young in the cavity.

Weather: Overcast, calm, 15C

2050—M scolds, JV has net up and slightly off cavity to east.

2052—M is in adjacent Potr with unidentified larvae.

2054—M is scolding to the south, still prey-laden.

2057—**F caught on PD at cavity.** No blood sample taken.

**Band # 1593-64869** (on L leg)

85.0 g LWC: 120 mm

- 29.5 g LLP(5): 98 mm

55.5 g LLP(6): 100 mm

Rect: 58 mm

2125—F released with strong ascending flight to the west. M never came in during detention of F. We hunker down under a Psme to wait out a lightning storm.

2224—We return to the nest after thunderstorm to attempt capture of M at cavity.

2230—M scolds as BG approaches nest.

2232—BG gets net up.

2239—M LCs and F begging off cavity.

2242—F caught on PD and M makes PD immediately afterward.

2245—F released with strong flight

2254—F makes PD to nestlings and leaves to east. There is a lot of foraging activity by both the M and F at this time.

2256—F makes PD.

2300—F makes PD.

2309—F makes PD then pauses up in cavity, then flies off.

2315—F aborts PD.

2317—F caught on PD. M scolds.

2318—F released with strong flight to the south.

2320—We leave.

## 11 July 2011

2037—PS, BG, and JV (aka PB & J) arrive at the B12\_2011 nest tree and set up a mist net about 5m south of the nest to attempt a capture of the M.

Weather: cloudy/sometimes sprinkling, calm, 17 C

2041—M comes into nest site from the S.

2042—F flushes to the SE.

2048—PS has capture net up and in position.

2049—M starts giving LCs.

2051—F comes back into nest site.

2054—Both birds move north about 40 m.

2056—Both birds go silent.

2058—M comes back into nest site giving TCs and a call that sounds like mm-mm-mm-mm.

2059—Nestlings start begging.

2104—PS takes the capture net down to give the M and F some time to make some PDs because neither bird has come back into the site for about 4 minutes.

2108—M comes back into nest site.

2109—M passes prey to the F and she makes a PD.

2110—Unknown bird makes PD (probably the F).

2112—Unknown bird makes PD (probably the F).

2114—PS has the capture net back up in position.

2120—F makes a PD. She gets caught briefly in the net but flies off.

2124—F makes a PD.

2126—Unknown bird makes PD (probably the F).

2128—PS captures F in the net.

**Band # 1593-64869** (on left leg)

88.5 g

- 34.0 g

54.5 g

2143—PS takes down capture pole because it is raining hard.

2147—Release F after bleeding right wing. Left wing didn’t produce any blood. It is raining harder now. F flies away strongly to the west.

2148—PB & J collapse the mist net because we don’t want to catch a bird in the rain.

~2300—It is raining too consistently so PB & J take down the mist net and leave the nest site.

## 12 July 2011

2048—PS, BG, and JV (PB & J) arrive at B12\_2011 nest area for attempted capture of M.

2102—Mist net set up just 5m NE of the B12\_2011 nest.

2111—PB & J have a second mist net set up just south of the nest by about 5 m. We back off a little bit to let owls have space.

Weather: cloudy, slight wind, 17C, slight rain has stopped.

2112—M and F both come into the nest site giving territorial vocalizations.

2126—PB & J re-enter immediate nest site to watch owls more closely.

2132—M goes to the cavity and perches on the tree before flying away. *\*Note: We later learn that this is because he is searching for the F or the nestlings.*

2133—F comes into the site begging, M gives F PD off cavity ~8 m E of nest.

2135—F moves off to the west.

2143—M comes back into the site giving HCs and HECs.

2146—F starts begging about 40m west of the nest. *We are beginning to feel strange about the behavior we are seeing. Suspicions of nest failure arise in our minds. We are not hearing any nestlings beg from the cavity.*

2150—F comes into the nest site giving alarm vocalizations.

2153—F flies to the cavity but does not go in and then perches on a live potr giving FECs.

2154—F flies north and we don’t hear from her again.

2156—M comes into nest site and perches on a live potr next to the nest tree giving TC then moves SW giving TECs.

2205—PS goes to the vehicles to get the peeper to confirm our suspicions of nest failure. We are almost 100% positive the nest has been predated. This is a very sad thing to watch.

2218—BG and JV decide it is safe to turn on the playback.

2219—TC response from M, he is circling site and flying above nets.

2222—JV begins to run around with the playback to entice him to swoop lower.

Weather: cloudy, calm, can hear thunder nearby, 13C.

2224—BG and JV begin giving occasional TCs to entice M further. Playback is still going.

2236—Starts to rain slightly, M still circling and giving TC/TECs.

~2240—There is a big storm coming in. JV and BG collapse the nets to wait it out. PS is lost on the B12 saddle and begins to find his way down as the storm hits.

2246—M still giving TCs by nest even with playback off and rain.

2254—M stops giving TCs.

2301—Rain subsiding. PS peeps the cavity. As we had feared, there are no nestlings in the cavity. **The B12\_2011 nest has been predated.**

2313—PB & J turn the playback back on and the M starts calling from the NE.

2315—M returns to area and begins giving TC/TECs and circling again. JV resumes moving around under nets with playback, BG and JV resume giving occasional hoots.

2338—BG and PS start taking down net to the E of nest. Playback still on under S net.

2343—Playback off, we finish collapsing nets and leave.

## 18 July 2011

2305—JV and PS arrive at B12\_2011 to lure net for the M.

2326—We start the playback with the net set up on the lower eastern slope of Biker Ridge about 100 m north of the B12\_2011 nest tree.

Weather: 17C, Calm, Clear

Vegetation: Mixed age Pipo/Psme/Potr

X: 495491

Y: 4332997

+/- 3m

2358—We turn off the playback having neither seen nor heard a bird. We leave.

## 20 July 2011

2241—JG and JR arrive in B12 territory to lure net for the B12\_2011 M. We set up on a spur ridge of Sierra Madre S of the Biker Trail in an attempt to lure near the middle of B12 proper.

Weather: Calm, cloudy, 14C.

Vegetation: Mature psme, young potr.

X: 495545

Y:4333239

+/-3

2242—Supposed B12 M starts responding from the S toward Beartorn Cr; TC/TEC/HEC

2243—Still responding, the M moves up the ridge, closer to the playback.

2245—M flies into net site and continues giving TECs and HECs.

2302—Heavy rain begins falling, the M stops responding, and we turn the playback off and pack up the nets.

2318—The rain subsides, so we start playback again.

2325—M begins responding to the playback again from the S in the direction of Beartorn Cr.

2327—M in net site responding very aggressively – HECs.

2334—M goes silent, fades to the S.

2341—JR begins moving around micro-site with playback.

2349—M TC/HECs at net from S.

2354—M silent.

2359—M calls further to the S.

2400—Stop playback and we leave.

## 21 July 2011

2301—JG and AW start playback on a S spur of Sierra Madre attempting to lure net for the B12

M.

Vegetation: Mixed aged pipo/psme with younger trees near net.

Weather: Calm, slightly cloudy, 14C.

X: 495444

Y: 4332979

+/- 6m

2207—After hearing no responses even after JG attempts walking around the net with the

playback in hand, we end playback.

2237—Resume playback.

2252—While walking down slope towards Bear Torn Cr drainage, JG hears TCs from the

drainage bottom.

2253—M gives TCs from directly E of the lure net and approaches net vicinity while giving

TCs.

2259—M flies to a small tree approximately 15 m E of the lure net (AW is sitting beneath it) and

gives HECs.

2310—M continues to respond to the playback with TECs and TCs from the vicinity of the net.

2315—JG begins walking around with the playback in hand attempting to draw the M in

closer to the net.

2318—**M is captured. He was previously banded and was captured in a lure net twice earlier this year on Biker Ridge and Sharp-shinned Hawk Ridge. Capturing him in this location approximately 100 m from the failed B12\_2011 nest confirms his identity as the B12\_2011 M.** He is captured in the 3rd shelf and approached the net from a live Pipo to the E. AW bleeds L wing for genetics and a parasite smear.

**Band # 1593-64826** (on L leg)

91.0 g LWC: 130 mm

- 29.0 g LLP(5): 98 mm (in molt)

62.0 g LLP(6): 76 mm (in molt)

Rect: 65 mm

Molt: P1-6 are in molt with P5 and P6 being the most recently molted. P1-6 display strong

fluorescence throughout the length of the feathers. Fluorescence is evenly distributed

among P1-6. This pattern is consistent on both L and R wings.

2402—M is released with strong, ascending flight to the E. End playback.

# B12—2012

## 29 May 2012

2330—JR, AW, and CC leave for Beartorn Creek attempting to spot map.

2420 (approx.)—JR gives TCs and AW hears M respond with TCs/TECs from further S in the drainage.

2428—JR, AW, and CC pursue M further, but hear nothing else.

2450—We leave B12 to return to vehicle.

**4 June 2012**

~1500-1700—BL, AW, JR, AP, CC, and Scientists David Johnson and Shannon peep B10, B17, and B12. The B17 nest is found. No nests are found in the parts of B10 and B12 that are peeped

2229—CC, AW, AP and JV arrive on a spur of Biker Ridge to attempt to capture the B12\_2012

M in a lure net.

Weather: Clear and mostly calm with a light breeze, 16C.

Vegetation: Young, medium Psme and Potr.

X: 495434

Y: 4332911

+/- 11 ft

2244—We hear M TCs due N of the net in the B12 drainage.

2250—AW spots the M, who had landed 10 ft from the SE end of the net. He was silent on his

approach.

2251—We start playback.

2252-2255—M gives TCs and TECs from NW of net and approaches net while vocalizing.

2300—**M is captured in the net. He is unbanded.** **The bird was captured in shelf 1 and**

**came in from the E. He is the presumed B12\_2012 M.** He vocalized with TC/TECs

prior to capture and gave HECs as we approach him in the net.

2303—The bird is in hand. He is banded, bled, and measurements are made. Under the black

light, left P1, 2 and 3 show very little fluorescence. The same is true for right P1, 2 and

3.

**Band # 1593-64896** (on R leg)

89.0g (w/ bag) LWC: 125 mm

- 34.0g (tare) LP5: 97 mm

55.0g LP6: 105 mm

RET: 55 mm

2338—M is released. He has a strong, ascending flight to NW.

2341—AW and CC leave net to listen in the B12 drainage.

2348—**The same M (band # 1593-64896) is caught again in the net. This time he is**

**captured in the 4th shelf and flew in from the W.**

2350—The bird is in hand, and is released with strong ascending flight to the NW.

2355—We take down the net. JV and AP leave to listen in B12 drainage.

2418—AP and JV song post the B12\_2012 M in a live psme. This is song post B12\_1.

2422—AW and CC hear TCs given from very S in the B12 drainage at the same time JV and AP are song posting the B12\_2012 M from further N in the drainage.

2427—We simultaneously hear 2 birds in a territorial encounter.

2431—JV songposts the M in a small, live pico. This is song post B12\_2.

2438—AW and AP song post the B12\_2012 M in a live psme. This is song post B12\_3.

2442—We leave.

## 11 June 2012

1444-1730—JV, SY, AW, PPS, AP, CC, and MD peep in the B12 drainage, as well as up on Turkey and Biker ridges. No nests were found.

2204—MD, JR, JV, AW, and CC set up lure net on top Biker Ridge fairly far down between the B12 and B17 territories. Net opens to the southwest.

Vegetation: young and medium psme/pipo

Undergrowth: grasses, juco, aruv, gefr

Weather: 10-15mph winds with gusts around 20mph, clear, 12C

X: 495232

Y: 4333025

+/- 3m

2210—Playback is started.

2231—AW, JR, and CC drop down into B12 to listen. Wind is continuing to blow strongly up on Biker Ridge. JV and MD stay at the net.

2300—CC hoots and a M responds with a few TCs to the E in one of the side drainages (East of X:495412, Y: 4332836 +/-5.

2303—Crew moves about 20m to the E then JR gives a few TCs and M responds about 10m away, in between AW and JR. CC hears M fade to the N. We move up the ridge to the top of Biker listening, but don’t hear anything the rest of the night.

2408—We take down the lure net and hike out.

# B12—2013

## 17 June 2013

1526—SY taps on **cavity tree #532 an F rises to the entrance. This is the B12\_2013 Nest!!! Cavity is W facing on a live potr, the upper cavity above the bear torn cavity (was previously a Saw-Whet Owl nest in 2012). Cavity is large NOFL sized. Tree was formerly the B12 nest in 2005 & 2007 and is located in the main B12 aspen flat, near the E edge.**

2207—RC and AW arrive at the B12\_2013 nest intending to capture M on PD. Silent bird is perched in potr just N of nest tree while we are raising capture net. We assume this is the F and RC lowers capture net. F goes back on cavity once net is about halfway down. RC lowers net completely.

2217—RC raises net to capture position.

~2220—M comes in to nest area giving about 45 seconds of LCs before going silent. M remains in the nest area for approximately 20 minutes (RC’s estimate who had the net up; AW did not notice M from her position to NE of nest). M perched relatively low (15-20’) and flew between a few potr just N-NW of nest tree during this time. One perch he appeared to use frequently was on a fungal growth of a potr just NW of the nest tree.

2310—M reappears in nest area giving LCs for about a minute from a potr N of nest. M remains

in nest area, silent, until we leave at 2327.

2320—RC takes net down. AW spotlights M perched on fungal growth of potr described earlier.

M makes a few short flights N-NW of nest, remaining silent the entire time. We observe

him until 2327. He does not make a PD during this time and appears to be watching us.

2327—We leave B12.

## 20 June 2013

2025—AW, RC, and BDG arrive at B12\_2013 nest site with intent to capture both F and M.

Weather: Overcast, calm, 13C.

2034—Net in place. F flushes immediately and RC captures. **She is previously banded and was captured in a lure net in B6 on 20 June 2012 by JR. She was misidentified as a M floater due to a late capture time, lack of vocalizations, and apparent lack of incubation patch. Genetics revealed that she was in fact a F. She may have been the B6 F in 2012, but the nest was predated early and neither the M or F were captured.**

**Peep reveals 4 eggs in nest, centered and touching!!! This is the sixth documented clutch of 4 eggs in the study, and the second in the 2013 breeding season.**

**Band # 1593-64879**

2037—F released. Crew backs off 40m NW of nest to wait for F to return for a capture attempt at B12\_2013 M.

2049—M begins giving LCs in vicinity of nest, on SW side. M calls occasionally for ~5min before going silent.

2105—F is still not back on. Crew backs off an additional 30m NW to allow F to return to nest.

2107—M gives brief LCs in nest vicinity.

2126—BDG and RC return to original waiting place 40m from nest while AW approaches nest for M capture attempt.

2130—M gives LCs for ~20sec as AW approaches nest. AW hears chittering vocalizations characteristic of a successful prey delivery on approach.

~2137—Net is in place. RC and BDG move to a distance of ~20m from nest.

2145—M gives LCs in nest area.

2153—AW notices 2 birds in nest area—presumably the B12\_2013 M and another silent bird, both perching 3-4m from the ground. As this is possibly the B12\_2013 F after a second flush, the crew leaves. M gives LCs during departure.

~2230—Crew arrives on Biker R with intention to lure primarily for B17 M and secondarily for B12 M. Net is set up on the ridge top of Biker R between B12 and B17, opening NE.

2243—As net set up is nearly completed, B17 M is heard giving TCs 50m NW of net.

2246—Playback begin.

Vegetation: Med-mature pipo/psme.

Weather: Clear, calm, 12C.

X: 495300

Y: 4333093

+/- 3m

2249—B17 M moves 60m E along upper N-side of ridge and continues to give TCs ~50m NE of net. He then crosses to upper S-side of the ridge, and begins moving back W.

2257—2 Ms—presumably B17 and B12 Ms—heard giving TCs. One is calling 75m SE (B12) of net, and the other 50m S (B17) of net.

2303—1 M heard TCing in net vicinity on SW side.

2306—M heard giving TCs 100m NE of net.

2312—AW and BDG leave to listen in B17.

~2340—Bat in net.

2353—Bat removed from net. End playback. AW and RC break down net and leave.

## 1 July 2013

2148—AW, CK, and RC arrive at B12\_2013 nest site with intent to capture M and peep nest. F is off on arrival, vocalizing.

Weather: Calm, clear, 7C.

2151—F comes back on as nestlings beg (*Note: rasping nestling begs very clear as well as some peeps given from, presumably, the younger nestlings)*.

2156—M gives LCs in nest vicinity.

2158—M makes PD to F, who is up in cavity.

2200—M makes PD to F, who is up in cavity.

2201—M makes 3 PDs to F, up in cavity. Nestlings are begging during PDs.

2203—F goes down. M makes 2 PDs.

2210—CK has net in capture position.

2242—M aborts PD.

~2246—F likely flushes.

2249—F is off, net is taken down.

2251—Wing flaps heard low to NW of nest.

2253—F back on, M makes PD, F goes off and then back on again.

2254—F off again.

2255—M makes PD.

2256—F back on, M makes PD.

2257—M makes PD.

2259—There are two FLOWs apart in the nest tree separated by <1m. These are the presumed M and F.

2300—M makes HECs in the net area. AW raises net to capture position. AW stands approximately 15’ to N with net completely vertical, hoping to allow M to come in and make successful PD.

2302—F makes shrill whines off cavity and the M flies away.

2306—F is back on the cavity.

2317—M makes a PD but two birds leave the cavity, presumably the M and F.

2319—F begs off cavity.

2322—M makes a PD with F off cavity.

2324—F comes back on the cavity and then immediately leaves.

2333—AW puts the net to the cavity as the F comes back on. Then the M comes back to the

nest area as the F escapes from the capture pole.

2342—F comes back on the cavity and then flushes soon after.

2353—F comes back on the cavity and then flushes again.

2400—Net down. **Peep reveals 4 owlets—2 older and with juvenile plumage and 2 younger, all standing with open eyes. Eldest 2 owlets appear to be ~12-13 days old, middle appears to be ~10 days old, and youngest appears to be ~6 days old. Peep recorded on monitor #5.** We leave to attempt a M capture at the BG4\_2013 nest.

*Note: M is extremely hesitant to approach nest cavity while net is open, even when AW was positioned 15’ from nest tree. It is also possibly that a secondary FLOW was in the nest area. It is not clear if this second M (presumably) was making PDs. At one point, AW observed a FLOW land above the nest cavity on the nest tree (a perch that we observed neither the M or F use previously). The F was giving vocalizations W of nest at this time and a FLOW (unclear if it was the M or F), appeared to chase secondary M off the nest tree and out of nest area. We never saw 3 birds at the same time, however, or heard 3 distinct birds vocalizing. Future observation will be needed to determine if helping behavior is occurring at this nest.*

## 2 July 2013

2049—AW and RC arrive at B12\_2013 nest site with intent to capture M. This is our fourth attempt to capture this M at his nest. F flushes as we arrive, apparently naturally.

Weather: Overcast, calm, 11C.

2052—M and F both PD to nestlings.

2056—PD (M or F unknown).

2058—PD (M or F unknown).

2059—PD (M or F unknown).

2102—F PDs. M lands on the nest tree.

2103—F leaves cavity, M makes PD in cavity, F gives FSCs, and M leaves cavity. AW approaches nest.

2104—F gives scold-like whine call. M gives TCs. Both birds are in nest area for nearly the entire time we are in the nest site.

2106—PD (M or F unknown). Second bird perches close to nest, then flies off out of nest site, but returns quickly.

2109—Net in capture position. AW is standing ~5m from tree with capture pole so as to minimize interference with M PDs, because this M has shown high sensitivity to the net in the past. *RC is positioned ~20m N of nest for the same reason, but loses a good silhouette as the evening light fails. For this reason, some PDs and nest behavior will not have been accounted for or viewed clearly, and so will not be perfectly translated into the field notes.*

2111—Aborted PD (M or F unknown).

2112—Aborted PD (M or F unknown).

2113—PD, capture attempt, escape.

2114—F whines in nest area.

2118-2119—4 aborted PDs (M or F unknown).

2120—F returns to nest. We think it may be M and swing, but she does not leave cavity.

2127—Net removed from tree. M swoops at net.

2132-2140—M makes 6 aborted PDs. F is begging in cavity during all of these.

2142—PD (M or F unknown). F must have flushed sometime around here.

2143—F returns to cavity. We think it may be M and swing, but then M flies in and gives TCs. Net removed from tree. F flushes?

2158—Aborted PD.

2159—PD. (M or F unknown)

2208—PD. (M or F unknown)

2211—Aborted PD.

2212—PD. (M or F unknown). Several of these last few PDs may have been a handoff from the M to F, followed by a PD to the nestlings by the F. These were difficult to see due to the failing light. See Note 2 below.

2213—PD. M TCing in nest area.

2216—AW takes down net, because F was off for a considerable period of time the previous night as well. We leave for a mist net capture attempt on M at B14\_2013 nest.

Note: *We have, on previous nights, had some reason to believe that there were two males and so possible helping behavior at the B12\_2013 nest. We had no evidence to support this on this night. There were definitively a maximum of 2 birds in the nest site at any time—the M and F.*

Note 2: *It is evident that the M is hesitant make PDs while the capture net is up. Instead, he appears to be providing F with PDs off cavity (in particular on a snag branch about nest cavity height to W of nest tree). The F, who appears to have no problem coming on and off cavity while capture net is up, then delivers the PDs to the owlets. In the future, it may help to first capture the F and hold her in order to force M to make PDs himself.*

## 3 July 2013

2045—CK and BL arrive at the B12\_2013 nest tree an attempt to capture the B12\_2013 M.

2051—BL raises the capture net towards the cavity while CK spots the nest area from ~10m away. After raising the net, we see both the F and the M in the nest area perched in adjacent trees.

2107—FLOW enters the cavity and is presumed to be the F because of TCs heard off cavity after FLOW entered cavity. BL puts capture pole over cavity entrance and tries to elicit a FLOW response from within the cavity. During this process, the M was perched in adjacent trees not approaching the cavity. After BL removes net from the cavity entrance, F flushes.

2107—2206—M and F show definite changes of behavior with the presence of the capture pole and refrain from many PDs, besides when the F enters the cavity twice. M makes several approaches towards the nest, but these result in numerous aborted PDs. At 2117 BL puts the net over the cavity again, but F fails to flush and M does not approach from his perches.

2155—BL raises the capture pole a third time and F does not flush however, M approaches vigorously from his perch and hits the capture pole two times.

2200—**CK peeps the cavity and sees three owlet heads and what appears to be four owlet bodies. Two of the owlets are older ~12 days and the other two owlets are ~4-5 days behind. Eyes are open and the older owlets are developing their juvenile plumage.** After lowering the peeper ~5 feet the M flies in and hits the peeper head two times and BL decides to raise the capture pole next to the peeper and see if the M approaches for an unconventional capture. M was not captured.

2206—We lower the peeper head and capture pole and head to B20.

## 8 July 2013

2040—BL, RC, and CK arrive at B12\_2013 nest with intent to capture F (for blood) and M (has not been captured at all this year). CK approaches nest, and F rises to cavity entrance. BL moves in to distract F while CK raises net behind tree.

2043—F flushes to W. **Peep reveals 4 nestlings—2 much larger and the others successively smaller. Smallest has his head down, and seems to have much more natal down than the others. All others have juvenile feathers growing in heavily, have open eyes, and are looking up at camera. Peep recorded on monitor #2.** F is begging off cavity in nest area.

2053—M TECing, F beggings in nest area while we erect mist net in front of cavity entrance.

2139—PD by F to nestlings.

2145—After putting mist net up to 7 poles, we are losing stability and are still short of the cavity, so we pull it down to 2 poles and change the net over to Hastings poles. M has been TCing occasionally just outside of nest area. F has been in nest area nearly the entire time, making short flights and occasionally vocalizing. A couple of aborted PDs and flutters are made. Nestlings are begging increasingly.

~2155—Mist net is up on Hastings poles, in front of cavity.

~2203—**F is captured in net, E side, top shelf**. M hits net, but bounces out. We leave net up to coax M in.

2207—M is captured in net. We begin lowering, and he flies out.

2213—CK raises peeper to cavity height **on mist net poles** to instigate M to swoop (Note: on previous night at the nest, we observed that the M was quite defensive around the nest, swooping at both the capture pole and the peeper on multiple occasions). **It works, M swoops, and is captured in the 3rd shelf on the W side. M was banded previously, with Band # 1593-64826.** We lower net.

**Band # 1593-64826** (on L leg)

Note: **This is the B12\_2013 M, previously captured only in a lure net in 2011 (on Biker Ridge) and listed as the B12\_2011 M.** We bleed him for genetics only ( L wing).

82.0 g LWC: 132 mm

- 29.0 g LLP(5): 101 mm

53.0 g LLP(6): 109 mm

Rect: 59 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | 1.5 | 1.5 |
| P3 | 1.5 | 1.5 |
| P4 | 1.5 | 1.5 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1 | 1.5 |
| P8 | 1 | 1.5 |
| P9 | 1 | 1 |
| P10 | 0 | .5 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | 1 | .5 |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

Note: P1 (both sides) looks shorter than usual, but is not devoid of or displaying extensive amounts of porphyryn. Instead, it shows moderate amounts of porphyrin, focused on the outside edge of the feather. We conclude that it was not recently molted.

**Band # 1593-64879** (on L leg)

Note: **This is the B12\_2013 F (originally captured in a lure net in B6 in 2012).** We

bleed her for genetics and parasite smear ( L wing).

77.0 g LWC: 133 mm

- 22.5 g LLP(5): 101 mm

54.5 g LLP(6): 111 mm

Rect: 60 mm

2230—F released. Strong flight W.

2251—BL shames B12 M with respect to his work ethic, but compliments his looks. M is nonplussed.

2252—M released. Strong flight NW.

2304—We leave.

## 9 July 2013

1650—Flam crew arrives at the B12\_2013 nest to band and bleed the nestlings.

1654—Flam crew raises the ladder at B12 while BL prepares the climbing hooks.

1658—**BL begins climbing the tree. F is presumed off after we peep the cavity, however a developed FLOW does appear in the cavity, but we are unsure if it’s a nestling or the F.**

1703—BL relays cavity dimensions before enlarging the cavity.

Horizontal X Vertical cavity entrance = 6.0cm X 6.5cm

Entrance thickness = 4.0 cm

Horizontal depth = 17 cm

DOH = 26.0 cm

Vertical depth = 50 cm

1730—BL has the nestlings out of the cavity and down for processing. F FLOW present in cavity so we bring her down as well.

**Owlet**

52.4 g

P#5: 47 mm (25 in shaft)

P#6: 46 mm (26 in shaft)

Rect: 17 mm (xx in shaft)

**Band#: 1783-64400 (R)**

Notes: Bleed LW with genetics and smear.

**Owlet**

44.1 g

P#5: 36 mm (21 in shaft)

P#6: 37 mm (22 in shaft)

Rect: 11 mm all shaft

**Band#: 1783-64401 (L)**

Notes: Bleed LW fail so we bleed RW. We get genetics only.

**Owlet**

41.3 g

P#5: 34 mm (20 in shaft)

P#6: 33 mm (20 in shaft)

Rect: 9 mm (6 in shaft)

**Band#: 1783-64402 (L)**

Notes: We bleed RW and get genetics and smear.

**Owlet**

19.7 g

P#5: 9 mm all shaft

P#6: 9 mm all shaft

Rect: not available yet

**Band#: 1783-64403 (R)**

Notes: We bleed LW and get genetics only.

1742—SY releases F FLOW with a strong, ascending flight to the W.

1751—Nestlings are back in the cavity.

1755—BL climbs down the tree and we leave.

# B12—2014

## 28 May 2014

2100—ER and SY arrive on Biker R to run a lure net.

2120—Begin playback of TCs/TECs at lure net.

X: 495420

Y: 4333094

+/- 6m

**Vegetation:** Young-med pipo/psme on ridge-top.

**Weather:** 12C, mostly cloudy, wind <5mph

2126—M approaches net giving TCs and TECs from the S. Likely B12.

2130—Male quiet, check net. Unbanded male in shelf 1 coming from N side. **This is most likely the B12\_2014 M. M is previously unbanded,**

**New Band # 1593-64894** (on Left leg)

77.0 g LWC: 125 mm

- 20.0 g LLP(5): 90 mm

57.0 g LLP(6): 99 mm

Rect: 54 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 0 | 0 |
| P10 | 0 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 2.5 | 2 |
| P8 | 2.5 | 3 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

We attempt to bleed L wing but fail. Successfully bleed R wing.

2206—Release. Strong, ascending flight to E.

2207—SY check net. Empty. Have not heard any birds since first male

2210—SY leaves to listen on Sharp-shinned Hawk R.

2215-2230—SY listened along upper SS Hawk R. – in vicinity of “hammock” nest site. Nothing heard.

2218—ER check net. Empty. Still quiet

2229—Easterly wind picks up

2232—ER check net. Empty. Quiet.

2235—SY returns from Sharpshinned Hawk R

2247—Check and stop playback. We break down the net and leave. Neither SY or ER have heard from B12 male since capture.

2255—SY and ER decide to walk down Sharpshinned Hawk R to listen for possible B12, B17, B20, B10 Ms.

2308—SY and ER spread out along SS Hawk R. SY 150m W on Sharpshinned Hawk R and ER about 30m from Biker Tr on Sharpshinned Hawk R.

2314—We hear a male give TCs directly S on Sierra Madre R. We give chase and cross through the B20\_2013 nests site to where bird is singing on Sierra Madre R just SSW of past nesting area.

2325—We locate M having an encounter on previously mentioned ridge – 2nd M appears to be the B10 M. We mark one songpost on each bird. Following the cessation of the encounter the B10 M goes quiet.

2335—ER follows B20 M to open Pipo grove ~25m S off Biker trail. M gives TCs within 10m, but cannot locate tree before B20 male goes quiet.

2340—ER hears B20 male giving TCs to W. Follow 15m down Biker T and 10m down slope to the S. B20 male goes quiet.

2344—SY and ER on Biker R S of lure netting site.

2350-0110—We move in and around several Sierra Madre R., Biker and southern supr ridges in to and west of the B12 area as well as upper drainages in Sierra Madre area. Nothing else heard for the rest of the night. We leave.

## 6 June 2014

2232—BL and JS arrive in B12 territory to tap and listen for nesting activity. We tap the B12\_2013 nest tree at this time, with no response. JS stays at this cavity tree while BL leaves to tap other cavity trees.

2249—BL taps B12\_1150, and FLOW flushes from the S side!

2259—**BL and JS await confirmation indicating it was a FLOW. F comes back on nest at this time, and it is a FLOW as presumed—this is the B12\_2014 nest tree! The nest tree is cavity # 1150 (B12\_1150), and is a full-snag Potr. Cavity tree is approximately 10-12 m S of the B12\_2013 nest tree, is approximately 20 cm dbh, and NOFL-excavated nest cavity is approximately 7 m high, and faces S. The nest tree is approximately 200 m S of the saddle separating B12 and B4 territories, and is ~ 10 m E of the bottom of Beartorn Cr.**

2300—M flies into nest area, then flies to the backside of the cavity tree where he perches directly on the trunk, peering at us, for 3-4 min.

2306—M makes PD inside the nest cavity.

2317—We leave. F in cavity, and M reenters nest area.

## 10 June 2014

2045—MC and RC arrive at B12\_2014 nest site to peep cavity and attempt M capture at nest. M LCs nearby to NW as we arrive. F up in entrance.

2049—F down.

2050—M enters site prey laden and perches on broken top potr 5m S of nest.

2051—M begins giving quiet LCs.

2052—M PDs, then perches in cavity entrance and begins giving TC/TECs.

2053—M flies S to psme adjacent to nest tree then quickly back to cavity for a presumed second PD. He TC/TECs briefly in entrance, then flies to the E and is followed by the F flushing. LCs and FSCs pick up quickly 40-50m E of the nest tree. **Peep reveals 2 eggs, centered and touching.** We back off 15m to let F back on.

2116—F still not back on. We have heard no vocalizations since 2053. We back completely out of nest area to be cautious.

2150—We approach the nest tree to attempt M capture. F is down and does not come up on approach.

2157—M approaches nest area W🡪S🡪nest tree and begins LCing.

2158—LOUD FSCs from cavity.

2200—PD to cavity. M perches on entrance for a bit before leaving. Net goes up. Cavity over 20ft and long brown pole has to be off the ground 6-12” to reach.

2205—PD, swing, M slips out side. Nest tree has small dbh. Net should be curved.

2207—PD, swing, tree barely clipped, F flushes. We leave to listen in Fairy Slipper Cr.

These notes also included in B20:

2230—MC and RC spread out along the upper slope of Fairy Slipper Cr to listen.

2308—MC hears M TCing ~300m down in the bottom of Fairy Slipper and gives chase.

2314—RC hears TCs from bird MC is on E-facing slope 100m S of MC from S spur of Sierra Madre R.

2333—LL, SY, JV, and RD start playback on SW top of Biker Ridge.

Vegetation: med-mature pipo/psme, open

Weather: mostly cloudy, slightest breeze, 13C

X: 494999

Y: 4332902

+/- 3m

2340—MC gives hoots ~150m from the confluence of Fairy Slipper and Beartorn Cr. M responds with possible HECS from ridge of side drainage ~100m from confluence. MC gets up on ridge and bird goes silent. A FLOW flies into a broken top psme ~10m from me and perches for ~2 minutes before giving four vocalizations that were possible scolds. They sounded like more drawn out TCs. I get **songpost B20\_1**. MC and RC tap trees in the drainage and find nothing.

X: 495045

Y: 4332458

+/- 3m

2346—A M comes into the net area from the N giving *intense* HECs. He continues to fly around net site giving TCs and HECs. ***Note: M’s HECs are extremely hoarse – almost no “tone” to them.***

2351—A silent bird is seen making two short flights N of the net while territorial M is still calling.

2354—SY does a net check and spots a bird perched next to or on the playback ~1m off the ground. Unfortunately, it flushes away from the net.

2358—RC hears a few TCs 60m E on upper W-facing slope from bottom of Fairy Slipper at point where ravine reforms in drainage bottom and side drainage enters from W (~100m N of confluence with Bear Torn Cr)

2401—SY, RD, and LL break off to listen for nesting vocalizations.

2415—LL hears a super hoarse M HEC from spur ridge just SE ~50m down slope. RD hears a few TCs NW of his position on a ridge off the N side of Sierra Madre, beginning about 100m W of lure net. Possible B17 male, as AW noted a male approaching her lure from SW on W end of sharp shinned shortly afterward.

2429—LL hears a M gives a few TCs ~30m SE of her position on spur ridge where.

2435—RD hears a single TC from NW, possibly B10 male as JKR has probable B17 male in hand, along w/ another unbanded silent M in net.

2445—JV hears a M gives three TCs from a spur of Sierra Madre to the W of the net.

2445—LL, SY, MC and RC head back towards the net from upper Fairyslipper Cr. MC and RC tap cavity trees on the way up from lower Fairy Slipper near confluence with Bear Torn. There are some good cavity trees in here, but we never see anything and hear nothing after 2358.

2450—Turn off playback and hike out.

## 16 June 2014

2305—RC, LL, and RD arrive in the B12\_2014 nest site with intention of capturing B12\_2014 M on a PD at the nest.

~2310—RC approaches the base of the nest tree.

2311—M gives LCs N of the nest tree in the nest area. The F gives FSCs from the cavity.

2315—RC has capture net in position.

2316—The M flutters at the nest tree ~10ft above the nest cavity and then flies past the tree to the S.

2317—The **M makes a PD at the nest and is captured.** The F flushes when the M goes into the net, so we take the M and back off 40m from the nest. **The M was previously captured and banded by SY and ER in a lure net on Biker R 5/28/2014**.

**Band # 1593-64894 (on L leg)**

67.0 g LWC: 130 mm

- 15.5 g LLP(5): 94 mm

51.5 g LLP(6): 105 mm

Rect: 54 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | .5 |
| P2 | 1 | .5 |
| P3 | 1 | .5 |
| P4 | 1 | .5 |
| P5 | .5 | .5 (notch) |
| P6 | 1 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2.5 | 3 |

*Note: Both wings have lots of notches, mite damage?*

2334—M is released with strong, ascending flight to the S. We leave to go listen in B4.

## 20 June 2014

2031—RC, JS, and Alex McCreedy arrive in B12\_2014 nest area with intent to capture F. JS approaches nest tree while RC and Alex spot cavity.

2036—F comes up as JS approaches nest tree. F stays up for a couple of minutes, JS backs out of sight of F, and RC and Alex back away from nest tree.

2037—M calls off roost nearby to E.

2047—F down. JS approaches nest tree again.

2051—Net up. F up. **F in net, banded. This is the confirmed B6\_2011 F and presumed B6\_2010 F (captured in a lure net after nest failure).**

**Band # 1593-64741 (on L leg)**

84.5 g

- 17.5 g

67.0 g

2056—F released with a strong, ascending flight W to nearby perch. **Peep reveals 2 eggs, centered, touching, and with no signs of cracking.** We leave.

## 2 July 2014

2207—JS and JV arrive at B12\_2014 nest to peep.

2208—F up and flushed on approach and light shine. **We peep: 2 nestlings, one larger than the other. Signs of gray on head and back with egg shell remnants on floor of cavity. Would estimate 5 or 6 days old.**

2212—We leave.

## 17 July 2014

1420—AW, LL, RC, RD, and ER arrive at the B12\_2014 nest to band and bleed the nestlings. The F is up in the entrance upon arrival.

1423—F goes back down in the cavity.

Cavity Info

Horiz by Vert: 60 by 75

Horiz Depth: 110

Entrance Thickness: 25

Height: 16.1

Depth: 28

DOH: 15.0

1430—AW pulls the F out of the cavity and releases her.

1435—Nestlings are out of the cavity.

**Lilac Owlet**

54.4 g

P#5: 57 mm (24 in shaft)

P#6: 55 mm (20 in shaft)

Rect: 27 mm (7 in shaft)

Band#: 1783-64552

Notes: Bled for genetics and parasites. We banded the R leg.

**Charcoal Owlet**

61.8 g

P#5: 49 mm (22 in shaft)

P#6: 48 mm (26 in shaft)

Rect: 19 mm (10 in shaft)

Band#: 1783-64553

Notes: Bled for genetics and parasites. We banded the R leg.

1459—Nestlings back in the cavity.

## 21 July 2014

~1530—AW, BL, MC, RC, MP, and ER arrive in Fairy Slipper drainage to peep for a possible B20 nest. We begin on the Biker Trail, heading down Fairy Slipper. When we reach the confluence with Bear Torn, AW, MP, and ER work our ways S while RC and MC move N towards B12.

~1700—We end peeping having found nothing and head back to the vehicles.

1717—**We peep the B12\_2014 nest tree to check if fledging has occurred.** The F is still on, and flushes as we raise the peeper. **We peep and find both nestlings still in the cavity bottom**. **Fledging has not yet occurred.** We leave.

# B12—2015

## 27 May 2015

2420—DL and BL arrive in the area of the B12 past nests (after departing B17 territory) to listen for nesting behaviors.

2424—While standing near the B12\_2013 (tag 1150) nest tree, we hear a F give several FSC ~ 15 m to the S—we then spot her as she makes a short flight into the top of a ~ 25 cm dbh Potr, in a 15 m radius from the B12\_2013 and 2014 nest trees. M arrives giving LC.

2427—M flies to the F’s perch, and while giving LC he makes a PD.

2430, 2433, 2431—M makes additional PDs.

2437—F flushes from her perch to an unknown location.

2450—We hear the B12 M start to give 4-note EC approximately 30 m to the W (an unknown M probably was in this vicinity).

2455—We leave area, with the B12 M still giving EC.

## 2 June 2015

2045—MC, LL and BH arrive at B4 parking spot to listen, tap, and lure net in B4 and B12 territories. LL stays in B4 territory near past B4 nest tree #303, while BH and MC head up past saddle into B12 drainage to check cavity trees, specifically B12\_2013 and B12\_2014 nest trees.

Weather: Clear, calm, 9.5C

2100—LL is listening near B4\_303 when black bear strolls down road, proceeds to tear up tree just S of where LL is standing. Typically, no one is in radio contact.

2106— BH and MC hear TCs E of Beartorn Cr. (~4-5 before becoming silent). Possibly indicating B12 M.

2114—LL hears potential wing flaps overhead, but wasn’t able to confirm, as there was a lot of other noise from bear grunting and tearing things up. LL heads up towards B4/B12 saddle.

2126—From B4/B12 saddle LL hears M give TCs distantly to the N, this is potentially SY’s B5 PB.

2128—M gives TCs W/down drainage of the saddle ~200m in B4 <1min. MC and BH join LL at the saddle to set up a lure net in hopes of capturing the B4 and/or B12 Ms.

2153—PB is on. Lure net is located ~40m W and upslope of B4/B12 saddle.

Vegetation: Dense pipo/psme, young to mature.

Weather: Calm, clear, 16C

X: 495527

Y: 4333148

+/- 12

2207— HECs heard SW in net area, presumably B12 M. Continue ~1min.

2208— FLOW swoops down towards net, evades net, but possibly clipped the bottom of the net.

2210— M HECs and TCs continue in net area ~3min. B12 M leaves net area, is not heard again.

2222—LL and BH go to tap and listen in B12, in the vicinity of B12\_2013 and B12\_2014 nest trees. No vocalizations heard.

2310—**While trying to locate cavities on tree B12\_1190, LL spots F FLOW in entrance of cavity facing almost due W ~30ft up on the tree. B12\_1190 is the B12\_2015 nest tree! B12\_1190 is a 33.0 DBH live potr ~2m SW of B12\_2014 nest tree in the Beartorn Cr drainage.** *Upon further observation on 6-8-15this appears to have only been an owl shaped knot and NOT the nest tree.*

X: 495486

Y: 4332867

+/-3m

The cavity is sapsucker-sized and is on the main trunk just below a perpendicular snag branch pointing S off the trunk. The F stayed up in the entrance for the 10min LL and BH were in the area.

2320—MC shuts off PB. LL and BH head up to “help” take down the net.

2340—MC, LL and BH head S on Biker Tr into B20 with intention of listen and tapping for B20 nest.

## 8 June 2015

2043—MC and DL arrive at purported B12\_2015, cavity tree #1190 with intent to capture the M. We cannot find the cavity and in the location that was described there is only an owl shaped knot. MC thoroughly glasses the tree while DL situates herself to silhouette the tree in case we missed the cavity.

2100—After not hearing or seeing any birds on the tree DL stays and MC begins walking around to listen and tap.

2113—After still not hearing or seeing anything we tap the tree and attempt to peep the tree. The tree is listed as 1 and 0 and all we see is a small, partial excavation. **We cannot peep tree #1190 due to a lack of cavities. We also peep B12\_2014 and B12\_2013 but find nothing.** *Either we have missed the cavity and they have failed or this is not the nest tree.* We spread out to listen and attempt to sniff out a nest. We make it to the S extent of the B12 aspen flat before the drop off and do not hear or see anything.

2222—We leave B12 and head to B17.

## 15 June 2015

2248—After the rain lets up, BH and SY head into B12 with the intention of spot mapping.

2257—We arrive in B12 and tap the B12\_2015 possible false nest as well as to listen and tap other trees. BH listens in the vicinity of possible B12\_2015 nest tree and nearby B12\_2014 nest tree while SY traverses the area tapping trees and listening.

2322—From the vicinity of the past B12 nests, SY hears a M give a few TCs E, up on the base of Turkey R., ~50m away. I chase but M goes quiet.

2456—M gives TCs E of the B12 drainage; we give chase and get eyes on him. M proceeds to make a wide circle counter-clockwise roughly centered on the past nest trees, maximum radius ~60-70m. During this time the M is perching in potrs giving quiet TCs and LCs.

0110—We lose track of M ~80m W of B12 drainage.

0115—We leave B12.

*Note: This behavior is highly suggestive of being near a nest or F…*

## 6 July 2015

Afternoon—Flam Crew peeps B12, starting at the B12/B4 saddle and peeping S into the main clump of cavity trees. There are a few holes in the main clump, but otherwise, most trees were peeped including the southern patch and the W side drainage.

## 13 July 2015

2311—RC and BH arrive near saddle between B12 and B4 to set up a lure net targeting primarily the B12 M and secondarily the B4 M. We set up net ~60m WSW of S end of the saddle on the upper SE-facing slope of Biker R.

Vegetation: Mixed psme, mature pifl, open.

Weather: Overcast, calm, ~10C.

X: 495489

Y: 4333098

+/- 9m

2327—PB begin.

2331—TCs in net site, no apparent approach heard.

2333—2 Ms in net site. One still giving intermittent TCs while the second gives TECs.

2337—As RC approaches to check net, PB dies. TCing M continues calling 10m NW of net for ~2 min. Other quickly M and F go silent. RC replaces battery and restarts PB.

2342—TC/TECs in net site to SE. Shortly after, intermittent FSCs at net.

2347—HECs in net site. Only this M and no F audible.

2351—On net check, M in net site goes silent. RC spots a bird (presumably this M) perched silently at the top of a 7-8m dying psme directly adjacent to the PB tree. Bird flies away as RC tries to get binocs on it.

2354—PB changed from T42🡪P.flam#1 (PB#4).

2355—HECs in net site again. M calls intermittently for ~5 min and seems to be flying over the net before going silent. No big surprise. There are some very large psmes in net site.

2409—TCs near net as we prepare to break down. RC pursues and spots M singing 30m S of the net 12-15m up a barkless snag. M is perched next to the trunk giving consistent TCs. Possible 2nd M nearby. RC leaves M here to go break down net.

2413—PB off. M quickly goes silent. We break down and leave.

# B12—2016

## 6 June 2016

Afternoon—As part of our initial cherry peeping efforts MC, ER and KM peep in the B12 and B17 drainages. A majority of the cavity trees in B12 are peeped and the 2014 and 2015 nests trees in B17 are also peeped. We find no nests.

## 14 June 2016

~2345-2430—BH and ER face the worst tangled net ever and do not have a second net. We spend the next 45 minutes diligently untangling the net, cursing the faults of past users.

2430—We start PB on a spur of Biker R. SE of Dead Gravid Female Cr. just N of the western most head of Beartorn Cr. by cavity tree #536.

Vegetation: Mixed age pipo and psme.

Weather: Clear and Calm, 12.5C

X: 495258

Y: 4333021

+/- 6m

2440—PB off. We break down the net after hearing nothing.

## 21 June 2016

1654—MC peeps cavity tree #1284 and sees a FLOW in the cavity, **this is the B12\_2016 nest!** The tree is a full snag potr at the S end of the prominent W side drainage to Beartorn Creek, the tree is easily identified by a very prominent bear torn cavity lower on the W side. The nest cavity is a small NOFL excavation ~21ft. high that faces due E, just below a bifurcation in the tree. The F stays down while we are in the site.

2247—DL and ER arrive in the B12\_2016 nest site with the intent to capture the M at the nest. We observe about 15m from the nest tree to gauge activity.

2252—The M gives a couple LCs about 25m SW of the nest. We do not have a good silhouette because of the density of vegetation.

2254—M begins giving TCs ~40m E of the nest. This continues for three minutes.

2257—M moves N about 60m NE of the nest, continuing TCs and giving intermittent TECs. We hear no second bird.

2305—ER is in capture position with net up. M is still calling ~60m NE while ER gets in position and goes silent shortly after.

2314—M resumes calling and making ~50m radius circle around the nest tree.

2325—**Capture M on a silent PD**.

**Band # 1593-64894 (on L leg)**

84.0 g LWC: 131 mm

- 29.0 g LLP(5): 96 mm

55.0 g LLP(6): 106 mm

Rect: 57 mm

**Notes: This is the B12\_2014 M.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | .5 | .5 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2349—Release. Strong Ascending Flight.

2418—DL and ER set up a lure net on Biker R. about 100m N of the head of DGF Cr. with the intent to target for the B20, B12, B17 territorial males and any possible floaters. Net opens N/S. PB begins.

Vegetation: Mixed age pipo and psme.

Weather: Clear, calm, 15C

X: 495302

Y: 4333105

+/- 8.5m

~2420—BL radios us to tell us that the B1\_M went silent in the B1\_2016 nest area and is possibly headed towards our lure net. BL hears a M giving TCs between the B1 nest and our PB. We have not heard him yet.

2427—ER walks N of the lure net to listen and hears a M giving TCs about 60m NE of the net. This could possibly be the B1\_2016 M.

2430—The M comes within 30m of our net, so we turn on the four-note Megascops call on the PB.

2432—The M flies into the net site, giving TECs and HECs. Over the next ten minutes, he swoops the net several times, but usually stays too high. He calls continuously.

2445—The M backs off toward the N giving occasional TCs.

2447—PB off. MC and BH join us from the B20\_2016 nest and help with net breakdown. We leave.

## 6 July 2016

~2030-2130—Kierstin, Connor, and Dakin attempt capture of the F in the B12\_2016 nest site. They get the net over the cavity, but unfortunately the F escapes capture. **Peep reveals three Ns all in gray juvenile plumage.** Both the M and F are making PDs to the nest, so the super vets decide to attempt a F capture on a PD. During this time, they catch the M twice, but do not hold him. They leave to meet ER and BH on the Biker Tr.

## 08 July 2016

2030—MC arrives at B12\_2016 to capture the F. As I approach the F is up but appears to have been roosting on cavity.

2235—I sneak around the back side of the tree, get the net up to height, and swing, the F flushes to the right of my net. **A peep reveals 2 owlets. The oldest has a significant facial disk that is very dark around the edges, he appears to be ~19 days old. The second one also has a prominent facial disk and looks to be ~2 days younger.** I back off to observe.

2101—The M has given 6 PDs and the F has made one. I move to get the net up.

2124—The M has made an additional 8 PDs while the F has been sitting in one perch, scolding me the entire time. I swing and capture the M on his 8th PD to remove him from circulation.

**Band # 1593-64894 (on x leg)**

70.0 g LWC: XXX mm

- 21.0 g LLP(5): XX mm

49.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: No apparent molt, so to save time I forego wear and blacklight measurements as they were taken earlier this year.**

2126—I get the net back up.

2151—The F has been in the site the majority of this time, mostly scolding me from one of three perches near the tree. She has made two aborted PDs in this time, but none successful. On her third PD attempt I swing and capture her. **She is unbanded.**

**Band # 1833-03372 (on R leg)**

80.5 g LWC: 119 mm

- 29.5 g LLP(5): 97 mm

51.0 g LLP(6): 105 mm

Rect: 55 mm

**Notes: There is a significant amount of tatter/wear/notches on the feathers, indicating mite damage. I do not assess wear. The F is moltingP2 and 3 on boths wings.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

## 9 July 2016

1640—MC, RC, and ER arrive at B12\_2016 with guests to band and bleed the owlets. ER climbs the ladder. The F is off.

1715—After some cutting we get the owlets out, there are two in close age to eachother.

**Height: 21’ 0” DOH: 23.5cm Ent. Thick: 35mm**

**Cav. Dim. (HxV): 55mm X 45mm H-Depth:105mm V-Depth: 140mm**

**Black Owlet**

53.6 g

P#5: 53 mm (xx in shaft)

P#6: 52 mm (xx in shaft)

Rect: 22 mm (xx in shaft)

Band#: 1783-74351 (L)

Notes: Bled L wing

**Blue Owlet**

55.0 g

P#5: 52 mm (xx in shaft)

P#6: 51 mm (xx in shaft)

Rect: 23 mm (xx in shaft)

Band#: 1783-74352 (L)

Notes: Bled L wing

1749—We get the owlets back in and leave.

## 28 July 2016

Afternoon—DL and ER arrive in the B12\_2016 nest site to quantify cavity characteristics. **We peep the cavity to find it empty, indicating that the two Ns likely successfully fledged**.

# B12—2017

## 5 June 2017

1540—ES and ER enter B12 territory to cherrypeep.

1544—**ER taps on B12\_2016 nest tree (#1284) and F FLOW rises to the entrance of the cavity.** **This is the B12\_2017 nest tree! Nest tree is a POTR full snag at the S end of the prominent W side drainage to Beartorn Creek. The tree is easily identified by a very prominen bear torn cavity lower on the W side. Nest cavity isa small NOFL excavation ~25ft up and NW facing. It has been previously enlarged by flam crew.** ER and ES back away to observe cavity.

1548—Female retreats back down into cavity. MC and ZM join us to observe the cavity. We leave the area.

## 8 June 2017

2037—MC arrives at B12\_2017 to peep the nest.

2043—The M flies into the area silently.

2045—The M lands in the adjacent conifer and the F gives FSCs from the cavity. The M LCs and makes a flight to perch on the cavity and then flies back into the conifer.

2051—The F gives FSCs from the cavity and the M flies ~10m N and gives LCs. The F flushes and follows. **A peep reveals three eggs in the cavity.** I leave to meet ZM and JE in B17.

## 19 June 2017

~2150—ER and JE arrives in the B12\_2017 nest site with the intent to capture the M at the nest and attach a PinPoint GPS. Simultaneously, ES begins to set up a lure net on the side ridge of Biker R flanking the W side of Bear Torn Cr. JE spots cavity as ER begins approach into the nest site. As ER starts to raise the net, a silent FLOW flies into the nest site and perches on a potr branch ~4m NW of the nest tree. An initial silhouette of the FLOW and subsequent spotlight reveals the FLOW is prey laden with a Lepidoptera spp., confirming it is the M. ER continues to raise net.

2152—Net is at cavity height. M flies E from perch without attempting a PD. JE leaves to meet ES to complete lure net set up.

2154—M flies back into the nest site.

2155—M makes a PD to the nest cavity. **ER swings the capture net over the cavity and the banded M flushes into the bag. This is the B12\_2017 M. The M is previously banded during fall migration on 09/29/2016!!** After extracting and identifying the M, we take him to meet BL on Sharp-shinned Hawk R. to attach a PinPoint. ES breaks down the mist net. **We attach PinPoint# 48201.**

**Band # 1833-03417 (on R leg)**

89.5 g LWC: XXX mm

- 35.0 g LLP(5): XX mm

54.5 g LLP(6): XXX mm

Rect: XX mm

**Notes:** During the fall, the M was caught in the upper Barren net (site 3A). He was identified as an adult FLOW with an unknown sex and a mass of 75.0g.

~2225—JE, ES, and ER meet BL on Sharp-shinned Hawk R. BL begins attaching PinPoint GPS. JE leaves to help KM during capture attempt of the B17\_M.

~2245—Finish PinPoint attachment. ES and ER take M back to the head of Bear Torn Cr. off the Biker Trail.

2257—Release M. SAF ~20m W. We try to spot him in suspected perch in a psme, but fail to find him. *He perched well in ES hand and had a good flight.*

~2300—ES and ER head to B20.

## 26 June 2017

2120—ER and ES arrive at the B12\_2017 nest site to observe PDs and attempt a M capture at the nest. We hope to retrieve the pinpoint from the B12\_2017 M. We sit 10 m from the nest tree and observe.

2123—M FLOW flies into the area and gives LCs from a perch about 2 m from the nest cavity for 2-3 minutes before flying away.

2127—M FLOW returns to the nest area and gives LCs. We hear FSCs from on cavity.

2128—M delivers a PD, perching in the entrance for a few seconds before leaving the area.

2131—M flies into the area again and perches about 2 m from the nest cavity. We hear a F LC from on cavity, immediately followed by a flyby PD.

2135—M gives LCs from about 10 m away from the nest tree. After two minutes, the LCs turn into TCs and TECs.

2140—ER approaches the nest tree and gets capture net into position while ES shines a dim spot on the cavity entrance.

2144—ER finishes adjusting the capture net and we turn off our lights. TCs come from about 50 m up Beartorn Cr to the NE.

2206—M silently flies into the nest site and FSCs come from on cavity.

2213—M delivers a PD. ES shines a light on the cavity entrance and ER swings the capture net, but the M is off the cavity by the time she begins moving the net.

2215—ES leaves the nest site to set up a lure net at the top of Beartorn Cr. ER remains at the nest with capture net.

~2220—M gives TC about 50m E of the nest tree.

2255—ES begins PB at the lure net. The net is at the top of Beartorn Cr, about 20 m S of the Biker Trail and 250 m NE of the B12\_2017 nest.

Vegetation: Mixed age pipo, young potr.

Weather: Clear, calm, 16C.

X: 495260

Y: 4333014

+/- 3m

2314—ES hears TCs from about 30 m W of the lure net. ES moves to change the PB to megascops, but by the time I reach the PB device and change the track the TCs have gone quiet.

2351—With no sign of the M in the nest site for the past 1.5 hours, after having the net up for two hours, ER backs out to help ES change lure net sites.

2356—ER joins ES at the lure net and we stop PB and break down the net to move it to a different location, where ER had earlier heard TCs.

2410—We begin PB at the new lure net location, on a spur of Biker R that comes down through the center of Beartorn Cr running N/S. The net is on the ridgetop, about 30 m S of the Biker Trail. ER returns to the nest site to continue attempting a M nest capture.

Vegetation: Young-mature pipo/psme

Weather: Clear, calm, 13C

X: 495411

Y: 4333093

+/- 3m

2420—ER arrives back at the B12\_2017 nest site and gets the net back up at capture height.

2438—ES hears TCs from about 50 m S of the lure net.

2441—With no sign of M in nest site, ER crashes the net again and meets ES to break down the lure net.

2444—We stop PB, break down the lure net, and leave the area.

## 30 June 2017

2043—ER and ES arrive at the B12\_2017 nest site to attempt a M nest capture in order to obtain the pinpoint placed on him earlier this season. We also hope to peep the cavity for information on the stage of the nest.

2047—ER gets capture net into position next to cavity.

2053—M gives LCs in the nest site.

2059—M delivers a PD, perching on the cavity entrance. ER swings the capture net but the M leaves the cavity before the net is over him.

2108—M delivers another PD**. ER captures him in the net! The M is banded and has a pinpoint on him.** ES continues watching the cavity for the F flush while ER begins taking pinpoint off.

**Band # 1833-03417 (on R leg)**

73.5 g LWC: XXX mm

- 15.0 g LLP(5): XX mm

58.5 g LLP(6): XXX mm

Rect: XX mm

2120—F still hasn’t flushed and the nest is likely either in deep incubation or in the transition to hatching. The PinPoint harness has caused some irritation, so ES stops watching the cavity to help remove the harness.

**Notes: There appears to be irritation from the PinPoint harness under each wing. Feathers are matted with some scabbing on each side. There does not appear to be any open wounds, as everything is dry. Some of the harness material is stuck in the matted areas. We cut off as much pinpoint attachment material as possible without disturbing the matted areas. The M increased in mass since his first capture and doesn’t appear to be any worse for wear apart from the irritation.**

2141—After cutting away as much pinpoint material as possible, we release the M. He shows a strong ascending flight. We leave the nest site and walk to B17.

## 4 July 2017

2308—ER and ES arrive at the B12\_2017 nest site to attempt a M nest capture. We hope to attach a pinpoint, the second pinpoint on this M this season. ES shines a dim spotlight on the nest cavity while ER gets into capture position.

2321—M gives LCs in the nest site.

2325—F gives FSCs off cavity. **ER hears begging from inside the nest cavity. One beg sounds like it is becoming raspy, while the others still sound like young pips.** ER can see the M and F perched in the nest site.

2326—F gets back onto the cavity. ER backs off to give the F time to warm up nest.

2336—ER gets back into capture position.

2342—M flies near the cavity, but then flies away.

2344—M delivers a PD. ER catches him in the capture net and begins lowering the net, but he escapes just before we are able to get hands on him. ER gets back into capture position.

2400—**M delivers a PD, and ER snags him! We successfully get hands on him. FLOW is previously banded and is the B12\_2017 M.** He is extremely tangled in the net, and it takes ER and ES about twenty minutes to extricate him before walking with him to the confluence of the Biker Trail and Sharpshinned Hawk R to meet up with BL.

**Band # 1833-03417 (on x leg)**

67.0 g LWC: XXX mm

- 16.0 g LLP(5): XX mm

51.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: BL and ER attach pinpoint # 48202. The matting present during his last capture, resulting from the pinpoint attachment, seems to have healed almost completely.**

2456—ES and ER release the B12\_2017 M at the confluence of the Biker Trail and the ridge separating the E and W heads of Beartorn Cr. He shows a strong ascending flight to the S.

## 6 July 2017

2038—ER arrives in the B12\_2017 nest site with the intent to capture the F on her flush and peep to view the status of the nest. The F is up in the entrance upon my arrival. I sit back for a few minutes to see if she might go down. *Upon further reflection of the status of the nest and shallow depth of the cavity, I suspect the F may have been roosting in the entrance.*

2042—With the F remaining in the entrance of the cavity, I decide to attempt a sneaky capture. I begin approaching around the tree.

2046—ER has the net raised behind the nest tree to about capture height. I start to swing the net around to the cavity, but the F flushes before I get the net over the cavity. I lower the capture net and peep the nest. **Peep reveals three owlets in a very shallow cavity. The eldest owlet is covered by the younger two (no view of the face or head), but the N is mostly in juvenile plumage (~70/30%). Later I hear raspy N begs from the cavity, so I expect the eldest is around 11-13 days old. The middle owlet has juvenile plumage also coming in everywhere on the head, back, and wings, but with more natal down. The runt is very active with eyes open, no signs of egg tooth, and the beginnings of juvenile plumage coming in on the wings, about 7 days old.**

2048—ER backs off to observe activity around the nest site, and potentially capture the F on a PD.

2056—M gives LC in the nest site from the E.

2100—M makes a PD to the N.

2102—Unknown FLOW makes a PD to the N.

2105—Both M and F are in the site, and both make subsequent PD to the N.

2108—Both M and F again each make a PD to the N. Given that the F is obviously making PDs, I reapproach the nest tree and raise the capture pole.

2110—Capture pole raised.

2111—F makes a PD to the N. I swing the capture net, but am several inches too high and she flushes down drainage. I hear the M and F ~50m down drainage giving LC and FSC.

~2120—With a time constraint, I back out of the nest site and start heading back to the car to meet KM and ZM to listen in B13.

## 11 July 2017

1545—Flam crew arrives to the B12\_2017 nest site to process owlets and attempt a F capture. The F is up upon arrival, so ER, ES, and BL spot the cavity as JE begins to make her approach. The F appears to go back down into the cavity, and JE gets the capture net over the cavity entrance. The F does not flush, and a peep confirms that she is still in the cavity.

1605—ER begins to climb the ladder while JE keeps the capture net over the cavity.

1614—ER successfully extracts the F and a single owlet. **The F is previously banded as the B12\_2016 F.** The other two owlets (the presumed older siblings) are not in the cavity. ER and MC walk around the site to see if they can find the potential fledglings while the rest of the crew processes the F and the owlet.

**Band # 1833-03372 (on x leg)**

65.5 g LWC: 121 mm

- 7.5 g LLP(5): 97 mm

58.0 g LLP(6): 106 mm

Rect: 59 mm

**Notes: Started bleed on L wing, but clotted quickly, so bleed on R wing.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 (w/ notch) | 1 |
| P2 | 1 | 1 |
| P3 | 1.5 | 1.5 |
| P4 | 1.5 | 1.5 |
| P5 | 2.5 | 2.5 |
| P6 | 3 | 3 |
| P7 | 3 | 3 |
| P8 | 2.5 | 2.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Black Owlet**

46.4 g

P#5: 26 mm (19 in shaft)

P#6: 26 mm (20 in shaft)

Rect: xx mm (xx in shaft)

Band#: 1833-03372 (R)

Notes: Bleed L (ZM)

1705—ER climbs back up the ladder to return the owlet to the cavity and get cavity measurements.

**Cavity Measurements:**

Height: 21’1”

Horizontal depth: 115 mm

Vertical depth: 125 mm

Entrance thickness: 25 mm

Entrance dimensions (HxV): 60mmX50mm

DOH: 23.0

1711—Owlet back in the cavity.

1719—KM releases F who makes a strong horizontal flight to the S.

2043—ER and ZM get into the B12\_2017 nest site with the intent of looking for possible fledglings and of catching the M. The F is up in the cavity on approach Weather: post rain (rain drops from the tree canopy), sky is clearing up, ~14C.

~2045—The F flushes. ZM is at the nest watching the behavior of the adults. ER is walking around the nest site, listening and watching for fledglings.

2049—M calls off roost E of the nest.

2050-2107—ZM observes 7 PDs. 4 are from unknown adults, 1 is from the F, and 2 are from the M.

2100—Both the M and the F are vocalizing in Beartorn Cr proper near ~75m N from the confluence with the W side drainage, near the past nests. Both birds seem to be moving very quickly through the area with the M giving LC and the F giving FSC. ER pursues, but it seems unlikely that either is tending a fledgling.

2108—The M is giving TCs to the N

2109—Both M and F again vocalize in main Beartorn Cr, but again seem to just be there for a few seconds before returning to the nest.

2112-2134—ZM observes 2 more PDs.

2140—ZM stops watching the cavity and starts to walk around the site like ER, watching and listening for any signs of the fledglings.

~2200—ER spots the F perched near the cavity, begging. The M gives LC, then joins her on the perch and hands-off a prey item. The F makes a PD to the cavity.

2225—ZM and ER leave the nest site in order to set up a lure net for the M. We have not seen/heard evidence of fledglings.

2248—ZM and ER set up a lure net to target the B12\_M on the spur of Biker just W of Beartorn Cr. ~150 m N of the nest. Net opens E/W. PB begins.

Vegetation: Young pifl, psme, pipo, matur pipo

Weather: ~60% clear, calm, rained earlier, 13C

X: 495433

Y: 4332973

+/- 3m

2306—M gives TC ~100m S of the net toward the nest area. He comes a bit closer to within 75m of the net.

2309—M goes silent.

2321—We walk the PB down the slope to within ~50m of the nest, but get no response.

2338—PB back at the net.

2342—M again gives TC ~100m S of the net.

2343—We change the PB to Megascops.

2344—M approaches the net giving TC.

2345—M gives HEC within 20m of net. He flies over the net a couple times, and sits in the PB tree.

2352—M backs off up the ridge toward the N.

2357—Having lost the attention of the M, we stop PB and break down the net to meet Flam Crew back at the car. ***Given that there were three owlets present in the cavity on 7-6-17 and only one present today it is unclear if we have missed two owlets fledging. Owlets were aged at 11-13 days on 7/6. During nighttime and daytime observations we could find no evidence of fledglings or other possibilities such as partial predation.***

## 13 July 2017

2340—ES begins PB at a lure net on the ridgetop of an eastern spur of Biker Trail R, about 100m S of Sharpshinned Hawk R. The lure net is 30 m E of Biker Trail. I hope to draw in the B12, B17, and/or B20 M in the little time I have.

Vegetation: young-mature pipo/psme

Weather: partly cloudy, calm, 15C

X: 495290

Y: 4333012

+/- 3m

2405—A bird gives TCs from a perch about 30m N of the lure net toward Biker Trail. It is unclear which territory this bird could have come from. The M gives TCs for 30 seconds before going silent. I walk the PB in that direction but get no response.

2410—Kill PB and leave the area.

## 15 July 2017

~2220—KM arrives at B12\_2017 to attempt another pinpoint recovery, but the M doesn’t seem to be making PDs.

## 16 July 2017

2040—KM gets into the B12\_2017 nest site to attempt a M capture to remove his pinpoint. The F is roosting in the cavity entrance.

2045—The F flushes, so I get the capture pole up to height. The F comes back into the area and makes a PD.

~2055—The M and F land in the same approach perch. The M does a handoff and the F makes a PD.

2105—The M makes a PD and I snag him.

**Band # 1833-03417 (on x leg)**

85.5 g LWC: XXX mm

- 30.0 g LLP(5): XX mm

54.5 g LLP(6): XXX mm

Rect: XX mm

**Notes: I remove his pinpoint and note a bit of feathers stuck to the backpack straps. I do not see any signs of matting or scabbing underneath his wings.**

2115—I release the M, who makes a SAF. I leave the study site.

# B12—2018

## 5 June 2018

1530~1700—JE, ES, KA cherry peep past nest trees and surrounding optimal cavity trees in Beartorn Cr drainage of B12\_2018. Nothing found.

2140—JE, ES, KA go to B12\_2018 territory to tap, listen for nesting vocalizations, and lure net.

2203—Group splits up. JE listens N in Beartorn Cr, KA listens near previous nest sites in central Beartorn Cr, ES listens S of B12\_2017 nest. All is quiet.

2225—Group gives TCs, no FLOW responds.

2247—PB of T42 starts at lure net. Net located on SE upper slope of ridge extending S from Biker Trail. Net approximately 50m SW from the center of the saddle between B4 and B12 territories. Net open N/S.

Vegetation: Mature psme/pifl. Net in front of young potr/psme.

Weather: Calm, <10% cloud cover, 19 C

X: 495464

Y: 4333105

+/- 4 m

2249—M FLOW makes TCs 150 m SE of net down towards Beartorn Cr, coming to within 50m of net. Quiet after ~30 sec.

2254—M FLOW makes 2 TCs 75 m N towards Biker Trail.

2322—Track changes to megascops.

2327—ES switches back to T42 and walks playback down SE towards Beartorn Cr. JE and KA call from net site. No FLOW response. PB returned to net.

2400—All quiet, so group stops PB and dismantles net.

## 28 June 2018

1430-1600—Flam crew peeps out B12 territory, looking for a nest in flagged cavity trees and searching for new cavities.

1600—**ES taps tree #1407, and a FLOW peeks out of a cavity in the tree—this is the B12\_2018 nest tree! The nest tree is a live potr ~75 m up drainage (NNE) of the B12\_2017 nest and adjacent to (~2 m NE) the B12\_2006, 2006, and 2013 nest tree (#532). It sits in the bottom of Beartorn Cr ~30 m E of the spur running S into Beartorn Cr from Biker R. The nest cavity is in a NOFL cavity ~35 ft up and facing NW; there is a second NOFL cavity ~2 ft above the nest cavity. The tree was not peeped in our cherry peeping efforts.**

**X= 495484**

**Y= 4332875**

**+/- 3m**

Flam crew gathers to get eyes on the nest, and the F stays up the whole time.

~1620—We pack up and leave the area.

2155—ON and ES arrive at the B12\_2018 nest tree to observe nesting activity and attempt a M capture. Upon arrival, a silent bird flies into the site displaying foraging behavior.

Weather: clear, calm, 20C

2205—Two birds are in site, presumably the B12\_2018 M and F, and each makes a PD.

2207—Unknown bird makes a PD.

2209—Unknown bird makes another PD.

2215—ES gets in capture position. Both birds are off cavity.

2218—Unknown bird makes a PD.

2222—F makes LCs off cavity.

2226—Unknown bird makes a PD then perches on the net. ES gives it a little shake and the bird flies away.

2247—ES thinks she hears a bird perched near the cavity make M LCs. The bird makes a PD and ES successfully captures it. **She lowers the net to find that it is an unbanded F with an obvious brood patch and pin feathers**. Since the F is staying off cavity and making PDs with the M, and she is relatively light, we presume that the nest is far enough along to do a quick full process of the F.

**Band # 1833-32539 (on R leg)**

89.0 g LWC: 137 mm

- 29.0 g LLP(5): 94 mm

60.0 g LLP(6): 104 mm

Rect: 56 mm

**Notes:** Bled right wing, small hematoma.

2309—ON releases F and she proceeds to fly to the ground and perch for a few seconds before making a SAF.

2310—M gives HECs in site.

2312—We leave the B12 territory to meet up with the rest of the crew.

## 3 July 2018

2049—ES and KA arrive at the B12\_2018 nest site to peep and attempt a M capture. There is no one in the cavity entrance when we arrive. Weather: clam, 90% cloud cover, 19C.

2100—The F still hasn’t flushed so KA taps the tree. Nothing.

2106—**We peep to find that the nest is empty. There are a few small eggshell fragments scattered in the nest**. We presume predation, but think there is a chance that one of the owlets fledged in the four days since we were last at the nest. We begin searching the ground and surrounding trees for signs of predation and/or fledglings. KA searches two squirrel middens within ~30 m of nest tree and doesn’t find any evidence of FLOW remains (only gnawed deer bones).

2133—ES gives some quiet hoots. TCs come from S down the drainage, near the B12\_2017 nest site. I pursue and get eyes on the M briefly but can’t see any band. For the next 15 minutes, the M and I hoot back and forth at each other as he retreats S until he is >200 m from the B12\_2018 nest and goes quiet.

2200—We pack up and head to B17.

# B12—2019

## 30 May 2019

1545—JE, ML, KC and AM arrive in B12 to cherry peep past nests and known cavity trees in the N end of B12 territory and traveling S into the middle of B12. No nests are found.

1604—ES, SL, ON, and KA arrive at B4 parking spot and hike SW to Beartorn Cr. ES and SL cherry peep cavity trees in the northern region of the aspen flat, specifically the 2017 historic nest tree and the surrounding cavity trees. No FLOW nests were found.

1630—ES and SL leave B12 territory and head to B4 territory.

## 10 June 2019

2135—ES, AM, and SL start PB (T42) at our lure net on the saddle N of Bear Torn Cr. We hope to draw in the B4 M and/or B12 M to get an idea of their identities. The lure net is located in the center of the saddle between Biker R and Turkey R and open E/W. As we are setting up the net, we hear TCs ~200 m N.

Vegetation: Dense, mixed age conifer/potr

Weather: Clear, gentle breeze, 11C

X: 495575

Y: 4333167

+/- 3m

2140—ES and SL walk down into Beartorn Cr to listen and tap cavity trees, hoping to pull out the B12\_2019 nest. ES targets the southern portion of the drainage, near the B12\_2017 nest (#1284), and SL targets the central portion of the drainage near the B12\_2018 nest (#1418) and other past nest trees.

*The following notes are from ES and SL down in Beartorn Cr.*

~2220—ES joins SL in the central part of Beartorn Cr after SL hears HECs. We listen for a while. ES thinks she hears FSCs near tree #1093. We move that direction. I think I hear FSCs again but don’t know which direction. ES hoots a few times, but there is no response.

2235—ES walks SE down the drainage to tap and listen near the B12\_2018 past nest tree. On the way, I see a nice looking NOFL cavity and give the tree a tap. **A FLOW rises to the cavity entrance—this is the B12\_2019 nest tree! The nest is in tree #749 (B12\_749) and is also the B12\_2011 historic nest tree, a potr full snag in the bottom of Beartorn Cr ~25 m W of the B12\_2018 nest tree. The nest cavity is a NOFL cavity ~20 ft high, facing E. There are several young potrs surrounding the lower portion of the nest tree.**

2239—SL joins ES at the nest tree to observe nest activity. The F is still up in the cavity entrance.

2240—M comes into the nest area, perches on a young potr in front of the nest cavity, gives LCs, and then gives a PD.

2242—Silent bird comes into the area, gives a PD, and then perches in the same young potr in front of the nest cavity. There is a high pitched vocalization off cavity that sounds similar to an FSC, and the M flushes in that direction. ES turns on headlamp to see if we might have flushed the F, but she is still in the cavity entrance. **Two birds (one of which is the B12 M that vocalized and gave the PD) flush to the N while the F stays on cavity. We believe that this may be an indication of helping behavior.**

~2244—M TCs and TECs ~15 m S of the nest.

~22450—F goes back down.

2255—TCs ~150 m to the N.

2306—TCs ~150 m N.

2310—We leave the nest site and join AM at the lure net.

*The following notes are from AM up at the lure net.*

2201—AM hears M TCs 100m NE of the net.

2217-2225—M FLOW comes in hot from the NE, giving TCs, TECs, and HECs 20-50m NE of the net.

2227—AM changes PB to Psiloscops, M goes silent.

2242—PB is changed back to T42.

2251—AM hears a few distant TCs 100m W of the net.

2302-2315—M FLOW originating from the NE is back giving TCs 70-90m N of the net consistently. Exact location was hard to hear due to mysterious siren blaring.

2315—PB is switched to Megascops. M is still calling 70m N of the net.

2326—ES walks PB N towards M FLOW.

2331—ES returns with the PB to the net site. M FLOW does not come any closer, but continues calling. PB is switched back to T42.

2336—M goes silent.

2340—We cut PB, break down the net, and leave the B12/B5 saddle.

## 24 June 2019

2240—JE, AM, and SL finally arrive at the B12\_2019 nest for a M capture attempt after a lot of searching and walking in circles. M has been heard throughout making TCs up and down Bear Torn Cr. F is not up in the entrance. We put a dim spot on what we believe to be the nest cavity and M is never heard again.

2244—JE thinks she heard some FSCs in the area but it could have been my nose as neither SL or AM heard it.

2307—AM begins a slow approach towards the nest.

2310—AM gets to the nest and find a **couple eggshell fragments at the base of the cavity. From the picture we took of the egg fragments, BL suggests they may be the result of pipping rather than predation as the edges were somewhat uniform around the length of the egg, indicating it may have been from the egg tooth.**

2310-2320—We backed off to observe the nest for about 10 minutes.

2320—We head out towards B17 with no signs of the F and without hearing the M any more than at the beginning of the night.

## 27 June 2019

2033—ON and ES arrive at B12\_2019 nest tree to attempt a F capture. Cavity entrance is empty upon arrival and all is quiet.

Weather: 10% cloud cover, slight breeze, 21 C

2040—ON approaches tree with capture pole.

2044—ON gets net over cavity.

2050—F hasn’t popped up yet, so ON taps the tree. Nothing. We haven’t seen or heard any signs of FLOWs in the nest site.

2100—After ON gives the tree another tap, still to no avail, ES slides the peeper under the capture pole to check out the cavity. **We peep to unfortunately find the cavity empty with a possible egg shell fragment on the bottom. The B12\_2019 nest has been presumably predated for the second year in a row.** This is consistent with the lack of FLOW action and the egg fragment found at the base of the nest tree on 6/24/19.

2101—We bring the capture pole and peeper down and scan the ground for any more signs of predation.

2105—After finding no more evidence of nest predation, we head out to attempt a M capture at B13.

# B12—2020

## 23 June 2020

1500-1645—Flam Crew arrives to peep cavity trees in the B4, B12 and B13 territories. Nothing was found in any territory. BL peeped all the past nest trees still standing, in addition to all cavity trees in the N-most patch of POTR containing these past nest trees, and noted that several cavity trees had been taken down by IREA in the previous weeks (utility line hazards). The rest of the Flam Crew peeped B4 trees in vicinity of the parking spot along W Missorui Cr. before heading into B12. We peeped all standing nest trees in B12, as well as most trees with suitable cavities in Beartorn Cr.

# B13—2003

## 23 June 2003

0145—Miriam marks song post on NORTH goshawk ridge, but it is not the exact tree. Could not get GPS. Marked as B13.

## 30 June 2003

2355—Jake and BL arrive on Bermuda Ridge to attempt spot-mapping of B5 and B13 males.

2410—BL observes TE encounter between two males—presumably B13 and B5 males, just S of where the 2-track road forks on the N end of the Bermuda Ridge top. When I arrive, both Ms were in the same *Pipo*, with only (presumed) B13 vocalizing (giving HECs)—the (presumed) B5 M perched quietly for several minutes before flying off to the S. I eventually flag 4 song posts on the B13 M, who moves mostly N on the Bermuda ridgetop to the NE junction of the N Goshawk Ridge and Bermuda Ridge. At song post #3, he spent 5-8 min moving quietly from perch to perch and resting, generally acting like an unpaired male for this time of year.

2430—B13 M stops singing.

## 2 July 2003

2140—Katie, Miriam, Jake, and BL arrive to attempt territory spot-mapping on B13 male, on N Goshawk (K and M), Bermuda (J), and Grave (BL) ridges.

2253—Miriam flags songpost #3, in east Goshawk drainage. M gives 3 note and 1 note calls.

2300—BL hears presumed B13-M singing in the bottom of the S Fern Cr drainage (about 250 m N of the head of the W Missouri drainage). I eventually mark 4 songposts between this time and 2415, two of which were trees where the male was giving HLCs in the vicinity of a female who was occasionally giving food solicitation calls. At the 2nd songpost, the M sat inside a flicker cavity in a Potr, where he proceeded to give HLCs for approximately 10 minutes. During this time, the female approached the cavity tree, once landing on the trunk about one-half meter above the hole, and actually landing in the cavity entrance on another occasion where she silently perched for 1-2 minutes (all the while the M was visible at the cavity entrance, where he continued to vocalize). This entire sequence was repeated approximately 15 minutes later, for a slightly shorter period of time. Jake and I attempt capture of the M, but he flushed the cavity prematurely. I eventually lose contact with the M and F when they fly off to the SSW (toward the NE end of Bermuda Ridge). The interactions between the M and F closely resembled courtship behavior, and thus confirm that the M must have been a bachelor until recently.

2445—Jake and I leave.

## 9 July 2003

2055—Katie arrives at tree where Brian saw courtship activity.

2058—I hear Fs calls from E.

2125—Two flams land just N of the tree where Brian saw courtship activity. Both fly off to the W.

2130—M gives LC, F gives FS. She is not in cavity.

2135—M gives LC, F gives FS in nest area. (still not from nest)

2139—M gives LC, F gives FS from tree W of marked one. She gives chittering calls.

2142—M gives LC, F gives FS.

2147—Same.

2202—M gives LC.

2215—M gives LC, F gives FS.

## 15 July 2003

2035—Jake arrives at B13 in order to peep. Nothing visible in cavity.

2105-2108—M in cavity giving courtship call. M leaves to SW.

2128—Jake leaves.

## 25 July 2003

Morning: Miriam, Katie, and Jake arrive to peep in the B13 cavity where the M shown courtship behavior. Cavity is empty.

# B13—2004

## 24 May 2004

2315‑BL and SY walk north on road that follows Roadcut Creek into B13.

2347‑From around the center of B13 we hear a 1 note TC to the North. We chase but hear no further calling so we continue north until out of B13 where we turn around and walk back south along road.

2405‑From North end of B13 we hear a TC close by to the south. We follow to approximate area.

2411‑We found a marked cavity tree near where the bird was calling. We located the cavity and knocked on the trunk. A female Flam appeared—**THIS IS THE B13\_2004 NEST**. The nest tree is a live *POTR*, approximately 30 cm dbh, and nest is in a NOFL-sized cavity approximately 8 m above the ground on the N side. Nest tree is approximately 15 m W of where the tributary of Fern Creek first crosses the Road Cut Dr. trail (from the S).

2413‑Nearby male gives a quick TC then makes a prey delivery. We light the cavity up again and the male gives an HEC probably due to our presence, so we leave.

## 31 May 2004

2043—JM and SY arrive at B13 nest.

2044—Female leaves nest as male gives a call, presumably off his roost. (Male calls from east of the nest.)

2049—**We peep nest, 3 eggs are in the center, two touching one not** (within 2-3mm of other eggs).

2059—A bird flies past the nest from the east and 4-5 TEC are heard in close vicinity to the nest from the west side of it.

2102—TC heard from the South-east.

2114—The female has not returned to the nest so we leave. As we get up to leave a Long-eared Owl (?) is seen flying over the nest from West to East.

## 7 June 2004

2037—EE, EP, and BL arrive at B13 nest to attempt capture of F.

2047—BL has capture net setup at cavity

2048—F flies into upper section of capture net. Caught for about 10 seconds and then escapes

2151—F returns to nest to check on eggs. EE, EP and BL leave

## 8 June 2004

2036—BL, SY and JM arrive to nest for capture attempt of F.

2044—BL places net at cavity entrance. The F is heard begging from adjacent *Psme*—she is already off the nest.

2048—F makes an attempt to fly into the hole.

2050—F flies around from a nearby Doug Fir and gives another begging call.

2052—BL lowers capture pole.

2054—We leave the area.

## 14 June 2004

2030—BL and EE arrive at B13 nest to attempt to capture F.

2039—As BL moves towards nest tree the F comes up to cavity entrance.

2043—F goes back down and BL continues to set up capture net.

2052—**B13 F is captured and we note that she is unbanded. We band her right leg with band # 92361.**

2101—F is released, without taking blood or measurements.

## 21 June 2004

2136—EE and BL arrive at B13 nest area to attempt capture of B13 M. Mostly clear, very wet (rained all day), calm, 10 C.

2144—After cleaning capture net, we move to vicinity of nest tree.

2147—M delivered prey to F in nest. Same at 2149.

2232—EE captures M as he exits cavity after delivering prey. **Previously unbanded—we give him Band # 92359 (right leg)**.

73.5 g

* 20.5 g (tare)

53.0 g

2250—After bleeding the M, we release him at this time.

2252—We leave.

## 9 July 2004

1535—JM, BL, and EE arrive to B13 nest to capture and bleed F and owlets. F was not present in the nest.

1538—**Owlets # 92379 fledges as BL climbs tree.**

1531—BL removes other owlet from the nest.

Cavity dimensions: Horizontal vs. vertical- 6.0cm x 6.0cm

Thickness- 4.5 cm

Horizontal depth- 15.0 cm

Vertical depth- 45 cm

DOH- 23.0 cm

**Band#92379 Band#92380**

75.5g 76.5g

-11.0g -11.0g

64.5g 65.5g

LLP 54.0mm LLP 41.0mm

Rect 24.0mm rect 17.0mm

1614—Owlets returned to nest, and we leave. **Note:** It is possible that one owlet has already fledged. On the basis of the fledging of owlet 92379 (who was put back in the cavity), this owlet will quite likely fledge (legitimately) tonight.

# B13—2005

## 31 May 2005

2215—MS and BL hear M giving TC and LC as we approach the vicinity of the B13\_2004 nest site. Shortly thereafter, we find a F giving FSC in this area, and then the M begins to give HECs, although we do not ever see a 2nd M in the area (possibly directed at us?). M quiets after 4-5 minutes. At this time, the F flies to the close vicinity of the 2004 nest where we lose her.

2235—We hear M sporadically giving TC approx. 100 m to the N. BL pursues.

2258—BL eventually finds M giving TECs approximately 300 m to the N of the B13\_2004 nest, where he is engaged in a territorial dispute with a 2nd M who is giving TECs ~ 10 m to the N. This 2nd M initially was heard calling approx. 100 m to the E (his territory apparently borders B13\_M to the N and E). Both M move to the W where the territorial dispute continues in another mature *Pico* stand, where I mark a 2nd song post on the B13 M (see SP data sheet) at 2313. Both M quiet shortly thereafter.

2340—We leave. F not seen or heard since the early vocalizations.

## 7 June 2005

2125—BL arrives in the B13\_2004 nest area to attempt to find the nest.

2133—M gives LC approximately 30 m to the S—I pursue and find him perched on a lower limb of a live *Potr* cavity tree (B13\_67, tag #166, ~ 5 m E of Roadcut Rd) carrying prey. He then flies into a cavity approximately 13 m above the ground on the S side, and delivers prey to F giving LSC—this is the B13\_2005 nest.

2142—MS and EE arrive.

2145—M delivers prey to F in cavity (LC and FSC). Same at 2150, 2152, 2155, 2158, 2202.

2212—We leave.

## 13 June 2005

2034—BL arrives at the B13\_2005 nest to attempt capture of F. Clear, light breeze, approximately, 15C.

2041—I raise the capture net over the cavity, and the F flushes, bouncing off the net. (Cavity is 37 ft, 7 in high).

2044—F reenters nest.

2046—F captured in net. She was **previously banded—band # 92361** (B13\_2004 F).

2051—F released, and I move back approx. 50 m from the nest tree.

2114—I leave. I did not see F reenter cavity, but monitoring cavity was difficult from the distance. M was not seen or heard.

## 30 June 2005

2051-2105—M and F are making prey deliveries to young in the B13 nest. Five made by F and 8 by M.

NOTE: we could hear the owlets give hoarse begging calls from the cavity almost 12m up the tree.

2115—EE captures M and find **he was the B13\_2004 male**:  **Band #92359**

**Band #92359**

84.0g

-28.0g

56.0g

WC: 136.0mm

LLP: 95.0mm

Rects: 63.0mm

NOTE: When examining the M’s R wing we note a bald spot on the posterior (outer) portion of his wing located over the wrist joint. No apparent scab or sign of injury.

2124—Release M.

2125-2132—4 prey deliveries are made to owlets in nest cavity.

2134—Capture F. **She was the B13\_2004 female** with **Band # 92361**. We need to bleed her, however, because she was not bled the previous year.

**Band #92361**

85.0g

-28.0g

57.0g

WC: 140.0mm

LLP: 100.0mm

Rects: 61.0mm

2137—M gives us hoarse encounter calls.

2153—F is released and we leave.

## 7 July 2005

1630—BL, EE, DF, MS and SY enter B13 territory to band, bleed and measure owlets.

1634—Female flushes to SW with single scolding call.

1635—MS peeped nest: 3 older owlets with fairly defined facial disks and grey feathers.

1640—BL at cavity.

**B13 Cavity Measurements**

**Horiz: 5.5 cm**

**Vertical: 5.0cm**

**Ent. Thickness: 5.0cm**

1642—BL enlarges cavity.

1648—Owlets out of cavity.

**Band #64480 #64481 #64482**

**75.0 75.0 70.0**

**-12.0 -11.5 -12.5**

**63.0g 63.5g 57.5g**

**LLP: 63mm LLP: 62 LLP: 51**

**Rect: 29mm Rect: 21 Rect: 21**

1710—Owlets returned to nest after being bled and banded.

1720—We leave.

# B13—2006

## 30 May 2006

2200—BL and KC climb over the saddle on the Road Cut Drainage to B13 territory to look for B13 nest and possibly record F with parabolic disc.

2210—We tap the B13\_2005 nest. Nothing. KC keeps an eye on the tree while BL goes N to look at other cavity trees.

2220—M begins to call SE of last year’s nest. He comes in closer and moves across the road to the NW.

2225—BL hears FSC from F, which seemed to originate near the 2005 nest tree, or possible 10-20 m to the W (my position was E of the 2005 nest tree when the vocalizations were heard). We search for nest in marked and unmarked cavity trees without success.

2230-2245: BL and KC knock on cavity trees ~10m S (uphill) of 2005 nest. KC watches for M at that tree while BL watches the 2005 nest tree. M calls occasionally but does not come close again.

2305—We leave. We suspect that the 2006 nest tree is either in the 2005 cavity or in relatively close proximity.

## 5 June 2006

2015—KC and EE enter the B13 nest site of 2005, hoping to find F in last year’s tree and capture her. It is calm, slightly breezy and partial cloud cover, ~21 C.

2020—KC peeps the 2005 tree, and she is in the cavity, playing dead. **This is the B13\_2006 nest tree.**

2028—EE has net up.

2052—M heard to the SW.

2056—EE taps tree, but still no action at the hole.

2101—M is around, LC calls ~10m to the West.

2102—F flushes into net. **We peep and find two eggs, touching and in the center**.

2109—She was unbanded, now **#64511**, we release her. No time for measurements.

2110—M gives LC, we leave the area.

## 6 June 2006

2210—KC and SY arrive at B13 nest tree to attempt capture of the M. Cloudy, wind approx. 5 mph, 21 C. F is in cavity entrance when we arrive.

2217—M makes a prey delivery and female returns to cavity bottom.

2218-2315—We observe 2 prey deliveries (see data sheet) and attempt capture both times but fail. Towards the end of this period the male becomes very agitated by our presence and begins giving constant TCs and TECs (2, 3 and 4 notes) form several locations around nest site.

2315—We leave.

## 15 June 2006

2212—SY and KC arrive at the nest site to capture the M. It is cloudy, calm, and ~19 C.

2216—Net in place for M capture.

2217-19—M is heard giving TC’s from a Potr, 20 m N of nest tree.

2300—No prey deliveries seen. SY taps on tree and the F flushes, she was there, but quiet. The cavity is the keyhole, around 36-38ft high. We leave.

## 20 June 2006

2214—SY, KC and visitor Kal enter B13 nest site to capture M. The wind is ~5mph, mostly cloudy with temperature of 23 C.

2115-2127—We observe 7 prey deliveries, the M giving LC’s and the F begging in response. She is up in the hole for the first 4 deliveries, but then goes down for the last few.

2138—M aborts a prey delivery, probably annoyed with the net.

2141—M calls from the N, moves into nest site to a Potr S of nest.

2142-2208—Another 3 prey deliveries are observed, and he periodically gives TC’s from a distance.

2211-2220—M again in area, but no prey delivery attempts, just gives TC’s and occasionally LC’s. He is perched on a branch of the nest tree, and the F is heard begging quietly to him.

2233—F is heard begging again, M not in sight.

2307—We take the net down, and leave. The M is heard giving TEC’s over 100m away, from the N.

## 22 June 2006

2249—EE and EM arrive at nest tree. Temperature is 18 C with a slight breeze and no clouds in sight. Before attempting to capture M, EE and EM repaired net.

2302—EE set up to capture M. During her set up, the M aborted one prey delivery.

2306—Prey Delivery, capture attempt unsuccessful. M never completely entered cavity.

2310—Prey Delivery, capture attempt unsuccessful. M never completely entered cavity.

2330-- Prey Delivery, capture attempt unsuccessful. M never completely entered cavity.

2333-2340—M makes TCs close to the nest tree

2343—Prey delivery (too quick to even attempt capture)

2344— Prey delivery (too quick to even attempt capture)

2350—Aborted prey delivery

0028—EE and EM leave nest site.

## 27 June 2006

2027—KC and SY arrive at B13 nest site to attempt to capture both M and F.

Weather: MC, wind <5mph, 19C.

2040—Net in capture position. (38ft 1in)

2052—M enters site and tries, several times, to make a prey delivery but is prevented by the net. He then moves around the nest site for approx. 3 min. giving TCs.

2101—F flushes into the net but gets through a hole.

2102—**We peep: 2 nestlings, still in natal down, 1 nestling has eyes barely open and one has eyes apparently closed.**

2104—M makes a PD directly to the nestlings.

2112—F returns to cavity.

2113-2137—We observe 10 PDs (see data sheet). We captured the M once at 2121 but got hung up on the tree and the M escaped.

2137—We capture M as he attempts to make a PD, he didn’t pass off his prey before capture and the moth is also captured in the net and subsequently collected. M is previously unbanded.

**Band #64521** (Right Leg)

77.0g LLP: 98mm

-20.0g LWC: 135mm

57.0g Rect.: 64mm

We bleed the M from the left wing.

2201—Release, we leave.

## 7 July 2006

1449—Flam Crew arrives to bleed B13 F and mass, measure, and bleed owlets. F comes up to cavity entrance about 30 seconds after we arrive.

1510—After waiting 20 minutes to see if F will go down. We decide to try to capture anyway. KC sets up net.

1515—Net is over cavity.

1518—As BL begins climbing F flushes and we capture her.

**#64511**

66.0g LLP: 98mm

-12.0g WC: 131mm

44.0g Rects: 55mm

\*We bleed and take feather samples (2 primary coverts and 4 contours)

1525—Owlets are out of cavity. We bleed both.

**#64527 #64526**

49.5g LLP: 22mm (19 in shaft) 56.0g LLP: 28mm (19 in shaft)

-16.5g Rects: Too small -16.5g Rects: 9mm

33.0g 39.5g

1635—F released.

1650—Owlets returned and we leave.

## 13 July 2006

1400—**KC and SY peep B13 nest: 1 owlet present, face down and motionless. Gray juvenile plumage with some white down on the peripheries. Owlet is likely dead.** We leave.

## 20 July 2006

1320—Flam Crew and BL peep B13 nest, before we quantify nest habitat. One dead owlet still remains in the nest.

# B13—2007

## 29 May 2007

2100—BL and EE arrive at B13 and spread out to the last two year’s nest tree to listen for any nesting activity. Weather is calm, with a light drizzle and overcast/foggy skies, 12 degrees C.

2120—After 20 minutes of silence we move further north.

2140—EE stops near **B13\_72 (DOUBLE CHECK TREE NUMBER)**. EE observes M fly in from W. He remains totally silent and then flies off to the S. I continue to wait.

2145—I observe M return and make LC’s and then make a prey delivery to N facing hole about 25ft from ground in tree B13\_73. **Thus, the B13 2007 nest tree.**

2155-2213—M makes four prey deliveries. During each delivery M gives LC and F responds with continuous FSCs.

2200—BL arrives to attempt capture of B13 2007 M. Several failed prey delivery attempts ensue. Given the number of prey deliveries in the given time suggests the F to have an energy deficit.

2213—BL attempts capture and both M and F get caught in net. F escapes through large hole and flies W. We capture M. **B13\_2007 M is banded #64521 and is the 2006 B13 M**

2218—We release M and vacate.

## 7 June 2007

2030—EE and CB arrive at B13\_2007 nest tree to attempt to capture F. Weather is cool (7 degrees C), calm and cloudy.

2040—CB begins to raise net for capture. We line up on the wrong hole and F flushes when the net gets caught on tree. **For future capture attempt: cavity is about 25 feet off the ground in a large black mass on the *potr*. It is directly S facing and about 10 ft above the large bear torn hole that is W facing.**

2043—**We peep cavity and find 2 eggs** in the center touching.

## 12 June 2007

2022—CB, SY and Max Scher and Sean Blanchet arrive at B13 nest to attempt to capture F.

2027—Net bumps tree while it is being raised, F flushes to the NE – we leave.

## 18 June 2007

2030—EM and CB arrive at B13 Nest tree to attempt to capture F. Wind < 5mph, clear skies, 22C.

2034—Net in place

2043—M calls to NE

2047—M flies into nest area remaining silent.

2048—M gives TCs and LCs

2049—F gives FSCs

2050-2052—M flies around nest tree, He attempts a PD but stops when he sees the net.

2053—EM taps on nest tree, **F flies into net and is caught. Newly banded F, Band # 1593-64581.**

2057—CB releases F, strong flight to W. We leave nest site.

## 4 July 2007

2032—EM and CB arrive at B13 nest tree to attempt to capture and bleed F. Also, we want to peep cavity to check nestling status.

2034—CB has net set up to capture F.

2035—F flushes, we peep cavity and find two owlets, very old, most likely just a few days from fledging. We remain at B13 to try to capture F.

2044—F makes several vocalizations then flies S, away from cavity.

2046—F and M make LC’s, fly around nest for several minutes

2048—CB raises net.

2051—M PD

2052—M PD

2053—F caught then escapes from net when lowered.

2055—F scolds multiple times very loud.

2056—F flies away from nest tree, scolding.

2100—M in area.

2110—M and F in area, around nest tree.

2118—F makes PD, caught—**SHE WAS PREVIOUSLY UNBANDED**. We bleed the F.

**B13 F: 64581**

LWC: 128mm

LLP: 5th- 93mm 6th- 100mm

RECT: 58 mm

Mass: 76.5-20.5 = 56.0g

2137—We release F

## 6 July 2007

1417—BL and Ian/John Hopper arrive at the B13 nest to enter cavity and band/bleed owlets. F in entrance when we arrive, and she flushes to an adjacent conifer as BL starts to climb tree.

1442—BL sufficiently enlarges the cavity entrance to remove owlets from cavity.

**Band 64591 Band 64592**

93.0 g 93.5 g

- 30.0 g - 30.0 g

63.0 g 63.5 g

LP(#5): 61 mm 60 mm

LP(#6): 61 mm 59 mm

Rect: 33 mm 30 mm

Both owlets bled. Owlets appeared likely to fledge in 2-3 days. Facial disks relatively well defined, and scapulars are assuming adult coloration.

1518—Owlets returned to cavity.

1531—We leave area.

## 8 July 2007

2035—EM and AF arrive at B13 nest tree to check nestling status and see if fledging occurred. We peep cavity and find two very well developed owlets still in cavity. F is not in cavity when we arrive. Partly cloudy, wind gusts around 10mph, 22C.

2045—M calls to S

2046—M PD, fledgling comes to cavity entrance and stands there for several seconds.

2047—F scolds at us from W. Nestling goes down in cavity.

2058—We move further from cavity, F still scolding at us.

2102—F makes a mock PD.

2104—F and M in area.

2105—Both parents give PD, nestling again at cavity entrance.

2112—PD, nestling (maybe both?) beg.

2115—F PD.

2117—M calls to S, F makes PD.

2118—F PD. Nestling again at cavity entrance.

2122—F scolds, 2 aborted PDs, nestling goes down in cavity.

2123—F PD, she spends several seconds in cavity.

2130—We peep again. Still 2 owlets in cavity. We leave nest site.

## 10 July 2007

1710—CB and KB arrive at the B13 nest site to peep the cavity, but unfortunately the peeper battery is dead. CB heads up the trail to meet EM and get a new battery. EM comes back instead. Meanwhile, KB searches the area for fledglings.

1720—EM and KB peep the cavity and find it empty. **This indicates that both owlets probably fledged last night.**

1730—We leave the area.

# B13—2008

## 2 June 2008

2330—KB and DH enter B13 to look for nest and listen. We tap several trees, including last nest tree, and saw and heard nothing.

2425—KB and DH back up on the saddle between B13 and B5. DH hears hooting coming from the S—B5 area. Pursued but did not hear it again.

## 12 June 2008

2210—DH and SY arrive in the B13 territory to listen for nesting vocalizations and run a lure net.

2235—Begin setting up a lure net on the low slope of a NS running spur of N Goshark R. Site is fairly dense psme/pipo. Location:

X: 495797

Y: 4334114 +/-39m

2314—Begin playback of TCs. M gives TCs in response up drainage to the S.

2320—M enters site giving TECs.

2332—Capture of a previously banded M in the top rung of the net.

**Band #64521 this is the 2006 B13 M.**

85.0g P5: 102mm

-26.0g P6: 108mm

59.0g Rect.: 65mm

LWC: 138mm

M has green “stuff” on face and talons.

2350—M is released.

2353—Playback stopped – begin breaking down the net.

2407—Net is broken down, we leave.

End Temp: 3C

## 16 June 2008

2241—DH and EM arrive at B13 to listen for territorial or nesting activity.

2321—Hear TCs close to the road on the S end of the territory—still descending into the drainage.

2331—Hear more TCs from the N, towards the bottom of the drainage.

2337—Marked 1 SP on the B13 male. See songpost data sheet for details.

## 23 June 2008

1440—While the Flam Crew taps/peeps cavities in the B13 territory, KB taps on the B13\_2007 nest tree (B13\_73, Tag #234) and the B13\_F rises to the entrance—**this is the B13\_2008 nest**. The nest is in last year’s nest cavity as well, which is the highest cavity on the S-facing side, and is approximately 7.5 m above the ground (about 2.5 m above a large bear-tear on the W-side).

1446—F descends from the cavity entrance.

1500—We leave area (t-storm approaching).

2018—QB and BL arrive at the B13 nest to attempt capture of F. Mostly cloudy, calm with light breeze on ridgetops, approximately 16 C.

2035—QB raises the net over the cavity, and F immediately ascends to the entrance. Over the next 10 min, she pulls back from the entrance but does not appear to descend.

2047—M flies into the nest area giving just a few LC.

2048—F flushes into the capture net.

2050—**We remove female from net—she is previously banded, with Band #1593-64581. This is the B13\_2007 female.**

86.5 g

- 6.0 g

80.5 g

**We peep cavity and find 3 eggs touching and in the center of the cavity.**

2056—We release F.

2058—We leave area, with M giving LC in the vicinity of the nest.

## 24 June 2008

2130—QB and SY arrive at the B13 nest site to attempt capture of the M.

Weather: 11C, mostly clear, wing <5mph.

2131—F rises to the cavity entrance as QB approaches the nest. We wait.

2136—F goes down – begin raising the net.

2138—Net in capture position.

2139—M enters the site from the W, perches in live pse !4m E of the nest tree. M gives a few LCs.

2142—Aborted PD.

2143—M exits the nest site to the S.

2155—M enters the nest site from the NW. He perches in the same tree as before.

2157—Aborted (?) PD (SY lit up the cavity too early) M flushes to ~35m NW of the nest and gives TCs

2203—We leave.

## 8 July 2008

2205—CB and DH arrive in B13 to peep nest. We can hear both the M and the F vocalizing in the area.

2208—**We peep: 3 nestlings, one of the clearly a runt. Cavity is deep—coloring difficult to tell, but the runt is entirely white and the other two appear to be of one solid grayish-white. No patches of grey yet on the wings or head. One of them glanced up and eyes appeared to be squinty but open.**

2212—We leave.

## 14 July 2008

2257—KB and QB arrive to peep nest. The F is up. The M is giving LCs in the immediate area.

2258—F flushes. Peeping **reveals one gray fuzzy nestling—still light gray fuzz.** **No sign of the other two siblings.**  F and M continue to give LCs as we peep.

2300—We leave the area. We can hear both M and F calling near the nest site.

## 17 July 2008

1500—Flam Crew arrives to attempt banding and bleeding of the remaining owlet in the B13 nest, but peeping reveals that the nest cavity is empty. BL also climbs the tree to check possible crevices missed by the peeper, and although not all crevices could be reached, but nothing is found. We check the nest area on the ground and surrounding trees for possible fledgling or remains, but nothing is found.

2150—BL returns to the B13 nest to listen for possible fledgling activity.

2156—I hear M giving TC to the S, possibly near the Roadcut Saddle. Within 10 min, the M moves to within 50 m of the nest, to the S, E, and then N, giving TC and TEC.

2230—I leave area. M has been giving TC continuously since I arrived, and is now ~ 75 N of the nest area. **No feeding vocalizations heard in the vicinity of the nest; it appears the last nestling never fledged and may have succumbed to either predation or abandonment.**

# B13—2009

## 2 June 2009

2122—KB, DH, QB, KG, Pat and Kristy in B13 to set up lure net. Weather: cloudy, misty, slight drizzle. Lure net: mid-slope, dense mixed-height psme and pipu, NE-facing slope on the W side of the road. X: 495847, Y: 4334006. Has started raining slightly, so we hold off before starting playback.

2145—KB QB go to previous nest trees at bottom of drainage to tap and listen.

2200—M heard giving TCs down drainage to the N of 2008 nest tree. KB and QB hear M giving TCs periodically over next hour, moving throughout the drainage bottom, near ’08, ’07, and ’06 nest trees.

2212—Playback started. DH and KG at net, hearing nothing of the M.

2226—DH checks net—empty.

2238—KG checks net—empty.

2257—KG checks net—empty.

2313—DH checks net—empty.

2327—KG checks net—empty.

2341—Playback stopped.

2343—For the first time this night, we can hear the M giving TCs from the net site. We begin breaking down net.

2356—We leave. Still hear M calling in the distance to the N.

## 8 June 2009

2108—QB, SR, and DH arrive in B13 to territory to set up lure net in hopes of catching B13 or B5 M. We decide to set it up on the road cut just north of barbed wire fence, between B13 and B5 territories. Site Description: open with small psme in area; nearby area thick with mature *pipo*, *psme*, and *pipu* nearby.

X: 495874 Y:4333944 +10m

2139—Playback started. Weather: Still overcast but starting to clear up, 9C, no rain, calm.

2145—TC and TEC from S (suggests B5 M), calls get closer; M flies in from SW.

2155—Calls right up to net, becomes lower pitched and hoarse.

2156—Second M gives TC from distant SE, does not last long.

2205—DH leaves to listen in B13 drainage.

2210—DH is in the bottom of B13 drainage to listen and tap for nesting activity.

2211—Check net;empty.

2214—TC from close M moves far to N, away from B5 territory and towards B13.

2224—Calling stopped; last call given from ~50m N, down in B13 drainage.

2225—Check net;empty.

~2230—DH hears M giving TCs up a side drainage to the W. Is difficult to determine at first whether or not it is the playback. I track this M down into the drainage bottom, as he is singing aggressively and moving about.

2238—Check net; empty.

2251—Hear wingbeats (owl?) in area of net.

2253—Check net;empty.

2305—DH places songpost B13\_1. M has been aggressively giving TECs in this tree for ~5min.

2308—Check net;empty.

2319—Check net;empty.

2325—DH witnesses the M singing out of a cavity, for ~5 min, very loud and aggressive. He moves to another tree close by when stumble up to tree to check tag. This tree is flagged but unenumerated, just north of B13\_67.

2330—M flies to keyhole cavity on B13\_67, as if making a prey delivery, then flies off, silent. No bird is observed in the cavity after tapping. Then the M flies into a lower cavity on the same tree, starts singing.

2331—FLOW flies silently into top shelf, S side, of net. QB finds sizeable brood patch.**Bird is unbanded. We band: # 1593—64671**

79.0g

- 17.5g

61.5g (Because this may be a F, we band and release her)

**Band#: 1593 64671**

2344—FLOW released, flew to S.

2346—DH leaves drainage bottom to join QB and SR to break down lure net. M is still singing from the \_67 cavity. I have observed no other birds in the area.

2348—We hear F call in area of playback

2349— Playback stopped.

0004—Net collapsed; we leave area.

## 23 June 2009

2139—QB, SC, and BR arrive to lure net at B13 saddle and to listen N in B13 drainage for nesting vocalizations. We all move down drainage to listen near past nest trees.

2205—At cavity tree B13\_237, we find a very fresh bear tear on E-facing cavity. Wood fragments still moist, pliable, claw marks on bark still green. We find eggshells, poop on ground at base of tree, but also feathers that appear to be Williamson’s Sapsucker feathers. We do not hear any vocalizations while listening in the drainage.

2237—As we are setting up lure net on B13 saddle, we hear M singing (TCs) to NW of saddle, down drainage `50m but mid- to upper- slope of Goshawk ridge. He is only singing, not giving nesting vocalizations.

2250—M quiet.

2259—Playback started.

2300—Hear M giving TCs again to NW of net, faint and only for a few minutes on-- the wind.

Weather: still calm, clear, 11C.

2312—Check net; empty.

2324—Check net; empty.

2336—Check net; empty.

2348—Check net; empty.

2350—Playback off, we break down net and leave area.

## 29 June 2009

1500-1645: DH, SR, and BL peep cavities and enumerate new cavity trees throughout the B13 territory. Nothing found.

# B13—2010

## 25 May 2010

~1545—SY, KB, JV, and BG arrive in B13 to tap cavity trees. Sunny and warm with a few clouds.

~1550—SY, JV, and BG tap 3 trees at top of territory while KB went to go tap last year’s nest tree lower down. No response at any trees.

~1600—SY, KB, JV, and BG leave for car to go home

## 15 June 2010

2301—JSG and I arrive in the area of two previous B13 nest trees, tag #’s 166 and 238.

2320—After not hearing any vocalizations or seeing any owls in flight, JG delivers TCs, but hears no response.

2335—JG arrives at the third previous nest tree in B13, tag #234.

2340—After not hearing/seeing anything near this previous nest tree, JG again delivers TCs, and again hears no responses.

2355—From the top of the road-cut between the S end of B13 and the N end of B5, we deliver TCs toward the N end of B5. We immediately hear a response from a M from about 50 meters away. He delivers TCs and TECs and leads us S on the eastern side of B5 toward the main road-cut.

0005—When we arrive at the main road-cut we hear the M we had chased from northern B5 in a territorial dispute with another M in the direction of the B5 nest. This lasts for about 2 minutes, then the M in the direction of the B5 nest (presumably the B5 M) stops and the M we had chased from southern B13 (presumably the B13 M) retreats back up Roadcut Creek.

0009—We leave.

## 22 June 2010

1434—Flam Crew Prepares to peep northern B5 and B13.

1545—**SY taps B13\_889 #889 and sees F rise to the entrance of a bear-torn cavity ~ 7 meters high and SW-facing. This is the B13\_2010 nest. The F stays up for only about 30 seconds. This tree is just S of the two old nest trees at the northern end of B13. It is on the E side of the road, about 3 meters from the road and located among mature Potr/Pipo/Psme.**

1549—We leave and head into B12 for further peeping.

## 25 June 2010

2039—JV and JG arrive at B13 nest site to attempt a capture of the F. F is down.

2041—JG has capture pole in position standing just on the east side of the road and leaning the pole into the tree. **Capture Height: 24”10’**

2045—M calls off roost and comes into the nest site.

2050—M calls from the west side of the road giving LCs, then TCs, and finally TECs. He then moves north and goes quiet.

2055—It starts to rain lightly so JV taps the tree to see if the F will flush into the net. But the F does not flush or come up to the entrance

2105—JV peeps🡪 cavity is really deep and it looks like there may or may not be an owl at the bottom with her head facing upwards at the camera. We have Ron so we decide it is necessary to return to the nest later with a color peeper to get a better understanding of what is going on.

2140—We are very unsure as to if there is an owl in the cavity but as we sit and listen we hear nothing so we leave to set up a lure net on Bermuda Ridge.

2247—BG and DW arrive at B13 nest tree with color peeper.

2257—After observing no activity around nest, we tap the tree. Nothing comes up so we peep the tree to find the cavity empty. There are cracked egg shells at the bottom of the cavity. **B13 nest has failed.**

2302—We leave and return to vehicle.

# B13—2011

## 1 June 2011

1500—JV and AW arrive in B13 to peep.

1540—JV and AW finish peeping three old nest trees and the lower half of B13.

## 7 June 2011

2223—Playback started on road cut between B5 and B13.

Vegetation: Mixed aged psme/pipo.

Weather: Clear, calm, 13C.

X: 495853

Y: 4333932

+/- 5m

\**Note—While setting up lure net, we hear B13 giving TCs N of road cut approximately 30 m from net.*

2237—IJ walks W of net on Bermuda Ridge towards B14. JG walks N of net into B13. AW stays to listen at net.

2241—IJ hears TCs from N, possibly B13 M.

2245—IJ hears another TC from N.

2247—After hearing no responses from the B13 M, AW orients playback to face B5.

2249—JG hears TCs in B13 about 100 m N of road cut.

2250—IJ hears TC from W, possibly B14 M.

2310—End playback. JG, AW, and IJ head into B13 to attempt songposting.

2328—We hear TCs from B13 M. We pursue and begin to songpost him. From 2328 until 0015 we mark 5 songposts. Refer to master songpost sheet from Missouri Gultch (7 June 2011).

## 13 June 2011

2232—As JR, BG, and JG are setting up a lure net in B13, we hear the probable B13 M giving TCs to the N, in the direction of the past nest trees.

2238—JR, BG, and JG begin playback at the N end of Bermuda Ridge in B13 on an E-facing spur ridge.

Vegetation: Mixed Psme/Potr

Weather: Clear, calm, 14 C

X: 495820

Y: 4334127

+/- 3m

2310—JG leaves net site to tap cavity trees and listen for nesting vocalizations.

2345—In the vicinity of the previous B13 nest trees, JG listens/observes, but does not see or hear any nesting activity.

0001—Stop playback and take down net, having never heard or seen any birds in net area after starting playback.

0013—We leave and return to vehicles.

## 21 June 2011

1445—Flamm Crew begins peeping B13, B12, and B17.

1700—We finish peeping, having found nests in B12 (aspen flat) and B17 (Columbine Creek) and having not found a nest in B13 despite a complete peep.

# B13—2012

## 11 June 2012

1444-1730—BL, JR, and NS peep in B13. The whole territory was peeped and no nests were found.

## 20 June 2012

2145—JV, NS, and AP begin setting up lure net just W of the road cut on S. Goshawk Ridge between B5 and B13.

2221—Lure net is up. Net opens to the WSW on Upper Slope.

Weather: partly cloudy, calm, 12°C

Vegetation: Medium/mature psme.

X:495822 + 3m

Y:4333524

2224—Start playback.

2255—JV and NS begin moving S across side slope down in B13 drainage to listen and give calls. All is quiet down to the B13\_2010 nest site and back up.

2359—AP hears a M come into net site from Grave Ridge. He gives about 5 TCs and goes silent. JV and NS return to net.

2410—JV and NS leave net site to walk up Grave Ridge.

2425—JV and NS hear M giving TCs over Grave Ridge. We follow, giving calls.

2430—JV and NS mark general area on calling M (X:496127 Y:4333957 + 3m).

2455—Net down, playback off.

# B13—2013

## 17 June 2013

1500—BDG and BL enter B13 territory to tap and peep cavity trees.

1605—**BL taps on the B13\_2004 nest tree, and FLOW F rises to the entrance of large NOFL-sized cavity—this is the B13\_2013 nest tree! The 2013 nest cavity is not the same cavity as used in 2004; rather, it is approx 11 m high and is located approximately 30-40 cm below the major fork near the top quarter of the tree. Cavity tree is tag # 238, is a full snag, and cavity faces SSE. The nest tree is approximately 15 m W of the two-track trail that runs beneath the power lines, and is at the N end of the N-most clump of cavity trees (where most of the past nests have occurred).**

1614—F descends from the cavity entrance.

1615—We leave.

2205—BL and LL arrive at the B13\_2013 nest tree to attempt capture of M. We see that significant net repairs are needed, so we leave the nest site to perform field repairs.

2239—BL and LL return to the nest site, and LL raises the capture net over the nest cavity at this time.

Weather: Mostly cloudy, calm, ~ 13 C.

2244—M makes PD (he did not appear to be fully entering the cavity).

2252—M lands in cavity entrance, but apparently aborts PD.

2305—Same.

2309—Same.

2310—**LL captures the M after he completes a PD. Male was banded previously with Band # 1593-64717; this is a B1\_2009 Fledgling! Additionally, this M was caught as a presumed floater on S Goshawk Ridge on 5/25/2010—so this constitutes another documentation of an individual that has transitioned from fledgling, to floater, to breeding status! This process apparently has required 4 yr to complete.**

**Band # 1593-64717 (on L leg?)**

81.5 g LWC: 127 mm

- 22.5 g LLP(5): 99 mm

59.0 g LLP(6): 106 mm

Rect: 62 mm

M was bled (genetic and parasite screen).

Blacklight data:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2.5 |
| P2 | 1 | 2 |
| P3 | 1.5 | 2 |
| P4 | 0 | 2 |
| P5 | 0 | 1 |
| P6 | 0 | 0 |
| P7 | 0 | 0 |
| P8 | 0 | 0 |
| P9 | 0 | 0 |
| P10 | 0 | 0 |

Wear data:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1 | 1.5 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2403—We release M 100 m N of the ridge fenceline (where BL had moved to meet LL, AW,

and RC who had brought up blacklight from vehicle)—he shows strong ascending flight

to the N (toward nest tree). We leave.

## 20 June 2013

2028—LL and SY arrive at B13\_2013 nest to attempt to capture the F.

Weather: 13C, clear/smoky, wind <5mph.

2031—Net in capture position. F comes to entrance.

2037—M calls off roost ~50m SE of the nest.

2044—F goes back down.

2045—M gives TCs to the E. F rises to cavity entrance.

2046—F gives LCs, M gives LCs, M approaches the nest from the SE and the F gives FSCs. M

leaves.

2047—F goes back down.

2048—M enters the site from the E and gives LCs. F gives LCs from cavity bottom. M leaves

the site then gives TC from ~35m to the NE.

2051—F back up.

2052—TCs stop.

2054—**F flushes and is captured. She is previously unbanded.**

**Band #1783-64410 (on ? leg)**

90.5 g

- 17.0 g

73.5 g

We peep the nest**: 2 eggs in the center**. Possible dark spot on one egg? Hatching?

2059—F is released, strong flight to the E. We leave.

## 8 July 2013

~2230—AW and BDG arrive at B13 with the intention of capturing and bleeding the F. F is up

in nest upon arrival.

~2235—F down.

~2237—AW approaches nest slowly.

2242—2 M PDs.

2245—M PD.

2246—F up, AW stops approach to nest.

2249—FLOW flushes from cavity, which AW believes was the M following a PD, ***but was actually the F flushing.***

~2253—AW puts net over cavity entrance and a FLOW does not emerge despite the metal rim of the net banging on the tree.

2301—We peep and see two nestlings with significant juvenile plumage.

2305—We leave after deciding that the F may not be making PDs.

Weather: Mostly clear, light breeze.

## 9 July 2013

2301—CK and SY arrive at the B13\_2013 nest to attempt to capture the F for a blood draw. We immediately place net over cavity – no response. **We peep: 2 Ns in gray juvenile plumage. 1 with head up and facial disc coming in. Video taken on monitor 4. Eldest looks to be ~18 days old.**

M gives TCs to the W while we peep. We pull the net back and wait for a F PD.

2318—FLOW exits the cavity – we did not see the bird enter but this is apparently a PD.

2321—Silent FLOW makes a PD and is capture. This bird is **Previously banded.**

**Band #1593-64717**

67.0 g

- 17.0 g

50.0 g

This the B13 territorial M. We hold this M to induce F to make a PD.

2341—M is released, strong flight N.

2358—We bring the net down and leave. The F was never observed in the site.

## 12 July 2013

2035—CK and JR arrive at the B13\_2013 nest site to fledge watch and capture the F FLOW.

2038—After arriving at the site, we see the presumed M on a perch by the cavity. We see FLOW eyes in the cavity and this is the presumed F.

2039—M makes a PD.

2041—We see an adult FLOW flush from the cavity and fly to the S. This is the presumed F.

2042—**We peep the cavity and see two owlets. Facial discs are present and they are well developed. Likely ~3 days from fledging.**

*Note: Owlets were not up in the cavity entrance during the observation period.*

2047—We capture the presumed F FLOW in the net but she escapes as we bring the net down.

2105—We capture the presumed F FLOW a second time, but she escapes again. We decide to back off and observe for ~15 min.

2105—2108—We observe 10 PDs from both F and M. It appeared that the M would bring the PD to a nearby perch and hand it off to the F.

2111—FLOW makes a PD.

2112—FLOW makes a PD.

2114—FLOW makes a PD.

2117—FLOW makes a PD.

2123—We capture the M FLOW. After no more activity we decide to leave and head to B18.

## 15 July 2013

2027—CB, KB and I arrive at the B13\_2013 nets to fledge watch.

**We peep: 2 Ns still present, very well developed.**

2032—M gives TCs off roost to the SW.

2033—M enters nest site and give LCs.

2034-2145—We observe 50 PDs. Early in night the M vocalized during PDs but the majority were silent. F was never confirmed in the site.

2034—N rises to cavity entrance and begins begging - goes down for ~30 seconds then rises again.

2127—N down.

2145—We do a “double check peep”: 2 Ns still present. No fledging happened tonight.

## 16 July 2013

2110—JV and BDG arrive at the B13\_2013 nest for a fledge watch and attempted capture of the

F. One N is up in the entrance begging.

2113—**As JV is setting up the peeper to peep one N fledges**. BDG goes to get the fledging. M

comes into nest area. JV peeps, one N is still in cavity.

2114—BDG has capture net in position in hopes of capturing the F. JV processes the Fl.

**Band # 1783-64427 (on R leg)**

78.5 g

- 23.5 g LLP(5): 68 mm

55.0 g LLP(6): 69 mm

Rect: 34 mm

JV bleeds L wing 🡪 no hematoma

Take fecal sample.

2115—The M makes a PD to the nest.

2124—BDG captures M while he is making a PD to the nest. We hold onto the M hoping that

the F will come in.

**Band # 1593-64717**

LLP(5): 99 mm

LLP(6): 109 mm

2201—After no sign on the F, JV releases to the M. Strong flight to the NE.

2209—Place fledging in a psme 20m South of nest tree about 7ft off the ground next to the

trunk.

2211—BDG peeps one more time 🡪 second N still in nest.

2215—We leave.

## 17 July 2013

2031—AW, BDG, and CK arrive at B13\_2013 nest to fledge watch. **We peep and find 1**

**nestling still in the cavity.**

2033—BDG raises capture in attempt to capture F on PD.

2040—Nestling up in cavity entrance. M PD.

2041—M PD.

2042—PD.

2055—Nestling wing flaps at cavity entrance.

2056—BDG lowers capture pole to allow nestling to fledge without further disturbance.

2106—PD.

2107—PD.

2108—PD.

2108—PD.

2118—PD.

2120—F scold.

2121—PD.

2122—PD.

2123—PD.

2128—PD.

2133—PD.

2134—PD.

2135—PD.

2136—PD.

2139—PD.

2141—PD.

2146—PD.

2147—PD.

2149—PD.

2149—PD.

2152—PD. Nestling goes down.

2155—**We peep and find nestling still in cavity**. We leave. Note: all PDs given above were

most likely made by M, who used same perch prior to almost every PD. No vocalizations

were made however so the identity of the PD maker is left unknown.

## 18 July 2013

2033—AW, CK, and BDG arrive at the B13\_2013 nest to fledge watch. **We attempt to peep, but find the peeper is not transmitting a signal.** BDG and AW spread out to listening for begging vocalizations until we can confirm the last nestling is still in the cavity.

2045—We hear nestling vocalizations from nest cavity and end our listening to watch nest tree.

2047—Nestling up in entrance.

2048—PD.

2049—PD.

2051—PD.

2051—PD.

2052—PD.

2053—**Nestling fledges!** Nestling makes short, flapping flight to crown of psme ~10’ E of nest

tree. Fledgling lands approximately 25’ up in psme.

2133—Fledgling finally extracted from psme after poking him many times with the peeper pole

causing him to fall in ~1-2’ increments.

**Band # 1783-64428 (on L leg)**

82.0 g LWC: XXX mm

- 29.5 g LLP(5): 71 (19 mm shaft) mm

52.5 g LLP(6): 71 (19 mm shaft) mm

Rect: 32 (10 mm shaft) mm

Fledgling is bled from R wing resulting in genetics and parasite smear. Small hematoma.

2150—Owlet replaced in psme on branch ~6’ off ground. We leave.

# B13—2014

## 2 June 2014

2206—AW, LL, and RB start playback intending to lure for B5 and B13 Ms. Net is located on the E end of Bermuda R, ~50m W of the saddle between B13 and B5.   
  
Vegetation: med-mature pipo/psme, young potr, relatively dense

Weather: partly cloudy, slight breeze, 13C

X: 495773

Y: 4333955

+/- 5m

After setting up lure net, AW leaves LL and RB to listen for nesting vocalizations in the vicinity of the B13\_2013 nest tree.

2210—While walking down road towards B13, AW hears 2 TCs 25m to her W and ~50 m N of saddle.

2212—M approaches net from NW giving TCs.

2215—M goes silent.

~2220—M intermittently gives TCs from W of road, slowly moving N towards the B13\_2013 nest vicinity.

~2230—AW taps B13\_2013 nest tree. No response. AW starts walking S along road and hears quiet TCs from E of road, ~25 m S of last years’ nest tree. AW stops to listen for vocalizations.

2238—**AW hears LCs and observes M make a PD. This is the B13\_2014 nest tree! Nest tree is a full potr snag, located ~2 m E of road and ~25 m S of the 2014 nest tree. Tree was also a past nest in 2005 and 2006. Nest cavity is NOT the keyhole. Nest cavity is ~8 ft below keyhole and faces S. Cavity is just below snag branch that sticks out to right.**

2247—AW observes M make PD to confirm nest cavity. I leave to break down lure net and spot map in B14.

2241—LL and RB end playback and begin breaking down lure net.

## 6 June 2014

2047—RC and AW arrive at the B13\_2014 nest tree intending to peep and check on status of nest.

2050—M gives TCs off roost N of nest.

2052—F up.

2053—F flushes. **We peep and find 3 eggs, centered and touching.** We leave to listen for nesting vocalizations in B4.

## 10 June 2014

2027—AW, JKR and JS arrive at B13\_2014 nest tree to capture F.

2036—Arrive at nest tree. F down. AW goes in with net while JKR and JS give directions.

2041—AW has net up.

2042—F flushes and is captured! **She is previously banded and is the B13\_2013 F!** We record band number, but take no other measurements.

**Band # 1783-64410 (on R leg)**

2046—F released. Strong ascending flight due E.

2049—We depart and head for B17 to attempt to capture B17\_2014 M and peep nest.

## 20 June 2014

2142—RC, JS and Alex McCready arrive at B13 nest with intent of capturing the B13\_2014 M. M immediately heard giving LCs in nest vicinity.

Weather: clear sky, no wind, 15C

2155—RC up with net, M flutters in front of cavity.

2156—M flies by cavity. M is giving TCs, TECs and LCs off roost continuously as well. Another M begins TCing 100-150m N down drainage and B13 M enters in to a territorial encounter, giving TC/TECs N and NE of nest tree for ~30min before returning to nest area.

2231—M flutters in front of cavity.

2249—M flutters in front of cavity.

2250—M aborts a PD.

2257—M calling in nest vicinity.

2307—M aborts a PD.

2311—M aborts a PD.

2316—M perches on power lines near cavity and branches near the entrance giving sporadic calls.

2329—Capture net down. M only a few successful PDs all night, mostly aborting even when light was off and net was away from tree. Several times, M also aborted after being lit up while perching on outside of cavity. After a few aborts, M would spend 10-20min circling area giving TC/TECs before going quiet and then returning to nest area. We leave.

## 23 June 2014

2128—JS and BL arrive at the B13\_2014 nest to attempt capture of M. All is quiet in the nest site when we arrive, and F is not at cavity entrance. BL proceeds to get into capture position shortly after arrival, and while setting up the M flushes from the cavity and alights on the nearby powerline.

Weather: Mostly clear, calm, and ~ 10 C. Strong PM T-showers, and evening rain from ~ 2010-2035.

2136—M is in nest vicinity while BL is at the nest with net up and ready.

2137-2144—M aborts twelve PDs as he is seen flutter by the cavity or perch and stare at us from the entrance.

2147—M goes silent.

2150-2153—M aborts 3 more PDs.

2154—**M is captured while exiting from PD in the cavity. M was previously banded with Band # 1593-64717—this was the B13\_2013 M, and one of the B1\_2009 fledglings! This M is now definitively 5 yr old.**

**Band # 1593-64717 (on x leg)**

65.0 g LWC: 132 mm

- 8.5 g LLP(5): 99 mm

56.5 g LLP(6): 106 mm

Rect: 59 mm

M was not bled or blacklighted.

**Note: On the L wing, P2 and P6-10 had much darker vanes than P1 and P3-5, and on the R wing, P6-10 were much darker than P1-5—suggesting that P6-10 (and P2 on L) were molted last year. This will be good to corroborate with blacklight on next capture.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 1 |
| P4 | 1 | 2 |
| P5 | 1 | 2 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2227—M is released; he shows strong flight to the N. We leave.

## 7 July 2014

2400—RD and BL arrive at the B13\_2014 nest to attempt capture of F and/or M. No FLOW heard or seen in the nest area.

Weather: Light to moderate pulses of rain across MGSA (and at B13\_2014 nest) starting at 2200, and continuing until ~2420.

2403—FLOW arrives in the nest area, and aborts on a PD to the nest at this time.

2409—PD to nest.

2412—PD to nest.

2417—M in nest vicinity, vocalizing w/ the F, LCs and FSCs.

2423—M PD to nest, F is off the cavity at this time.

2430—**As the rain lets up, we peep the nest cavity (we hear the F give FSC and LC in adjacent Potr at this time). Camera reception was not great (power line interference perhaps), but we see well-developed facial disks on all 3 owlets, and the prevalence of grey juvenile plumage on all owlets as well.**

2441—M makes PD to F off cavity in adjacent Potr, and a couple minutes later she makes PD to nest.

2446—F makes PD in cavity. While F is in cavity, M flies to cavity entrance where he perches briefly before flying off.

2449—We leave.

## 9 July 2014

2208—RC and MP arrive in B13\_2014 nest area to capture both M and F. Both birds are in the site as we arrive. They both give a few TECs, followed by PDs.

Weather: calm, partly cloudy but clearing, 11C.

2209—F returns to nest site, perching silently on power lines.

2212—MP gets net up. F begins begging on lines.

2213—M PDs to F on lines.

2214-2217—F aborts 4 PDs, M makes 2 successful PDs. F flies off to N.

2223—F back in site on lines. **MP captures F on first successful PD. She is previously banded as the B13\_2013 and 2014 F.**

**Band # 1783-64410 (on R leg)**

74.0 g LWC: 137 mm

- 16.0 g LLP(5): 99 mm

58.0 g LLP(6): 110 mm

Rect: 64 mm

Note: Bled on L wing for genetics and parasite smear. Small hematoma.

2242—We peep. **Peep reveals 3 nestlings. Oldest 2 are standing on top of 3rd. Oldest 2 are in full juvenile plumage and have well-developed facial discs. No natal down is visible. We estimate age at ~20 days and place them at 1-2 days older than the B8\_2014 nestlings. Younger nestling also appears to have a mostly-developed facial disc, but some remnants of natal down are visible around the edges of his head.**

2245—F released with strong flight NNE. LL radios in on her way back from B18 with black light for M.

2251—MP approaches nest and raises net.

2253—M enters site silently and perches on power lines.

2255—**M captured on PD! He is previously banded and is the B13\_2013 and 2014 M as well as the B1\_2009 Fledgling.**

**Band # 1593-64717 (on L leg)**

67.5 g LWC: 133 mm

- 16.0 g LLP(5): 100 mm

51.5 g LLP(6): 107 mm

Rect: 60 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1.5 |
| P2 | 2 | 2 |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | .5 | 0 |
| P6 | .5 | .5 |
| P7, somewhat brighter at base of feather than other .5s | .5 | .5 |
| P8, somewhat brighter at base of feather than other .5s | .5 | .5, somewhat brighter at base of feather than other .5s |
| P9 | .5 | .5, somewhat brighter at base of feather than other .5s |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | .5 |
| P2 | 0 | 0 |
| P3 | .5 | 1.5 |
| P4 | 1.5 | 2.5 |
| P5 | 1.5 | 3 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

Note: Pictures taken of both wear and black light on RC’s phone.

2333—M released with strong, ascending flight W. We leave.

## 14 July 2014

2004—LL and MP arrive at the B13\_2014 nest to peep and watch for owlet fledging.

Weather: Overcast, calm, ~10C

2010—We peep, there are only two (of three original) nestlings in the nest, both with prominent facial disks and full juvenile plumage. *We assume eldest owlet probably fledged the previous night (7/13/14)*. We begin to search for the fledgling in a 20m radius around the nest.

2024—LL hears owlet begs, most likely from the cavity, but location uncertain. We have not yet found fledgling, so LL continues to search and listen while MP gets eyes on cavity.

2026—M gives TCs to the E of the nest. F scolds LL from ~20m W of the nest, so LL searches all surrounding vegetation for fledgling as F continues to scold.

2042—M is in the nest site.

2047-2052—M and F each make 3 PDs apiece to the nest cavity during this time.

2052—MP hears rustling in the birch bushes right in front of the nest cavity. LL comes back and puts eyes on the cavity, while MP investigates rustling.

2056—**MP finds the fledgling in the bushes ~3m in front of the cavity!** LL takes fledgling and begins banding while MP observes cavity.

**Band # 1783-64586 (on R leg)**

54.0 g

P#5: 72 mm (20 in shaft)

P#6: 72 mm (20 in shaft)

Rect: 38 mm (10 in shaft)

Notes: Bled R wing—just for genetics (did not have any parasite smear slides)

2101—PD to nest.

2103—A nestling is in the entrance of the cavity begging. M makes a PD to the nest.

2104—M makes a PD to the nest.

2105—**The owlet that is in the entrance fledges!** MP retrieves him from the birch bushes.

**Band # 1783-64587 (on R leg)**

57.5 g

P#5: 68 mm (15 in shaft)

P#6: 69 mm (17 in shaft)

Rect: 34 mm (10 in shaft)

Notes: Attempted bleed on R wing, ended up bleeding L—just for genetics (did not have any parasite smear slides)

2132—LL places 1st fledgling (1783-64586) in a medium-sized psme ~10m E of nest tree.

2155—LL places 2nd fledgling (1783-64587) in same psme.

2158—**We peep, still one nestling in the cavity**, all by his/her lonesome. We leave.

# B13—2015

## 27 May 2014

2121—MC, ER, and ER-sis set up a lure net on the S terminus of Bermuda R about 15m N of Missouri Gulch Rd and about 150m NW from the B5 parking spot to target males in B5 and B4. Playback begins. Within seconds of PB start, a high-pitched M begins giving TCs in the drainage around the W edge of the B5 aspen flat. We also hear a M giving TCs from about 100m W from B4. Both go silent after a couple minutes

Vegetation: Young to mature pipo. Open

Weather: 7C partly cloudy, but clearing up. No wind.

X: 495836

Y: 4333567

+/- 14m

**Note: Our GPS point puts our nest E of the B5\_2014 tree which is incorrect. A previous lure net has been placed on the S terminus of Bermuda at the coordinates X: 495685 and Y: 4333578**

2124—The high-pitched presumed B5\_M gives several TECs about 10m SW of the net from the drainage. The presumed B4\_M gives occasional hoots from the W, bouncing to about 70m from our net site. A M starts giving TCs about 150m NE of the net from Turkey R.

2129—We hear wing flaps near the net, but no capture.

2132—The presumed B5\_M gives HECs from his position 10m SW of the net. He bounces within 5m of the net and gives a few HECs, but then goes silent.

2138-2207—The NE bird continues to give TCs from his position on Turkey R., but does not appear to be approaching the net.

2153—The presumed B4\_M gives a series of 5-6 TCs from Big Bertha R. MC goes into the area to listen but does not find anything significant.

2205—The presumed B5\_M gives a few more TECs from his position about 10m SW of the net in the drainage.

2210—Playback stopped. Without any bird giving a significant approach to the net, we break down the net and move NE.

2238—MC, ER and ER-sis set up a lure net on the SE slope of Bermuda about 50m upslope from the junction of Missouri Gulch Rd and the roadcut. Playback begins. As soon as playback begins, we hear a high-pitched M, presumably the same bird as our first net site, respond with TCs about 70m WSW.

Vegetation: Young potr, psme, and pipu surrounded by mature pipo, psme, and pipu. Relatively dense.

Weather: 7C and Clear

X: 495736

Y: 4333665

+/- 11m

2248—A M gives a TEC from about 25m NE of the net and then gives a TC within 5m from the net. Seconds later, we hear wing flaps.

2249—**We check the net and an unbanded M is caught in the 2nd shelf on the E side!** With an unclear approach, this could potentially be the B5/B13/B14 male.

**Band # 1833-03260 (on L leg)**

71.0 g LWC: 123 mm

- 19.5 g LLP(5): 94 mm

51.5 g LLP(6): 102 mm

Rect: 56 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | Right wing not taken. |
| P2 | 0 |  |
| P3 | 0 |  |
| P4 | 0.5 |  |
| P5 | 0.5 |  |
| P6 | 1.5 |  |
| P7 | 1.5 |  |
| P8 | 2 |  |
| P9 | 0.5 |  |
| P10 | 0.5 |  |

2307—While still processing the B5/B12/B14 M, **we catch an unbanded silent bird in the 3rd shelf on the W side of the net.** The belly is slightly naked but is not extensive or shows pin feathers to indicate a brood patch. However, we only band and mass to be precautious.

**Band # 1833-03259 (on X leg)**

81.0 g

- 19.5 g

61.5 g

2315—We release both birds. The B5/B13/B14 M has a strong horizontal flight S, and the silent bird has a strong ascending flight SE to perch in a psme.

2323—Playback stopped and we break down the net.

2344—MC, ER, and ER-sis begin spotmapping. ER and sis start in the N end of the B5 drainage along the road cut about 50m N of Missouri Gulch Rd and MC listens below the B5/B13 saddle.

2350—ER and sis hear the high-pitched presumed B5\_M give a few TCs from about 20m S.

2351—As MC crests the ridge between B13 and B5 a flam flushes off of a perch ~5m from the ground and flies N to another tree on the top of the divide and ~5 m W of the road. A after couple minutes MC attempts to illicit a response from the bird. After giving a couple hoots a M responds with TCs from the ridgetop to the W. MC gives chase when another high pitched male calls from the same spot. Then there is a F response from the same spot.

2353—The high-pitched presumed B5\_M gives a few more TCs about 40m N of ER’s position toward MC. ER and sis hear a second bird about 200m SW give four TCs from the direction of B4.

2354—MC attempts to chase after the birds on the ridge but then hears the F call from in the drainage.

2355—ER and sis join MC just below saddle.

2359—MC hears M give LCs from same location in the drainage ~10m S of the B5/13 divide.

2417-2420—ER and sis begin listening about 20m below the saddle and hear an LC about 15m S down drainage. We pursue and hear a second LC and a single FSC 20m further SE in a side drainage of Roadcut Cr. Both birds go silent.

2435—MC heads down roadcut into B13. MC gets as far N as B13\_2014 nest, tapping and hooting along the way. From my most northern position a M responds ~150m N, but he is far outside of B13 so I do not pursue and return to ER at the top of B5.

~2440—MC, ER, and ER-sis join to listen back down in the B5 aspen flat by the junction of Missouri Gulch Rd and the road cut. We hear a M give a couple TCs about 20m SW of the junction. Seconds later we hear an FSC about 15m due S of the junction. We pursue and follow a series of FSCs further S into the aspen flat. She hops back N across Missouri Gulch Rd and gives a couple more FSCs. We call her the presumed B5\_2015 F

~0100-0120—MC leaves to listen W toward B4 while ER and ER-sis continue to track the F. She gives consistent FSCs around the B5 aspen flat.

0108—ER and sis locate the presumed B5\_2015 F giving FSCs in the top of a potr snag and record a songpost.

DBH: 22.5cm

X: 495880

Y: 4333447

+/-8m

0109—The F takes a short flight to a neighboring live psme due W where she gives a few more FSCs and the presumed B5\_2015 M lands beside to make a probable prey delivery. We cannot see the birds through the foliage, but both birds vocalize. We songpost this tree. M flies away.

DBH: 33.0 cm

X: 495870

Y: 4333455

+/- 11m

0117—The presumed B5\_2015 F makes another short flight to a nearby live potr to the NW, continuously giving FSCs. We take another songpost. All songposts were taken in the vicinity of the B5\_2009 nest and surrounding cavity trees.

DBH: 22.5

X: 495857

Y: 4333432

+/- 7m

0120—We meet up with BL at the potential B5\_2015 nest tree and head out.

## 2 June 2015

2050—DL and SY arrive in the B5/B13 saddle to set up lure net. Net is set up ~ 20m W of the road across the saddle.

2109—Begin playback

Vegetation: young to mature pipo/psme with few young, fairly dense.

Weather: 13C, clear, calm

X: 495854

Y: 4333928

+/- 8.4

2121—Wingflaps at net, capture silent M. This is the same M caught by MC last week.

**Previously banded # 1833-03260 (on L leg)**

89.5 g LWC: 124 mm

- 34.0 g LLP(5): 94 mm

55.5 g LLP(6): 100 mm

Rect: 57 mm

2126—Another male giving TCs ~20m from net site. Continues to call while we process the other M, but goes silent once we release other bird.

2134—Release M. Strong flight to the E/SE. 2nd M still giving TCs during release, but goes quiet shortly thereafter.

2139—Female gives FSCs ~20M NW of the net and a M to the distant NE gives a few TCs.

2151—SY leaves to listen in B13

2220—From past B13 nesting area SY hears FSCs and M LCs on the W side of the road in the immediate vicinity of cavity trees #237 and #238. I hear a PD occur then see the F fly NW. I give chase but quickly lose them with an unbelievable series of airplanes passing overhead.

2238— Weather (at net): 10C clear, calm

2253—SY returns to net site.

2305—Stop playback and break down net.

## 8 June 2015

2123—SY and LP arrive in B13 to listen and search for a possible nest, and possibly set up a lure net for the M.

Weather: 8C, clear, calm (very occasional gusts up to 3 mph)

2124—From upper portion of traditional B13 nesting area, LP hears a M giving LCs immediately E of road.

2125—SY, located in lower portion of traditional B13 nesting area, hears M approach the road giving LCs, and locates the M perched in a potr adjacent to the road. SY watches M go to the past nest cavity in cavity tree #238. M flushes. A silent bird comes to tree and perches <1m below the cavity, then flushes and perches on the powerlines and begins giving FSCs. We back off.

2128—F goes back onto the cavity and remains in cavity bottom. **This is the B13\_2015 nest! This tree was the B13\_2004 and B13\_2013 nest tree. Cavity is a NOFl cavity, ~35 feet up, ~0.5m below the “Y” in the tree, on the S side. Tree is a potr full snag, ~3m W of the road, and 3m up from the creek where it crosses the road.**

2132—We head back to the S to set up a lure net for the M. Begin setting up MN at 2136.

2146—We begin playback at a net ~100m S of the newly found nest. Just off the road on the W side. A bird begins responding with TCs and TECs to the SW, almost immediately.

Vegetation: young spruce, slightly open, due to the road, surrounded by large, psme/pipu/potr, very dense.

Weather: 8C, clear, calm.

X: 495877

Y: 4334282

+/- 18m

2205—M goes quiet.

2209—TCs and TECs at the net again for <1 min. SY checks net, and observe M perches high in an adjacent potr. I observe a few silent flight high over the net.

~2219—M in top shelf of net from SE side.

2224—Un-banded M is removed from net after having to snip a bit of the netting to untangle the netting from his wing.

**Band # 1833-03250 (on R? leg)**

66.5 g LWC: 122 mm

- 16.0 g LLP(5): 94 mm

50.5 g LLP(6): 101 mm

Rect: 59 mm

\*Note: L-wing was bled leaving very small hematoma on L-leg.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 1.5 |
| P2 | 1.5 | 1.5 |
| P3 | 1 | 1.5 |
| P4 | 1 | 1 |
| P5 | 0.5 | 1 |
| P6 | 0 | 0.5 |
| P7 | 0 | 0 |
| P8 | 0 | 0 |
| P9 | 0 | 0 |
| P10 | 0 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | 1.5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | 1 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 2.5 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 3 |

2252—M released with ascending flight to NE.

2254—PB stopped and mist-net taken down.

## 24 June 2015

2129—SY and LP arrive to B13 nest area from the N with intent to capture the B13\_2015 M with capture net and possibly peep.

Weather: 10C, calm, clear.

2131—PD

2134—M flies to nest tree to perch ~5 ft below cavity. He waits a few seconds then flies E ~10m across powerlines. M comes back and makes a PD.

2138—M gives PD in cavity.

2139—M gives HECs from perch in mature conifer ~5m W of nest tree. An additional M seen in same tree at this time. Both birds fly NE across the road.

2142—TCs heard in vicinity of where the two Ms were last seen at 2139.

2143—Two Ms fly in tandem W to conifers W of nest tree. 1 makes a PD while the 2nd bird flies to the perch ~5 ft. below the nest cavity.

2144—SY approaches nest tree at this time with capture net in hand. He gives a light tap and the F flushes. **We peep the nest cavity at this time to find 2 eggs centered and touching.** We quickly leave nest area.

*Note: It seems that there is a helper M at this nest. The tap confirmed that we had two birds in the site with the F still clearly in the cavity. The territorial M showed some restrained aggression (HECs) but in general was tolerant of the 2nd FLOW’s presence.*

2206—We re-enter nest area. SY approaches nest tree with capture net in hand. Net is raised. M makes a PD while SY approaches.

2212—M flies to perch on nest tree ~10t above cavity for a few moments. 2nd silent FLOW perched in conifer immediately W of the nest. He then gives a PD into cavity. Light on, net over cavity, and **M is captured. This is a previously banded M #1833-03250.** LP bags M and immediately continues spotting for SY who re-raises net in an attempt to capture the presumed helper M who is perched on conifer ~5m from cavity. F flushes from cavity as net is being raised. Presumed helper M flushes from perch moments after. We leave net area.

**\*Note: This M is the B13\_2015 M previously caught and banded by SY and LP on 6/8/15.**

**Band # 1833-03250 (on x leg)**

79.0 g

- 29.0 g

50.0 g

2222—M released to E with initially weak flight and lands on shrub ~1m off ground, ~5 away. He then flies away with strong flight to N ~20 seconds later. We leave B13.

## 30 June 2015

2036—ER and SY arrive at the B13\_2015 nest to attempt to capture the F.

Weather: 18C, cloudy, wind <5mph.

2046—Net in capture position. F rises to cavity entrance.

2048-2058—M makes several PD attempts with F in cavity entrance but net over cavity. No PDs successful during this time.

2059—Another PD attempt with the net over cavity –F is now down.

2102—We begin trying to allow the M to make PDs.

2107—PD

2112—PD

2115—PD

2121—PD

2122—We stop letting M make PDs

2123—2 rapid attempted PDs in succession – we suspect the 2nd attempt was made by a helper and not territorial M.

2125—We are able to clearly see 2 FLOWs in the site, with the F still in the cavity. 2nd bird is not treated hostilely, and we believe it to be a helper.

2126—Terr M makes a PD. Helper still perched in psme ~3.5m SW of tree.

2127—Helper flushes to the NE, following the terr. M.

2129—Terr M makes PD.

2133—PD (unknown ID).

2144—**We peep to try to assess the status of hatching. Eggshells visible around the F, but brood/clutch is not visible underneath the F. At least one of the egss is hatched, but whether hatching is complete is unclear.**

2146—Net down – we leave and head to B6.

## 1 July 2015

2029—LP and BL arrive at the B13\_2015 nest to attempt capture of F. F is not in cavity entrance when we arrive.

Weather: Clearing—mostly clear (late afternoon t-storms left everything very wet), calm, ~ 15 C

2040—LP is in capture position. F comes to the entrance briefly as LP finalizes position of net on cavity, but she slinks backward and then descends after ~ 15 sec.

2048—M arrives in nest area giving LC. Over the next ~ 10 min, M approaches the cavity and unsuccessfully attempts to enter cavity through capture net on 6-8 occasions, perching on the bottom and top of metal hoop. F came up briefly on one of these occasions before going back down.

2101—**F flushes and is captured. She is previously banded with Band # 1783-64410—this is the B13\_2014 F.**

**Band # 1783-64410 (on R leg)**

69.5 g LWC: 133 mm

- 7.0 g LLP(5): 98 mm

62.6 g LLP(6): 110 mm

Rect: 61 mm

**We peep cavity with F in hand—2 owlets in white down. Eldest owlet had strong, upright head position (looked upward briefly), and had stable body position—BL estimated its age at 5-6 days old. Runt age was estimated at 3-4 days.**

No blood sample is taken; no molt shown.

2114—F is released; she shows strong, ascending flight to the NW (from our position on the 2-track road).

## 13 July 2015

2317—MC and ER arrive at B13\_2015 to observe possible helping behavior and assess the status of the nest.

2318—M in site giving LCs, Ns are heard begging from the cavity.

2327—M returns to the site vocalizing and makes a PD.

2328—A silent bird makes a PD.

2330—M perches on the upper branches of the nest tree, he then flies to the conifer just S of the tree and then back to the nest tree before making a PD.

2336—F LCs ~25m S.

2338—M and F are vocalizing from the conifer just S of the nest tree.

2339—M makes a PD.

2342—F makes a PD.

2343—F moves NW of the cavity tree and starts giving LCs and FSCs.

2347—F goes silent.

2350—**We peep to find 2 owlets, both very active and with facial disks coming in. The oldest still has significant natal down and is ~18 days old.** This is consistent with our current assessment of their age. As we are leaving the F can be heard again vocalizing from the same area.

2406—We arrive on the road cut saddle to listen for possible nesting vocalizations from an unaccounted-for territorial M. MC goes ~75m W onto the upper S slope of Bermuda Ridge and ER goes ~75m E on to Grave Ridge.

2430—After both walking around and tapping trees/ soliciting hoots we have heard nothing and leave the area.

2435—As we arrive at the B5 parking spot we hear a M vocalizing ~50m N but it is time to leave so we head out.

## 20 July 2015

2013—SY and LP enter B18\_2015 nest area with intent to fledge(d) watch, band/bleed fledglings, and possibly capture helper M. **We immediately peep nest upon arrival which reveals one nestling in cavity, meaning that one has already fledged.** Nestling rises to entrance after we lower the peeper for ~1 minute. LP stays at nest to watch for potential fledgling event and PD rate. SY begins searching for fledgling.

Weather: 13C, mostly cloudy, light rain, calm.

2031—Nestling rises to entrance of cavity at this time and remains at entrance for the majority of our observation time (-~2140).

2050-2130—Nestling begins begging and continues to beg for the majority of our observation time.

2056—While N is still begging from cavity, SY hears a FL beg E/SE of the nest at the very base of the slope of Grave R.

2115—SY locates the FL ~15 ft. up the E side of a large PSME, ~1ft from trunk om a small dead branch. FL is located ~40-50m from the nest.

**Band # 1833-03258 (on L leg)**

73.5 g

- 17.5 g LLP(5): 73 mm

56.0 g LLP(6): 73 mm

Rect: 39 mm

*Try to bleed L wing an fail, successfully bleed R wing.*

2122—Silent PD to nestling in cavity from E to E.

2130—Silent PD to nestling in cavity from E to E.

2134—SY places the FL back in tree and leaves the area (return to B13\_2015 nest).

21398—We observe a silent FLOW perched in the tree adjacent to the nest tree.

2142—SY raises capture net to see if this is possibly a helper. We hear a F vocalization as net is raised, confirming this is in fact the F.

2144—Net is taken down.

2149—We leave B13 at this time for the vehicles.

## 21 July 2015

2045—DL arrives at B13\_2015 nest to fledge watch. I peep and see that the last nestling is in the cavity. I back up and silhouette the tree to watch.

2052—Owlet is in cavity and begins to beg, but no adult is in the site.

2054—Owlet gracefully fledges and makes a ~45 degree flight to the ground. I find him and then walk up the road to meet SY and process the bird.

**Owlet New Band #1833-03177 (L leg).**

xx.x g

P#5: 70 mm

P#6: 71 mm

Rect: 34 mm

Band#: 1833-03177 (L leg)

Notes: Bled on the L wing.

2125—DL returns the fledgling to the nest site in a tree near where he landed and leaves to meet SY at the lure net.

# B13—2016

## 6 June 2016

Afternoon—RC and DL cherry peep in B13, starting at the northernmost end of the territory. B13\_2015 tree has fallen. We peep B13\_2013/2014 tree and all promising cavity trees on the way S back over Saddle and down to B5 parking spot. No FLOWs. We miss one or two past nest trees near Saddle to NE, unmarked on map, but pointed out by BL later. Leave.

2241—MC and ER set up a lure just SW of the Roadcut Saddle. PB starts. MC leaves the net to go listen in the B13 drainage.

Vegetation: mixed pifl, pipo, psme

Weather: mostly cloudy, calm with gusts ~3mph, 8C

X: 495849

Y: 4333922

+/- 10m

2257—ER hears very high pitched, TC-like vocalizations ~30m N of the net, the bird starts approaching the net.

2307—**The bird is caught in the 2nd Shelf from the S. The bird is unbanded.**

**Band # 1833-03389 (on R leg)**

84.0 g LWC: 132 mm

- 29.5 g LLP(5): 91 mm

54.5 g LLP(6): 101 mm

Rect: 58 mm

**Notes: Based on the mass, we assume the bird is not a breeding F, we do a full processing. Bled right wing, no hematoma.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1 | 1 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 3 | 3 |
| P8 | 3 | 3 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2330—We release the bird with a SAF W. ER leaves the net to go listen

2350—A M starts calling ~150m N of the net in the B13 drainage and then approaches the net.

2415—The M is still calling at the net, ~20m S, from a very tall pipo and shows no sign of moving from his post, even with the enticement of a megascops call. We decide to move the net ~75m W and keep playback running.

2420—The new net is erected on the ridgetop.

Vegetation: young to mature pipo/psme

Weather: clear and calm, no temp taken.

X: 495789

Y: 4333951

+/- 8m

2424—A M starts calling ~20m S of the net and eventually gives HECs.

2426—A 2nd M starts calling from S of the saddle area giving TCs.

2439—**The first M hits the net from the S in the 3rd shelf. This is the B14\_2015 M!**

**Band # 1833-03324 (on X leg)**

83.0 g LWC: 130 mm

- 29.5 g LLP(5): 95 mm

53.5 g LLP(6): 103 mm

Rect: 56 mm

**Notes: No blood taken.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2 | 2 |
| P4 | 2 | 2 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 2 | 2 |

2445—A M approaches the net giving TCs from the N and comes in to the net giving HECs. We switch the PB to megascops but the bird goes silent after ~5minutes.

2455—The M is released and we turn of PB and leave.

## 21 June 2016

1630—While BL and KM were peeping the B13 territory, **BL taps POTR cavity tree B13\_71, tag # 240. No action at any of the cavities, but after peeping the lowest cavity, BL looks up to see a F FLOW staring down from a higher cavity—this is the B13\_2016 nest! Nest tree is a full snag, ~28 cm dbh, and the nest cavity is an old bear tear that faces W, approximately 8 m high (highest of 2 cavities on W side). Tree is peppered with old bear claw marks. Nest tree is at the base of Roadcut road shoulder on E side, approximately 50 m S (up-drainage) from the B13\_2015 nest tree, and is near the top of the 1st rise in the road as one exits the B13\_2015 nest tree. An adjacent live Psme has several branches that cross in front of the W side of the nest tree, with the nest cavity in a small open area between such branches.**

1638—F still in the cavity entrance, although she has slinked back into the tree somewhat. We leave for the B5 parking area.

2330—RC and KM find the B13\_2016 nest tree and sit W of the cavity on the road, observing the site before attempting a M capture.

2336—F sticks hear head out of the cavity and makes a number of FSCs before M gives her a successful PD. RC gradually makes his way to the base of the nest tree to prepare the capture net. The F stays down during this time.

2347—M comes in to the site and makes a PD, fully entering the cavity. **RC snags him as he exits the nest**. F stays down during RCs retreat. We bring the banded M about 40m S on the road to process him. **M is previously banded as the B13\_2015 M!**

**Band # 1833-03250 (on R leg)**

63.5 g LWC: 125 mm

- 15.5 g LLP(5): 97 mm

48.0 g LLP(6): 104 mm

Rect: 60 mm

**Notes:** M was bled previously in 2015, so we do not take new sample. All primaries and secondaries fluoresce brightly under black light with a smooth taper from P1-10. There is no obvious generation gap (possibly between P5 and 6 on both wings with 1-5 being fresher, but the difference is negligible).

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2418—RC releases the M, who makes a SAF (NE). We leave.

## 29 June 2016

2030—MC and KM venture to the B13\_2016 nest site to attempt a F capture and peep the cavity. MC immediately approaches the tree and KM spots the cavity. The F does not come up on MC’s approach.

2036—Just as MC gets his net over the cavity, the F flushes. KM peeps the cavity as MC removes the F from the capture net. The peep reveals three owlets. **The youngest owlet has squinted eyes and has grey on the back of its neck, while the oldest owlet has definite grey plumage all over and appears very active and lively in the cavity. MC notes the youngest is most likely 7-8 days old.**

2037—**MC processes the captured banded F, who is the B13\_2015 F!**

**Band # 1783-64410 (on x leg)**

87.00 g

- 22.00 g

65.00 g

2040—MC releases the F, who makes a strong flight NE.

## 8 July 2016

1542—RC, KM, Sawyer, Candace, and Corey arrive in the B13\_2016 nest site to process and band owlets. The F comes up when we tap and flushes as we get the ladder up. A peep reveals thee grey owlets, two with the beginnings of a facial disk.

1549—RC reaches the top of the ladder. No enlargement is needed, so he gets the owlets out of the cavity.

1550—Owlets are out of the cavity.

1551—RC safely returns to the ground and we begin to process the owlets.

**Black Owlet**

35.9 g

P#5: 33 mm

P#6: 33 mm

Rect: 8 mm

Band#: 1783-74339 L

Notes: Bleed R after poke L. There is a mild hematoma on R, but none on L. The owlet has no facial disk but rictals are coming in. They are grey on the face with a decent amount of white left.

**Blue Owlet**

57.7 g

P#5: 56 mm

P#6: 55 mm

Rect: 25 mm

Band#: 1783-74338

Notes: Bleed L after poke R. There is some hematoma in both. This owlet has slightly less of a facial disk than the red owlet, but the disk is still obvious.

**Red Owlet**

55.5 g

P#5: 53 mm (xx in shaft)

P#6: 53 mm (xx in shaft)

Rect: 20 mm (xx in shaft)

Band#: 1783-74337

Notes: Bleed R after poke L. There is some hematoma on R, but none on L. The owlet has little natal down remaining and a well-developed facial disk and scaps.

1638—RC returns to the top of the ladder with owlets in tow and measure dimensions of the cavity.

Cavity Dimensions

Vertical depth: 335mm

Horizontal entrance: 80mm

Vertical entrance: 325mm

Entrance thickness: 65mm

DOH: 35.5

Horizontal depth: 105mm

Height: 21’1”

1643—RC returns the three owlets to the cavity.

1643—RC returns to the ground. RC, KM and the guests hike back to the B5 parking spot then check out the B5 nest to attempt a F capture and bleed.

## 28 July 2016

~1500—MC and KM arrive at the B13\_2016 nest tree to quantify cavity characteristics. KM peeps the nest cavity to find it empty of any owlets. This suggests the three nestlings successfully fledged.

# B13—2017

## 26 June 2017

2251—KM, JE, and LD arrive in the B13 territory to listen for vocalizations. We have yet to find a nest in the territory. LD listens in the N part of the territory and taps on the few decent cavity trees in the area. JE remains in the middle of the territory, while KM heads N to inspect the cavity trees further S towards the saddle

2252—LD hears a M making vocalizations near the group of cavity trees in the N part of B13, just E of the road. We later note that these vocalizations sound more like TCs than LCs.

~2350—KM hears song-posting on the E side of the road about 50m N of the saddle. I track him and take information on the live psme from which he sings. He seems to sing for about 7 minutes before flying N.

X: 495903

Y: 4334079

+/- 3

2356—LD potentially hears FSCs near tree #166. He stakes out a silhouette a number of decent looking cavity trees. The M seems to give TCs from the general area but does not approach any of the trees. No F vocalizations are heard. KM joins LD to spend a few more minutes listening in the area and lightly tapping on trees.

2410—LD and KM head back up to the saddle and meet JE to set up a lure net to finish the night.

2430—PB start.

2437—Lure net is set up on the W facing slope of Bermuda, about 100m W of the intersection of the B13 road and the saddle.

Vegetation: open, young-mature psme and pipo

Weather: clear, calm, 12C

X: 495801

Y: 4334079

+/- 3

2440—TCs from the NE, potentially from the B13\_2017 M. He flies within 10m of the net but does not fly any closer. He backs off after a few seconds of TCs.

2448—The NE bird gives a few more TCs and flies towards the net. He once again backs off after a few seconds of TCs. We additionally hear distant TCs from the WSW. This might indicate the presence of a M in the B14 territory. He stays at least 150-200m WSW of the lure net.

2455—We cut the PB and head back to the B5 parking spot to hitch a ride out of Missouri for the night.

## 6 July 2017

2145-2238—KM, ER, and ZM arrive in the B13 territory to listen for vocalizations. We do not hear any M or F vocalizations the entire time we listened. We tapped most cavity trees in the N clump of cavity trees, giving occasional hoots with no responses. ZM stays in the S part of the territory, tapping and giving hoots, but does not hear anything. We leave to lure in BG6.

# B13—2018

## 05 June 2018

~1500-1630—KM and ON cherry peep in B13 to look for the 2018 nest tree. We do not find anything so we head back to peep in B4 with the rest of Flam Crew.

2150—KM and ON enter B13 territory. We walk around and listen near all past nest trees that are still standing but hear no vocalizations. We make friends with a local deer who decides to follow us around for the evening.

2248—Set up lure net 20m N of saddle on E side of road cut and start PB T42.

Vegetation: shrubby, young PSME

Weather: cloudy, calm, 15C

X: 495880

Y: 4333967

+/- 3m

2251—M FLOW approaches from 70m NW of net giving TCs and HECs. He quickly comes in 10 m W of the net, just above us on the W side of Roadcut.

2256—ON catches visual of M flying E across the road cut, just N of the net site. We hear a few vocalizations E of the net.

2258—M goes silent.

2259—KM heads N to listen for vocalizations and tap on a tree we missed earlier while cherry peeping. There is no FLOW activity, but the deer hangs out for a bit.

2300—Change PB to Flammulated Owl.

2317—Change PB to T42.

2340—ON hears flapping coming from net site. No vocalizations heard prior. She checks net to find a FLOW in the first shelf on the W side of the net. KM extracts bird from net.

**Band # 1833-32530 (on L leg)**

62.0 g LWC: 127 mm

- 9.0 g LLP(5): 97 mm

53.0 g LLP(6): 105 mm

Rect: 60 mm

**Notes: Bled L, no hematoma.**

2408—ON releases bird. Strong ascending flight N.

2411—Stop PB.

2422—KM untangles bat from net. SAF to the W. Break down net.

2431—Leave B13 territory.

# B13—2019

## 10 June 2019

1520—JE, KC, and KA head up Roadcut Cr to cherry peep in search of a B13 nest. We begin in the northern most area of B5 (where courtship vocalizations were heard week 1) and make our way N, checking past nests.

~1615—While KA and KC are peeping the B13\_2016 nest, JE **taps on tree #239 and sees a FLOW pop up to the entrance of a cavity! This is the B13\_2019 nest! The cavity is a very large bear tear ~29 ft 8 in high facing S on a beautiful, live potr. The tree is ~5-10m E of the roadcut road and ~25m N of B13\_2016 nest tree. This tree was used as the random during 2016 veg work.**

X: 495892

Y: 4334351

+/- 5m

2035—JE, KC, and KA arrive at B13\_2019 nest to observe and peep. F is up.

Weather: 12 C, clear overhead, calm

2036—F goes down.

2043—F FSCs on cavity.

2047—M FLOW comes into nest site, enters cavity to make a PD, and makes some LCs. F FSCs. He then flushes E and the F rises to the entrance.

2048—F flushes N.

2050—We peep and **see 3 eggs, centered and touching!** We then back off to watch the F come back on.

2107—M makes LCs N of the cavity and makes an off-cavity PD to the F. M leaves to the N, F flies to perch S of nest.

2108—F makes FSCs and gets back on the cavity.

2109—M makes a PD to F on cavity.

2111— F gives FSCs. M arrives to give PD in cavity.

2113—We leave to set up a mist net on the saddle between B13 and B15

2137—We begin PB of T42. The net is set up on the low slope of Bermuda, ~15m W of the center of the Roadcut saddle. The net is open N/S along the washed out bike trail on Bermuda.

Vegetation: mixed psme

Weather: 12 C, Tree tops blowing, 0% clouds,

X: 495848

Y: 4333944

+/- 3m

2141— TCs N 100m. Lasted less than 30 seconds and then went quite.

2213—TC N 100m. Then fell quite again.

2223—Nothing is heard near the net site. KA walks PB N into B13 territory trying to draw in the B13 M.

2224—TCs NW 75m. Called three times and went quite.

2244—Nothing has been heard near or far from the net site. KC walks PB S towards B5 territory in order to draw in the B5 M.

2246—KC hears TCs 100m S. KC continues to walk PB toward TCs but nothing is heard again. M would not follow KC. KC was sad but quickly got over it.

2307—PB is stopped. We breakdown.

2315—KA and KC head down Roadcut to travel to B4 while JE attempts to walk the ridgetops to B4.

## 20 June 2019

2238—We arrive at the B5/13 parking spot and hear M TCs ~ 70 m W.

2255—BL, ON and SL arrive at B13\_2019 nest to attempt a M nest capture. Upon arrival F is up in the cavity entrance.

Weather: calm, calm, ~12 C

2257—We hear makes a PD in cavity and gives an LC.

2300—We shine our light on the cavity and the F is down.

2308—ON begins approach for M capture.

2310—M makes a PD in cavity as ON stands at the base of the tree getting ready to raise the net. We also hear the F begging on cavity.

2311—ON raises capture net and gets it into position.

2314—M re-enters the nest site.

2315—M enters cavity to give a PD. ON gets net over cavity entrance, M flushes into net but only gets caught by the foot and he extracts himself.

2317—M re-enters the site, he bounces around to adjacent trees in all cardinal directions <5m away from the nest, giving TCs. It seems like he is going to reenter the cavity to give another PD.

2318—He does not, instead the F flushes, so we leave!!

## 27 June 2019

2144—ES and ON arrive at the B13\_2019 nest site to attempt a M capture. F is down when we arrive. We get in position to watch PDs and wait 30 minutes before going in with capture pole.

Weather: clear, moderate wind, 20C

2153—Silent bird (presumed M) comes into the nest site and perches in the potr 2 m S of the nest tree.

2156-2200—M gives 3 PDs. While M is inside cavity on each PD, we hear chittering. F gives FSCs off and on that are single note and very deep.

2206—M flies into nest site and **we’re able to see that he’s banded on the R leg** (thanks, MC…).

2211—M gives LCs and F gives FSCs on cavity.

2218—ON begins approaching with capture pole.

2223—ON gets capture pole to height. The large bear tear extends beyond the diameter of the net, making it difficult to determine the best height.

2230—M perches in potr adjacent to nest tree.

2232—M PD. ON gets capture pole over part of the bear tear, but not the right part. He sneaks out the bottom of the net. ON lowers pole and bends the net slightly so that it is more flush with tree.

2236—ON gets capture pole back up, this time slightly lower.

2241—M comes into the nest site and perches in a potr ~10 m NE of the nest tree for about a minute before leaving.

2256—M comes back into site and perches in the potr just S of the nest tree.

2258—M PD. ON begins to move capture pole, but it’s far away (to make M feel more confident) and he flushes before net is over cavity. We check height again and lower pole a couple more inches.

2310—M gives LCs in site, and F gives FSCs on cavity. M leaves.

2316—M comes into site and perches in the potr just S of nest tree.

2317—M leaves.

2319—FSCs on cavity. M comes into site and gives a PD. ON swings but the base of the pole catches on branches of a young potr near where she is standing, and M flushes before net is over cavity.

2320—ES taps in at capture pole for a few minutes, hoping the M will come in for another PD.

2330—He doesn’t, and our hour at the capture pole is up, so we leave!!

## 1 July 2019

2057—ES, AM, and ML arrive at the B13\_2019 nest tree to attempt a M capture. There is no one in the cavity entrance when we arrive, so we sit down and observe.

Weather: 40% cloud cover, calm, 12C.

2058—A silent bird goes into the cavity and flushes ~30 seconds later.

2059—Another silent bird goes onto the cavity and stays on. **This is presumably the F coming back on, meaning that the PD at 2058 was presumably for nestlings.**

2100-2109—Silent bird delivers six PDs (see PD sheet), and F gives FSCs on cavity.

2112—F flushes, and we don’t believe that we’ve caused the flush, so we continue watching the cavity.

2115—A silent bird (presumed F) goes back on the cavity and stays on. We presume that the F might have given a PD, and that she might have been giving some PDs prior to our arrival.

2117-2139—M gives five more PDs (see PD sheet). F gives FSCs and LCs on cavity.

2140—AM begins his approach with the capture pole.

2143—AM gets capture pole to height.

2149—M PD. AM swings the capture pole but it is slightly too low, and the M flushes above the net. AM raises capture pole a few more inches.

2152—M PD. AM begins to cover cavity with capture net, but M sneaks out the side of the cavity before the net is fully covering the entrance.

2153—M PD. **AM covers cavity entrance with capture net, and the M flushes into the bag! This is the B13\_2019 M! He is banded with band #1833-03250 and is the B13\_2015-2016 M.**

**Band # 1833-03250 (on R leg)**

83.5 g LWC: 128 mm

- 35.0 g LLP(5): 98 mm

48.0 g LLP(6): 106 mm

Rect: 59 mm

**Notes: Bled R wing but didn’t get enough blood, so clotted R and then bled L. Small hematoma on R wing and large hematoma on L.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 3 | 3 |

2234—ML releases M. He flaps his wings and leaves ML’s hand, and ML thinks he might have hopped to the ground. We turn on a light and look around but don’t see the M anywhere, so we presume that he’s flown off. We pack up and leave the territory.

## 9 July 2019

2030—ON, KC and JE arrive at B13\_2019 to peep and attempt a F capture. The F is down.

2036—ON begins creeping in for the F capture.

2043—Just as ON gets the net to height and places it over the cavity, a silent FLOW enters the nest site. This is presumably the B13 M. A songbird also enters the site, chasing the M off (or the M chases the songbird off…it was unclear).

2049—M enters the site once again, perching ~15m N of the nest, and makes LCs.

2050—F rises to the entrance and after ~30 seconds, flushes into the net! The net is stuck on the tree and the F does not seem to be nicely in the bag and caught on the side of the net but also on the tree. Over the next few minutes, JE tries to get the net unstuck from the net while also trying to keep the F safely in the net. Unfortunately, when the net is finally freed from the tree, the F is also freed from the net.

2054—**Peep shows 3 owlets with their eyes open, all showing some grey on their scapulars, with one showing grey across its back and potentially also on its head. Owlets are not moving around too much. Owlets are estimated to be ~15 days old.**

2055—We pack up and head out for B7.

## 11 July 2019

2035—KA and SL arrive at B13\_2019 nest for F nest capture and to peep. Upon arrival F is down and all is quiet.

2037—KA begins approach. F is down.

Weather: 75% cc, calm, 15 C

2040—KA begins raising capture net. F is down.

2042—Net is almost at height and F flushes.

2043—**We peep the nest and see three nestlings in all gray. BL approximates their age to be ~17 days.**

2049—We get out of B13 to meet up with ES and ML at B5 for M capture.

## 12 July 2019

2025—AM, ON and JE as well as guests: Olivia’s parents + Jordan’s friends Kai, Max and Annabel, arrive at B13\_2019 to attempt a F capture and bleed. F is down on arrival.

Weather: slight breeze, 20% clouds, 17 C

2027—F pops up, where she remains until she flushes.

2040—ON begins to sneak in, despite the F still being up and the presence of a bear pretty close nearby, thrashing about just on the other side of the roadcut.

2046—ON reaches the base of the cavity and begins raising the net.

2047—The F flushes.

2050—**Peep shows 3 very grey owlets that are starting to get old and are beginning to show facial disks. They are estimated to be ~18 days old.**

2056-2117—16 PDs are made directly to the nestlings by both the M and the F, who is readily remaining off cavity. We try to observe to find a pattern between approach perches used as LCs were sometimes heard by the M but it was otherwise silent. See PD sheet for details.

2117—ON gets into capture position and the net is at height after watching nearly a dozen PDs straight to the nestlings.

2120-2128—7 more PDs were observed with the capture pole in position without swinging to get the birds comfortable with the net in site. F scolded once before a PD, but otherwise vocalizations were minimal.

2134—M and F both enter the cavity to make a PD. The M flushes first, ON swings, **and the F flushes into the bag! This is the B13\_2019 F and is unbanded!**

**Band # 1833-32630 (on R leg)**

79.0 g LWC: 133 mm

- 29.0 g LLP(5): 100 mm

59.0 g LLP(6): 110 mm

Rect: 63 mm

**Notes: Bled R wing, small hematoma.**

2151—F is released and has a SAF to a nearby perch.

## 15 July 2019

1519—Flam Crew, Steve Alton, and Lacey Allor arrive at the B13\_2019 nest to process nestlings. The F is up when we arrive, perching at the entrance of the bear tear.

1526—Upon raising the peeper pole, the F flushes to the E and out of site. **Peep reveals 3 nestlings looking up at the camera in mostly grey down. The cavity is deep and it is hard to get a detailed image.** BL prepares to tree hook nest tree.

1532—BL gets to cavity entrance on tree hooks. He is able to reach nestlings without making any cuts.

**Cavity Dimensions:**

**Ent. H x V: 75mm x 600mm**

**Ent. Thickness: 50mm**

**Horiz. Depth: 150mm**

**Vert. Depth: 500mm**

**DOH: 22.0cm**

**Cavity Height: 28’3”**

1536—BL extracts owlets and lowers them down on a rope to Flam Crew. We begin processing the owlets in a shady location ~20m SE of the nest tree while BL waits in the tree.

**Owlet #1**

54.6 g

P#5: 30 mm (20 in shaft)

P#6: 30 mm (20 in shaft)

Rect: 8 mm (7 in shaft)

**Band#: 1833-32627 (R)**

Notes: Runt. Bled L, small hematoma. Candidate for genetic marker. Collected fecal sample.

**Owlet #2**

63.9 g

P#5: 49 mm (25 in shaft)

P#6: 48 mm (27 in shaft)

Rect: 18 mm (10 in shaft)

**Band#: 1833-32628 (L)**

Notes: Bled L, medium hematoma. Candidate for genetic marker.

**Owlet #3**

65.2 g

P#5: 54 mm (20 in shaft)

P#6: 54 mm (25 in shaft)

Rect: 24 mm (10 in shaft)

**Band#: 1833-32629 (R)**

Notes: Bled L, small hematoma. Candidate for genetic marker.

1606—BL returns owlets to cavity.

1611—BL descends from tree. Flam Crew packs up and heads to B5 to process nestlings.

# B13—2020

## 16 June 2020

2254—ON and SL arrive in B13 territory with the hopes of luring a possible B13 territorial M. We set up our net and begin PB T42. Net is open E/W on N-facing ridgetop up Roadcut Cr. On the E side of the power lines and ~10 m N of fence/2-track road.

Vegetation: mixed age pipo/psme/pifl

Weather: clear, windy, 18°C

X: 495885

Y: 4333961

+/- 3m

2321—After changing the PB, we hear a couple M TCs ~ 40 m N of net site.

2330—SL goes to walk the PB N towards the M that was previously calling.

2340—Sl returns PB to net after hearing no more signs of the M.

2352—We cut PB and break down the net after a pretty quiet night.

## 23 June 2020

1500-1645—Flam Crew arrives to peep cavity trees in the B4, B12 and B13 territories. Nothing was found in any territory. BL peeped all the past nest trees still standing, in addition to all cavity trees in the N-most patch of POTR containing these past nest trees, and noted that several cavity trees had been taken down by IREA in the previous weeks (utility line hazards). The rest of the Flam Crew peeped B4 trees in vicinity of the parking spot along W Missorui Cr. before heading into B12. We peeped all standing nest trees in B12, as well as most trees with suitable cavities in Beartorn Cr.

# B14—2005

## 13 June 2005

1630—After spending the afternoon peeping and searching for the B2 nest EE comes across a new cavity tree (B14\_719). **After peeping, EE sees a flam in the cavity—this is the B14\_2005 nest!** Hole is large (flicker sized), facing W, and about 35 feet off of the ground.

## 27 June 2005

2036—MS and EE arrive to try to capture M and F at B14 nest.

2038—MS has net over cavity. F comes up and then quickly comes back down.

2041—EE taps on tree and nothing happens.

2058—M comes and stays around nest area for 3 min. but makes no vocalizations.

2010—MS captures F. **She is a new bird so we give her band # 64438.** MS peeps nest and finds 2 hatchlings and 1 egg.

**Band # 64438**

99.5g

-34.0g

65.5g

WC: 130.0mm

LLP: 91.0mm

Rect: 56.0mm

2121—We release F.

2124—F gives us 2 scolding calls as we leave.

2142-2155—Us from a distance hear F (probably back in cavity) gives 4 FSC (about every 4 minutes) Indicating prey deliveries?

2200-2245—6 Prey deliveries by male to cavity while female gave FSC (one close capture attempt at 2220.

2245—EE captures M. A new M. We give him band #**64439**, take his blood and measurements. **Band # 64439**

90.0g

-27.5g

62.5g

WC: 136.0mm

LLP: 96.0mm

Rect: 58.0mm

2306—M is released.

## 5 July 2005

2045—MS and EE enter to capture B14 female in order to obtain a blood sample. Calm, clear and 19 deg. C

2052—Net up.

2054-59—B14 M gives TC’s around nest area (circling).

2103—Tap tree- no response.

2106—B14 Male flies in from NE and stays 10m west of nest for 1 min before leaving.

2108—B15 male returns with female to nest area (we realize that the female has been out of cavity when she gives FSC’s).

2110—Female gives FSC’s and male gives LC’s near nest area.

2119—B14 M neat the nest giving LC’s.

2223—B14 M giving TEC’s near nest, < 3min.

2124—Aborted prey delivery.

2128—net all the way down and we move back to allow female to return to nest. B14 M giving TEC’s to the NW.

2144—Prey delivery.

2152—Female returns to nest area and makes P.D. Can hear rasping begging from owlets in nest with some squeaking.

2200—Prey delivery by female who stayed in cavity for almost 1 min.

2203—P.D by Male.

2211—Prey Delivery (sex not determined).

2215—Female makes P.D. and rasping begging from owlets can be heard.

2217—Net up again.

2225—Female makes P.D. and we have a failed prey delivery.

2235—heard FSC’s from nest and we captured bird flying out thinking it was the female, but it turned out to be the male, band #64439.We keep B14 M in sock with head out.

2242—Net up for female.

2322—Release male who flies to North after we have no sign of female and hear no begging by owlets.

2321—Net down.

2327—Female leaves cavity (apparently she was in the cavity while we had male).

2328—Male giving LC’s and F giving FSC’s to the west.

2332—We leave.

2340—Just southwest of nest tree <50m we hear B14 M singing to southwest.

2347—We get general songpost, B14\_1 on male.

2349—I hoot from ridge near small rock quarry.

2350—B14 male gives single hoot to west.

2418—We leave.

## 8 July 2005

1412—BL and DF arrive at B14 nest to weigh and band nestlings.

1414—F flushes to W.

1415—**Nest peeped, finding 2 nestlings and 1 unhatched egg.** Nestlings still have mix of white down and gray feathers.

1417-1430—BL climbs tree and enlarges cavity entrance, and removed the unhatched egg.

1433—We leave.

## 11 July 2005

2103—BL arrives at the B14 nest to monitor nest activity and nestling development. Breezy only in the *Potr* crowns, PC, 22 C. As I approach, I am immediately scolded by the M, and shortly thereafter, the F.

2213—F delivers prey to the nest, after obtaining prey from the M. This was preceeded by the F giving nearly constant FSC the previous 10 min.

2116-2128: I leave to make radio contact with crew.

2131—**I peep cavity and observe 2 owlets at the cavity bottom**.

2225—I leave for B11 nest. Owlets begged loudly, but never climbed to the entrance. Adults occasionally gave SC when I moved in the nest site.

## 12 July 2005

1915—Flam crew arrives at B14 nest to attempt capture of F and band and bleed owlets. F is in cavity entrance upon our arrival.

1920—F flushes from cavity as DF attempts capture. BL proceeds to climb the snag.

1925—2 Owlets are out of the cavity and lowered down.

**New Band # 64473 New Band # 64474**

73.0g 74.5g

-11.0g -11.5g

62.0g 63.5g

LLP:48mm LLP:44mm

Rects:17mm Rects:14mm

1938—Owlets are returned to cavity after they are bled.

1941—Flam crew leaves.

2110—BL arrives at B14 nest to attempt capturing and bleeding of F. Breezy in *Potr* crowns, PC, 23 C. I get into capture position.

2136—F (**Band # 64438**) captured after she delivers prey at nest. I bleed her and take measurements.

WC: 126 mm

LLP: 101 mm

Rect: 59 mm

2155—I release F and leave. Both M and F vocalized around the nest until about 2120, then few vocalizations were given. Nestlings begged loudly when adults were in the vicinity, and although they occasionally sounded as if they were near the cavity entrance, none were visible.

# B14—2006

## 6 June 2006

1700—Flam crew is searching for B14 nest. EE finds **2006 B14 nest in tree B2\_13 (Tag # 82)** by way of peeping. F flushes when peeper enters cavity. I leave immediately.

2030—EE and EC arrive at nest tree to attempt to capture F or M.

2040—EC places net over cavity entrance

2043—EE hears F calling from outside cavity in a nearby tree

2044—EC takes down net immediately and we move 15m away from nest tree.

2050—We move another 10m from nest tree to ensure the least amount of disturbance.

2103—Now about 25m from nest tree the F lands above us and begins giving FSC. M comes to same area and then they both fly S together. We move to about 45m from nest tree.

2128—We move back to within observable distance from nest tree.

2134-2241—M makes 2 prey deliveries to the cavity suggesting the F’s return to the nest.

2258—We leave.

## 13 June 2006

2038—BL arrives at the B14\_2006 nest tree to attempt capture of F. Calm, PC, 22 C.

2040—F flushes as capture net is raised into position. **I peep the nest cavity and find 2 eggs**.

2050—I leave for B2\_2006 nest.

2103—I return to attempt capture of M.

2110—I leave, as B5\_M is captured in the F-lure net.

## 19 June 2006

2019—KC and SY arrive at B14 nest to attempt capture of F. Weather: calm, clear, 23 C.

2039—As net is being raised the F flushes to a sm. *Psme* approx. 5m E of nest tree. We peep: 2 eggs.

2042—We leave.

## 20 June 2006

2115—BL arrives at the B14 nest to attempt capture of M. PC, slight breeze on ridgetops, 28 C. M giving TC approximately 60 m to the NNW at this time.

2126—As I start to get into capture position, the F leaves the cavity (impetus did not appear to be my presence).

2132—F returns to cavity.

2137—I get into capture position.

2200—M attempts to deliver prey, but he only perches at the cavity entrance before he flushes (capture net brushes a branch adjacent to the cavity).

2216—M again attempts to deliver prey, and again only perches at the cavity entrance before flushing when the net brushes another branch. F leaves the cavity at this time as well. I back off.

2234—M attempts to deliver prey, but he aborts before going into the cavity (F back in the cavity—I did not see her reenter). I was not in capture position, but after he leaves I resume my capture position.

2300—I leave. M had not yet returned.

## 22 June 2006

2015—BL arrives in B14 territory to attempt capture of F and to set up lure net for M. Partly cloudy, calm, 17 C, wet vegetation (afternoon thunderstorms). I work on setting up lure net until 2035 hr, approximately 100 m WNW of nest.

2040—I get into capture position at nest, and F immediately flushes into the net as it is placed over the cavity entrance. **F previously unbanded—given band #64492**.

95.5 g LWC: 130 mm

- 27.0 g LLP: 98 mm

68.5 g

2049—F released, and I leave to finish preparing lure net.

2115—I return to nest area.

2120—M hesitantly delivers prey to F (who is giving a few FSC) in the nest cavity.

2021—Same.

2134—I leave.

2140—Lure net raised, and CD playback (F vocalizations) started.

2315—I return to nest area.

2317—M delivers prey to F (M no vocalizations, F a few FSC).

2319—Same.

2321—I leave.

2341—I mark songpost #1 on B14 M at the crest of N Goshawk Ridge, NNW of the nest (see details on Terr Songpost Inventory). M had been giving TC and TECs in the vicinity of the net before moving to the ridgetop.

2400—I break down lure net and leave. Over the course of the evening, a M (probably B14) vocalized in the vicinity of the lure net on approximately five different occasions, each time giving TC and TEC for 10-15 min. He stayed high in the adjacent *Pipo*, however, and did not appear to approach the net.

## 29 June 2006

2008—KC and SY arrive at B14 nest to peep cavity and attempt capture of the male. Weather: Mostly clear, calm, 22 C.

2050—M enters the site from the E and makes a PD.

2053—F flushes cavity. We peep: 2 nestlings; oldest is just beginning to show juv. plumage on head and wings. Runt has only a little grey on the wings. Eyes are open on both.

2057—M flies to nest tree and gives several TCs.

2058-2335—We observe several PDs by both the M and F. (see data sheet)

2132—F returns to cavity.

2137—While getting the net in position the F flushes into the net. WE release her immediately and back off.

2210—We return to nest site and get in capture position.

2246—F flushes. We back off.

2301—We return and get in capture position.

2304—F flushes, we drop the net.

2307—F returns.

2311—We get in capture position.

2312—Following a capture attempt, the F flushes. We drop the net.

2317—F returns to cavity.

2320—WE return to capture position.

2335—Capture of the M following a PD. **He is previously banded—THIS WAS THE B14\_2005 MALE.**

**Band # 64439** This is the 2005 B14 M.

78.0g LWC: 136mm

-20.0g LLP: 94mm

58.0g Rect.: 57mm

This individual is molting. Primaries 1, 2, 3, and 4 are very short on both wings. We also close his band more as it is about 1mm open.

2351—Release, strong flight to the W.

## 6 July 2006

1256—Flam crew arrives to band, measure and bleed B14 owlets. We also want to capture and bleed B14 owlets

1257—SY has net over cavity entrance and EM peeps. We see F tight in cavity.

1305—We capture the F (#64492).

69.5 g LWC: 130 mm

- 16.5 g LLP: 96 mm

53.0 g

we bleed F

**Cavity Dimensions**

HxV—6.0cm x 6.5cm

Entry Thickness—3.0cm

Diameter at Owl Height—21.0cm

Vertical Depth—~20cm

Horizontal Depth—12.0cm

1320—2 Owlets out of cavity

**New Band # 64520 Unbanded Owlet**

46.0 g 36.5 g

-12.0 g -16.5 g

34.0 g 20.0 g

LLP:14 mm (all in shaft) --no primaries to measure

We band and bleed older owlet (64520). Younger owlet is too young (appears to be about 9-10 days old (juvenile down just beginning to come in all over body))

1323—F released.

1337—Nestlings returned to cavity and we leave site.

## 13 July 2006

1405—Nikki and BL arrive at the B14 nest to peep the contents. We find the nest empty, with no remains found on the ground in the nest site. It appears unlikely that any of the owlets could have fledged since our last nest visit.

1410—We leave.

# B14—2007

## 7 June 2007

1430—The flam crew peeps the central area of the B14 terrirtory.

# B14—2008

## 2 June 2008

2235-2300: QB, CB, and BL tap on cavities in Goshawk Cr and listen for nesting vocalizations. Nothing found.

## 17 July 2008

1530-1700: Flam Crew peeps cavities in B14 territory in the Goshawk Drainage, from just W of A2 territory to the head of the drainage, as well as cavities in the area of the Quarry and the B14\_2005 nest tree. Nothing found.

# B14—2009

## 26 May 2009

2335—BL, KG, and SR arrive on Vista Ridge to listen for singing males. SG and SR travel to S end of ridge where they hear B1/B17 and B11 (see respective notes), and I leave to pursue B14 M, who’s singing from S Goshawk Ridge.

2351—I locate presumed B14 M singing on top of S Goshawk near junction with Cooper’s Hawk Ridge, in dom *Pipo* (50.5 cm). This M sounds a bit like V Victoria, as the pitch of his hoots (~every other) ascends at the end (I also noted this quality earlier in the night when we heard him from our position near the Goshawk Wier).

X: 495505

Y: 4333975 (+/- 6 m)

2355—I leave; M still singing from same *Pipo*.

## 8 June 2009

2250—Eryn Gable, Steve Geddy, and BL arrive on N Goshawk Ridge to set up lure net in hopes of capturing the B14 male. Clearing, slight breeze, 13 C.

2315—We start playback.

2317—M approaches the net from the W side giving TC—this higher-pitched M is probably B2.

2319—M approaches the net from the E side giving TC—this is probably B14. Both males move to the side ridge to the E where they engage in territory encounter, completely forgetting about the playback. This continues until 2335, when the presumed B2\_M moves back in the direction of the B2 territory.

2345—We start breakdown of net.

2400—We leave.

## 12 June 2009

1629—**FLOW flushes cavity in B2\_22 tree (tag # 79) as Dakin peeps—this is the B14\_2009 nest tree.** Specific cavity that contains the nest could not be determined. There are at least 6 holes, all S facing and in a lightning scar. F did not fly out of lowest hole (which Dakin was peeping). Owl flushed to branches immediately to E in same tree and watched us until we left. Tree is a live PIPO, approximately 51 cm dbh, on S-facing slope near the head of Goshawk Drainage. Weather: Increasingly overcast, breezy, sprinkling, 20C.

1714—We leave.

## 15 June 2009

2030—BL and SR arrive in B14 territory to capture M or F at nest tree B2\_22.

2033—F peeking out of largest hole (NOFL sized), which is the lower of the two holes and furthest E (cavity faces SE). Nest cavity is approximately 0.5 m above where large (25 cm) limb forks off the main trunk on the S side, amidst live foliage all around. Only the upper 3 m of the tree, which is a snagtop, is without foliage. We find that hole is too high and there are too many branches for the capture net.

2034—F descends in the cavity.

2100—M flies in from N giving LC. F replies with FSC from within cavity.

2101—F flies NW and M follows her. **BL peeps cavity (peeper at 37’0” from E side of tree), and** **finds two eggs touching in center.**

2106—F returns to nest tree as we remove peeper from cavity.

2107—PD, M flies SW and F sits in tree making LC.

2109—F flies into cavity.

2111—M makes PD in nest cavity. Weather: Clear and calm, 9C.

2115—We leave.

2251—BL and SR return to B14 territory to set up lure in net to catch M. We set up lure net near (actually over) the fenceline on the crest of N Goshawk Ridge, approximately 150 m W of the B14 nest tree. GPS: X=495402, Y=4334165, +/- 7m.

2317—Playback started. Weather: clear and calm, 6C.

2320—M arrives in the net area from the SE giving TC/TEC.

2330—A second owl gives TC from the distant N, off the study area.

2336—TC/TEC for four minutes, very close to net from SW, calls hoarser.

2347—Playback stopped.

2400—We leave.

## 29 June 2009

2122—BL and SR arrive at B14\_2009 nest to attempt capture of F.

2124-2125—M makes PD into cavity.

2133-2134—M makes PD into cavity.

2135—F leaves cavity and flies SE.

2138—F back in cavity.

2229—BL peeps, F in cavity, looks like she is sitting on very young owlets, little movement. Weather: Breezy, cloudy, lightning to S, 13C.

2327—Third owl flies in, resident M giving hoarse TC/TEC. At one point resident male lands close to intruder in same snag. F giving whining begs from within the cavity. The intruder may be the B2 M.

2342—M and F fly out of tree and N.

2343—BL lowers net and descends tree. We leave.

## 7 July 2009

2138—SC and BL arrive B14\_2009 nest to attempt capture of M and F, and determine status of nest. M gives TC’s upon arrival. We see him fly away from

nest tree.

~2149—After observing tree to verify cavity, we decide to peep. **The cavity is empty.** **The nest**

**appears to be predated.** For the next 45 minutes we observe, the M comes in nest area

once more and gives TC’s.

2225—We leave.

## 13 July 2009

2234—SC, BR, JG, QB, Onya begin playback on a lure net on South Goshawk Ridge in the vicinity of song posts that BL mapped earlier in the season in the territory of the B14 M, whose nest has recently been abandoned. We have not captured him this year. Weather: 10-12 mph wind, clear, 12C. Vegetation: Mature psme/pipo, smaller pipu.

X: 495511

Y: 4333942

+/-: 6m

2244—Check net, empty. **(From 2244 to 2350 we check the net every 10 minutes at varying intervals)** M TCs heard in the area from the N, which is the direction of the B14 nest.

2318—Check net, **we have captured an unbanded owl on the N side of the net, bottom shelf, no vocalizations heard.** We detect a brood patch with developing pinfeathers.

We band with **Band# 64723** on the left leg.

83.0g LP5: 94mm

- 17.5g LP6: 104mm

65.5g LWC: 129mm

Rects: 59mm

We take a blood sample from the left wing.

2341—We release her N of the net. She displays strong flight away from the net.

2350—End playback, we leave.

## 14 July 2009

2202—JG, SR, and SC start playback after setting lure net up on S facing slope of N Goshawk R just W of failed B14\_2009 nest tree. Weather: Windy, mostly clear sky, ~10C (estimate).

GPS: X=495548, Y=4334061, +/-12m. Habitat is open *pipo* and *psme* w/adjacent aspen drainage. We hear M give a few TC’s within 15 min. of starting playback. He is silent for the rest of the night. The wind is fairly strong and blowing the net out.

2330—Playback stopped.

# B14—2010

## 25 May 2010

2307—JG songposts B14\_1. From 2307 to 2410, JV and JG songpost 8 locations that the supposed B14 M is singing from. Refer to Missouri Gulch master songpost sheet for specific locations and tree measurements.

2346—While following/hearing TCs from the B14 M on the top of N Goshawk, we hear TCs from the N side of S Goshawk.

0010—We leave B14. However, the M is still delivering TCs.

## 1 June 2010

~2045—BL, BG and Ron Hathaway enter B14 to set up lure net and hopefully capture B14 and B4 M’s

2058—TC response ~60m west of net for ~1min (probably B14 M)

2111—Start playback after setting up lure net on S. Goshawk ridge just west of Coopers Hawk ridge. Mature Pipo/Psme forest.

Weather: 14C, cloudy with slight breeze

X: 495505

Y: 4333933 +/- 7m

2117—TC and TEC from N (probably B14) very close to net

2125—TC from N further away (continues until 2250), contains periodic TEC’s

2131—BL walks around with playback to create illusion of owl movement, moves for ~5min

2250—M from N finally stops vocalizing

2310—TC from N again, much closer to net

2317—TC’s stop

2326—TC from N again, further away from net, lasts ~3min

2356—stop playback after BL and BG return from short pursuit N to songpost B14 M on N Goshawk ridge, which was unsuccessful

0015—BL, BG and Ron leave site to return to car

## 7 June 2010

1423—The Flam Crew arrives at the Weir and prepares to tap/peep B2 and B14.

1656—We leave, having found nothing, but not having peeped all cavity trees.

## 20 July 2010

2331—JG, BG, and DW start playback on the S side of road on N Goshawk Ridge (across trail from old B14 nest tree) to target B2 and B14 Ms. Lure net is on mid to upper S-facing slope.

Vegetation: small psme around net, surrounded by large pipo

Weather: drizzly, wet from lots of rain, partly cloudy, 14C, wind <5mph

X: 495264

Y: 4334178

+/- 13m

2342—We stop playback due to rain and take cover.

2347—Start playback again, still raining lighty.

0017—Stop playback after hearing no response. Net is moist. We pack up and return to vehicle.

# B14—2011

## 31 May 2011

2055—BL, AW, and KB arrive at N. Goshawk Ridge about 100 m E of weir, set up a lure net, and start playback.

Vegetation: Mature pine/fir with one psme near the net.

Weather: Clear, windy (5-15 mph). 17C.

X: 495184

Y: 4334047

+/-3 m

2126—We start playback at this time.

2127—KB hears TCs. BL and AW also hear TCs to the SE between wind gusts.

2202—KB leaves to tap aspens in B14. BL leaves to walk down slope to the Homestead Drainage to tap trees in B2. AW stays to check net.

2240—AW starts hearing TECs from the N.

2246—**AW checks net and captures M—he is previously unbanded**. M flew into the 2nd shelve from the top and came in from the N-NW direction (upslope). AW bands M on left leg. KB takes a blood sample.

**Band # 1593-64866** (on left leg)

85.0 g LWC: 129 mm

- 30.0 g LLP(5): 95 mm

55 g LLP(6): 102 mm

Rect: 58 mm

2311—AW releases M. BL, KB, and AW break down lure net and head to Vista Ridge to spot

map. We leave Goshawk Ridge and proceed to Vista Ridge. **Note: We presume the M we captured to be B14 since he approached the net from the N, and soon after release we hear what we presume to be this M singing to the SE (lower slope of S Goshawk Ridge).**

## 13 June 2011

1530—Flam Crew begins peeping B2 and B14 at the weir.

1638—**SY taps cavity tree #82 (B2\_13). F comes up to cavity entrance of lowest cavity in tree (~18ft up full snag potr on the S facing side) for < 1 min. See JG pics. This is the B14\_2011 nest (this same cavity tree was also the B14\_2007 nest tree). Note: 2 suspicious eggs in cavity above. We approach tree to re-peep but F rises to entrance again, we leave immediately.**

***\*Note – on 14 June 2011 we discover that the nest cavity is in fact the cavity above the lowest cavity on this side of the tree, confirming the suspicion that the 2 eggs peeped in that cavity were FLOW eggs.***

1720—We finish peeping, having found a nest at B2\_13 #82 (The B14 nest), and still needing to peep the W side of B2 into Homestead Creek.

## 14 June 2011

2052—IJ, AW, and BL arrive at the B14\_2011 nest attempting to capture either the M or the F.

2053—IJ raises the capture net to the lowest cavity facing S-SE.

**2054—F flushes from the cavity directly above the lowest cavity. The upper of these two cavities, where BG and JV saw 2 Flam-like eggs nearly touching during a peep in the afternoon, is the nest cavity.** AW attempts to peep the cavity, but the battery dies. While backing off, the capture net gets stuck in a tree so IJ and BL retreat to repair the net while AW stays to observe the nest.

2114—F returns to the cavity.

2118—M flies in from the S and perches approximately 5 m to the W of the nest tree. F begs for

about 15 seconds before M makes a PD. M fully enters cavity and remains there for

about 30 seconds.

2120—IJ and BL return to the nest tree. BL raises capture net while IJ sits by AW to observe.

2122—M gives TCs from S-SE.

2127—M flies into nest area and perches approximately 5 m W of nest.

2128—F begs.

2129—M lands on small pipo 1 m from nest tree.

2131—M aborts PD.

2152—M flies into nest area.

2155—M flies to cavity entrance, but does not land, and aborts a PD. M flies to the cavity

entrance, but does not land, and aborts a second PD. M flies back to the cavity, lands,

and aborts a third PD.

2157—F begs while M perches approximately 3 m S of cavity in a small tree.

2158—M flies to cavity and perches on the entrance for approximately 15 seconds. It was unclear whether M aborted a PD or whether there was a successful PD made. M takes off and F flushes immediately after.

2159—We leave.

## 20 June 2011

2320—BG, PS, and SY arrive at B14 to tap and listen in B14, traversing east on S Goshawk Ridge from the road, then fanning out and exploring the Camp Ridge/Fallen Squirrel Cr/Cooper’s Hawk Ridge areas.

2332—B14 M heard making vocalizations on north side of S Goshawk Ridge. Nothing else heard for rest of night.

0025—Everyone leaves.

## 21 June 2011

2158—BL arrives at the B14\_2011 nest tree to attempt capture of M. I get into capture position at this time.

2235—M flies to the cavity entrance at this time without vocalizing, perches momentarily, then flies off without making PD. F could be heard giving soft FSC as he approached tree.

2405—M again flies to the cavity entrance without vocalizing, then flies off without making PD. F gives FSC as M approached cavity.

2410—I leave. As noted above, M only approached cavity on two occasions over the 2+ hours of observation. M was heard giving intermittent TCs from N and S Goshawk Ridges over the observation period.

## 28 June 2011

2052—BL arrives at the B14\_2011 nest to attempt capture of either F or M. I raise the net over the cavity entrance at this time and tap the tree—no response.

Weather: Very breezy on ridgetops, somewhat breezy around nest site, clear, ~ 23 C.

2120—**F has not yet flushed, nor has the M entered the nest area. I peep the nest cavity and find it empty, except for one egg fragment. I search the ground around the cavity tree but find nothing. The nest apparently has been depredated.**

2135—I leave.

## 12 July 2011

2213—JR, AW, and JG start playback on S. Goshawk Ridge targeting the B2 and B14 M and F. As both nests have failed, we now have to lure for the F’s and M’s to determine their identity and draw blood from those we already have captured.

Vegetation: Mature pipo/psme with small pipo/psme near net.

Weather: Calm, stormy, thunder, cloudy, 14C.

X: 495213

Y:4333822

+/-5

~2245—End playback. JR, JG, and AW break down net after hearing nothing and lighting/t-storms move in. We leave S. Goshawk Ridge to wait out the weather.

# B14—2012

***\*Note: Field notes prior to 28 June 2012 have been moved to B14\_2012. This nest was previously thought to be the B2\_2012 nest but the B2\_2011 M has been caught at the nest on the north end of PPG Ridge. The territorial M here at B14 is thought to be the B14\_2011 M.***

## 29 May 2012

2130-2245—BL travels through B14 and B2 territories, listening for nesting activity, tapping past nest trees (and prospective nest trees), and alternatively calling/listening for territorial activity. Nothing heard, seen, or found.

## 18 June 2012

1530-1700—JV, JR, BL, PPS, and NS peep in Goshawk Drainage in B14. The majority of the drainage is peeped and no nests are found. Some trees by the weir on the south-facing slope, as well as on top of S. Goshawk Ridge still need to be peeped.

1540—While peeping the B14 territory and the perimeter of B2 territory, **BL peeps a FLOW F in Potr cavity tree #549—this is the B2\_2012 nest! F was sitting tightly (no eggs or owlets visible beneath her) in a NOFL excavated cavity (6 cm diam), which was facing SE, and was 23 ft above ground. Nest tree is approximately 100 m N of the weir at the Goshawk Cr/Homestead Cr parking area in a drainage bottom that is approximately 70 m S of the B2\_2009 nest tree (live Pipo, #43) near the rock quarry.**

2034—JV, NS, and JR arrive at B2\_2012 nest tree in attempt to capture the F. F is down.

2039—NS has net in place. Net height: 21’ 8”

Weather: cloudy, calm, 24 C

2046—M calls off roost down drainage to the west.

2053—M starts giving TCs about 70m SW of nest.

2054—M goes silent.

2056—M gives TCs straight S of the nest.

2058—M goes silent.

2100—JV taps nest tree. F stays down.

2102—JR peeps cavity. F is still on. No eggs or nestlings are visible.

2107—NS has net back in place.

2119—JR taps. Nothing.

2121—M comes into nest site. Since it is getting so late, JV suspects the F may not flush and NS begins aiming for capturing the M.

2122—M aborts PD. Gives on HEC.

2123-2126—M aborts three more PDs until F flushes at 2126.

2127—JV peeps. **There are 3 eggs in the center.**

2128—JV, NS, and JR back off to the car to let F come back on. M gives TCs 40m S of nest.

2155—Team back in nest site. NS has net back in place.

2211—In order to have enough time to lure net in B14, JV decides to have team leave the area based on the F being so deep in incubation.

2258—JV, NS, and JR start playback on the upper south-facing slope of N. Goshawk Ridge in B14 and a couple hundred meters away from the B2\_2012 nest. While setting up the net a M gives consistent TCs just 60m S of net site. Net opens to the SE.

Vegetation: mixed psme/pipo

Undergrowth: grasses, pipo, juco

Weather: clear, calm, 18 C

X: 495396

Y: 4334131

+/- 3m

2300—M comes in from NE giving TCs.

2307—M bounces back W, calling NW of the net.

2310—M goes silent.

2345—JV and NS go off to the east listen in B14.

2355—JV and NS arrive at B14\_2009 (#79) nest tree to listen. The playback can be heard clearly from the west.

2406—JR hears a M giving TCs about 100m SW of net site.

2407—M goes silent.

2413—Based on where the M was calling while lure net was getting set up, JV and NS decide to travel west to the area of the trees that did not get peeped during the afternoon (NE of the weir).

2418—As JV and NS are passing the lure net on the trail on top of N. Goshawk Ridge a silent M gets caught in the second tier from the W. **M was previously banded—he has band # 64812, and is one of the B4\_2011 nestlings! Another good example of natal dispersal.** *This individual was molting P2-5 on both wings. When blacklighted, P2-4 showed high amounts of porphyrin but P5 was totally dark (see pictures in Molt folder in Dropbox).*

**Band # 1593-64812** (on right leg)

92.5 g LWC: 125 mm

- 33.5 g LLP(5): 37 mm *(molting)*

59.0 g LLP(6): 104 mm

Rect: 60 mm

2438—NS releases M. Strong flight to the south.

2440—Turn off playback and take down net.

## 20 June 2012

2030—JV, AP, and NS at B2\_2012 nest site. AP approaches with net in attempt to capture the F. F down upon arrival.

2032—AP has net in position.

Weather: Cloudy, calm, 14°C.

Vegetation: Mature psme/pipo

2036—M giving TCs to SE.

2055—M giving TCs to SE, closer this time.

2056—F comes up to cavity entrance.

2057—M lands in adjacent potr.

2058—M leaves nest site. F flushes into net.

2103—**F in hand. This is the B2\_2012 F. She is unbanded; JV bands on R leg (#64302). NS peeps nest, 3 eggs center touching.**

**Band # 1783-64302** (on R leg)

79.5 g

- 15.5 g

64.0 g

2105—AP releases F. Strong flight to NS. She lands in young potr near nest before flying away to WSW.

2106—Team leaves nest site.

## 22 June 2012

2310—NS and BL arrive at the B2\_2012 nest to attempt capture of M. All is quiet in the nest area when we arrive. **We peep and find the F sitting tightly in the cavity—nothing is visible beneath her.**

2316—NS gets in capture position adjacent to the nest tree.

2330—M arrives and makes one PD at this time—NS narrowly misses capture (M was hanging by one talon momentarily).

2340—We leave. M had reentered the nest area moments earlier, but he did not make a PD (he had one aborted approach.

## 26 June 2012

2248—JV, PPS, NS, and JR arrive at B2\_2012 nest. PPS has capture net in place at the B2\_2012 nest tree in attempt to capture the M. F is either down or off cavity.

Weather: clear, calm, 15 C

2255—JR peeps cavity, F is sitting tightly in the cavity. No sign of eggs or hatchlings.

2300—M makes PD to the cavity.

2302—JR and NS break off to go listen for nesting vocalizations in B14.

2303—M makes flight towards cavity, then sharply changes direction to fly directly into the capture net. PPS puts net against tree to let M fall into bag but M wriggles himself out of the net using the trunk of the nest tree. JV thinks she sees a band on the M.

2306—PPS has net back into position.

2309—A silent bird flies behind JV.

2310—F flushes on her own.

2312—JV peeps. **There are 3 young nestlings in the cavity. One has its head up and moving around with eyes somewhat open while the other two have heads down and are not moving. All have white natal down.** Considering the F’s and the nestlings’ behavior they are young (about 5-7 days old).

2313—M comes into nest site giving LCs.

2314—F comes back into nest site giving FSCs. She takes prey from M.

2315—F goes back onto cavity.

2323—M comes into nest site. F begins giving FSCs. M aborts PD.

2324—M makes PD and gets caught in the capture net but wriggles himself out using the tree again.

2326—JV bends net so that it will hug the tree. PPS has net back in place.

2353—A silent bird flies behind JV again.

2405—JV takes over net.

2414—M makes PD to cavity and stays in cavity. JV puts net over cavity.

2415—JV catches M in the net. **He was banded previously, with band # 64866.** **This is the presumed B14\_2011 M but was only caught once in a lure night on 31 May 2011—the B14\_2011 nesting M was never caught at the 2011 nest before it was predated.**NS bleeds right wing for genetics and smear. He has a mild hematoma. Blacklight results: Left wing🡪p1-4have a strong pink color, p5 has very little, p6-10 have none. Right wing🡪same as left but color of pink was deeper. JV took pictures.

**Band #1593-64866** (on left leg)

81.0 g LWC: 132 mm

- 28.5 g LLP(5): 95 mm

52.5 g LLP(6): 105 mm

Rect: 60 mm

2445—M released. Strong, short flight up to a pipo NW. He was a bit slow to wake up.

## 28 June 2012

2215—CC arrives at B2\_2012 nest tree. Clear, calm, 13°C and no one is up at the cavity entrance upon arrival. JR, JV, and BL fan out across the B2 territory to listen for nest activity and tap cavity trees (in case the B2\_2012 nest is actually the B14\_2012 nest, based on the identity of the B2\_2012 M).

2215—JR starts listening in Homestead Creek, moving down drainage.

2216—JV arrives on top of Paintbrush Ridge in B2 to listen for any males or nesting vocalizations.

Weather: breeze <5mph, mostly cloudy, 17 C

2229—F exits the cavity, lands on a tree adjacent to the cavity and then immediately returns to the cavity.

2238—M makes PD at cavity entrance from NE.

2240—M makes PD at cavity entrance.

2243—M makes PD at cavity entrance.

2246—M makes PD at cavity entrance.

2247—M makes PD at cavity entrance and then flies off SW.

2248—CC leaves nest site. JR, JV, and BL find nothing. M was heard giving TCs briefly on the S side of Homestead Cr (100 m W of the Wier, N facing lower slope of Vista Ridge) at ~ 2245, but this could have been the B2 nesting M between PDs at the nest.

2250—After dropping down into the side drainage on the w side of Paintbrush Ridge, JV reaches confluence with Homestead Creek. Nothing was heard. A couple of cavity trees were tapped.

2255—JV hears very faint TCs ~250m away to the NNW on Feldspar Ridge.

2449—JR, BL, PPS arrive at B14\_2012 nest tree to peep the tree. F is off. A bird is in a snag next to the tree.

2450—JR peeps the tree. **There are three “fat and sassy” nestlings with half juvenile plumage (on the head and wings) and half natal down. Both owlets were quite active and attentive.** Both M and F giving TECs from potr snag. The pole height is 22 ft.

2453—We leave.

## 5 July 2012

1534—Flam crew arrives at B14\_2012 nest to band and bleed nestlings. F is up.

1537—NS has capture net up. F goes down into cavity.

~1545—BL begins enlarging cavity.

Cavity dimensions:

Entrance Dimensions: 65 x 75 mm

Horizontal Depth: 100 mm

Vertical Depth: 30 cm

Entrance Thickness: 45 mm

DOH: 16.0 cm

1605—Owlets and F out of cavity.

**Female: Previously** **Banded # 1783-64302**

90.5 g LWC: 127 mm

- 34.0 g LLP(5): 102 mm

56.5 g LLP(6): 112 mm

Rect: 57 mm

**Owlet**

47.0 g

P#5: 32 mm (24 in shaft)

P#6: 31 mm (23 in shaft)

Rect: 11 mm (9 in shaft)

Band#: 1783-64316

Notes: Gray juvenile plumage with some white natal down remaining. We bleed L wing, very sm. hematoma

**Owlet**

38.4 g

P#5: 18 mm (17 in shaft)

P#6: 18 mm (17 in shaft)

Rect: No measurement

Band#: 1783-64341

Notes: Gray juvenile plumage with some white natal down. Bleed R wing, small hematoma.

**Owlet**

43.4 g

P#5: 32 mm (24 in shaft)

P#6: 33 mm (26 in shaft)

Rect: 25 mm (17 in shaft)

Band#: 1783-64342

Notes: Gray juvenile plumage, some white natal down. Attempt a bleed on L wing – no sample; bleed R wing – genetic sample only (no smear). Small hematoma.

1635—Owlets back in cavity.

1643—Release F – strong flight to W.

2300—JV, AW, BL, and friend Mark (NS sick in car) spread out on N Goshawk Ridge on the Biker Trail to listen for any activity in B14.

Weather: partly clear, breezy, <5mph, 20 C

2316—After hearing nothing, team leaves. Sad face.

## 9 July 2012

2249—CC, AP, AW, NS, and JR arrive in B14 to attempt to capture the B4\_2011 nestling that was previously captured as a floater earlier in the season in a lure net. The purpose of this capture was to obtain black light data on porphyrin amounts in the feathers of a known aged bird. We start playback. Lure net is located on a S. facing slope (upper slope) of N. Goshawk Ridge.

Veg: mixed pipo/psme.

Weather: calm, clear, 16 C

X: 495305

Y: 4334136

+/- 3 m

2300—AW, NS, and CC leave lure net to listen for nesting vocalizations. We begin at cavity tree B2\_1127 (where we missed peeping) and make a wide circle S then E throughout the low slopes of the territory finally ending at tree # 139. We periodically give hoots, but hear nothing.

2355—AW, NS, and CC return to the lure net to exchange places with AP and JR. JR and AP head E along the main drainage to listen, but hear nothing.

2423—On way back to lure net, **JR observes the net move and finds a silent, unbanded bird captured. He was captured in the 3rd shelve and flew in from the N. He is a B14 silent floater with interesting molt and porphyrin patterns!**

**Band # 1783-64343 (on L leg)**

84.5 g LWC: 127 mm

- 29.0 g LLP(5): 80 mm

55.5 g LLP(6): 56 mm (9 mm shaft)

LLP (4): 85 mm

Rect: 59 mm

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Primary | Blacklight, L wing, 0-3 | Blacklight, L wing, 0-5 | Blacklight, R wing, 0-3 | Blacklight, R wing, 0-5 | Wear, L wing, 1-3 | Wear, L wing, 1-3 |
| 1 | 0 | 1 | 0 | 1 |  |  |
| 2 | 3 | 4 | 3 | 4 |  |  |
| 3 | 3 | 5 | 3 | 5 |  |  |
| 4 | 3 | 5 | 3 | 5 |  |  |
| 5 | 3 | 5 | 3 | 5 |  |  |
| 6 | 0 (in molt)\* | 0 (in molt)\* | 0 (in molt)\* | 0 (in molt)\* |  |  |
| 7 | 0 | 0 | 0 | 0 |  |  |
| 8 | 0 | 0 | 0 | 0 |  |  |
| 9 | 0 | 0 | 0 | 0 |  |  |
| 10 | 0 | 0 | 0 | 0 |  |  |

**\**Notes: P6 was in molt and only showed porphyrin in the rachis. We did not use the wear scale to quantify wear, however we did observe that 1-5 had little wear, 6 was in molt, and 7-10 were worn. P5 was not completely grown in (LLP (5): 80 mm), but showed high fluorescence. S3 was also in molt (LS (4): 50 mm), and also showed high fluorescence. CC took photos with Iphone.***

Blood is taken from the right wing and genetics and a smear are obtained.

2430—End playback.

2458—We leave.

# B14—2013

## 10 June 2013

1530-1730: Flam Crew peeps cavities in the B14 territory (but did not finish). We highlight the past nest trees and begin peeping at the weir, moving up drainage with a few people on the upper slopes and a few people in the drainage bottom. We end peeping near the head of the drainage bottom.

2340—CK and BL arrive in the bottom of Goshawk Cr, approximately 200 m E of the weir, to set up lure net.

2358—Playback started.

Vegetation: 1 net set up adjacent to a small stand of 10-15 cm dbh Potr (near the bottom of Goshawk Cr), which was surrounded by mature Pipo/Psme

Weather: Mostly clear, mostly calm, 19 C. Note—prior to net set up, it had been quite breezy on surrounding ridgetops—where we had initially sought to place lure net, until cloud cover had blown over

X: 495272

Y: 4334061

+/- 3 m

2400—We hear M giving TCs to the SE, apparently from S Goshawk Ridge. M calls for ~ 30 sec

before quieting.

2412—We hear the M again give TCs from same area, for about the same duration. BL leaves to

go up drainage and listen.

2440—M gives 8-10 TC, then after a few minutes he gives 6-8 more, from S Goshawk Ridge.

2450—We start to break down net.

2459—Net broken down, and we leave.

0105-0115: While driving over Vista Ridge, CK and BL stop and give a few TCs. Within a couple of minutes, we hear a higher-pitched M approach from the W end of Vista giving TCs. He eventually approaches to within ~ 30 m before quieting. *Note: given the direction this M approached from, and his higher-pitched call, we wondered if this could have been the presumed B2 M whose nest SY found on Shooting Star Ridge on 4 June, and possibly the M CK and BL heard calling from S Goshawk Ridge an hour earlier.*

## 1 July 2013

1500-1630: Flam Crew taps and peeps cavity trees in the B2 territory, starting at the Weir at Homestead/Goshawk Creeks and working down drainage, including along the associated ridges and slopes.

1620—While walking S from the Weir along FS 347 to the past Pifl nest tree near the large boulders, BL notices an unpeeped Potr cavity tree along the W shoulder of the road. **I tap, and a F FLOW rises to the entrance—this is the B2\_2013 (*later changed to B14\_2013 with the capture of a previously banded M #1593-64866 – the B14\_2012 M*) nest tree! Nest tree is B2\_396, tag #396, and is a Potr snag broken top. The nest cavity is approximately 5 m high, 0.5 m below the broken top, and is immediately beneath the one remaining limb on the ESE side of the trunk. Cavity appears to be NOFL-excavated. Nest tree is approximately 25 m S of the B2 Parking Area that is adjacent to the Homestead/Goshawk Weir, and is 2 m W of the road, where the road begins to incline up to Camp Ridge.**

*Note: subsequent capture of the M (#1593-64866; B14\_2012) at this nest changes its identify to B14\_2013. The nest we previously listed as B11/B2 is therefore the B2\_2013 nest.*

1621—F descends in the cavity. The rest of the Flam Crew arrives over the next 5 min.

1635—We leave.

2022—BDG and BL arrive at the B2\_2013 nest to attempt capture of F and/or M. F is in the entrance as we approach, so we back off.

Weather: Mostly cloudy, calm, ~ 10 C.

2031—F is down.

2034—BDG stealthily approaches nest tree, and at this time assumes capture position and raises net over cavity. F does not rise to the entrance.

2052—We hear M give one SC from ~ 20 m across the road to the SE.

2054—M arrives in the nest area giving HECs, but does not closely approach nest tree.

2100—F gives brief, quiet FSC from cavity.

2101—M leaves nest area.

2107—M returns to the nest area, giving LC, but does not closely approach nest tree.

2112—**F finally flushes from the cavity and BDG captures her. F was unbanded, and we band her with Band # 1783-64357.** *Note: subsequent capture of the M at this nest site confirms the identify of this nest as B14\_2013 (NOT B2\_2013). Therefore, this unbanded F is the B14\_2013 nesting F.*

**Band # 1783-64357** (on R leg)

82.0 g

- 22.0 g

60.0 g

No measurements or blood taken.

**We peep cavity and find 2 owlets, both starting to transition from natal to juvenal plumage—some grey is starting to appear on the wings; approximate age is 11-12 days.**

2117—F is released, and shows strong flight.

2120—We peep again to video owlets (but unsuccessfully), and then leave the nest area.

~2245—We return to B14\_2013 (B2\_396) nest tree and BL gets into capture position.

2202—M aborts PD.

2203—M aborts PD

2204—M aborts PD

2205—M perches briefly on cavity entrance, unclear whether PD is successful.

2206— M perches briefly on cavity entrance, unclear whether PD is successful.

2207—M perches briefly on cavity entrance, unclear whether PD is successful.

2211—F scolds off cavity for several minutes.

2216—M gives TCs 30m NE of nest, followed by continuous F scolds from the same location.

2225—M back in site and aborts PD.

2228—M aborts PD and gives HECs.

2230—F begs 30m E of nest.

2239—F begs 30m E of nest.

~2245—We leave.

## 2 July 2013

~2250—AW and RC arrive at the B2/14 parking spot at the weir intending to capture the M on a

PD to the B14\_2013 (previously identified as B2\_2013) nest. We assembly a single mist net on 5 poles; perpendicular to the cavity entrance. Mist net is approximately 8’ from the base of the nest tree. During net assembly, M TCs briefly 30m SE of nest across rd. Shortly after mist net is assembled, we hear F giving begging calls E of nest tree. Given the estimated age of the B14 owlets (13 d), we assume F is off cavity at her own accord and proceed with capture.

2344—We hear a bird fly into the mist net and see a FLOW captured in the 3rd shelve from the

E. We check for incubation patch and identify FLOW as F. **She is previously banded**

**and is the current B14\_2013 F (band # 1783-64357)**. RC extracts her from mist net.

**Band #: 1783-64357 (on x leg)**

2349—F released with strong flight S.

2355—**We check net and see a FLOW captured in the 3rd shelve from the W. He is**

**previously banded and was the B14\_2012 M!** He was also originally captured on 31

May 2011 by BL, AW, and KB on N Goshawk R. At the time, we identified him as the

B14\_2011 M, however, we never found a nest that year.

**Band # 1593-64866** (on L leg)

68.5 g LWC: 128 mm

- 15.5 g LLP(5): 95 mm

53.0 g LLP(6): 105 mm

Rect: 56 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 (40%) | 3 (50%) |
| P2 | 3 (60%) | 3 (40%) |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | 2 | 1 |
| P6 | 1 | 1.5 |
| P7 | 1 | 1.5 |
| P8 | 0.5\* | 0.5\* |
| P9 | 0.5\* | 0.5\* |
| P10 | 0.5 | 0.5 |

**\****for P8 and P9 on both the L and R wings, porphyrin was overall low, but fluoresced very brightly just at the base.*

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 1 | 2 |
| P5 | 1 | 2 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 1 | 1 |

*\*All feathers were fairly new and displayed very little wear overall.*

2423—B14\_2013 M released with strong flight. We end for the night after this.

## 8 July 2013

2417—SY, MC, and LL arrive in B14 nest area with intention of capturing the B14\_2013 F on a PD with a mist net in front of the cavity entrance.

~2420—M gives TCs ~30m E of nest for <1min as we are setting up mist net.

2426—The net is up, so we back off.

Weather: Clear, calm, 13 C

2457—After hearing and seeing no sign of the M and F, we **peep the nest. There are two nestlings, both with gray down, and one with a discernible facial disc coming in. We estimate these nestlings look ~18 days old.** We recorded a video of the nestlings which is now in the Missouri Gulch 2013 nest videos folder.

2459—We break down the net and leave.

## 9 July 2013

~1530—Full Flam Crew arrives at B14\_2013 with intention of banding and bleeding the B14\_2013 nestlings and capturing the B14 F to get measurements and blood work.

~1540—We have mist net setup in front of cavity and tap the cavity, but F does not come up or flush. **We peep and see two nestlings, but no adult FLOW in the cavity**, so we take down the net and set up the ladder for getting the nestlings.

1550—We take both nestlings out of the nest and begin banding and bleeding.

**Owlet: 1783-64379 (on L leg)**

52.5 g

P#5: 48 mm (25 in shaft)

P#6: 48 mm (26 in shaft)

Rect: 19 mm

Band#: 1783-34379

Notes: Bled R wing for genetics and a parasite smear.

**Owlet: 1783-64380 (on L leg)**

55.3 g

P#5: 54 mm (21 in shaft)

P#6: 53 mm (25 in shaft)

Rect: 14 mm

Band#: 1783-64380

Notes: Tried to bleed L wing, successfully bled R wing for genetics and a parasite smear.

**Nest Cavity Measurements:**

Cavity entrance dimensions: 5cm x 5cm

Entrance thickness: 3.0cm

Horizontal depth: 10.5cm

Vertical depth: 12.5cm

DOH (diameter at owl height): 30.5cm

**Note**: Measurements were taken after cavity entrance had already been enlarged to remove owlets. Horizontal entrance dimension was not altered when enlarging cavity and original cavity entrance was circular, so the vertical entrance dimension was estimated from the horizontal measurement.

1625—Owlets delivered to AW at the top of the ladder with flam-evator (aka peeper).

1626—Owlets are back in the nest. We pack up and leave to band and bleed nestlings at B12.

~2040—BL, BDG, and LL park at B14 weir with intention of capturing the B14\_2013 F for measurements and bleeding.

~2050—We begin setting up mist net in front of the B14 cavity tree. M gives TCs NE of nest for <1min. We decide to wait for M to make a PD before fully raising the net.

~2054—M gives TCs NE of the nest for ~2mins.

2059—F gives FSCs and LCs within ~20m of the nest.

2100—M makes PD to nest.

2102—We raise the mist net in front of the cavity with five poles on the N end of the net and four poles on the S end. We back off ~10m N of the net.

Weather: Calm, overcast, 12 C

2106—**We capture a FLOW as it is leaving the cavity after making a PD. It is the M** **(band# 1593-64866) and was captured in the 2nd shelf on the SW side of the net**. We decide to hold onto the M to see if that will motivate the F to make a PD to the nest.

2113—We release M.

2125—M gives LCs within ~15m of nest.

2127—A FLOW (M?) flies into the mist net, but escapes and makes a PD to the nest.

2129—A FLOW (F?) evades the net completely and makes a PD to the nest.

2132—**We capture a FLOW as it is flying into the nest to make a PD. It is the F captured in the 3rd shelf on the E side of the net.**

**Band # 1783-64357**

89.5 g LWC: 129 mm

- 34.5 g LLP(5): 96 mm

55.0 g LLP(6): 105 mm

Rect: 60 mm

Note: **F is molting P1 and P2 on the L wing and P1 on the R wing, all of which are barely emerging and fully in shaft**. F **incubation patch is also filling in nicely with pin feathers 1-1.5cm out of shaft**. We bled L wing genetics and a parasite smear.

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molting: see above | Molting: see above |
| P2 | Molting: see above | 2 (50% of feather) |
| P3 | 1.5 | 2 (50% of feather) |
| P4 | 1.5 | 2 (50% of feather) |
| P5 | 1 | 2 (50% of feather) |
| P6 | 1 | 1.5 |
| P7 | 0.5 | 1 |
| P8 | 0.5 | 1 |
| P9 | 0.5 | 0.5 |
| P10 | 0 | 0 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molting | Molting |
| P2 | Molting | 0.5 |
| P3 | 1.5 | 0.5 |
| P4 | 1.5 | 0.5 |
| P5 | 1.5 | 0.5 |
| P6 | 1 | 1.5 |
| P7 | 1.5 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 2.5 |
| P10 | 2.5 | 2.5 |

2206—F released with strong ascending flight NW.

2215—We pack up our net and depart to lure net in B11.

## 17 July 2013

2158—MC and SY arrive at the B14\_2013 nest to peep:

**We peep: cavity is empty – everyone has fledged.**

We leave

# B14—2014

## 28 May 2014

2250—RD and BL park at the weir to check cavity trees in the vicinity of the weir and elicit territorial song.

2255—RD taps a cavity tree and flushes a bird from an upper cavity—we subsequently determine this probably had been a passerine, since we later peep the tree and do not find any evidence of a FLOW nest.

2300—We leave the Goshawk Drainage to set up lure net on Paintbrush Ridge.

2314—We start playback on Paintbrush Ridge, but decide to wait for evidence of possible singing responses before proceeding to set up lure net.

**Vegetation**: Mature Pipo/Psme, with relatively few subdominant Psme scattered on the mid-slope.

**Weather**: Clear, calm, C.

X: 494922

Y: 4334023

+/-

2337—We stop playback, and leave for the B1 drainage.

## 2 June 2014

2325—AW, LL, and RB start playback attempting to lure for B14 and B2 Ms. Lure net is located on S facing slope of N Goshawk approximately halfway between E and W B14 territory boundaries.

Vegetation: mixed aged pipo/psme/pifl

Weather: calm, clear, 13C

X: 495307

Y: 4334129

+/- 3m

LL and RB leave to listen for nesting vocalizations in eastern clump of cavity trees in   
B14 drainage bottom.

~2355—AW hears TCs to SW of net ~75 m.

2400—**Territorial M captured in 3rd shelf. M was previously banded by SY, MC, and JS on the N end of Shooting Star R earlier in the evening (at 2205). M flew in from SW. *Because M acted territorially on the E facing slope of Shooting Star, as well as at our lure net on N Goshawk R, he is most likely the B2\_2014 M. It is possible a B14 M also exists further to the E, but we never heard any vocalizations to confirm this.***

**Band # 1783-64457** (on L leg)

74.5 g LWC: 130 mm

- 21.5 g LLP(5): 97 mm

53.0 g LLP(6): 104 mm

Rect: 57 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2419—M released with strong flight to S. End playback and break down lure net to spot-map.

We spread out E of our net site to target the B2 M.   
2444—AW hears M response to her hoots to the NW, along N Goshawk R. AW pursues TCs,

but upon cresting N Goshawk R, AW spots unknown headlamp in the bottom of the drainage to the N. AW can hear footsteps and decides to end pursuit of M and listen with LL and RB along S Goshawk R instead. We do not hear any further vocalizations and at 0130, end observation at the weir.

## 16 June 2014

~1500—Flam Crew and visitors from Boulder County arrive at the B2/B14 weir with the purpose of peeping up Goshawk and down Homestead drainages.

1657—**AW taps B2\_829 #829 and F rises to the cavity entrance. This is the B2\_2014 nest tree!** Nest tree is located in the drainage bottom just W of Feldspar Ridge and directly N of the actual Homestead. Nest tree is ~ 100 m up from the confluence with Homestead Cr and ~ 60 m down from the head of the drainage. Nest tree is a ~33.0 DBH potr full snag. Nest cavity is a NOFL excavation facing E and is ~32’ in height. There are additional cavities on the tree, but the nest cavity is the only one on the E facing side.

1659—F scolds and goes down.

~1710—We leave and return to vehicles.

~1715—Flam Crew leaves having found the B2\_2014 nest and having peeped most potr cavity trees in Goshawk drainage. Some conifer cavity trees along the Goshawk ridges have been peeped, but many have been missed. Future peeping efforts should concentrate on this area.

# B14—2015

## 27 May 2015

2121—MC, ER, and ER-sis set up a lure net on the S terminus of Bermuda R about 15m N of Missouri Gulch Rd and about 150m NW from the B5 parking spot to target males in B5 and B4. Playback begins. Within seconds of PB start, a high-pitched M begins giving TCs in the drainage around the W edge of the B5 aspen flat. We also hear a M giving TCs from about 100m W from B4. Both go silent after a couple minutes

Vegetation: Young to mature pipo. Open

Weather: 7C partly cloudy, but clearing up. No wind.

X: 495836

Y: 4333567

+/- 14m

**Note: Our GPS point puts our nest E of the B5\_2014 tree which is incorrect. A previous lure net has been placed on the S terminus of Bermuda at the coordinates X: 495685 and Y: 4333578**

2124—The high-pitched presumed B5\_M gives several TECs about 10m SW of the net from the drainage. The presumed B4\_M gives occasional hoots from the W, bouncing to about 70m from our net site. A M starts giving TCs about 150m NE of the net from Turkey R.

2129—We hear wing flaps near the net, but no capture.

2132—The presumed B5\_M gives HECs from his position 10m SW of the net. He bounces within 5m of the net and gives a few HECs, but then goes silent.

2138-2207—The NE bird continues to give TCs from his position on Turkey R., but does not appear to be approaching the net.

2153—The presumed B4\_M gives a series of 5-6 TCs from Big Bertha R. MC goes into the area to listen but does not find anything significant.

2205—The presumed B5\_M gives a few more TECs from his position about 10m SW of the net in the drainage.

2210—Playback stopped. Without any bird giving a significant approach to the net, we break down the net and move NE.

2238—MC, ER and ER-sis set up a lure net on the SE slope of Bermuda about 50m upslope from the junction of Missouri Gulch Rd and the roadcut. Playback begins. As soon as playback begins, we hear a high-pitched M, presumably the same bird as our first net site, respond with TCs about 70m WSW.

Vegetation: Young potr, psme, and pipu surrounded by mature pipo, psme, and pipu. Relatively dense.

Weather: 7C and Clear

X: 495736

Y: 4333665

+/- 11m

2248—A M gives a TEC from about 25m NE of the net and then gives a TC within 5m from the net. Seconds later, we hear wing flaps.

2249—**We check the net and an unbanded M is caught in the 2nd shelf on the E side!** With an unclear approach, this could potentially be the B5/B13/B14 male.

**Band # 1833-03260 (on L leg)**

71.0 g LWC: 123 mm

- 19.5 g LLP(5): 94 mm

51.5 g LLP(6): 102 mm

Rect: 56 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | Right wing not taken. |
| P2 | 0 |  |
| P3 | 0 |  |
| P4 | 0.5 |  |
| P5 | 0.5 |  |
| P6 | 1.5 |  |
| P7 | 1.5 |  |
| P8 | 2 |  |
| P9 | 0.5 |  |
| P10 | 0.5 |  |

2307—While still processing the B5/B12/B14 M, **we catch an unbanded silent bird in the 3rd shelf on the W side of the net.** The belly is slightly naked but is not extensive or shows pin feathers to indicate a brood patch. However, we only band and mass to be precautious.

**Band # 1833-03259 (on X leg)**

81.0 g

- 19.5 g

61.5 g

2315—We release both birds. The B5/B13/B14 M has a strong horizontal flight S, and the silent bird has a strong ascending flight SE to perch in a psme.

2323—Playback stopped and we break down the net.

2344—MC, ER, and ER-sis begin spotmapping. ER and sis start in the N end of the B5 drainage along the road cut about 50m N of Missouri Gulch Rd and MC listens below the B5/B13 saddle.

2350—ER and sis hear the high-pitched presumed B5\_M give a few TCs from about 20m S.

2351—As MC crests the ridge between B13 and B5 a flam flushes off of a perch ~5m from the ground and flies N to another tree on the top of the divide and ~5 m W of the road. A after couple minutes MC attempts to illicit a response from the bird. After giving a couple hoots a M responds with TCs from the ridgetop to the W. MC gives chase when another high pitched male calls from the same spot. Then there is a F response from the same spot.

2353—The high-pitched presumed B5\_M gives a few more TCs about 40m N of ER’s position toward MC. ER and sis hear a second bird about 200m SW give four TCs from the direction of B4.

2354—MC attempts to chase after the birds on the ridge but then hears the F call from in the drainage.

2355—ER and sis join MC just below saddle.

2359—MC hears M give LCs from same location in the drainage ~10m S of the B5/13 divide.

2417-2420—ER and sis begin listening about 20m below the saddle and hear an LC about 15m S down drainage. We pursue and hear a second LC and a single FSC 20m further SE in a side drainage of Roadcut Cr. Both birds go silent.

2435—MC heads down roadcut into B13. MC gets as far N as B13\_2014 nest, tapping and hooting along the way. From my most northern position a M responds ~150m N, but he is far outside of B13 so I do not pursue and return to ER at the top of B5.

~2440—MC, ER, and ER-sis join to listen back down in the B5 aspen flat by the junction of Missouri Gulch Rd and the road cut. We hear a M give a couple TCs about 20m SW of the junction. Seconds later we hear an FSC about 15m due S of the junction. We pursue and follow a series of FSCs further S into the aspen flat. She hops back N across Missouri Gulch Rd and gives a couple more FSCs. We call her the presumed B5\_2015 F

~0100-0120—MC leaves to listen W toward B4 while ER and ER-sis continue to track the F. She gives consistent FSCs around the B5 aspen flat.

0108—ER and sis locate the presumed B5\_2015 F giving FSCs in the top of a potr snag and record a songpost.

DBH: 22.5cm

X: 495880

Y: 4333447

+/-8m

0109—The F takes a short flight to a neighboring live psme due W where she gives a few more FSCs and the presumed B5\_2015 M lands beside to make a probable prey delivery. We cannot see the birds through the foliage, but both birds vocalize. We songpost this tree. M flies away.

DBH: 33.0 cm

X: 495870

Y: 4333455

+/- 11m

0117—The presumed B5\_2015 F makes another short flight to a nearby live potr to the NW, continuously giving FSCs. We take another songpost. All songposts were taken in the vicinity of the B5\_2009 nest and surrounding cavity trees.

DBH: 22.5

X: 495857

Y: 4333432

+/- 7m

0120—We meet up with BL at the potential B5\_2015 nest tree and head out.

## 28 May 2015

~2100—LP and BL arrive on the N end of S Goshawk Ridge to attempt lure netting for B14, B1, and B2 territorial males and floaters.

Vegetation: Mature Pipo/Psme, with scattered young conifers

Weather: Mostly clear (but stormy off to E of Ramparts), breeze 5-10 mph with gusts to 15 mph, moon is 65-70% full and overhead, 7 C.

X: 495268

Y: 4333891

+/- 12 m

2121—We start playback. BL leaves to take back-up mp3 player at 2140, returning at 2215.

2250—Nothing heard or captured. We break down net.

2305—We leave to establish 2nd net location.

~2325—After traveling from S Goshawk R to N Goshawk R, to start setting up lure net at location #2—located near the E end of N Goshawk R, approximately 30 m W of the B14\_2009 nest location in the live Pipo.

Vegetation: Mature Pipo/Psme, with scattered young conifers

Weather: Partly cloudy, calm, 6 C.

X: 495526

Y: 4333107

+/- 20 m

2340—Start playback

2341—M begins giving TC/TEC (becoming hoarse) in immediate area of net, approaching from the E side (B14 M?).

2348—**Net check reveals FLOW captured in the 3rd shelf, on S side.**

**2351—FLOW extracted; it is unbanded. Note: The mass of this owl (below), combined with the lack of incubation patch, strongly suggest that this FLOW was a M. He also gave some aggressive hoarse calls in hand.**

**Band # 1833-03245 (on r leg)**

62.0 g LWC: 126 mm

- 7.0 g LLP(5): 93 mm

55.0 g LLP(6): 102 mm

Rect: 59 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 3 |
| P2 | 2.5 | 3 |
| P3 | 2.5 | 3 |
| P4 | 2 | 2.5 |
| P5 | 1.5 | 2 |
| P6 | 1.5 | 1.5 |
| P7 | 1 | 1.5 |
| P8 | 1 | 1 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

Notes: got genetic blood sample—l wing, small hematoma

2357—We hear M giving TCs in the vicinity of the net—perhaps this is the B14 M?. **NOTE**: Combined with the M in hand, we had 2 MM in the net area.

2404—We hear F giving FSC in the vicinity of the net—B14 F?

2418—**Net check reveals FLOW in the net—2nd shelf, S side.**

**2419—FLOW is extracted—it is unbanded, and we proceed to process. This FLOW showed an obvious incubation patch; combined with the mass (below), we presume this is a F.**

**Band # 1833-03244 (on l leg)**

83.0 g

- 7.0 g

76.0 g

2425—We release F.

2430—We again hear F giving FSC in the vicinity of the net.

2431—We turn off playback (so as not to recapture F).

2436—LP releases M, and he shows strong, ascending flight to the N.

2439—We again hear M and F vocalizing in the vicinity of the net. **NOTE: Might the B14\_2009 Pipo nest tree again be occupied?**

2448—We break down net, and leave.

## 2 June 2015

2050—LP and BL arrive at the Goshawk Weir to set up lure net for possible capture of B2 and B14 males, and listen for nesting activity. LP listens around Potr cavities in the immediate vicinity of the weir, and BL goes farther down Homestead Cr.

2107—BL hears M give 2 LC near the homestead at the base of Feldspar Ridge. He then quiets for ~ 10 min before beginning to give TC and TECs from several large Pipo and Psme in this area, gradually moving down the drainage. LP joins BL in listening in this area from 2120-2130, and the M returns to this area to give a few additional TC/TECs, but no further nesting vocalizations are heard, and no response from tapping cavity trees in this area.

2135—We return to the weir area to retrieve lure net, and proceed to set up the net on the SW terminus of N Goshawk Ridge, just 50 m from the parking area at the weir.

Vegetation: Mature Pipo/Psme, with lure net flanked on one side by several young Potr, and open on the other side down to the road.

Weather: Mostly clear, calm, 15 C.

X: 495038

Y: 4333989

+/- 9 m

2202—We start playback.

2204—We hear M approach the net area from the N, giving TC and then TEC in the net area.

2206—M leaves the net area, and moves off to the E, still giving TC.

2215—M returns to give TC/TEC in the net area, then moves off to the E side of Paintbrush Ridge.

2222—Net check reveals FLOW in net—captured in 3rd shelf from bottom, N side.

2229—**Banded FLOW is extricated from net—its band # is 1783-64588; this is a B18\_2014 nestling, banded/bled on 7/17/2014!**

**Band # 1783-64588 (on l leg)**

63.0 g LWC: 129 mm

- 7.0 g LLP(5): 93 mm

56.0 g LLP(6): 99 mm

Rect: 61 mm

We take genetic blood sample on L wing, leaving small hematoma.

**Note: Given that this natal dispersal M is just now entering his 2nd year, it was uncertain whether he was a territorial male wanna-be, a bachelor territorial male, or breeding male in the area of the traditional B2 territory—which we hope to learn in subsequent weeks.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 1 | 2 |
| P7 | 1 | 1.5 |
| P8 | 1 | 1.5 |
| P9 | 1 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | 1 |
| P5 | .5 | 1 |
| P6 | 1 | 1.5 |
| P7 | 1.5 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2 |
| P10 | 2.5 | 2.5 |

2300—We release M, and he shows strong, ascending flight to the W.

2320—No further activity in net area (but LP hears the apparent B2 M singing from down Homestead Cr.), and we proceed to break down net.

2332—Net is broken down, and we proceed (after checking out condition of Vista Rd) to E end of N Goshawk Ridge to listen for B14 nesting activity.

2425-0100: We listen and tap cavity trees in the vicinity of the B14\_2007 nest tree (live snag-top Pipo). LP hears M give 10-12 TC far down drainage in Goshawk Cr at 2455 (B2 M?), but nothing heard or seen in the immediate listening area.

## 8 June 2015

2315—SY and LP arrive in B14 to listen and nest search.

Weather: 12C, clear, calm

2323—From near where the fenceline crosses the N Goshawk R. road, SY hears a few quiet TCs directly W on upper/midslope of S-facing side of N Goshawk R. We move in that direction.

2330—As we are moving W, I hear a couple LCs, sounding like in the drainage bottom. I cahse, but am unable to locate anything.

2346—**SY taps cavity tree #79 and a F comes to the cavity entrance. This is the B14\_2015 nest! The cavity was also the B14\_2009 nest. Cavity is a large NOFL entrance ~45 feet up the S side of a large, live, snag-top pipo. Cavity is just above a large live branch extending out of the S side of the tree. The tree is just below the N Goshawk R. road, about 20 m W of where the fenceline crosses the road.**  We leave.

## 14 June 2015

2030—LP, Sarah Hamilton, and BL arrive near the rock quarry at the W end of N Goshawk Ridge, preparing to hike into the B14\_2015 nest to attempt capture of F or M. It starts to rain when we arrive, so we wait it out.

2111—With most of the rain passed (but the SW horizon showing new threats), we arrive at the B14\_2015 nest. All is quiet as we attempt to discern the nest cavity above the lowest live limb.

2123—F returns to cavity, after approaching and perching in an adjacent small PSME a couple minutes earlier.

2127—We hear the F give some audible FSC from cavity, suggesting the M is nearby, but he remains undetected to us.

~2130—Rain starts again, so we retreat to some smaller PSME in the N Goshawk drainage.

~2145—Rain/thunder continue, so we leave to retreat to the vehicle. M is not seen/heard during our short time at the nest.

## 24 June 2015

2032—J Salgado and BL arrive at the B14\_2015 nest to attempt capture of F. F appears at the cavity entrance as we raise our binocs! We back off.

Weather: PC and clearing, calm, ~14 C.

2053—F flushes as BL raises capture net (height: 36’10”). **We peep cavity—3 unhatched eggs.**

2056—M flies into the nest tree as BL is peeping, giving LC, and he flushes 1 min later.

2102—F returns to cavity.

2104—M makes PD in cavity.

2105—Same.

2107—Same.

2112—F flushes as BL raises capture net near cavity.

2115—F returns to cavity as we start to walk out.

## 07 July 2015

2041—BL and DL arrive at the B14\_2015 nest to attempt capture of M.

2044—F rises to the cavity entrance.

2046—BL approaches tree and begins to raise the net. M comes in and makes a PD while BL raises net. F receives PD in cavity entrance and then goes down into cavity, presumably to deliver the prey to the owlets.

2047—F flushes and BL raises net to get net height. (42’ 6’’ from the SW side of the tree)

2053—**We peep. Two owlets are clearly visible, with the eldest owlet showing some grey patches, has eyes open, and can hold its head up. BL estimates eldest to be 4-6 days old. We were uncertain of the fate of the 3rd egg, and whether one of the owlets was actually 2 owlets.**

2055—M makes a PD while F is off cavity. BL gets in position and raises net.

2102—M makes a PD and **we capture B14\_2015 banded M.**

**Band # 1833-03245 (on ? leg)**

59.5 g

- 7.0 g

52.5 g

**Note: This M was captured and banded in a lure net by BL/LP on May 28th (which was approximately 30 m away from the nest)—showing that the lure net M and the nesting M were one and the same. All measurements, wear and blacklight data were taken then, so we did not re-take these data. No molt on either wing.**

2104—We hear F giving FSC from the nest tree—we were uncertain if the F was just returning to the cavity, or if she was calling from the cavity.

2113—Release M. Strong ascending flight to the N. We repair holes in the capture net and then leave to B11.

## 13 July 2015

2030—DL and BL arrive in the B14\_2015 nest area to attempt capture of F. F not in cavity entrance when we arrive, and BL prepares to get in capture position.

2042—**After getting hung up repeatedly on branches, BL gets capture net over cavity and captures F as she attempts to exit. F was previously banded, with Band # 1833-03244—this was the F captured by LP and BL in a lure net in the vicinity of the nest tree on 5/28/2015.**

2047—**We peep cavity—2 owlets for sure, and possibly 3 owlets; the cavity is sufficiently deep, and with side projectiles entering the cavity that it was difficult to discern boundaries of owlet bodies, and only 2 heads were clearly observed. Both visible bodies still have at least some white down visible on head, but otherwise they are quite grey, and are quite attentive. BL estimates age at approximately 14 days.** We proceed to process captured F.

**Band # 1833-03244 (on L leg)**

70.0 g LWC: 119 mm

- 7.5 g LLP(5): 95 mm

62.5 g LLP(6): 105 mm

Rect: 58 mm

**NOTES: We get genetic blood sample from F (she had a moderate hematoma), but do not take blacklight or wear data. Incubation patch still large, with pin feathers around the perimeter.**

## 17 July 2015

1645—BL, DL, and ER arrive in the B14\_2014 nest vicinity to process, band, and bleed the owlets. We tap and no one comes up, but as we begin to peep the F flushes the cavity and flies to the SW. **We peep and see at least two owlets.**

1653—BL begins treehooking the tree. F scolds us from about 20m SW of the nest tree.

1705—BL at cavity height.

*Dimensions*

Cavity height: 38’1”

Entrance width horizontalXvertical: 70X60mm

Entrance Thickness: 45mm

Horizontal Depth: 150mm

Vertical Depth: 50cm

DOH: 36.5cm

1708—BL begins sawing.

1731—Sawing stops. Two owlets are removed from the cavity. *The clutch size of the B14\_2015 nest was three eggs, and we never confirmed a brood size. This is a possible brood reduction.*

**Charming Owlet**

56.6 g

P#5: 50 mm

P#6: 50 mm

Rect: 19 mm

Band#: 1833-03174 (L)

Notes: Bled L wing, small hematoma.

**Charismatic Owlet**

57.0 g

P#5: 40 mm

P#6: 40 mm

Rect: 13 mm

Band#: 1833-03175 (L)

Notes: Bled L wing, no hematoma.

1752—Owlets back in the cavity. We leave.

2102—F is released, and she shows strong flight to the W.

2105—We move back into the nest area to observe PDs at the nest.

2108—M makes PD in cavity (F is still off cavity, we subsequently determine).

2110—M makes PD in cavity. F is now giving FSC in the vicinity of the nest tree.

2111—M makes PD in cavity.

2113—M makes PD in cavity.

2114—M makes PD in cavity.

2115—M makes PD in cavity.

2118—M makes PD in cavity. We exit the nest area at this time, and leave for B2 territory.

2130—After leaving the B14\_2105 nest tree, DL and BL stop at the B2\_2009 nest tree (tag #43, live PIPO) near the old rock quarry on N Goshawk Ridge, to tap and listen. We hear/see nothing near the old nest tree, but we hear a M giving TCs in the distance to the S, seemingly in the vicinity of the B2\_2011 nest tree (tag#52, PIFL snag just off the road ascending to Vista Ridge).

2145—We arrive on the N-S midpoint of Paintbrush Ridge to set up a lure net targeting the B2 M.

2201—Playback started.

Vegetation: Mature Pipo/psme, with a few scattered younger conifers

Weather: Light, sporadic rain, overcast but starting to clear, calm, 15 C.

X: 494940

Y: 4334023

+/- 3 m

2206—After hearing sporadic TCs to the N and E of us, we hear a M giving TC and TEC approaching the net from the SE (B2 M?). This M comes to within 10-15 m of the net, primarily staying on the S side.

2208—**We hear a bird hit the net, and find an unbanded FLOW captured in the lowest shelf, S side. At this time, we hear the nearby M start giving TCs again from the same location, so we knew we had not captured him. NOTE: on closer inspection, our unbanded FLOW is a F, with a clear incubation patch—however, it is nearly entirely filled in with emerging pin feathers. Was this a F whose nest had failed early, or a F whose brood is nearing fledging??**

2212—M goes quiet near net area.

**Band # 1833-03300 (on R leg)**

62.0 g LWC: 126 mm

- 7.0 g LLP(5): 94 mm

55.0 g LLP(6): 103 mm

Rect: 62 mm

**NOTES:**

* **Got genetic blood, but did not take blacklight or wear data.**
* **P 1 and 2 were in molt on both wings—but no shafts were yet visible.**

2224—We release F, who shows strong flight. At this time, we hear a M giving TCs to the SSE—in the vicinity of N Vista?

2230-2300: BL leaves to tap cavity trees and listen, from the area just S of the rock quarry to the B2\_2011 nest tree (PIFL snag). Towards the end of this time, BL heard M giving TCs ~100+ m down Homestead Cr from the Goshawk Weir. He pursues, but does not hear anything more.

2330—BL returns to net area, and DL leaves to tap POTR cavity trees and listen on the other side of FS347 from the Goshawk weir.

2337—**DL hangs songpost B2\_1 at the base of paintbrush ridge.** M then flies S and stops calling.

2350—BL starts breakdown of lure net.

2402—We leave.

# B14—2016

## 6 June 2016

Afternoon—BH and BL arrive at B11 parking spot to selectively tap and peep past nest trees and nice-looking cavity trees in B11 and B14. We find nothing.

## 14 June 2016

2215—DL and MC arrive at the B14\_2015 nest tree to tap. We tap and there are no signs on any birds. MC walks down the road a bit to listen while DL stays near the past nest tree.

2221—DL hears loud FSCs coming from the cavity. ~30 seconds later the M comes into the site giving LCs and makes a PD. **This is the 2016 nest tree! It was also the B14\_2015 and B14\_2009 nest!** **Cavity is a large rectangle (cut by BL in 2015) entrance ~45 feet up the S side of a large, live, snag-top PIPO. Cavity is just above a large live branch extending out of the S side of the tree. The tree is just below the N Goshawk R. road, about 20 m W of where the fence line crosses the road.**  We leave nest site to set up a lure net.

~2255—DL and MC arrive ~400m W of the B14\_2016 nest along N. Goshawk on a predominant southern spur to set up a lure net.

2302—Begin playback

Vegetation: fairly dense/tall pipo, pifl, psme

Weather: clear, calm, ~12C

X: 495200

Y: 4334127

+/- 6.4

2305—Playback turns off for ~2 minutes. During this time, a M approaches the net from the E.

2308—Change the playback to “megascops” call and bird comes into the net site. MC begins walking around with the PB and M begins giving HECs.

**2317—Capture banded M in the top shelf from the N.**

**Band # 1833-03245 (on L leg)**

79.0 g LWC: 128 mm

- 29.0 g LLP(5): 96 mm

50.0 g LLP(6): 104 mm

Rect: 58 mm

**Notes: This is B14\_2015 M. He gave many HECs in hand.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 2.5 | 2.5 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1 | 1 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | .5 |
| P5 | .5 | .5 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

2338—Release M. Strong ascending flight to the W.

~2340—PB off. We break down the net and head to play PB in B2.

## 29 June 2016

2100—MC and KM reach the B14\_2016 nest site and hear an FSC off cavity.

2102—The F gives a PD and flies off site, so we decide to peep the cavity. KM notes at least two owlets, possibly three. The youngest appears mostly white, but may have a bit of grey on its neck. Its eyes appear thin and squinty, and it bobs its head up and down. I do not note any eggs nor egg fragments.

2103—F returns to the site and perches on the end of the thick branch reaching from under the cavity. She makes a few scolds at her intruders, so we finish peeping and back off from the site.

2108—Both the M and F are in site giving PDs. As the temperature is about 19C and the owlets seem warm enough without the F on cavity, we decide to attempt to capture the first unlucky adult to make a PD. KM gets into a position to watch the cavity with a dim spotlight.

2117—MC begins his approach.

2119—The F comes back onto the cavity, gives a PD, then flies off.

2121—PD

2122—PD

2126—PD

2127—PD

2128—PD by both M and F, one after the other.

2129—PD by both.

2130—PD

2132—PD by both.

2134—PD by M. F settles onto the dead branch coming off the nest tree.

2136—PD by M.

2139—PD by M.

2140—PD by M.

2141—PD by M.

2144—PD by M.

2145—F flushes from her perch near the cavity. MC takes the time to back off after a number of capture attempts to repair the net and give the F the opportunity to come back on, as the presumed date of laying does not match up necessarily with F behavior and owlet age.

2147—F returns to the cavity and enters.

2149—PD by M.

2150—PD by M.

2155—PD by M.

2201—PD by M.

2203—PD by M.

2206—PD by M.

2208—PD by M. MC approaches the nest with the capture net to resume his M capture attempts.

2215—as MC raises the net, F flushes. Given our observations and the state of the owlets, we decide to continue our capture attempts.

2221—F returns to the cavity.

2222—PD by M.

2223—PD by M.

2225—PD by M.

2228—PD by M.

2230—PD by M.

2233—PD by M.

2237—PD by M. On the M exit from the cavity, he flies into the capture net. The net gets stuck on the bark of the pipo, and the M clings to the cavity. MC gently tries to pull the capture net and the M off the cavity, but both the net and the FLOW hold tight. KM retrieves the peeper to aid in our efforts, and MC uses the peeper to unhook the net from the tree. KM and MC simultaneously lower the capture net and peeper, and we free the banded M from the bag.

2250—The M is safely untangled from the capture net and we quickly process him**. He is the B14\_2015 M.** Because MC has captured this particular FLOW already, we just weigh him.

**Band # 1833-03245 (on L leg)**

69.00 g

- 22.00 g

57.00 g

**Notes: The M appears a bit shaken but otherwise uninjured. We give him a few moments to recover before release. We do not draw blood.**

2254—MC releases the M who makes a strong flight into a nearby conifer snag. After around four minutes, he makes another flight toward the nest site. We gather our equipment and leave the site to set up a lure net on Cooper’s Hawk Ridge.

2330-0100—KM notes a missing peeper upon grabbing mist net equipment from one of the vehicles. I retrace our path from B14, a long and lonely trek up the road to the Weir in B2 then up S Goshawk Ridge to the B14 nest site. I do not manage to find the peeper along the road or in the nest site. I do, however, spot an unnatural light about 50-60m from the B14\_2016 nest tree. After a few moments of observation, I confirm the light is in fact a headlamp attached to a stranger. I radio MC and sprint to the B13 saddle and find MC on Bermuda. Relatively unscathed, I return to MC’s lure net and help him take it down. I find the peeper early in the morning on 6/30/16. No harm no foul.

## 6 July 2016

2025—DL and MC arrive at the B14\_2016 nest to capture the F.

2035—As MC is raising the net the F flushes. We move in and begin to do some habitat improvement.

2050—DL observes as MC backs out of the site and does some net rapair.

2052-2103—M and F make 9 PDs to the cavity.

2104—MC raises the net. Both M and F make PDs.

2105—M makes a PD to the cavity.

2106—F makes a PD to the cavity. MC swings and snags her.

**Band # 1833-03259 (on L leg)**

77.0 g

- 20.0 g

57.0 g

**Notes: This is a bird that MC and ER caught in a lure net on the E slope of Bermuda Ridge on May 27, 2015. We bled her on the L wing. There was a small hematoma.**

2121—Release. Horizontal flight. We leave and head to B6.

## 8 July 2016

1539—BL and MC arrive at B14\_2016 to band and bleed the owlets. The F comes up to a tap and flushes as we raise the peeper. **A peep reveals 3 owlets, all with apparent facial disks.** BL begins to climb the tree.

1616—BL is at cavity height, no enlargement needed. Owlets out.

**DOH: 36.5cm Ent. Thick: 55mm Ent. Dim. (VxH): 160mm x 85mm**

**H-Depth: 150mm V-Depth: 42mm**

**Black Owlet**

52.1 g

P#5: 49 mm

P#6: 47 mm

Rect: 17 mm

Band#: 1783-74356 (L)

Notes: Bled L wing

**Blue Owlet**

48.5 g

P#5: 52 mm

P#6: 51 mm

Rect: 21 mm

Band#: 1783-74357 (L)

Notes: Bled L wing

**Red Owlet**

38.8 g

P#5: 32 mm

P#6: 32 mm

Rect: 8 mm

Band#: 1783-74358 (R)

Notes: Bled L wing

1645—Owlets back in, BL climbs down.

## 28 July 2016

~1600—MC and KM arrive at the B14\_2016 nest tree to quantify cavity characteristics. KM peeps the nest cavity to find it empty of any owlets. This suggests the three nestlings successfully fledged.

# B14—2017

## 5 June 2017

2044—JE and ER arrive at the B14\_2015, 2016 nest tree to listen for nesting vocalizations. We immediately tap the past nest tree. We do not see anything in the entrance, but in the chance that the F could have flushed before our arrival, JE positions herself with a silhouette of the cavity. ER listens along the R of N. Goshawk and in Goshawk Cr. about 200-300m W of the past nest tree. JE stays in sight of the cavity until 2116, but neither of us hear or see anything signs of FLOW.

2139—ER and JE meet back up at the past nest tree and peep the cavity just in case the owls were being extra sneaky. It is empty. We move down the R to set up a lure net.

2206—We start PB at a lure net ~20m S of the two-track on N. Goshawk R, ~400m E of the parking spot.

Vegetation: Mature pipo, psme. Young psme. Moderately open.

Weather: Partly cloudy, breezy, 12C

X: 495307

Y: 4334130

+/- 3m

2241—M gives a handful of TC from S Goshawk R >200m to the SE of our net. He does not approach and goes silent after one minute. We suspect that this M is coming from the B4/B1 area.

2250—M on S Goshawk gives TC from his same position.

2255—M goes silent.

2305—PB off. We break down the net after not having any action in B14 and begin heading back to the car.

2320—ER and JE give a few hoots around the B14 parking spot near the fence to get no response. We head back to the car to head down to B2.

## 26 June 2017

2251—KM, JE, and LD arrive in the B13 territory to listen for vocalizations. We have yet to find a nest in the territory. LD listens in the N part of the territory and taps on the few decent cavity trees in the area. JE remains in the middle of the territory, while KM heads N to inspect the cavity trees further S towards the saddle

2252—LD hears a M making vocalizations near the group of cavity trees in the N part of B13, just E of the road. We later note that these vocalizations sound more like TCs than LCs.

~2350—KM hears song-posting on the E side of the road about 50m N of the saddle. I track him and take information on the live psme from which he sings. He seems to sing for about 7 minutes before flying N.

X: 495903

Y: 4334079

+/- 3

2356—LD potentially hears FSCs near tree #166. He stakes out a silhouette a number of decent looking cavity trees. The M seems to give TCs from the general area but does not approach any of the trees. No F vocalizations are heard. KM joins LD to spend a few more minutes listening in the area and lightly tapping on trees.

2410—LD and KM head back up to the saddle and meet JE to set up a lure net to finish the night.

2430—PB start.

2437—Lure net is set up on the W facing slope of Bermuda, about 100m W of the intersection of the B13 road and the saddle.

Vegetation: open, young-mature psme and pipo

Weather: clear, calm, 12C

X: 495801

Y: 4334079

+/- 3

2440—TCs from the NE, potentially from the B13\_2017 M. He flies within 10m of the net but does not fly any closer. He backs off after a few seconds of TCs.

2448—The NE bird gives a few more TCs and flies towards the net. He once again backs off after a few seconds of TCs. We additionally hear distant TCs from the WSW. This might indicate the presence of a M in the B14 territory. He stays at least 150-200m WSW of the lure net.

2455—We cut the PB and head back to the B5 parking spot to hitch a ride out of Missouri for the night.

# B14—2018

## 4 June 2018

2036—KM, SF, and ON start tapping and listening near the B14 parking spot near the stone quarry. We tap on all recent past nest trees and work our way E towards the 2016 nest tree. Alas, we do not hear any vocalizations nor see any F FLOWs after taps. We distribute ourselves around the territory. SF listens near the 2016 nest tree, ON listens on the S facing slope of N Goshawk, and KM listens in the W part of the territory. Tree #719 (past nest tree) has broken off underneath the past nest cavity.

2105—TCs in the drainage, about 100m S of Goshawk and 200m W of the 2016 nest tree.

Weather: cloudy, calm, 20C

2141—KM makes vocalizations on N Goshawk Rd. ON hears TCs from the SW a few minutes later.

2202—We start PB at a lure net set up on the S facing slope of N Goshawk, about 150m W of the 2016 nest tree and 20m S of the two track road.

Vegetation: open, young pipo and psme

Weather: cloudy (cleared up in the next 30 min), calm, 16C

X: 496492

Y: 4334133

+/- 3m

2234—SF switches PB from track 42 to Flammulated owl and a M makes TCs from about 20-25m to the N.

2238—N male backs off to the SW.

2239—M makes HECs from a live pipo in the drainage bottom about 150m SW of the lure net site. As ON and KM chase the calls, we hear a second bird making TCs near the same spot. The second bird goes quiet as we approach to flag the songpost.

Songpost: live pipo, 71.5 DBH, HECs for ~3min

X: 495287

Y: 4334053

+/- 3m

2241—M gives two TCs about 25m to the N of the lure net.

2242—HECs in the lure net site.

2244—Quiet. Net check.

2312—M FLOW makes TCs from the SW but does not approach the net site.

2334—KM walks PB E towards the 2016 nest tree and continues towards the intersection of the two track and Roadcut.

2338—M makes HECs near tree #1172. KM backs up towards the lure net with the PB, but the M backs off after a few minutes and flies back E. I walk around the E part of B14 to try and get another response, but the M has retreated. I walk the PB back to the lure net and returns to tap on #1172, a pipo snag. I cannot see all of the cavities on the tree, so I listen for a few minutes with my light off. I do not hear any vocalizations so I return to the lure net.

0012—We kill PB and take down the lure net. We head back to the car and call it a night.

## 18 June 2018

1530-1715: Flam Crew peeps cavity trees in the B2 and B14 territories. No nest was found, but effort was not complete—we started at the Goshawk Weir and worked W down Homestead Cr, and peeped past nest trees in both B2 and B14. Additional day(s) will be needed to finish this effort.

## 19 June 2018

1430-1715: Flam Crew spends a second day peeping cavities in the B2 and B14 territories, without finding a nest. Most cavities were peeped in both territories with some notable pockets remaining—namely the lower portion of Homestead Cr and side drainages, ridge spurs associated with Feldspar Ridge, and the upper portion of Goshawk Cr along with portions of N and S Goshawk Ridges.

## 26 June 2018

2030—DL, KM, AM arrive in goshawk drainage and spread out to begin listening.

2054—KM hears male giving TCs on South Goshawk ridge. I chase him around for about ten minutes. I throw some white flagging around a few live psmes, but he flies between trees too fast to get coordinates. I get a spot on him just before he flies N towards Goshawk Dr.

2105—DL hangs songpost B14\_1. Male is in large pipo giving TCs.

x: 495425

y: 4334119+/-3m

2125—AM hangs songpost B14\_2. M is in large pipo 20m S of two-track road on N Goshawk Ridge giving TCs.

X: 495340

Y: 4334145 +/-3m

2134—DL hangs songpost B14\_3. Male gives TCs from this large pipo for ~10 minutes while foraging in the crown.

X:495237

Y: 4334158 +/-3m

2142—DL hangs songpost B14\_4. Male forages in crown of this large pipo while giving TCs.

X: 495249

Y: 4334170+/-3m

2146—Male flies up drainage to the north and begins giving TECs.

2150—DL hangs songpost B14\_5. Male is giving TECs in this large pipo before flushing to the east.

X: 495323

Y: 4334080+/-3m

2155—AM hangs songpost B14\_6. M gives TECs in large pipo on S Goshawk Ridge before flushing to SE.

X: 495304

Y:4334005+/-3m

2220—Begin playback, T42 on the upper slope of North Goshawk Ridge 70m W of Goshawk Cr. Slope is S-facing, and the net is open E-W.

Vegetation: mixed age psme and pipo

Weather: clear, calm, 14C

X: 495293

Y: 4334122

+/- 3m

2303—We have not heard anything since beginning playback. After multiple net checks we stop

playback briefly then AM walked E up the drainage with the playback. DL walked back

down to B14\_5 and gave hoots. We hear nothing.

2328— Stop playback, break down net, head back to cars.

# B14—2019

## 3 June 2019

1630—KA, SL, JE, and ML cherry peep past nest trees and other favorable cavities on N Goshawk Ridge, but all are empty.

2030—BL, KA, and ON arrive at B14\_2019 territory to listen for nesting vocalizations and lure net. We spread out along N Goshawk Ridge to listen for the first hour. ON listens near past nest tree #43. KA continues along the two track road, listening near tree #138 and dropping into goshawk drainage to the S, and tapping a few potr cavities in the drainage to the N. BL heads furthest E along the ridge to listen.

Weather: 11 C, calm, 40% cloud cover.

2138—KA, from her position near tree #138, hears a M FLOW give 5-7 high pitched TCs ~100 m W of her position. ON and KA head toward each other to listen for M. KA gives a few hoots, but M has gone silent so we head E to set up a lure net with BL.

2200—PB starts. T42. Net located ~15 m N of two track road on ridgetop of N Goshawk Ridge approximately 150 m W of B12\_2014 nest tree. Net open E/W.

Vegetation: open, mixed age, mixed pipo/psme

Weather: clear, calm, 14 C

X: 495353

Y: 4334197

+/- 3m

2209—Possible faint TCs from M FLOW ~200 m W of net. Then quiet.

2212—M FLOW comes in fiery giving HECs in the net site. ON heard him approach from the W.

2216—M goes quiet so we check the net, but it is empty.

2224—M gives a few high pitched TCs ~150 m SW of net, but very faint.

2230— It has been quiet near the net site, so ON watched the net while BL and KA drop into drainages on N side of N Goshawk Ridge to search for cavities and listen. BL heads to drainage NE of net site, while KA explores drainage NW of net site including past nest tree #719 (now broken).

2239—ON and BL hear very distant TCs coming from at least 100 m SE of net site. He goes quiet very quickly and does not approach the net.

2247—ON walks PB E along the two track road for about 10 mins. After not hearing any FLOW vocalizations, she heads back toward the net site and walks the PB W along the two track road for another 10 mins.

2306—ON returns to the net site as all is still quiet.

2314—KA hears a M FLOW give high pitched TCs ~70 m S of my position along N Goshawk Ridge around 100 m W of our net. It appears M is calling between our net and the lure net running in B2, so KA confirms that AM can also hear the M calling from the B2 net. KA attempts to follow M and mark songposts, but he goes silent for the rest of the night.

2334—Cut PB.

2341—We leave the net site and head back along the ridge to the car. We stop and give hoots along the way, listening in a few places where KA heard M, but no response.

# B14—2020

## 7 July 2020

2307—ES and BL start PB at our lure net on top of S Goshawk R, near the head of Fallen Squirrel Cr. We hope to draw in a M from B2, B14, B4, or B1. Net open N/S.

Vegetation: Mature pipo/psme

Weather: Clear, calm, 20C

X: 495346

Y: 4333892

+/- 3m

2312—HECs ~15m N of the net. He hops to the S side and continues calling very hoarsely. This M, the presumed B14 M, gives HECs in our net site for most of the night.

2321—2nd M gives TECs ~30m W while the 1st M is calling in site. 2nd M, presumed B2 or B1, has a noticeably higher pitched call than the 1st M (presumed B14).

2323—The 2 M’s call at each other ~40m SW of net.

2325—1st M calls ~30m E while 2nd M calls ~30m S.

2336—ES heads to Cooper’s Hawk R to listen for nesting activity and tap trees while BL remains at the net. The 1st M continues to give TCs intermittently to the NE of net over the next half hour.

2351—From Cooper’s Hawk R, ES hears a high pitched M (presumably the 2nd M from the lure net) calling down near the confluence of W Missouri Cr and Fallen Squirrel Cr. I can also hear AM and KC’s PB on Biker R, which is what the M seems to be responding to.

2355—I don’t hear any activity on top of Cooper’s Hawk R, so I return to the lure net.

2412—It’s been quiet at the net site for about ten minutes, so we stop PB and break down the net.

## 14 July 2020

1457—AM, ES, and BL arrive at B14 to perform a full peep. ES heads NE over N Goshawk Ridge to peep past nests and surrounding cavities. BL heads E to peep past nest and surrounding cavities. AM starts at the parking spot and moves E.

1830—We end our peeping effort after no FLOW nests are found.

# B15—2014

## 2 June 2014

2125—RC, ER, and BL arrive near the confluence of Picnic and W Missouri Creeks to set up lure net (see B10\_2014 notes for details).

**Weather**: Clear, calm, 11 C.

2135—We start playback.

2144—M starts giving TC approximately 60 m W of the net near the bottom of W Miss Cr—this is presumably B15.

2148—B15 M giving TC from the confluence of Picnic and W Miss Cr, approximately 20 m S of the net. He goes silent about 3-4 minutes later.

~2155—BL leaves to go to B15 territory to tap and listen.

2211—BL returns to lure net to assist with processing of B10\_2014 M (band # 64761), who is the B10\_2011 M and a B11\_2010 floater.

~2240—BL returns to B15 territory to tap and listen.

2327—While tapping cavities in Catamount Drainage, I hear the B15 M giving TC down near the confluence of Catamount and W Miss Cr.

2333—I locate the B15 M giving HEC from a dom Pifl near the confluence area, and I songpost him (see Songpost data). He sings here for approximately 5 min before moving upslope and quieting. I never see a 2nd FLOW.

2400—RC and ER, having broken down the lure net in B10, join me at the confluence of Catamount and W Miss Cr.

2404—Without yet setting up a net, we proceed to play the playback for 2-3 min at a time, hoping to elicit singing in the B15 M and see if we can attempt capture.

2410—B15 M gives one TC approximately 25 m S of us, but then quiets.

~2420—Nothing more. We leave to climb PPG and call for B11 M.

**B15—2005**

## 15 June 2005

1625—DF and SY peep cavity tree B14\_25 – owl in cavity. We are unsure of sp. And request assistance from EE and MS.

1638—MS and EE arrive and confirm that the bird is a Flam. F never rises to cavity entrance. We leave.

## 20 June 2005

2335—SY and DF arrive at B15 nest to capture M.

2345-0057—M giving EC’s and TC’s (11 separate acts) from E to S, moving back and forth, calling for an extended period of time (>1 min) on most occasions.

0101-0129—DF spotmapping B15 M, flagging 3 trees (see songpost inventory).

0135—SY and DF leave nest site.

## 23 June 2005

2345—BL pursues a singing M—presumed to be B15 M—on the S end of PPG Ridge. I eventually mark 3 songposts (see Data Sheet) over the next 20 minutes before he quiets.

2430—BL moves to the vicinity of the B15\_2005 nest to attempt capture of the M. The M is giving TC and TEC from the junction of Catamount and W Missouri Cr when I arrive, and he continues to call intermittently from this general area until 0115. No prey deliveries to the nest during this time.

0130—I leave.

## 27 June 2005

2100—SY and DF arrive at B15 nest site to attempt capture of both adults. We peep cavity – there is a *Tamiasciurus hudsonicus* in cavity with unidentifiable bodies below.

2102—M gives TECs for <30sec. In W. Missouri Cr. Approx. 35m S.

2107—*Tamiasciurus hudsonicus* leaves cavity in response to peeper and climbs a *PSME* approx. 5m S. I peep cavity again – objects in bottom of cavity are alive.

2156—*Tamiasciurus hudsonicus* climbs down *PSME* and approached nest tree but is scared away by our presence. We peep again, objects in bottom of cavity are young squirrels. We leave.

# B15—2006

## 14 June 2006

1417—While peeping other cavities in cavity tree b14\_28 (#414) F flushed from E side of tree to a *Psme* approx. 1m NE. While cavity she flushed from is not directly observed due to obstruction, the nest is almost certainly located in E facing cavity approx. 30ft up, in a *Potr* snag. This is presumed to be the B15\_2006 nest.

1420—We leave.

## 26 June 2006

2325—EE and BL arrive in the B15\_2006 nest area to attempt capture of M in the lure net, and observe nest activity. M is giving TC and LC in the nest area when we arrive, and shortly thereafter we confirm that the nest is in a cavity near the top of the B14\_28 cavity tree, approximately 1 m below the broken top, in a S-facing cavity (just under a knob).

2345-2400: We set up lure net on ridgetop of S-facing spur of PPG ridge.

2420-0120: BL attempts to capture M at the nest. M makes 2 PD before the capture net is raised, but thereafter he lands in the cavity entrance twice without going in.

0120—M not captured; we leave. M sporadically gave TC from the nest area over the past hour, and on two occasions he gave TC in the general vicinity of the lure net.

## 29 June 2006

2040—BL and Markus Mika arrive at the B15 nest to attempt capture of adults. PC, calm, approximately 18 C. At this time I raise the capture net over the cavity entrance, and Markus moves ~ 100 m upslope to the N—in the vicinity of the lure net we raised on 26 June—to attempt to lure M to his taped calls.

2054—M gives TC just outside of nest area. A couple of minutes later, I hear a 2-3 faint FSC calls from a F upslope to the S.

2145—I take down the capture pole; the M never approached the cavity tree, and on multiple occasions a F was heard giving a few FSC upslope to the S. I leave to set up the lure net near Markus.

2315—I peep the B15 nest, after retrieving the peeper from EE and EM at the B10 nest. The nest cavity is empty—not even egg fragments.

2455—We leave. On several occasions, the B15 M was attracted to the vicinity of the lure nets, but he never approached closely enough to be captured, preferring to stay high in the peripheral crowns where he often gave TC and TECs.

## 13 July 2006

2045-2301: Kevin Kleck (Gazzette photographer) and BL set up lure net near the S end of PPG ridge in an attempt to capture B15 M. Clear, calm, 24 C. At approximately 2105, a M approached from the W, giving TC and TEC, and came to within 5-10 m of the net. Later, the presumed B15 M approached from the S, and either B10 or B11 approached from the ENE, converging near the net but staying high in the trees. On two occasions, all three males were in the area, all giving TC and TEC. No owls captured.

# B15—2007

## 13 June 2007

1430—Flam crew arrives at B15 to peep cavities. **EM finds the B15\_2007 nest tree by peeping**. The nest tree was also the B15\_2005 nest tree, flagged as **B14\_24** and **Tag # 764**. The 2007 F is using the same nest cavity as the 2005 pair—which is approximately 4.5 m above the ground on the W side, apparently excavated by NOFL.

## 18 June 2007

2032—BL arrives at the B15 nest to attempt capture of F or M. Clear, calm, 23 C; new moon in western sky.

2037—Net is raised over nest cavity.

2051—M calls off his roost, which is apparently in the vicinity of the Catamount drainage, ~ 75 m distant.

2100—M arrives in *Psme* adjacent to nest tree, giving LC. F does not respond. M flies off after a couple of minutes, and proceeds to give TC in a ~ 50 m radius.

2110—M returns, again giving LC from the adjacent tree. Again, the F does not respond, and the M flies off to give TC from the ridgeline around the Catamount drainage, as well as from the S end of Shooting Star and PPG ridges.

2125—I peep cavity and find F sitting tightly on the nest (she peers up at peeper).

2150—M returns to nest area, giving LC, to which the F does not respond. He flies off after a couple of minutes, again proceeding to give TC around the territory.

2215-2225: M again is in the nest area. His LC transform into TC, and during the time indicated a UFO flies into the nest area from the S. The B15 M immediately begins giving HEC, and the UFO proceeds to exhibit typical UFO behavior—flying around the nest area and as well as the nest tree, occasionally flying noisily into branches and foliage. After about 10 min, the B15 M resumes giving TC from the nest area, apparently signaling the absence of the UFO.

2254—M finally flies to the cavity, and perches at the entrance. I cover him with the capture net, but after ~ 30 sec of struggle, he frees himself from the net.

2410—I leave. M had been calling on the ridgeline in the vicinity of Catamount drainage for the past hour or so. **NOTE**: F never left the cavity during this observation period, nor did she ever give FSC or receive any prey from the M. Based on this behavior, I presumed she was approaching the end of the incubation period. During most of the evening, EM and CB were running the lure net near the W end of Sharp-shinned Hawk Ridge—the B15 M was gone from the nest area, and was not heard vocalizing, during periods when the Flam Crew reported as many as four M’s in the vicinity of the lure net.

## 25 June 2007

2030—BL arrives at the B15 nest to attempt capture of adults. Heavily overcast, raining lightly as a thunderstorm moves through with lots of accompanying electrical activity, 17 C.

2034—I raise the capture net over the cavity entrance, but the F does not respond with tapping.

2037—Rainfall becomes moderate, so I remove capture net.

2042—M arrives in tree adjacent to nest. Still raining moderately.

2047—F flushes cavity in moderate rain. **I peep nest cavity and find three owlets, in mostly white down but with grey appearing on the wings (appeared to be of similar age to A8\_2007 brood).** Egg fragments scattered around cavity.

2154—Both M and F return to nest area, giving LC and FSC. Raining very lightly.

2100—F returns to cavity, followed by a PD by the M in the cavity.

2103-2147: During this time, the M made 16 PD’s in, or near, the nest cavity (the F was off the nest on 3-4 occasions for 5-8 minutes each—see PD Observation Sheet).

2147—**I capture the previously unbanded M**:

**Band # 64589 (l leg)**

79.5 g LWC: 128 mm

- 31.5 g LP(#5): 97 mm

48.0 g LP(#6): 103 mm

Rect: 58 mm

I take blood from the M.

2202—I release the M.

2220—M returns to nest area, giving LC. F off the nest initially when I return to the nest at this time, and she returns to the cavity shortly thereafter. I get in capture position to attempt capture of F.

2235-2306: M made 5 PD’s during this time. F never flushed from the cavity, even when the nest tree was vigorously tapped.

2310—I leave.

## 30 June 2007

1. EM and CB arrive at B15 nest. Cloudy, still, warm 20C.

2043—F brings PD.

1. PD (undetermined)
2. PD (undetermined)

2100—We catch M and hold him as to not confuse with F.

2101-2129: F makes 5 PDs.

2133—We capture F. **She was previously banded--Band # 92300; this was the B10\_2003 female!**

**LWC- 127mm**

**LLP- 16mm**

**Rect- 54**

**72.5g**

**- 11.0 g**

**61.5 g**

2133—Release F.

2145—We leave.

## 10 July 2007

1515—Flam Crew arrives at B15 nest to attempt to enter nest and band owlets. F is in cavity entrance as we approach, and she flushes as we raise the peeper. We find that the cavity is empty, and as we fan out across the area in an attempt to find either fledged young or evidence of predation, KB locates what appears to be the remains of one of the owlets on a limb next to the trunk of a *Psme* located 10 m SE of the nest tree. Owlet did not appear to be of fledging age, based on a qualitative assessment of the primaries, and the body was largely intact except that most of the epidermis/feather tracts had been removed. This appeared to be evidence of predation by *Tamiasciurus hudsonicus*. Based on the lack of decomposition, we suspected that the owlet had been in the tree less than 24 hr, and perhaps only since this morning.

1530—We leave.

# B15—2008

## 12 June 2008

2255-2345—BL arrives in the W Missouri Cr area of B15 territory to listen for nesting activity. I attempt to elicit singing on several occasions from PPG Ridge (when arriving and departing) and Catamount Cr area, but nothing is heard. I tap on several cavity trees in the *Potr* drainage bottom, but I find nothing. The B15\_2007 nest tree has fallen.

## 16 June 2008

2245—CB and BL arrive on the S end of PPG Ridge to set up lure net to attempt capture of B15 M and other M in the vicinity.

2310—We start playback.

2315—Starting at this time, and continuing over the next several minutes, we hear 3 MM approaching the net giving TC and HEC—one from the NE, whom we presume to be B11, one from the SSE, whom we presume to be B15, and one from the W, whom we presume to be a territorial M from beyond the boundary of the study area that we have occasionally heard over the past several years. Within 10 min, these 3 MM vocalize in close proximity of each other (and to the net), and occasionally engage in tail chases. Unfortunately, the MM stay relatively high in the trees and fly over the net as they primarily engage in territorial encounters with each other, and not with the “playback male”. Over the next ~ hour, these MM alternately go quiet as they presumably retreat to their respective territories, and return to engage in slightly lighter episodes of territorial defense. During quieter passages of time, CB observes at least one FLOW quietly flying from tree to tree in the vicinity of the net.

2410—We start breaking down net—no captures.

2425—We leave.

## 23 June 2008

2300—QB and BL arrive on the S end of PPG Ridge to set up lure net to attempt capture of B15 M and other M in the vicinity. Sporadic light drizzle as rains clouds drift by.

2320—We start playback.

2323—M arrives from the S giving TC—we presume this M to be B15. A couple of minutes later we hear another M giving TC ~ 75 m to the WNW; we presume this M to be one whose territory is off the W boundary of the study area (heard last week as well). The presumed B15\_M flies into the lure net area, giving TC and TEC for approximately 20 min. The W male approaches to within 20 m, but no closer, and then retreats to the W while still giving sporadic TC.

2348—We hear M start giving TC approximately 50 m E of the net area. This M, who may possibly have been B11, does not approach any closer than the main PPG ridge top (we are positioned on a ridge that splits off to the SW of the main PPG ridge at its S end). He quiets ~ 3 min later.

2400—M from the West approaches to within 20 m of the net, giving TC. He subsequently approaches the net over the next few minutes.

2408—**This same M (presumably) is captured in the top shelf of the net on the N side. M was not previously banded, and we give him Band # 1593—64617.**

90.0 g LWC: 131 mm

- 32.0 g LLP(5): 95 mm

58.0 g LLP(6): 105 mm

Rect: 58 mm

**Male is bled.**

2429—We release M. The presumed B15\_M again enters the net area giving TC at this time, but not sufficiently close or low enough for capture. We proceed to break down net.

2445—We leave area.

## 7 July 2008

1530-1800: Flam Crew peeps the S end of Shooting Star Ridge and Picnic Cr S to Missouri Gulch in attempt to find B10 and B15 nests. FLOW nest found on the SW end of Shooting Star Ridge on the lower SW-facing slope, approximately 60 m N of Missouri Gulch (CB entry). Given its intermediate location, we are initially uncertain whether the nest is the B10\_2008 or B15\_2008.

## 14 July 2008

2230—SC, CB, and BL arrive in the *Potr* bottom area of B15 territory to tap on cavity trees and listen for nesting vocalizations, after capture of the M at the B10/B15 nest revealed that the nest was in fact B10, and after BL heard a M singing in this vicinity while the B10 M was being processed.

2300—We hear M giving TC and some LC in the vicinity of the B15\_2006 nest tree. We pursue in time to see/hear F arrive in this same area giving LC and some FSC. A moment later, the M flies off upslope to the SE without delivering any prey, and with the F following. They go quiet and we lose them.

2305—We leave area.

## 15 July 2008

1530-1645: Flam Crew peeps cavities in the area of the confluence of Catamount and W Missouri Creeks in an attempt to find the B15\_2008 nest. Egg fragments were found in a *Potr* cavity approximately 10 m E of the B15\_2006 nest tree (which was preyed upon), but ID could not be discerned. Otherwise, nothing found.

# B15—2009

## 17 June 2009

1639—**BR and SY flush a F FLOW off an unseen cavity in *Potr* cavity tree B14\_28 (Tag # 414). This is the B15\_2009 nest tree, and is the same tree and cavity that was the nest by B15\_2006. Cavity is S facing in the middle of adjacent *psme* foliage, ~25 ft high. We peep: 2 eggs, unhatched.** We leave.

## 9 July 2009

2135—KB and SC arrive B15 nest to peep and assess nesting stage.

2145—Unsure of which cavity is the nesting cavity, we peep 4 different cavities, all facing east

toward catamount creek. All cavities are empty. We do not hear any territorial or nesting

vocalizations.

2235—After observing nothing around the nest for ~one hour, we leave to set up lure net on

shooting star ridge.

2252—We start playback on the southern end of shooting star ridge. Lure net is on the upper

mid-slope surrounded by open stands of pipo’s and psme’s. Weather is 16C, 0-5 mph

winds, clear. 494526 +/-7m

4333164

2326—We stop playback. We hear TC’s very distant to the south. This may be B15M.

2338—We leave.

## 13 July 2009

2235—SR and BL arrive on the southern terminus of Shooting Star Ridge to set up lure net and attempt capture of B10 M, and possible B15 M.

2300—We start playback.

2304—We hear M approaching from the E (in the direction of B1), giving TC, eventually calling in the vicinity of the lure net.

2309—M captured in the top shelf, S side of net. He is a previously banded M—Band # 64679; this is the B1\_2009 M.

87.0 g

- 29.5 g

57.5 g

2313—Another M starts giving TC to the S of the net ~ 60 m—from the direction of B10, or possibly B15. He eventually enters the immediate net area, calling intermittently. We wait on releasing the B1 M to increase our chances of capturing this 2nd M.

2345—We release the B1 M, after unsuccessfully attempting to lure the 2nd M into the net. We start to break down the lure net.

2405—We leave. M giving TC to the S ~ 60 m.

**B15—2010**

## 15 June 2010

2210—DW and BL arrive in B15 to listen for nest activity after leaving the B10\_2010 nest on the S end of Shooting Star Ridge (where we had heard a M giving TCs from the end of PPG Ridge at 2145). DW initially listens in the vicinity of the B15\_2007 nest tree (#764, now fallen) while BL moves into Catamount Cr.

2215—We both hear the presumed B15 M give TCs from the ridge top due W of Catamount Cr, as well as a M down W Missouri Cr to the W (off the study area). Within a couple of minutes, the B15 M moves to the S end of PPG Ridge where he continues calling.

2230—DW joins BL in Catamount Cr., after the B15 M starts calling again from the ridge top due W of Catamount Cr.

2320—After hearing the B15 M call intermittently from the locations noted above, as well as the 2nd M calling to the W off the study area, at this time we both hear the B15 M start to give **LCs in the vicinity of several *Potr* cavity trees ~ 50 m S of W Missouri Cr up the Catamount drainage**. BL approaches the M and finds him now giving HECs from the entrance of a cavity in a ***Potr* snag, B14\_32, tag # 415**. A couple of minutes later we see a UFO flying back and forth in close proximity of the cavity tree, periodically landing in the adjacent trees. DW leaves to retrieve the capture pole left at the base of PPG ridge.

2231—B15 M finally flushes from the cavity entrance, still giving HECs, apparently in pursuit of the UFO.

2233—**At this time (and as DW approaches with the capture pole), the F rises to the entrance to peer out of the same cavity where the B15 M had been vocalizing—this is the B15\_2010 nest tree!** The *Potr* nest snag (**tag # 415**) is approximately 34 cm dbh, and the cavity is approximately 9-10 m high, facing S (up drainage). Cavity entrance is NOFL sized, approximately 6 cm in diameter.

2337—B15 M is now giving TCs from an adjacent tree, indicating that the UFO (2nd M whose territory is off the study area to the W) is no longer present. F still in the cavity entrance.

2340—We leave, with the F still in the cavity entrance. The M has now quieted, after we see him flush to the N.

## 25 June 2010

2200-2300: BL arrives at the B15\_2010 nest to attempt capture of M or F. I get in capture position by 2205, but do not hear or see anything during this time—F does not rise to tapping of the nest tree, and the M does not approach the nest area.

## 28 June 2010

2141—DW and BL arrive at the B15\_2010 nest to determine status. We sit quietly for a few minutes to listen for nest vocalizations—but nothing is heard.

2152—**We peep cavity and find it empty, except for some probable egg fragments. Nest apparently has been depredated.**

2154—We leave nest area and head for B11 territory.

2200—As we head up the S end of PPG ridge, we hear the B15 M giving TCs from the lower S-facing midslope (not far from the grounded B15\_2007 nest tree).

## 13 July 2010

2330—BL, Jennifer Blakesley and Tyler arrive at the S end of Shooting Star Ridge to set up lure net and attempt capture of B10\_2010 M.

2347—Playback started. Within minutes, we hear what seems to be B15 M giving TCs from the S end of PPG ridge—he calls intermittently for ~ 20 min.

2405—B10 M gives a few TCs to the S and down toward the W Miss Cr.

2415—We start breaking down the net—nothing captured, and no owls apparently approached the net.

2430—We leave area.

# B15—2011

## 7 June 2011

2220—BL arrives in B15 territory after locating the B10\_2011 nest to listen and tap trees near the confluence of Catamount Cr and Missouri Cr.

2235—I leave to assist extraction of FLOW captured in lure net on Shooting Star Ridge. Nothing found after tapping on trees in close vicinity of the B15\_2010 nest tree, but the presumed B15 M was heard giving TCs approximately 50 m to the E from the Sierra Madre Ridge as I leave.

## 13 June 2011

2224—BL, AW, and PS begin playback on the S terminus of PPG Ridge in the B15 territory.

Vegetation: Open, mature pipo/psme with smaller trees near lure net.

Weather: Calm, slightly cloudy, 14C.

X: 494262

Y: 4333086

+/- 3m

2245—BL checks net after hearing TCs and witnesses a bird hitting the net and then bouncing

out..

2250—HECs heard after M seemingly bounces out of net again.

2254—M stops giving TCs.

2258—BL and PS leave to walk down PPG Ridge to the confluence of Catamount Creek and W

Missouri Creek. AW stays at net.

2311—Capture time. M makes no vocalizations prior to capture. M is unbanded, was found

in the bottom shelve of the net, and flew in from the E. AW bands M and takes mass, but

we take no measurements or blood sample because M has a fairly large pterylosis.

**Band # 1593-64811 (on left leg)**

86.0 g

- 28.5 g

57.5 g

2331—M is released with strong flight to the SW.

2331—TCs heard from vicinity of net.

2335—While checking the net, AW hears 2 HECs from less than 5 m N of net. PS returns from tapping in Catamount Cr after finding recent Mountain Lion deer-kill.

2339—Vocalizations stop.

2348—TCs heard from less than 25 m from net.

2351—TCs stop.

2355—End playback.

## 20 June 2011

2257—From B10\_2011 nest on the S end of Shooting Star Ridge, IJ,JR & BL move into B15 territory to begin listening and searching for the B15\_2011 nest. While sitting at the B14\_2010 nest tree (B14\_32 #415), we hear M TCs heard coming from N—probably from the S terminus of PPG Ridge.

2301—M TCs heard farther than previous towards N/NE.

2303—M responds to BL’s call with TCs.

2305—M TECs from N/NE.

2314—M TCs heard farther N/NE.

2317—M TCs closer than previously heard—probably from just E of Catamount Cr on Sierra Madre Ridge; last time M is heard before IJ, JR, BL leave area.

2340—We leave area.

## 28 June 2011

1440—Flamm Crew begins peeping B11 and B15.

1730—We finish peeping, having not found a nest, but still needing to clean up on some remaining cavity trees in Columbine Cr.

# B15—2012

## 18 June 2012

2147—BL and PPS are walking to the confluence of Picnic Cr and W Missouri Cr to set up a lure net—we hear a M giving TCs on the top of Sierra Madre at this time (B15 M?).

2209—As BL and PPS are setting up the lure net, we hear a M calling up drainage to the E (B10 M?).

2219—Lure net set up and playback started. Lure net is at the base of Picnic Cr on the drainage bottom opening SW between B10 and B15.

Vegetation: grasses, young potr.

Weather: clear, no wind, 18C (dropped to 10C at the end of the night).

X: 0494387

Y: 4332996

+/-: 3m

2231—M giving TECs in line with Scorpio to the S (B15 M?).

2235—**Second M giving TCs immediately to the E of the net (B10M?), at the same time a 2nd M is calling to the S. We hear it hit the net and we capture it in the E side of the net, shelf 1. It is a banded territorial M, with band # 64761—he is the B10\_2011 M (originally B11\_2010 floater). He continues giving TECs while in hand.**

**Black light results** (R and L symmetrical): P1-5 strongest pink; P6-10 lighter pink, and decreasingly so.

**Band #1593-64761 (on L leg)**

83.5 g LWC: 126 mm

- 30.0 g LLP(5): 95 mm

53.5 g LLP(6): 103 mm

Rect: 60 mm (no blood taken; done prev.)

~2250—While we are processing the M, we hear two other MM near the net (one to S, one up-drainage to E).

2305—**Territorial banded M captured in the second shelf from the E. He is banded with # 64589—this is the B15\_2007 M!** While we process him we still hear one more M up slope (to SE on Sierra Madre).

**Black light results**: P1-P3 strongest pink, P4-P10 paler. **This color pattern was corroborated by the wear pattern on primaries—P1-3 were rounded on the tip and unfrayed, while P4-10 were worn and frayed on the ends.**

**Band #1593-64589 (on X leg)**

82.5 g LWC: 128 mm

- 29.0 g LLP(5): 96 mm

53.5 g LLP(6): 104 mm

Rect: 57 mm

2328—Both released (64589 released first and 64761 directly after and follows the other M). Strong ascending flight to the W. We still hear a third M to the E up Missouri.

2345—BL goes to listen down drainage in the vicinity of Catamount/W Missouri Creeks.

~2403—M gives a few TCs to W.

2408—**Unbanded silent M (banded with 1783-64319 caught in second shelf (?) from the E, but gives TECs in hand so presumed to be territorial M.** . Owl was bled.

**~2414—As PPS is extracting the 64319 M a silent unbanded M flies into the net in the third shelf? from the W.** He only has two tail feathers, both on the right side.

**Band #1783-64319 (on L leg)**

83.0 g LWC: 127 mm

- 29.0 g LLP(5): 92 mm

54.0 g LLP(6): 100 mm

Rect: 60 mm

**Black light results** (R wing): P1 was missing (in molt); P2 no pink; P3-4 strongest pink; P5-10 very little pink.

**Band #1783-64318 (on R leg)**

81.5 g LWC: 130 mm

- 30.0 g LLP(5): 98 mm

51.5 g LLP(6): 106 mm

Rect: Not sufficient tail feathers (only 2 outer R rectrices present!)

**Black light results** (R wing): P1 no pink; P2 -5 strongest pink; P6-10 very little pink.

**Both owlets bled** (genetic only—no screen).

0100—64319 released. Strong ascending flight.

0106—64318 released. Strong ascending flight.

0130—We leave.

## 2 July 2012

2200—From BL’s position at the B10\_2011 nest tree, a M is heard giving TCs from the vicinity of the junction of Picnic and W Missouri Creeks. Possibly B15 or B10 M? I move down to this location, but the M quiets when I arrive.

2215—M gives several TC/TEC from the S side of W Missouri, just W of the confluence with Picnic Cr.

2240—M gives HECs in the presence of a 2nd FLOW in the vicinity of the above location. This lasted for 3-4 min before both MM flew out of view.

2245-2259: M gives rather continuous TCs from the same vicinity.

# B15—2013

## 4 June 2013

2300—BDG stays to monitor the net, as BL proceeds to visit cavity trees and listen for nest activity in B15 territory, particularly at the confluence of Catamount and W Missouri Creeks at the S end of PPG Ridge.

~2315—BDG turns playback off due to rain.

2331—BDG turns playback on.

2440—Nothing found in B15 territory, and all has been quiet at the lure net. We break down lure net and leave.

## 10 June 2013

2032—CK and BL arrive at the B10\_2013 nest to attempt capture of F (or M, if the first fails). She is not visible in the cavity entrance upon our arrival.

2037—F rises to cavity entrance as BL prepares to get into capture position. BL backs off.

2043—F flushes from cavity (she had been in the entrance since 2037).

2044—An adult FLOW flies into the nest tree and perches < 1 m from the cavity (this was probably the M, as BL thought he heard one quiet LC from his perch). He flushes about a minute later, leaving the nest area. **CK peeps the cavity and observes 3 eggs, centered and touching.**

Weather: Partly/mostly cloudy, slight breeze, 17 C.

2048—We hear M giving TC approximately 60 m to the NW.

2050—We back off the nest and wait for F to return to the cavity to attempt capture of the M.

2108—F returns to the cavity, after first perching nearby the cavity for ~ 1 min before entering.

2113—M returns to the nest tree and makes a silent PD in the cavity at this time. BL approaches nest and gets into position to attempt capture of M.

2117—M gives TCs to the S in the direction of B10/B15 ~50m away.

2117—2155—M makes several PDs during this period but does not stay in the cavity long enough for BL to make a successful capture.

2159—**M is captured after he makes a PD in the cavity. M was previously banded with Band # 1593-64761—this M was the B10 M starting in 2011 (note—we captured him in a lure net in 2012, but not at the nest), and originally was a B11\_2010 floater.**

**Band # 1593-64761 (on l leg)**

87.0 g LWC: 130 mm

- 34.5 g LLP(5): 95 mm

52.5 g LLP(6): 102 mm

Rect: 57 mm

We bleed on the R Wing—genetic and parasite screen.

2209—We hear M TCs on the opposite hill to the NW while we are processing the B10\_M. ~60m away.

2232—M released—he showed a strong, ascending flight (~ 20 m) to the S.

2240—As we leave, we hear what seems to be the B15 M giving TCs continuously from the SE midslope of PPG Ridge.

## 24 June 2013

2315—CK and BL arrive on the SE end of PPG Ridge to set up lure net to capture B15 M and search for possible nest tree.

Vegetation: Lure net set up adjacent to a 10 cm dbh Psme; this otherwise open area was surrounded by mature Pipo/Psme.

Weather: Calm, clearing but still somewhat hazy from West Fork Fire smoke, 16 C.

X: 494250

Y: 4333116

+/- 3 m

2330—Playback started. For the next hour, we also search the surrounding slopes (and area surrounding West Missouri and Catamount Creeks) for cavity trees.

2335—We finish breaking down the net and leave.

## 10 July 2013

~1430—Flam Crew begins peeping B11/B15 territories. One crew begins peeping in Catamount

Creek while the other crew begins peeping at the N end of PPG Ridge. Crews are

working towards each other.

~1600—**BDG taps B11\_1151 tree #1151 and a FLOW flushes from a cavity on the SW side**

**of the tree (BDG was on the N side at the time). This is the B11\_2013 nest tree!**

**Nest tree is a broken top pipo snag. Nest cavity is keyhole shaped, but is not a past nest tree. There are additional cavities on the tree, but nest cavity is the largest on the SW side. Nest cavity is approximately 12-14’. BDG peeps cavity while F is off and finds 2 eggs, centered, touching. This is, by far, our latest nest of the 2013 season.** Northern PPG crew resumes peeping near the confluence of W Missouri and Picnic Cr.

1655—Flam Crew ends peeping. Catamount Creek crew finishes peeping at the confluence of

W Missouri and Catamount Cr having peeped all known cavity trees. North PPG crew finishes peeping just N of Picnic Cr and W Missouri Cr (we did not make it to the confluence).

# B15—2014

## 30 June 2014

2358—AW and RB set up lure net W of PPG along road intending capture of either BG7, BG8,

or B15 Ms for geo-locator removal. Lure net is located ~ 200 m W of road junction at

top of PPG Ridge.

Weather: wind ~5 mph increasing to gusts ~10 mph, cloudy, 16C

Vegetation: ridgetop, mixed aged pipo/psme

X: 493880

Y: 4333726

+/- 4m

2414—M TCs heard to our SE. This is presumably the B15\_2014 M.

2417—M goes silent.

0100—End playback having heard nothing for ~45 minutes.

## 7 July 2014

1430—Flam Crew begins peeping W. Missouri territories including B15 and B10. We spread out along Shooting Star, PPG, and Picnic Cr with all crews moving S. Almost all trees in this area are peeped – there were a few missed at the confluence of Picnic Cr and W. Missouri. The majority of the crew leaves to go back to the lodge while BL and SY peep Catamount Cr and W. Missouri. Nearly all trees are peeped in these drainages. Some trees at the confluence of Columbine Cr and W. Missouri were peeped, but this area could use additional peeping.

~1900—We end peeping having found nothing.

# B15—2015

## 28 May 2015

~1545—Flam crew arrives at parking spot at top of Shooting Star R to peep for nests primarily in B2/B10. Most of the crew drops into Homestead Cr and moves NE, focusing on B2 trees in the drainage bottom but also hitting a few trees, including past nest tree #61, in B1. BL and MC focus on past nest trees on Shooting Star R (B2, B11, B10, B15), moving S from parking area and eventually dropping W toward Picnic Cr.

~1715—Nothing found. We leave.

## 8 June 2015

2041—BH and BL arrive at **B10\_2015 nest** intending to peep nest cavity and attempt nest capture of B10 M.

2049—M calls off roost approximately 50 m NW of the nest tree, and nearly immediately BL hears F give FSC off cavity to the SW.

2050—**We peep nest cavity immediately to find it devoid of FLOW eggs; all that is present is a layer of grass in the cavity bottom, and after a moment BL observes movement under the grass—probably small mammal young. The owl cavity appears to be occupied by a red squirrel nest. At this time, the F is heard giving 4-note LC and FSC within 20 m of the nest tree.**

2055—We wait and watch the nest cavity on low slope ~3m due S.

2058—**FLOW (probably the F) dive bombs an adult red squirrel that is attempting to scurry up the trunk of the nest tree, presumably headed for nest cavity ~7m up on S face of tree. Squirrel is forced back down to the ground and FLOW flies E away from B10\_2015 nest tree. This occurs on TWO additional occasions before 2105, and each time the squirrel’s ascension on the trunk is prevented.**

2100—B10 M gives LCs in nest vicinity, ~5m from nest tree. F gives LC nearby.

2102—B10 M gives 2-3 TECs, B10 F begins giving LCs heard ~5m SSW of nest tree.

2109—**BH and BL witness red squirrel scrambling up B10\_2015 nest tree and entering previously documented FLOW cavity—it is now nearly completely dark, and no FLOW were in close vicinity to thwart the squirrel (we hear them giving pair vocalizations ~ 30 m to the N along W Miss Cr), as observed earlier. Squirrel is not seen leaving cavity for the rest of the observational period.**

2112—B10 F lands in potr snag ~6m due S of 2015 nest tree. Perches on N facing branch ~3m up tree directly above BH. Gives consistent FSCs and LCs.

2114—B10 M arrives with PD.

2117-2325—B10 M arrives with7 PDs over the span of 9 minutes, indicating that the F has high energy demands and might not yet be finished completing her clutch.

2126—F leaves perch, lands in neighboring tree ~2m E. Resumes giving LCs interspersed with FSCs.

2135—**F attempts to enter B10\_2015 nest cavity, does not successfully enter.**

2137—F returns to high branch of initial perch tree S of nest tree. The FLOW pair hops between trees on low slope S of nest tree.

2152—M gives rapid HECs ~10m due S, goes silent after approx. 15 sec.

Note: *Throughout observational period B10 F gives consistent LCs and M makes PDs.*

2200—BH and BL leave B10 nest location to set up lure net with the intent of capturing B11/B15/B1 Ms.

**NOTE: BL speculated that perhaps RESQ preyed upon a partially completed clutch and subsequently took up residence afterwards, and the F FLOW is now attempting to reinter the original nest cavity to lay another egg. During our hour+ period of observation tonight, the F never strayed from a ~30 m radius of the nest tree. It remains to be seen whether or not she take up residence in another available cavity tree.**

2237—Finish lure net set up on the SW side of Shooting Star R., at the confluence of Picnic Cr. and W. Missouri Cr.

**Vegetation: Open, young potrs/pipos.**

Weather: Calm, clear, 12C

X: 494386

Y: 4333001

+/- 3

2240-2330: BL leaves to tap cavity trees in the B15 territory—primarily at the confluence of Catamount Cr and W Miss Cr, and up Catamount Cr. Nothing heard or seen.

2332—BH hears M give 2-3 TCs ~40-50m NNW of net site. Goes silent and is not heard again.

2336—BH checks the net and sees silent FLOW perched in PB tree. Gave no detectable vocalizations coming into net area; presumably floater M.

2355—BH begins moving PB in order to solicit FLOW activity on all sides of net site, when floater M flies from PB tree into adjacent potr.

2357—BH moves PB to N side of net in an attempt to lure floater M into net.

2411—BH walks loop around net with PB, no sign of floater M again. Returns PB to original spot on S side of net.

2422—PB off, begin breaking down net.

2430-0100: As we leave the area, we tap both of the past B10 nest trees (live Pipo and Pifl snag) on the W-facing slope of Shooting Star Ridge, with no response, and we periodically call as we walk up the ridge top to our vehicle at the N end. Nothing heard.

# B15—2016

## 6 July 2016

2200-2225: BL listens and taps cavity trees near the confluence of Catamount Cr and W Missouri Cr in theB15 territory. No nest found. I heard a M giving TC from the ridges surrounding Catamount Cr on a couple occasions, and on the last occasion the M gave TC for ~10+ min—he was still calling when I left for B10 territory.

## 20 July 2016

Afternoon—Flam crew peeps the remaining trees in Homestead Cr, the trees in the confluence of Columbine and W Missouri Cr, some on the SE slope of Shooting Star R, and about half the cavity trees in Catamount Cr. We do not find any signs of FLOWs.

## 22 July 2016

Afternoon—Flam Crew commences a cherry peeping effort of northern B10. We peep the highlights on PPG R., in upper Picnic Cr, and along the W-facing slope of Shooting Star R. We do not find any owls.

# B15—2017

## 11 July 2017

2231—JE and MC get to B15, set up a lure net and begin PB of T42. The net is located ~50m down drainage from the confluence of Picnic Cr and W Missouri Cr. The net is flanked by young potr and open NE/SW. MC begins to move down drainage to tap and listen.

Vegetation: young potr/psme

Weather: ~60% clouds, calm, 12C

X: 494392

Y: 4333007

+/- 3m

2238—A M approaches giving TCs from the S, beginning ~150m down drainage and perching ~50m away.

2241—The M is within 10m of the net, giving TCs and TECs.

2245—MC is in the confluence of Catamount Cr and W Missouri.

2246—The M begins to back off, first calling from ~20m SW then from ~35m SW.

2248—M goes silent.

2320—MC returns to the lure net. He made it to the historic B15 nesting area tapping and listening. Spending ~10 minutes up Catamount Cr and another 10 minutes in the confluence area. Nothing seen or heard.

2325—We stop PB and break down the lure net.

## 21 July 2017

2227—ER, ZM, and JE set up a lure net and begin pb of T42 on PPG. The net is ~250m S down PPG and is open NE/SW.

Vegetation: mixed pipo/psme, young pifl

Weather: breezy, cloudy, 13C

X: 494194

Y: 4333537

+/- 3m

2243—We hear a M vocalizing very distantly S.

2245—It begins raining so we stop pb and collapse the net.

2259—Resume pb and raise net.

2205—M comes in pretty quickly from the NW, moving down the W slope of PPG, stopping ~20m from the net. We switch to megascops.

2206—M is now making TECs and enters the net site, perching just next to the net.

2208—M moves further W down the drainage, away from the net. ER walks the pb down to try and lure him back in.

2211—M returns to the net site.

2214—Just as it sounds as if the M has gone silent, a loud plane flies overheard.

2217—It is silent to we switch it back to T42.

2221—The M returns, but is 100+m W. He does not approach.

2225—We stop pb, break down the net and leave.

## 24 July 2017

2045-22:30: BL listens for nesting/fledgling vocalizations and taps cavity trees in the vicinity of past nest trees in the B11 territory (along PPG Ridge) and B15 territory (in Catamount and West Missouri Cr drainages). At 2115, and while listening near cavity trees at the confluence of Catamount and West Missouri Cr, I hear the presumed B15 M start to give TC near the B15\_2005-2007 nest trees (30 m N of the confluence of said creeks in a small drainage on the lower S-facing slope of PPG Ridge). M calls for ~10 min in this area before quieting. Nothing else heard or found.

# B15—2018

## 11 July 2018

1330-1730—Flam crew peeps out almost all of PPG, Picnic, Catamount, and a few past nest trees in W Missouri and Shooting Star. We do not find anything suggestive of a 2018 FLOW nest tree.

# B15—2019

## 15 July 2019

2255—ON, KC, and BL arrive at the B11 territory to lure for territorial M FLOWs and listen for nesting vocalizations.

2310—We set up the net and begin PB T42. Net is open E/W on ridgetop of S terminus of PPG Ridge just N of the terminal spurs at the end of the ridge.

Vegetation: Mixed age psme/pipo

Weather: 80% cloud cover, calm, 17 C

X: 494235

Y: 4333486

+/- 3m

2315—ON thinks she may hear a couple distant TCs from the SE but they are difficult to make out.

2319—We think we may hear another couple TCs to the E but we are still not confident.

2320—BL leaves the site and descends the S terminus of PPG Ridge to listen at the confluence of Catamount Cr. and W Missouri Cr. Throughout the night he works his way up Picnic Cr. but hears no sign of FLOW activity.

2330—KC leaves the lure net site and heads E down the slope of PPG Ridge to go listen in the vicinity of tree #1575 as well as in the Picnic Cr. drainage. He too does not hear any signs of FLOW activity throughout the night.

2351—Meanwhile, ON stays at the lure net and hears no FLOW vocalizations so she decides to nuke ‘em with the Megascops.

2400—ON hears 2 M TCs ~60 m E of the net, perhaps down in the drainage. She walks the PB down to the midslope of PPG Ridge towards where she heard the calls but hears nothing more.

2415—We cut PB and break down the net.

2424—We head out for the night. No more signs of FLOW activity are seen nor heard.

# B16—2005

## 27 June 2005

2330—BL pursues singing M on N end of Shooting Star Ridge. Over the next 20 min, I mark 3 songposts (see songpost data sheet) on what appears to be two males singing in tandem—**a M later IDed as B16**, singing from the E-facing side of Shooting Star, and B11, singing from the W-facing side of Shooting Star.

0105—BL pursues M singing to the E of the N end of Shooting Star—this M was originally IDed on the songpost (#3) as B2 male.

0120—BL locates M (presumably the same) giving HECs, which may have been courtship calls, from the vicinity of the B1\_19 *Potr* cavity tree approximately 100 m N of the homestead. M may have been vocalizing from inside one of the cavities. He quiets shortly after I arrive.

0130-0223: The Flam Crew marks a total of 12 songposts on the singing M, mostly on the ridge between Feldspar Ridge and Shooting Star Ridge, but two were on/near the latter ridge as well. This M sang for up to 10 min from some of the songposts, giving primarily TC, and at least on these occasions he behaved like a bachelor M. We initially considered this M to be B2, but this changed when SY pursued a M (likely B2) giving LC a short distance W of the B2\_2003 nest tree, near the confluence of Homestead Cr and the drainage that separates the N end of Vista Ridge from the W end of S Goshawk Ridge. These LC were heard at the same time that the rest of the Flam Crew was following the presumed B1 M to the W.

0225—We leave with the M still singing from the # 12 songpost.

## 30 June 2005

2323—After spending the previous hour slowing moving through the B2 territory and the N end of B1 territory, BL hears a M giving TC from the drainage due N of the homestead. I pursue and mark a general location for this M, who is later given a new territory ID, B16.

2356—M gives TC approximately 10 m from last entry—he calls here for ~ 8 minutes.

2412—M located calling from the S end of Feldspar Ridge, just above the homestead. After calling here a couple of minutes, I hear another M (presumed to be B14) calling to the ENE from the direction of Paintbrush Ridge, where EE takes persuit. The B16 M immediately flies E in the direction of the calls, and shortly thereafter I hear both Ms calling in the same vicinity. I give pursuit.

2424—EE and BL locate both Ms (B14 and B16, presumably) having a TE (each giving TECs) from the N-facing midslope of Vista Ridge, approximately 200 m S of Homestead Cr and approximately 250 m SW of the junction of Homestead and Goshawk drainages. These Ms call in this vicinity for approximately 10 min after we arrive, with one M (B14) ~ 20 m E of the other (B16) M.

2436—BL follows B16 M upslope and to the SW, where the last of 6 songposts are placed (see data sheet). The M gives TC for approximately 10 min before quieting.

0100—BL, MS, and EE leave area. It appears possible that B2 has not returned this year, and that the former B2 territory has been subdivided and expanded into B14 and B16 territories.

## 11 July 2005

2350—BL parks on the N end of Shooting Star Ridge, and upon exiting the vehicle, I hear a M calling a short distance to the S on the ridge crest.

2355—I pursue and mark one Gen’l Location songpost when he quiets.

2435—I leave from the S end of Shooting Star Ridge. Occasionally, a M was heard calling from the vicinity of Vista Ridge.

# B16—2006

**B16—2007**

# B17—2004

**NOTE: The 2004 field note entries for B10 territory have been copied and inserted below, reflecting the fact that (1) the male from the B10\_2003 nest was found nesting in 2005 ~ 200 m from the 2003 nest tree, and (2) on 11 July 2005, the Flam Crew discovered a nest ~ 15 m from the so-called B10\_2004 nest whose tending adults had the same identity as in 2004. Consequently, we retained the B10 identity for the former male/territory, and gave a new identity (B17) for the latter male/territory.**

## 31 May 2004

2325—From the S end of B4 territory, BL hears a M calling from the E end of Sharp-shinned Hawk Ridge. I pursue and mark one songpost on the crest of the ridge. Shortly after he quiets, I hear a F give BC approximately 50 m to the S; the M flushes in this direction, and apparently delivers prey to her a few minutes later. Over the course of the next hour and one-half, I mark 5 additional song posts on Sierra Madre Ridge to the S and SW, and on the W end of Sharp-shinned Hawk Ridge (the first four flags are incorrectly marked as B1 male). At approximately 0105, B10-M had a territorial encounter with the high-pitched B1-M (Erin joins me at this time) on the W end of Sharp-shinned Hawk Ridge. At most of these locations, I heard a F giving sporadic BC.

0110—We leave.

## 7 June 2004

2215—The Flam Crew leaves from the Weir in B2 territory to attempt spot-mapping on Shooting Star Ridge and PPG Ridge (B1, B10, and B11 territories). We tap obvious cavities in the vicinity of the Homestead.

2250—We split up on Shooting Star Ridge, with two of us (JM and BL) going to PPG Ridge, and the other three (EC, EP, and SY) staying on the former ridge.

2254—From the N end of Shooting Star R SY hears a TC to the SE. I give chase approximately 250m but hear no further calling.

2303—EE songposts what is likely the B10 M on the SE side of Sharp-shinned Hawk Ridge as B4?\_1. M was giving TEC and EE heard another M nearby but could not get to it in time

2317—EE songposts the general location of the purported B10 M on the NE side of Sharp-shinned Hawk Ridge as B4?\_2.

2322—JM hears M giving TC from the small ridge top directly W of PPG. She runs to the small ridge, but hears no further calling.

2405—EP hears B10 male singing to south in W Missouri Creek. B4 male is also calling simultaneously from SE side of Vista Ridge. EP chases after B10 and follows him west along W Missouri Creek until out of range.

2445—SY, from the southern end of Shooting Star R hears TC to the S, downslope.

2450—BL locates B10-M giving TC from the S-facing midslope of Shooting Star Ridge (B10\_1), after EP had been pursuing him W along the Missouri Cr bottom. He then moves upslope to the N on the ridge.

2452—SY locates B10 male approximately 15m N of where BL had done previously (B10\_2).

0110—EP moves upslope onto south end of Shooting Star Ridge and hears male close by. Marks B10\_3 songpost in a large PIPO.

## 17 June 2004

1552—While peeping SY finds nest with peeper in an illegibly flagged and untagged tree on Sharp-shinned Hawk R. Peeper causes female to flush. Tree is reflagged as B10\_404 and given tag #404. Tree is a broken top limber pine snag with a DBH of approx. 35cm. The cavity is SE facing and approx. 7cm in diameter (flicker hole?). SY leaves.

## 21 June 2004

2350—From Sierra Madre R. SY hears TC to the N. I chase to Sharp-shinned Hawk R. EE also hears TC from same ridge.

2353—EE arrives at B10 nest near where M was calling. M stops calling.

2356—B10 M gives HEC from PIPO 15m from nest. EE observes owl (UFO?) sitting on a branch of the nest tree and then flies E. B10 M stops HEC

2402—B10 male gives TC in tree just N of the B10 Nest (B10\_404). SY songposts tree (B10\_1)

2406—M makes prey delivery to nest. Stays down for 2.5 minutes. F continuously gives FC

2414—M makes PD

2420—M makes PD, F gives FC

2423—M gives TC to NE on SS Hawk R. EE pursues.

2424—B10 male gives TC while B1 male gives TC on SS Hawk R. crest. SY songposts B1 male (B1\_1)

2427—EE marks songpost B10\_2. M giving TC and TEC

2135—SY chases B10 male to the E as he gives TC near EE. SY songposts him (B10\_3). EE songposts B10\_4. As SY marks songpost EE heads back to nest. Upon returning EE finds F (UFO?) in tree near nest. F gives quite FS while B10 M gives LC from the same tree. Every time the B10 M gives LC, F in B10 nest cavity gives FS, indicating two F in area. EE and SY watch as B10 M moves closer (.5m) to UFO F. Eventually M and F right next to each other. M continues LC and touches F beak (~5 sec). There was no indication of the M making a prey delivery as he did not appear to have an arthropod in his beak. Both birds fly to NE along SS Hawk RR.

2450—EE marks B10\_5 songpost where the above interaction occurred. EE hears M giving TC in the direction he flew off in. EE and SY pursue.

2455-0107—EE and SY arrive at tree where M is giving TC and put flashlight on another flam further down the tree not calling. M stops giving TC and flies down close to other flam (same F UFO?). M and F have physical interactions, but our view was partially obstructed by branches. Appeared that M and F would touch and F would give a high chittering sound. Over this period she gave between 5-7 of these chittering calls.

0107—The two flams fly off in opposite directions (N and S). EE marks B10\_6

0112—M gives TC to the S on Sierra Madre Ridge indicating that M flew to S after dispersal with F.

## 24 June 2004

2050—EP and SY arrive at B10 nest to attempt capture of female. She is at cavity entrance when we arrive.

2052—Male calls of his roost to the S.

2054—Female flushes. We leave.

## 28 June 2004

2217—EP and SY arrive at B10 nest to attempt capture of male.

2219—Pygmy Owl flies into tree approx. 4m N of nest tree. Male makes a prey delivery and then flies to same branch as Pygmy Owl (w/I 1.5m) and begins giving TEC and HEC. The Pygmy Owl moves to within .5m of the male flam and the male begins call more vehemently and raises his feathers to appear larger. The Pygmy Owl flies at the flam which results in chasing the flam away.

2230—Pygmy Owl lands in nest tree. He moves to different perches while female flam gives FS. Pygmy Owl lands on one perch within 6in. of the cavity. Pygmy Owl flushes.

2233—Pygmy owl returns to nest tree for <30s.

2245—Attempted prey delivery.

2250—Attempted prey delivery.

2331—Male gives TEC from tree approx. 6m S of nest. He continues calling while another bird (presumably Pygmy Owl based on audible wing flaps) flies N to a tree E of the nest. Male makes a very cautious prey delivery.

2339—Attempted prey delivery.

2342—Attempted prey delivery.

2343—Prey delivery. Also at 2345(aborted), 2347, 2348, 2351, 2354.

2357—Capture of male **Band #92363** (New)

**Weight**

Gross 91.0g

Tare 31.0g

Net 60.0g

LLP 98mm

WC 128mm

Ret 57mm

2412—Release male. Strong flight after brief pause on ground.

## 2 July 2004

2043—KS and EE arrive to capture and bleed M or F.

2046—F flushes after branch is touched with capture net. We peep and find 2 eggs touching in the middle with no signs of hatching.

2051—M gives 5-10 TC off of roost.

2100—M gives 10-15 TC from the top of Sierra Madre Ridge.

2114—F still has not returned so we leave the area.

## 7 July 2004

2049—SY and BL arrive at B10 nest to attempt capture and bleeding of M.

2058—M arrives on nest tree, giving LC.

2059—F ascends to entrance, as M continues to give LC, and then flushes.

2101—M delivers prey to nest—confirming that at least one egg has hatched (see PD data sheet for other deliveries).

2116—F returns to cavity.

2140—SY captures M (**Band #: 92363**) after he delivers prey.

2150—Bleeding procedure complete.

2205—We release M and leave.

## 15 July 2004

2040—KS and EE arrive at B10 nest to capture and bleed F. F flushes immediately.

2046—M gives TEC.

2053—Pygmy owl lands in nest tree.

2054—F makes PD and pygmy owl flies off.

2055—Pygmy returns and flies off again about 30 seconds later.

2056-2118—M makes 5 PD in 20 minutes.

2120—F makes PD.

2122-2123—M makes PD.

2130—F makes PD and we capture her. We band her left leg with # **92393**

2145—We release her after bleeding and leave.

## 22 July 2004

0910—JM, EP, and EE arrive to B10 nest to measure, band and bleed owlets.

0917—EE removes owlets from nest. Owlet band # 92397 was bled.

**Band#92397 Band#64416 (new band)**

85.5g 70.5g

-27.5g -27.5g

48.0 43.0.5g

LLP 42mm LLP 19mm

Rect 17mm

0941—Owlets were returned to the nest.

# B17—2005

## 10 July 2005

2300—EE arrives on Sharp Shinned Hawk ridge with the intent of sleeping up there. I sleep about 20m north of last year’s B10 nest (now B17 nest). While setting up my hammock a M flam starts giving quite TEC’s (or location calls?) nearby. That night I periodically give hoots and would be immediately answered by a M giving TC’s about 50m to the NW.

0300—I awaken to M and F giving location calls around me (what I thought were TEC’s). I see flapping overhead.

0500—Just as it is getting light I hear an owlet giving begging calls and see wings flapping right above me. I thought it was a fledgling from B4. I walked around searching for the source of the calls but found nothing. I mark the tree where I heard the calls and then left.

## 11 July 2005

1925—While walking down Sharp-shinned Ridge in the vicinity of the so-called B10\_2004 nest tree, **we observe a presumed F *Otfl* in the entrance of a cavity in an untagged/unmarked PIPO cavity tree (subsequently marked with Tag #614) immediately adjacent to where EE had camped and had heard owlet/adult vocalizations the night before. We proceed to peep the cavity, flushing the F in the process (1940), and observe 1 owlet in gray down and 1 unhatched egg. The nest cavity, which appeared to be NOFL-excavated, was approximately 9 m high on the NE side of a live Pipo (~ 30 cm dbh). The cavity was in an old lightning stripe that ran the length of the trunk. We eventually call this the B17 nest (see note preceeding the B17 2004 entries).**

1945—We leave for the B10\_2005 nest.

2034—MS enters B10 x 2 to observe nest activity. Calm- medium winds (blowing tops of pine trees), partial high clouds and 22 deg. C.

2051—Flam enters area of nest tree.

2052—P.D.

2053—SY enters with net to capture B10 x 2 M and F.

2059—Adult flam flies in from S. and makes P.D. after landing in 2 perches near the cavity tree.

2110—Net up.

2125—P.D and capture attempt.

2122-25—3 aborted prey deliveries (owl hovered near cavity then went back to perch)- light was directed at cavity due to difficulty in silhouetting.

2126—Caught male after he made a P.D. **He was previously banded—Band #92363; this was B10\_2004** **male.**

**Band# 92363**

**85.0 LLP: 95mm**

**-27.0 WC: 133mm**

**58.0g Rect: 61mm**

2137—Released M who flew 5m to land 1.5m off ground in young *Pipo.*

2212—Heard TC’s from East on sharp-shinned ridge for 1 min.

2115—TC’s heard for less than one minute to north.

2128—Owlet begs from nest. Continues to beg for 1-2 min every 10min or so until we leave but is never seen in cavity. Always begs when EE or DF gives hoots while they spot-map in vicinity.

2250—Adult flam lands in tree 5m south of nest tree with small prey.

2255—P.D. and capture attempt (bird climbs up tree and out of net.

2257—Hear several TC’s from B17 to the north.

2404—B17 F lands in tree to south of nest tree.

2406—Capture B17 F; **she is band#92393—this was the B10\_2004 F** (now called B17).

**Band #92393**

**93.0 LLP: 89mm**

**-22.0 WC: 130**

**71.0g Rect: 48**

2418—Release B17 F who hops from the hand to the ground and then hops 3 times more before making an awkward flight into a small *Pipo* sapling, about 4 ft off the ground. As we attempt to recapture her to check her for possible damage she makes 2 normal flights to higher trees and then leaves area.

2421—Adult flam in *pipo* 2m E of nest tree with medium prey.

2423—Adult leaves area as EE enters from spot-mapping.

2428—We leave.

## 12 July 2005

2010—DF, EE and BL arrive to band and bleed owlet.

**Cavity Dimensions:**

Entrance Dimensions: 7.0cm x 6.5cm

Entrance Thickness: 3.5cm

Horizontal Depth: 8cm

2022—Owlet is out and lowered down.

**Band #64471**

68.0g

-12.0g

56.0g

LLP: 52mm

Rect: 24mm

2031—Owlet is returned to nest after bleeding. We leave.

# B17—2006

## 29 May 2006

2112: EM and EE arrive and climb Sharp Shinned Hawk Ridge to listen for M TCs to songpost from territories B17/B4/B10/B1. EM heads about 150m down the ridge, I stay at junction between SSH Ridge and Biker Ridge

2140: After hearing nothing, we both move further down SSH Ridge about 50m. Wind began to pick up to beyond a good listening level for flams.

2220: EM hears a single FSC while standing about 120m West from EE’s initial position. EM leaves for one hour but then returns for 30min to listen for more FSC. No more FSC’s detected. EE heads down to Columbine Creek to check B10 cavities. No action was observed at last year’s (2005) B10 nest.

2300: EM and EE go to B12 territory to check cavities. No action was observed at last year’s (2005) B12 nest.

2419: We leave and go to B5 to meet up with flam crew.

## 2 June 2006

1439—Flam crew enters B17 to find this year’s nest with peepers.

1449—KC knocks on **B9\_3 (#401—2006 B17 nest tree)**. Bird flies out of S facing cavity, but F flam comes up in the cavity on the N side. The cavity is ~3 m up in a *Potr* that is surrounded by *Psme’s*—fairly dense area near the head of Columbine Cr.

1452—She returns to eggs.

## 5 June 2006

2305—SY and EM arrive on site of 2006 nest tree. F rises to entrance of cavity.

2312—Female goes back down.

2317—SY and EM simultaneously hear three different TC’s from 3 different males: one South on Sierra Madre, one NW on Sharpshin,, and one due East down the drainage.

2320-0034—M continuously flies around nest tree but fails to deliver prey, apparently he is VERY shy around the light we needed to see the cavity. We decide to turn the light off and work with what little silhouette that we have.

0034—Prey delivery.

0041—**SY catches M during a prey delivery—previously banded; this was the B17\_2004 M**.

**Band #92363—B17\_2004 M**

84.0g

-27.5g

56.5g

LW: 133mm

LLP: 95mm

Rect: 59mm

0052—SY and EM release M.

## 13 June 2006

2028—SY and EM arrive at B17 nest to attempt capture of F. M is giving TCs to the SW on Sierra Madre R. when we arrive. Weather: Mostly clear, calm, 27 C. M continues giving TCs almost continuously.

2035—Net in position.

2043—M continues giving TCs to the SW only closer now. (approx 15-25m)

2206—SY hears a few F FSCs to the W.

2107-2125—A few sporadic FSCs are heard W of the nest while the M continues giving TCs around the entire territory.

2128—EE places songpost of B17 M on top of Sharp-Shinned Hawk Ridge. M was calling from a previous songpost tree (B1\_1 on 5/31/04).

2136—**EM peeps B17 cavity. No female was present in the cavity and only 1 egg, centered**.

2137-2148—EM drops net and peeper and observes the nest tree for any nesting activity. No such activity witnessed.

2149—EM tries to spot map tree where M is singing to the South of the nest tree, on Sierra Madre Ridge. EM marks tree. While I observed the M, F flew into same tree from the South and made begging calls for about 2 min.

2212—SY marks songpost B10\_1 on Sierra Madre R.

2240—EM peeps B17 nest tree again. Still no F in tree. Nest was probably preyed upon. We leave.

## 15 June 2006

1500—EE and EM set up a mist net about 20m W of 2005 B17 nest tree on Sharp Shinned Hawk Ridge with the intent of playing F recordings to lure M’s in and capture them.

2115—EE and EM arrive at mist net and set it up.

2116—We catch a bat in mist net. It looked angry.

2130—Bat released and we begin playing F recordings.

2134-0100—Flam Crew places 18 songposts on B17 M. See Songpost Inventory Sheet for more details.

2212—EM checks mist net. It was empty.

2225—EM checks mist net. It was empty.

2244—While EM has B12 M in B17 mist net, EE is marking a songpost on B17 M (band number unknown at this point), indicating B12 M is not 2006’s B17 M.

2249—EM checks net and **finds M flam**! **Band #64434—this is the B12\_2005 male.** Flam was caught 2ft from the apex of the net, on the N side of the net, facing outside. Flam flew into the net only 1ft from the ground.

**Band #64434**

72.5g

-11.0g

61.5g

LW: 135mm

LLP: 95mm

Rect: 52.5mm

2305—EM releases M to the W.

2353—EE checks mist net and finds a M caught. He is banded with **#92324 🡪 2006 B1 M caught in B17 mist net.**

**Band #92324**

78.5g

-17.0g

61.5g

LW: 133mm

LLP: 94mm

Rect: 63mm

2401—EE releases M.

0110—EE and SY takes down mist net and leave.

# B17—2007

## 29 May 2007

2105—SY climbs Sharp Shinned Hawk R. to attempt spotmapping on Ms in the area.

2120—From my location near the 2005 B17 nest tree I hear M LCs approx 10m N. I pursue but hear nothing more.

2200—Having heard nothing more I leave the area.

2300—BL and EE climb Sharp-Shin Hawk Ridge to do some spot mapping and listen for any nesting activity. Weather is foggy with winds around 10 mph. EE stays at B17 2005 nest tree to listen. BL heads further 100 m further W along ridge.

2340—EE moves 30 m S towards Columbine Creek. I think I hear FSC from F and listen. M flies into area and gives HEC to me at which point the F also gives a few HEC interspersed with FSC. BL joins and we attempt to follow. M and F fly off in an E direction.

2400—We leave. Area will require closer inspection during daytime hours.

## 5 June 2007

2245-2315: BL listens for nest activity, and attempts to elicit calling, in the vicinity of the B17\_2005 nest tree. Nothing seen or heard. I leave for B10 territory.

## 13 June 2007

1300—Flam crew peeps Columbine Creek and Sharp Shinned Hawk R. – we find nothing.

## 17 June 2007

1. EM and CB set lure net on West facing side of Sharp-Shinned R. We begin with M TC’s.

2205- M1 calling softly from W.

2207 M2 arrives, calling from 50m from S.

2209 All hell breaks loose, four birds in vicinity, three males and a single F, F calling from E, the other three males from the other three cardinal directions.

2211 Two M have left from undetermined direction, M & F remain, call from N and S.

2215 M & F move, call from E and W respectively.

2218 Potential UFO behavior in the tree above us 20m E of the net.

2227 3 Flams calling from West, two M and single F.

2242 Potentially B4 M (identified by characteristic adolescent call) East of net

2300 Lure net calls changed two FSC. No response

2315 Calls switched back to M. No Response.

2345 We leave.

## 20 June 2007

1445-1715—Flam crew arrives in B17 to peep the southern area of the territory. We find a goshawk nest with two fledglings just west of B9\_734

# B17—2008

## 28 May 2008

1530— DH, KB & friends prepare a mist net on the western end of Sharp-shinned Hawk Ridge in the region of B10, B17 and B1. See B10 for details on evening activities.

Coordinates: X: 495134

Y: 4333292 ±15m

## 3 June 2008

2017—SY, KB, QB & CB arrive on top of Sharp Shinned Hawk Ridge, approx. 25, NE of the B17 2004 nest tree to set up a lure net. We realize we do not have the playback, so SY and CB head down to the B4 nest tree to attempt a capture. KB and QB head down the ridge to listen.

2118—From small clearing just S of the B1 wier SY hears location calls from vicinity of nearby potr. M is seen flying to cavity tree B4\_429. **M flies to cavity and makes a PD—this is is the B17\_2008 nest.**

**Note: This area and tree were formerly considered part of the B1 territory – based on capture information (see below) it appears that this is, in fact the B17 nest.** **This tree—and cavity—was also the B1\_2007 nest tree.)**

Weather: 12C, clear, calm.

2150—QB hears a bird near the 2004 nest tree (B17\_614). Possibly a flam, so she stays for observation. Nothing else is heard and no response to tapping.

2200—Capture net is up at the nest tree, in capture position.

2203—QB and KB set up a lure net on top of Sharp Shinned Hawk Ridge, approx. 25m NE of 2004 nest tree. We start the playback.

2210—QB and KB hear a M off to SW of Sharp Shinned Hawk Ridge. He goes quiet quickly, but we follow him on to the NE side of Sierra Madre Ridge. We were unable to get any songposts. KB heads back to the lure net while QB slowly follows, listening on her way. **Note: This is possibly the B10 Male.**

2212—PD – failed capture attempt at the nest tree.

2215—PD, capture. M is previously banded.

**Band # 92363,** this is the 2005-2007 B17 M.

81.5g ` P5: 105mm

-26.0g P6: 95mm

55.5g Rects.: 63mm

LWC: 132mm

2227—M is released. While M was in hand a 2nd M could be heard down drainage to the W (B1?)

2243—KB arrives at the lure net to find a M softly hooting in the area. SY, QB, and CB arrive shorty thereafter.

2300—Bird caught in the net. It is **Band # 92363** who was just caught at the nest site. We immediately release him.

2306—KB and QB hear a M at the lure net.

2308—SY marks songposts B10\_1 on what is believed to eb the B17 M. TCs and TECs on top of SS Hawk R.. See data sheet.

2320—SY marks songpost B10\_2 on the B17M giving TCs and TECs ontop of SS Hawk R. See data sheet.

2329—QB and KB stop the playback. A Male that was at the lure net leaves the area heading towards the east. We last hear him giving TC’s on Biker Ridge. **Note We believe this could be the B12 M.** We are unable to get a songpost, as he goes quiet.

2347—QB. KB, and CB take down the net and leave the territory.

~2350—SY follows a M to the N – I (SY) believe that this is the B1 M but am unsure. See notes for this night under B1 as well as data sheet.

## 11 June 2008

1345-1700—Flam Crew peeps the Columbine Cr. portion of B17 Territory. Nothing found.

2036—KB, SC, QB arrive to capture B17 Female. Weather: Clear, calm, 11C

2045—As we are positioning net, female appears at cavity entrance

2050—B17female flushes; we attempt peeping but battery dead; we leave.

## 12 June 2008

2045—BL arrives at the B17 nest to attempt capture of F. However, she flushes as I assume capture position. **I peep cavity and find 3 eggs in the center of the cavity, touching or nearly so.**

2054—I leave for B2 territory.

## 16 June 2008

2033—SC and SY arrive at the B17 nest to attempt capture of the F.

Weather: Very thin cloud layer, calm 10C.

2041—F rises to cavity entrance as the net is being raised – we back off.

2044—F back down – we begin raising net again.

2048—F again rises to cavity entrance as the net is being raised – we, again, back off.

2053—F back down – net raised again.

2055—Net in capture position.

2057—M enters nest site and gives TCs.

2101—SY taps tree – F flushes and is captured. She is previously unbanded.

**New Band #64625**

No measurements are taken.

2109—F is released, we leave.

2332—Refer to B1 notes for this time and date.

## 23 June 2008

~2230—SC and SY arrive at the W end of Sharp-shinned hawk Ridge to run a lure net. Begin setup.

Site Description: Site is mixed age (a couple very lg.) pipo/psme on the W end of the ridgetop.

X: 495213

Y: 4333205 +/-7m

Light rain during setup.

2318—Begin playback of TC/TECs.

2320—M approaches the net giving HECs.

2405—M has gone quiet.

Weather Update: Mostly clear, calm, 7C.

2407—TC/TECs from ~25m W of net site – sounds like the same bird that originally approached the net. He then reenters the net site.

2428—Stop playback and begin breaking down the net.

2440—Net is broken down, we leave.

## 1 July 2008

2135—KB and CB approach the B17 nest tree with intent to peep. We see a bird in the area.

2138—**Peeping reveals a deep cavity with at least two nestlings, perhaps three. The two we see clearly have open eyes and no visible egg tooth.**

2143—We leave the nest area and hear both M and F vocalizations.

## 7 July 2008

2240—DH and SC arrive in B17 to peep nest. She is up when we arrive. M enters area, makes a silent PD.

2244—F flushes as we raise peeper. **We peep: 2 nestlings, grayish, eyes open. They are active, bobbing about and looking at the peeper. One of them is slightly smaller than the other.** No egg teeth visible.

2247—We leave.

## 14 July 2008

1508—KB and QB arrive at B17 nest to peep; F is up and flushes as we raise peeper. Cavity height is 28 feet. Peeping shows three nestlings, appear to be developing facial disks, no visible white. Similar in age to A2, maybe a couple days ahead.

2050—DH and KB arrive at B17 nest to capture M and affix radio tag. Weather: clear, calm, 13C.

2054—Bird enters site, giving LCs, PD. We determine later that this is the F, although her calls sound like a high-pitched M LC.

2100—PD, silent entry. Missed her with net.

2101—F approaches nest 2x, flying off before entering cavity.

2102—F. PD—aborted. Then immediately again, PD aborted.

2103—F. PD—aborted. We miss her with net (at this point we still think this bird is the M).

2107—Bird captured. Band # 64625 is the F. Oops.

2110—She is released as soon as we get her out of the net.

2114—M captured on his 1st PD. He is making TCs at us which are distinct from the higher-pitched ones of the F, so we know this is the M. **Band # 92363** confirms that he is the B17 M.

76.0g ` P5: 96mm

-17.5g P6: 111mm

58.5g Rect: 64mm

LWC: 133mm

**Note:** bottom 1/3 of L primary #7 is broken off. We had trouble putting the tag on—glue issues—took a long time.

**Tag 164.7720 is placed on the M.**

Weight with tag: 87.5g

-27.0g

60.5g

2159—Released, flies W.

2234—Telemetry tracking shows he was most likely high on Sharp Shin moving across the ridgetop to the N. and S.

## 16 July 2008

2146—KB and SC arrive B17 nest to peep and age nestlings.

2147—**We peep. There are 2 nestlings with developed facial disks and one nestling not looking at the camera—he appears to be the runt because he is smaller. All 3 nestlings are in full juvenile plumage.**

2149—We leave.

## 17 July 2008

2024—DH and KB arrive at the B17 nest site to capture the F and bleed her and also peep the cavity. Weather: calm, overcast, 19C.

2025—DH has capture pole in position.

2035—**Peeping the cavity reveals three nestlings**, no F.

2050—Nestlings begin begging from the cavity.

2056—Bird approaches silently from the east.

2059—Silent PD, doesn’t enter cavity, presumably a nestling is up in the entrance.

2000-2012—Another bird enters nest area from the west, perches in a nearby tree and stays there for the next 12 minutes.

2102—Silent PD attempt, direct to the cavity, no perching

2105—PD, direct to the cavity

2106—aborted PD

2106—PD, direct to the cavity

2108—Nestling up in the cavity begging.

2111—PD, bird perches in nest tree before approaching the cavity.

2122—aborted PD, perches in nest tree

2124—aborted PD, perches in nest tree

2130—Capture M, band # 92363.

2132—We release the M.

**Note**: When the M was released, he perched nearby in a small potr snag. His left wing was sticking up in a funny way, we assume it was just propped up by his radio tag. He flew off strongly to the south.

2140—aborted PD

2150—PD, perhaps F

2133—F attempts PD

2136—**Capture F, band #64625**

76.0g LP5: 98mm

- 17.5g LP6: 107mm

58.5g LWC: 133mm

Rect: 64mm

Note: bleed on this F failed on both wings. Large hematoma formed on her right wing, small hematoma on her left wing. No blood yielded.

2304—BL arrives to look at the bird and possibly attempt another bleed. BL attempts to bleed on her left radial, but only a very small amount of blood is collected.

2317—We release the F. She takes off with a strong flight to the north.

2325—PD

2326—We leave the area.

## 21 July 2008

1505—SC and SY arrive at the B17 nest, we peep: cavity is empty.

1510—We begin searching for the B17M’s roost and possible fledglings.

1520—We locate general area of the M’s roost. As we are flagging the tree we get a visual on the M and a fledgling.

**B17\_1** – Roost

Live psme dbh: Not taken due to birds’ low perches.

X: 495319

Y: 4333469 +/-6m

Both birds are on the W side, the Fl is ~3.5m up and the M is ~4.5m up.

1601—We knock the fledgling out of the tree.

**New Band# 64647**

78.5g P5: 69mm

-16.0g P6: 68mm

62.5g Rect.: 33mm

LWC: 92mm

We bleed Fl’s R wing.

1620—Fl placed back in tree, we leave.

2005—BL, SC and KB set up a mist net just northwest of the B17\_2008 nest site to capture the M using a fledgling in order to remove the radio tag.

2020—BL snatches a fledgling off its roost in a *psme*.

2025—Fledgling is tethered beneath the mist net.

Weather: partly cloudy, calm, 19C

2045—SY arrives to assist.

2049—M gives TCs to the west, approx. 50-75m away from the psme used as the fledgling’s roost.

2053—Hear vocalizations from direction of nest tree.

2112—Check net, empty, nestling silent,

2116—SY sees a bird silently fly to the nest tree from the W. The bird immediately flushes back to the W.

2122—Silent bird returns to nest tree. Uses several perches o the nest tree, gets very close to the cavity. Goes to cavity? I do not see the bird leave the area.

2124—I hear an owlet beg from vicinity of the nest tree. Owlet at the net?

2130—Check net, empty, nestling silent.

2139—Another owlet beg heard from the vicinity of the net?

2157—Net check: M is present in the 2nd shelf from bottom on the S side, right by the Fl.

**Band #92363**

83.5g P5: 95mm

-26.5g P6: 104mm

57.0g (w/ radio transmitter) Rect.: 58mm

LWC: 128mm

We remove the radio transmitter. No obvious wear or scabbing.

2220—Fledgling is untied and place approx 1.5m up in a psme.

2230—M is released. Strong flight S.

**B17—2009**

## 26 May 2009

2421—KG, SR, and BL tap B17\_2008 nest tree (cavity tree # B4\_429; also the B1\_2007 nest tree) and female pokes head out—**this is the B17\_2009 nest tree**! Nest cavity also is the same as in 2008—nest is in a NOFL-sized cavity in a live *Potr*, approximately 8.5 m above ground on the E side. F is still in the entrance when we leave at 2426.

## 2 June 2009

2038—BL, SR, and JG arrive in B17 territory to try and capture F at B17\_2009 nest tree (cavity tree #B4\_429). BL raises net. Weather: heavily overcast, calm, misting lightly.

2055—We hear two LC calls on the lower S-facing mid-slope of Camp Ridge—this is probably B17\_2009 M. JG peeps cavity and finds it empty. Either this pair has selected a different cavity or the nest has been preyed upon.

2058—Peeper is lowered and we leave for Shooting Star Ridge (see B11—2009)

## 15 June 2009

2200—KB and BR peep B4\_429. The nest is empty. We leave.

## 6 July 2009

2215—SR, KB, JG, and KG arrive at the top of Camp Ridge to set up a lure net, our target is the B17 Male. GPS: 495234 4333620 ± 6 m. Pipo, pipu, psme. Ridge top.

2234—Playback started.

2236—M giving TC nearby from E.

2238—TCs move to W than E.

2243—Bird in the net! And unbanded bird in the top shelf from the S. The TCs have stopped.

**New band: 1593-64719**

87.0 g LP5: 97 mm

28.0 g LP6: 102 mm

59.0 g LWC: 136 mm

RECT: 61 mm

There is a brood patch with new feathers beginning to develop on the periphery. We release her without bleeding.

2257—We hear the M back in the vicinity of the net giving TCs.

2303—We release her.

2314—We catch another unbanded bird in the net. TCs to distant S.

**New band: 1593—64720**

91.0 g LP5: 89 mm

28.5 g LP6: 103 mm

62.5 g LWC: 132 mm

RECT: 64 mm

We take a blood sample from the left wing. This F has more developed feathers (larger) on the periphery of the brood patch than the previous bird.

2125—KG heads down Fallen Squirrel.

2335—The F is released and has a strong flight to the west.

2330—Hoarse TC/TEC close to net from S.

2334—KG hears male TC from bottom of Fallen Squirell.

2337—We catch a bird in the net. He approached from the West and is in the second shelf. This bird is previously banded, **#2003-92363, and is the B17 Male since 2004**.

87.5g P5: 97mm

-28.0g P6: 104mm

59.5g Rect.: 59mm

LWC: 130mm

2341—KG hears male TC part way up Cooper Ridge.

2344—KB hears F near net.

2346—M released, playback stopped. Weather: 16C, scattered clouds, calm.

2358—We leave the area.

## 14 July 2009

2125—BL arrives on the S terminus of Camp Ridge to set up lure net for possible capture and affixing of geolocator on the B17 male. Weather: becoming very breezy, mostly clr, 18 C.

2215—Very breezy, but I start the playback nonetheless.

2330—I break down the lure net—it is still very breezy, and the net was well-filled out with wind the entire time.

2345—As I approach the vehicle, I note that the wind has stopped (!) and that the presumed B17 M is singing in the vicinity of where the playback had been going (!).

## 15 July 2009

1415—Crew arrives to peep upper part of B17.

1700—After finding nothing, we leave. The clump of trees in the northern part of the territory

are left unpeeped.

## 31 July 2009

0930—Flam crew arrives at *Potr* cavity snag B17\_1141, approximately 30 m SSW of the NOGO nest tree at the S head of Columbine Cr., to attempt extracting a dead FLOW discovered when the crew peeped this area during the previous visit. Cavity was NOFL-sized, approximately 8-10 m high, and facing W. We used a chainsaw to fell the tree (after felling several younger trees in its projected path of fall), and gained access to the cavity. The FLOW was quite dehydrated (uncertain whether from 2009 or 2008—perhaps the latter) but still retained most of her plumage, and was clearly a F—she had the shell of an unlaid, dehydrated egg still located in what had been her abdominal cavity. One foot was missing, while the other leg below the knee was entirely missing (no leg band found). These observations indicated she died during egg-laying/incubation, possibly defending the nest from a squirrel. We leave with the owl (BL home freezer), and the portion of the cavity tree containing the cavity.

~1130—We leave.

## 18 August 2009

1950—K Kritz (USFWS) and BL arrive on the S terminus of Camp Ridge to set up lure net for possible capture and affixing of geolocator on the B17 male. Weather: PC, calm, 14 C. Afternoon t-storms, but dry here.

2026—Start playback.

2117—**Capture unbanded FLOW in the 2nd shelf from the top**. Owl was not heard vocalizing prior to capture.

2122—FLOW out of net.

**Band # 64750**

93.5 g LWC: 131 mm

- 29.5 g LLP(5): 102 mm

64.0 g LLP(6): 112 mm

Rect: 68 mm

FLOW was bled.

2144—**Two more unbanded FLOW in capture net.**

2150—Both owls removed from net.

2151—The first FLOW (possible F?) released.

**Band # 64751**

82.5 g LWC: 126 mm

- 30.0 g LLP(5): 97 mm

52.5 g LLP(6): 107 mm

Rect: 59 mm

FLOW was bled.

**Band # 64752**

87.5 g LWC: 131 mm

- 29.5 g LLP(5): 101 mm

58.0 g LLP(6): 108 mm

Rect: 60 mm

FLOW was bled.

2225—Both FLOW were released.

2245—We stop playback and break down nets.

2300—We leave.

**2 September 2009**

2000—BY203 students and BL arrive on Sharp-shinned Ridge to set up lure net for possible capture and affixing of geolocator on the B17 male. Weather: MC, lightly/moderately breezy most of time.

2031—Playback started.

2145—Nothing. We break down lure net and leave.

# B17—2010

## 25 May 2010

~2350—DW and KB climb Biker Trail near B17 to listen for calls.

2354—DW hears TC down ridge NW toward Columbine Creek.

~2405—We leave the area by hiking out down Biker Trail.

## 15 June 2010

2252—A lure net is set up by KB and JV on Sharp-Shinned Hawk Ridge. Net is set up facing northwest about 6m west of the biker trail.

X: 495450

Y: 4333251

+/-: 6m

Weather: 12C, clear with no wind

Vegetation: mature pipo/psme area

2256—A M starts calling from the southwest in Columbine Creek.

2259—M goes silent.

2315—M gives TCs from the southwest and begins to come toward the net.

2319—M goes quiet🡪playback is moved from facing west to east.

2335—**Capture a F in the net. She is previously unbanded and KB puts a band on her.** She flies into the 2nd shelf of the net coming from the west.

**Band # 1593-64771**

109.0 g

- 27.0 g

82.0 g

2341—We release the F. She flies strongly to a tree about 10 m away from the release point. She flew from that tree a minute later at 2342.

2337—M starts giving TCs and TECs from just on the east side of the net.

2345—Another M starts calling from the southwest and both Ms are now close to the net.

2348—Capture the F again, but this time from the west in the 3rd shelf of the net.

**Band # 1593-64771**

2349—Release F from 50m north of the net on the biker trail. F flies strongly away and turns to the east northeast.

~2348-2407—While F was in hand for the 2nd time a M started to call from the east. Then 2 other Ms started giving HECs just south of the net. The 2 Ms on they flew at each other and all three Ms continued to call and fly around the net. Until the playback was turned off.

2407—We turned off the playback.

2417—We leave.

## 22 June 2010

2250—SY, JV, JSG arrive at the top of Sharp-Shinned Hawk Ridge to listen for nesting vocalizations in B17 Columbine Creek and Sharp-Shinned Hawk Ridge.

Weather: 16C🡪clear and somewhat humid

2317—Hear B10 giving TCs to the WSW.

2320—We leave.

## 30 June 2010

1434—Flam Crew begins tapping/peeping in B17.

1705—We finish for the day (no nest finds), having tapped and peeped all of Columbine Creek and Sharp-Shinned Hawk Ridge, but only a handful of trees on Sierra Madre Ridge.

## 7 July 2010

1552—Flam Crew begins tapping/peeping on Sierra Madre to finish from 30 June 2010. Heavy hail and rain have fallen

1726—We finish peeping, no nests.

## 8 July 2010

~2140—SY, BG, and JSG arrive at Biker Ridge/Sierra Madre intersection to set up lure net. We are targeting B12 and B17.

Weather: mostly cloudy, light wind, 11C

Vegetation: mixed age (mostly small in microsite) Pipo/Psme

X: 0495419

Y: 4333090

+/- 6m

2208—Start playback

2215—B12 gives TCs and comes in towards net from the W. He is in the area until 2230 when he goes silent.

2319—SY and BG leave to tap cavity trees which have not yet been peeped down the ridge.

0000—SY and BG return to lure net to join JSG.

0002—We stop playback after no other owls are heard in the area.

0015—We leave the area.

# B17—2011

## 31 May 2011

2335—AW, KB, and BL arrive near the junction of Camp and Vista Ridges to attempt spot-mapping. Weather: calm (after being quite breezy until ~ 2230 hr), clear. Almost immediately, we hear a M giving TCs near the S end of Camp Ridge. We pursue.

2344—We locate the singing M—whom we presume to be the B17 M—just off the S end of Camp Ridge, and mark the first of four different songposts in mature/old *Pipo’s* and *Psme’s* (see Songpost Data Sheet for details). This first song post (and where the M returned to sing when we left him for the night) was within ~ 5 m of a nestbox mounted on a mature, live *Pipo*. We tap on the tree, but had no response.

2420—We leave the ridge to rendezvous with the rest of the Flam Crew on Grave Ridge. M sang nearly continuously during this time period, giving mostly TCs. Flam Crew members on Bermuda Ridge reported that males from B4, B5, and possibly B1 were also singing at least intermittently over this time period.

## 1 June 2011

2140—JV, JG, and JR arrive at the top of Biker Ride to lure net. A M is giving TCs to the E of the net set up.

2150—Net is up and discover there is no battery life in the mp3 player.

2203—Teams starts taking turns giving TCs and TECs instead of mp3 player.

Vegetation: mature pipo/psme, low ground cover

Weather: wind ~10-20 mph, clear skies, 14 C

X: 495440

Y: 4333243

+/- 3m

2225—JG leaves to tap old B1 nest and listen.

2230—Lure net falls down in wind!

2250—JV and JR get all sticks out of net and take it down.

2307—JV and JR go out onto Sharp-shinned Hawk Ridge to spot map.

2315—Two Ms are heard calling in West Missouri Creek.

## 7 June 2011

1500—Flam Crew begins peeping from the B4 parking spot into B1, B17, and up the Biker Trail into B10.

1720—We finish peeping, having not completely peeped these territories. Refer to Master Flam notes for additional peeping needs.

2157-2318—Playback/lure running on top of Biker ridge near B17 territory.

2157—BG, JV, KB, and CB start playback on Biker Ridge, hoping to target B12 and B17 Ms for lure net capture.

Vegetation: mature pipo, some psme, moderate ground cover

Weather: clear, calm, 14C

X: 495482

Y: 4333150

+/- 3m

2203—M comes into net area from B12 drainage area. Gives TCs and a few TECs.

2208—Bird in the net, probably B12 M. Caught in 4th shelf from SE. Takes 8 minutes to untangle him from net.

**Bird is unbanded, JV bands with # 1593-64826 (on L leg).**

90.0 g LWC: 134 mm

- 34.0 g LLP(5): 94 mm

56.0 g LLP(6): 103 mm

Rect: 64 mm

Bird has large pterolosis but not large enough to be F. BG bleeds left wing, results in hematoma.

2232—We release M, strong rising flight to the East.

2237—KB and CB drop down into B12 drainage to listen and tap cavity trees.

2247—TC response from SE, probably B12 M, he approaches and gives TCs.

2318—Playback off, break down net.

2333—BG and JV move from Biker Ridge down Sharp-shinned Ridge to the South, listening, tapping and giving hoots. Hear occasional, faint hoots from B17 drainage/South.

2355—BG and JV exit B17 area having heard no close vocalizations from B17, but distinct responses from B1 and B10 Males.

## 21 June 2011

1445—Flam Crew begins peeping B13, B12, and B17.

1611—**BG peeps cavity tree B9\_195, this is B17 2011 nest! The nest tree is approximately 50 meters E of the confluence of Columbine Creek and the side-drainage off Sierra Madre containing the Goshawk Nest active this year. Cavity has small diameter (probable sapsucker cavity), faces SSE, and has height of 16’6’’. Nest discovered on peep as F did not respond to tap.**

1700—We finish peeping, having found nests in B12 (aspen flat) and B17 (Columbine Creek) and having not found a nest in B13 despite a complete peep.

2201—CB has the capture net up at the B17 nest. M is giving TCs in the nest site.

2211—M goes quiet and TCs begin to the west in the drainage.

2215—M goes silent.

2237—M gives TCs just S of the nest about 10 m away.

2238—M goes quiet.

Weather: clear, calm, 13 C

2254—M gives TCs S of the nest.

2258—M goes quiet.

2300-2305—M goes up Sierra Madre to give 2 TCs and then back down to the nest site to circles around giving TCs.

2312—M goes silent after giving TCs to the NW of the nest for about 5 min.

2315—After having the net up for 75 min and seeing no attempted PDs and hearing nothing from the F, the team decides to take down the net and lure net for the M on Sharp-Shinned Hawk Ridge.

2337—JV, BG, and CB start playback on the far west end of Sharp-Shinned Hawk Ridge.

Vegetation: mature pipo/psme

Weather: clear, calm, 9 C

X: 494892

Y: 4333301

+/- 3m

2349—**Catch silent bird in the net in the 1st shelf coming from the east—he is previously banded**.

**Band # 1593-64826 (on left leg)**

Weight 97.5 g

33.5 g

**64.0 g**

This is the bird JV and BG caught on 7 June 2011. We noted a large pterylosis at the time and are now seeing obvious pinfeathers. We get confused and think it may in fact be a female with a failed nest but later determine following consultation with SY and BL that it is most likely a M. We originally labeled this M as the probable B12 M, but we will have to finish capturing at the nests in order to confirm the identity of the B12 M.

2359—Release the M and he flies off with okay flight downslope to the SE.

2405—B1 M begins to respond to the playback with TCs from the NE of the net.

2410—Turn off playback, take down net and leave.

## 28 June 2011

2222—PS, BG, and JV (aka PB & J) arrive at the B17 for attempt at a capture of the M. M begins giving TCs and PB & J sit to watch the nest for a couple minutes before putting the net up.

2226—PS has the net in position. M begins giving TCs again about 7 m to the SW of the nest.

2231—M gives 6-8 TCs W down drainage.

2233—M moves up to Sharp Shinned Hawk Ridge.

2238—M comes back into the nest site.

2239—JV sees possible UFO flying S to N and M immediately begins giving TECs in the same perch just SW of the nest.

2241—M flies to land on the nest tree still giving TCs and TECs. F begins giving FECs.

2244—M flies S of the nest tree.

2245—F flushes. *\*Note: PB & J are sitting very still and making no noise when the F flushes. She may have been upset because of the UFO in the area, hence the FECs.*

2246—JV peeps. **There are 2 eggs touching in the center.**

2247—PB & J leave.

2250—M starts back up with the TCs east of the nest.

2300—PS, BG, and JV (aka PB & J) arrive at the top of Sharp-Shinned Hawk Ridge to listen and try to solicit encounters in order to ascertain the status of the B1 male. B17 M can still be heard giving TCs to the SW by the nest.

2301—BG gives a couple of TCs and B17 moves further N to give TCs, but not too far up the ridge.

2322—B17 gives a couple of TCs back on the slope next to the nest site in response to PB & J’s TCs.

2359—B17 giving TCs down at the nest in Columbine Creek.

2406—B17 goes silent.

2415—BG and JV meet up at the junction of Biker Ridge and Sharp-Shinned Hawk Ridge to listen for a couple minutes before heading back to the vehicles.

2425—Nothing is heard so B & J head back down the Biker Trail to the vehicles.

## 30 June 2011

2258—BG, JV and PS arrive at B17\_2011 nest to attempt capture of M.

Weather: Partly cloudy, slight rain, 10C

2312—Net up and in position.

2346—M comes in from east giving TCs and moves to the north of the nest.

2350—M goes silent.

2354—M picks up again giving TCs N of nest and moves farther up Sharp-Shinned Hawk Ridge.

2359—M moves within 5 m of nest giving TCs.

2405—We leave.

## 5 July 2011

2031—PS, BG, and JV (aka PB & J) arrive at the B17\_2011 nest for an attempted capture of the F. The F is already up in the cavity leaning far out. PB & J back off a ways to an area behind the tree.

2033—F flushes.

2034—JV peeps the cavity and there are no longer any eggs. There are egg shells fragments in the cavity, but none are visible around the nest tree. It is apparent that the **B17\_2011 nest has been predated.**

2037—F goes back onto the cavity, all the while giving FSCs and other calls. She is obviously in distress.

2038—F flushes again on her own, clearly searching for her owlets. PB & J decide to try to capture her because they don’t need to worry about her abandoning the nest.

2048—PB & J have a mist net set up just next to the nest tree to capture either the M or the F.

Weather: cloudy, 17 C, calm

2053—M comes into the nest site giving TCs and TECs.

2300—PB & J start playback on the south side of Sharp-Shinned Hawk Ridge just north of the B17\_2011 nest site.

Vegetation: young to medium pipo/psme

Weather: calm, cloudy, 27 C

X: 495107

Y: 4333312

+/- 4 m

2335—A M starts calling from the SW in Columbine Creek.

2340—M goes silent.

2405—PB & J turn off playback and take down net.

**NOTE (6/10/2020—BL) FLAM BAND SHOWS THAT THE B17\_2011F (BAND #1593-64870) WAS CAPTURED ON THIS DATE (7/5/2011), SUGGESTING FIELD NOTES FOR THIS CAPTURE WERE NEVER ADDED TO THE ABOVE ENTRY.**

## 21 July 2011

2254—Start playback on top of Sharp Shinned Hawk Ridge.

Vegetation: Mixed pipo/psme.

Weather: Calm, clear, 16C.

X: 494979

Y: 4333323

+/-3

2310—M TCs heard to SW and a few F begs closer to the net than the M TCs. M moves further

S towards the ridge.

2320—B17 goes silent. SY goes to check net and sees an owl flying around net site silently. B1

starts to respond as well but never comes very close.

2354—Turn playback off and we leave.

## 22 July 2011

2231—AW and JG begin playback on a NW spur of Sierra Madre ridge in B17 targeting the B17

male whose nest failed earlier this year.

Vegetation: Mature psme with some younger trees near net.

Weather: Windy, strong gusts, clear, unknown temp.

X: 495108

Y: 4333294

+/- 6m

2305—End playback, break down net, and leave. We did not hear any response while the

playback was on.

# B17—2012

## 29 May 2012

2405—BL travels through Columbine Cr in the B17 territory listening for nesting activity, tapping potential nest trees, and attempting to elicit territorial song.

2420—I hear M give a few quiet TCs near the confluence of Columbine and W Missouri Cr; this was repeated 2-3 min later.

2430—Approximately 50 m E (upstream) of the confluence of Columbine and W Missouri, I hear F give several FSC on the S side of the Columbine drainage. I pursue and find the F perched in a conifer adjacent to two Potr cavity trees (B10\_1130 and 1049; tags of same #s). She resumes giving FSC as the M arrives, giving LC, and delivers prey. She flies 5 m, then resumes perching.

2440—I leave. F still perched in conifer, giving sporadic FSC. F appears to be relatively sedentary, probably in the latter stages of egg-laying, hopefully nesting in one of the adjacent cavity trees.

2400—NS on Sharp Shin Hawk ridge, between B1 and B17 territories, moving between cavity trees and song trees giving calls every few minutes and listening for responses in between.

2440 – Silent male sighted on branch 5m high on top of ridge, observing NS presumably in response to calls (pipo where male was first observed was flagged.) Male sighted approx. 2 minutes after last set of calls.

2441 – Male moves to a different tree 10m away, still quiet and observing NS.

2442 – Male leaves ridge area.

2450 – NS and BL left area.

## 4 June 2012

1519—**BL, AW, JR, CC, and AP arrive at B17\_1130. F is up! This is the B17\_2012 nest**

**tree! Nest tree is a potr broken top snag located approximately 50 m down drainage**

**from the confluence of Columbine and Goshawk and is just out of the bottom of Columbine on a N facing slope. The nest is located in a flicker sized cavity facing N-NE just beneath the fork in the tree. Cavity is approximately 6.5 m from the ground.**

X: 494919

Y: 4333227

+/- 4 m

1526—M gives TCs from approximately 50 m to the SW.

1527—We leave to peep B12.

~1500-1700—BL, AW, JR, AP, CC, and Scientists David Johnson and Shannon peep B10, B17, and B12. The B17 nest is found. No nests are found in the parts of B10 and B12 that are peeped

Weather – Cloudy, clearing as the night went on, breezy.

2130—NS, BL, David Johnson, and Shannon arrive at the B17\_2012 nest to attempt capture of M. All quiet when we arrive, and we do not hear any vocalizations as we approach. Weather: overcast, increasingly calm in the drainage but still breezy on the ridgetops.

2143 – Net setup begins.

2200 – Net in place.

2230 – TCs heard from W of nest.

2235 – TCs heard from SE of nest.

2305—We leave the nest area to set up a lure net on the W end of Sharp-shinned Hawk Ridge. M came into the nest area on two occasions, but the F did not respond to his TCs and LCs, and he did not approach the nest tree.

2341 – Playback begins on Sharp-shinned Hawk Ridge.

2345—BL returns to the nest area to again attempt capture of M, NS, David Johnson, and Shannon remain at lure net on Sharp-shinned Hawk Ridge between B1 and B17 territories.

2415—F leaves the nest cavity, and after a couple of minutes she returns to the nest area and on two occasions about 1 min apart, she flies over to and lands on the erected capture pole. After the last landing, she then flew to a perch at BL eye-height approx. 1.5 m away and stares at him for approx. 1 minute before leaving the nest area.

2420—BL leaves the nest area. M came into the nest area once during this time, but again, after giving LCs without the F responding, he left the area.

2435 – Net breakdown begins.

2453 – Net down, group departs for SUV.

## 11 June 2012

2033—AP and BL arrive at the B17\_2012 nest site to attempt capture of F or M. As we approach the nest, from 30 m away we can see the F in the cavity entrance. Weather: slightly breezy in the drainage, stronger breeze on the ridgetops, mostly clear, 17 C.

2036—F goes down, and BL circles around behind the nest tree to get into capture position.

2040—F rises to cavity entrance.

2042—F goes down.

2048—F rises to entrance.

2049—F flushes from the nest cavity (BL was still well behind the nest tree and probably not the impetus).

2059—F returns to nest area.

2100—M arrives in nest area giving LCs, and F responds with FSC before returning to cavity.

2103—At this time the M makes his first PD in the nest cavity (**note**: M did not fully enter the cavity, but perched briefly in the entrance and leaned into the cavity). After he exits, BL moves to get into capture position.

2106—F rises to entrance.

2108—Silent M arrives in a conifer 5 m N of the nest tree (also no vocalization from F).

2109—**This M flies to the cavity, apparently attempting to deliver PD, and is captured as he exits from the cavity entrance (note: like the 2103 entry, the M appeared to lean into the cavity entrance). This M was previously unbanded.**

**Band # 1783-64301 (on x leg)**

71.0 g LWC: 132 mm

- 15.5 g LLP(5): 100 mm

55.0 g LLP(6): 108 mm

Rect: 60 mm

We take a genetic blood sample from the R wing (no hematoma).

**Blacklight** (R and L wings symmetrical):

* + P1-3: strongly pink
  + P4-8: lighter pink, and decreasingly so (in order)
  + P9-10: little/no pink

2125—At this time, we hear a M giving rather quiet TCs in the vicinity of the nest (**Note**—we still have the capture M in hand)! M vocalized 6-8 X before quieting. BL rushes over to the nest area, but no FLOW are observed and all is quiet. **Do we have a helper M in our hands??**

2150—We complete the processing of the captured owl, and decide to hold onto it while we return to the nest area.

2155—We arrive in the nest area.

2207—M arrives in the nest area, first giving TCs and then LCs, to which the F responded with FSCs.

2208—BL returns to capture position.

2209—Net in place.

2217—We hear M giving TCs approximately 50 m E up Columbine drainage.

2222—M arrives in the nest area, giving TCs while he circled the nest vicinity.

2225—M still giving TCs, but he leaves the nest area.

2230—BL lowers the net.

2233—We release the captured M from ~ 30 m N of the nest; M flushes 5 m with ascending flight. We leave area. **Note:** **We could not discount the possibility that the M we captured could have been a UFO simply checking out the status of the nest (as observed during radiotelemetry days of past). However, what suggested that this could have been a helper M was that the UFO approached the nest with apparent ease and did not crash into vegetation or show tentative flight as has typically been observed for such non-helpers.**

2244—As we pass by the confluence of Columbine and W Missouri Creeks on our way to B10 territory, we hear M giving TC from Sharp-shinned Hawk Ridge (B1 or B17 male?).

2204—MD, JR, JV, AW, and CC set up lure net on top Biker Ridge fairly far down between the B12 and B17 territories. Net opens to the southwest.

Vegetation: young and medium psme/pipo

Undergrowth: grasses, juco, aruv, gefr

Weather: 10-15mph winds with gusts around 20mph, clear, 12C

X: 495232

Y: 4333025

+/- 3m

2210—Playback is started.

2231—AW, JR, and CC drop down into B12 to listen. Wind is continuing to blow strongly up on Biker Ridge. JV and MD stay at the net.

2408—We take down the lure net and hike out.

## 12 June 2012

2041—BL and PPS enter B17\_2012 nest site to try to catch territorial and helper MM. As we enter site, F is up.

2043—F not in the cavity, we presume she has gone down. Weather: somewhat cloudy, little to no wind, 20C (but quickly dropped to at least 16C).

2052—BL gets net in place.

2055—F flushes. BL moves back.

2058—F moves back into area to nearby psme but we do not see her reenter the nest.

~2102—A bird, we presume the F, flies to nearby psme trees very close to PPS and BL and stares at us.

2104—The bird that was creeping around us, presumably the F, flies away up slope.

2105—M calling off roost up slope.

2109—F gives SCs near to nest to the NE. M gives a few calls from the W.

2115—F flies to, away from, and then finally returns and reenters the nest.

2120—M gives LCs up slope to W.

2122—M enters nest area and lands on psme across from the nest down slope to the N.

2123—Apparent PD.

2125—BL gets net set up again.

2130—M gives TCs from E.

2136—M enters nest area.

2137—M gives LCs.

2138—**After giving additional LCs, M makes an apparent PD at the cavity entrance and is captured as he exits. M was previously banded with Band # 1783-64301—this was the M we captured last night!** BL proceeds to process him while PPS stays at the nest to observe activity.

**Band # 1783-64301**

86.0 g

- 30.5 g

55.5 g

2151—BL returns to the nest area, handing off the M for PPS to hold, while BL returns to capture position in hopes of capturing a 2nd M.

2206—Second M gives one TC far to the W.

2208-2212—Second M gives TC from the nest area to the W.

2305—The first M is released. Strong ascending flight to the S. We leave the area. **Note: While the M we recaptured tonight (64301) did not vocalize at all last night, we clearly gave LC while approaching the nest tonight and this was proceeded by a few TC in the nest area. Since we also had a 2nd M showing territorial behavior in the area tonight, this suggests that (1) the resident M and helper M are territorial (something we apparently have not observed before), or that (2) the territory boundary of a 2nd M is extremely close to the nest—this does not seem likely.**

## 15 June 2012

2028—JV, AW, MD, and PPS arrive in Columbine Creek in attempt to capture either F or M at the B17\_2012 nest. JV and MD stay on the low slope of Sharp-Shinned Hawk Ridge while AW and PPS go down to nest tree to minimize noise levels.

Weather: cloudy, calm, 19 C

2034—AW and PPS enter B17\_2012 nest area and AW raises capture net.

2036—MD and JV join AW and PPS at nest area.

2037—F calls off cavity on a nearby tree to the NE. We suspect she flushed as AW and PPS approached nest.

2039—JV peeps cavity. **It has 3 eggs touching in the center.**

Weather: 19C, sprinkling, overcast, little wind.

2040—AW, PPS, MD and JV back off ~50m from the nest to let F back on.

2043—AW and MD leave to capture at B1\_2012 nest. JV and PPS stay to try to capture B17 M.

2106—JV and PPS go back into B17\_2012 nest area.

2118—JV gets the nest in place.

2130—Two LCs from nest. M captured but gets out of net in a hole.

2143—JV gets the net back in place.

2149—M gives LC across from cavity then flies to the nest tree.

2152—M makes PD and gives LCs from nest. Capture missed.

2153—M gives LCs up slope.

2157—M gives TCs from down drainage to the W.

2210—M gives TCs from SE up the ridge.

2235—M enters nest site and gives a couple of LCs. The F begins giving FSCs from cavity. After a couple of minutes the M leaves the nest site.

2247—M comes back. Into nest site silently.

2257—M captured but gets away again. Flies away to SW.

2308—JV takes down capture net and we leave.

## 18 June 2012

2029—BL and PPS arrive at B17\_2012 nest area. BL sneaks in and PPS waits ~30m N of cavity.

Weather: overcast, little wind, 24C.

2039—BL gets capture net in place. PPS joins BL under nest to put the peeper together.

2045—Because the F is not flushing, **PPS peeps cavity underneath the capture net. F is sitting tightly in cavity.**

2053—M calling off roost ~60m W facing mid slope.

2058—M gives an LC and enters nest area. He lands on a psme ~10m W of nest down slope.

2059—M flushes away and gives TCs to W mid slope.

2102—**F flushes and is captured. She is unbanded with a large incubation patch.**

**Band # 1783-64317 (on R leg)**

95.0 g

- 23.0 g

72.0 g

2103—**PPS peeps cavity. It has 3 eggs touching in the center (and video taken).**

2111—F is released without bleeding or taking measurements. She flew to a nearby log and stared at us and then flew toward M calling to E and gave FSCs.

2112—M calling to W down slope.

2119—BL and PPS leave.

~2123—As BL and PPS are walking down Columbine Cr away from the nest, M gives TCs and F scolds up drainage from us just W of the nest area.

## 22 June 2012

2227—As NS and BL approach the B17\_2012 nest, from our position on the Sharp-shinned Hawk R we hear a M giving TCs in the vicinity of the B17 nest area.

2233-2239: We arrive at the B17\_2012 nest to peep contents. All is quiet in the nest area when we arrive in the nest area—neither the F or M is seen or heard. **We peep and find that the F is sitting tightly on the nest (Video #1), so we cannot see anything beneath her. F peered up at the camera with ½ open eyes.** We leave at 2239.

## 28 June 2012

1242—**SY and MD peep B17\_2012 nets to assess status of hatching. F is on and we cannot see eggs of Ns – hatch status unknown.**

## 2 July 2012

2030—SY, CC and PPS arrive on an upper slope of Sierra Madre above the B17\_2012 nest tree to set up a lure net to try to catch M and suspected helper.

2035—AW and JR arrive at B17\_2012 to attempt to capture the helper and territorial male.

2037—AW has net up.

Weather: Calm, cloudy, 17C.

2048—F up and gives a few scolds.

2049—F flushes.

2050—**JR peeped: 3 owlets, 2 with eyes open, 1 with eye slits, all-white natal down, runt has head down but all owlets are moving a lot. (Video on monitor #4, TVREC024, 22secs)**

2056—As SY, CC, PPS set up lure net, a M gives TCs to SW, ~30-50 m away.

2101—F returns, scolds twice then goes back on cavity.; Playback turned on. Net opening SW.

X: 494944

Y: 4333191

+/-: 3m

Weather: Partly cloudy, calm and 18C

Vegetation: medium-mature psme and pifl.

2105—AW has net up, M giving TCs to W moving towards the lure net.

2106—M giving TCs down slope near nest area (JR and AW at nest confirm M in nest area).

2108—M giving TECs just down slope, N, of net. **We hear him hit the net and he is caught in the 1st shelf from the N. He is previously banded and is the B17\_2012 M. As SY goes to extract the bird, he sees another bird fly over the net from the N and sit in a psme next to the net, up slope.** M vocalizes several times while in hand.

**Previously** **Banded # 1783-64301** (on L leg)

82.0 g

- 29.0 g

53.0 g

2114—F up.

2115—**2nd unbanded M caught in the 3rd shelf from the S.**

**New** **Band # 1783-64331** (on L leg)

79.0 g LWC: XXX mm

- 27.0 g LLP(5): XX mm

52.0 g LLP(6): XXX mm

Rect: XX mm

Notes: Bled on L wing, small hematoma formed.

Black light notes: R wing

Score

Scale 1: P1-4 3

P5-8 1

P9-10 0

Scale 2: P1-5 2

P6-8 1

P9-10 0

Visual Assessment (0-5): P1-4 1

P5-6 3

P7-10 5

Visual Assessment (0-3): P1-4 1

P5-6 2

P7-10 3

LED light superior to wand light, SY pics 927-929.

2116—F flush, we take net down and back off.

2120—F scolds and goes back on, assumed F PD.

2129—M gives TCs to W.

2142—2nd M (64331) released with strong flight downslope (N). TC’s heard down slope in release direction near B17\_2012 nest site almost immediately after release of M.

2150—After moving closer and closer to playback and giving TCs, M goes silent.

2158—1st M (64301) released with strong flight downslope (N).

2204—F scolds, but doesn’t flush.

2207—Banded M caught in third shelf from S. Silent directly before capture, but called in hand.

**Band # 1783-64301** (on L leg).

2209—M released immediately after extracted.

2212—M giving TCs to NW, ~10m down slope of net.

2213—M possibly bounced off of net.

2217—Banded M caught in third shelf from S, almost exact same place as the last time. Called before capture and was immediately released to W.

**Band # 1783-64301** (on L leg).

2218—Playback stopped to try to allow a PD at the nest.

2221—M gives TCs to W (no playback ongoing at time)

2234—A bird flies silently into the area and perches on psme snag ~15m down slope of where SY, CC, and PPS are sitting at the net. It flies to the SW and gives a few TCs. SY goes to pursue it.

2244—TCs to NW.

2249—TCs

2252—F flushed on her own.

2254—Assumed F PD.

2314—M captured on PD. **Band #1783-64301**. SY returns to net site, nothing else heard on Sierra Madre R.

2318—M released.

2321—M in nest area (silent).

2330—Silent bird perches on psme directly W of nest, then takes off down drainage at 2332

2345—PD by presumed #64301.

2359—After wandering on Sierra Madre spur above the lure net, PPS hears TCs on the next ridge to the NE and gives chase.

2401—PD, possibly by second M, bird used different tree than we have seen #64301 use.

2405—PD by presumed #64301.

2407—M captured on PD, vocalization prior to capture (possibly F?), **Band #64301.** While we had this M in hand, TCs could be heard on Sharp Shinned.

2411—PPS chases bird up low slope of ridge to E of lure net and finds it perching and singing in a psme(?). Songposted at X: 495056 Y:4333199 +/-: 3m. While the M is singing, PPS hears a second M singing far to the E.

2418—PPS chases M S across a small drainage. M goes quiet ~15m SSE of X:495076 Y:4333127 +/-:3m.

~2438—PPS chases bird up on top of the ridge to E of lure net. Songposted in a psme slightly over to the E of the ridge at X: 495146 Y:4333172 +/-:3m. M flew off to the S along the ridge when I got close.

2452—CC and SY chase a M singing on the ridgetop of SS Hawk R. ~50-65 m NE of the B17\_2012 nest. (Marked as B17\_3).

2456—M gave 1 LC prior to PD, used a different perch, caught **band# 64301.**

2458—M released.

0103—2 birds calling, one to the W, one to the E. PPS chases the one to the W, and got within sight of first songpost when the bird went silent and either same bird or a different one gave TCs closer to the W and then moved slightly S. CC and SY follow bird to the W.

~0111—M giving TCs to NE nearby to top of ridge to E of lure net (Sierra Madre R), but then moved far to the NNW. Possibly two birds?

0117—From far W end of SS Hawk R. CC and SY can hear a bird to the W on the E side of Shooting Star R. as well as a 2nd bird to the NW up Homestead CR (possibly on slope of Shooting Star R.)

0134—We take down net and leave, having **caught #1783-64301 3 times at the nest, and 3 times in the lure net.**

0145—We leave the B17 area.

## 4 July 2012

~2030—PPS, JR, and BL arrive in the B17 territory to listen for evidence of possible nesting activity associated with the 2nd territorial, but unnamed, M. We initially spread out across the territory, with PPS moving to the N rim of Goshawk Cr, JR moving to Sharp-shinned Hawk Ridge, and BL moving to Columbine Cr.

2035—JR begins heading up Sharp Shinned Hawk Ridge.

2106—M gives a few TCs to the N of JR and then lands in live psme to the S of JR, or S of cavity tree #1106. No prey is observed in the M mouth. He flies to another nearby psme and then off down slope to the SW.

2106—PPS hears HECs ~10m away. The bird called for ~2 min then went silent for a few minutes and then gave two more calls. Couldn’t visually locate the bird, but marked a general area songpost B17(2)\_1 within 5m of X: 495204 Y:4333161 +/-:4m. This is a different bird from the one BL and JR are pursuing since they hear it at the same time.

2107—B17 M goes silent.

2150—After BL gives three TCs near the head of Columbine Cr, a M responds with TCs ~ 40 m to the E (near Biker Ridge) after only a 20 sec delay. He continued moving NW to the SS Hawk Ridge before he stopped, continuing to give TCs during the process. BL marks one songpost near his original position, and JR marks songpost #2 near the ridgetop of SS Hawk Ridge (next entry).

2156—JR songposts B17 M and hears two M having a territorial encounter, supposedly the B1 and B17 M.

2159—PPS hears a few faint TCs to NW towards Goshawk drainage.

~2205—BL and JR hear a F give 3-5 FSC calls approximately 50 m SE the SS Hawk Ridge near the head of Columbine Cr, and she then moves in the direction of the singing M on the ridge top where she gives a few ECs before quieting. We never locate her exact position. At this approximate time, the M starts giving HECs, suggesting a 2nd M was in the area.

2207—M quiets. **Note: We were uncertain of the identify of the singing M and F—it’s possible the F could have been the B1 F off the nest, the identify of the 2nd (quiet) M could have been the B1 M, and the singing M possibly either B17 or the 2nd territorial M that was our focus tonight.**

2236—PPS discovers an unpeeped cavity tree #1013 within a few meters of the general area songpost. No response to tap.

2258—M responds to BL’s hoots with a few TCs to NW near Sharp Shin Ridge. PPS follows.

2304—M calls closer down on the ridge. Unclear whether is on the spur of Sierra Madre or Sharp Shin.

2306—M calls further across to N.

~2310—JR and PPS converge on Sharp Shin following the M’s TCs. We mark songpost B17\_3 at X:494968 Y:4333310 +/-: 3m in a live snag top psme next to the B17\_3 songpost from 7/2/12. We are not completely sure that it is the right tree, so we call it a general area ~15m.

2338—A M gives a couple TCs from Sharp Shin but quickly goes quiet.

2420—We leave for the B14\_2012 nest after not hearing or finding anything more.

2350—JR arrives at B17\_2012 nest tree.

2400—M PD (JR confirms by tapping and the F is on).

2403—F flushes, and passes the M on his way to make a PD.

2408—F back on, scolded first.

2416—JR leaves nest site.

## 12 July 2012

~1515: Flam Crew arrives at the B17\_2012 nest to process owlets and attempt to draw blood from F. We raise capture net over cavity, but **peeping reveals that F is roosting tightly on brood**. We proceed to take extra precautions to remove weight of ladder on nest tree (tying ladder back to adjacent tree to N; having rest of crew pull/push ladder), since the tree is quite unstable.

**Cavity Specs**:

Entrance: 45 x 55 mm

Thickness: 20 mm

Horiz Depth: 120 mm

DOH: 17.0 cm

Vert Depth: 15 cm

1600—We remove two owlets and F from the cavity and proceed to process them.

**Female: Band # 1783-64317**

82.3 g LWC: 125 mm

- 28.6 g LLP(5): 100 mm

53.7 g LLP(6): 106 mm

Rect: 61 mm

**Molt: No molt. P1-3 showed little wear while P4-10 showed moderate wear. Note:** Genetic blood and blood screen taken.

**#1 Owlet: # 1783-64325**

34.0 g (r leg)

P#5: 19 mm (18 in shaft)

P#6: 19 mm (18 in shaft)

Rect: ill-defined

**Notes**: owlet was in 50% natal down, 50% juvenile plumage. Genetic blood and blood screen taken.

**#2 Owlet: # 1783-64326**

31.2 g (r leg)

P#5: 16 mm (all shaft)

P#6: 16 mm (all shaft)

Rect: ill-defined

**Notes**: owlet was in mostly white natal down, with some juvenile plumage. Genetic blood and blood screen taken.

1645—We return owlets, and release F as we leave the site.

# B17—2013

## 29 May 2013

2405-0100: CK and BL tap cavity trees and periodically give TCs to elicit territorial responses in the W Missouri Cr drainage through B1 territory, on Sharp-shinned Hawk Ridge, and in the Columbine Cr drainage north from the B17\_2012 nest site to the head of the drainage. At ~ 2415, we briefly hear M giving TCs faintly to the W in the area of the S end of Shooting Star Ridge (probably B10 M), but other than that, nothing was seen or heard.

## 4 June 2013

2135—AW, RC, and LL begin playback on Sharp-shinned Hawk Ridge approximately 50 m E

of B17\_2012 nest tree on the ridgetop with the intent of luring for the B1 and B17 Ms. Net is open to S.

Weather: overcast, nearby thunderstorms, wind <5 mph, 11C

Vegetation: medium to mature pipo/psme, open

X: 494949

Y: 4333303

+/- 4 m

2142—M gives TCs N of net ~10 m. Prior to this, AW possibly heard TCs from mid-slope on

the N side of Sharp-shinned Hawk R.

2147—**M is captured in the top-shelf from the N. M is unbanded and we band him with #1593-64891 on his R leg.** **Prior to capture, M gave TC/HEC in net vicinity, always remaining to the N of the net. Because of this, we assume him to be the B1\_M.** *Note: this M is NOT the B1 territorial M. It is unclear what territory holder this M is. It is possible he is the B4\_2013 M (never captured) or the holder of a new, undiscovered territory further W in W Missouri Cr.* While in hand, M continues to give HECs. Blood is taken from his R wing resulting in a moderate hemotoma. Blacklight shows medium fluorescence on P1-4 with no fluorescence on P5-10. This pattern is consistent on both wings. P5-10 are extremely worn. P1-4 exhibit light wear with the exception of a V-shaped cut in the tip of P4 on the R wing.

**Band # 1593-64891** (on R leg)

90.0 g LWC: 130 mm

- 29.0 g LLP(5): 99 mm

61.0 g LLP(6): 109 mm

Rect: 60 mm

2217—M released with ascending flight to N.

2220—LL and AW leave to listen for nesting vocalizations and tap in the B1 drainage bottom.

2310—RC ends playback after it starts raining.

2315—LL and AW return to lure net to help RC break it down. They heard and saw nothing while in B1 drainage.

2348—AW, RC, and LL begin listening for nest vocalizations in Columbine Cr (B17 drainage bottom). We spread out around the B17\_2012 nest with LL ~150 m E and ~150 m W of last year’s nest tree.

2430—After hearing nothing, we leave.

## 20 June 2013

~2230—Crew arrives in B17 with intention to lure primarily for B17 M and secondarily for B12 M. Net is set up on the ridge top of Biker R between B12 and B17, opening NE.

2243—As net set up is nearly completed, B17 M is heard giving TCs 50m NW of net.

2246—Playback begin.

Vegetation: Med-mature pipo/psme.

Weather: Clear, calm, 12C.

X: 495300

Y: 4333093

+/- 3m

2249—B17 M moves 60m E along upper N-side of ridge and continues to give TCs ~50m NE of net. He then crosses to upper S-side of the ridge, and begins moving back W.

2257—2 Ms—presumably B17 and B12 Ms—heard giving TCs. One is calling 75m SE of net, and the other 50m S of net.

2303—1 M heard TCing in net vicinity on SW side.

2306—M heard giving TCs 100m NE of net.

2312—AW and BDG leave to listen in B17.

~2340—Bat in net.

2353—Bat removed from net. End playback. AW and RC break down net and leave.

## 24 June 2013

1500—Flam Crew arrives at the B4 parking spot to peep B17 (including Columbine Cr, Sharp-

Shinned Hawk R, Dead Gravid Female (DGF) Creek, and cavity trees on N slope of Biker R).

~1645—**RC peeps B17\_1136 #1136 and finds a F FLOW down in the cavity bottom. Based**

**on listening observations on 20 June 2013 by AW, RC, and BDG, we think this is the**

**B20\_2013 nest (*a B17 M responded to our playback on Biker R to the NE-NW. This M also appeared to be calling from the S slope of Sharp-shinned Hawk R while AW was hiking up a spur of Sierra Madre and heard a second territorial M calling from the drainage bottom of Dead Gravity Female Cr.*  *AW was not able to pursue bird at the time due to a captured bat in the lure net. This second territorial bird was most likely B20 – a B17 M appears to be further E in Columbine Cr).* Nest tree is located approximately 150 m up Dead Gravid Female Creek from the confluence with Columbine Cr. Nest tree is a potr snag with a NOFL sized nest cavity which faces NE (down drainage). There is a second cavity on the tree which is lower and faces S (not the nest cavity). Nest height is ~43’2”.**

~1655—We continue peeping E of B20\_2013 nest along the Sierra Madre spur ridges in pursuit

of a B17 nest.

1730—We end peeping having found nothing.

2248—BDG begins listening in Columbine Cr, E of confluence with Dead Gravid Female Cr.

2342—BDG ends listening having heard nothing.

2358—AW, RC, and BDG split up to listen on Sharp-shinned Hawk R, Columbine Cr, and W Missouri Cr (B1 drainage bottom)

2412—RC hears brief TCs 70+m SW of position on low S-facing slope of Sharp-shinned Hawk R, 100m from confluence of Columbine and W Missouri. RC heads to drainage bottom at confluence to listen, but bird is silent.

2425—RC hears M TCs upslope to SE on N-facing slope of Sierra Madre R and pursues. M is likely either B10 or B20 M. AW and SY make their way toward TCs from Sharp-shinned R and W Missouri Cr, respectively.

2433—M TCs again S upslope another 60m. RC pursues, but M is not calling near enough or long enough for a song post to be identified.

2440—No vocalizations were heard in B1.

2440—We leave.

# B17—2014

## 28 May 2014

2110—RD and BL arrive on the N end of Camp Ridge to lure net for B1 and possibly B14 males.

**Vegetation**: Mature Pipo/Psme, with only a few scattered sub-dominant Psme.

**Weather**: Mostly cloudy (but clearing; light shower at dusk), light breeze on the ridgetops, 18 C.

X: 495222

Y: 4333742

+/- 5 m

2121—We start playback. After the first net check, BL leaves to check the status of the B1\_2013 nest tree (Pipo snag on S end of Camp Ridge) and nearby cavity trees.

2225—All quiet at the net, and nothing heard thus far from anywhere on the ridge (except for helicopter sallies on Ramparts). Sky completely clear now, light breeze.

2228—We stop playback, and start to break net down.

2237—We leave for B14 territory. Nothing heard.

2350—RD and BL arrive in the B1 drainage to tap cavity trees and elicit territorial song. We eventually move up to Sharp-shinned Hawk Ridge, where we call and listen.

0120—We leave via Biker Ridge after not hearing any singing MM.

## 2 June 2014

2458-0145—SY, MC and JS are on the saddle lure netting, after catching the presumed B2 male we spread out to listen. SY hears male TC on S end of Shooting Star ridge and sends MC after him. TCs heard across W Missouri Creek. MC gives chase, getting one song post at the lower end of Sharpshinned Ridge. The bird moves up to the mid-slope of Sierra Madre. He gives TCs from cavity tree B10\_1324 for ~10 minutes before moving up the ridge further. I get one more general area song post higher up on Sierra Madre before leaving.

## 10 June 2014

~1530—Flam Crew arrives to peep B17/B20 territories. We spread out peeping Sharp-Shinned Hawk R, Columbine Cr, Sierra Madre, and Dead Gravid Female.

1649—**RC taps tree #194 and a female pops up. She goes down within two minutes. This is the B17\_2014 Nest Tree! The tree is an old full snag potr, 27.0 dbh that stands alone in the bottom of DGF Cr. ~10m up from the confluence with Columbine Cr. It is a NOFL cavity that faces due N ~35 ft. up.** We leave and continue to peep conifer cavities on Sierra Madre.

X: 494981

Y: 4333237

+/- 5m  
  
1715—We end peeping having found nothing else and leave B17/20 territories.

2140—AW, JKR, and JS arrive at B17 nest tree.

2150— AW has capture net up.

2154 – M flies around site.

2157 – M gives LCs to W.

2231 – M gives LCs and perched.

2236 – M flies closer and attempted a PD.

2245 – M gives LCs then attempts a PD.

2258 – M attempts a PD.

2307 – M attempts a PD.

2314—M attempts a PD.

2315 – AW takes net down and we leave nest site.

2343—Lure net set up on SW slope of Sharpshinned Hawk R. for B17 M we failed to capture at nest. PB started.

Vegetation: Many mature pipos mixed w/ adolescent psmes. Rel. dense slope.

Weather: partly cloudy, no wind, 13C

X: 494855

Y: 4333278

+/- 3m

2401—AW and JS leave to listen in W Missouri. JKR at lure net.

2415 – JKR hears TCs to the SE. Bird moves closer and flies around the net site.

2423 – JKR hears wing flaps, but M continues to give TCs, TECs, and HECs.

2429—**Previously banded M caught** in 3rd shelf, entered from S. TCs given in hand. Previously

labeled as the B2\_2014 M. ***Note: this M has now been captured on Shooting Star R, N***

***Goshawk, and Sharp-shinned Hawk R. He was territorial prior to his capture at lure nets on Shooting Star and N Goshawk. It is unclear whether he was the territorial bird at this lure net or a UFO since we also captured the B17\_2014 M. One of these birds was definitely territorial while the other was silent. It is presumed that the territorial bird was B17\_2014 while the silent one was B2\_2014, although this cannot be confirmed. Both birds were captured within a short time frame, and when JKR checked the net the first time (finding #64457) she did not look down the entire length of the net to check for additional birds. It is possibly that the B17\_2014 M (#64513) was also captured in the net at this time. Either way, it is clear that the B2\_2014 M is using Shooting Star and N Goshawk R to the W-N-E and Sharp-shinned Hawk to the S. This usage suggests that there may not be a current B1\_2014 M.***

**Band # 1783-64457 (on L leg)**

LWC: 131 mm

LLP(5): 96 mm

LLP(6): 105 mm

Rect: 59 mm

2448—AW and JS eventually return to net from W Missouri following a very misfortunate expedition (being completely lost). Note: Led solely by AW.

2449—AW notices net tilting upon reaching lure net site and goes to fix the lean where she sees a FLOW captured in the bottom shelf. **M is unbanded and flew in from the SE. It is unclear whether he vocalized prior to capture and capture time is unknown. We assume his identity as a B17 Floater.** Blood sample taken. ***Note: we later confirm this bird’s identity as the B17\_2014 M. He is NOT a floater.***

**Band # 1783-64513 (on R leg)**

74.0 g LWC: 124 mm

- 22.0 g LLP(5): 96 mm

52.0 g LLP(6): 106 mm

Rect: 54 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 2 | 2 |
| P5 | 1 | 1 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 3 | 3 |
| P8 | 3 | 3 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2452 – Previously banded M released. Strong flight.

2455—Playback turned off.  
~1200—Newly banded M released. Strong flight.

0125—We break down the net and head back to B4 parking spot after Ms are processed.

## 23 June 2014

2320—BL and JS arrive at B17\_2014 nest with intent to capture M. F is not in cavity entrance.

Weather: clear sky, no wind, recent afternoon and evening thunderstorm precipitation, ~12C

2329—BL in position with capture net up. M is not seen or heard.

2336—M perches on the cavity and aborts a PD. Immediately begins giving HECs from N.

2343—**Banded M caught as perches in the cavity entrance! Band #1783-64513 who was caught and banded previously this year on the SW ridge of Sharpshinned Hawk R. He was the presumed a B17\_2014 floater at that time, and we now confirm that he is actually the B17\_2014 territorial M.**

**Band # 1783-64513 (on R leg)**

65.0 g LWC: 126 mm

- 7.0 g LLP(5): 94 mm

58.0 g LLP(6): 103 mm

Rect: 57 mm

Note: P1 and P2 are in shaft on the L wing indicating progress of molting.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | - | 0.5 |
| P2 | - | 1.5 |
| P3 | 1.5 | 1.5 |
| P4 | 1 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 05 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | - | 1 |
| P2 | - | 1 |
| P3 | 1 | 1 |
| P4 | 1 | 1.5 |
| P5 | 1.5 | 1.5 |
| P6 | 2 | 2 |
| P7 | 2.5 | 2 |
| P8 | 2 | 2.5 |
| P9 | 2 | 2.5 |
| P10 | 2.5 | 2.5 |

Note: M was not bled.

2417—M released, strong flight NW.

2422—We leave.

## 27 June 2014

2030—ER and BL arrive in the B17\_2014 nest area to attempt capture of F. F not in entrance.

Weather: Partly cloudy, calm, 13 C.

2042—ER has net up and is in capture position.

2053—M arrives in nest site, giving HECs and SC. He flies to within close proximity to cavity, but veers off with net in place.

2057—M leaves nest area.

2101—M returns to nest area, again giving HECs and SC. He again tries to fly to the cavity.

2105—M leaves nest area.

2113—M returns to nest area, again giving HECs and SC.

2115—ER moves net away from the cavity so M can approach with prey, and then takes it down.

2119—M makes PD—he lands in cavity entrance and leans in, without fully entering.

2121—M makes PD—again at cavity entrance. **We peep; F is sitting tightly on nest, not affording us any view of the contents to determine whether hatching has occurred or not. Note: Even though we could not view underneath the F, the M’s persistence around the nest area suggested that at least some eggs may be hatched.**

2126—We leave area.

## 30 June 2014

2035—JS and SY arrive at the B17\_2014 nest to attempt to capture the F.

Weather: ~18C, cloudy, breezy – up to ~5 mph

2039—Net in capture position – no response from the F.

2049—M gives TCs from ~10m W of the nest. He approaches the nest tree, prey laden, and appear to be attempting to make a PD.

~2052—M departs the nest site.

2101—M returns to the site from the W and again appears to be wanting to make a PD.

2101—We pull net back to allow PD – M makes PD and we put the net back over.

2106—M enters site – we pull back the net and allow him to make a PD.

2108—Same.

2114—Same.

2115—Same.

2117—Same. We decide to stop allowing PDs at this point.

2123—M comes into the nest site silently and perches ~1m N of the cavity.

2125—F flushes the cavity into the net but she manages to escape out a hole in the bag as we are

trying to get the net “unstuck” from the nest tree. **We peep and find 3 nestlings. Eldest has eyes open, no egg tooth, and in full white natal down. Youngest is pretty small, still has egg tooth, and displays less movement. We estimate age at approximately 5 days for eldest which would put hatching at 6/26±1.**

## 2 July 2014

2046—JV and JS arrive at the B17\_2014 nest in attempt to capture the F.

Weather: cloudy, calm, 12 C

2047—JS has capture net in place. M comes into site.

2048—M giving LCs and TCs and make PDs.

2051—M PD.

2053—M PD.

2054—JS has net back on cavity.

2056—M aborts PD and flies off up DGF Creek.

2058—M in site.

2059-2100—M aborts PD x 5 and lands on net.

2102—M aborts PD.

2103—JS takes net off cavity and M makes a PD.

2108—M in site and aborts PD x 2.

2109—JS takes net off cavity and M makes a PD.

2110—M aborts PD x 2 and then lands on the net and makes a PD through the net.

2111—M aborts PD.

2115—M lands on net and makes a PD through the net.

2117—JS takes net off and M makes a PD.

2122—M aborts PD.

2124—**M lands on net and attempts to make a PD but seems to get stuck in the net and the F pops out of the cavity into the net. She was previously banded with Band # 1783-64357—this was the B14\_2013 female! Note: This is one of the few examples of breeding dispersal where the F dispersed from a successful nest in the previous year (bl—7/5/2014).**

**Band # 1783-64357 (R leg)**

*This is the B14\_2013 F. This is another example of dispersal in Missouri.*

78.0 g LWC: 129 mm

- 22.0 g

56.0 g

2133—JV releases F. Strong flight to the NE.

2134—JV and JS leave to go get a peep on B12 \_2014 nest.

**We peep the nest: 3 Ns all in white natal down. Eldest two are fairly active with the largest clearly having eyes open a little bit. Youngest definitively has egg tooth still and is much more sedentary than the older two. Age estimate is 7-8 days which is consistent with a hatch date of ~6/25.**

We depart.

## 16 July 2014

2103—SY and RD arrive at B17\_2014 nest intending to watch for possible fledging. There is no FLOW in the entrance on our arrival, however the F came over to scold from a branch on the nest tree when we peep the cavity. The M also gave a few TCs/TECs w/in 10m during our peeping. **Peep reveals 90 % certainty (poor quality image) of 3 nestlings. At least two of the nestlings have well defined facial disks and are very active.** Nestlings began begging soon after our arrival.

2124—M is giving TCs/TECs in the nest site, perched on a psme in front of the cavity.

2127—M makes a PD.

2148—N begging from inside the cav.

2152—SY and RD depart from B17.

***Note****: Slight rain, ~20C, calm. The Nestlings never came into the cavity mouth as far as SY and RD are able to determine. SY notes that the M and F were active only when we were threatening the nest (peeping), otherwise remaining fairly quiet.*

## 18 July 2014

2038—JS and AW arrive at the B17\_2014 nest tree to check on status of nest and fledge watch. **We peep and see 2 nestlings still in the cavity. We check capture progress and find there was originally 3 nestlings, so we peep again. This time we see 2 nestlings definitively, but also observe movement below one of them that seems to suggest a third nestling underneath.**

Weather: calm, clear, 19C

2040—M calls off roost ~40 m E-NE.

2046—Nestlings begin begging in cavity.

2050—First PD observed. **Between 2050 and 2206 we observe 41 PDs.** Neither adult vocalizes on any of the PDs, so it is unclear which adult is making the majority of the PDs.

2053—Owlet comes up to entrance. **Owlet remains in entrance for at least 30 minutes.**

2143—AW spotlights cavity. Owlet is no longer up in entrance.

2158—**We peep again to check that we did not miss a fledgling event. This time, there are clearly only 2 nestlings in the cavity. We begin searching for the missing fledgling.** AW and JS spread out to listen in the immediate nest vicinity and the slope to the E-NE where the M was heard calling off roost.

~2245—SY and RD arrive to assist.

2254—AW hears M LCs to S from her position on the slope to the E-NE of the nest tree. M seems to be ~30 m E of the nest tree. I go to investigate, but hear no further vocalizations.

2310—We hear 3 fairly loud N begs from E of the nest on low corner slope of Genesis R., just below where we previously heard the M. Again, we converge to investigate, but are unable to locate the fledgling.

~2330—We peep for a fourth time to ensure fledging did not happen while we were searching. The camera is foggy, but we see movement in the cavity and presume that fledging did not occur. We leave.

## 19 July 2014

2040—RD and JS arrive at B17\_2014 nest to fledge watch and search for fledged owlet. No one in the entrance. W**e peep: 2 nestlings present, all juvenile plumage and ready to fledge.**

*Note: PDs are constant. Nestling comes up to entrance ~2050 and is up for 30 minutes receiving PDs. M gave occasional LCs around the nest. We heard 1 FSC as well. There was no sound heard from the fledgling as we searched ~100 E, S and ~50m N.*

2125—Nestling back down in cavity. We leave nest to go listen and are later joined by MC. Nothing substantial heard.

2225—We leave.

## 20 July 2014

2039—RC arrives in B17\_2014 nest area to fledge watch. **Peep reveals apparently 2 Ns remaining (as expected), but monitor cuts out after <1sec, precluding a confident confirmation.** I back off to silhouette.

2046—M LCs nearby.

2052—N up and begging.

2055-2140—M and F bring 40 PDs. N (unclear whether switching is occurring) is up fairly continuously until ~2125, then goes down. Parents attempt to coax Ns up to no avail.

2154—I attempt to peep again after resetting monitor, but am unsuccessful (monitor shows no signal with 2 cameras). F begins scolding and I leave. *I was hearing 2 Ns begins from the cavity during observation, saw both parents making consistent PDs, and never witnessed a fledging event, so I am fairly confident that 2 Ns remain in the cavity.*

## 21 July 2014

2048—AW, JS, and RD arrive at the B17\_2014 nest to fledge watch. As we arrive, M begins giving TC/TECs ~30 m SW of the nest tree. **We peep and find only 1 nestling remaining in the cavity.** JS remains at nest tree to fledge watch while AW and RD begin listening for fledgling vocalizations.

2056—JS hears rustling just N of nest tree. AW goes to investigate, and also hears rustling. **AW spotlights fledgling on ground, just N of nest ~10 m. Based on proximity to nest and position on ground, I suspect fledging occurred earlier in the evening, just prior to us arriving at the nest.**

**Band # 1783-64567 (on L leg)**

51.0 g

P#5: 70 mm (13 in shaft)

P#6: 72 mm (18 in shaft)

Rect: 37 mm (11 in shaft)

Band#: 1783-64567

Notes: Bled on L wing obtaining genetics and parasite smear.

2116—JS and AW place newly banded fledgling in a small psme near ~10 m N of nest, ~1.5 m

off the ground. RD continues listening E of nest, traversing E ridge above DGF N to S.

2124—AW begins listening for eldest fledgling N of nest ~100 m as JS resumes observing nest activity. PD witnessed at this time as remaining nestling is continuously begging from within the cavity.

2125—PD.

2128—PD.

2129—PD.

2130—2 PDs

2134—JS leaves nest to listen W of the nest along Sharp-Shinned R.

2150—JS from her position ~150 SW of the nest, sees silent swoop E into the drainage bottom in vicinity that M was heard calling upon arrival at the nest. RD joins and they investigate, nothing seen or heard.

2207—AW slowly arcs from her position N of nest to the E, maintaining a radius of ~75-100 m. I listen on the spur ridge of Sierra Madre, just NE of DGF drainage, first walking up the ridge, then walking back towards the nest tree along the mid-slope. Eventually, I cross DGF and head S on top of the next ridgeline.

2232—Since 2207, AW has crossed Columbine Cr and listened SW of nest tree on the mid-slope of Sharp-Shinned Ridge. I end listening near the nest tree having heard nothing. JS and RD hear nothing significant as well.

2235—We peep to ensure last remaining owlet is still in the cavity, which it is. We leave to join SY, MC, and MP in B4.

## 22 July 2014

2054—AW and JS arrive at B17\_2014 nest to fledge watch. Nestling is not in the entrance on approach. **We peep: 1 nestling as expected with full juvenile plumage ready to fledge. The oldest fledged 7/17 and the 2nd oldest fledged 7/21.**

Weather: calm, clear, 21C

2124—FLOW (UFO?) approached from the W and perched on dead psme <1m from the nest tree and flew off 15 seconds later. Immediately after, an encounter between two Ms giving TECs/HECs were exchanged ~5m SW of the nest tree. Both vocalized ~2 hoots each.

2130—Nestling still down and has been begging periodically. PD as we leave.

# B17—2015

## 27 May 2015

2115—DL and BL arrive near the S terminus of Sharp-Shinned Hawk Ridge to set up lure net to target males from B17 and B1 territories.

Vegetation: Mature Pipo/Psme, with isolated patches of younger conifers

Weather: Partly cloudy, 60% full moon overhead, very light breeze (<3 mph), 10 C; finally a dry day!

X: 494949

Y: 4333303

+/- 12 m

2125—While setting up lure net, we hear a M give 8-10 TC approximately 50 m to SE of our position on the ridgetop.

2139—We start playback.

2150—M starts giving HECs approximately 75 m to the SW of the net, and he quickly approaches to the vicinity of the net area. He flies back and forth across the top of the net, all the while vocalizing, for the next ~ 20 min.

2206—BL walks around the net area with the playback, attempting to draw in the M.

2216—BL leaves to listen around past B17 nest cavities in Columbine Cr. Nothing found, but the apparent B17 M flies into the vicinity of the B17\_2013 nest tree giving TCs on one occasion.

2222—DL hears the M giving TC outside the nest area to the E.

2237—M approaches the net area, vocalizing while flying over the top of the net area.

2245—With the M still singing in the area of the net, we partially break down the net and transport it to another site approximately 60 up the ridge top to the E (this site had additional low branches on trees adjacent to the net area). Coordinates associated with Site #2:

X: 494970

Y: 4333305

+/- 12 m

2310—We restart playback.

2312—M gives TC approximately 30 m to E of net, but he sings for less than 5 min.

2335—We break down net, with no additional action in the area of the net.

2346—We leave the net area and walk up (E) Sharp-shinned Hawk Ridge on our way to B12 territory. We periodically hear the presumed B17 M singing in the vicinity of S Sharp-shinned Hawk Ridge as we walk out.

**28 May 2015**

2105—MC and BH arrive at net site on Shooting Star ridge with intent to net for territorial Ms in the area and attempt to listen for nesting vocalizations. The net is located ~150 S of the road on the ridgetop, ~5m N of where the road cut joins with the ridge.

Vegetation: young-medium pipo/psme, open

Weather: 6C with a strong wind ~3-5mph, partly cloudy

X: 494579

Y: 4333594

+/- 8m

2112—PB starts.

2119—M TCs ~50m S of net, possible B10\_M.

2128—Our PB dies, BL makes his way to Shooting Star with a fresh PB. MC returns to road, giving hoots along the way while BH stays at the net and does the same. No response heard.

2206—BL brings phone to replace PB, we restart. The phone is slightly quieter than desireable.

2227—MC walks ~50m S to listen. M heard giving consistent TC/TECs from ~100m SE.

2237—MC hangs songpost B10\_1 on singing M.

2245—M moves ~10m SE into a low branch, MC spotlights the bird who then takes off, SE down drainage.

2247—M gives TECs from cavity tree #1231. MC kills light in anticipation of hearing FSCs.

2252—M continues to give TECs from the same cavity tree, MC circles tree to find F up in a cavity entrance, **This is the B10\_2015 Nest Tree! The cavity is ~20ft. up facing SSE. Tree #1231 is a full potr snag in the drainage bottom.**

2254—MC kills headlamp and crouches down, after 2 minutes the F flushes her cavity, MC leaves.

2303—MC returns to the net and we kill PB to break down and move net to target the probable B10\_M.

2323—The net is moved ~200m S down Shooting Star Ridge, just upslope of past B2 nest tree #333. PB starts.

Vegetation: young-medium pipo/psme, open.

Weather: 4C, clear and calm.

X: 494591

Y: 4333340

+/- 10m

2335—M TCs ~30m SW of net. Possibly either B11 or B10 M.

2341—M continues to move further towards net, but heads W as well, possibly B11\_M.

2343—Presumed B11\_M goes silent.

2346—M gives 2 TCs from lower Picnic Cr. Due W of net.

2350—Possible FSC in Picnic, MC leaves net to head towards that area, around the same area as M was giving TCs from. M gives a 3 note call from vicinity of cavity tree #503 and 1293. At the same time BH has two birds at the net.

2355—BH hears TECs (3-4) and single FSC in net vicinity, ~5-10m E.

2357—BH hears TCs (2-3) ~10m E of net, possibly indicating B10 M.

2408—BH hears TCs (4-5) ~50m W, possibly indicating B11 M.

2411—PB stopped and begin breaking down net.

2433—BH heads W towards Picnic Creek ~150m down Shooting Star into drainage.

2440—BH hears single TC from W, waits and listens for 6 minutes before heading back up Shooting Star to meet MC.

2448—MC gives TCs from the roadcut, one spur off of Shooting Star ridge, M responds down drainage from the same area as the original TCs.

## 02 June 2015

2456-0130—MC, LL and BH head into B17 to listen and tap a few cavity trees in Columbine Cr.

0111—M TCs N of us up on Sharpshinned R for <1min. LL pursues, but M goes silent.

0114—From the top of Sharpshinned R, LL hears a M give TCs back to the W/SW in the Columbine Cr drainage for <1min. This is likely B17\_M.

0130—We leave.

## 08 June 2015

2043—MC and DL arrive at purported B12\_2015, cavity tree #1190 with intent to capture the M. We cannot find the cavity and in the location that was described there is only an owl shaped knot. MC thoroughly glasses the tree while DL situates herself to silhouette the tree in case we missed the cavity.

2100—After not hearing or seeing any birds on the tree DL stays and MC begins walking around to listen and tap.

2113—After still not hearing or seeing anything we tap the tree and attempt to peep the tree. The tree is listed as 1 and 0 and all we see is a small, partial excavation. **We cannot peep tree #1190 due to a lack of cavities. We also peep B12\_2014 and B12\_2013 but find nothing.** *Either we have missed the cavity and they have failed or this is not the nest tree.* We spread out to listen and attempt to sniff out a nest. We make it to the S extent of the B12 aspen flat before the drop off and do not hear or see anything.

2222—We leave B12 and head to B17.

2308—MC and DL arrive at the confluence of DGF and Columbine Creek to listen for possible nesting vocalizations and lure for resident Ms. We spread out to listen up and down Columbine .

2347—We hear nothing, and after tapping area cavity trees, including B17\_2014 nest tree, we set up a lure net in front of the young trees by the clearing immediately in the confluence and start playback.

Vegetation: Mixed pipu, medium potr, mixed psme, dense

Weather: clear, calm, 9C

X: 494982

Y: 4333243

+/- 8m

2413—MC leaves net to listen up DGF creek. I make it up to the past B20 nest and confirm a songbird in the past cavity. I hear nothing after ~15 minutes and return to the net.

2418—DL hears TCs ~20m W of the net area.

2422—I hear another bird begin to give TCs ~30m to the E. Both birds call for ! 3 minutes before going silent.

2430—DL walks up Columbine Cr. To listen and hears a few TCs from a M that then heads towards the nest site.

2441—At a net check MC sees a silent FLOW perched atop the mist net poles. I change PB to the “megascops” call. UFO makes two short flights, one hitting the net but bounces out.

2454—Silent FLOW flies down from the E and perches in a psme ~5m E of net. After ~5 minutes the bird starts giving incredibly low HECs.

0110—The M has not moved from his perch, MC spotlights M and he appears to be banded on the right leg. We kill PB to leave.

## 15 June 2015

2252—BL, LP, and SH (Luke’s friend) arrive at the parking spot at confluence of Falling Squirrel Cr and W Miss Cr with intent to listen for vocalizations and locate nests in the B10/B1/B17 territories. We hike over Sharp-shinned Hawk R and drop into Columbine drainage.

~2305—We arrive in Columbine drainage. LP and SH listen and tap trees in vicinity lower portion of Columbine Cr, including the B17\_2013 nest tree. BL listens and taps trees upstream of LP in vicinity of the B17\_2014 nest tree. Nothing is heard. We continue to tap and listen as we move down Columbine Cr to the confluence with W Missouri Cr. Nothing is heard.

2420—LP and SH cross W Missouri Cr and move up the SE slope of Shooting Star R with intent to tap past nest tree B10\_333.

2430—LP shines headlamp on #333 while ~10m downslope of tree. A downslope-facing cavity is spotted near the top of the broken-top pipo snag. LP then takes eyes off of cavity and immediately gets clear view of FLOW overhead flying S away from the cavity area. One FSC is heard from near where this individual flushes towards. A single TEC is then heard ~2 minutes following flush in vicinity of hypothesized nest tree. Although confirmation is needed, **this (#333) is a FLOW nest tree, and possibly the replacement nest site for B10\_2015.** **Cavity is a NOFL excavation ~16 ft. from base, ~4ft. from top of brokentop. Nest tree is located approximately 80 m N of the S terminus of Shooting Star Ridge, and approximately 25 m E of the crest of the ridge top on the E-facing upper mid-slope.**

**\*Note 1: LP quickly assumes this bird must have been the F flushing from cavity. Upon further reflection, it is realized that this bird could have been M perched in very close proximity to cavity that got flushed from perch.**

**\*Note 2: This cavity is ~100m up slope from the B10\_2015 that was found to be predated by red squirrels on 6/8/2015. Could this pair be completing their clutch in tree #333, or is this a different pair?**

~2440—We briefly observe area in vicinity of confluence of W Missouri Cr and Homestead Cr for ~8 minutes, but nothing is heard.

2452—We begin our hike out of W Missouri Cr towards the vehicle. Our night ends here.

## 18 June 2015

1624—While flam crew is peeping B17 down from head of Columbine Cr, **RC peeps tree #407 (B9\_3) and finds FLOW in cavity! This is the B17\_2015 nest tree** **and has previously been used as the B17\_2006 nest tree (almost certainly same cavity, but not positive.) F did not come up to tap. Cavity is quite shallow, and F is a bit blurry but is sitting on at least one egg with splayed wings and looking up at camera. Tree is a full snag potr located 200m W of head of Columbine Cr and 30m E of first large southern side dr, 3m S of dr bottom. Nest is in NOFL cavity facing just W of due N 6-7m up and is the only cavity on this side of the tree.** Full crew joins RC to observe, and we repeep so Javier can see nest on peeper cam. F stays down for entirety of our stay in the nest site.

1642—Everyone out of nest area. We leave and spend the remainder of our time peeping for B20 nest near confluence of Columbine Cr and DGF.

## 24 June 2015

2305—Enter B17 nest area from top of Sharp Shinned R. with intent to capture the M.

2307—SY approaches nest tree with capture net in hand while LP spots from low slope on opposite side of drainage.

*Note: We are especially cautious to be as stealthy as possible given the extreme shallowness of cavity.*

2308—Net is up.

Weather: Calm, clear, 13 C

2309—F is seen bobbing head up and down in cavity and beak chattering while checking net height. She then promptly flushes. We leave nest area.

2330—We re-enter nest area and re-raise net for capture attempt #2.

~2343—Two LCs heard from ~20m down drainage from nest tree.

2400—No action at nest up to this point. Net is de-extended. We leave area. This is the end of our night.

## 30 June 2015

~2035—RC and LP arrive in B17 to attempt F/M nest capture and take a few minutes to locate nest tree.

2036—M calls off roost 40m down dr W of nest tree.

2040—We arrive at B17\_2015 nest tree. F down on arrival.

Weather: Mostly cloudy 🡪 overcast, calm, 17C.

2042—LP approaches with capture net.

2046—Net in place over cavity. F stays down.

2053—M gives single 2-note LC 30m NW of nest tree, enters nest site (5-10m W of nest), and gives another single 2-note LC.

2058—M gives single LC 5m W of nest.

2059—M gives single LC 5m W of nest.

2100—No sign of F yet. LP scratches nest tree. F stays down.

2115—M still in site, silent. F still down. We peep and see F filling up whole cavity, holding tight and not allowing a view of anything beneath her.

2130—F never came up, does not flush. LP transitions to M capture attempt.

2130-2220—M never makes a PD or even approaches the cavity. M in the site from 2205-2220, making short flights near the nest tree, but seems extremely hesitant to come in, even with net >10ft from tree. F never vocalizes during the entirety of our stay in the nest site. Deep incubation. We leave.

## 7 July 2015

2026—RC and LP arrive in B17\_2015 nest area to capture F or M. F down on arrival. LP moves in and waits near nest. F stays down.

Weather: Calm, mostly cloudy🡪overcast, 10C.

2037—LP begins raising net.

Cavity height: 14’3”from 1-3 ft from base of tree.

2039—F flushes as LP checks net height. **Peep reveals 1 N, active. Head has some gray on it, but gray is more apparent on scaps and wings. Eyes open, no egg tooth. N still has a good bit of white down. Est. age: 9-10 days.** F scolds nearby after flush.

2042—We back out to observe and allow F back on.

2046—M LCs to W 10-15m then flies in to nest area, LCing again.

2049—M gives HEC-like LCs, F gives FSCs in nest site.

2052—PD to Ns.

2055— PD to Ns.

2056—PD abort as RC walks down from R top (trying to radio BL). FSCs in nest site.

2058— PD to Ns.

2103— PD to Ns.

2105— PD to Ns.

2106— PD to Ns. All previous PDs were made by an unknown adult, and went all the way in to the cavity. All PDs after this time were made by the M to the F/N as a flutter/brief perch on the entrance.

2108—F goes back on.

2114—PD.

2115—PD.

2116—PD.

2119—FSCs.

2120—PD.

2122—RC approaches tree with intent to capture M if he is cooperative or to take another swing at the F.

2130—RC at tree, begins raising net. M enters nest site and perches 1m NW and watches, then flies away, making intermittent flights around the site and not vocalizing.

2145—RC backs up with net. M flushes from <1m away at head height. Creeeepy bird.

2155—M has made no attempt to reach the cavity and has not vocalized. Net is as far away from the cavity as it can be. I believe a brown pole crouch capture will be in order for this M. RC transitions to F capture attempt, gets net over cavity. After 1 tap, F is in the bag, but quickly escapes through one of apparently several large holes in the net. We briefly peep again to confirm clutch size and age. F scolds as we peep.

2158—We leave.

## 8 July 2015

2037—BL arrives in the B17\_2015 nest area to attempt capture of M or F, and as I approach the nest tree, no F is visible in the cavity entrance.

2040—I place the capture net over the cavity entrance, but no response. I keep the net up.

2048—M flies into the nest area (he gives a couple of LC), and he is prey-laden. I move net away from cavity.

2055—M makes PD, and F flushes (I had thought she had already flushed)! I stay in the nest area in case the M returns for another PD.

2101—**I capture M after he makes a PD in the cavity. M is unbanded.**

**Band # 1833-03288 (on x leg)**

60.5 g LWC: 121 mm

- 7.5 g LLP(5): 94 mm

53.0 g LLP(6): 101 mm

Rect: 55 mm

**Notes**:

* **Got blood sample.**
* **P1 and 2 are in molt on both wings, with new feathers completely in sheaths that are 18-22 mm long.**
* **Cavity not peeped.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | NA | NA |
| P2 | NA | NA |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 2.5 | 2.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 1.5 | 1.5 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | NA | NA |
| P2 | NA | NA |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2131—M is released, and he shows strong, ascending flight. I leave.

## 13 July 2015

~2030—RC and BH arrive in B17\_2015 nest area to capture F and peep to determine nest status. F down on arrival.

2032—F comes up. We wait and observe.

Weather: Mostly cloudy, brief shower, calm, 9.5C.

2042—F still up. We back out of nest area to allow F to go back down.

2046—LCs in nest site.

2047—We spot tree. F is either down or off.

2048—BH approaches tree with capture net.

2051—M and F both scold from off cavity, then M gives some LCs in nest site. **We peep and see 1 owlet face down and unmoving, but with significant gray obvious on head, back, and body. In subsequent peep at the end of the night, we see N face. No facial disk apparent, but face appears to be darkening. Est. age: 13-15 days. There is also either a dud egg or a large fragment of egg still in the cavity with the N.**

2053—We back off to observe.

2056-2106—We observe 12 PDs from both M and F, all flutters or brief perches in the cavity entrance.

2107—BH approaches with capture net to attempt F capture on PD.

~2110—At tree, net up. M and F both scold. M transitions to LCs and moves around nest site. F gives intermittent scolds in the nest area until 2140 while BH backs up and moves the nest progressively lower in an attempt to perturb the F as little as possible. This is entirely ineffective. F is angry. We are sad.

2140—BH backs out of nest area and we observe nest in a dim light because there is no silhouette.

2140-2200—3 PDs. F is mostly silent during this period, but gives a couple of FSCs and a 3-note LC. M is mostly silent as well.

2200—We back out further to allow a period of totally undisturbed PDs before another brief capture attempt on F.

2220—RC approaches nest.

2230—RC at tree, raising net (leaning way in from E side). M gives a few brief LCs in the nest site then goes silent.

2243—No further sign of M, no sign of F. I suspect she may be back on cavity so I turn on my light and move in to get net over cavity. As soon as I turn my light on, I see M perched 1.5m N of cavity where he previously gave LCs from. I take a step toward the nest tree and the F scolds from 5m SW. F is perched on a small, bent snag and scolds again as I take another step. **We peep to try and see N’s face. He has turned around in the cavity and now has eyes open, looking up at the camera, but still appears relatively inactive.**

2248—We leave.

## 14 July 2015

1515—RC, ER, and DL arrive at B17\_2015 nest to attempt capture of F and process owlet. RC moves in to the nest with a capture pole to attempt to capture the F.

1520—**Capture banded F.**

1522—**Peep. 1 owlet that was all grey with facial disk starting to form**. RC puts him at 16 days. (Cavity height 14’ 7 ½ ‘’)

**Band # 1783-64411 (on L leg)**

78.5 g LWC: 129 mm

- 16.5 g LLP(5): 102 mm

62.0 g LLP(6): 112 mm

Rect: 67 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0.5 | 0 |
| P3 | 0 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

Notes: Both 1st primaries were short, we assumed that they were recently molted. Genetic blood sample taken on right wing; large hematoma.

1546—Release F – strong ascending fight to the S.

1550—RC goes up ladder to enlarge cavity.

1554—RC begins sawing.

**Cavity Dimensions:**

**Horizontal width: 45mm**

**Vertical height: 50mm**

**Horizontal depth: 130mm**

**Entrance thickness: 15mm**

**Vertical depth: 109mm (changed to 125mm once we cleaned out sawdust.**

1603—RC stops sawing and switches with ER.

1606—Owlet is out of cavity.

1608—ER is down ladder and we begin to process bird.

**Band # 1833-03158 (on L leg)**

LLP(5): 33(26) mm

56.2g LLP(6): 33(26) mm

Rect: 11(8) mm

1637—ER places owlet back in cavity. And we leave.

# B17—2016

## 6 June 2016

Afternoon—As part of our initial cherry peeping efforts MC, ER and KM peep in the B12 and B17 drainages. A majority of the cavity trees in B12 are peeped and the 2014 and 2015 nests trees in B17 are also peeped. We find no nests.

2230—RC, DL, and KM arrive on Sharpshinned Hawk R to lure for B17 M. We erect a net about 1/3 of the way down R from junction with Biker R (300-350m W of junction). Net is flat, opens N/S on upper S-facing slope.

Vegetation: Mixed pipo/psme, open.

Weather: Overcast, mostly calm, 8.5C.

X: 495301

Y: 4333268

+/- 11m

2237—PB begin.

2246—B17 M enters net site from SW, TCing. After a few minutes of the M staying high in a psme on the S side of the net, RC attempts to lure in by moving PB and changing call briefly to Megascops. Total failure. M does not budge from his tree, then leaves site by 2254.

2259—RC and KM leave net to tap and listen in B17. DL remains at net.

2302—TCs 100m SW of net in dr bottom, then moves onto mid N-facing slope of Sierra Madre R and approaches the net, but only briefly.

2330—M TCs 50m W of confluence of Columbine and DGF Cr, brief. Possibly 2 Ms or B17M is covering a lot of ground quickly. We never confirm 2 Ms simultaneously. RC and KM tap all trees we find on the way down Columbine from net site and in DGF/Columbine confluence. RC moves S up DGF tapping, while KM does the same, moving W toward confluence of Columbine and W Missouri Cr. We both only get ~100m out of DGF confluence, but turn up nothing. M gives brief, intermittent calls in DGF/Columbine confluence area and bounces back up to net site repeatedly.

2355—PB off as RC and KM arrive back at net site. We decide to target B17M more directly by moving W down R top toward DGF/Columbine confluence.

2405—We begin PB 200m W of first net site on R top, starting without setting up a net.

2410—RC remains with PB while KM and DL return to Columbine Cr to listen toward DGF confluence.

2415—After getting no response from B17 M, RC moves another 60m W down R top (just E of cavity tree #489) and continues PB. M enters site rapidly from S giving HECs. DL returns to area to help RC erect net. M continues giving HECs just S of PB while RC retrieves net gear from upslope and DL comes from dr bottom.

Vegetation: Mixed pipo/psme, open.

Weather: clear, calm, ~8C.

X: 495050

Y: 4333326

+/- 11m

~2420—M goes silent during net setup and never returns to the net site.

2439—TCs heard from net site 150m WNW of PB, likely near confluence of Columbine and W Missouri Cr. M approaches net site along R top giving TC/TECs, but comes no closer than 50m.

2447—PB off. We break down and leave.

## 29 June 2016

2343—BH and RC start PB at lure on a W spur ridge of Sierra Madre R, ~120m N from B20\_2016 nest tree.

Vegetation: Open, young-mature pipo/psme/pifl

Weather: Mostly cloudy, light intermittent rain, 13.5C

X: 495096

Y: 4333169

+/- 12m

2346—FLOW begins giving TCs ~60m due N of us in Columbine Cr., from the direction of B17\_2015 nest tree. M rapidly approaches to within 20m of net site.

2349—M goes silent.

2405—RC leaves BH at net site on Sierra Madre R and drops N into Columbine Cr to tap and listen in B17.

2407—From mid N-facing slope of Sierra Madre spur, RC picks up B17 M giving TC/TECs on upper S-facing slope of Sharp-shinned Hawk R and pursues.

2409—BH switches PB to Megascops to lure in FLOW RC hears in Columbine Cr.

2410—RC runs into an encounter between 2 Ms on the top of Sharp-shinned Hawk R ~130m NNE of net site, presumably B17 and B1 Ms.

X: 495125

Y: 4333307

+/- 9m

2412—B20\_M enters Sierra Madre net site from ESE giving HECs on top of the PB.

2414—One M on Sharp-shinned goes quickly silent and second continues TCing for a moment on R top before backing off N toward B1. A silent bird makes a low, flappy flight after calling M as he backs off.

2415—BH has B20 M in net site, giving HECs and swooping around. A second FLOW approaches net site from N giving TCs/TECs. Based on location, we presume this is a B17 M.

2416—MC picks up TCs from B1 M briefly from his net site on Cooper’s Hawk R.

2417—RC hears TCs 15m N of R top on Sharp-shinned, likely the B1 M returning to area of encounter. This M apparently never crosses to S side of Sharp-shinned, and MC and RC both hear him TCing shortly thereafter near mouth of Fallen Squirrel Cr. *This behavior matches well with observations of movements by B1 M on 6/21/16 by BL at B1\_2016 nest and ER, who was netting on Sharp-shinned Hawk R.* Presumed B17\_M flies E and gives HECs ~15m from PB, while B20\_M goes silent.

2422—B17\_M goes silent. RC picks him up intermittently in time before PB off near the confluence of Columbine Cr and DGF Cr. RC taps B17\_2015 nest tree and next potr down dr (area where M initially approached net site from), but finds no FLOWs.

2425—B20\_M reenters site from ESE giving TECs, makes a short flight W of the net, and gives quiet TECs before going silent.

2439—RC meets BH at net.

2440—PB off, and we begin net breakdown.

## 12 July 2016

2303—KM and ER set up a lure net about 20m S of the nose of Sharpshinned Hawk R. with the intent to lure for a suspected territorial M an listen for potential nesting vocalizations around the confluence of Columbine Cr. and W. Missouri Cr. Net opens E/W. PB begins.

Vegetation: Mixed age pipo and psme

Weather: Clear, calm, 16C

X: 494845

Y: 4333272

+/- 12m

2316—A M gives a handful of TCs from the confluence area ~150m SW of the net.

2320—M goes silent.

2323—KM heads down to the confluence area to listen and tap the cavity trees.

2326—The presumed same M gives TCs within 100m SW of the net, and calls his way up the slope giving TC and TEC.

2327—M gives HECs within 5m of the net. He swoops the net a couple times, but eventually perches W of the net, calling.

2330—M goes silent.

2342—ER hears an intense F SC at the top of Sharpshinned R. about 20m N of the net and where I am listening. I go toward the SC and begin concentric circles in the area, looking for cavities and possible fledglings. *There is one enumerated cavity tree #805 in the area, that looks pretty dismal, but there area quite a few conifer snags and lightening strikes that have cavity potential.*

2352—While listening on top of Sharpshinned, I hear a M giving TCs in W. Missouri Cr. N of Sharpshinned. I suspect this is likely the B1\_2016 M.

2357—During a net check, ER hears two F LCs within 10m of the lure net. I do not get eyes on the FLOW.

~2400—KM returns to the lure net.

2401—The M in the confluence of Columbine and W. Missouri gives a few more TCs from the drainage bottom, but does not approach our net. I pick up the B1\_M still calling from the N side of Sharpshinned, confirming the confluence bird is a distinct M.

2425—PB off. We break down the net and leave.

## 19 July 2016

~2120—MC and KM arrive in the confluence of W Missouri Creek and Columbine Creek. MC heads down drainage to the two 2015 nesting attempts in the area. KM stays in the confluence. We then work our way N in the drainage. MC goes up on the nose of Sharp-shinned Hawk Ridge. The whole way we are giving hoots, listening for vocalizations and tapping trees.

~2140—MC solicits hoots from the second B10 nesting attempt in 2015. A M responds with two TCs from the confluence of Columbine. KM is in the area anmd cannot pick anything up.

2220—Nothing else is heard or seen. We leave.

## 20 July 2016

Afternoon—Flam crew peeps the remaining trees in Homestead Cr, the trees in the confluence of Columbine and W Missouri Cr, some on the SE slope of Shooting Star R, and about half the cavity trees in Catamount Cr. We do not find any signs of FLOWs.

# B17—2017

## 5 June 2017

1703—ZM and MC approach B17\_2005 nest cavity tree on the top of Sharpshinned Hawk Ridge. After finding the cavity, ZM taps the tree and views a F FLOW pop her head out. **This is the 2017 nest cavity for the B17 territory (with the possibility of it being the cavity for the B1 territory)! The tree is located on the center of Sharpshinned Hawk Ridge (with Columbine Cr to the S and W Missouri Cr to the N) about 120m west of the biker trail. The tree is a full snag PIPO with a dbh of about 40cm. The cavity is located about 28’ up in a flamcrew-enlarged hole within a lightning scar. The cavity is facing about 40deg NE. The tree tag is #614, and this was the same nest tree and nest cavity for B17\_2005.** The F keeps her head out of the cavity for the duration of us watching her.

X: 495268

Y: 4333265

+/- 10m

2155—KM, MC, and ES begin playback at lure net. Lure net is 140m W of B17\_2017 nest tree on the ridgetop of Sharpshinned Hawk Ridge.

Vegetation: Mature pipo/psme in area, with net in fairly open area. Young pipo and psme provide backdrop for net.

Weather: 10C, 10% cloud cover, still.

X: 495152

Y: 4333296

+/- 3m

2215—We think we hear TCs coming from Biker Ridge, but it is faint and could be a playback echo.

2218—A M gives TCs 75 m E on Sharpshinned Hawk Ridge toward the Biker Trail.

2223—MC pauses playback to try to discern TCs from playback echoes on Sierra Madre Ridge. MC hears two Ms in an encounter on Sierra Madre Ridge Near the Biker Trail. We hear a TC from right above the net, then again from ~5 m E of net. MC puts on 4-note playback call. A M comes towards the net from Columbine Drainage and then jumps around the net, eventually going silent.

2227—MC returns playback to Track 42 (TCs).

2232—We hear TCs ~100 m W on Sharpshinned Hawk Ridge.

2239—MC changes playback to HEC track.

2242—MC returns playback to Track 42 (TCs).

2247—M FLOW flies within 5 m of net and sits on pipo branch for 1 min before flying under the net and apparently down into the Columbine drainage.

2302—We hear TCs from near Biker Trail.

2322—After, a long period of silence, we hear wing flaps in the net. **We caught our first owl of the season! It is an unbanded M in the 3rd shelf from the W.**

**Band # 1833-03531 (on L leg)**

80.5 g LWC: 128 mm

- 30.5 g LLP(5): 96 mm

50.0 g LLP(6): 105 mm

Rect: 55 mm

**Notes: M came into net silently, but he may have been making TC earlier in the night.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1 | 1 |
| P10 | 1 | 1 |

**Notes: 1st and 5th secondary were dim on L wing. 1st, 3rd, and 5th were dim on the R wing. 2nd and 4th on R wing were bright.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1.5 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

**Notes: There is a notch in LP 6 and a notch in LP 1.**

2400—ES releases FLOW, SAF N.

2405—MC, KM, and ES stop playback, take down lure net, to potentially target the B12/B20 area and discern if there are any Ms around.

2411—As we arrive back on the Biker trail we hear a M giving loud and consistent TCs ~50m S. We hang songpost B17\_1 in a full, live pipo on the ridgetop, DBH:37.0cm

X: 495454

Y:4333212

+/- 3m

2415—The M moves ~ 50m NE and gives TCs and now some TECs. We follow and erect a lure net in his general area.

2424—We start PB on the ridgetop of Biker Ridge ~30m N of Sharpshinned Ridge.

Vegetation: Mixed pipo/psme with net backdrop of a young potr.

Weather: 10C, clear, the wind has calmed.

X: 495464

Y: 4333331

+/- 3m

2455—PB off, nothing has been heard.

## 8 June 2017

2034—ZM and JE arrive at the B17\_2017 Nest from Biker Ridge, framing the tree and observing the cavity. F is down.

2048—The F gives 3 FSCs with her head up in the cavity.

2049—We hear a couple LCs from a M just NW of us, down the slope. Then the F flushed.

2050—**A speedy peep by ZM reveals that the F is sitting on 2 eggs!** We leave the nest area and head S into Columbine Cr towards confluence.

2120—ZM, JE, and MC drop down the S slope of Sharpshinned Hawk R and meet at the confluence of Columbine and DGF. JE listens in the area of the confluence and slightly S, up into DGF. ZM listens about 50m down drainage of confluence. MC continues down drainage to the confluence of Columbine and W Missouri. Marked cavity trees are observed and tapped.

2128—M gives what sound like LCs ~50m N up W. Missouri Cr, MC gives chase. In the approximate location of the LCs I hear one more TC and then ~2 minutes later there a ~3 TCs on the W terminus of Sharpshinned Ridge.

2141—While in DGF, JE hears a M calling from the NE, just upslope on Sierra Madre. The M approaches and is heard giving TCs or LCs just above. The M is then heard across DGF so JE chases. The M is then heard back from the NE, somewhere up the Columbine drainage.

2144—After JE’s observed TCs up drainage, ZM heads back up towards the confluence and hears 1 TC on Sharpshinned R just N of the confluence.

2147—ZM and JE both hear a few TCs on Sierra Madre R just E of confluence.

2148—MC moves up to the confluence of W Missouri and Homestead and taps a few trees.

2151—ZM and JE hear 3 TCs and 1 TEC on Sierra Madre R just E of confluence.

2202—ZM hears a few TCs ~150m N on Sharpshinned R.

2207—MC returns back to the confluence of Columbine and W. Missouri Cr. I hear two LCs ~20m S. As I tap tree #1572 I hear an FSC ~5m SW of me. **I turn and see a F in the entrance of a cavity on a flagged tree just down drainage. This is likely the B10\_2017 nest! The tree is just S of the confluence of Columbine Cr. and W. Missouri Cr, along the dry creek bed of Columbine creek and only a few meters from W. Missouri Cr. It is a full and newly dead potr. The Cavity is SW of Tree #1572 and #1050, two live potrs in the confluence, but I do not get the tree number of the nest tree, it is flagged. The cavity is a freshly bear torn cavity ~20ft. high and faces W.**

2210—The M is in the site giving LCs. He makes a PD to the cavity. The F remains in the entrance and I leave.

2232—ZM, JE, and MC meet in the confluence of DGF and Columbine and start a PB.

2250—After eliciting no response, we stop the PB and start walking up DGF.

~2300—ZM, JE, and MC tap cavity trees in DGF and find nothing. We head up Sierra Madre R.

2315—We start PB aimed E/NE targeting A17 and A20.

2320—We hear TCs to the SE down into DGF. We immediately start putting up a lure net.

~2325—Our net is up on the upper slope of Sierra Madre R S of Columbine. Our net is open to the N and S.

Vegetation: Mixed psme and pipo

Weather: Clear, calm, 12C

X: 495157

Y: 4333151

+/- 3m

2327—We switch the PB to HECs and hear responding TCs and TECs S of net down S of Sierra Madre R.

2329—We switch the PB back to TCs/TECs.

~2331—We have the FLOW in the fourth shelf of the net. He is a banded male.

2333—The male has escaped the net and we continue the PB with the net up with the aim of recapturing. The male stops responding to the PB within a couple of min.

2403—We stop the PB and take down the net after not hearing the male respond. We head back on Biker R back to car.

**19 June 2017**

***This account describes the B17 nest site peeping and capture pole attempts from 2040-2215.***

2040—BL and ZM arrive at the cavity tree with the intent of attempting to capture the M as soon as possible. The F is down. Weather: Clear, calm, 18C.

2050—The capture pole is raised to the correct height and is then leaned against a nearby tree. BL and ZM sit nearby watching the cavity. We are waiting for any vocalizations that may indicate that the M will be entering the nest site.

2108—The F flushes silently before any vocalizations from a M. **We peep the nest and find that she is now on 3 eggs**.

2110—While we are re-measuring the capture pole against the cavity, we hear a M giving a couple of LCs NW of the tree. The capture pole ht from the down side is 26’ 5’’.

2114—The M gives a couple TCs from ~30m NW of the nest.

2140—KM and LD join BL and ZM at the B17\_2017 nest site. We get a brief summary of the early night’s events.

2147—M makes a PD. He seems to give LCs as he approaches the nest site. He uses the conifer just E of the cavity tree as an approach perch.

2151—M makes a PD. He stays in the cavity for about 20 seconds. After leaving the cavity, he flutters around the site and makes one TC from a young potr near the location the capture pole rests on top of a young pipo.

2156—Quiet FSCs sound from the cavity. M makes a PD.

2205—LD and ZM start playbacks. ZM rejoins KM at the cavity and KM gets back into capture position. The M ceases to approach the net but seems to frequently respond to the playback. KM moves the capture pole further from the cavity to try and bring the M back into the nest site, but he does not approach the nest tree.

2239—JE takes over for ZM as spotter for capturing the M. She briefly shines her light towards the nest tree to spot the nest cavity. She does not appear to come up to the cavity.

2245—F seems to flush the cavity. We do not notice a bird come into the cavity from a prey delivery, so we play it safe and back off for about half an hour in case the F did flush. Her potential flush seems unprovoked, though some of the owl crew has been quietly processing B12\_2017 further E on Sharp shinned Rd.

2151—M makes a PD.

2215—KM gets back into capture position. F flushes as I raise the capture pole into capture position. JE did not see her come up to the cavity entrance, but KM spotted a bird silently fly out of the cavity. We leave and join LD and ZM at the lure net.

***This account describes a lure net record on Sharpshinned R from 2040-0103***

2040—LD and KM leave B8 territory to join ZM and BL to attempt B17\_2017 M FLOW capture with capture pole, B1/B10/B17 lure net capture, and B10\_2017 M FLOW capture pole.

2205—PB started on W side of Sharpshinned Hawk R. Net opens E/W with young psme trees as targets.

Vegetation: Mixed psme, mature pipo

Weather: Clear, calm, 13C

X: 495063

Y: 4333324

+/- 3m

2206—M FLOW responds to PB 60m+ SE of lure net giving TCs, presumed B17\_2017 M, possibly B20\_2017 M.

2208—Second M FLOW responds to PB roughly 60m W of lure net giving TCs, presumed B10\_2017 M.

2214—Third M FLOW responds to PB N of net location roughly 30m giving TECs, presumed B1\_2017 M.

2216—LD moves towards net to change to MEGA and to move PB around to further draw territorial M FLOW into net.

2218—M captured in net, territorial M came from W of net into 1st level. Possibly B1\_2017 M or B10\_2017 M.

2220—M escapes net prior to capture

2223—LD restarts PB after capture

2225—Bat is captured in net, LD turns off PB in an attempt to untangle bat

2226—ZM joins LD at net site

2227—PB restarted

2230—All 3 M FLOW resume vocalizing at roughly same time

2250—2 M FLOW within 20m of net from the S side of the net. Presumed to be B17\_2017 M and B10\_2017 M FLOW

2255—M FLOW vocalizations stop

2311—M FLOW starts giving TCs from S, stopped after giving a couple TCs

2318—M vocalizing from SSW, could have been B10\_2017 M or B17\_2017

2323—M stops vocalizing

2325—M begins vocalizing with TCs from N, presumed B1\_2017 M

2326—M from N stops vocalizing

2330—M begins vocalizing from NE of net, presume B1\_2017 M, potentially B4\_2017 M

2336—**FLOW flies into 3rd shelf from W of nest previously unbanded bird**

2340—KM and JE arrive to assist with the tagging of the captured FLOW

2354—Newly banded FLOW released with a strong ascending flight towards the SE leaving a mint chocolate surprise

2359—PB restarted after release of bird

2406—M gives TC 150m+ to S of lure net, potentially B20\_2017, B17\_2017, or B10\_2017 M FLOWs

2410—M approaches net, LD switches PB to MEGA

2424—M from S gives HECs immediately but switches to TEC shortly after, KM switches PB to MEGA; bird moves closes, ~10m SW of net

2429—M stops vocalizing

0103—Stopped PB and to take down lure net

**Band # 1833-03575 (on L leg)**

94.0 g

- 31.0 g

63.0 g

## 26 June 2017

2045—ABC board members (Harrison, Franzen, Forsyth, Tareen) and I arrive at the B17\_2017 nest to attempt capture of F or M. F not in entrance when we arrive. BL gets in capture position. Weather: Clear, calm, ~15 C.

2115—M arrives in site, first giving TC, then LC. M lingers in site for several minutes with no audible vocalizations from F, then he leaves.

2125—BL takes down the capture net and we peep—**a rather incapacitated F is in the bottom of the cavity, lying a bit on her side, with one eye open. No eggs or shells visible beneath her.** ABC needed to depart, so BL leaves to take them back to the vehicles.

2155—BL returns to nest area, and observes M (subsequently gives LC) perched in tree adjacent to nest tree. I then learn F is off cavity—see gives a few FSC ~ 20 m to the N of the nest, and the M flies off in this direction. I back off to allow F to return to cavity.

2200-2202: F returns to perch on nest tree, and M makes two PDs during this time. F appears a bit skittish to return to the cavity, so I leave outskirts of nest area.

2225—I return to nest area, and get in capture position.

2230—M arrives in nest area giving LC, then flies off, and I subsequently hear TC from farther down Sharp-shinned Hawk Ridge.

2300—I leave. **No evidence of egg-hatching**.

## 29 June 2017

2207—ER and ES arrive at the B17\_2017 nest site to attempt a M nest capture. Weather: partly cloudy, calm, 12C.

2208—M gives TCs from about 50m away from the nest tree.

2215—ER gets the capture net into position next to the cavity.

2245—ES leaves the nest site to set up a lure net.

2248—ER sees the B17\_M fly from the S into a pipo just E upslope from the nest tree. M begins giving LC in the nest site, but then flies to a large pipo ~40m S of the nest tree and gives TC for ~5min.

2256—M returns to his approach perch in the pipo just upslope on the nest tree. He then attempts a PD. ER swings, but is too low and the M flies away without apparently making a full PD. He flies around the nest site, then returns to the S perch to give TC. Capture net gets very stuck on nest tree, and subsequently on M approach tree.

2306—M returns to the nest site and makes a second attempt at a PD. ER swings, but is a couple feet low again. M flies off unscathed.

2320—ES begins PB at the lure net on the upper slope of Sharpshinned Hawk R, about 30 m W of the biker Trail. In the nest site over the next hour, ER hears the M giving TCs off and on within 100m radius of the nest tree. He sings most often from the large pipo ~40m S of the tree and up the slope to the E, likely in response to the PB.

Vegetation: Mixed age pipo/psme. Lure net site is open with a handful of young conifers, and old conifers surround the site.

Weather: partly cloudy, breezy, 14C.

X: 495372

Y: 4333234

+/- 3m

2352—ES hears TCs within 50 m of the lure net. I switch PB to megascops to bring him in, but he keeps his distance. He calls for about 15 minutes in the area. For the remainder of the night, I hear sporadic TCs from over 100 m away from the lure net, in the direction of the nest.

2409—M flies back into the nest site and forages on the nest tree about 10’ high. He then sits on his approach perch and gives a few LC, but eventually flies S. While on his approach perch, I spot that he is a banded bird.

2435—M makes a PD to the nest and fully enters the cavity. I hear chittering calls in the cavity. ER swings but is still a few inches low, so he only gets temporarily caught in the side of the bag. He escapes as I begin to lower the capture pole. M flies N, but soon reenters the site and perches silently in the pipo a few m upslope from the nest tree (his typical approach). A few minutes later, he picks up with TC.

2445—ES stops PB and begins breaking down lure net.

2447—While ER has a silhouette of the M on his perch, I see a silent FLOW fly in from the W and perch on the nest tree. The B17\_M immediately transitions to HEC and a tail chase commences. The UFO flies W. Defeated by a distracted M, ER lowers capture pole and heads upslope to meet ES. We finish breaking down the lure net and leave the area.

## 4 July 2017

2302—ZM and BL arrive at the B17\_2017 nest to attempt capture of M. F not in entrance when we arrive, and all is quiet in the nest area. Weather: Mostly clear, calm, ~17 C, bright ¾ moon overhead.

2303—Presumed M silently flies into the live PIPO adjacent to the nest tree, and finally makes a PD at 2310. Shortly thereafter, we hear F giving FSC on the other side of the nest area (off cavity).

2325—Apparent PD by unknown FLOW; we were uncertain whether or not F had reentered the cavity by this time.

2336—Apparent PD in the cavity (no vocalization; quick exit suggested it was the M).

2344—Same.

2400—ZM arrives back at the nest site (having been down at the car in order to get a pinpoint) and helps to spot the cavity while BL is in capture position.

2403—A bird flies into the cavity, BL swings for a capture, and the bird flies away.

2405—The M is giving LCs ~5m S of the cavity tree. A silent bird is perched on the pipo that is adjacent to the cavity tree. This silent bird flies and enters the cavity. We presume this to be the F coming back on cavity although we don’t know when she flushed.

2410—A bird flies away from the cavity. This may be the F flushing once again. BL backs off from the cavity tree. BL leaves to meet with ER and ES on the biker trail to process the B12 M. ZM continues to observe the cavity tree.

2426-2429—A bird flies silently into the cavity twice and makes PDs. I presume this to be the M, however it may be the F.

2432—A bird flies silently into the cavity and doesn’t come out. I presume this to be the F coming back on cavity.

2440-2443—I observe 2 more PDs from the M. I can hear FSCs from inside the cavity.

2451—MC and JE come up Sharpshinned Hawk R from B10. MC gets into capture position.

2452—The M flies into the cavity and MC snags him! He is a banded bird. **This is the B17\_2017 M, the B1\_2016 M, and the B17\_2015 M.**

**Band # 1833-03288 (on L leg)**

84.0 g LWC: 124 mm

- 30.0 g LLP(5): 95 mm

54.0 g LLP(6): 102 mm

Rect: 61 mm

**Notes:** The M is molting P1 and P2 on both wings. This M was bled in 2015.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molting | Molting |
| P2 | Molting | Molting |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1.5 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

0119—ZM releases the M. He has a SAF to the W. We all head down the biker trail to the cars.

## 6 July 2017

3032—KM and ZM arrive in the B17\_2017 nest site to attempt a F capture.

2038—ZM gets her net into capture position.

2045—M flies around the site giving LCs, occasionally giving TCs.

2103—M flies around the site again, this time remaining silent other than a few quiet LCs from a conifer N of the nest tree. The F remains silent and down in her cavity.

2115—We tap the tree following the absence of a F flush from the cavity. **We peep to see her sitting on top of nestlings, and one clearly has its head facing the camera with its eyes open. We do not see any grey on the owlet’s head and its body is covered by the F. The other owlets are almost entirely covered by the F, but we do not see a significant amount of grey on the few parts of the owlets we do see.**

2130—We observe the nest for a few more minutes, noting the M (presumed B17\_M) flying around the cavity tree. We leave to listen in B13.

## 11 July 2017

2039—ES and KM arrive at the B17\_2017 nest site to attempt a female capture at the nest. The F is up in the cavity entrance when we arrive. ES observes while KM approaches the nest tree and begins raising capture net. Weather: Mostly cloudy, gentle breeze, 13C.

2042—The F flushes while KM is still raising the net.

2044—**ES peeps to find 3 nestlings, face down and moving in the bottom of the cavity. The two older nestlings appeared to be in about 75% juvenile plumage, while the third nesting was smaller and in about 50% juvenile plumage.** ES backs off to observe and KM gets back in capture position.

2050—M gives LCs in the nest site, followed by F FSCs off cavity.

2053—F gives LCs, and M delivers prey to F perched about 20 m from the nest tree.

2056—KM lowers capture net and backs off to allow PDs.

2057—M PD to nestlings, immediately followed by a F PD to nestlings.

2058—KM gets back in capture position.

2101—M PD.

2102—**An unknown bird delivers a PD. KM captures it! We lower the net and discover that we have captured the B17\_2017 M (band # 1833-03288).** As we are extracting the M, the F gives FSCs in the nest site.

2109—We release the M and he shows a strong ascending flight. KM backs off of the nest tree and we allow PDs.

2110-2112—F gives two PDs. KM gets back in capture position.

2117-2126—Three PDs. The third PD is delivered by the F. KM swings the capture net but the F is too fast and she gets away.

2128—F enters the cavity. KM gets the capture net over the cavity entrance and waits. The F stays down. M gives LCs in the nest site.

2134—M gives TECs at the capture net. F is still down in cavity with net over the entrance.

2141—KM removes the net from over the cavity entrance to allow a PD. The F, sensing our guard is down, flushes. We sigh and wait for her to return.

2145-2146—Three PDs.

2151—F PD. KM puts the net over the cavity entrance. F stays down.

2208—Two FLOWS fly through the site, one chasing the other and giving HECs. One FLOW is presumed to be the B17\_2017 M, the other a UFO. As the birds fly past the nest site, the F flushes into the net! As KM lowers her, she escapes through a hole in the net. KM checks the net but doesn’t see a hole, so she gets back in capture position.

2215—M and F vocalize in a perch near the nest tree. Another M flies into the site and perches next to the others before chasing of the original M perched.

2217—F PD. KM puts the capture net over the cavity entrance. F stays down.

2228—We hear TCs in the distance, about 75 m away.

2234—Two FLOWs perch in the nest tree. F is still down in the cavity, so we presume that one of the perched FLOWs is the B17\_2017 M and the other is a UFO.

2235—F flushes into the net! As KM lowers the net, she escapes through a hole again. KM backs off the nest tree and we fix several large holes in the net. We are not watching the nest during this time, but hear M and F vocalizations throughout our net repair process.

2303—KM gets back in capture position with a hopefully hole-less net. F scolds from off cavity.

2309-2313—Two M PDs.

2315—F gives a PD. KM puts net over cavity entrance. F stays down.

2320-2340—M hops around nest site carrying prey. KM moves capture net away to allow PD.

2355—M PD.

2356—We are out of time, so we lower the capture net and leave the site. The F is still down in the cavity when we pack up.

## 13 July 2017

*The below notes are from a lure net on an eastern spur of Biker Trail, ~100 m S of Sharpshinned Hawk R.*

2340—ES begins PB at a lure net on the ridgetop of an eastern spur of Biker Trail R, about 100m S of Sharpshinned Hawk R. The lure net is 30 m E of Biker Trail. I hope to draw in the B12, B17, and/or B20 M in the little time I have.

Vegetation: young-mature pipo/psme

Weather: partly cloudy, calm, 15C

X: 495290

Y: 4333012

+/- 3m

2405—A bird gives TCs from a perch about 30m N of the lure net toward Biker Trail. It is unclear which territory this bird could have come from. The M gives TCs for 30 seconds before going silent. I walk the PB in that direction but get no response.

2410—Kill PB and leave the area.

*The below notes are from a nest capture at the B17\_2017 nest.*

2335—KM and ZM get into the B17\_2017 nest site to attempt a F capture.

2338—We observe a PD by an unknown bird.

2341—A silent bird lands in the conifer next to the nest tree.

2344—We observe another PD by another unidentified bird. KM begins her approach to the nest tree.

2408—M gives a PD. We hear F scolds from a different tree.

2420—Two birds fly into the cavity for simultaneous PDs. The M exists the cavity and ZM expertly swings the net over the cavity entrance to capture the F**! She is the B20\_2013 F and the B17\_2015 F!** The net gets caught on some bark, but we use the peeper the remove the netting from the tree. We extract the F and start processing her.

**Band # 1783-64322 (on x leg)**

***NOTE: This is most likely an error, and the proper band number of the B17\_2017 should be 1783-64411. The band number listed here is actually for the B21\_2017 M, also caught on this date. ES 7/17/20.***

86.5 g LWC: 137 mm

- 29.0 g LLP(5): 102 mm

57.5 g LLP(6): 111 mm

Rect: 64 mm

**Notes: We did not bleed (bled 2015).**

2439—We release the F, who makes a SAF.

## 18 July 2017

1510—Flam crew arrives at the B17\_2017 nest site to band and bleed owlets. F is off cavity. **A peep of the nest reveals one (maybe two) nestlings, whereas earlier peeps found three nestlings. It is likely that the eldest nestling(s) already fledged.**

1521—BL ascends ladder and pulls one owlet out of the cavity. Another peep confirms that there is only one nestling.

**Owlet**

58.5 g

P#5: 53 mm (xx in shaft)

P#6: 51 mm (xx in shaft)

Rect: 23 mm (xx in shaft)

Band#: 1833-03569

Notes: L wing bleed.

1537—BL returns owlet to the nest cavity. We pack up and leave the area.

2042—ZM and MC are at the B17\_2017 nest site with the intent of looking for fledglings near the nest. Weather: post afternoon rainstorm, partly cloudy, calm, 14C.

2047—ZM and MC are starting by observing close to the nest. The M and F are both very active around the nest and are vocalizing. The M makes a PD. The F makes a PD

2048—M makes a PD.

2050-2235—ZM and MC (and eventually BL) are walking around the site listening/looking for fledglings. When in site, the adults are near the cavity tree vocalizing and giving PDs to the nestling. We hear/see no concrete signs of fledglings in the area.

2240—ZM sees a silent bird (possibly a second M) at the site. The M comes in giving HECs next to the silent bird who is in a tree adjacent to the cavity tree.

2243—ZM, MC, and BL leave the site to head back to the cars.

# B17—2018

## 5 June 2018

1515-1705—BL and AM cherry peep and tap past nest trees and other optimal cavity trees in B10 and B17 territories along W Missouri Cr., Columbine Cr, and up Sharpshinned Hawk Ridge. No FLOWs respond to a tap, and no evidence of FLOWs are found from peeping.

2147—AM and BL arrive in B17 territory along Sharp-shinned Hawk Ridge to listen and lure net. AM heads E along Sharp-shinned Hawk Ridge to listen near the B17\_2017 nest site, while BL goes S and listens near past nest sites in Columbine Cr.

2203—AM hears M TCs S of Sharp-shinned Hawk Ridge on N-facing slope of Sierra Madre Ridge, presumably the B20\_2018 M.

2224—AM hears M TCs distant to the N, potentially on S facing slope on opposite side of W Missouri Cr, presumably the B1\_2018 M.

2227—AM again hears M TCs 100m S along Sierra Madre Ridge.

2304—PB starts, playing T42. Net is located 100m E of W terminus of Sharp-shinned Hawk Ridge along the ridgeline, net open E-W.

Vegetation: open, mature pipo/psme stand.

Weather: 15.0 C, 10% cloud cover, no wind.

X: 494998

Y: 4333317

+/- 3m

2315-2345: BL leaves to listen in B20 territory, particularly near the vicinity of the B20\_2016 nest tree near the head of DGF Cr. BL taps on the past nest tree upon arrival—something appeared briefly in the entrance but cavity height (40+ ft) made it unclear what animal it was. B20 M heard giving TCs continuously from the S rim of Columbine Cr during this time period.

2319-2359—AM hears M TCs and occasional TECs from SE along Sierra Madre Ridge in B20 territory. M never gets closer than 100m away.

2400—PB is stopped. We leave.

## 25 June 2018

1530-1700: Flam Crew peeps cavity trees in the B4 and B1 territories, concentrating on trees along W. Missouri Cr. from the SW portion of B5 territory, to approximately 100 m W of the Fallen Squirrel Weir. Nothing found in the B4 and B1 territories.

1631—SF, peeping Sharp-shinned Hawk Ridge, peeps the B17\_2017 Nest tree. Nothing on tap, but peep reveals a F FLOW in cavity. **This is the B17\_2018 nest!! Tree is a pipo snag on the top of sharp-shinned hawk ridge, with Columbine Cr to the south and W Missouri Cr to the S, and about 120m W from the biker trail.** Site is a typical upland ridge top, with mixed age pipo, psme and pifls adjacent. Downslope to the north has more middle ages psmes, scrubby understory and treefall, while downslope the south is more open with mature conifers and grasses. Cavity is about 28ft high, facing up ridge to the NE in an old lightning scar. Cavity opening has been enlarged by past flam crews. **Tree is enumerated #614**, and has been used as B17\_nest in 2005 as well as 2017. F never came up to cavity entrance.

X: 495268

Y: 4333264

+/- 8m

2033—SF, ON, JE, and Andy, our guest for the night, get to B17\_2018 nest to peep. F is down.

2104—M silently flies into site, perching just N of the nest.

2107—M gives LCs. F immediately flushes towards him.

2109—**Peeps shows 2 eggs, centered and nearly touching. No visible pips are seen as eggs look fully white.**

2110—M silently flies to perch in front of the nest tree. SF spots a band on the L leg. F is heard off cavity giving sporadic, but very loud FSCs just N of the nest.

2120— SF, ON, JE, and Andy (our guest for the night) spread out throughout Columbine Cr to listen and tap. SF is around the confluence of DGF Cr and Columbine Cr, JE around the confluence of W Missouri Cr and Columbine Cr, and ON is in the middle. JE makes sure to tap the B10\_2017 and B10\_2015 nests.

2208—While waiting with SF in Columbine Cr for JE and Andy, ON hears M TCs coming from Sierra Madre Rdg ~75m SE. He goes quiet after a minute.

~2215—We meet back up and head back to grab the mist net to begin luring.

2219—TCs are heard S of us, across Columbine Cr, likely on one of the Sierra Madre Rdg spurs.

2245—PB begins. Lure net is located 300m W down Sharp-shinned Hawk Rdg from the B17\_2018 nest, on the ridgetop. Net is open SW/NE, with a young pifl flanking it. As we set up, a constant sound of a vocalizing M is heard from the NW, but this is likely pb from other groups out.

Vegetation: Mixed psme/pipo/pifl

Weather: calm, clear

X: 494964

Y: 4333308

+/- 3 m

2238—ON and Andy hear a few TCs coming from Sierra Madre Rdg while listening in Columbine Cr.

2252—M is heard W of net and is immediately toasty, on top of the net giving TECs.

2254—M is silent. Net is empty. PB is changed to the AZ FLOW HEC track.

2256—M from W is once again calling right on top of the net, this time giving HECs. A 2nd FLOW is heard giving TCs from the NE, presumably B17\_2018 M.

2258—Both Ms calling go silent for a minute. Then the M from W comes back, once again with HECs just on top of the net.

2300—M from E is now giving TECs, within 20m of the net.

2301—Both Ms are giving HECs.

2302—M from W goes silent. M from E backs off but continue to give some TCs and TECs.

2303—SF sees a FLOW fly from W to a tree just above his position ~10m E of the net. He shines his light and FLOW flushes E to W across the top of the net.

2304—HECs are heard just W on top of the net again.

2305—2 Ms are calling. One is E, seemingly on the slope of Sharp-shinned Hawk Rdg facing Missouri Cr. The other is S, around Columbine Cr.

2307—M from W is calling on top of the net once again.

2308—**M is silent so SF turns on headlamp to check net and watches an unbanded M fly into top shelf from SW!**

**Band # 1833-32550 (on L leg)**

69.5 g LWC: 124 mm

- 17.0 g LLP(5): 97 mm

52.5 g LLP(6): 102 mm

Rect: 63 mm

**Notes: Bleed attempt on L with tiny hematoma. Not enough blood, so R is bled. Small hematoma on R as well. P2 on R and L are both in molt and not far out of the shaft. This is presumably the B10\_2018 M, but there is no way to be entirely sure.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | - | - |
| P3 | 1 | 1 |
| P4 | 2.5 | 2.5 |
| P5 | 3 | 3 |
| P6 | 3 | 3 |
| P7 | 3 | 3 |
| P8 | 3 | 3 |
| P9 | 2.5 | 3 |
| P10 | 3 | 3 |

2336—M is released with SAF and PB is stopped.

2343—Net is packed up and we leave.

## 28 June 2018

2035—JE and KA arrive at B17\_2018 nest site to peep the nest and later attempt a M capture. We wait, but the F never flushes. All is silent for almost an hour.

Weather: Calm, 100% cloud cover, 23 C

2126—M enters site making loud LCs or TCs. F stays down. The M transitions to TCs, and leaves the site after 2 mins of calling.

2132—M gives silent PD.

2139—M gives HECs from perch ~10 m N of nest. M makes another PD around this time.

2146—M gives TECs from same perch ~10 m N of nest.

2148-2153—M perches ~2 m S of cavity on perch and gives TCs. He switches to his perch ~10 m N of the nest, goes silent, and potentially leaves the nest site. He appears very wary of our presence, even though we have not approached the nest.

2201—M gives silent PD.

2203—JE begins her approach. F holds tightly to the cavity, and never rises to the entrance.

2206—JE has the net in position, F stays down.

2229—JE see FLOW perched around site for several minutes. This is presumably the B17\_2018 M checking us out.

2240—M in site moves to a different perch, ~10 m S of the of the nest tree, and begins making HECs. He remains wary of the net.

2247—We hear a second M FLOW making TCs from ~150 m N of the nest site, potentially calling from the B4 territory. This M continues to call on and off for ~20 mins.

2249—The B17 territorial M flies down from his perch and to the S. JE sees a silent bird in the nest site. We haven’t seen the F flush, but decide to play it safe and take the net down to observe, especially since the M hasn’t made any PDs with the net in position.

2250-2305—Net is lowered, we back off. We observe 2 birds in the nest site. One is silent, the other (presumed B17\_2018 M has been calling territorially), is still making HECs. From SF and JE’s previous observations at the nest, we know the presumed B17\_2018 M is banded, so we assume that the M that has been calling territorially is the B17\_2018 M because he is banded. The silent bird is unbanded, giving us a way to distinguish the territorial M from this silent bird. We see foraging behavior from both birds both on the nest tree and in adjacent pipos. JE observes both birds not only perch in the same trees, but also 2 tail chases. JE is confident that the silent bird was the aggressor in these tail chases because the banded M was calling territorially for most of the time and JE was able to see which bird was unbanded and silent, and which was banded and territorial. We also feel confident that the silent bird was not the F because of the tail chases, which reassures us that we didn’t miss a flush while observing the cavity.

2306—JE goes back in for capture since F has held tight throughout it all and the birds may now feel a bit more comfortable with our presence.

2316—M gives PD, but doesn’t fully enter the cavity as JE sees the butt sticking out. JE attempts a capture, but was too slow for the wary M.

2320—We pack up and leave the site.

## 3 July 2018

2214—ES and KA arrive at the B17\_2018 nest site to observe PDs and attempt a M capture. No birds are in the site when we arrive.

2300—After seeing and hearing nothing for the past 45 minutes, we decide to tap the tree. No one rises to the entrance. We scan the ground around the nest for evidence of predation but find nothing.

2306—**We peep the nest and find it completely empty—presumed predation. There are no egg fragments or feathers in or around the nest cavity**. After a rough night in Central Missouri, we head back to the vehicle.

## 11 July 2018

2039—AM and KM arrive in B8 territory to attempt a lure net capture of B8 M who is carrying a PinPoint. We start PB on Turkey Ridge 200m W of road and 60m N of B8\_2018 nest site, T42. Net is open E-W on a SE facing upper slope position.

Vegetation: young pipu, mixed age conifers, open stand.

Weather: 20.0 C, 70% cloud cover, no wind.

X: 495939

Y: 4332954

+/- 3m

2107—F LCs 20m from the E.

2110—F flies back and forth over the lure net several times making LCs. **We check the net and find a FLOW, third shelf from the E. F is previously banded on L leg and has quite the interesting history. She is the B20\_2013, B17\_2015, B1\_2016, and B17\_2017 F.** As we process F, a M starts coming in from the E making TCs. AM switches playback to FLOW HEC call, but the M backs off to the S and doesn’t return the rest of the night.

**Band # 1783-64411 (on L leg)**

95.0 g LWC: 135 mm

- 34.5 g LLP(5): 103 mm

59.5 g LLP(6): 113 mm

Rect: 62 mm

**Notes: F has pin feathers growing in on her stomach. Bled on L leg, no hematoma. LP1, LP2, and RP1-RP5 are all in molt.**

**Due to the still evident brood patch, predation event at B17 earlier in 2018, and this individual’s previous history at B17, we speculate that the FLOW might be the B17\_2018 F prospecting. The B17\_2018 nest was predated before we could capture the F, so there is no way to know for certain.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | molt | molt |
| P2 | molt | molt |
| P3 | 2.5 | molt |
| P4 | 2.5 | molt |
| P5 | .5 | molt |
| P6 | 1.5 | .5 |
| P7 | 1.0 | .5 |
| P8 | 1.0 | 1.0 |
| P9 | 1.0 | .5 |
| P10 | 1.0 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | molt | molt |
| P2 | molt | molt |
| P3 | 1.0 | molt |
| P4 | .5 | molt |
| P5 | 1.0 | molt |
| P6 | 1.5 | 1.0 |
| P7 | 2.0 | 2.0 |
| P8 | 2.0 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2140—Playback is changed to T42.

2200—We stop playback and start breaking down the net.

2210—We leave B8.

# B17—2019

## 10 June 2019

1531—ES, AM, SL, BL, ON, and ML arrive in B17 territory to tap and cherry peep historic nests and surrounding cavity trees with the intent of locating a B17 FLOW nest. We specifically targeted past nest trees: B17\_2011 (#195), B17\_2005 & 2017 (#614) and the B17\_2018 nest tree, as well as past nest trees in lower Columbine Cr.

1545—We descended Sharp-shinned Ridge into Columbine drainage to cherry peep past nest, tree #195, and surrounding cavities. No nests are found.

1600—We then work our way up Dead Gravid Female drainage to tap and cherry peep cavity trees in the B20 territory. No nests are found.

1630—ES and SL work up the E slope of Biker Ridge to peep cavity trees and AM goes to tap and peep the B17\_2018 cavity tree.

1715—ES, AM and SL leave B17 territory, no nests were found.

2215—ON, BL, and ML arrive in B17 territory to set up lure net targeting a potential B17\_2019 M, or any other M that might be attracted from surrounding territories.

2229—M gives some TCs as we set up the lure net. We are not positive where he is calling from, but we believe he is W or SW ~60 m.

2239—Start PB T42. Net is open N/S atop Sharpshinned Hawk Ridge, 125 m W of B17\_2018 nest tree.

Vegetation: Mixed age conifer (pipo, psme)

Weather: 12 C, 20% cloud cover, very slight breeze

X: 495047

Y: 4333328

+/- 3 m

2243—We hear M TC’s from S of net ~30 m. Note: This M has a very unique vocalization and makes a “hiccup” sound.

2245—M enters net area ~10 m and TC’s continue.

2249—M moves further S of net ~20 m.

2250—M goes quiet.

2304—PB changed to Megascops track.

2306-2314—TC’s continuously heard to SW of net ~50 m.

2310—ON attempts to walk PB towards SW to attract M towards net.

2313—We move PB to ground below net.

2314—BL leaves to identify where M might retreat.

2314—M moves closer to net following PB moving closer and is ~20 m SW.

2320—M retreats further S.

2325—PB changed to Psiloscops AZ and we put it back in a young psme just N of net.

2329—M begins to retreat SE.

2334—ML attempts to walk PB closer to attract M to net. PB changed to Megascops.

2337—M retreats further S/SE again and goes quiet.

2342—Cut PB and break down net.

2351—We head out for the night and no other signs of FLOW activity are seen or heard.

## 24 June 2019

2330—JE, AM, and SL walk along the Biker Trail towards B17. While standing at the head of Sharp-shinned Hawk Ridge where it meets the Biker Trail, we hear a M making TCs distantly N of us.

2332—JE hoots and a M is heard responding ~30m S of us with TCs. He seems to be at the head of Columbine. We hear a 2nd M also making TCs ~80m NW of us, from farther down Sharp-shinned.

2333-2345—We walk down Sharp-shinned towards the B17\_2018 and 2017 past nest tree. We tap the past nest and a couple other conifer cavity trees along the way. We find nothing but hear the two Ms continuously hooting at one another. We hear them having a territorial encounter ~50m down Sharp-shinned from the B17\_2017-18 past nest tree.

2347—We head out back for the vehicle.

## 15 July 2019

2308—SL, ES, and KA arrive at the B4\_2019 territory. From Fallen Squirrel Cr, we walk W down W Missouri Cr.

2312—SL hears a possible F FSC from W Missouri Cr near where the road begins to wash out E of Vista R. She gives a couple hoots. We do not hear a response in the immediate vicinity, but a M FLOW responds with TCs from ~100 m further W down W Missouri Cr. He approaches, but never gets closer than ~75 m, and then backs off again. We tap cavity trees in the area, but find nothing.

2324—We begin to climb S up Sharp Shinned Hawk Ridge and begin PB while still within ~40 m of the drainage bottom, near the large clump of potr cavity trees. After 5 minutes with no FLOW response, we cut PB and continue up Sharp Shinned Hawk Ridge to set up a lure net.

2342—PB starts. T42. Net is located on saddle of Sharp Shinned Hawk Ridge near the southern terminus of the ridge. Our goal is to draw FLOWs from multiple surrounding territories, including B4, B1, B17, and possibly B10. Net is located on the ridgetop, open N/S.

Vegetation: mixed age pipo, psme

Weather: 10% cc, 13 C, calm

X: 494903

Y: 4333293

+/- 3m

2357—We hear a M give TCs ~50 m E up Sharp Shinned Hawk Ridge. He gives a few sporadic TCs but never gets closer to the nest site.

2405—We cut PB and head back towards the car.

# B17—2020

## 30 June 2020

2230—ES and BL arrive on top of Sharpshinned Hawk R to listen for nesting activity, tap trees, and eventually set up a lure net. ES heads W up Sharpshinned Hawk R to tap and observe the B17\_2017 and 2018 nest tree, and then heads down into the head of Columnbine Cr, working down draingage. BL starts at the past nest tree at the confluence of Columbine and DGF Creeks, and then works up to the head of DGF Cr, in the vicinity of the past B20 nest tree.

2241-2310—While working E down Columbine Cr, ES hears TCs periodically on the low-to-mid-slope of the ridge separating Columbine Cr and DGF Cr. I hear them at 2241, 2244, and 2259. Each time, M calls for ~2 minutes before going silent. During this same time span, BL also hears the M calling from the same ridge, as well as from the W-facing slope near the head of DGF Cr (and likely not far from the Biker Trail).

2315—ES and BL meet up on top of Sharpshinned Hawk R to set up a lure net.

2328—We hear TCs ~75m N of our position (possibly B17 M). A second M begins calling ~150m S (possibly B10 M).

2331—Start PB at the lure net. We are ~175m W of the B17\_2017 and 2018 nest tree, near the middle of the length of the ridge, just W of the small saddle where the game trail comes up from W Missouri Cr. Net is open N/S.

Vegetation: Young-mature psme

Weather: Clear, calm, 10C

2332—TCs ~40m SW. This is presumably B17, or B10 coming up from the confluence of Columbine Cr and W Missouri Cr.

2334—HECs ~10m S of the lure net, presumably from the same M.

2336—We hear wing flaps at the net, and we shine a light to see the net empty but swaying. The M seems to have bounced out. He resumes making HECs and TECs just S of the net.

2339—**We hear wing flaps again—this time the M is captured in the 4th shelf, having come in from the S! This is the presumed B17\_2020 M. He is banded on the L (1833-03531) and was captured at a lure net on Sharpshinned Hawk R in 2017. At the time, his breeding status was unknown, but he did not turn out to be the B17\_2017 breeding M. He has not been captured since.**

**Band # 1833-03531 (on R leg)**

64.0 g LWC: 128 mm

- 7.5 g LLP(5): 99 mm

56.5 g LLP(6): 106 mm

Rect: 59 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left primaries (scale 0-3) | Right primaries (scale 0-3) |
| P1 | 3 | 3 |
| P2 | In shaft | In shaft |
| P3 | In shaft | 3 (very fresh) |
| P4 | In shaft | In shaft |
| P5 | 2.5 | 2.5 |
| P6 | 2.5 | 2.5 |
| P7 | 2.5 | 2.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 1.5 | 1.5 |

|  |  |  |
| --- | --- | --- |
|  | Left secondaries (scale 0-3) | Right secondaries (scale 0-3) |
| S1 | 3 | 3 |
| S2 | 3 | 3 |
| S3 | 2 | 2 |
| S4 | 2.5 | 2.5 |
| S5 | 2.5 | 2.5 |
| S6 | 2 | 2 |
| S7 | 2 | 2 |
| S8 | 1.5 | 1.5 |
| S9 | 1 | 1 |
| S10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | In shaft | In shaft |
| P3 | In shaft | 0 (brand new) |
| P4 | In shaft | In shaft |
| P5 | 1 | 1 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2.5 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

**Notes: LP2, LP3, and LP4 in shaft. RP2 and RP4 in shaft, RP3 looked brand new (appeared considerably darker under normal white light with practically no wear). Bled L but got very little blood—medium-large hematoma. Bled R and got a full capillary tube—small hematoma. Hipoboscid flies present.**

2340-2350—While we are processing 1833-03531, we hear loud FSCs just S of the net. We leave PB running but vigilantly check the net every minute or so.

2350—Wing flaps in the net. **We’ve captured the presumed F in the 2nd shelf of the net. She came in from the S. She is banded on the L (1833-32591) and was captured in 2019 at a B10 lure net on Shooting Star Ridge. At the time, this bird was deemed a M based on weight (54.0 g), lack of incubation patch, and recent TCs heard near the net. BL sees pinfeathers on the breast now that indicate F status, along with her current mass and FSCs prior to capture that seemed to be coming from this bird. This could be the B17\_2020 F, or a F from another territory whose nest has failed.** In case this is in fact a F with an active nest, BL only takes a mass before releasing.

**Band#: 1833-32591 (on L leg)**

66.0 g LWC: XXX mm

- 7.0 g LLP(5): XX mm

59.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: Pinfeathers coming in fully on breast.**

2350-2359—With the M and F in hand, we hear TCs that seem to come from the confluence of Columbine Cr and W Missouri Cr—presumably from the B10\_2020 M. We simultaneously hear TCs further up Columbine Cr, presumably from the B20\_2020 M. At another point we hear TCs far off to the NW, presumably from the B2\_2020 M.

2359—BL resleases the presumed F (1833-32591). She shows a strong horizontal flight E. We stop PB so she doesn’t end up back in the net.

2426—Release presumed B17\_2020 M (1833-03531). Strong asceding flight.

## 7 July 2020

2225—AM and KC arrive in B17 on Biker Ridge to set up a lure net.

2235—We start PB, T42, in a ridgetop position on Biker Ridge 150m SW of where Biker Ridge meets Sharpshinned Hawk Ridge and 15m S of Biker Trail. Net is open N-S.

Vegetation: mixed age psme, pipu, pipo, open

Weather:10%cc, light to moderate wind, 12℃

X: 495455

Y: 4333134

+/- 3m

2310—AM walks PB N along Biker Ridge.

2315—AM returns with the PB. We decide to break down the net and move it farther north.

2328—We start PB, T42, on top of Biker Ridge 50m S of Sharpshinned Hawk Ridge at the head of Columbine Cr. Net is open E-W.

Vegetation: mature pipo, psme, open

Weather: clear, slight breeze, 17℃

X: 495458

Y: 4333212

+/- 3m

2341—We hear M TCs 70m W down in Columbine Cr.

2343—We switch PB to TEC track. M TCs, TECs 20m W of the net.

2355—M is still calling 20m W of the net. **KC checks the net, and there is a silent bird caught in the 3rd shelf from the E! The FLOW is previously banded and was the B5\_2016, 2017 M.** We have trouble extracting the bird from the net, which takes 11 minutes. Because the bird was silent, and because it was banded on the R leg, AM presumes it is a F and releases the bird after recording the band number. Therefore, we don’t get any measurements.

**Band # 1833-03384 (on R leg)**

**Notes: We don’t collect any measurements.**

2406—We release the FLOW, SAF to the W. We break down net and leave.

# B18—2009

## 15 June 2009

1648—SY taps on unenumerated cavity tree just N of B8\_768, F rises to cavity entrance. **This is the B18\_2009 nest.** Nest tree is just outside the NE boundary of the study area, just N of the E Missouri Cr.

X: 496895

Y: 4333064 ±9m

Cavity is ~25 feet high, facing WNW in a lg. diameter potr.

1652—We leave the area.

2153—JG and SY arrive at the B18 nest to attempt capture of the M.

2201—While raising the capture net, the F flushes – we back off to allow F back into cavity.

Note: Capture height = 25’0”

2217—Return to nest – F is in entrance as we arrive.

2222—F back down in cavity bottom.

2225—Net in capture position.

Weather: clear calm, 8 C.

2345—Lower net – no PD’s! We leave.

## 23 June 2009

2055—SY and DH arrive at B18 nest site to attempt capture of the F and M and put a radio tag on M.

2057—SY has net in position over cavity. Tap: F does not rise.

2100—**I peep w/ net still up: 3 eggs unhatched, one w/ dark cracks on the side—hatching?**

2101—We back off to observe ~10m.

2115—F is still not on. We back off to ~30m. Weather: clear, calm, 13C.

2139—We move back in to ~10m to observe. Have heard nothing.

2149—We peep again: no F, just eggs. **Nest is abandoned.** I observe cavity while SY tries to contact crew.

~2200—We leave.

2300—We return to the lodge

# B18—2011

## 21 June 2011

2354—AW and JG head up E. Missouri Creek to attempt to gauge the presence of a possible B18 M.

2405—We deliver 5 TCs to attempt to illicit any response about 200 m E up E Missouri Creek.

2410—Having heard no responses, we leave.

## 5 July 2011

1500—Flamm Crew begins tapping and peeping in East Missouri Cr.

1541—SY taps the B18\_2009 nest tree (new tag # 1170), FV rises to entrance. **This is the B18\_2011 nest tree.** Cavity is W to NW facing ~25ft. up a live potr in a NOFL cavity. F remains in entrance for at least 9min. We peep the cavity while the F is still in the entrance, she flushes, and we see  **2 owlets, eldest has very little grey down and the youngest has all white natal down, eyes open, and no egg tooth. There is also one unhatched egg, but we suspect it is no longer viable based upon the gap between the age of the 2 owlets.** We leave.

2101—IJ and SY arrive at B18\_2011 nest to attempt male or female capture depending upon observed behavior of the pair. Earlier in the day the nest was peeped and there was found to be 2 hatchlings and an unhatched egg; there was a large disparity in the ages of the two hatchlings with the older one estimated to be approximately 5 days old.

2103—SY raises capture net to correct height but does not place over cavity.

2105—Fdetermined to be off cavity, we lower net and back off to observe behavior and allow her back on the cavity.

2110—Both F and M come into nest area but neither enter the cavity.

2112—One individual (presumably the M) makes a PD and flushes to the S.

2113—The other individual (presumably the F) flushes to the SE.

2115—F scolding call heard off cavity. F makes two scolds. We decide to back off from the site.

2140—We return to the nest site; a bird in the entrance of the cavity immediately flushes.

2144—Presumed M attempts a PD, flushes to the E/SE; SY moves in to raise net.

2153—Aborted PD.

2155—Aborted PD from N of cavity.

2204—Presumed M makes aborted PD.

2206—Presumed M makes aborted PD.

2208—Presumed M makes aborted PD.

2210—Presumed M makes aborted PD.

2217—Presumed M makes PD and we attempt to capture him; upon capture in net, net gets caught on tree and is inverted, allowing the M to narrowly escape.

2221—Both M and F are in the area and flush to NW.

2059—Both individuals return to nest area.

2308—F attempts a PD to the nest; escapes capture because net is slightly too low; both individuals flush from area; we back off to observe activity and allow PDs.

2311—One individual return to area.

2317—Both individuals in area.

2320—PD; unknown whether M or F.

2321—PD by M or F.

2324—M attempts PD, spotted with **lepidopteran prey, approx. 1.5 cm.** SY returns to raise net.

2328—M aborts PD.

2329—**Unbanded M caught in capture net following a PD. Following weight and wing measurements, a radio-telemetry backpack is harnessed to the male. The radio-telemetry backpack is #164.853.**

**Band # 1593-64806** (on L leg)

82.5 g LWC: 125 mm

- 29.0 g LLP(5): 92 mm

53.5 g LLP(6): 102 mm

Rect: 63 mm

2353—M is released with backpack fitted. Release flight is weak and M immediately falls to ground. 1 minute later release is again attempted, and the M falls immediately to ground again.

2256—Upon third release, M has a weak flight very low to ground to the South. We follow him and find him approx. 10m from release site on ground at 2404.

2406—Released again, falls immediately and found 2 min later clutching base of PSME.

2412—After showing improved standing capabilities, M is released with much stronger flight S; SY and IJ leave the area.

## 8 July 2011

2052—IJ and SY arrive at B18\_2011 nest site to track the radio-tagged B18\_2011 territorial male. Upon arrival, F is up in cavity and M is heard moving around, suggesting he is already off his roost.

2102—F flushes, **we peep cavity and find 2 hatchlings and 1 unhatched egg. The older hatchling has a grey backside and the younger one has all white natal down. It is assumed that the egg is no longer viable.**

As the male is followed using radio-telemetry over the nest 43 min, **M made at least 2 PDs, foraging in between PDs on the W slope of cavity (approx 45 m from nest) amongst PICO forest. When in nest site, it was determined that the M was spending the majority of his time moving between young PSMEs and POTRs near the cavity (within 10 m).**

2145—Due to a crazy storm with copious amounts of energy, we decide to leave site and make a mad dash to the vehicle.

## 11 July 2011

2035—IJ and SY arrive at B18\_2011 nest to capture the female and track the male using radio telemetry (tracking best on .8524). As IJ moves in to raise net, female is up. We raise the net nonetheless and attempt a “distraction capture”.

2042—F flushes and we do not catch her. We begin radio-tracking the M.

2053—M makes PD to nest while F vocalizes off-cavity.

2056—M makes PD to nest.

2059—M makes PD to nest, F still off.

Notes: Between 2150 and 2330 we radio track the M (each of us with our own setup). We flag a total of 10 trees in which the male was found foraging, resting or unknown. Weather was generally rainy ranging from a light drizzle to moderate rainfall. The M remained active throughout much of the tracking period. Most trees flagged were PICOs or POTRs. Many of the fixes were within 50m of the nest however several fixes were located over 100m from S of the nest and a fix approximately 100m N of the nest. The M mainly foraged and moved within the drainage or on very low slopes. He was never observed on a ridgetop. The last tree flagged appears to be a longer0-term resting position related to increased rainfall in the area. Due to rainfall we leave the area at ~2330. See radio-telemetry data for detailed information about the various fixes.

## 14 July 2011

1440—IJ, SY, and JG arrive at the B18\_2011 nest to band and bleed the owlets and the F. When we arrive, the F is up in the cavity entrance. Weather: Partly cloudy, wind ~ 7 mph, thunder/lightning, 20 C.

1445—JG places the net over the cavity entrance while SY distracts the F. The F backs down into the cavity.

1446—IJ begins radiotracking the M to locate his roost – we are unable to track him to his definitive roost because of poor weather conditions.

1500—SY begins climbing nest tree.

1506—At the nest cavity, SY begins enlarging the cavity.

1532—SY removes the F and the first owlet from the cavity. The F is unbanded.

**We band the F with Band # 1593-64851** (on L leg)

90.5 g LWC: 139 mm

- 30.5 g LLP(5): 110 mm

60.5 g LLP(6): 119 mm

Rect: 70 mm

We take a blood sample for genetics and a parasite smear.

1538—SY removes the second owlet from the cavity, lowers it, and we begin banding/bleeding the owlets.

**Band #1593 – 64847** (on L leg)

65.8 g

P#5: 51.5 mm (25 in shaft)

P#6: 53.0 mm (25 in shaft)

Rect: 21.0 mm (10 in shaft)

LWC: 70.5 mm

**Band # 1593 – 64849** (on L leg)

39.7 g

P#5: 27 mm (12 in shaft)

P#6: 26.5 mm (18.5 in shaft)

Rect: 8 mm (6 in shaft)

LWC: 27 mm

We take blood samples from both owlets for genetics and parasite smears.

SY measures the cavity dimensions

Horizontal x vertical width: 8 x 5 cm

Entrance thickness: 11 mm

Horizontal depth: 14.5 cm

Vertical depth: ~ 27 cm

DOH: 35 cm

1608—SY raises the owlets back up to the cavity, returns them, and begins to climb down.

1614—We leave.

## 19 July 2011

2100—IJ and SY arrive at B18 to radio track M and to attempt to capture M and remove radio tag. We **peep on arrival, unclear on number of owlets (new peeper – bad transmission in live tree).** SY begins radio tracking M to see if he is tending a possible fledgling.

2140—B18\_1 (see data sheet) near split in E Missouri Cr. (gen area).

2205—SY locates M in pico (B18\_2) – he makes a forage in an adjacent tree to the N (likely the trunk of a potr ~3m NNW) then flies to a nearby pico (B18\_3) apparently to eat prey. M then returns to B18\_2 and begins preening and tugging at radio tag, also rests a little. M then flies ~4m SW to B18\_4 for ~30 sec. before flying another ~1.5m S yo B18\_5 and continues preening and tugging at the radio tag. M then gives HECs (likely directed at us) for ~2 min before flushing to the S and we lose him. See data sheet for specifics on these trees.

2240—IJ gets B18\_6 (see data sheet).

2245-2333—Net in capture position for the M. 3 PDs and failed capture attempts during this time.

2333—After a failed capture attempt that resulted in the net knocking against the tree, an owlet jumps from cavity and makes a ~45-degree angle flight to the ground in the middle of a cinquefoil meadow. SY locates him at the base of a *pofr* griping the trunk with his bill and using wings to remain upright.

**Previously Banded # 1593-64847** (on x leg)

85.0 g LWC: 91mm

- 20.0 g LLP(5): 71mm

65.0 g LLP(6): 68mm

Rect: 33mm

Blacklight reveals strong fluorescence decreasing continuously towards the outer primaries (youngest feathers) result of late deposition? Very bright on inner primaries. Can even be seen on contour feathers and on dorsal surfaces of wings!

2350—We place FL approximately 2m up a small psme ~5m W of the nest tree. We leave.

## 20 July 2011

2025—IJ, EDE and SY arrive at the B18\_2011 nest to try to locate previous night’s Fl, and capture M to remove radio transmitter. Begin tracking M in search of roost. We follow him to approximately 20m SW of split in E Missouri Cr. He gives just a few TC @ 2035

2241—SY hangs B18\_1 as a general area fix for the M’s roost. Given distance to nest and lack of scolding of Fl begging it appears that the M is not tending to the previous night’s fledgling. We return to nest site to assess who is tending to remaining N.

2044—IJ peeps the nest – 1 N still in cavity.

2048—N begging from cavity – M enters site and give LCs

2049—M PD

2056—Net in capture position.

Weather: ~15C, cloudy, calm, light rain

2102—M PD – capture.

**Previously Banded # 1593-64806**

Mass w/ radio TX: Mass w/o radio TX:

90.0g 87.5g LWC: 124mm

-28.5g -28.5g P5: 90mm

61.5g 59.0g P6: 100mm

Rect.: 63mm

We try to bleed owl’s L wing – do not get enough blood for sample. We successfully bleed M’s R wing.

We blacklight the M – see pics – very light fluorescence almost none on outer primaries. S1 is almost whiteish.

2139—Release – strong flight to the E.

# B18—2012

## 20 June 2012

2335—PPS and SY arrive in B18 territory to listen for occupancy and/or potential nest. We tap on past nest tree, no response. We observe at nest for <20min. no owls seen/heard.

Weather: 12C, calm, cloudy.

2344—Having listened, tapped and hooted within the N fork of E Missouri Cr. for >1 hour, we leave. Nothing heard.

## 9 July 2012

1600-1700—Whole crew spreads out to peep in B18. Although there are a ton of new trees in the territory there are no Flam nests.

# B18—2013

## 21 June 2013

~1500—Flam Crew (minus BL) begins peeping E Missouri Cr.

1555—SY taps cavity tree #1309 and the F rises to the entrance. **This is the B18\_2013 nest! The cavity is SE facing ~18 feet up a potr snag. The tree is located in drainage bottom of N fork of E Missouri Cr., ~25m downstream of the past B18 nest area. The tree is on the W side of the creek in the drainage bottom, just outside a small wetland area.**

1605—I leave.

## 24 June 2013

2025—LL and SY arrive at the B18\_2013 to attempt to capture the M and F.

Weather: 12C, clear/smoky, calm.

2013—Net in capture position.

2055—M silently enters the site. He then flushes to the N and begins giving TECs ~20m N of the nest in the potr bottom.

2056—M goes quiet.

2110—F rises to entrance and flushes – she is captured. **She is previously banded. She is the B19\_2012 F!**

**Band #1593-64846**

81.5 g

- 17.0 g

64.5 g

**We peep: 2 unhatched eggs and one young nestling. N is fairly active, eyes closed, white natal down but not yet completely filled in. Hatching date is estimated as 6/23.**

2115—F is released – strong flight E. We back off to allow PDs before returning to attempt to capture M.

2143—M gives TCs SE of nest, probably near junction.

2148—SY is checking capture pole height when F flushes out of nest tree or an adjacent tree, but not out of the cavity itself, so she was still off the nest. She starts scolding from ~20m E. M stops TCs right around this time for ~1min, then continues. We back off a few meters from the nest to see if the F will come back on.

2153—We back out of the nest site because the F has still made no attempt to return.

2200—M goes silent.

2205—M gives continuous TCs near junction.

2214—SY is in capture position at nest tree. M goes silent.

2236—M gives TCs near junction.

2240—M goes silent.

2250—M gives TCs near junction for ~2min.

2300—M gives TCs near junction.

2303—We pack up and leave, as M has been calling consistently from the junction area and does not appear to have come any closer to the nest area in the time we have been there.

## 28 June 2013

2029—BDG and SY arrive at the B18 nest to attempt to capture the M.

Weather: 13C, mostly clear, wind ~5mph; nearby t-storms.

2052—M silently enters the site from the S. He goes to cavity entrance – PD?

2053—F rises to cavity entrance and flushes. **We peep: 3 Ns; eldest has eyes open and head active, still all white down and with egg tooth; middle is in all white natal down, eyes closed, head fairly active; youngest is fairly young ~3d, head down, all white down (sparse), eyes closed, egg tooth.**  F is moving around the site scolding us. W back off an F remain nearby giving FSCs and LCs.

2102—M makes PD to F in entrance of cavity.

2104—F goes back down into cavity completely.

2105—very quick PD.

2109—Very fast PD

2110—Very fast PD (?)

2112—PD

2115—Net up in capture position.

2117—PD – missed capture attempt.

2120—Hail and lightening, we bring net down and back off.

2146—We return to nest area. F is in the entrance, M ~5m N. F flushes as we approach.

2150—M makes PD to young while F is still off cavity.

2152—F moves to perch on nest tree adjacent to cavity.

2154—M makes PD to Ns with F still perched on tree.

2204—F returns to cavity.

2207—Net in capture position.

2216—M flies into capture pole in its “ready” position.

2218—Aborted PD

2234—PD (?)

2240—PD, M is captured but escape through a hole in the net. F flushes during this – we back off to fix holes and allow her back o to the cavity.

2300—We return to nest site and bring the net to the capture position.

2302—M enters site and begins giving us quiet HECs from ~2m NE of the nest.

23077—Heavy rain and lightning start – we bring net down and back off.

2325—Rain is getting lighter, but no time left – we leave.

## 2 July 2013

2231—SY, CK, and LL arrive in B18 nest area with intention of capturing the B18\_2013 M after a PD at the nest.

2234—The B18\_M comes into the nest site and gives LCs, while the F gives some FSCs.

2235—The M makes a PD, after which the F flushes and starts giving scolds at us from the E.

2236—The F flies to just N of the nest tree and scolds at us from there. **We peep the nest quickly and there are two nestlings. Both nestlings are pretty active, the oldest is 9 days old with juvenile plumage coming in and eyes open. The second nestling looked a few days younger, but also had eyes open.** We back off ~10m after peeping.

2240—M gives TCs ~50m to the SE.

2242—M goes silent.

2250—F gives LCs and FSCs off cavity, but in the nest site.

2252—M comes into the nest site, gives LCs and then feeds the F.

2253—We back off further, as the F still has not come back on.

2305—We move back into the nest site.

2307—F flushes from the cavity or from an approach perch close to the nest. F begins giving scolds, so we back off ~10m.

2315—SY goes back to base of nest tree and begins extending capture pole.

2317—F flushes from the cavity and M flushes from a nearby approach perch. SY backs off ~10m again.

2319—M gives hoarse TCs SE of the nest.

2320—F gives FSCs in immediate nest area.

2323—We believe the F goes back on.

2325—SY moves back to the base of the nest tree and gets in capture position.

2339—We hear wing flaps and FSCs.

2340—M makes a quick PD.

2344—M makes a quick PD. **SY captures M in the net as he leaves**. The F flushes immediately after the M is captured. **The M is previously banded and is the B18\_2011 M**.

**Band # 1593-64806** (on L leg)

90.0 g LWC: 127 mm

- 35.0 g LLP(5): 93 mm

55.0 g LLP(6): 102 mm

Rect: 56 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 (70% of feather) | 3 (70% of feather) |
| P2 | 3 (70% of feather) | 3 (70% of feather) |
| P3 | 3 (70% of feather) | 3 (70% of feather) |
| P4 | 3 (70% of feather) | 1 |
| P5 | 2 (50% of feather) | 3 (50% of feather) |
| P6 | 2 (50% of feather) | 2 (30% of feather) |
| P7 | 1 | 2 (30% of feather) |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0 | 0 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 1 |
| P4 | 0.5 | 1 |
| P5 | 0.5 | 1 |
| P6 | 1 | 2 |
| P7 | 1.5 | 3 |
| P8 | 2 | 3 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2404—M released, nice flight to the N. We pack up and leave.

Weather: Clear, calm, 5 C

## 9 July 2013

2055—SY and CK arrive at the B18\_2013 nest site. Within 20m of reaching the nest tree, B18\_2013 F scolds us from off cavity.

2057—**CK peeps the cavity and sees three owlets. The oldest owlet has facial discs developing. The oldest owlet looks to be ~17 days old. SY raises brown capture pole because F was swooping at the peeper head as it approached the cavity.**

2101—CK lowers the peeper and we back off but are still in the vicinity of the nest tree. F continues to scold our presence during this period.

2105—We hear M TCs to the E of the nest ~30m away while F continues to scold around the nest.

2112—F goes quiet.

2116—F returns to scolding.

2117—We decide to back off for ~15 minutes to let the F and M make some PDs to the nest since our presence was limiting their PD rates.

2124—We hear F begs in the nest vicinity while we are backed off and out of the nest vicinity

2132—SY heads back to the nest to try for a F capture.

2157—We hear flaps around the nest while CK spots the F high up in a perch in an adjacent tree. During this time, F gives consistent scolds at our presence.

2215—No luck this time with the F, so we leave the nest site.

2228—We hear consistent TCs from the presumed B19\_M as we head down the drainage. SY had heard the B18\_2013 M approach the turn of the drainage where B18 and B19 meet up, so this FLOW calling from down the drainage bottom near where we had previously heard the presumed B19\_M was different from the B18\_2013 M.

## 10 July 2013

1314—Flam Crew arrives at the B18 nest to capture F and band and bleed Ns.

1317—Net is in capture position for F, but the F scolds us from off cavity to the W.

**We peep: 3 Ns still present**. F scolding while we peep.

1320—Begin climbing ladder and enlarging cavity entrance.

Cavity Dimensions:

Entrance Dim.(HxV): 5.0 x 4.5

Entrance Thickness: 2.0

Horiz. Depth: 14.0

Vert. Depth: 8.0

DOH: 25.0

1331—Owlets out of cavity.

**Band #1783-64404** (on L leg)

52.3g

P#5: 36 mm (26 in shaft)

P#6: 36 mm (27 in shaft)

Rect: 11 mm (9 in shaft)

Notes: Bleed R wing, genetics and smear.

**Band #1783-64405** (on R leg)

49.6g

P#5: 40 mm (25 in shaft)

P#6: 41 mm (24 in shaft)

Rect: 12 mm (9 in shaft)

Notes: Bleed R wing genetics and smear. Parasite located on rachis of P9 on L wing. RC collects parasite. Some blood left on site of attachment.

**Band #1783-64406** (on R leg)

45.3g

P#5: 21mm (20 in shaft)

P#6: 21mm (21 in shaft)

Rect: 4mm

Notes: Tried to bleed wing but failed; bleed R wing genetics and smear.

1357—Ns back in cavity – we pack up and leave.

## 12 July 2013

2134—CK and JR arrive at the B18\_2013 nest to attempt capture of the F. We hear F scolds.

2251—We set up the mist net in front of the cavity entrance and bring it to five poles. F scolds consistently. We also hear M TCs down the drainage towards where the main drainage starts.

2301—**We catch the M in the mist net and see two other FLOW leave the area. One FLOW, presumed the F, flies over the net to the S and the other FLOW flies over the net in the other direction. Both of these FLOW were clearly seen while the M territory holder was in the net.**

2308—We extract the M from the net and hold on to him for another ~20 minutes. F scolds for ~5 min and then goes quiet. We check the net 2-3 more times but after entering the site we see the F in a nearby perch scolding us again.

2330—We leave B18 and head back to the lodge.

# B18—2014

## 6 June 2014

2220—RD, SY, MP, and company (guests) begin journey to B18 w/ intent to tap previous nest trees and lure net.

2253—SY starts PB in B18 meadow 50m upstream from past B18 nesting area.

Vegetation: Net placed across stand of young to medium pico w/ open meadow to N, assorted mature pico spread in meadow (pentaphylloides and grass).

Weather: 12°C, Clear, Calm, few clouds.

X: 496904

Y: 4333116

+/-3m

2308—RD hears loud TCs as MP and SY are about to leave to listen. The bird hopped around the net for a few minutes giving almost hoarse TCs.

2310—Unbanded M in 3rd shelf of net coming from the N. **This is the suspected B18\_2014 M territory holder.**

**New Band # 1783-64540 (on L leg)**

87.0 g LWC: 128 mm

- 29.0 g LLP(5): 96 mm

58.0 g LLP(6): 104 mm

Rect: 56 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1.5 | 1 |
| P9 | 1.5 | 0 |
| P10 | 1 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | 1 | 1.5 |
| P6 | 2 | 2 |
| P7 | 2 | 2.5 |
| P8 | 3 | 2.5 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

We bleed M’s left wing.

2345—We release M. Strong flight SE. We stop PB, break down net and leave.

## 2 July 2014

1549—While FC is peeping B18, SY taps an unenumerated cavity tree and a F rises to entrance. **This is the B18\_2014 nest! The tree is located ~4m E of the N Fork of Missouri Cr. Tree is ~20m ENE of the 2013 nest and ~35m downstream of the original B18 nest tree. The tree is a broken-top potr snag. The cavity is W facing near the top of the tree (<1m from the top). Cavity is a sapsucker hole.**

X: 496844

Y: 4333046

+/-6m

2143—AW, MP + 1 arrive at the B18\_2014 nest site to attempt capture of B18\_M. F is down. AW begins her approach.

2147—AW has capture net in position.

~2155—F flushes on her own accord.

2159—M makes a PD. AW attempts capture, M gets captured in bag, but escapes.

2205—F returns to the nest.

2224—Single TC is heard to the W.

2232—M lands on nest tree, just below cavity. AW thinks M goes into cavity, but when she spotlights him, he is perched on the bark of the tree, with wings outstretched. M is possibly making a forage on the nest tree? He climbs up to the cavity entrance without going in, then flies away.

2238—M comes in for PD, lands on cavity entrance, and flies away when AW spotlights him.

2240—F flushes again. We go in for a peep of the nest. **There are 3 nestlings. The 2 eldest nestlings have grey plumage and are fairly active. They have raised heads and open eyes. The youngest is still in white natal down with its head down and is much smaller than the 2 eldest nestlings. The eldest nestlings appear to be about 6 days old while the runt appears to be around 4 days old. This puts initial hatching at 6/26±1 day. *Revised 7/8: looking back on this entry, AW suspects the eldest nestlings were probably older than 6 days as they were showing darker, grey plumage. Eldest nestlings may be closer to 8-9 days old at this point and hatching therefore occurred closer to 6/23±1 day.*** We leave for B19.

## 9 July 2014

2206—AW and JS arrive at B18\_2014 nest to capture F (for processing) and M (to confirm his identity) and peep to gauge nestling age.

Weather: partly cloudy, no wind, 12C

2209—AW ready with net up, it is unclear if the F is on.

2211—M gives very loud HECs in nest vicinity.

2212—F gives scolding calls in vicinity. Both continue.

2219—M gives a PD as we are distracted by a stranger’s headlamp emerging from the B18 drainage. After accepting certain death, LL is greeted from our radios and we hand over our blacklight.

2222—M aborts a PD.

2228—M aborts a PD.

2232—M aborts a PD. Nestlings heard begging from cavity.

2236—**M caught on a PD! He is previously banded and was originally captured by SY in a**

**lure net earlier this year. He is confirmed as the B18\_2014 M.**

**Band # 1783-64540 (on L leg)**

73.5 g LWC: 126 mm

- 22.0 g LLP(5): 96 mm

51.5 g LLP(6):104 mm

Rect: 59 mm

Note: Bled for parasite smear on L wing. No genetics (previously obtained by SY in

2014)

2258—AW back up with net for the F capture. M in hand.

2303—**Unbanded F caught on 1st PD!** M released, strong flight S.

**Band # 1783-64520 (on L leg)**

80.0 g LWC: 126 mm

- 22.5 g LLP(5): 100 mm

57.5 g LLP(6): 110 mm

Rect: 63 mm

Note: Bled for genetics and parasite smear on L wing.

*Molting on P2,3 and 4 on both wings:*

LP4: 25 mm (20 mm) RP4: 31 mm (17 mm)

LP3: 26 mm (20 mm) RP3: 34 mm (18 mm)

LP2: 23 mm (17 mm) LP2: 23 mm (16 mm)

2330—F released, good flight N.

2335—While F is off, **we peep: 3 nestlings. Eldest nestling has solid black juvenile plumage on wings and back, but is still downy on its head. The second eldest is more grey and does not have as much solid black juvenile plumage as the eldest. The runt appears much younger and is covered in downy, grey feathers. There are no signs of facial disks on any of the nestlings. We suspect the eldest nestlings are ~14-15 days while the runt is ~10-12 days. Tonight’s observation is a little inconsistent with our previous estimated hatch date of 6/23. Hatch date should be advanced to 6/24 to reflect this change.**

2341—We leave.

## 17 July 2014

1110—Crew arrives at B18\_2014 nest to process nestlings. **We peep: 3 nestlings are accounted for in the cavity.**

Weather: mostly clear sky, slight wind, 14C

1115—Ladder up and AW begins ascent.

Cavity Measurements

Cavity Entrance: Hor. 55mm x Vert. 45mm

Thickness: 25mm

DOH: 38.5

Depth: Hor. 95mm x Vert. 100mm

Height: 18’ 9’’

1119—Cuts begin.

1124—1st owlet is taken out, the others follow.

**Owlet #1**

49.3 g

P#5: 61 mm (20 in shaft)

P#6: 61 mm (23 in shaft)

Rect: 27 mm (13 in shaft)

**Band#: 1783-64588 (L leg)**

Notes: Bled on R wing. G+P

**Owlet #2**

39.6 g

P#5: 32 mm (18 in shaft)

P#6: 32 mm (20 in shaft)

Rect: 10 mm (9 in shaft)

**Band#: 1783-64589 (L leg)**

Notes: Bled on R wing. G+P

**Owlet #3**

52.4 g

P#5: 64 mm (22 in shaft)

P#6: 64 mm (23 in shaft)

Rect: 29 mm (11 in shaft)

**Band#: 1783-64590 (R leg)**

Notes: Bled on R wing. G+P

1148—Owlets returned to cavity. We leave.

# B18—2015

## 24 June 2015

2244—DL, MC, and ER arrive in B18 to listen and attempt to find a nest. ER peeps B18\_2014 and B18\_2013. We then spread out and begin to tap other trees in the area. MC moves to the S fork, ER moves up the E fork, and DL moves to the confluence. We hear no vocalizations in the area.

2325—DL hears TCs >100m to the S. He calls on and off, but never moves.

2447—We collect our gear and leave.

## 15 July 2015

2027-—RC and LP arrive to B18 aspen flat with intent to locate possible B18\_2015 nest. We begin tapping cavity trees. RC heads begins in 2013/2014 nest are and moves up dr, reaching the upper-most cavity tree in E Missouri Cr and northern side dr. LP stays in lower portion of aspen flat and top ~40m of E Missouri Cr drainage W of aspen flat. We see nothing.

2042—We continue tapping, but focus on listening for vocalizations. We hear nothing.

2134—We stop our listening effort in order to setup lure net.

2159—Lure net is setup and PB is turned on. Net is located at confluence between E Missouri Cr and northern side drainage ~50m above the aspen flat—running through the small stand of pico at the terminus of the intervening R. Net opens NE/SW.

Vegetation: young-mature pico, grassy, open

Weather: calm, clear, 8.0C

X: 496893

Y: 4333085

+/- 9m

2225—LP leaves net to do some tapping and listening at jump-off point into E Missouri Cr dr from the flat. He works around the lower flat area and ~60m below flat, but hears nothing.

2235—**Banded FLOW in the net, 3rd shelf from the N. This M was previously captured in 2013 by BL/CK and is a presumed B1\_2013 floater.** No brood patch. No vocalizations were heard prior to capture. RC is close to the net, and listening conditions are good. LP returns to help process M.

**Band # 1783-64387 (on L leg)**

66.5 g

- 15.5 g LLP(5): 94 mm

51.0 g LLP(6): 105 mm

2245—M escapes prematurely from LP’s hands with strong ascending flight to the SW. Based on quick look at L wing, M was showing no signs of molting. M also had notable tip fray on LP4 or 5.

2257—LP leaves net to do some more tapping and listening near jump-off point. RC remains at net.

2320-2345—Having seen/heard nothing down dr, LP heads up E of the net toward the beaver ponds. RC takes PB for a walk through the potr flat/2013/2014 nest area and down ~150m from the potr flat into the drainage and onto the S-facing slope of Lodgepole R, then works his way back up to net. Nothing heard.

2357—PB turned off. Lure net taken down. We make our way down drainage towards the car. We tap a few cavity trees along the way but see/hear nothing. *No vocalizations were heard at all in B18 tonight—nesting, territorial, or otherwise. Only light rain in the afternoon so activity should have been fairly normal.*

~2410—We leave B18.

# B18—2016

## 14 June 2016

2212—RC and KM arrive at crest of E Missouri Cr to find B18 nest/lure for M. The cr is roaring on our hike up, so we don’t bother listening outside of the flat, where listening conditions are fine. We spread out to tap and listen, moving E. We tap all past nests, as well as all other cavity trees through the E end of the flat. We spend a good deal of time listening in this area, as well as E toward the beaver ponds and sparser cavity trees, but not much past the mouth of the side dr to the S. Nothing seen or heard.

2245—We leave off listening to set up net.

2310—PB begin. Net set up as an L flanking a stand of small pico at E end of clearing at confluence with N side dr, just past the past nest area. Net site used previously by RC in 2015.

Vegetation: young-mature pico, solitary potr snag, very open.

Weather: clear, calm, 5.5C 🡪 4.5C.

X: 496886

Y: 4333096

+/- 10m

2402—No action at net, nothing flammish heard in B18. We kill PB and break down.

2415—Leave.

# B18—2017

## 7 July 2017

~2115—MC, JE and Whit Walker get into B18 to listen. We tap several trees in the territory, including the 2014 nest tree—the 2013 tree has fallen.

2122—JE begins listening around the E extent of the territory, around the past nest and on the S side of the beaver ponds. Whit Walker is ~100m W and MC begins near the confluence eventually continuing S up the S fork of the drainage.

2145—JE begins giving hoots about every 5 minutes.

2147—MC gives hoots ~100m S of the confluence up the S drainage.

2155—MC gives hoots at the confluence of the two B18 drainages.

2204—JE is ~150m E of the B18\_2014 on the S side of the beaver ponds. A M begins giving TCs across the beaver ponds and approaches from the NE. Initially he is ~150m away, but at the closets is ~40m away, on the N side of the 2nd beaver pond.

2210—The M stops giving TCs.

2222—JE thinks she see could have seen the shadow of a FLOW fly across some trees, but it just as easily could have been shadows from the trees.

2237—We do not hear anything further and make our way back to the vehicle.

# B19—2011

## 21 June 2011

~1230—While conducting thesis field work, EDE peeps B7\_343 #343 and sees F FLOW incubating. **This is the supposed B19\_2011 nest tree. The F did not come up to a tap and never rose to the cavity entrance while EDE remained at the nest tree. The nest cavity is 34’5”, approximately N-facing, Flicker-sized, and the top cavity on the N side of the tree. The nest tree is on the S side of the mouth of E. Missouri Cr and is a full Potr snag.**

***\*Note - As it is currently unclear whether or not this is a new territory, it will for now be referred to as B19.***

2021—JG, AW, and KB arrive at the B19 nest to attempt to capture the F. When we arrive, she is up, so we back off. Weather: Clear, calm, 12 C

2027—AW sees that the F has gone back down into the cavity.

2036—AW has capture net in position for the F. **Capture height is ~ 35 feet.**

2057—The M begins calling off-roost SE of the nest toward E Missouri Creek.

2102—The M arrives in the nest site and gives LCs.

2103—AW sees a silent FLOW perch on a Potr N of the nest tree. He perches for ~ 30 seconds, and the territorial M was not being aggressive toward this silent FLOW.

2104—F flushes, we capture her. She is **unbanded**, so we band her with

**Band # 1593-64846** on her R leg.

No measurements taken

2110—We release her.

2112—F begs off cavity.

2112—M responds to FSCs off cavity and gives LCs.

2113—We hear the F scolding from off the cavity, so we immediately leave.

*\*From 2113-2243 we are at the B6\_2011 nest capturing the M.*

2243—JG, AW, and KB begin playback on a spur ridge of Turkey W of the main road along N Missouri Cr and SW of the supposed B19 nest tree targeting the B19 M and the silent FLOW that was in the nest site when we captured the F at 2104.

Vegetation: Young Potr, mature Psme/Pipo, Juco

Weather: Clear, wind ~ 5 MPH, 8 C

X: 496122

Y: 4332991

+/- 3m

2258—AW leaves to observe the B19 nest and any helper/silent M situation.

2302—JG sees silent FLOW fly past us toward the lure net. S/he came from the direction of the B19 nest.

2304—M responding in the immediate vicinity of the lure net – TCs/TECs. He approached from the E.

2310—M goes silent. We check the net – empty.

2317—M begins responding to the playback again, this time to the W of the net.

2320—M goes silent. We check the net and see **FLOW captured in the top shelf from the W. He is previously banded as the B6\_2007 M. We suspect that he is this year’s B19 M given the direction from which he approached the lure net, and the absence of TC/TECs or prey deliveries at the nest while we had him in hand.**

**Band # 1593-64578** (on L leg)

79.5 g LWC: 135 mm

- 20.0 g LLP(5): 98 mm

59.5 g LLP(6): 106 mm

Rect: 63 mm

**Molt –** Blacklight on the L wing reveals fluorescence strongly on primaries 1 and 2, and half way from the top of the proximal edge on the tertiaries and secondaries.

We take a blood smear.

2347—We release him – strong/ascending flight.

2354— AW and JG head up E. Missouri Creek, KB remains at lure net still attempting to capture silent M observed at the B19 nest during the earlier capture attempt. AW did not observe any PDs during nest observation, nor did she hear any vocalizations or see any M while the supposed B19 M was in hand at the lure net.

2405—We deliver 5 TCs to attempt to illicit any response about 200 m E up E Missouri Creek.

2410—Having heard no responses, we leave.

2416—End playback, and leave.

## 28 June 2011

2138—JR, JG, and AW arrive at the B19\_2011 nest attempting to capture the M during a PD.

2140—While JG is raising the capture net, the F gives scolds off cavity. JG lowers the capture

Net. She continues to give scolds for approximately 2 minutes.

2141—**JG peeps and finds 2 unhatched eggs and 1 nestling. The nestling had all white**

**natal down and was lying face down. The nestling was not moving.**

2144—We back off to allow the F to return to the nest.

2145—M gives a mixture of TC/LCs from about 10 m NE of nest tree.

2217—M gives LCs for approximately 2 minutes.

2237—JG raises net into capture position.

2248—Silent FLOW lands in Potr snag ~ 20 meters NW of the nest tree.

2254—M (from 2248) perches in a small potr about 3 m NE of nest.

2257—M starts giving LCs. F responds with consistent begging. Vocalizations between the M

and the F continue until 2259.

2258—A third silent FLOW flies directly past the nest tree while the F is begging from the cavity and the M is giving LCs.

2301—M leaves perch in potr and flies off.

2302—M gives TCs from N of nest.

2316—After M attempts no PDs during the time the capture net is up, JG lowers the capture net

and we leave to songpost between B6 and B19.

2333—JG, JR, and AW begin spotmapping in the vicinity of the presumed B6/B19 territory boundary.

2400—We songpost a M on the E side of Turkey Ridge, possibly B6.

2405—The wind intensifies, and we are no longer able to spotmap as a result.

## 30 June 2011

2348—BL arrives at the B19\_2011 nest to attempt capture of M. All thundercells have passed from earlier in the evening, leaving herbaceous vegetation wet and trees dripping. I raise capture pole at this time.

2424—**M captured after making PD (his 1st in this time span). He is previously banded with band # 64578—this is the same M captured in the lure net on 21 June 2011, and was originally the B6\_2007 M.**

**Band # 1593-64578** (on L leg)

91.5 g

- 31.5 g

60.0 g

2428—I release M, who makes strong ascending flight of ~ 8 m to a conifer to the S. I leave.

## 5 July 2011

1455—JV and BL arrive at the B19\_2011 nest to peep contents. F immediately flushes when the tree is tapped—she flushes out of sight to the NNE (updrainage). **JV peeps and we see 3 owlets, 2 of which were in mostly white plumage with grey coming in on the head and back (one still had egg tooth)—BL estimated they were 7-8 days old. These 2 owlets were quite active, moving around with eyes wide open, looking up at the peeper. The remaining owlet was the runt, and it was noticeably smaller and all white, and much less active—age estimated at 3-4 days.**

1459—We leave to peep B18 territory.

## 12 July 2011

2335—JR, AW, and JG arrive at the B19\_2011 nest to attempt to capture the F and draw blood. When we arrive, the F is standing on the entrance to the cavity. We retreat behind the nest tree. Weather: Mostly cloudy, calm, 10 C.

2339—The F flushes from the nest. **We peep and see 3 owlets that appear to be very similar in age (~15 days) to the A18 owlets**. While we peep, the F is scolding us from a nearby Potr.

2345—JR gets the capture net in position as we wait for the F to return to the cavity **Capture height: 34’5”**  The F continues scolding, but after about 2 minutes having the net up, the scolding ceases.

2415—Having not seen any PDs to the nest, we take the capture net down, and leave.

## 15 July 2011

2205—AW, BG, SY and Alec arrive at the B19 nest to attempt to capture F. F scolding from ~15m NW of the nest as wee approach. F scolds very loud as the nest is raised.

Weather: ~13C, clear, calm

2209—Net in cap. position.

2211—M enters site and gives LCs – F gives FSCs then fies to M (N).

2218—F aborted PD

2222— F aborted PD

2223— F aborted PD

2229— F aborted PD

2232—M PD

2239—M PD

2242—M aborted PD

2243—M PD

2246—M PD

2247-49—Adjusting Net ht – F has been scolding almost the entire time but scolding gets more vehement as net is moving.

2318—Net down, F did not really stop scolding nearly the entire time. M made several prey transfers but F did not ever make a true PD – aborted several times. We peep B19 nest: 3 Ns – well developed can’t see faces but all gray with adult scapulars coming in. We leave.

## 18 July 2011

2028—JV and PS arrive at the B19\_2011 nest to fledge watch and try to capture the F. No one is up.

2030—PS has capture net in position.

Weather: mostly clear, calm, 18 C

2041—JV peeps🡪3 nestlings.

2042—F begins scolding from far away so PS takes net down.

2050—F comes into nest site scolding, as does the M giving HECs. One owlet comes up to the entrance.

2052—Nestlings begin begging.

2055—M PD. Big moth.

2057—M dives at JV’s head and comes within one foot giving one HC.

2058.40—M PD.

2059.05—F PD.

2059.30—M PD. Nestling goes down.

2101—Nestling back up.

2102—Two nestlings in the entrance.

2102.49—Unknown PD.

2103.46—F PD.

2104.30—F PD.

2104.46—M PD.

2105.55—Unknown PD.

*\*Note: Nestling going up and down in cavity, staying down a lot.*

2106.25—Unknown PD.

2106.46—F PD.

2111—PS has net up lower than the cavity to see if F will come in.

2113—M PD.

2113.35—F abort.

2114—F PD.

2115—PS has net in position.

2116—Two M aborts.

2117—M and F abort.

2118—M and F abort followed by a F PD.

2123—F abort.

2123.30—F PD. PS captures her in the net but she escapes. PS takes down net. F dive bombs net and hits it.

2132—M PD.

2133—M PD.

2134—F PD.

2134.50—M PD.

2137—PS has net back in position. F intensely scolding.

2143—F abort.

2144—F abort.

2145—F abort.

2146—F PD.

2150—PS brings net down 5 ft.

2152—F abort.

2155—M PD.

2158—F abort.

2200—F PD.

2205—PS takes net down and we leave to go lure net in B12.

## 20 July 2011

2221—IJ and SY arrive at the B19\_2011 nest to attempt to capture the F and get a blood sample. We peep upon arrival: 3 very well developed Ns – very alert, standing and looking at camera. Full gray juvenile plumage. F scolding and buzzing the peeper throughout process.

2225—Begin raising net, lots of F scolding.

2228—Net in capture position.

2259—Begins to rain – bring net down. No PDs during this time. F was in nest site the entire time scolding or giving FSCs. M entered site on several occaisions and apparently transferred prey to her (unclear if this was intended to be transferred to Ns or a PD for F). F never made an attempt at a PD at the nest.

2319—Net returned to capture position.

2330—F circles nest site.

2332—F PD – capture.

**Previously Banded # 1593-64846**

72.0g

-20.5g

51.5g

We attempt to bleed F’s L wing – cannot get enough of a sample (very small veins). Successfully bleed R wing.

Blacklight the F: she has newly molted P2 and 3 (~35mm (~15 in shaft). See pics.

2358—While F is in hand, a silent UFO is observed perched in a pico ~3m N of us ~3m up tree – looking directly at us. Occasionally preens wings. Flushes as SY approaches him. Territory M gives HEC from close to nest the whole time the UFO is in the site.

2400—Weather: 13C, mostly clear, calm, recent light rain.

2405—F is released, strong flight to the E.

2409—We leave.

## 21 July 2011

2034—SY, IJ, and JR arrive at B19\_2011 to see if fledging occurs and to record the owls.

Peeped: all 3 owlets still in cavity. All owlets are gray with facial disks. Weather: calm,

clear, 17C.

2039—One owlet up in cavity opening.

2040—Second owlet also up in cavity opening.

2043—First owlet climbs out of cavity, puts feet on opening, dances a little, jumps and tries to

fly away. **Fledges!** Lands in nearby potr then flies into a psme also nearby, where we give him a little nudge with the hastings pole. The other owlet went down into cavity.

2045—Nestlings in the cavity beg.

2046—IJ and JR process the owlet.

**Band #1593-64809** (on L leg)

83.5 g LWC: 94 mm

- 29.0 g LLP(5): 70.5 mm (17 in shaft)

54.5 g LLP(6): 71.5 mm (17.5 in shaft)

Rect: 32.5 mm

Bled on right wing; largish hematoma. Blacklight: Entire body was fluorescing brightly,

P1-6 fluoresced pretty brightly all the way down the feather, P10 didn’t show as much fluorescence as the other primaries.

2052—PD, owlet up in entrance.

2054—Both adults try to make a PD at once, one succeeds and the other lands in a nearby potr

and then makes a successful PD after the other adult flies away.

2056—PD.

2057—PD.

2119—IJ placed fledgling back in the psme which he landed in earlier, approximately 3 meters

up, near the trunk. Took a little while for him to perch, but then did so strongly.

2127—PD.

2141—F starts scolding/begging after being absent in the nest site since 2105. SY gets some

recordings of the female scolding/begging.

## 22 July 2011

2032—SY, JR and CB arrive at B19\_2011 to see if the second owlet will fledge. Peep cavity on

arrival and see two owlets in the cavity. Weather: calm, partly cloudy, 19C.

2044—Owlet up and begging.

2045—Owlet goes back down and then comes up again.

2050—An adult bird lands above the cavity and perches for a minute, then flies off.

2051—PD.

2053—Owlet climbs to outside of cavity, gets stuck under piece of bark near the cavity, and then

**fledges to a nearby potr**, then down into a bush. Last owlet is not up.

**Band # 1593-64857** (on L leg)

78.5 g LWC: 94 mm

- 22.0 g LLP(5): 74 mm (17 in shaft)

56.5 g LLP(6): 74 mm (19 in shaft)

Rect: 36 mm

Bled R wing. A large hematoma formed. Blacklight: Primaries 1-6 were pretty fluorescent, 6-10 fluoresced less so. Body feathers and rect fluoresced a lot.

2120—JR put fledgling in a tree near where he landed. SY peeped cavity and there is still one

owlet in there; didn’t miss anyone fledging.

## 24 July 2011

2033—IJ and JV arrive at the B19\_2011 nest for a fledge watch of the last remaining owlet in the nest. Upon arrival, the owlet was up in the entrance.

Weather: 18C, calm, partly cloudy

2041—Nestling begins begging from entrance of cavity.

2046—Nestling goes down in cavity briefly (15 sec) for first time.

2051-2120—12 PDs are brought to nestling at entrance of cavity; on one occasion M HEC’s are heard directed towards us in between PDs.

2120—We leave the site.

## 25 July 2011

2037—IJ and JR (dreamteam) arrive at B19\_2011 nest for a fledge watch of the last remaining owlet; nestling up in cavity upon arrival.

Weather: 16C, calm, overcast.

2038—Male LCs heard.

2040—PD followed by nestling begging.

2043—**Nestling fledges into potr 1m N of cavity!!**

2049—Nestling retrieved and is measured, banded, bled for genetics and a smear, and blacklighted.

**Band #1593-64807** (on L leg)

84.5 g LWC: 93 mm

- 28.6 g LLP(5): 70 mm

56.0 g LLP(6): 70 mm

Rect: 35 mm

2113—we place nestling back in tree adjacent to cavity tree and leave; F heard vocalizing near nest. Note – unidentified PD attempted while nestling was in hand.

# B19—2012

*\*Note: The B19\_2012 nest was thought to be the B6\_2012 nest from 29 May 2012 until the M was captured on 13 June 2012. The appropriate notes have been moved to B19 from B6.*

## 29 May 2012

2210—MD and SY arrive at B19 to listen for nesting vocalizations.

Weather: 12C, wind 5-15mph (higher on ridges), clear.

We tap on B19\_2011 nest tree – no response.

2225—Just as we begin leaving nest site, we hear the M begin giving TCs from vicinity of 2011 nest site. We return to vicinity. M is in site (in small potr ~5m N of 2011 nest) and begins giving TECs and HECs as we approach. Flies around several trees in the vicinity and continues giving TECs and HECs. We wait at nest site to try to see if M makes a PD at the old nest cavity.

2240—Nothing else observed, we depart in order to assist in B4. This tree (Tag #343) may be the nest? We tap tree one more time, nor response.

2328—JV, SY, MD, AP, and PPS arrive back at B19\_2011 nest tree to peep. SY peeps. Both cavities are empty.

2331—SY, AP, and PPS break off to songpost and tap trees in B6. JV and MD stay at 2011 nest tree to listen for courtship vocalizations.

~2340—Hear M and possibly F just N of 2011 nest tree. M breaks off to give TCs and TECs up drainage.

~2340-2350—M moves back and forth across East Missouri Creek giving TCs and TECs. M goes silent.

2438—M gives a couple of TCs across East Missouri Creek from 2011 nest tree. Keeps jumping, but spent considerable amount of time across the creek on the low slope of Genesis Ridge.

2211—MD and PPS split off from SY and JR at the lure net in B6 and walk down towards B19 to songpost the B19\_2012 M.

2224—Heard M giving TCs and TECs on E Missouri bank near B19\_2011 nest tree, followed a little ways updrainage until M goes silent and we back off.

Vegetation: Mostly Potr, some mature Pipo

Weather: 12C, partly cloudy, mostly calm wind

X: 0496223

Y: 4333054

+/- 7m

~2235—M gives a few TCs and TECs from near or across the creek. We give chase but the M goes silent.

~2315—We return back to the lure net at B6.

2410—SY arrive in B19 to listen for nesting vocalizations. M is giving TECs from vicinity of 2011 nest site when I arrive. Marcus and William set up lure net in drainage bottom to attempt to capture B19 M.

2418-- SY hears a couple LCs from vicinity of 2011 nest site.

~2420—Start playback at lure net.

0105—Stop playback – nothing else heard near nest. M bounced out of net at ~2455, silent approach.

As we are breaking down net, he begins to give TCs and TECS from the mouth of E Missouri Cr.

We leave

*The following are simultaneous notes from nest searches in B6:*

2340—SY, AP, PPS arrive in B6 terr. to listen for nesting vocalizations and attempt to spotmap male.

2348—**SY taps on cavity B6\_94, (Tag #94) is in entrance when I arrive – this is the B6\_2012 nest tree. Cavity is ~15ft up live potr on E side, ~5m up slope from cavity bottom. This was also the B6\_2002, 2003, 2007, 2008 nest tree, which is 5 m E of N Missouri Cr, and 50 m E of the B6 parking area**

2350—F Flushes as AP approaches, we leave immediately.

We begin moving N in drainage to continue to attempt to spotmap and to listen for more nesting vocalization in northern part of drainage.

2401—M gives several TCs from vicinity of nest.

2410—M continues calling at nest site – we continue moving north into aspen flat where drainage splits. SY hears a single hoot to the N while B6 M continues to call in the vicinity of the nest site.

2413—SY gives several hoots and hears a M respond with only a few hoots to the N.

2420—M begins giving TCs on E side of Grave R. – not sure if B6 or northern M, flag as B6\_1.

2447—Nothing else heard – we depart.

## 4 June 2012

~1500-1700—JV, SY, MD, NS, PPS, and Scientists Markus and William peep in B19 and B8. Most of B19 in East Missouri Creek was peeped as well as the rest of B8 from the crew’s peeping attempt on 1June 2012. No nests were found.

2030—JR, PPS, MD, Marcus, William and SY arrive at the B6 nest to attempt cap[ture of the F.

Weather: 12C, wind 5-15mph, cloudy

2033—F is up as JR and SY approach nest.

2041—M enters nest site, gives several LC. F flushes the nest and gives a few FSCs.

**We peep: 3 eggs, center, touching.**

We back off to wait for F to go back on cavity when we will attempt to capture M.

2109—M TCs from vicinity of nest.

2120—JR and SY return to nest site to attempt capture of M.

2123—F rises to cavity entrance as net is prepped and she flushes. We leave.

2204—Start playback at lure net on top of Grave R.

Weather: 13C, wind 0-5, cloudy

Vegetation: Pipo/potr/psme (some pifl). Small trees with some large at periphery.

X: 496180

Y: 4333478

+/-3m

2215—While lure is running on top of Grave R., SY heads to N end of drainage (in aspen flat near split in drainage) to listen for nesting vocalizations.

Weather: 13C, wind 5-10mph, partly cloudy

2229—SY hears 2 quiet TCs near NW portion of aspen flat.

2234—SY hears 2 more quiet hoots back in S end of the aspen flat.

2239—SY locates M giving very occasional soft TCs from cavity in tree #1121. Cavity is less than 3m up S side of broken top potr snag in aspen flat. No sign of a F.

2243—M gives a few TECs from cavity.

2246—M flushes to the E.

2253—M gives TCs from E side of aspen flat for ~1 min.

2259—M give a couple TCs from N end of the aspen flat in vicinity of tree #1157.

2313—Nothing else heard, SY heads back to lure net location to break down net.

2338—Stop playback at lure net – break down net.

2352—JR, MD, and PPS drop off the top of Grave Ridge to attempt to spot map the B6\_2012 M.

2354—We hear M giving TCs about halfway up Chopper Ridge. MD goes to birds location and songposts B6\_1 2012. M moves to the S and gives TCs in that direction. JR follows but bird goes silent. Possible that we were tracking Marcus’s playback down in B19.

2441—JR, MD and PS continue down drainage occasionally giving hoots, but no response until MD ends up close to the nest tree. JR hears F scold, so everyone heads back N, but the M is not heard again.

2450—JR, MD, and PPS leave the area.

## 8 June 2012

2323—PPS and BL arrive at the B6\_2012 nest tree to attempt capture of M. F is already in the cavity entrance when we arrive, and the M is perched in the adjacent *Pico* ~ 5 m to the E.

2327—M starts giving HECs from said perch.

~2330—BL raises capture net at this time. F still in cavity entrance.

2333—M again giving HECs from original perch.

2342—M flushes to perch ~ 30 m to S. F had descended in cavity sometime prior to this.

2346—We leave. M returns to nest area (but was not prey-laden).

## 11 June 2012

2028—AW, JR, and MD arrive at B19\_2012 nest in attempt to capture the F. JR has net in place over cavity. Wind blows the capture net into the tree causing the F to flush into the net. The **F is previously banded #64846 and is the B19\_2011 F**.

Weather: light winds, partly cloudy to S, 13C

**Band # 1593-64846** (on R leg)

91.5 g

- 28.0 g

63.5 g

2033—F is released as MD and AW peep nest cavity. Strong flight to the S. We observe 2 nestlings with their eyes closed, egg teeth, and white-grey fluffy down. They are moving around slightly. We also observe a very intact egg fragment which could be an unhatched egg.

2035—We leave the nest site.

## 12 June 2012

2346—BL and PPS enter B6\_2012 nest site to try to catch M. As we enter the site, there are two MM calling. One is calling from the N (on Grave Ridge) and the other to the SW (in the area of B19\_2011 nest).

2348—F is off and gives scolding calls.

2351—F still scolding and flies up slope.

2353—BL gets net in place.

2357—F stops scolding. Weather: clear, no wind, 10.5C

2400—F goes back on nest.

2409—F flushes.

2426—M giving quiet TCs to N.

2428—M flies into nest area to tree just up slope of the nest.

2432—Brian taps the tree to get F to come up (to ensure it was the M in the nest area) and she flushes to the SW and starts scolding again.

2434—M gives HECs almost directly above PPS near nest tree.

2436—M moves up slope of nest.

2437—The second M gives TCs far up slope.

2438—F comes back on.

2441—M gives HECs down drainage.

2442—BL brings the net down and we leave. **Note: besides the apparent resident M singing from time to time in the nest area, we also periodically heard a M calling upslope to the E near what seemed like the Lodgepole R ridgetop—was this B18 M??**

## 13 June 2012

2030—MD and BL arrive at the B6\_2012 nest to attempt capture of M. F comes up to the entrance of the cavity as we approach. Weather: partly cloudy; breezy on ridgetops with slight breeze in the drainage; 19 C.

2049—F gives a FSC from opening of the cavity.

2050—F flushes and flies to the E; she begins giving SC as we approach the cavity. MD and BL peep the nest and determine that there are 3 nestlings. Although their eyes cannot be seen, BL believes that the eyes are just shut due to the light of the peeper (video was taken).

2054—M heard giving TCs and TECs NE of the nest. F continues to scold.

2056—Both M and F are silent.

2057—F gives SC and M gives TC/TECs SE of the nest tree.

2100—Both M and F are silent.

2101—F heard giving FSCs further S down drainage.

2112—M successfully completes a PD to the nestlings and then flies E from cavity; BL hears him vocalize.

2114—M flies from W to E to nearby trees.

2115—M makes PD in the cavity, and he is captured as he exits. **M was previously banded—Band # 64578; this was the B19\_2012 and was originally banded as the B6\_2007 M.**

**Band # 1593-64578 (on L leg)**

84.0 g LWC: 135 mm

- 29.5 g LLP(5): 99 mm

54.5 g LLP(6): 108 mm

Rect: 64 mm

Previously bled (genetics in 2007, screen in 2011), so we do not bleed.

Blacklight:

L wing: P1-7 were strongly pink (esp P1-5); P8-10 were light pink

R wing: P1-5 were strongly pink; P6-10 were light pink

2137—F scolds from off the nest.

2139—We release M, and he makes strong ascending flight of ~ 25 m to the NW. We leave.

## 20 June 2012

~2235—MD, CC, and AW leave the lure net to listen further S in N. Missouri drainage.

~2235-2400—MD hears no owls besides the B6 M singing at the playback. MD is positioned between ~150 and 350 m down drainage of the lure net (GPS of the lure net is listed above). MD traverses the region on both ridges along N. Missouri during this time.

2400—M (possibly **B19\_2012 M**) giving TCs to SE of net, no longer hearing bird JR had just songposted to the NE. MD pursues M E up on Lodgepole R. to try to songpost him, but returns to the lure net before he reaches the vocalizing owl because an owl had been caught in the net.

2457—From vicinity of confluence of E and N Missouri Creeks, PPS and SY hear B19 M give several TCs in vicinity of B19\_2012 nest. No other Ms heard

concurrently. We leave.

̴ 2240-2310—CC listens near B19\_2012 nest tree and hears nothing. CC then hikes ̴ 20m up

Lodgepole Ridge to give hoots and listen for M but hears nothing. CC leaves to assist AW further S.

2253—AW arrives at B19/B8 boundary to listen. AW picks up M TCs on low slope of Genesis

Ridge.

2318—AW song posts B19 M (B19\_1) giving TCs in a live pico.

2318-2330—AW observes M as he makes a forage in a live pico near B19\_1. M proceeds to eat

forage in a small potr. M perches low on approximately 6 small potr before making a

short flight to a large potr snag. These observations occurred at the confluence of N. Missouri and E. Missouri NW of the B19\_2011 nest tree.

2333—B19 M gives TECs from the N terminus of Genesis Ridge.

2337—AW and CC observe B19 M as he gives HECs from small potr (B19\_2 songpost). We

observe a second silent bird flying W to E just above the B19 M as he continues to give

HECs.

~2339—B19 M follows silent bird to a potr snag approximately 20 m up the N terminus of

Genesis (B19\_3 songpost) and continues to give HECs from this location. M flies to a

second potr snag before chasing silent bird N across E Missouri Creek.

~2340—M goes silent.

2404—AW hears TCs approximately 250 m to the S. This is most likely B8.

2414—AW songposts B8 M (B8\_1) giving TC/TECs in a potr snag for approximately 3-4

minutes.

2416—B8 M flies E across N Missouri Creek then gives a few TCs and goes silent.

2443—As AW walks towards lure net in B6, AW picks up who we believe to be the B19 M

giving consistent TCs from approximately 150 m up the W slope of Genesis. AW takes

GPS from her position in the drainage bottom to help estimate the N boundary of B19

territory. X: 496308, Y: 4333589 +/- 3m.

2352—M goes silent. AW leaves.

## 26 June 2012

2254—SY and MD arrive at B19 to peep the nest to determine status of the brood.

2256—SY peeps and takes a video. The F is off cavity and scolding at the time. **The brood is maybe a day or two younger than B4. The nestlings appear old; they are alert, have facial disks, and grey juvenile plumage.**

## 28 June 2012

2042—JV and JR arrive at B19\_2012 nest to fledge watch. F up on arrival and flushes as JV raises peeper. 3 owlets all with facial disks are in the cavity looking ready to fledge. F begins scolding to the S of the nest site.

Weather: calm, mostly clear, 16 C

2052—F still scolding.

2057—M makes a PD, no nestling at the entrance.

2058—M gives LCs, F scolds.

2059—M PD.

2113—Owlet briefly up in entrance.

2114-2127—5 M PDs. Nestling begs a few times.

2129—F stops scolding, M begins scolding.

2135—JR peeps and we leave.

## 29 June 2012

1040—**SY, AW, NS, and PPS arrive at the B19\_2012 to band, bleed, mass, and measure owlets.** F flushes as we approach. AW climbs ladder and enlarges cavity entrance.

1102—Owlets in hand.

**Band # 1783-64311** (on x leg)

60.2 g LWC: XXX mm

LLP(5): 66 mm (26 mm shaft)

LLP(6): 66 mm (26 mm shaft)

Rect: 30 mm (10 mm shaft)

Bled R wing resulting in small hematoma. Smear taken.

**Band # 1783-64312** (on x leg)

58.2 LWC: XXX mm

LLP(5): 52 mm (27 mm shaft)

LLP(6): 54 mm (30 mm shaft)

Rect: XX mm

Bled L wing resulting in small hematoma. Smear taken. ***We notice blood on the 4th digit of L leg. The nail is bent up at articulation point. Bone does not appear to be injured. We clip nail, clean injury with isopropyl, and attempt to stop bleeding. Injury reopens while owlet is in bag being carried up ladder to cavity.***

**Band # 1783-64313** (on x leg)

62.0 g LWC: XXX mm

LLP(5): 66 mm (21 mm shaft)

LLP(6): 65 mm (22 mm shaft)

Rect: 25 mm (9 mm shaft)

Bled R wing resulting in moderate hematoma. Small hematoma also appears on L wing where we attempted to bleed previously but were unsuccessful.

1200—Owlets back in cavity and we leave.

2226—BL, AW, MD, and PPS arrive at the B19\_2012 nest to determine status of nestlings. F is up on our approach and flushes.

2228—**We peep and find all 3 nestlings still in the cavity. No fledging has occurred.**

## 2 July 2012

0206—PPS, CC, JR, AW and SY arrive at the B19\_2012 nest to peep. **1 N still in nest.** M enters nest site as we are bringing down peeper and begins giving HECs. We leave.

# B19—2013

## 29 May 2013

2023—SY arrives at confluence of E and N Missouri to listen for B19 nesting vocalizations.

Weather: 6C, clear, wind <5mph

2033—M gives TCs off roost to the NE on slope of Lodgepole R.

2034—2nd M gives TCs off roost to the S (mid-low slope of Turkey R?)

2037—A M (presumably the first) gives a couple TCs in E Missour Cr. Bottom, ~75m up from confluence. SY moves to that spot but does not hear anything else.

2049—SY departs.

2137— RC, AW, and BDG arrive at S end of Grave R with the intention of luring for the B6 M and B19 M. Net was set up low on the S facing slope, 200m NW of B6 parking spot. Playback begin.

Vegetation: Open, mature pipo/psme with some younger potr

Weather: Calm and clear, 4 C

X: 496202

Y: 4333355

+/- 4m

2141—B6 M gives TC and approaches net from the E until going silent at 2144. No bird in net when checked.

2158—AW and RC leave to B19 to listen and spotmap

2200—AW and RC songpost the B19 M in a live psme with a 45.0 DBH. This is songpost B19\_1. Tree is located low on the SW terminus of Lodgepole Ridge, near the confluence with E Missouri Creek. M gave TC for approximately 2 min before flying NE upslope.

X: 496236

Y: 4333126

+/- 8 m

2216—While spotmapping in B19, heard M (higher pitch) moving toward B6 net from the B6 aspen flat (unclear if this was the B6 or B19 M).

2229—Silent bird observed perching in tree <2m from playback and <2m high, SE of net. Bird makes a short flight to tree 3m away, never flies into net.

2248— Playback moved to W side of net.

2247—M TCs given in response to AW’s hoots. M is approximately halfway up the SW terminus of Lodgepole Ridge. AW pursues M along with RC

2250—RC heard M giving TC and TEC to SE, up Lodgepole R and chased ~300m to songpost B19\_3. Songpost tree was a live psme with a 47.0 DBH. M called for 5-10 min before flying E up E Missouri. AW followed, nearly identified songpost before bird went silent.

X: 496337

Y: 4333147

+/- 3m

2325—As net was about to be taken down, M heard giving TCs in E Missouri confluence

2327—End playback

2406—AW, SY, RC, NS, BDG, LL spread out around B19 areas near confluence of E and N Missouri Creeks. (SY and LL on Genesis R.; RC and NS on Lodgepole R.; and AW and BDG in creek bottom at confluence.

Weather: 0-3C, clear, calm.

2429—From position on W facing side of Genesis Ridge, ~3/4 of the way up SY gives several hoots to which a M responds with a few TCs close by. SY hangs songpost B19\_4. The remainder of the crew (AW, RC, NS, BDG, and LL) do not see or hear anything.

0103—Crew departs.

## 4 June 2013

1500—Flam crew arrives in the B7/B8/B19 aspen flat to peep. BL, AW, BDG, and RC begin peeping where we left off on 5/29/13 just N of the B8\_2013 nest tree moving N while LL, SY, and CK begin where we left off on 5/29/13 near the confluence of E Missouri and Missouri Cr moving S.

~1625—We leave after finding nothing.

## 2 July 2013

2139—SY, CK, and LL are passing through B19 territory on their way to capture the B18\_2013 M at the B18\_2013 nest. In the main East Missouri Gulch drainage around where the side drainage runs to the N, we hear a M give TCs to our E for ~2min. **We believe this is the B19\_2013 M as we are still quite far from the B18\_2013 nest.**

2146—The M gives TCs again for <1min and we try to pin point his location.

2147—SY gives some hoots and the M responds with TCs and occasional TECs.

2150—The M goes silent.

2153—M gives a few more TCs and SY now has him spotlighted in a live potr.

2156—M gives a few more TCs, then flies to another potr. CK hangs a songpost on the first tree.

2158—M gives TCs and lands in potr that SY visualizes. CK hangs songpost on 1st live potr.

**Songpost B19\_1**

Live potr dbh=13cm

X: 496458

Y: 4333020

+/- 5m

2157—M gives some TCs before flying to a third tree. LL hangs songpost on 2nd live potr.

**Songpost B19\_2**

Live potr, dbh=22cm

X: 496475

Y: 4333017

+/- 8m

M flew directly to this tree after B19\_1, gave TCs, then flew directly to B19\_3.

2200—M gives TCs before flying to a fourth tree.

**Songpost B19\_3**

Live potr, dbh=30cm

X: 496472

Y: 4333020

+/- 5m

2202—M perches on a live potr for ~30 sec.

**Songpost B19\_4**

Live potr

X: 496466

Y: 4333022

+/- 7m

2206—M is now in the 5th tree he has been in since we began songposting. He goes silent after giving TCs in this tree for 2+min.

2207—We observe M foraging in this tree, gleaning a moth and eating it before flying to another potr. LL hangs songpost on 5th tree.

**Songpost B19\_5**

Live potr, dbh=16cm

X: 496460

Y: 4333007

+/- 7m

M flew directly to this tree from B19\_4, gave TCs and foraged, then flew directly to B19\_6.

2208—M perches on live potr for 15 sec while giving TCs

**Songpost B19\_6**

Live potr

X: 496466

Y: 4333022

+/- 7m

2210—M gives TC/TECs for about one minute before leaving for next tree.

**Songpost B19\_7**

Potr snag

X: 496468

Y: 4333006

+/- 5m

2211—M gives TCs from the 8th tree he has occupied since our songposting began. He gives TCs for 1min before going silent.

2212—M flies across the drainage to the N. LL hangs songpost on 8th tree.

**Songpost B19\_8**

Live potr, dbh=24cm

X: 496461

Y: 4333016

+/- 8m

M flew directly to this tree from B19\_7, gave TVs, then flew across the drainage to the N.

2213—M goes silent after giving a few TCs heading further down drainage to the W.

2218—We hear M give a few more TCs ~50m down drainage as we begin heading towards B18.

Note: SY and CK were able to get a good look **at presumed B19\_M’s legs and did not see any sign of a band**. The M we later caught at the B18\_2013 nest was previously banded, so we believe this shows there are two different birds in these two territories. **The presumed B19\_M also sang constantly for ~40min, so we believe he is a bachelor M or may have a failed nest.**

## 9 July 2013

2055—SY and CK arrive at the B18\_2013 nest site. Within 20m of reaching the nest tree, B18\_2013 F scolds us from off cavity.

2057—**CK peeps the cavity and sees three owlets. The oldest owlet has facial discs developing. The oldest owlet looks to be ~17 days old. SY raises brown capture pole because F was swooping at the peeper head as it approached the cavity.**

2101—CK lowers the peeper and we back off but are still in the vicinity of the nest tree. F continues to scold our presence during this period.

2105—We hear M TCs to the E of the nest ~30m away while F continues to scold around the nest.

2112—F goes quiet.

2116—F returns to scolding.

2117—We decide to back off for ~15 minutes to let the F and M make some PDs to the nest since our presence was limiting their PD rates.

2124—We hear F begs in the nest vicinity while we are backed off and out of the nest vicinity

2132—SY heads back to the nest to try for a F capture.

2157—We hear flaps around the nest while CK spots the F high up in a perch in an adjacent tree. During this time, F gives consistent scolds at our presence.

2215—No luck this time with the F, so we leave the nest site.

2228—We hear consistent TCs from the presumed B19\_M as we head down the drainage. SY had heard the B18\_2013 M approach the turn of the drainage where B18 and B19 meet up, so this FLOW calling from down the drainage bottom near where we had previously heard the presumed B19\_M was different from the B18\_2013 M.

## 17 July 2013

2325—JV, RC, and LL arrive in the confluence area of N Missouri Creek and E Missouri Creek

with intention of luring for the B19\_2013 M.

2338—Playback started. The net is in the drainage bottom ~2m E of Forest Service Road 347.

It is open to the E.

Vegetation: Young to mature potr, open

Weather: Calm, clear, 7 C

X: 496182

Y: 4333166

+/- 3m

2344—B6 M gives TCs distantly (~150m) to N for <1min. M never approached any closer to

net.

2438—Playback stopped. We pack up and leave after hearing nothing more.

# B19—2014

## 28 May 2014

1530—Flam crew arrives in E Missouri Creek with purpose of peeping B6/19/8/7 territories. BL, AW, RD, and MP begin peeping at the southern end of B7 and proceed N while SY, LL, RC, JS, and ER begin peeping at the B6 parking area and proceed N.

1730—End peeping having found nothing.

2055—RC, LL, and JS arrive at B6 parking area to lure net. Net is set up <5m W of road in stand of small potr across from parking area.

**Vegetation**: young pipo/potr stand with some mature pipo/psme nearby, open.

**Weather**: 10.5C, partly cloudy early but quickly clearing, very slight breeze.

X: 0496173

Y: 4333309

+/- 3m

2120—PB begin.

2126—M approaches net area quickly from W side, giving TC/TEC/HECs. Wing flaps heard. **M in net, 3rd shelf from W side. Previously banded. This was the B5\_2012 floater. *Note: This is NOT the B19\_2014 M captured at the nest tree on 20 June 2014 or the B6\_2014 M. This territorial M may be the B8 M coming N in response to playback or may represent an additional territory in this area. Note: later capture of this M confirms his identity as the territory holder in a new territory, B21, located between B19 (to S) and B6 (to N).***

**Band # 1783-64322** (on R leg)

71.0 g LWC: 138 mm

- 16.0 g LLP(5): 99 mm

55.0 g LLP(6): 109 mm

Rect: 59 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0 | 0 |
| P5 | 0 | 0 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 1.0 | 1.0 |
| P10 | 1.0 | 1.0 |

Note: Large hematoma after bleed.

2157—M released. Strong ascending flight NW to potr perch 7m up.

2202—TCs heard 50m E of net toward Missouri Cr drainage.

2206—M makes long flight from drainage to net site. Brief TCs in net vicinity. Wing flaps heard, but net empty upon check. M resumes TCing momentarily back 40-50m E in drainage. M goes silent within 5 min.

2230—All silent at net. LL stays while RC and JS spread out in B6 portion of Miss. Cr drainage to tap and listen. Nothing seen or heard.

2255—M TC/TECing in net vicinity. 2nd M TCing distantly S down drainage.

2300—RC and JS return. M TC/TECing in net vicinity, mostly sedentary.

2302—2nd bird still TCing distantly to S. M in net vicinity goes silent.

2307—PB off. We break down. All silent.

2327—We split up to spot map in Miss. Cr drainage. We move S from parking area first into B19 area. JS heads ~100m down drainage, LL stays in potrs just SE of parking area, RC goes NW and then N of parking area.

2335—RC hears TCs distantly to S from net area. Neither JS nor LL hear bird.

2340—RC hears brief TCs in drainage 50m E of parking area as well as southern bird and pursues, but TCs stop quickly and go silent.

2344—JS hears flush above head from low branch of pipo near B6 and B19 border, 10m from marked songpost. Bird flies E.

2400—JS, RC and LL move up into B6 proper to listen.

2417—Brief TCs heard 80-100m N of parking area in drainage bottom, but lost quickly.

2419—LL hears brief TCs again in same area with possible FSCs simultaneously.

2431—M TCs ~100-120m N of parking area.

0100—We leave.

## 6 June 2014

~1645—Flam Crew arrives in B6 and B19 territories to peep remaining trees that were not

peeped on 28 May 2014. SY, JS, and AW peep trees at base of W Missouri Creek and move up drainage, peeping trees until about halfway to B18. The rest of crew peeps trees in the main drainage at the southern end of B6.

~1530—We leave having found nothing.

2047—As part of Flam Crew listening effort throughout N Missouri Cr, SY (along with Abby, Al and Lindsey) is positioned along Missouri Gulch Rd. just S of the confluence of E and N Missouri Cr.

Weather: ?C, clear, wind appx. 0-3mph.

2058—SY hears TCs that seem to be coming from the SW corner of Lodgepole R., just above the confluence. Seems like he is calling off roost.

I give chase – as I approach the confluence, M jumps across E Missouri Cr. and gives a few TCs from the NW corner of Genesis R. – approximately 50-75m out of the bottom.

M continues giving intermittent TCs (2-5 at a time) until ~2110.

***Note: LL and company are following an apparent B8 pair at the same time this is occurring.***

2112—From low slope on the NW corner of Genesis R., SY (and company) hear a single FSC nearby to the SW – sounds like right at the base of Genesis R. SY and MP converge on that location. All quiet following the TC.

2127—From base of Genesis R., just S of the confluence of N and E Missouri Cr., SY hears TCs back up Genesis R to the ENE.

2131—SY locates the presumed B19 M singing and marks a general area songpost (B19\_1).

2144—JS sees swoop silhouette of presumed FLOW into tall potrs at base of Genesis R.

2146—We spread out in the vicinity of the past B19 nest tree, where JS had previously seen a silent FLOW.

2148—Al sees a silent FLOW make a flight near the S side of the aspen grove. We concentrate on that area and almost immediately JS picks up a silent, prey-laden FLOW (presumable a M).

2151—The silent bird makes a PD at a previously unidentified cavity – **This is the B19\_2014 Nest!** **Cavity is a bear torn cavity approximately 20 feet up a potr snag on the SE side of the tree. Tree is located in the middle of the low terrace just above the confluence of E and N Missouri Creeks just N of E Missouri Cr and approximately 5m S of the past B19 nest tree. Cavity tree is previously unennumerated.** We flag the cavity and F rises to the entrance as we do so. We leave immediately.

**Note (on 7/30/14): B19\_2014 ennumeration (B19\_1207 tag #1207)**

**X: 496229**

**Y: 4333048**

**+/- 7m**

## 10 June 2014

2040—RD and SY arrive at B19 nest to attempt to capture the M.

2050—M gives TCs off roost SSE of nest tree upslope across the drainage.

2051—F up in cavity, giving FSCs. M responds w/ LCs.

2052—M gives PD, F flushes w/in 1 min. **Peep reveals two eggs, centered and touching.** Cavity is extremely shallow, maybe 1.5 to 2 inches. 2110—Soft LCs from up S slope.

2121—F comes back on, just as RD and SY are about to back off from nest tree.

2122—PD by M. SY begins getting capture net in place.

2125—PD by M.

2127—SY misses first capture attempt. PD successful?

2140—M hesitating in front of cavity, flying back to perch on nearby potr.

2141—PD successful? Second missed capture attempt by SY.

2151—PD successful? Third missed capture attempt by SY, the M bouncing out of the top of the net.

2154—PD successful? Fourth missed capture attempt by SY.

2155—Aborted PD, fifth missed capture attempt by SY.

2200—PD given, M landing for about a second on the edge of the cavity, SY handily defeated by tiny bird.

2207—SY and RD leave the B19 nest site.

***Note: Shallowness of cavity makes a nest capture difficult, as male can remain outside of the tree for the duration of the PD.***

## 16 June 2014

2032—LL, RC, and RD arrive in B19\_2014 nest area to peep and attempt F capture. RD approaches nest tree while LL and RC spot cavity. F down.

2036—F comes up as RD reaches nest tree.

2038—F down.

2041—As net reaches correct height and RD is bringing it to the tree. F comes up and flushes out the side of the net to the SSE. **Peep reveals 2 eggs, centered and touching.** We leave.

## 20 June 2014

2120—RD and LL begin approach the B19\_2014 nest tree from road.

2130—M gives two PDs, one as RD and LL arrive, another in the next minute. LL begins to approach the nest w/ the capture pole.

2136—LL has capture net in place, M calls off roost to S.

2138—PD aborted

2140—PD aborted; M seems wary of being lit up.

2149—**LL captures M on PD w/out light. M is previously unbanded. He is the current B19\_2014 territory holder.** Measurements and blacklight data is taken, but a blood sample was not obtained.

**Band # 1783-64527 (on L leg)**

87.0 g LWC: 128 mm

- 35.0 g LLP(5): 98 mm

57.0 g LLP(6): 106 mm

Rect: 58 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | 1.5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | .5 |
| P5 | 1 | .5 |
| P6 | 1.5 | 2.5 |
| P7 | 2 | 2 |
| P8 | 2.5 | 3 |
| P9 | 2.5 | 3 |
| P10 | 2.5 | 3 |

2215—LL hears TCs to S ~40m, likely in or near the nest site.

2220—More TCs near nest site, while we have the supposed B19 M in hand.

2221—TCs to S.

2229—One M still giving TCs near nest to S, 2nd M starts to give TCs to the NE ~30m, B18, B6?

2233—M giving TCs E up E Missouri cr. ~50m, likely still the 2nd M heard at 2229.

2241—B19 M released strong but short flight to nearby branch, LL and RD leave to join SY at B7 nest.

*Note: Bleed was attempted but unsuccessful on both wings. Blacklight was not handy therefore not done.*

## 23 June 2014

2040—JS and BL arrive at the B19\_2014 nest tree to attempt capture of F. We search for the location of the nest cavity, not initially knowing the large bear-torn cavity was the nest (!).

Weather: PM thunder-showers shortened our afternoon peep, and then another rain shower (not accompanied by close lightning this time) occurred in the area from ~ 2010-2035. Calm now, a few sprinkles, and clouds starting to break. 11 C.

2052—M arrives in the nest area giving a few LC. We start to raise the capture pole, assuming the F is in the bear-torn cavity—which is the only cavity seen on the tree!

2053—F flushes as we raise the net, and both M and F leave the area. **We peep cavity—nest contains 2 eggs, slightly separated.**

2101—We leave area.

## 25 June 2014

2018—JS and SY arrive at the B19\_2014 nest to attempt to capture the F.

2034—Net in capture position. F rises to the cavity entrance and then flushes into the net and is captured. **She is previously unbanded and is now the B19\_2014 F.**

**New Band #1783-64498**

84.0 g

- 16.5 g

67.5 g

2040—F is released – soring flight S. We depart.

## 27 June 2014

2033—MP & SY arrive at the B19 nest site to capture B19\_M. SY begins approach with net.

2036—SY has capture net in position.

2042—F is up.

2044—F flushes.

2045—MP peeps nest, **2 eggs, center and touching, no signs of cracking**.

2050—F is back on. SY puts net back in position.

2055—TCs heard to the SE.

2057—M makes a PD without going into cavity and flies away as net approaches.

2058—TECs heard to the SE.

2100—PD performed from outside cavity, failed capture.

2103—PD performed from outside cavity, failed capture.

2105—Aborted PD immediately followed by completed PD with another failed capture attempt.

2106—F flushes when SY hits the tree with the net on a capture attempt. We depart to listen up from the B19 drainage.

## 2 July 2014

2314—AW and MP arrive at the B19\_2014 nest to check on status of hatching. **We peep and find only 1 nestling. Nestling has all white natal down and is standing with head raised. Nestling does not look up, but probably has ability to open eyes. Nestling looks to be about 4 days old. This would put initial hatching date at 6/29±1 day. We peeped on 6/27 and found 2 eggs suggesting that one of the eggs might have been a “dud” and was ejected from the cavity. No evidence is found of eggshells at the base of the tree, although further searching would be helpful. Since we pushed F off cavity and nestling was still very young, we did not want to remain in the nest site for very long.** We leave.

## 7 July 2014

2025—JV and AW arrive at the B19\_2014 nest to capture the F and peep.

Weather: mostly cloudy, calm, 13 C

2032—**JV has capture net in place and captures the F in the net on her flush.**

**Band # 1783-64498 (on L leg)**

88.5 g LWC: 123 mm

- 34.0 g LLP(5): 94 mm

54.5 g LLP(6): 102 mm

Rect: 57 mm

AW bleeds left wing for genetics and parasite smear. No hematoma.

AW peeps. **One nestling grey with very beginning of juvenile plumage on scapulas.**

2047—JV releases F. Strong, ascending flight W.

## 9 July 2014

2405—AW and JS arrive at the B19\_2014 nest intending to capture the M on a PD for blood. M

makes a PD. JS begins approach nest with capture pole.

Weather: calm, partly cloudy, 13C

2406—F flushes while JS is getting net into capture position.

2407—JS keeps net up and has it at correct height.

2408—M PD.

2410—PD with unclear vocalizations. **JS swings and the B19 F is captured**. **Band #**

**1783-64498.**  We release her and back off to allow her to go back on.

2432—JS has net up.

2433—M PD.

2436—M PD. **JS swings and the B19 M is captured.**  We process M taking mass,

measurements, and blood for parasites and genetics. JS bleeds L wing.

**Band # 1783-64527 (on L leg)**

72.5 g LWC: 126 mm

- 22.0 g LLP(5): 98 mm

50.5 g LLP(6): 106 mm

Rect: 59 mm

2457—M released with strong, ascending flight.

0100—**We peep and find 1 nestling. Nestling is mostly downy with the beginnings of black**

**juvenile feathers emerging on scapulars and head. I suspect nestling is 11-12 days. This estimate of age is consistent with our estimate hatch date of 6/28.** We leave.

## 18 July 2014

2337—RC and ER arrive at B19\_2014 nest to peep. **Peep reveals an empty cavity.** We search nest area for signs of ejection, but find nothing. We spread out to listen for fledgling vocalizations.

2340—TC/TECs 150m NNW.

2347—Brief F beg near nest area to N, but we hear nothing more upon inspection.

2349—2 Ms (presumably B19 and B21 Ms) encounter distantly to NNW and continue until we leave at ~2353. ***We expected this N to fledge on 7/20 + 1 so a fledging here would have been at least a couple of days earlier than expected. Based on this and the M’s behavior here and earlier in the night (encountering for an extended period of time in B8), we suspect that this may be a case of predation or brood reduction as opposed to fledging*.**

## 19 July 2014

2221—RC arrives in B19\_2014 nest area to listen for vocalizations/possible fledgling. M is TC/TECing 80-100m NNE as I arrive on low-mid SW-facing slope of Lodgepole R and continues until I leave at 2236. I conduct a thorough search of the nest area, but find/hear nothing. ***This is further evidence to support our suspicion that the nestling here did not fledge, but may have been predated or reduced.***

## 21 July 2014

2135—RC arrives in B19\_2014 nest area to listen. All is quiet when I arrive.

2144—Possibly brief LC/TCs 100+m SE up Genesis R from nest site. (Based on later observations, this could have been B19 or B21 M calling from the N and bouncing/echoing or B8 M near the top of Genesis R). RC moves to track these vocalizations, but hears nothing else in this direction all night.

2212—RC heads into B21 to meet LL and ER, who have B21 M giving LCs in the area of a fledgling. B19 M is TCing near the S end of Lodgepole R at this time.

~2219-2225—B19 M TCing near far S end of Lodgepole R 150+m S of B21 fledgling location due E of B6 parking spot.

~2230—LL finds previously-banded B21 fledgling and RC heads to S end of Lodgepole R to listen for B19 M.

2250—RC picks up B19 M TC/TECing 80m W up E-facing slope of spur to Turkey R across from B19\_2014 nest site. M calls fairly continuously until RC leaves, jumping around between several trees on the low-mid slope.

2252—**RC hangs B19\_1** in full potr snag. M TC/TECs here for ~5min before flying upslope.

2306—**RC hangs B19\_2** in live pipo. M TC/TECs here for 5-10min before flying S, then NE. He remains in this general area calling as RC heads down to B6 parking spot.

2320—RC leaves. M can still be heard TCing in same area.

# B19—2015

## 27 May 2015

2113—BH and SY start playback at a lure net on the low slope of the S end of Grave R. ~75m NW of the B6 parking spot.

Vegetation: Open young pipo/psme

Weather: 8C, clear, calm

X: 496180

Y:4333342

+/-: 8

2122—We hear FSCs right at the net. F calls for ~30 seconds then goes quite.

2126—WE hear TCs ~25m NW of the net. M bounces around the site for a minute or so, then comes right into the net location.

2130—We begin hearing a 2nd M more distantly giving TCs to the SE, in the vicinity of the historic B19 nesting area.

2131—FSCs at the net again. 2nd M moves a little closer, maybe 100-150m SE.

2133—M and F at the net go quiet.

2144—TCs from second M move due W, closer to net. SY departs the net area and head S to listen in lower B21/B19 area.

2147—As SY is walking down the road, I hear a F FSC on the E side of the road, ~75m S of the B6 parking spot. I immediately locate the F perched ~3.5m up a potr in the drainage bottom. Tree is located ~3-4m S of cavity tree #1369.

2151—F flushes to the cavity tree and perches briefly in the entrance of a cavity facing WSW then flies to a sm. Potr ~2m W.

2157—TCs and FSCs heard by BH ~15m NW from net, possibly initial M and F.

*Note: SY had eyes on the F near the eventual nest, so this F represents a 2nd individual.*

2207—F makes a pass at the cavity but continues on to a potr ~10m NW of the cavity tree.

2213—F flies to the cavity again and goes down to the cavity bottom. **This is like a nest – B19? B21? Only time will tell…**

2214—F comes up to cavity entrance and gives FSCs.

2216—F flushes again (apparently of her own volition). I depart.

*Note: Her behavior was very consistent with egg laying, pre-incubation. She was very sedentary and stayed within a 10m radius for at least a ½ hour.*

2228—We stop playback at the net, breakdown net and head farther north, towards the B6/B21 interface.

2445—From the B6 parking spot, SY hears a M to the SE from the direction of the historic B19 nesting area. I chase M but he quickly goes quiet. I go to check the area of the B19\_2014 nest, nothing can be heard here due to the creeks. I tap last year’s nest but get no response.

0101—We leave this area and head to B7/B8 to join RC and LP.

*Note: Below notes were taken concurrently with above section, but for simplicity will be listed separately.*

~2045—LP and RC arrive at boundary of B8 and B19 polygons on W side of Rd to lure net and later spot map in the area. We set up lure net in small potr flat 5m W of Rd, 20m N of two broken top potr cavity trees #865 and #96. Net opens NW/SE.

2127—PB begin at RC/LP net.

Vegetation: young-mature potr, mature pipu nearby, fairly open

Weather: mostly clear, calm, 3.5C

X: 496081

Y: 4332870

+/- 9m

2130—TCs 100m NE of RC/LP lure net near base of Genesis R. This M continues TCing and moves ~500m S then back to original position, staying on E side of creek near base of R.

2200—RC leaves to tap and listen on E side of Cr moving S toward B8 proper.

2218—After losing TCing M briefly due to creek noise, RC picks up M TCing ~200m S near Rd.

2223—RC pops out on Rd just S of cavity tree #2 and hears 2 Ms encountering. First M, which is likely original M we heard from net, is perched high in a 59.5 dbh pipu just off E side of Rd, giving TCs and some TECs. Second M gives TC/TECs briefly 100-200m NE near base of Genesis R. **RC hangs song post B8\_1**.

X: 495995

Y: 4332442

+/- 9m

2229—2nd M begins TCing again near base of Genesis, now ~150m SE of B8\_1. M goes silent shortly and RC heads back up to break down net.

2233—RC arrives back at lure net. Presumed B8 M has been audible to S TCing, but no action at net.

2237—PB off. We hear FSCs <20m away from location of the two potr broken tops #865 and #96. Vocalizations continue for a minute or two in immediate vicinity of these trees, the F flies N without being spotted. SY is on presumed B19 F at N end of B19 until 2219. This F could possibly be the same F, but she would have to have moved several hundred meters in a relatively short time period.

2242—RC spots F, still vocalizing, in small potr 25m N of these cavity trees and flags tree. F flies E on spot light and goes silent. We head back down to net and break down.

2300—We tap #865 and #96, both of which appear to have nice looking cavities, but see and hear nothing. F silent since 2242.

2320—After listening in this area and hearing nothing, we move to E side of Cr and then move S, tapping and listening on our way down drainage. We leave the area.

## 2 June 2015

1520—SY arrives at cavity tree #1339 where a F was observed last week. F is in the entrance when I arrive. **This is the B19(or B21)\_2015 nest!** **Cavity is an oblong NOFl cavity facing WSW, ~18ft. up a potr full snag. Tree is w/i 1m of Missouri Cr. on the W side and about 75m S of the B6 parking spot.**

2043—RC and ER arrive at the B19\_2015 nest with intent to peep/gauge how far along the nesting process is and attempt a male capture. We sit about 10m W upslope to listen for nesting vocalizations as we are unsure if F is on or off cavity.

Weather: Clear, calm, 9C

**Note: We are assuming this is the B19\_2015 nest, but the nest tree (tag number 1339) is on the northern most edge of the B19 territory, so there is a chance this is the B21\_2015 nest. Until further evidence suggests something different, we have identified it as the B19\_2015 nest.**

2102—Having not seen or heard anything, ER taps nest and F does not come up. **We peep and see one egg off center.** Incubation may likely have not begun. We back off to see if F will return.

2111—The B19\_M comes in from about 30m SE giving LCs. He perches on a small potr (dbh~4) about 2m W of the cavity. M is prey-laden and giving single and multiple note LCs. Realizing the F is not in the cavity, the B19\_M flies away and continues giving LCs about 30m NE of the nest tree.

2116—As we start backing away, a silent bird, presumably the B19\_F, flies into the nest site from the SE. We continue to back away to let F return to the cavity.

2127—RC and ER walk S down the road to the S end of B19 about 10m W of Missouri Gulch Rd to tap cavity trees #865 and #96 and listen near where RC previously heard FSCs on 5/27/15.

2144—RC and ER return to the B19\_2015 nest to attempt a M capture. RC has net raised at cavity height and F is down in cavity.

2156-2212—The B19\_M gives TCs and TECs in short bursts of 2-3, consistently from the S and SE of the nest tree, ranging from 20m to 40m down drainage from the nest.

2214—With no indication of M coming into the nest site, RC lowers the net and we back out. We move to B8 to lure net.

## 8 June 2015

2032—RC and ER arrive in B19\_2015 nest site to peep nest and attempt M capture. F down on arrival.

2035— RC sets up in clearing near base of tree with peeper and capture net to silhouette. ER leaves to listen in B21 and B6.

2045—M calls off roost from 40m ESE of nest site on low W-facing slope of Lodgepole R.

2049—M enters nest site and gives some LCs in small potr facing cavity entrance 2m W of nest tree. Nothing heard from F. M flies SE and gives three-note LCs (possible TECs at RC but more likely LCs) 30m away.

2052—M enters site again and perches on entrance of cavity before entering and delivering a PD. F comes up as M leaves and gives FSCs.

2053—PD in cavity entrance.

2054—F flushes SE. **Peep reveals 3 eggs, centered and touching.** RC had no good opportunity to raise capture pole before flush and so waits in nest area to silhouette and wait for F to return.

2120—No sign of M or F. RC backs out of nest area to allow F back on and leaves to listen with ER in B6.

2147—RC arrives back in nest site and approaches nest tree. F apparently down.

2149—Capture net in place.

2150—M LCs 30m S of nest.

2151—M LCs 15m SE of nest followed by FSCs, apparently off cavity within 10m of nest. RC pulls down net and leaves to set up lure net in B6. *There was no sign of flushing of the F on RC’s approach, so F seems to have been off of her own accord during this time. It is possible that FSCs were in fact from within cavity, but were very loud and seemed to change in direction of origin so RC erred on the side of caution.*

## 10 June 2015

~1630—Flam crew moves in to B6 to peep some highlight trees. We have very spotty coverage but find nothing. SY peeps some B19 trees under the suspicion that what we are calling the B19 nest is in fact B21.

## 15 June 2015

2140—After waiting out early rain and doing some listening in B6 with MC and ER, RC and Dl arrive in B19\_2015 nest site to attempt to capture B19 M at nest. As we enter, we spot silent FLOW flying in to perch ~12m up in potr directly off E side of rd and ~10m W of nest. FLOW shakes off some water then makes a short flight into potr directly overhead and we lose sight. DL watches this tree while RC moves in to spotlight nest cavity.

Weather: Mostly overcast with some clear sky to N, slight breeze, heavy rain earlier and currently approaching, ~6C.

2148—M makes PD, going completely into nest cavity. FSCs on cavity. *DL never saw FLOW fly from perch tree W of nest, but she had only a radio light and no direct eyes on bird. We believe this is likely the same bird*.

2150—Rain begins, light but getting heavier. We spot cavity and wait to see if rain continue to pick up before approaching nest with capture net.

2158—Rain has continued to pick up. Lightning close. We back out of nest area and take shelter in car with MC and ER.

2300—Rain lets up again (stopping for the remainder of the night), RC/DL arrive back in nest site. F down on arrival.

2305—RC approaches base of nest tree and begins raising capture pole. F comes up then goes back down within 15 seconds. F never comes up to entrance again for the entirety of our stay in the nest area *(surprisingly, given our multiple swings at M, contact with net and net sticking to tree. F likely deep in incubation).*

2307—Capture net in place.

2315—M gives 3-note LCs 20m E of nest then enters nest site to perch on small potr 2m W of nest tree (B19 M’s apparent favorite approach). F begins giving FSCs as soon as LCs begin. M makes a PD. RC swings and captures, but M escapes during lowering just as he is within reach. F still giving FSCs in cavity so we set up to capture again.

2330—M LCs near nest site, F gives FSCs on cavity, M enters site and makes PD. M takes his time entering cavity then perches on the entrance before flushing. RC swings and captures again, net sticks to tree, M works his way out to perch on edge of net and taunt RC before flying out of the net once again. F does not come up, so we set up again.

2340—LCs near site, FSCs on cavity.

2343—**M makes a PD and is captured! M is banded and is the B19\_2014 M.** We back out of nest site to process M. As far as we know, F never comes up.

**Band # 1783-64527 (on L leg)**

85.5 g LWC: 133 mm

- 34.5 g LLP(5): 101 mm

51.0 g LLP(6): 109 mm

Rect: 62 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 0.5 |
| P2 | 1 | 0.5 |
| P3 | 0.5 | 2 |
| P4 | 2 | 2 |
| P5 | 1.5 | 1.5 |
| P6 | 1 | 1.5 |
| P7 | 1 | 1 |
| P8 | 1 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 1.5 |
| P2 | 0 | 1.5 |
| P3 | 0.5 | 0 |
| P4 | 0 | 0 |
| P5 | 0.5 | 0.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 2 |
| P10 | 2 | 2 |

Note: P1&2, especially RP1&2 are extremely faded exhibit thinning in the barbs near the rachis. LS1 has no fluorescence at all. 3 adult hippoboscids found on M. 1 collected. Other two are…disposed of. One pulls out a breast feather as he is removed from M!

2405—M released with strong flight ENE. We leave to listen/nest search in B8.

## 19 June 2015

~2030—RC arrives in B19\_2015 nest site to capture F on flush. F down on arrival.

2035—RC reaches nest tree and begins raising capture net.

2037—Net in place over nest cavity.

2107—M gives single 2-note LC 5-10m E of nest tree, in or near dr bottom. Possible faint FSCs, at the time presumed to be in cavity (hard to tell though with creek noise).

2108—M gives one more LC ~50m N up dr then goes silent. Nothing else heard from M during stay in nest site.

2110—RC taps nest tree, but no sign of F.

2120—RC gives a couple of quiet hoots at nest tree. No response from either M or F.

2130—Net down. **Peep reveals 3 eggs, centered and very close together but not quite touching. No signs of cracking. No sign of F during entirety of stay in nest site, and M only approached once without entering nest tree vicinity or using usual perches.** F could possibly have flushed prior to RC’s approach (as Expedition passed?), during approach or net prep or during transition from capture net to peeper, but these windows were each very small and none are obviously most likely. There was no spotter so there were times that no eyes were on cavity, but RC spotted cavity from rd before approach and moved very slowly and cautiously in nest site. More time is required in this nest area to discern status of nest. RC leaves.

## 24 June 2015

2035—MC arrives at the presumably failed B19\_2015 nest to assess status. I tap the tree and then peep. **Peep reveals no F on cavity and three eggs, not touching that do not appear to have been moved since 6-20.** I back off to observe.

2058—M gives soft TCs from the vicinity of B19\_2014. I chase. As I am arriving in the meadow on the W side of the creek a silent FLOW flies in front of me and lands on a small potr ~8 ft. off the ground. I cannot see a band. The bird flies SE.

2105—More soft TCs heard from the vicinity of B19\_2014. MC gives chase but cannot locate the bird. He appears to be calling from ~5m down stream of B19\_2014.

2113—MC gives two soft hoots from the W side of the creek at the mouth of E. Missouri Creek. M gives I call response from the midslope of Lodgepole R. I give chase.

2135—HECs heard farther N on Lodgepole ~50m E of B19\_2015.

2140—MC locates the singing Ms giving HECs from the same tree and hangs songpost B19\_1. The birds fly ~10m S and continue their encounter, they then fly W.

2145—The Ms continue their encounter in side drainage ~75m due E of B19\_2015. The Ms were having an encounter in patch of 5 large psme, MC gives chase. I can not find the specific tree a M is calling from and I hang a general area songpost B19\_2. They go quiet and B21 can soon be heard calling from midsole on Grave Ridge.

2200—DL and ER arrive ~5 m down drainage (W) from B19\_2014 nest, where MC had hoots earlier in the night. We hear hoots and begin to follow.

2204—DL spots M giving TCs in a potr <1m from B9\_1180. He sings there for ~2 minutes before flying ~5m N, then briefly landing on tree 1180 before flying out of sight to the S. I hang songpost B19\_3 and ER peeps B9\_1207 and B9\_1180.

2210—DL, ER, and MC leave B19 and head toward B18.

## 30 June 2015

2439—SY arrives in B19 to check the nest status. **I peep: cavity is empty – this confirms the abandonment of this nest.** I leave.

## 01 July 2015

2209—BL and LP arrive to B8\_2015 nest area with intent to capture B8\_2015 M at PD.

2216—BL approached nest tree and begins raising capture net. We hear FSCs off cavity (~15m to the W). We also hear a few LCs coming from same area as FSCs. BL lowers net to ~15 ft, while LP spots. We continue sitting in our positions to observe until 2232.

~2225—Two birds (assumed M and F) seen flying in tandem from conifers to the S.

2232—F still has not entered cavity so we leave nest area. We hear LCs from ~25m down drainage (W) as we are leaving. **NOTE: Behavior of F is suspicious, and suggestive of possible nest failure.**

2245—We gather lure net supplies from car with intent to capture B8\_2015 M. We begin setting up lure net approximately 20 m W of Missouri Cr Rd (FS347), and ~ 100 m W of the B8\_2015 nest tree.

2255—Lure net is set up. PB (track 42) turned on. Net opens E/W.

Vegetation: net flanked by three young potr on W side with young-medium psme, open

Weather: calm, partly cloudy, full moon, 9.0C

X: 495972

Y: 4332438

+/- 9m

2257—We hear TCs and FSCs from ~70m ESE of net. We presume this is either the B8\_2015 pair or the B7\_2015 pair (who failed earlier in June).

2300—We hear another M giving TCs ~150 NNE of net in drainage (possibly B19\_2015 M). ESE M begins giving TECs at this time. This M is subsequently joined by another M giving TC directly W of the net (B7\_2015 M?). The distant M to the NNE is still heard calling periodically—is the Western M the failed B7 M?

2302—Two Ms and one F in net area at this time all calling.

~2304—**Net check reveals two birds in net. Bird #1 is unbanded M (new band #1833-03286) caught in 2nd shelf on E side.** **Bird #2 is previously banded F, with Band #1783-64392, who was the B8\_2013 and 2014 F, and captured in 1st shelf on E side**

**Bird #1: Band # 1833-03286 (on x leg)**

68.0 g LWC: 130 mm Rect: 54 mm

- 7.5 g P5: 101 mm

60.5 g P6: 112 mm

**Bird #1: Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2.5 | 2.0 |
| P5 | 2.0 | 1.5 |
| P6 | 1.0 | 1.0 |
| P7 | 1.0 | 1.0 |
| P8 | 1.0 | 1.0 |
| P9 | 1.0 | 1.0 |
| P10 | 1.0 | 0.5 |

**Bird #1: Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 1.0 | 1.0 |
| P6 | 1.5 | 1.5 |
| P7 | 1.0 | 1.5 |
| P8 | 1.5 | 2.0 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

**Bird #2: Band # 1783-64392 (on R leg)**

75.0 g No measurements or blood, due to presumed F status

- 7.5 g

67.5 g

2313—Bird #2 released to SE with strong, ascending flight.

2319—**Net check reveals another bird in net. This bird is unbanded and was caught in 2nd shelf on E side. New band #1833-03287. NOTE: This was presumed to be F, based on the large incubation patch (which had pin feathers filling in on perimeter).**

**Bird #3: Band # 1833-03287 (on R leg)**

72.5 g No measurements or blood, due to presumed F status

- 8.0 g

64.5 g

2321—M giving TCs consistently on W side of net. This M continues to vocalize throughout lure net disassembly.

2324—Bird #3 released with strong, ascending flight to SW.

2339—Bird #1 released with strong, ascending flight to S.

~2344—PB is turned off and lure net is taken down.

2348—We leave net area to walk towards car. This is the end of our night.

# B19—2016

## 1 June 2016

~1530-1715—Flam Crew peeps along N. Missouri Cr. from B7 to B6. **The B6\_2016, B21\_2016, and B8\_2016 nests are found**. Past nest trees and other appealing cavity trees are cherry picked in B19 and B7.

2030—MC starts listening for early night vocalizations on the elbow of Lodgepole Ridge above the confluence of E and N Missouri Creek. I begin walking N towards the B19\_2015 nest tree along the midslope of the ridge.

2042—MC hears FSCs along the midslope of lodgepole, SW of B19\_2015. I spot an F giving FSCs low in a conifer. An M gives location calls from the N and comes in to give a PD. The F makes a couple short, gravid flights, in the area. I observe two copulation attempts. (Note: This is the exact time that DL observes the presumed B21 F flush, confirming that this is a separate pair, likely B19)

2100—After chasing the pair around a small ~30m circle the pair flies out of sight and goes quiet. DL joins MC and flags the last tree in which the pair was observed. After ~15 minutes MC heads down to the confluence of E and N Missouri to tap and listen.

~2115—ER joins MC and DL where they are following the B19 pair about 50m N of the confluence of E. Missouri and N. Missouri Cr. ER is on the W side of the drainage.

2124—ER hears a few LCs about 30m NE near DL.

2144—M makes a PD to the F on a low branch in a psme.

2158—Copulation attempt.

2200—We leave B19 as it seems apparent that nesting has not begun for this pair.

## 6 June 2016

2100—RC, MC, and ER arrive in B19 to listen for nesting vocalizations. ER begins in dr bottom just S of B19\_2015 nest, RC in vicinity of B19\_2013 nest, and MC in between on the low W-facing slope of Lodgepole R.

2108—RC picks up FSCs near confluence of E Missouri Cr, shortly followed by LCs in the same area. Over next 10 minutes, pair moves quickly ~80m N onto low slope of Lodgepole R. MC and ER get eyes on pair around 2112. F is making strong flights at beginning of observation, but becomes more sedentary as the night goes on.

2116—We temporarily lose pair after F flies from perch in live pipo broken top where MC and ER had also seen her use repeatedly on 6/1/16. No cavities visible on tree.

2118—M LCs and FSCs nearby. We locate F perched 5m up in a live psme, dbh: 32.5cm. F perches here for an extended period of time on the same branch. RC flags tree after F flies at 2140. M delivers PDs to F on this branch at 2127 and 2138, with some allopreening after the first PD. M gives some booming LCs from area of live pipo broken top during this time.

X: 496245

Y: 4333181

+/- 10m

2140—F makes two short flights (5-10m) to S, then SE. ER picks her up a little higher on the slope of Lodgepole R in a small clump of potr snags. F is staying very low, giving consistent FSCs, and spends a few minutes on the ground as well.

2149—M arrives back at perch used by F in psme flagged by RC, prey-laden with a **medium-sized noctuid**, LCing. F remains perched on ground near ER 15m SE.

2150—M flies toward F and brings a PD to F at 2153, disappointing a hungry ER.

2200—We leave. Pair remains in final area observed by ER. *Pair was initially picked up within 30m of B19\_2013 nest tree, but ended up spending most of the night much closer to B19\_2015, only about ~40m SE of the past nest tree. F activity during latter portion of observation suggests that she is very gravid.*

## 14 June 2016

2035—DL and KM arrive at the territory and start listening near tree #1339. DL occupies the W facing ridge and KM listens around the drainage. DL works her way S and KM moves E.

2045—KM hears an LC in the N part of the territory on the slope. I follow the call and hear two more LCs on the lower part of the ridge. DL moves N to listen more in that vicinity.

2050—KM possibly hears a few more calls from the N, but this may be the B21 M.

~2100—MC arrives in B19 to aid in listening efforts.

2106—MC hears a bird calling, giving possible LCs, on the low slope of Lodgepole ~10m E of B19\_2015 on the E side of the creek. The M makes a flight across the creek into the area of the past nest tree, and gives ~3 more LCs. I do not hear a F and he makes no flights to any other trees, he leaves the area.

2115—KM moves to the B19\_2015 nest tree.

2120—KM hears an LC in the drainage, a bit N of the B19\_2015 nest tree.

2129—KM sees a FLOW fly from a pipo NW of the B19\_2015 nest tree to the NE. I follow the bird and see him cross N Missouri Cr to the E. I listen and move back to the B19\_2015 nest tree area.

2135—**KM sees the M fly to the B19\_2015 nest tree and give a PD. This is the B19\_2016 nest tree! The potr snag, tag #1369, is about 5m W of Missouri Cr and about 100m S of the B6 parking spot. The cavity faces W and is about 15ft high, the lowest cavity on the tree.**

2137—KM sees the M leave the cavity and fly to the SE. I radio MC and DL and we quickly leave the vicinity.

2138—KM joins RC, and they head to B18 to listen and set up a lure net.

## 21 June 2016

2028—RC and KM establish a viewpoint ~15m W of the B19\_2016 nest tree to briefly observe the nesting pair before attempting a M capture. RC moves towards the tree with a capture net while KM spots the cavity.

2034—RC at tree.

2037—RC has his net up, just W of the cavity.

2043—F begs from inside the cavity.

2046—F pops her head through the cavity entrance and observes her surroundings. She disappears back into the cavity for a brief moment then sticks her head outside the entrance once more.

2048—F flushes to the S. KM rushes to the cavity to **peep the contents and finds two eggs, centered and touching. There is perhaps a hairline fracture on one of the eggs, but the faint line may also be a bit of dirt.** *Nest find timing would suggest that hatching is not yet beginning here.*

2050—RC and KM retreat from the immediate vicinity of the nest tree to wait for F to return.

2104—M gives repetitive LCs off cavity a few meters S of the nest tree for a few minutes then stops.

2132—F comes back to the nest.

2135—The M flies to the cavity for a PD. RC returns to the tree to resume holding the capture net and waiting for the M to enter the nest site.

2141—The pair communicates with a number of LC/FSC exchanges.

2142-2157—During this time the female evidently flushes the cavity and KM misses the exit. RC stays at the cavity with the net.

2201—**F comes back on then flushes the cavity into RCs net. She is un-banded, so RC gives her the old band ‘n’ toss.**

**Band # 1833-03373 (on R leg)**

2204—RC releases the F, who flies into a nearby willow then up into the surrounding trees. We leave immediately and return to the B19 parking spot to touch base with the crew before leaving to attempt a M capture in B13.

## 24 June 2016

2022—RC arrives in B19\_2016 nest site to attempt M capture in hopes of affixing a PinPoint GPS tag. F down on arrival.

2030—I approach tree.

2033—At tree.

2036—Net up.

2052—F up.

2053—F flushes SW. **Peep reveals 2 eggs, centered and touching.** *We believe this to be the final clutch size of this nest.* *PD rate observed over the course of the night suggests incubation*.

2055—Out of nest site to wait for F to return.

2119—F back on.

2127—M in site, giving LCs but not approaching nest tree.

2129—F up. MC has just captured B6 M, so I leave to assist BL/MC with the endowment of said M with some new bling.

2209-2256—RC returns to nest for a second capture attempt. F down. I approach. F stays down. MC arrives as RC approaches and helps to spot cavity. Over the next ~45min, M makes only one PD after giving a few LCs around the site. RC swings and misses low, and M never returns to the site. BL captures B21 M at 2256, so I leave nest site to assist with the attachment of the second PinPoint. This takes the rest of our time, so no further capture attempts are made.

## 29 June 2016

2145—DL and ER arrive in the B19\_2016 nest site to attempt a M capture at the nest. We observe a FLOW fly through the nest site, but do not see a PD. ER begins approach with the capture pole.

2147—ER raises the net to cavity height. DL leaves to observe at B21 and B6.

2154—M makes a PD to the cavity. ER places capture net over cavity and the M flushes into the bag. He is an unbanded M.

**Band # 1783-74306 (on L leg)**

89.0 g LWC: 133 mm

- 29.0 g LLP(5): 103 mm

60.0 g LLP(6): 112 mm

Rect: 68 mm

**Notes:** Bled the L wing, medium hematoma. Collected adult hippoboscid fly that was moving around in his contour feathers.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2 | 2 |
| P3 | 1.5 | 1.5 |
| P4 | 1.5 | 1.5 |
| P5 | 1.5 | 1.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 1 |
| P3 | 1 | 1.5 |
| P4 | 1.5 | 1.5 |
| P5 | 1.5 | 2.5 |
| P6 | 1.5 | 2.5 |
| P7 | 2 | 3 |
| P8 | 2 | 3 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2222—Release B19\_M. SHF W to perch. ER leaves to join DL in B6.

## 9 July 2016

2047—RC arrives in B21\_2016 nest site to peep and determine nest status. F down on arrival. I tap and F comes up. I sit nearby to observe and F quickly loses interest in me.

2050—M enters site, makes a PD to F in cavity entrance. F flushes SE, following M. **Peep reveals 2 Ns, as well as some large egg fragments. Elder N is face down and unmoving, but has gray coming in on head and scaps, some but not a ton (est. age: 10 days). Younger N is mostly white with some gray on scaps and a little coming in on head (est. age: 8-9 days).**

2051—Out.

~2155—RC arrives in B21\_2016 nest site to attempt M capture for blood and feather samples.

2159—F comes up as I check net height.

2207—M makes PD to entrance. F stays up, but goes down after a few minutes.

2216—M gives a single hoarse call and makes a very rapid PD/abort. Very fast, no cavity entry. M stays in site.

2219—M PD, snag! M escapes through hole in net on the way to the ground. F comes up and starts FSCing.

2225—F flushes. I leave.

## 12 July 2016

2030—DL arrives at the B19\_2016 nest tree to capture the F.

2035—As I get my pole up to height, F comes up. **I put the net over the cavity and she flushes into the bag. I peep. Eldest owlet is all grey. Runt is mostly grey with some white on the face and head.**

**Band # 1833-03373 (on R leg)**

85.0 g LWC: 125 mm

- 29.0 g LLP(5): 98 mm

56.0 g LLP(6): 105 mm

Rect: 57 mm

**Notes: Primaries and rects were all extremely worn. The tips of all of the rects were worn down. Bled L wing. Small hematoma. M calling in site while I process her.**

2055—Release. Strong ascending flight to a perch near the nest tree.

## 19 July 2016

1510—RC, DL, and ER arrive in the B19\_2016 nest site with the intent to process the nestlings. **Peep reveals an empty cavity, indicating that a nest failure—possibly predation—has occurred. Surveying the nest site, ER finds a dead owlet in full juvenile plumage with the beginnings of a facial disk within one meter E of the nest tree (17-18 days).** Upon inspection, we find that the owlet had a broken toe with a small laceration. We continue to look for the other nestling, but find nothing.

Entrance dimensions HxV: 70x55mm Cavity Height: 16’10’’

DOH: 27.0cm Entrance Thickness: 40mm

Horiz. Depth: 115mm Vert. Depth: 300mm

Dead Owlet Measurements (taken 8/4/16 by RC)

Mass: 52.8 g

LP5: 33 mm

LP6: 32 mm

*These measurements suggest found N was around 16 days old at time of presumed predation event*.

~1530—We leave for B5.

# B19\_2017

## 30 May 2017

1530—BL, KM, ES, and JE cherry peep B7, B8, and the southern part of B19. We do not find any nests.

1730—We end the peep day with anticipation to find the E Missouri nests in the future.

## 31 May 2017

Afternoon—MC, ZM, ER, and LD cherry peep in B6, B21 and B19.

1630—**LD and ER approach tree B6\_118 Tag #370 and a F is up in a cavity entrance, this is the suspected B6\_2017 nest!** The tree is a full snag potr ~50m N of the B6 aspen flat on the E side of E Missouri Creek. The cavity is a keyhole ~20ft. high and facing ENE. This cavity was previously the B6\_2004 nest.

2038—MC, KM, and ES arrive at B6\_2017 to peep the cavity and observe its contents. We crouch down ~20m S of the tree.

2105—The F gives an FSC ~40m S. She likely flushed the cavity before we arrived. **We peep the nest and find it empty.** We leave.

2110—MC, ES, and KM begin listening in the B6/B21 drainage. We distribute ourselves about 60m apart and walk in small circles around N Missouri Cr. KM spends time listening between B21\_2016 and B19\_2016 and on the low slope of Lodge pole. All is silent for the entire time we listen. We abandon efforts after over an hour of listening.

2232—We set up a lure net and begin playbacks on the S ridge of Grave about 60m N of the rabbit gravestone.

Vegetation: mixed pipo/psme, young potr, mostly open

Weather: 12C, mostly cloudy, slight breeze

X: 496200

Y: 4333436

+/- 3

2300—KM ventures into the B6 aspen flat to listen for vocalizations. No sauce. MC makes a few vocalizations on Grave but we did not hear responses either at the net or in the aspen flat.

2310—MC hears periodic possible TCs from Lodgepole Ridge; could have been an echo from PB.

2330—We take down the net and move to the SW corner of the B6 aspen flat to lure for the remainder of the night. We set up the net about 20m W of the game trail. We are approximately 215m SW of the presumed B6\_2016 nest tree.

2338—Playbacks begin.

Vegetation: young potr/psme, mostly open

Weather: 12C, partly cloudy, slight breeze

X: 496265

Y: 4333617

+/- 3

2415—We hear three TCs from a M about 50m E of the lure net, after which he falls silent. We hear no other vocalizations.

2430—We break down the lure net and head back to the B21 parking spot to end the night.

## 5 June 2017

1700—BL, KM, and JE return to the B19 territory to cherry peep cavity trees that were first cherry peeped on 31 May. **BL peeps POTR cavity tree # 1560, and observes a F FLOW roosting in the cavity—this is the B19\_2017 nest tree! F did not respond to a tap, and did not ascend or show any response when the cavity was peeped. Nest tree is approximately 15 m S of the B19\_2016 nest tree, if a full snag with dbh of ~ 27 cm, and nest cavity is NOFL excavated facing S, approximately 6.5 m high. Nest tree is ~60 m S of the B6 parking area, and is ~20 m E of FS347.**

1715—We leave area.

2030—KM arrives at the B19\_2017 nest tree to peep the cavity.

2040—F comes up to the cavity entrance.

2050—F has stayed up at the cavity. She gives a few FSCs and the M responds with LCs a bit SW of the nest site.

2053—F flushes to the SE and KM peeps the cavity. **There is one egg in the center of the cavity.** The F flies back into the area pretty rapidly, so I move out of the nest site as quickly as I can**.** It appears as though the F returns to her cavity.

## 13 June 2017

2045—BL arrives at the B19\_2017 nest to assess contents. F is not in the cavity entrance. Weather: Clear, calm, ~ 17 C.

2113—All has been quiet in the nest area with no sign of the F. **I peep—no F, and the midsection of 1 of the 2 eggs has been broken into the yoke appears partially eaten; the clutch has been partially preyed upon, most probably by RESQ.** I remain in the nest area to observe.

~2130—No evidence of either the M or F in the area, and I leave.

## 19 July 2017

2041—As ER and JE are walking to the B21\_2017 nest, we hear a M giving TCs just SE of us, as we are just across the drainage from the B21\_2016 nest tree. JE stays to listen.

2045—M goes silent.

2055—JE leaves to join ER at B21\_2017.

# B19—2018

## 30 May 2018

1500-1700—BL, ES, ON cherry peep B19. NOFL nest found in B19\_2017 nest cavity, nothing else found.

2032—JE and KA begin listening in B19 to search for a nest. KA begins in the area of the B19\_2017 nest while JE begins around the confluence of N Missouri Cr and E Missouri Cr.

2043—KA hears M FLOW give 4 LCs 50m SE on E slope of creek bank.

2045—JE joins KA in chasing a M FLOW giving both a variety of TCs and LCs. M moves as far N in B19 as the parking spot and as far S as ~30m S of B19\_2017 nest, singing from both sides of Missouri Cr. **KA marks B19\_1 songpost in a mature, live potr on the W bank near the B19 parking spot.**

X: 496229

Y: 4333296

+/- 3 m

2057—M FLOW goes silent.

2108—KA, from her position near B19\_2017 nest, hears M FLOW make TECs 60 m S down N

Missouri Cr. FLOW flies N towards a 2nd M FLOW and they engage in an encounter near B19 and B21 territory boundary.

~2120—JE follows a M making TCs across N Missouri Cr towards the B19\_2017 nest. M is seen flying over heard and perches in a potr. A few TCs are given before flushing across N Missouri Cr. **JE marks songpost B19\_2.**

X: 496223

Y: 4333262

+/- 4 m

2134—KA and JE see M FLOW silently perched on potr adjacent to B19\_2017 nest. FLOW

remains perched for 3 mins, flies to backside of 2017 nest tree near fork at the top of the tree, and flies N. An unknown bird is seen in the cavity of the B19\_2017 nest, likely the NOFL nest found earlier that day while cherry peeping.

2217—PB of T42 begins. Lure net is located on the low slope, just 15m W of Missouri Gulch Rd, across from the confluence of N Missouri Cr and E Missouri Cr. Net is open E/W.

Vegetation: young potr, mixed psme/pifl/pipo upslope

Weather: calm, 20% clouds, 16 C at 2032, 10 C at 2217

X: 496164

Y: 4333121

+/- 4 m

2229—M TCs are heard 100-150m W of net.

2231— Same M continues giving TCs and moves in to 80m WSW of net.

2236—After a plane flew over, a 2nd M is heard further N while the 1st M continues giving TCs in the general area of the confluence.

2240—1st M begins giving TECs mixed in with TCs.

2241—1st M enters within 20m of the net site giving TECs, and then switching to HECs.

2246—With M in site giving HECs, presumably the 2nd M from the N is giving TCs and moves S, towards the confluence, but remains distant (100m).

2249—With M still giving HECs and TECs next to the net, another FLOW is heard just N and upslope of net, probably 50m away from the net. It is unclear where this bird came from, as a M could still be heard in the confluence area giving TCs.

2252—1st M that came into the site is still 5m on the S/SE side of the net. The M heard just upslope approaches to within 5-10m E/NE of net.

2255—After a plane finishes passing overhead, area is silent. PB died so battery is replaced and begins playing once again.

2259—M comes backs to net site, within 5m of the net, just to the S. The 2nd M from the N can also be heard, but stays distant and does not approach.

2302—Both FLOWs are silent. On a net check, a silent FLOW is seen perched next to the PB and flushes.

2304—M approaches from SW and enters net site.

2308—M is silent for a few minutes. Net is empty but JE and KA flush a silent FLOW once again perched next to the PB on the approach to end it. We break down the net and leave.

## 12 June 2018

2028—JE and KA arrive at B19\_2018 territory to tap, listen, and lure net. They tap trees surrounding B19\_2017 nest site, nothing found. JE heads S towards confluence of E Missouri Cr and N Missouri Cr to listen, KA remains N along N Missouri Cr, walking between confluence and B21 parking spot.

2106—From KA’s position ~100 m S of B21 parking spot she hears M FLOW give TCs ~70 m E upslope along Lodgepole Ridge. After following bird upslope, M hops the creek to the W and continues TCs.

2115—M gives one TC ~100 m S of B21 parking spot.

2117—M continues moving S, gives 2 TCs ~40 m N of confluence of E and N Missouri Crs.

2120—**M gives 3 TCs ~20 m N of confluence. KA marks songpost B19\_3 in live snagtop potr, condition 1=3, 29.0 cm dbh.**

X: 496207

Y: 4333195

+/- 3m

2121—JE, from the confluence area, hears this M singing distantly from the NE.

2130—M switches to E side of N Missouri Cr. Then silently perches next to a silent bird. Both birds sit silently for 30 seconds. Silent bird flushes E upslope. KA does not hear any female vocalizations, but searches surrounding area for possible cavity trees.

2131—M begins making a few TCs again. **KA marks songpost B19\_4: potr full snag, 15.5cm dbh.**

X: 496229

Y: 4333198

+/- 3m

2134—M switches to W side of creek and makes TCs. **KA marks songpost B19\_5: potr full snag, 24.0 cm dbh.**

X: 496211

Y: 4333199

+/- 3m

2147—JE joins KA on E slope of Lodgepole Ridge, ~40 m N of confluence. M gives TCs ~50m upslope.

2150—M goes silent.

2151—M begins giving TCs from upslope on Lodgepole Rdg once again.

2154—One M makes TCs from NE upslope, another bird begins making TCs ~100m SE. JE and KA follow bird N along slope 50 m E of N Missouri Cr.

2156—Two M FLOWs get caught up in a territorial encounter, making TCs at one another and and moving W towards N Missouri Cr. KA and JE follow birds during this encounter, which continues for ~15mins, then goes quiet.

2210—JE walks up E Missouri Cr a little ways to find some cavity trees to tap, but finds none and hears nothing.

2220—KA hears M give TCs within 10 m of B19\_2017 nest.

2221—M crosses N Missouri Cr to the E and returns to tree that he had perched on with silent bird (was previously the second songpost of the night). Goes quiet. KA leaves and joins JE to set up lure net.

2244—PB starts of T42 in young potr stand on W side of N Missouri Cr, ~50 m S of confluence of E Missouri Cr and N Missouri Cr, ~5 m E of road. Located on flat, drainage bottom. Open E/W.

Vegetation: opening within young potr stand, 5-10cm dbh

Weather: breezy, <10% cloud cover, 15 C

X: 496134

Y: 4333992

+/- 3m

2246—TCs heard from NE near confluence, M is coming in toasty. Enters net site, flying between a few perches, giving HECs.

2249—M continues giving HECs, and seems to be perched right on top of the net/playback.

2255—**We hear wingflaps and check the net- an unbanded M FLOW is captured on 1st shelf of net, from the W side! This is presumed to be the B19\_2018 M.** M is extracted within 5 mins, JE and KA move to slope ~15 m W on other side of road for processing.

**Band # 1833-32513 (on L leg)**

89.0 g LWC: 131 mm

- 28.5 g LLP(5): 99 mm

60.5 g LLP(6): 108 mm

Rect: 61 mm

**Notes: Bled L, small hematoma.**

2328—M is released, begins with horizontal, then ascending flight to nearby perch just N.

2335—JE explores drainage to the W, once again fails to find cavity trees and hears nothing.

2345—M gives a few TCs from ~40 m SW of net.

2346—M gives TCs ~60 m N of net.

2349—PB stops, net taken down, group leaves the area.

## 13 June 2018

1445—KM, JE, KA, AM, ON, ES (the flamily) arrive at B21 parking spot to peep remainder of B8 territory, B19 territory, and B21 territory. Group peeps the N portion of A8 (beginning where the group left off peeping on June 12th). Group worked N and peeped all past nest sites and most known cavity trees, as well as enumerating new trees, in B8, B19, and worked halfway up B21 into the central potr stand of the territory. Nest found in B8, but not B19 or B21. **In B19, a squirrel is found previous nest site B19\_2017. This cavity had a NOFL nest when peeped a week earlier, suggesting squirrel predation. The 2017 nest failed from predation, and the squirrel sighting strongly suggests squirrel predation also occurred in 2017.**

## 15 June 2018

1500-1700—Flam crew plus MAX CIAGLO peeped the N part of B21 and up through most of B6. JE and BL took a side drainage going W in B19. Goose eggs.

## 16 June 2018

1500-1800—KM, ES, and JE peep the rest of B6. We hit almost all of the cavity trees on record and enumerated a handful of new trees. We additionally do a quick peep of the cavity trees left in the S part of B8, hitting past nest trees in B7. Goose eggs. Womp womp.

# B19—2019

## 29 May 2019

2214—ON, KC, and BL arrive in B19 to listen for nesting vocalizations and tap cavity trees. All is quiet upon arrival.

Weather: 100% cloud cover, calm, 4C.

ON, KC, and BL spread out and listen E of the road while staying W of N Missouri Cr. ON covers the N end of the territory until the B21 parking spot, BL stays in the middle, and KC takes the S end of the territory.

2259—ON hears 2 very faint possible FSCs on the E side of N Missouri Cr ~50m SE of B21 parking spot. She proceeds toward the calls to listen more but all is quiet.

2311—We all return to the vehicle after nothing else is seen or heard for the rest of the night.

## 14 June 2019

1530-1650—ML, JE, ES, and KA arrive in B19, B21, and B6 to cherry peep past nest trees and cavity trees in the territories.

1655—Nothing is found. We leave the study site.

## 18 June 2019

1430-1600—Flam Crew starts a full peep of B21, B19, and B21, sending several teams N and S of the B6 parking spot. We make it about halfway through the cavity trees S of the parking spot, and we peep most of the cavity trees in B21 up to the northern edge of the territory. We don’t make it into B6. It begins to rain at 1600, halting our peeping efforts.

## 20 June 2019

2315—ES, AM, KC, JE, ML, and KA spread out in B19 and B21 to listen for nesting vocalizations, tap cavity trees, and look for new cavity trees.

2330—ES hears LCs on the W-facing slope of Lodgepole R, directly E of the parking spot and ~30 m up from the drainage bottom. The others make their way in that direction.

2335—JE hears LCs again ~20 m E (further up the slope) from where ES previously heard them.

2341—JE hears FSCs in that location.

2345—JE and ES get eyes on the F, perched openly on a branch of a potr snag, in the same spot on Lodgepole R where we’d heard the M LCs earlier. We watch her for ~3 minutes. The M flies into the area, perches ~5 m SE of the F for a few seconds, and then joins her on the potr snag, giving a PD. **The M is banded on the L, and the F appears to be unbanded.** They both flush to the N, and we follow.

2345-2400—We follow the F and M, who are both vocalizing, as they move NW ~50 m along the low slope of Lodgepole R. Eventually they seem to come to a stop, and the F gives quiet FSCs near some unenumerated potr snags. ES and ML look for cavities on the potr snags but we don’t find any, and we aren’t able to get eyes on the F again, but continue to hear her calling as we get ready to leave. We decide that they probably had a nest failure, which is why the F has been moving around and accepting PDs off cavity for so long. We leave the area, heads hung. We did not find any new cavity trees on Lodgepole R.

## 24 June 2019

1450-1715—Flam Crew (-BL) peep out all remaining cavity trees of B19, B21, and B6. We find several new trees and find many on the ground. There are a handful of trees that could not be found and are presumed to be down given the sight of fallen trees in the area. We do not find a nest.

# B19—2020

## 16 June 2020

1500-1600—ES and AM cherry peep B19, starting with the past nest tree #94 and working our way S. **ES peeps a NOFL cavity in tree #1338 and sees two flam-like eggs along with a feather that looks like a flam body feather (however it’s hard to tell on monitor). One of the eggs appears to be slightly deformed and has debris on it.** There is no F FLOW in sight, and we can’t be sure this isn’t a NOFL nest.

# B20—2013

## 24 June 2013

1500—Flam Crew arrives at the B4 parking spot to peep B17 (including Columbine Cr, Sharp-

Shinned Hawk R, Dead Gravid Female (DGF) Creek, and cavity trees on N slope of Biker R).

~1645—**RC peeps B17\_1136 #1136 and finds a F FLOW down in the cavity bottom. Based**

**on listening observations on 20 June 2013 by AW, RC, and BDG, we think this is the**

**B20\_2013 nest (*a B17 M responded to our playback on Biker R to the NE-NW. This M also appeared to be calling from the S slope of Sharp-shinned Hawk R while AW was hiking up a spur of Sierra Madre and heard a second territorial M calling from the drainage bottom of Dead Gravity Female Cr.*  *AW was not able to pursue bird at the time due to a captured bat in the lure net. This second territorial bird was most likely B20 – a B17 M appears to be further E in Columbine Cr).* Nest tree is located approximately 150 m up Dead Gravid Female Creek from the confluence with Columbine Cr. Nest tree is a potr snag with a NOFL sized nest cavity which faces NE (down drainage). There is a second cavity on the tree which is lower and faces S (not the nest cavity). Nest height is ~43’2”.**

~1655—We continue peeping E of B20\_2013 nest along the Sierra Madre spur ridges in pursuit

of a B17 nest.

1730—We end peeping having found nothing.

2233—AW, RC, and BDG arrive at B20\_2013 nest tree with intent to capture M. AW approaches nest, and RC and BDG find places to silhouette from.

2242—Net in place.

Weather: Overcast, calm, 13C.

2244—AW and BDG see bird enter cavity. Thinking it is the M, AW places net against cavity, but no bird rises. Bird is assumed to have been F returning to nest.

2248—BDG leaves to listen in B17.

2310—F FSCs from cavity.

2313—F FSCs from cavity. M LCs in nest vicinity in response.

2314—PD attempt, aborted.

\*\*2315-2321—F must have flushed in this time. Neither AW nor RC witnessed the flush. Around 2320, a bird flew at about nest height by cavity, but all evidence pointed to this being the M, who had been perched and giving LCs in the tree behind the cavity

2321—F attempts to return to nest. We think it is the M and swing, but miss capture.

2322—**F enters cavity, net is placed over cavity, and F flushes into net. Immediately we hear M LCing in a nearby tree. F is lowered quickly, but is very tangled. Several cuts are made. F gives distressed calls in hand. She is unbanded, but we do not band her at this time because it takes us 11 minutes to remove her from the net and the status of her clutch is unknown.**

2331—**F released** without being banded, massed, or measured due to time constraints. She does not release for ~1min, but then makes a strong ascending flight NE. AW and RC back out of nest area.

2342—BDG returns without hearing any vocalizations in B17. We leave B20 to listen in W Columbine Cr, Sharp-shinned Hawk R, and W Missouri (B1 territory).

## 1 July 2013

~2320—BL and BDG arrive at B20\_2013 nest tree with the intent of capturing the M.

2332—We attempt a peep in order to confirm the nest cavity, but are unable to see the bottom of the cavity.

2337—M arrives and begins giving HECs from an adjacent tree.

2338—Net up at the height of the presumed nest cavity.

2340—M leaves nest area.

2359—M aborts PD well short of nest cavity.

2400—M aborts PD attempt and F begs.

2401—M flutters in front of the cavity.

2402—F flushes, it starts to rain and we take net away from nest cavity and lean against an adjacent tree.

2412—F begs and M makes a PD on cavity. F returned to cavity between 2402 and 2412.

~2417—Net back up, as light rain begins to dissipate.

2428—M aborts PD.

2429—M perches above cavity on trunk.

2430—F flushes.

2430—M makes PD to F off cavity.

2442—M gives HECs from tree adjacent to cavity tree.

2457—We leave.

## 2 July 2013

2054—BDG and BL arrive at the B20\_2013 nest tree to attempt capture of M. All quiet in the nest area, and no sign of the F at the cavity entrance.

2058—BDG assumes capture position at the nest tree. At this time, we hear the M give LC approximately 30 m down-drainage, and then we hear the F giving FSC from this vicinity as well.

Weather: Partly cloudy with cloud bank to the west, calm, ~ 12 C

2102—Adult (probably M) makes PD in the cavity.

2105—Same.

2106—Same.

2108—Same.

2111—**BDG captures M as he exits cavity, after he had followed the F into the cavity. M was banded previously, with Band # 1593-64679—this was the B1\_2009 and 2010 M! A secondary M has now been the territory holder in the B1 territory since 2011 (this being Band # 1593-64490), indicating that the now B20\_2013 M either dispersed from the B1 territory to the B20 territory, or that the B1 territory was usurped by its current occupant.**

**Band # 1593-64679** (on ? leg)

75.5 g LWC: 125 mm

- 22.0 g L5P: 98 mm

53.5 g L6P: 106 mm

Rect: 60 mm

No molt. We take blood for genetics and parasite screen (took both wings to get sufficient blood).

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 (50%) | 2 (50%) |
| P2 | 2 (50%) | 2 (50%) |
| P3 | 1 | 1.5 |
| P4 | 1 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 0.5 | 0.5 |
| P7 | 1 | 1.5 |
| P8 | 1 | 1.5 |
| P9 | 0.5 | 1 |
| P10 | 0 | 0 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1.5 |
| P4 | 1 | 1.5 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 1 | 2 |
| P8 | 1 | 2 |
| P9 | 2 | 2.5 |
| P10 | 2 | 2.5 |

2143—We release M—strong 10 m flight toward nest tree.

2153—We leave area.

## 3 July 2013

2235—CK and BL arrive at the B20\_2013 nest tree in an attempt to capture the B20\_2013 F.

2240—BL raises the net as CK spotlights this enormously high cavity (capture pole extended to 42’00”).

2247—We hear a M give TCs and TECs in the nest vicinity and spotlight the M flying around to adjacent perches in trees around the nest tree. M continues this behavior with no F response to M TCs. CK taps the nest tree with no F response.

2300—BL lowers the capture pole and we leave B20 to head over to the intersection of Fern Gulch road and Missouri Gulch road to meet the rest of the Flam crew.

## 8 July 2013

2036—AW and BDG arrive at the B20\_2013 nest intending to capture the F for the first time. F is up when we arrive.

2044—F flushes.

2047—PD.

2049—PD.

2050—PD.

2057—BDG has net in capture position.

2058—M aborts PD.

2059—M PD.

2059—PD.

2100—F PD.

2102—F PD. **F captured upon exit from nest cavity. She is previously unbanded.**

**Band # 1783-64411** (on L leg)

81.5 g LWC: 128 mm

- 29.0 g LLP(5): 103 mm

52.5 g LLP(6): 112 mm

Rect: 65 mm

Genetics/parasite smear obtained from R wing.

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 (50%) | 2 (50%) |
| P2 | 2 (50%) | 2 (50%) |
| P3 | 2 (50%) | 2 (50%) |
| P4 | 2.5 (40%) | 2.5 (40%) |
| P5 | 2.5 (40%) | 2.5 (40%) |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1.5 (with all wear on on thinner vein side) | 1.5 (with all wear on on thinner vein side) |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2136—F released with strong flight.

2145—**We peep and find at least 2 owlets, possibly 3, although it is unclear.** 2 nestlings have

their heads up (including the runt). There is a significant age discrepancy between the

eldest nestling and the runt. The eldest has well developed facial disks and full juvenile plumage. The runt is beginning to develop facial disks. Video is saved as B20 (8 July 2013). **Fledging date is presumed to be Friday 12 July 2013 (with a hatching date of 19 June 2013).**

## 12 July 2013

2033—AW and RC arrive at the B20\_2013 nest to fledge watch. Nestling comes up in entrance

at 2034, so we do not initially peep. We observe 88 PDs between 2033 and 2136.

During this time, a nestling was up in the entrance for a total of 36 minutes (nestling up between 2034-2050, 2051-2101, and 2104-2114). M and F were making similar amounts of PDs. F vocalized consistently at us, giving low intensity scolds. M was mostly quiet, with the exception of a few instances of TC/TECs. Fledging does not occur. **Refer to PD sheet for details on identity and time of PDs.**

2136—We end observation. **We peep and find at least 2 nestlings.** It is unclear if the third

nestling is under the two visible nestlings. We begin to look for a possible fledgling.

2158—We stop looking for possible fledgling. We were not scolded during this time and did not

find an owlet. **Based on observations of both the M and F making similar amounts of PDs and the fact that we weren’t scolded while looking for a possible fledgling, we assume the third nestling was buried under the visible two (it is a very narrow cavity and the cavity bottom has room for only 2 nestlings to be standing).** We leave.

## 13 July 2013

~2030—AW and LL arrive in B20\_2013 nest area with intention of determining if any fledging

has occurred, doing a fledge watch, and processing any fledglings we find.

~2032—We peep and there is only one nestling remaining in the cavity, so we must have missed two of the older nestlings fledging. Since AW and RC were only able to see two nestlings the night before, and assumed a third nestling was concealed under the others, the first nestling may have fledged the night before. Whether or not another nestling was concealed on 7/12, at least one fledgling (and possibly two) must have fledged between when AW and RC ended observation at 2158 on 7/12 and 2030, when we arrived.

AW immediately begins searching for fledglings in the vicinity of the nest, while LL keeps her eyes on the cavity in case the last nestling fledges. Since we didn’t want to miss another fledging, LL kept her eyes on the cavity the entire time and did not take notes on PDs.

~2040—LL hears owlet begs to the S that are not coming from the nest cavity. AW goes to

investigate.

2047—**AW finds a fledgling on the ground ~15m S of the nest tree**. She begins processing

the fledgling, while LL goes to search for the other missing fledgling.

**Fledgling Band # 1783-64437 (on R leg)**

90.0 g

- 35.5 g LLP(5): 69 mm

54.5 g LLP(6): 68 mm

Rect: 54.5 mm

Notes: Bled ? wing for genetics and parasite smear.

~2115—After placing the fledging in a psme to the S of the nest tree, AW joins LL in looking

and listening for another fledgling.

2215—After hearing and seeing nothing else, we leave.

## 15 July 2013

2030—AW and LL arrive at B20\_2013 intending to fledge watch. We peep and find the cavity   
empty. Our last peep on Saturday 13 July 2013 revealed one nestling still in the cavity. This means the last nestling fledged sometime after 2136 on Saturday (when LL and AW ended observation) and 2030 on Monday. We spread out and begin to search for fledgling.

~2040—AW hears begs from the S slope of Sierra Madre, directly N of nest tree. AW pursues

begging calls. The F begins scolding as I make my way up the slope. Fledgling goes

mostly silent as I approach upper slope of Sierra Madre. F continues to scold. Fledgling

gives intermittent begs.

2104—AW spots fledgling in a pipo snag, ~5 ft off the ground. **Fledgling is unbanded. Pipo**

snag is approximately 100 m N of nest tree on S slope of Sierra Madre, near ridgetop. It is clear based on F vocalizations that F is tending the fledgling.

**Band #: 1783-64416 (on L leg)**

82.0 g

- 29.5 g

52.5 g

P#5: 69 mm (25 in shaft)

P#6: 68 mm (22 in shaft)

Rect: 33 mm (12 in shaft)

Band#: 1783-64416

Notes: Bled R wing, obtained genetics and parasite smear.

Blacklight data:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 (75%) | 3 (75%) |
| P2 | 3 (75%) | 3 (75%) |
| P3 | 3 (75%) | 3 (75%) |
| P4 | 3 (75%) | 3 (75%) |
| P5 | 2 (25%) | 0 (porphyrin in shaft) |
| P6 | 0 (porphyrin in shaft) | 0 (porphyrin in shaft) |
| P7 | 0 (porphyrin in shaft) | 0 (porphyrin in shaft) |
| P8 | 0 (porphyrin in shaft) | 0 (porphyrin in shaft) |
| P9 | 0 (porphyrin in shaft) | 0 (porphyrin in shaft) |
| P10 | 0 (porphyrin in shaft) | 0 (porphyrin in shaft) |

2130—Fledgling placed in live psme adjacent to pipo snag he was found in. We continue

looking for the third and final unbanded fledgling.

2256—We leave after hearing nothing. Since 2130, LL and AW search ~120 m radius around nest tree, concentrating on the area W, S, and E of nest tree (since previous fledgling was found to the N and we did not hear any additional begs in the area while searching for and processing the owlets). We do not hear any begging or M vocalizations. **Based on our observations of the F tending the fledgling, a LP5=69 mm, and distance from nest tree, we assume this most recently banded fledgling was the runt and the last nestling to fledge. We have therefore missed the fledging of, most likely, the first owl who fledged prior to 12 July 2013.**

# B20—2014

## 6 June 2014

2345: JS and BL arrive in the vicinity of the B20\_2013 nest tree to tap cavity trees and listen for nesting vocalizations.

2415: Nothing found—we leave. As we are walking out toward Biker’s Ridge, BL observes a low-flying bird that crosses their path approximately 15 m upslope—a probable FLOW. After reaching Biker’s Ridge and walking ~ 100 m down the trail, we hear a M give TC ~ 20 m to the W of the trail. After we stop to listen, this M FLOW flies to our vicinity and perches ~ 4 m away on a low Psme branch, where he observes us for 1-2 min before flushing.

## 10 June 2014

~1530—Flam Crew arrives to peep B17/B20 territories. We spread out peeping Sharp-Shinned Hawk R, Columbine Cr, Sierra Madre, and Dead Gravid Female.

1649—**RC taps tree #194 and a female pops up. She goes down within two minutes. This is the B17\_2014 Nest Tree! The tree is an old full snag potr, 27.0 dbh that stands alone in the bottom of DGF Cr. ~10m up from the confluence with Columbine Cr. It is a NOFL cavity that faces due N ~35 ft. up.** We leave and continue to peep conifer cavities on Sierra Madre.

X: 494981

Y: 4333237

+/- 5m  
  
1715—We end peeping and leave B17/20 territories.

2230—MC and RC spread out along the upper slope of Fairy Slipper Cr to listen.

2308—MC hears M TCing ~300m down in the bottom of Fairy Slipper and gives chase.

2314—RC hears TCs from bird MC is on E-facing slope 100m S of MC from S spur of Sierra Madre R.

2333—LL, SY, JV, and RD start playback on SW top of Biker Ridge.

Vegetation: med-mature pipo/psme, open

Weather: mostly cloudy, slightest breeze, 13C

X: 494999

Y: 4332902

+/- 3m

2340—MC gives hoots ~150m from the confluence of Fairy Slipper and Beartorn Cr. M responds with possible HECS from ridge of side drainage ~100m from confluence. MC gets up on ridge and bird goes silent. A FLOW flies into a broken top psme ~10m from me and perches for ~2 minutes before giving four vocalizations that were possible scolds. They sounded like more drawn out TCs. I get **songpost B20\_1**. MC and RC tap trees in the drainage and find nothing.

X: 495045

Y: 4332458

+/- 3m

2346—A M comes into the net area from the N giving *intense* HECs. He continues to fly around net site giving TCs and HECs. ***Note: M’s HECs are extremely hoarse – almost no “tone” to them.***

2351—A silent bird is seen making two short flights N of the net while territorial M is still calling.

2354—SY does a net check and spots a bird perched next to or on the playback ~1m off the ground. Unfortunately, it flushes away from the net.

2358—RC hears a few TCs 60m E on upper W-facing slope from bottom of Fairy Slipper at point where ravine reforms in drainage bottom and side drainage enters from W (~100m N of confluence with Bear Torn Cr)

2401—SY, RD, and LL break off to listen for nesting vocalizations.

2415—LL hears a super hoarse M HEC from spur ridge just SE ~50m down slope. RD hears a few TCs NW of his position on a ridge off the N side of Sierra Madre, beginning about 100m W of lure net. Possible B17 male, as AW noted a male approaching her lure from SW on W end of sharp shinned shortly afterward.

2429—LL hears a M gives a few TCs ~30m SE of her position on spur ridge where.

2435—RD hears a single TC from NW, possibly B10 male as JKR has probable B17 male in hand, along w/ another unbanded silent M in net.

2445—JV hears a M gives three TCs from a spur of Sierra Madre to the W of the net.

2445—LL, SY, MC and RC head back towards the net from upper Fairyslipper Cr. MC and RC tap cavity trees on the way up from lower Fairy Slipper near confluence with Bear Torn. There are some good cavity trees in here, but we never see anything and hear nothing after 2358.

2450—Turn off playback and hike out.

## 21 July 2014

~1530—AW, BL, MC, RC, MP, and ER arrive in Fairy Slipper drainage to peep for a possible B20 nest. We begin on the Biker Trail, heading down Fairy Slipper. When we reach the confluence with Bear Torn, AW, MP, and ER work our ways S while RC and MC move N towards B12.

~1700—We end peeping and head back to the vehicles.

1717—**We peep the B12\_2014 nest tree to check if fledging has occurred.** The F is still on, and flushes as we raise the peeper. We peep and find both nestlings still in the cavity bottom. **Fledging has not yet occurred.** We leave.

# B20—2015

## 2 June 2015

2340—MC, LL and BH head S on Biker Tr into B20 with intention of listen and tapping for B20 nest.

2409—LL finally locates B20\_2013 nest cavity ~40ft up on tree B20\_1136 and sees eyeshine.

2410—A bird flushes from the cavity and hits a nearby psme, disappearing from our view. *The size and behavior of the bird seemed to indicate this was not a FLOW, but we were unable to get a positive ID one way or the other.* We back off up the ridge to listen and wait for bird to go back on.

2447—After hearing nothing, we return to the B20\_2013 nest tree and tap. No sign of any birds, FLOW or otherwise. MC, LL, and BH head to B17, tapping a few cavity trees as we go.

# B20—2016

## 14 June 2016

1700—While peeping up DGF Cr., **ER taps the B20\_2013 nest tree and a F FLOW rises to the entrance of the past nest cavity! This is the B20\_2016 nest! The tree is B17\_1136 and is located about 150m SE of the confluence of DGF Cr. and Columbine Cr. The tree is a potr snag with 24cm dbh, and the nest cavity faces NE (~45deg) and is about 40 high. The cavity is a large NOFL excavation,** and also looks to be slightly roughed up, as if a bear made an attempt to get into the cavity but lost interest.

1708—F descends into the cavity.

2243—BH and ER arrive in the B20\_2016 nest site to observe activity to get hints at phenology.

2254—M flies silently into the nest site and lands in potr within 10m of the nest tree. F begins giving FSCs on cavity. M makes a PD and flies to the W. (We can hear him scratch down the cavity).

2310—M gives a couple TCs about 80m N of the nest on top of the spur of Sierra Madre. F apparently gets excited an starts giving FSCs. M then gives one LC closer to the nest, then flies into the nest site and makes a PD.

2314—F gives a few more FSCs and M makes another PD. Having observed to a half hour, we leave to set up a lure net on Biker R.

~2345-2430—BH and ER face the worst tangled net ever and do not have a second net. We spend the next 45 minutes diligently untangling the net, cursing the faults of past users.

2430—We start PB on a spur of Biker R. SE of Dead Gravid Female Cr. just N of the western most head of Beartorn Cr. by cavity tree #536.

Vegetation: Mixed age pipo and psme.

Weather: Clear and Calm, 12.5C

X: 495258

Y: 4333021

+/- 6m

2440—PB off. We break down the net after hearing nothing.

## 21 June 2016

2246—As MC and BH are walking on Sierra Madre towards B20\_2016 we hear a M TC near cavity tree B12\_452. He gives two short bouts of TCs.

2255—BH and MC arrive at B20\_2016 with the intent of capturing the M at the nest. As we enter, M approaches site from NE giving HECs. F responds with FSCs from cavity.

2258—F flushes to potr snag ~5m N of nest tree and gives FSCs. M flies to F and gives a PD.

2300—F makes a long flight N, away from the nest tree. We leave site to allow F to come back on.

2328—BH and MC reenter B20 nest site to observe once more.

2331—The M comes in to the site and makes a PD.

2332—The M makes another PD to the cavity.

2334—The M makes another PD. MC starts his approach to the tree.

2342—MC gets capture pole to cavity height.

2427—After a long period of silence at the nest, F gives FSCs from cavity. M enters site quickly and gives a PD. MC swings, but the capture net is lower than the nest cavity.

2429-31—M gives HECs in nest site, F responds with incessant FSCs.

2435—M makes PD, MC swings but despite some readjustment, capture net is still slightly lower than the entrance cavity. *The net height should be around ~41 ft. 5in. if taken from ~4 ft. upslope of the tree.*

2436—F flushes, we leave B20.

## 29 June 2016

2105—BH and RC arrive at B20\_2016 nest tree to attempt M capture at the nest.

2106—M makes PD.

2110—2 FLOWs enter site from W. M gives very hoarse HECs and aggressively tail chases silent bird around site. One bird crashes into branches in the site. We suspect this is a UFO. Both birds fly W out of site after a few minutes.

2112—Two rapid PDs (either B20 M twice or M and F), and UFO makes a flight to perch in cavity entrance. M gives HECs, and UFO flies out of site.

2118—PD via approach in SW conifer.

2119—F makes PD from NW potr snag, and stays down.

2119-2132—M and F make 6 PDs (See PD sheet) Moments before each PD, the pair vocalized a good deal.

2132—RC begins capture approach, and proceeds to raise net to cavity height.

2135—F makes PD.

2136—M makes PD.

2142—F flies towards cavity but aborts, and retreats to NW potr.

2144—F makes PD and stays down in cavity for ~45 minutes.

~2146-2220— M makes 5 PDs, each time giving HECs and F responding with loud FSCs. RC swings and misses on each.

2128—M makes PD, RC swings and net gets snagged on bark. M escapes capture, and F flushes. We back out of site to allow F to return to the cavity.

2257—BH reenters site to observe.

2258—F flushes, and BH waits a few minutes to confirm her return to the nest.

2304—F flies to nest tree, retreats to NW potr for a moment, then returns down into nest cavity.

2307—BH and RC leave B20\_2016 to lure net for B20 and a potential B17 M.

2343—BH and RC start PB at lure on a W spur ridge of Sierra Madre R, ~120m N from B20\_2016 nest tree.

Vegetation: Open, young-mature pipo/psme/pifl

Weather: Mostly cloudy, light intermittent rain, 13.5C

X: 495096

Y: 4333169

+/- 12m

2346—FLOW begins giving TCs ~60m due N of us in Columbine Cr., from the direction of B17\_2015 nest tree. M rapidly approaches to within 20m of net site.

2349—M goes silent.

2405—RC leaves BH at net site on Sierra Madre R and drops N into Columbine Cr to tap and listen in B17.

2407—From mid N-facing slope of Sierra Madre spur, RC picks up B17 M giving TC/TECs on upper S-facing slope of Sharp-shinned Hawk R and pursues.

2409—BH switches PB to Megascops to lure in FLOW RC hears in Columbine Cr.

2410—RC runs into an encounter between 2 Ms on the top of Sharp-shinned Hawk R ~130m NNE of net site, presumably B17 and B1 Ms.

X: 495125

Y: 4333307

+/- 9m

2412—B20\_M enters Sierra Madre net site from ESE giving HECs on top of the PB.

2414—One M on Sharp-shinned goes quickly silent and second continues TCing for a moment on R top before backing off N toward B1. A silent bird makes a low, flappy flight after calling M as he backs off.

2415—BH has B20 M in net site, giving HECs and swooping around. A second FLOW approaches net site from N giving TCs/TECs. Based on location, we presume this is a B17 M.

2416—MC picks up TCs from B1 M briefly from his net site on Cooper’s Hawk R.

2417—RC hears TCs 15m N of R top on Sharp-shinned, likely the B1 M returning to area of encounter. This M apparently never crosses to S side of Sharp-shinned, and MC and RC both hear him TCing shortly thereafter near mouth of Fallen Squirrel Cr. *This behavior matches well with observations of movements by B1 M on 6/21/16 by BL at B1\_2016 nest and ER, who was netting on Sharp-shinned Hawk R.* Presumed B17\_M flies E and gives HECs ~15m from PB, while B20\_M goes silent.

2422—B17\_M goes silent. RC picks him up intermittently in time before PB off near the confluence of Columbine Cr and DGF Cr. RC taps B17\_2015 nest tree and next potr down dr (area where M initially approached net site from), but finds no FLOWs.

2425—B20\_M reenters site from ESE giving TECs, makes a short flight W of the net, and gives quiet TECs before going silent.

2439—RC meets BH at net.

2440—PB off, and we begin net breakdown.

## 6 July 2016

2032—BH and ER arrive in the B20\_2016 nest site with the intent to capture the F, peep the nest, and possibly capture the M depending on the peep. F is down in the cavity upon arrival. BH begins approach with the capture pole.

2044—Capture net is raised to cavity height and placed over the entrance.

2047—**The F flushes into the capture bag. She is banded as the B11\_2015 F!** *This confirms the presence of both the B11 M and F within the study area, in separate territories as the M was captured at the B10\_2016 nest. This represents a breeding dispersal by the F and a breeding dispersal or territory expansion by the M.* **Peep reveals three Ns all in gray. Two have their heads raised towards the camera and have gray on their faces but no signs of a facial disk. The third is face down in the cavity. All have some amount of white natal down still attached to the juvenile plumage, but in a spectrum of intensity.**

**Band # 1833-03281 (on R leg)**

2053—F is release with a SAF W. Just before releasing the F, a Northern Goshawk lands is a snag about 15m from the B20 nest tree.

2107—The F gives SCs within 10m of the NOGO, and subsequently flies under the NOGO’s perch. Silly bird.

2114—The F gives FSC about 25m SW of the nest tree.

2115—Goshawk flies N out of nest site. Soon after, B20\_M approaches nest tree giving LCs, and makes a PD to the cavity.

2116-2132—We see the pair make 13 PDs to the nest cavity (See Prey Delivery sheet).

2124—ER approaches tree with capture net and begins raising it to cavity height **(41’6”)** via a stance 2 m E on the low slope.

2127—ER swings and captures FLOW on a PD, but the bird escapes the net after a few moments.

2132—**ER captures FLOW on a PD!** The Flam makes raspy high pitched calls as we struggle to disentangle net from the tree and lower it. **The M was originally banded as the B17\_2014 M.**

**Band # 1783-64513 (on R leg)**

78.5 g LWC: 131 mm

- 29.5 g LLP(5): 94 mm

49.0 g LLP(6): 106 mm

Rect: 68 mm

**Notes:** *We did not take a blood sample, as M was bled in June 2014.*

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 2.5 |
| P3 | 2.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 0.5 | 1 |
| P7 | 1 | 1 |
| P8 | 0.5 | 1 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Note:** *RP3 is considerably shorter (82 mm) and appears dull under blacklight.*

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 1.5 | 3 |
| P5 | 3 | 3 |
| P6 | 1.5 | 1.5 |
| P7 | 3 | 2.5 |
| P8 | 2.5 | 1.5 |
| P9 | 2.5 | 1 |
| P10 | 2 | 1 |

2211—FLOW released, SAF SW. We leave to meet up with past vets Dakin, Connor, and Kiersten to head to B5 for listening and an attempt F capture.

## 12 July 2016

2045—ER and KM arrive in the B20\_2016 nest site to capture the F and obtain a blood sample. F appears down in the cavity, so ER immediately makes her approach.

2047—ER has the net at height. The F has not come up in the cavity, and we hear both the M and F calling off cavity.

2053—An unknown bird makes a PD and ER snags the parent. It turns out to be the B20\_2016 M, so we confirm his band number and hold him while we try capture the F. KM backs off and ER resumes capture efforts, targeting the F.

2102—The F makes a PD as ER raises the net. The capture net briefly snags on a nearby pipo, but ER quickly detangles the net from the branch.

2103-2107—The F makes a couple more PDs while ER gets the net into a effective swinging position.

2108—The F makes another PD, and ER snags her on her retreat. **She is the B20\_2016 F.** We back off site to free her from the net and process her. The untangling process proves a difficult task and takes a few snips of the capture net.

2125—We completely free the F from the capture net and begin processing her.

**Band # 1833-03281 (on R leg)**

80.5 g LWC: 130 mm

- 29.0 g LLP(5): 97 mm

51.5 g LLP(6): 107 mm

Rect: 62 mm

**Notes: We bleed her on her L wing and no hematoma occurs. LP1 and RP1 are in molt; LP1 is 40mm, 16mm in shaft, and RP1 is 39mm, 16mm in shaft.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | -- | -- |
| P2 | 2.5 | 2.5 |
| P3 | 2.5 | 2.5 |
| P4 | 2 | 2 |
| P5 | 2 | 2 |
| P6 | 2 | 2 |
| P7 | 1 | 1.5 |
| P8 | 1 | 1 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | -- | -- |
| P2 | .5 | 1 |
| P3 | .5 | 1 |
| P4 | 1 | .5 |
| P5 | 1 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2 | 1.5 |
| P10 | 1.5 | 1.5 |

2146—KM releases the F, who makes a SAF to the NW. We leave the site and head to Sharp-shinned Rdg to set up a lure net and listen in the confluence of Columbine and Missouri.We peep by tying a peeper to the capture pole as our peeper Hastings pole is dysfunctional above 40’. **Peep reveals at least two Ns all in gray juvenile plumage. The younger has a white face and a good amount of white natal down on the head. The elder has the beginnings of gray coming in on the face, but no obvious facial disk.** *This is in contrast with the peep on 6/6/16, revealing three Ns with gray on the face.*

## 18 July 2016

2257—BH and BL arrive at the B20\_2016 nest to assess status of fledging. Owlet perched in cavity entrance when we arrive, with its body position breaking the plane of the entrance, and giving begging calls regularly. **NOTE:** We both hear what sounds like a 2nd owlet giving sporadic begging calls from the bottom of the cavity until we attempt peeping at 2330. Weather: Overcast skies starting to break up after periods of rain in early evening (moon poking through), calm, ~ 15 C.

2313—Adult makes silent PD at cavity entrance.

2316—Same.

2322—Same.

2330—**BH attempts to peep cavity with owlet in cavity entrance, and in the process of edging the camera ever closer to the cavity, the owlet fledges—**it shows a strong (for a fledgling), 45-angle flight that takes it ~15 m N of the nest, where it makes contact with PSME foliage ~ 5 m above ground. BL locates the fledgling on the ground in this vicinity a few minutes later. BH subsequently peeps the cavity, showing a 2nd owlet in the cavity bottom, in all grey juvenal plumage and the outlines of a strong facial disc.

2340—We proceed to process the fledgling.

**Band # 1783-74325 (on L leg)**

66.0 g

- 7.5 g LLP(5): 70 mm

58.5 g LLP(6): 71 mm

Rect: 26 mm

**Notes: Blood sample taken on L wing.** *Given his advanced primary measures, BL surmised that the owlet may well have fledged in the early evening if not for rain, and given his propensity for leaning out of the cavity entrance prior to our peeping, he may have gone on his own before dawn.*

2358—We place the fledgling on a 2 m high twig next to the trunk of the young PSME where he made contact on his maiden flight.

2403—We leave.

## 19 July 2016

2028—MC and KM arrive at B20\_2016 to watch for fledging. There is a nestling in the entrance when we arrive. The nestling and a fledgling off cavity begin begging.

2037—**The nestling fledges!** He jumps ~10m SW into a psme ~35ft. off the ground. A couple of peeper inspired secondary flights later and he is on the ground**74311 (on R leg)**

81.0 g LWC: XXX mm

- 24.0 g LLP(5): 73 mm

57.0 g LLP(6): 72 mm

Rect: 33 mm

**Notes: We take a genetic blood sample from the L wing.**

2054—As we are processing the new fledgling MC finds the elder fledgling, likely where BL placed it last night.

**Band # 1783-74325 (on L leg)**

80.0 g LWC: XXX mm

- 24.0 g LLP(5): 74 mm

56.0 g LLP(6): 75 mm

Rect: 36 mm

2103—We place both young in a tree. A peep confirms that there have only ever been two owlets in this tree. We leave.

# B20—2017

## 5 June 2017

Afternoon—We cherry peep the few nice cavities in DGF drainage including the B20\_2016 nest.

## 8 June 2017

2120—ZM, JE, and MC drop down the S slope of Sharpshinned Hawk R and meet at the confluence of Columbine and DGF. JE listens in the area of the confluence and slightly S, up into DGF. ZM listens about 50m down drainage of confluence. MC continues down drainage to the confluence of Columbine and W Missouri. Marked cavity trees are observed and tapped.

2128—M gives what sound like LCs ~50m N up W. Missouri Cr, MC gives chase. In the approximate location of the LCs I hear one more TC and then ~2 minutes later there a ~3 TCs on the W terminus of Sharpshinned Ridge.

2141—While in DGF, JE hears a M calling from the NE, just upslope on Sierra Madre. The M approaches and is heard giving TCs or LCs just above. The M is then heard across DGF so JE chases. The M is then heard back from the NE, somewhere up the Columbine drainage.

2144—After JE’s observed TCs up drainage, ZM heads back up towards the confluence and hears 1 TC on Sharpshinned R just N of the confluence.

2147—ZM and JE both hear a few TCs on Sierra Madre R just E of confluence.

2148—MC moves up to the confluence of W Missouri and Homestead and taps a few trees.

2151—ZM and JE hear 3 TCs and 1 TEC on Sierra Madre R just E of confluence.

2202—ZM hears a few TCs ~150m N on Sharpshinned R.

2207—MC returns back to the confluence of Columbine and W. Missouri Cr. I hear two LCs ~20m S. As I tap tree #1572 I hear an FSC ~5m SW of me. **I turn and see a F in the entrance of a cavity on a flagged tree just down drainage. This is likely the B10\_2017 nest! The tree is just S of the confluence of Columbine Cr. and W. Missouri Cr, along the dry creek bed of Columbine creek and only a few meters from W. Missouri Cr. It is a full and newly dead potr. The Cavity is SW of Tree #1572 and #1050, two live potrs in the confluence, but I do not get the tree number of the nest tree, it is flagged. The cavity is a freshly bear torn cavity ~20ft. high and faces W.**

2210—The M is in the site giving LCs. He makes a PD to the cavity. The F remains in the entrance and I leave.

2232—ZM, JE, and MC meet in the confluence of DGF and Columbine and start a PB.

2250—After eliciting no response, we stop the PB and start walking up DGF.

~2300—ZM, JE, and MC tap cavity trees in DGF and find nothing. We head up Sierra Madre R.

2315—We start PB aimed E/NE targeting A17 and A20.

2320—We hear TCs to the SE down into DGF. We immediately start putting up a lure net.

~2325—Our net is up on the upper slope of Sierra Madre R S of Columbine. Our net is open to the N and S.

Vegetation: Mixed psme and pipo

Weather: Clear, calm, 12C

X: 495157

Y: 4333151

+/- 3m

2327—We switch the PB to HECs and hear responding TCs and TECs S of net down S of Sierra Madre R.

2329—We switch the PB back to TCs/TECs.

~2331—We have the FLOW in the fourth shelf of the net. He is a banded male.

2333—The male has escaped the net and we continue the PB with the net up with the aim of recapturing. The male stops responding to the PB within a couple of min.

2403—We stop the PB and take down the net after not hearing the male respond. We head back on Biker R back to car.

**19 June 2017**

*The following account represents one lure net effort on Sharpshinned Hawk R starting at 2205, and a second listening effort in B20 on Sierra Madre and DGF Cr by ES and ER starting at 2320.*

2040—LD and KM leave B8 territory to join ZM and BL to attempt B17\_2017 M FLOW capture with capture pole, B1/B10/B17 lure net capture, and B10\_2017 M FLOW capture pole.

2205—PB started on W side of Sharpshinned Hawk R. Net opens E/W with young psme trees as targets.

Vegetation: Mixed psme, mature pipo

Weather: Clear, calm, 13C

X: 495063

Y: 4333324

+/- 3m

2206—M FLOW responds to PB 60m+ SE of lure net giving TCs, presumed B17\_2017 M, possibly B20\_2017 M.

2208—Second M FLOW responds to PB roughly 60m W of lure net giving TCs, presumed B10\_2017 M.

2214—Third M FLOW responds to PB N of net location roughly 30m giving TECs, presumed B1\_2017 M.

2216—LD moves towards net to change to MEGA and to move PB around to further draw territorial M FLOW into net.

2218—M captured in net, territorial M came from W of net into 1st level. Possibly B1\_2017 M or B10\_2017 M.

2220—M escapes net prior to capture

2223—LD restarts PB after capture

2225—Bat is captured in net, LD turns off PB in an attempt to untangle bat

2226—ZM joins LD at net site

2227—PB restarted

2230—All 3 M FLOW resume vocalizing at roughly same time

2250—2 M FLOW within 20m of net from the S side of the net. Presumed to be B17\_2017 M and B10\_2017 M FLOW

2255—M FLOW vocalizations stop

2311—M FLOW starts giving TCs from S, stopped after giving a couple TCs

2318—M vocalizing from SSW, could have been B10\_2017 M or B17\_2017

2320—ES and ER arrive in B20 to listen for territorial behavior or nesting vocalizations. ES starts listening on Sierra Madre R just NE of DGF Cr. ER begins listening on the nose of the same ridge and at the confluence of DGF and Columbine Cr. During our listening time, we cover most of the extent of DGF up to the B20\_2016 nest area and the few cavity trees further up drainage. *During out listening time, LD and ZM have a lure net going on Sharpshinned R and possibly have the B20 M hanging around their net.*

2323—M stops vocalizing

2325—M begins vocalizing with TCs from N, presumed B1\_2017 M

2326—M from N stops vocalizing

2330—M begins vocalizing from NE of net, presume B1\_2017 M, potentially B4\_2017 M

2336—**FLOW flies into 3rd shelf from W of nest previously unbanded bird**

2340—KM and JE arrive to assist with the tagging of the captured FLOW

2354—Newly banded FLOW released with a strong ascending flight towards the SE leaving a mint chocolate surprise.

2359—PB restarted after release of bird.

2404—After hearing no signs of FLOW activity around DGF and the surrounding ridges, ES and ER start PB to attempt to solicit a response. We start on the nose of the ridge NE of DGF Cr, and move up to the Biker Trail and down the more W ridge of DGF.

2406—M gives TC 150m+ to S of lure net, potentially B20\_2017, B17\_2017, or B10\_2017 M FLOWs

2410—M approaches net, LD switches PB to MEGA

2424—M from S gives HECs immediately but switches to TEC shortly after, KM switches PB to MEGA; bird moves closes, ~10m SW of net.

2429—M stops vocalizing.

0103—Stopped PB and to take down lure net.

0105—After a silent night in B20, ES and ER turn off PB and head back down the Biker Trail to meet Flam Crew.

**Band # 1833-03575 (on L leg)**

94.0 g

- 31.0 g

63.0 g

## 13 July 2017

2340—ES begins PB at a lure net on the ridgetop of an eastern spur of Biker Trail R, about 100m S of Sharpshinned Hawk R. The lure net is 30 m E of Biker Trail. I hope to draw in the B12, B17, and/or B20 M in the little time I have.

Vegetation: young-mature pipo/psme

Weather: partly cloudy, calm, 15C

X: 495290

Y: 4333012

+/- 3m

2405—A bird gives TCs from a perch about 30m N of the lure net toward Biker Trail. It is unclear which territory this bird could have come from. The M gives TCs for 30 seconds before going silent. I walk the PB in that direction but get no response.

2410—Kill PB and leave the area.

# B20—2018

## 05 June 2018

2147—AM and BL arrive in B17 territory along Sharp-shinned Hawk Ridge to listen and lure net. AM heads E along Sharp-shinned Hawk Ridge to listen near the B17\_2017 nest site, while BL goes S and listens near past nest sites in Columbine Cr.

2203—AM hears M TCs S of Sharp-shinned Hawk Ridge on N-facing slope of Sierra Madre Ridge, presumably the B20\_2018 M.

2224—AM hears M TCs distant to the N, potentially on S facing slope on opposite side of W Missouri Cr, presumably the B1\_2018 M.

2227—AM again hears M TCs 100m S along Sierra Madre Ridge.

2304—PB starts, playing T42. Net is located 100m E of W terminus of Sharp-shinned Hawk Ridge along the ridgeline, net open E-W.

Vegetation: open, mature pipo/psme stand.

Weather: 15.0 C, 10% cloud cover, no wind.

X: 494998

Y: 4333317

+/- 3m

2315-2345: BL leaves to listen in B20 territory, particularly near the vicinity of the B20\_2016 nest tree near the head of DGF Cr. BL taps on the past nest tree upon arrival—something appeared briefly in the entrance but cavity height (40+ ft) made it unclear what animal it was. B20 M heard giving TCs continuously from the S rim of Columbine Cr during this time period.

2319-2359—AM hears M TCs and occasional TECs from SE along Sierra Madre Ridge in B20 territory. M never gets closer than 100m away.

2400—PB is stopped. We leave.

## 21 June 2018

~2035—JE, KM, and KA arrive at A20 territory to listen, tap and lure net.

2045—We tap A20\_2016 nest tree and surrounding cavity trees, nothing found, all quiet.

2047—We split up to listen. KA stays near SE origin of Dead Gravid Female Cr, JE goes towards confluence with Columbine Cr, KM goes NW further down drainage. As walking, KM tells JE to find the goshawk nest, looks up and immediately spots the goshawk perched.

2131—While in Columbine Cr near the B17\_2012 nest, JE hears a M calling down drainage, but potentially also SW on the slope or ridge. It was either very distant or soft calling, and because of the faster cadence (calls ~2x as fast as typical TCs) it is unclear whether they were TCs or LCs. JE tries to chase down drainage, but after ~1 minute, M is silent.

2200—All quiet, so we leave area to lure net.

2230—PB starts of T42. Net located on ridgeline of Sierra Madre Ridge that extends between Columbine Cr and Dead Gravid Female Cr, ~150 m from Biker Trail on Biker Ridge. Net open N/S.

Vegetation: Open, mixed age piar, pipo forest.

Weather: Windy, clear, 15 C

X: 495183

Y: 4333131

+/- 3m

2238—KM heads back to DGF drainage to listen

2245—JE joins KM to listen and re-tap B20\_2016 nest tree.

2259—JE and KA swap positions.

2233—All quiet at the lure net and in DGF drainage, so we stop PB, pack up, and leave the site.

**28 June 2018**

~1620-1700—Flam crew begins full peep of B20 territory. We peep out most cavity trees close to Biker R and at the head of DGF.

~1645—**DL peeps the B20\_2016 nest cavity (tree #1136) to find a single suspicious-looking round, white egg. She takes a photo. It might be too elliptical to be a FLOW egg, but we will keep this information in mind moving forward. BL thinks that it is likely a NOFL nest.** Around the same time KM, KA, and DL locate the Goshawk nest that we suspected was in the area. It is in the drainage bottom of DGF in a pipo snag, less than 20m NE of tree #1136, and there is one nestling in all-white down.

~1700—As we are leaving the area, DL finds a FLOW primary feather on the ground ~50 m upslope from the Goshawk nest. It is unlikely that the Goshawk predated the F FLOW before her clutch was finished, but our imaginations are running wild as we hike back to the vehicles. We did not find a confirmed FLOW nest today.

# B20—2019

## 10 June 2019

1531—ES, AM, SL, BL, ON, and ML arrive in B17 territory to tap and cherry peep historic nests and surrounding cavity trees with the intent of locating a B17 FLOW nest. We specifically targeted past nest trees: B17\_2011 (#195), B17\_2005 & 2017 (#614) and the B17\_2018 nest tree, as well as past nest trees in lower Columbine Cr.

1545—We descended Sharp-shinned Ridge into Columbine drainage to cherry peep past nest, tree #195, and surrounding cavities. No nests are found.

1600—We then work our way up Dead Gravid Female drainage to tap and cherry peep cavity trees in the B20 territory. Past nest tree #1136 has fallen. No nests are found.

1630—ES and SL work up the E slope of Biker Ridge to peep cavity trees and AM goes to tap and peep the B17\_2018 cavity tree.

1715—ES, AM and SL leave B17 territory, no nests were found.

# B21—2014

## 28 May 2014

1530—Flam crew arrives in E Missouri Creek with purpose of peeping B6/19/8/7 territories. BL, AW, RD, and MP begin peeping at the southern end of B7 and proceed N while SY, LL, RC, JS, and ER begin peeping at the B6 parking area and proceed N.

1730—End peeping having found nothing.

2055—RC, LL, and JS arrive at B6 parking area to lure net. Net is set up <5m W of road in stand of small potr across from parking area.

**Vegetation**: young pipo/potr stand with some mature pipo/psme nearby, open.

**Weather**: 10.5C, partly cloudy early but quickly clearing, very slight breeze.

X: 0496173

Y: 4333309

+/- 3m

2120—PB begin.

2126—M approaches net area quickly from W side, giving TC/TEC/HECs. Wing flaps heard. **M in net, 3rd shelf from W side. Previously banded. This was the B5\_2012 floater. *Note: This is NOT the B19\_2014 M captured at the nest tree on 20 June 2014 or the B6\_2014 M. This territorial M may be the B8 M coming N in response to playback or may represent an additional territory in this area. Note: later capture of this M confirms his identity as the territory holder in a new territory, B21, located between B19 (to S) and B6 (to N).***

**Band # 1783-64322** (on R leg)

71.0 g LWC: 138 mm

- 16.0 g LLP(5): 99 mm

55.0 g LLP(6): 109 mm

Rect: 59 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0 | 0 |
| P5 | 0 | 0 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 1.0 | 1.0 |
| P10 | 1.0 | 1.0 |

Note: Large hematoma after bleed.

2157—M released. Strong ascending flight NW to potr perch 7m up.

2202—TCs heard 50m E of net toward Missouri Cr drainage.

2206—M makes long flight from drainage to net site. Brief TCs in net vicinity. Wing flaps heard, but net empty upon check. M resumes TCing momentarily back 40-50m E in drainage. M goes silent within 5 min.

2230—All silent at net. LL stays while RC and JS spread out in B6 portion of Miss. Cr drainage to tap and listen. Nothing seen or heard.

2255—M TC/TECing in net vicinity. 2nd M TCing distantly S down drainage.

2300—RC and JS return. M TC/TECing in net vicinity, mostly sedentary.

2302—2nd bird still TCing distantly to S. M in net vicinity goes silent.

2307—PB off. We break down. All silent.

2327—We split up to spot map in Miss. Cr drainage. We move S from parking area first into B19 area. JS heads ~100m down drainage, LL stays in potrs just SE of parking area, RC goes NW and then N of parking area.

2335—RC hears TCs distantly to S from net area. Neither JS nor LL hear bird.

2340—RC hears brief TCs in drainage 50m E of parking area as well as southern bird and pursues, but TCs stop quickly and go silent.

2344—JS hears flush above head from low branch of pipo near B6 and B19 border, 10m from marked songpost. Bird flies E.

2400—JS, RC and LL move up into B6 proper to listen.

2417—Brief TCs heard 80-100m N of parking area in drainage bottom, but lost quickly.

2419—LL hears brief TCs again in same area with possible FSCs simultaneously.

2431—M TCs ~100-120m N of parking area.

0100—We leave.

## 27 June 2014

~2120—AW and RB spread out between the B6 parking area and the southern end of the B6 aspen flat to listen for nesting vocalizations. **Earlier this season, LL and RC captured a FLOW that was territorial just W of the B6 parking spot who is NOT the B19, B8, or B6 Ms. We are attempting to figure out whether this unaccounted for territorial M may have a nest in between B19 and B6.**

~2130—While listening on the low slope of Lodgepole R, AW possibly hears LCs to her W. When SY radios us to meet back at the vehicles, AW sees RB in the vicinity where she heard possible LCs. AW asks RB if he heard any vocalizations and just as he says that he hadn’t, we hear a F FSC! **AW approaches the drainage bottom (vicinity of where the FSC was heard) and silhouettes a FLOW fly to a potr. I spotlight the tree and find a cavity near the top just as a FLOW flies into it and gives a PD. This is a new territory! The territory ID will be B21 and this is the B21\_2014 nest! Nest tree is previously enumerated and is B6\_1268 #1268. It is a full potr snag located in the drainage bottom on the W side of the creek, ~150 m N of the B6 parking spot. Nest cavity is ~2’ below the lowest snag branch. Nest cavity faces N-NE and is a little smaller than a NOFL sized excavation. Nest height is approximately 27.5’.** We leave after taking notes.

## 29 June 2014

2045—MC and AW arrive at B21\_2014 nest with intent to capture the male.

2050—AW starts to get the net up to attempt capture the M on his first PDs but the F flushes before he gives any. We peep. **Peep reveals 3 nestlings. 2 are upright and moving, one is face down and motionless.** We back off to let the f back on.

Weather: Clear, calm, 19C

2140—We observe 19 PDs from the time we backed off, some where both adults were in the site at the same time. The last confirmed time that the F was off was 2125 and due to the apparent age of the nestlings we assume that F should be back on by now so we put the net up.

2153—Two birds enter the site. F gives scolds from off cavity, apparently never having gone back on. M gives hoarse calls. We leave for BG6.

## 30 June 2014

2023—AW and RD arrive at B21\_2014 nest site intending to capture the F on flush and later the M on PD.

Weather: calm, clear, 21C

2035—RD approaches nest w/ capture pole.

2046—While RD is getting net in place, F flushes and is not captured. M came into nest site just prior to this giving LCs and she flushed immediately after.

2050—**We peep and find 3 nestlings.** Two nestlings have their heads down while one has its head up. All three nestlings are in white natal down. Eyes are closed on the nestling with its head raised, but due to the fact that the F was making significant amounts of PDs, I suspect the nestling is at an age that the eyes could open without the peeper light. **Nestlings look to be about 5-6 days old.** *Note: nest cavity is very deep and judging age is difficult because I could not see nestlings in much detail.*

~2051—M makes PD to nestlings.

2053—RD and AW retreat 30m down drainage after F dodged the capture net to allow M and F pair time to make a few PDs before AW gets capture net up again.

~2100—AW returns to nest to attempt to capture F on a PD. RD spotlights from across the creek.

2105—M gives a PD to F off nest. AW has capture net at cavity height.

2106—Both birds deliver PDs to nestlings.

2107—Likely the M, though it is unclear, bounced out of the top of the capture net, AW having placed it over the cavity while the two were delivering PDs. RD only observed one bird flush out of the cavity.

2115—M delivers PD off nest to F, showing both birds likely flushed during the ruckus of the capture attempt, as RD did not observe bird flushing subsequently.

2116—Both birds make PDs to nestlings. One bird, likely F, remains in the cavity.

2127—M makes a flutter wary of AW’s net, then enters the cavity for a successful PD shortly after.

2129—F flushed on her own volition.

2133—M or F PD to nest.

2139—PD abort/ really quick PD, no chance to attempt capture.

2142—PD, F seems to have gotten back on the nest.

2146—PD by M, escapes out of the top of the net once again.

2151—F flushes on her own once again.

2154—**AW makes a successful snag on the B21\_2014 M, who had a bit of a rough ride on his way down – M was not deep in net and was hanging by his captured feet as we lowered him down. M vocalized in hand.** **He is previously banded, with Band # 1783-64322—he was originally captured as a presumed floater in B5 in 2012 on the W slope of Grave R. He was also captured this year by LL/RC near the B6 parking spot as a territorial bird. This is another instance of a M progressing from floater to territory holder in a nearby territory.** We do not take blood because it was taken earlier this year.

**Band # 1783-64322 (on R leg)**

75.0 g LWC: 137 mm

- 22.0 g LLP(5): 99 mm

53.0 g LLP(6): 108 mm

Rect: 61 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 2 |
| P2 | 1.5 | 2 |
| P3 | 2 | 2 |
| P4 | 2 | 2 |
| P5 | 1.5 | 1.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 1 | 1 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 1 |
| P2 | 0.5 | 1 |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | 1 | 1.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

2211—RD releases M, strong ascending flight to the NE, AW returns to attempt F capture on a PD.

2219—F giving FSCs off nest.

2226—F PD, AW misses capture. M makes a flutter quickly afterward.

2230—M makes a flutter.

2231—AW captures M for a second time after a successful PD.

2237—M released, strong ascending flight to the S. AW gets the capture pole in position.

2245—M PD to F, F giving FSCs off nest.

2255—Both birds make PD to nest, AW misses capture on one bird flying out of the nest. F probably remains in cavity. AW keeps capture pole in front of cavity until 2313 when M comes in to make a PD.

2313—M makes a PD, AW takes down net and we prepare to meet SY and JS to drive out to W Missouri. F has not been off cavity since 2255.

## 2 July 2014

2024—AW and MP arrive at the B21\_2014 nest intending to capture F on flush.

Weather: calm, clear, 15C

2030—MP approaches nest tree for F capture.

2034—MP has capture net in place.

2046—M calls off roost to S, ~50m.

2049—**F flushes and is captured. She is previously banded, with Band # 1593-64879. She was originally captured in a lure net in B6 in 2012. In 2013 she was the breeding F at the B12\_2013 nest.** *Predation occurred at the B6\_2012 nest and we never captured the F there. It is possible this F was either the 2012 nesting F (who failed and was still associated with B6) or was a prospecting F in B6. In either case, she bred in B12 in 2013 and then apparently returned to B6.* Blood was obtained in 2013, so we measure and blacklight only.

**Band # 1593-64879 (on L leg)**

94.5 g LWC: 129 mm

- 37.0 g LLP(5): 100 mm

57.5 g LLP(6): 110 mm

Rect: 57 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

2107—F released with strong flight to the E.

2108—**We peep and find 3 nestlings. All 3 are in light grey downy plumage. There is no evidence of black juvenile plumage. All 3 nestlings are standing and have their eyes open. They are active and appear to be about 9 days old. This is consistent with our estimate hatch date of 6/22±1 day.** We leave.

## 9 July 2014

0112—AW and JS arrive at B21\_2014 nest to peep to gauge nestling progress.

Weather: partly cloudy, slight wind, 11C

**We peep: 2 nestlings. AW does not believe they are as old as previously predicted. Natal down is still present on 1 head that we could see. The cavity is deep and angles at its base making it difficult to see. We estimate the owlet to be 15 days. Our previous hatch date of 6/22±1 may be a little early and hatching should be changed to 6/23±1 to reflect our observations.**

0114—We leave.

## 16 July 2014

2110—AW and JS arrive at B21\_2014 nest to fledge watch/check status of the nest. **We peep: 2 nestlings, 1 very dark gray juvenile plumage with head down, the other slightly less dark but facial disks present with head looking at the camera. *This peep indicates that there is one nestling not accounted for.*** We step back to get a silhouette of the cavity and to listen for parental or fledgling cues.

2116—JS and AW hear high-pitched chirps, possible fledgling vocalizations off cavity, directly N of the nest ~15m. AW goes to investigate.

2124—AW hears wing flaps and now has eyes on a prey laden FLOW (unclear whether it is the M or F because no vocalizations were made) perched in a large pipo in the same vicinity that we heard the fledgling, ~10 m N of the nest.

2143—AW and JS continue to look/listen for the fledgling in that general area, AW hears a clear single beg head-height still N of the nest ~15m. We carefully pursue.

~2155—Rain picks up and we sit under a nearby pipu to wait it out.

Weather: consistent light rain with heavier waves passing through, slight wind, 11C

2150—We leave after searching hard, joined by SY and RD. **We peep one more time to ensure fledgling did not happen while we were search. We definitively see 1 nestling (who appears to be the elder). Cavity is very deep and there is somewhat of an overhanging ledge preventing viewing of entire cavity. We suspect runt is still in the cavity, but is just not visible.** Nothing more is heard. We leave.

*Note: It is assumed that the first fledgling went the day before due to distance traveled from the nest and weather that night. We predict with no PDs witnessed and their characteristics seen when peeping, that at least one of the two remaining nestlings will go the following night if conditions permit.*

## 17 July 2014

2104—JS, RD, and AW arrive at the B21\_2014 nest intending to search out/ watch for fledglings. **Peep reveals B21 nest cavity to be empty**. The remaining 2 nestlings have fledged since our previous visit on 16 July. AW and JS spread out on W bank and RD stays on the E bank to listen for nestling vocalizations.

2106—AW and JS hear begs W of nest.

~2115—JS spots M on potr snag adjacent to nest tree, he makes a flutter to the nest tree then flies off down drainage. RD attempts to follow him but loses him promptly.

2120—AW hears begs ~5m SE of nest in willow (SASP) thicket. AW calls over RD to E side of thicket to help listen, nestling gives another beg and RD is able to spot him ~2m off the ground perched in the SASP. RD pulls the nestling out of the thicket and AW joins to help process the little dude. **Fledgling found.**

**Band # 1783-64554 (on R leg)**

49.5 g

P#5: 60 mm (18 in shaft)

P#6: 61 mm (19 in shaft)

Rect: 24 mm (10 in shaft)

Band#: 1783-64554

Notes: Blood is drawn from L wing, obtaining genetics and a parasite smear.

**Based on P5 measurement (of 60 mm) and close vicinity to nest tree, I assume this**

**owlet fledged earlier in the evening (prior to us arriving at 2104).**

2136—AW places processed fledgling in a spruce ~20 m E of on nest tree, just at base of

Lodgepole R. We continue listening for remaining 2 fledglings. RD moves down

drainage (S) to listen for other nestlings while AW goes up drainage (N).

~2205—RD hears M giving TCs/TECs about 10m E upslope of drainage bottom, about 20m S of nest tree- nestling 64554 has been begging continuously for the past 30min seemingly updrainage of RD.

~2208—RD follows TCs and gets eyes on the M on a potr broken top, prey laden. M scolds RD then makes a flight to the drainage bottom. RD hears Nestling begs from the drainage, still about 20m S of nest tree and spruce where AW placed nestling after processing.

~2210—AW and JS join RD in listening and looking for the begging Nestling, RD on the E bank of the drainage bottom, JS on the E slope and AW on the W bank. M is still in vicinity giving TC’s and scolds.

2215—**JS finds previously banded fledgling in a juco about 20 m downstream from the spruce where AW placed him**. We place him in a nearby tree and continue listening for remaining 2 fledglings with AW moving further S, and RD and JS listening N of the nest tree.

~2245—We hear no further vocalizations and leave.

## 21 July 2014

2030—ER and LL arrive at the B21\_2014 nest site in order to search for the 2 fledglings that are yet unbanded. LL stays in proximity of the nest tree while ER heads to the E up to the midslope of Lodgepole R.

Weather: Clear, slight breeze (rustling potr leaves), 9.5C

2115—We hear B21\_M give LCs ~75m SE of the nest on the midslope of Lodgepole R. ER pursues while LL sticks around the nest area to listen for a bit longer.

2119—B21\_M gives a couple more LCs from about 20m further S at the same elevation on Lodgepole R, then goes silent. B19\_M is giving TCs to the S ~200m. After hearing nothing in the vicinity of the nest all night, LL heads up Lodgepole to join ER where she last heard the M.

2146—We hear a couple more LCs about another 40m S and a bit downslope on Lodgepole. We scurry in that direction.

2202—The B21\_M gives a few TCs/HECs just S of LL’s position on the midslope of Lodgepole ~150m SE of the B21\_2014 nest, seemingly responding to the B19\_M who is giving TCs and TECs about another 100m S in the Missouri Creek drainage.

2210—LL spotlights the M in a potr, but he quickly flies off to the S.

2214—We hear the B21\_M bouncing from tree to tree around the relatively open area giving occasional TCs.

2219—LL gives some owlet begs to attempt to motivate the fledglings to start begging. The M flies in silently and perches in a psme ~2ft from LL’s head. The M flies off to the N a bit giving hoarse TCs. LL moves to the trees she heard him from.

~2220—The M moves off further N still giving hoarse TCs, so ER pursues while LL stays.

~2222—RC joins LL standing at the point she heard the M vocalizing at 2219. LL silhouettes the M flying into the psme right in front of her.

2224—**LL turns on her headlamp and spotlights a fledgling ~8ft up in the psme the M flew into (~150m SE of B21\_2014 nest on the upper midslope of Lodgepole R).** **Unfortunately, we are able to see that this fledgling is already banded on his R leg, so we do not extract him from the tree.**

~2225—The B19\_M has been giving TCs fairly consistently all night from ~150m S of our position on the ridge, so RC pursues him to see if he may be with a fledgling. LL and ER move ~10m S of the fledgling and listen for any other vocalizations.

2232—We see/hear the M make a PD to the fledgling in the psme.

2300—We see/hear the M make another PD to the fledgling.

2303—The B19\_M picks up again giving TCs to ER and LL’s SW ~100m.

2304—The B21\_M gives HECs at LL as she checks to see if there are any other fledglings in close proximity to the one we found. As far as we know, there were no other fledglings in the area. B19\_M is still giving TCs to the SW.

2320—After seeing/hearing no indications of other fledglings in the area, we leave and head to BG6. The B19\_M is still TCing when we drive off.

# B21—2015

## 27 May 2015

1545-1715: Flam Crew peeps the N end of the B6 territory, and selected cavity trees in the area of the B21 territory. Nothing found.

2113—BH and SY start playback at a lure net on the low slope of the S end of Grave R. ~75m NW of the B6 parking spot.

Vegetation: Open young pipo/psme

Weather: 8C, clear, calm

X: 496180

Y:4333342

+/-: 8

2122—We hear FSCs right at the net. F calls for ~30 seconds then goes quite.

2126—WE hear TCs ~25m NW of the net. M bounces around the site for a minute or so, then comes right into the net location.

2130—We begin hearing a 2nd M more distantly giving TCs to the SE, in the vicinity of the historic B19 nesting area.

2131—FSCs at the net again. 2nd M moves a little closer, maybe 100-150m SE.

2133—M and F at the net go quiet.

2144—TCs from second M move due W, closer to net. SY departs the net area and head S to listen in lower B21/B19 area.

2147—As SY is walking down the road, I hear a F FSC on the E side of the road, ~75m S of the B6 parking spot. I immediately locate the F perched ~3.5m up a potr in the drainage bottom. Tree is located ~3-4m S of cavity tree #1369.

2151—F flushes to the cavity tree and perches briefly in the entrance of a cavity facing WSW then flies to a sm. Potr ~2m W.

2157—TCs and FSCs heard by BH ~15m NW from net, possibly initial M and F.

*Note: SY had eyes on the F near the eventual nest, so this F represents a 2nd individual.*

2207—F makes a pass at the cavity but continues on to a potr ~10m NW of the cavity tree.

2213—F flies to the cavity again and goes down to the cavity bottom. **This is like a nest – B19? B21? Only time will tell…**

2214—F comes up to cavity entrance and gives FSCs.

2216—F flushes again (apparently of her own volition). I depart.

*Note: Her behavior was very consistent with egg laying, pre-incubation. She was very sedentary and stayed within a 10m radius for at least a ½ hour.*

2228—We stop playback at the net, breakdown net and head farther north, towards the B6/B21 interface.

2259—SY and DH start playback at a net on the W upper slope of Grave Ridge, somewhere along the B6/B21 interface.

Vegetation: Young to mature pipo/psme/potr, medium density.

Weather: 6C, clear, calm.

X: 496217

Y: 4333527

+/-18m

2313—F gives LCs then FSC right at the net.

2316—SY checks the net and observes the F flush from the ground and fly under the net.

2321—**FLOW caught in 1st shelf on E side of net. Previously unbanded.**

2322—FLOW extracted from net by SY and began banding. Small incubation patch evident indicating F.

**New** **Band #1833-03249 placed on left leg**.

SY noticed FLOW has mites. No measurements taken so as to not handle F for too long.

2327— FLOW released. Strong ascending flight E/NE.

2329—Just as we move to stop PB, a M begins giving TCs in the net site. The recently released F is giving FSCs and LCs. We decide to keep playback going for a couple minutes to try to capture the M.

2331—We capture the same F again in the 2nd shelf on W side of net (Band #1833-03249). We immediately release her, stop playback and breakdown the net.

2348—Begin listening in northern B21/B6 area (DH on W side of Grave R., SY in drainage bottom). Minor bear issues forces us both into the drainage.

2355-2440—We travel through the main B6 aspen flat then back down along Missouri Cr. Through B21. We do not hear anything during this time.

2445—From the B6 parking spot, SY hears a M to the SE from the direction of the historic B19 nesting area. I chase M but he quickly goes quiet. I go to check the area of the B19\_2014 nest, nothing can be heard here due to the creeks. I tap last year’s nest but get no response.

0101-We leave this area and head to B7/B8 to join RC and LP.

## 8 June 2015

2041—ER arrives about halfway in between the B21\_2014 nest and the B6\_2014 nest to listen for courtship or nesting vocalizations about 100m S of the B6 aspen flat. I listen on the game trail on the W side of Missouri Cr.

2044—ER hears a ventriloquist M FLOW call of roost. I stay put.

2046—ER spots a suspected owl head in a cavity tree about 15m E across the creek. I watch.

2048—A M FLOW lands in the vicinity of the suspected cavity tree, giving LCs. He flies to a potr about 3m NE of the tree, and then makes a PD to the F in the suspected cavity! Both birds fly N, out of site. ER crosses creek to get cavity tree specs. **This is the B21\_2015 nest! The nest tree is potr snag with tag #14 and territory ID B6\_41 about 10m E of the creek. The cavity is a keyhole entrance about 6m high, facing NNW. It was previously the B6\_2009 nest.**

2051—M returns to cavity and gives LCs from the entrance for about 30 secs, then leaves after realizing F is not there. ER leaves. M gives LCs .

2058—ER arrives in the B6 aspen flat drainages to listen for a potential B6 nesting pair in the flat, up Missouri Cr, and in the B6 side drainage off of Grave R. I see and hear nothing.

~2130—RC joins ER on the game trail across from the B21\_2015 nest to show him the cavity. We both go further N into B6 to listen.

2140—RC leaves to attempt M capture at B19 again. ER continues listening in B6, but hears and sees nothing.

2227—RC and ER set up a lure net on the N/S spur of Grave R at the northern end of the B6 aspen flat about 40m N of the terminus of the spur. We erect an L net with both in an E/W aspect. Playback begins.

Vegetation: Young to med pipu, psme, young potr, and med to mature pipo. Relatively open.

Weather: Clear, calm, 10C.

X: 496329

Y: 4333739

+/- 9

2228—A M approaches the net from the NE end of the B6 aspen flat about 40m SE of the net, giving TCs and TECs. This is presumably the B6\_M.

2229—The first M starts giving HECs at the net and a second M approaches the net from the SW, giving TECs. He is presumably the B21\_M. Both Ms give HECs within 5m of the net, and then jump to the W of the net where RC and ER are listening. Both birds continue to give HECs, but seem distracted by each other.

2231—Both birds move further W about 20m from the nest downslope toward the W side drainage off N Missouri Cr in B6.

2234—The first M (presumed B6\_M) chases the second M (presumed B21\_M) to the SW. We hear the B6\_M giving HECs from the W slope of the spur ridge about 30m from our net and the B21\_M on the low slope of Grave R on the W edge of the B6 aspen flat.

2242—Both Ms go silent.

2244—Presumed B6\_M gives a couple TCs from the terminus of the spur ridge of Grave about 30m S of our net.

2251—B6\_M gives hoarse TCs a few meters S of our net, then goes silent. Possible wingflaps.

2255—**An unbanded M is in the 1st shelf on the W side of the net! This is the presumed B6\_M!**

**Band # 1833-03236 (on R leg)**

71.5 g LWC: 133 mm

- 15.5 g LLP(5): 100 mm

56.0 g LLP(6): 110 mm

Rect: 65 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0.5 |
| P2 | 0 | 0.5 |
| P3 | 0.5 | 1 |
| P4 | 1 | 2 |
| P5 | 0.5 | 0.5 |
| P6 | 0.5 large notch | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2 |
| P10 | 2.5 | 2.5 |

**Note: Left wing bled for genetics.**

2318—The M is released with a strong, ascending flight NE.

2321—RC leaves to listen further N up Missouri Cr.

2325—Presumed B6\_M gives a few HECs from just N of the B6 aspen up Missouri Cr about 40m NNE of the net.

2330—ER listens just S of net in the B6 aspen flat.

2338—Presumed B6\_M gives more TCs from the N end of the aspen flat, just E of the net.

2340—M starts giving TCs and TECs from NE end of the aspen flat and moves upslope on the spur of Grave R toward the net.

2345—ER returns to net site. M is still calling about 15m E of the net.

2401—PB stopped. RC returns, and we crash the net.

2418—ER and RC split up to listen in B6/B21. ER is positioned on the mid E-facing slope of Grave R about 40m N of the B21\_2015 nest. RC starts near the spur ridge of Grave at the N end of the B6 aspen flat.

2427—The B21\_M gives TCs for three minutes on the low E-facing slope of Grave R directly W of the B21\_2015 nest in a live psme. **ER hangs songpost B21\_1.**

X: 496265

Y: 4333542

+/- 10m

2430—The B21\_M flies S and gives TCs near the S terminus of Grave R.

2433—The B21\_M pops back N across from the B21\_2015 nest, giving TCs. The presumed B6\_M gives a few TCs to the N in response near S end of B6 potr flat and 40m W up E-facing slope of Grave R. Both birds go silent.

2434-0125—RC and ER listen around the B6 aspen flat, further N up Missouri Cr, and in the W side drainage at the N end of the aspen flat. We hear nothing more. We leave.

## 15 June 2015

2052—MC, RC, DL, and ER arrive in B6 to listen for nesting or territorial vocalizations once the rain has slowed down. We spread out from the S end of the B6 aspen flat to about 100m up Missouri Cr past the B6 aspen flat, with DL in the side drainage W of Grave R spur.

2106—MC hears two quiet TCs about 20m E of the Missouri Cr at the mouth of the B6 aspen flat. MC pursues but hears nothing else. From 60-70m N up Missouri Cr from end of Grave R spur, RC hears MC’s M to S as well as a couple of TECs ~60m NNE of RC on low W-facing slope of Lodgepole R. RC pursues and ER joins. We listen and tap trees near area where M was heard, but we never hear anything else.

2133—After hearing nothing more in B6 we split to attempt M captures. RC and DL leave for B19, MC leaves to fetch the capture pole, and ER stays at the B21\_2015 nest to observe activity and insure F is back on cavity.

2134—ER hears FSCs pick up from inside the cavity. The F has returned from flush.

Weather: Cloudy, rain on-and-off all night, light breeze.

2137—M comes into the site giving LCs. M makes a PD, and then perches on a small potr snag (DBH~4cm) about 3m N of the nest tree and gives occasional TCs in ER’s direction.

2141—M flies ENE to the low slope of Lodgepole R and gives a few LCs from about 20m E of the nest, then goes silent. MC arrives S of the nest to attempt M capture.

2149—While MC has capture pole extended, a M gives a few TCs from about 5m W of the B21\_2015 nest. MC sees a silent FLOW fly W to E from the direction of the M that just gave TCs while the W M gives another TC.

2150—The presumed B21\_M gives TCs about 10m E of the B21\_2015 nest while the second W male gives a few more TCs before going silent. The B21 \_F gives FSCs from the cavity.

2151—The B21\_M makes a PD. MC puts capture net over cavity. The B21\_M comes up into the entrance to the cavity, giving quiet TCs and TECs. He then proceeds to go up-and-down in the cavity for the next three minutes. F is giving FSCs from the cavity.

2154—The M flushes into the net, but wiggles his way out.

~2200—The rain begins to pick up, so we return to the car to wait it out.

2259—ER returns to the B21\_2015 nest to spot cavity for second attempt at M capture.

2302—M perches in potr adjacent to nest, giving LCs. F begs from cavity.

2305—M makes a PD.

2309—MC arrives in nest site and sneaks the net up to cavity height.

2321—The B21\_M comes into the nest site from the E, giving LCs. F gives FSCs in cavity.

2325—The M perches in the nest tree about 2m below the nest, then makes a PD. MC puts the net over the cavity.

2326—M flushes into the net but makes like Houdini and escapes.

2410—The B21\_M gives LCs in the nest site.

2411—M makes a PD. MC puts net over the cavity.

2412—**M flushes into the net and gets caught! He is the B21\_2014 M!**

**Band # 1783-64322 (on x leg)**

72.0 g LWC: 134 mm

- 15.5 g LLP(5): 98 mm

56.5 g LLP(6): 108 mm

Rect: 61 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 1 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2.5 |
| P10 | 2.5 | 2.5 |

2424—We release the B21\_M with a strong ascending flight N to a potr snag about 15m from the nest. We leave.

2435—MC and ER go back into B6 to listen from the B6 aspen flat to about 100m N up Missouri Cr and up the W side drainage in Grave R. We hear and see nothing.

~0110—We leave.

## 19 June 2015

2040—ER and NS arrive in the vicinity of the B21\_2015 nest to attempt a F capture. F is down in the cavity. NS sits W of Missouri Cr to spot cavity and ER approaches nest from the S.

2042—ER has net up at cavity height.

2052—M calls off roost about 30m SW of the nest and approaches the nest site from the SW

2056—M gives LCs within 10m SW of the nest. F gives FSCs on the cavity.

2058—M lands in the nest tree, giving LCs. F gives a few more FSCs on cavity then flushes into the net! **The B21\_2015 F is previously banded and was the B2\_2014 F! This was a four territory breeding dispersal.** We peep to see three eggs centered in the cavity.

**Band # 1783-64399 (on x leg)**

88.0 g

- 19.0 g

69.0 g

2102—We release the B21 F with a strong ascending flight NW up slope. NS and ER leave the nest vicinity to listen in B6.

2114—NS and ER arrive in the B6 aspen flat to listen for nesting or territorial vocalizations and activity. ER listens in the confluence at the N end of the aspen flat and up the NW drainage. NS listens about 70m up N Missouri Cr. We see and hear nothing.

~2135—NS and ER leave to meet RC to go to B8.

2255—RC, ER, and NS arrive in B6 to tap, listen, and nest search. NS starts in upper potr flat/confluence area between Missouri Cr and western side dr. ER moves ~80m N up Missouri Cr and RC starts 40m N of S terminus on spur of Grave R.

2300—From confluence area, NS hears TCs from a M ~50m W on low E-facing slope of Grave R. M quickly goes silent.

2304—RC hoots from position on spur of Grave R and M responds with a few TCs 50m WNW on very low E-facing slope of Grave R, nearly in the dr bottom of W side dr.

2306—M gives a couple more TCs in this area then goes silent.

2314—ER solicits hoots and the M responds with TCs on the midslope of grave abou 150m NW from the confluence of the W side dr with N Missouri Cr.

2319—The NW M gives a few more TCs on the NW midslope of Grave R for about 15 seconds.

2320—TCs distantly to SSW near top of Grave R. Likely B19/B21 M. RC pursues briefly, but M (possibly 2 Ms) very far away.

2329—RC hears single faint hoot in confluence area or possibly N past confluence in Missouri Cr. RC pursues and taps trees in the area, but never picks up M again.

2345—We tap our way out of the B6 aspen flat and leave.

## 30 June 2015

2220—SY and ER arrive in the B21\_2015 nest vicinity to peep and assess nest progress. F is down in the cavity upon our approach. SY taps tree and F pops up in the entrance. We attempt to flush her with the peeper, but she goes back down in the cavity. **We peep anyway, but F is covering cavity contents. We see egg shells on the cavity floor surrounding the F, so some if not all the nestlings have hatched.** We leave.

2224—From the trail just W of the B21\_2015 nest, we hear the B21 M give a few LCs from a potr about 5m S of the nest tree. M then makes a PD. We leave to listen in B6.

2230—SY and ER spread out in B6. SY begins listening up N Missouri Cr past the B6 aspen flat, and ER listens in the aspen flat and up the W side drainage.

2234—The B21 M gives a series of about five TCs from the low slope of Grave R across from the B21 nest. ER pursues, but M goes silent.

2241—From just above the Aspen Flat, SY hears a few TCs to the E, just across E Missouri Cr. M quickly goes quiet.

2318—The B21 M gives a few more TCs from the drainage bottom in the nest vicinity.

2337—From the ridgetop of the spur of Grave R N of the aspen flat, ER hears a M gives low LCs from the E side of N Missouri Cr about 30m N of the B6 aspen flat. M gives a total of four LCs from this area. This is the presumed B6 M. ER follows, and SY joins her in the drainage.

2345—From E side of the cr, we hear a couple more LCs about 20m S of us, still of the E side. We follow.

2347—M gives two LCs from the low slope of Lodgepole R about 20m ESE of where he called in the drainage.

2349—M gives a series of TCs bouncing N about 40m on the low slope Lodgepole R. just E of the B6\_2004 nest tree. He then goes silent. SY and ER listen and tap trees in along the E stretch of the cr where we heard the M vocalize, but we see and hear nothing else.

~2430—We leave.

## 7 June 2015

~2400-2405—RC and LP arrive in B21\_2015 nest area to peep. No sign of M or F on arrival. We approach tree and tap, but F does not come up. **Peep reveals an empty cavity, but for a few egg shell fragments. B21\_2015 has failed by predation.** With heavy hearts and somber sentiments, we pull down the peeper and leave for B6.

# B21—2016

## 1 June 2016

~1530-1715—Flam Crew peeps along N. Missouri Cr. from B7 to B6. **The B6\_2016, B21\_2016, and B8\_2016 nests are found**. Past nest trees and other appealing cavity trees are cherry picked in B19 and B7.

1702—BH and DL approach cavity tree **Tag #94** to peep. **F FLOW comes up in the B19\_2012 nest cavity when DL brushes tree before we tap. This is the B21\_2016 nest tree! Nest cavity is an E facing keyhole ~10m up a potr full snag. Nest tree is located on the steep low slope ~5m E of Missouri Cr., ~50m NE of B6 parking spot.** F stays up in cavity while we are in the nest site.

1709—We leave the nest site.

2032—DL arrives at the B21 nest to watch the F flush and peep the nest.

2039—M comes into the nest site giving LCs.

2041—M makes a PD

2042—F flushes. I peep and find two eggs centered and touching. M vocalizes in site during peep. I leave meet MC in B19 to listen for courtship behavior.

2325—After waiting out the storm, DL, MC, and ER arrive at the NW end of the B6 aspen flat between the spur of grave and grave ridge to set up a lure net targeting the B6 and B21 area.

2337—Begin playback

Vegetation: young, open psme, potr and pipu.

Weather: heavy rain right before setting up the net. Some light precip, light breeze, 7C.

496260

Y: 4333673

+/- 9

2339—Hear TCs ~20m N of the net.

2342—M goes silent. MC moves into net site and gives some hoots. M does not respond.

2353—Change the playback to “megascops” – the four note territorial call. M immediately comes back into the site from the N and makes a few short flights around the net while calling.

2357—Capture. 3rd shelf from the S. Change payback back to track 42**64322 (on x leg)**

85.0 g LWC: 138 mm

- 29.0 g LLP(5): 99 mm

54.0 g LLP(6): 108 mm

Rect: 65 mm

B5\_2012 floater, B21 M since 2013.

|  |  |  |
| --- | --- | --- |
| P1 | 2 | 2 |
| P2 | 2 | 2 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1 | 1 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | .5 | .5 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |
| P4 | 1 | .5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 2.5 |
| P9 | 2 | 2.5 |

2423—Release. Strong ascending flight to the NW. DL checks the net and sees a silent bird sitting right above the playback. She turns he light off and backs away, but the bird flushes.

2434—Change the playback to “megascops” – the four note territorial call.

2435—A bird flies into the nest site, presumably the same M that we recently released. Does not approach the net.

2437—ER begins to give hoots near the nest.

2443—MC begins to give some hoots near the net as well. Bird continues to respond but never approaches the nest. Silent bird was also spotted in the nest site by MC.

2446—Stop playback, tear down the net, and leave to meet flam crew.

## 6 June 2016

2033—ER enters the B21\_2016 nest site with the intent to capture the F on her nightly flush. The F is down in the cavity when I arrive. I begin approaching nest tree.

2039—ER raises net to cavity height and places it on the cavity. The F pops up in the entrance. **About 30 seconds later, she flushes into the bag. The B21\_2016 F is unbanded.** A tricky extraction took a bit too long.

**Band # 1833-03388 (on R leg)**

2046—I release F with a SAF W. **I peep the nest to see they still have three eggs.**

## 14 June 2016

~2445—RC and KM arrive in B21\_2016 nest area to maybe take a swing at the M in our last few minutes of the night. F up on arrival. We kill lights and wait for several minutes while M LCs nearby. F gives FSCs off cavity in nest site, apparently having flushed while our lights were off.

2455—We see F come back on. We leave.

## 21 June 2016

2032—BL arrives at the B21\_2016 nest tree to attempt capture of M and attachment of PinPoint GPS. RC at B19\_2016 nest, and MC at B6\_2016 nest, each with the same mission. F not in cavity entrance, and all is quiet. Weather: Overcast, calm, 20 C.

2040—I get in capture position in case M makes early PD.

2048—I hear F giving FSC upslope (missed her flush), and then hear M give LC in her vicinity. **I peep nest—3 unhatched eggs.**

2051—I back away from the nest tree to allow F access.

2111—F flies back into nest area, and reenters cavity at this time.

2122—M PD in cavity.

2123—Same.

2124—Same.

2127—As I attempt to get into capture position, F gives SC from cavity and then flushes. I leave.

## 24 June 2016

2031—Laura Keene (Big Year contestant) and BL arrive at B21\_2016 nest to attempt capture of M and attachment of PinPoint GPS. MC at B6\_2106 nest, and RC at B19\_2016 nest, to also attempt capture of MM with same mission. F not at cavity entrance and all is quiet in the nest area. Weather: PC, calm, 20 C.

2059—M gives TC upslope, and F flushes from cavity. **BL peeps cavity, and observes 2 owlets and 1 unhatched egg. The two owlets appeared to be 1-2 days old—very small and squirming at times, but otherwise face-down in the duff, covered in white down, and surrounded by several egg fragments.**

2102—BL backs away from the nest tree.

2107—M arrives in nest area, giving LC. He leaves after no response from F.

2111—F reenters nest cavity, and M makes PD in cavity shortly thereafter.

2112—M makes PD.

2116—M makes PD.

2117—M makes PD. MC calls on the radio with capture of the B6\_2016 M, so leave for the parking area to attach PinPoint.

2210—BL returns to B21\_2016 nest site. All is quiet.

2240—M makes PD, and BL then makes move to get in capture position.

2256—**M is captured after making PD. M was banded previously with Band # 1783-64322; this was the B21\_2014 and 2015 M, and the B5\_2012 Floater M!** I take him down to parking area, joined by MC and RC, to attach PinPoint.

**Band # 1783-64322 (on R leg)**

64.5 g LWC: XXX mm

- 7.5 g LLP(5): XX mm

57.0 g LLP(6): XXX mm

Rect: XX mm

**Notes:** No measurements, blood, or blacklight data taken. **RC attaches PinPoint #V4257, 40918 with backpack harness (Spyder Teflon-coated fishing line, jewelry crimps on chest and posterior end of PinPoint).**

2330—We release M carrying PinPoint GPS; he makes a clean, ascending flight and disappears after flying 20+ m.

2335—BL retrieves capture equipment from nest site, and we leave for lodge.

## 29 June 2016

2154—DL arrives at the B21\_2016 nest tree to observe and make sure the M is alive and well with his new PinPoint GPS.

2159—M comes into site, but flutters past the nest, appearing to not be a fan of my light.

2200—M makes a PD

2201—M makes a PD

2202—M makes a PD and stays in the cavity for two minutes before leaving.

2209—M makes a PD

2210—I leave to go observe at B6.

## 6 July 2016

2315-2340: BL arrives at the B21\_2016 nest to attempt capture of M and retrieve PinPoint GPS. M came into the site on 3 occasions, giving LC and TC, but never approaching the nest. The F made 2 PDs during this time—while she never vocalized, I assumed it was her as each time she remained in the cavity for 2-3 min before flushing on her own.

## 8 July 2016

2230—RC, Candace, and Corey arrive in B21\_2016 nest site to capture M with intent to remove PinPoint GPS unit. MC joins to help peep cavity before leaving for B6. **Peep reveals 2 Ns, mostly gray but with significant white remaining on heads. Ns appear to have beginnings of gray coming in on faces, but no facial disks (est. age: 15-16 days).**

2235—MC leaves to attempt M capture in B6 while RC gets capture net up. B21 M enters nest site HECing.

2250-2314—M makes 4 PDs, circling site multiple times giving HECs before each PD. M makes several impressive escapes from the capture net and remains extremely unhappy with my activity in the nest site.

2320—F enters nest site, having been absent for the entirety of my time in the site. F gives a few FSCs near M, who switches his HECs to odd LCs and is convinced to make a PD. **M is captured! This is the B5\_2016 M, previously captured and tagged with a PinPoint GPS unit, which he still carries.**

**Band # 1783-64322 (on R leg)**

66.0 g

- 15.5 g

50.5 g

**Notes: PinPoint is well-centered on M’s back, and harness remains snug, with about a pencil’s worth of room against the bird. We remove PinPoint to find some callousing and mild irritation (yellowed, scaly skin) under PinPoint—pictures taken. No broken skin, blood, or other fluid apparent. All other contact areas appear unaffected by GPS backpack.**

2333—M released with very strong, near-vertical flight E into nearby potr. We leave.

## 9 July 2016

~2100—RC arrives in B21\_2016 nest site to capture F for blood sample. F off on arrival, giving FSCs in site. M also LCs nearby, then flies in to approach perch, closely followed by a silent FLOW. Silent bird perches in same tree as M, ~1m away. Neither M nor F act aggressively toward this bird. Shortly, M flies N into dr bottom, again closely followed by silent bird. M begins TCing in dr bottom, likely at silent FLOW, but seems not to be chasing other bird, nor making more aggressive calls. F continues to FSC near nest tree.

2106—M makes PD to F on potr branch 5m N of nest tree, then returns to dr bottom to continue calling.

2107—F makes rapid PD/abort, remains in site.

2109—**F aborts 2 PDs, then completes her third and is captured! This is the B21\_2016 F.**

**Band # 1833-03388 (on R leg)**

66.0 g LWC: 125 mm

- 15.5 g LLP(5): 96 mm

50.5 g LLP(6): 106 mm

Rect: 61 mm

**Notes:** Bled (R – small hematoma) after poking (L – no hematoma); NO BLACKLIGHT; inner rectrices very faded and worn, outers fresh; LP1,5 & LS1,7,9 very faded in color; RP1 & RS8-10 faded; RS1,3,4,7 appear to be shorter by 0.5-1cm than other secondaries; many dorsal coverts heavily faded and worn, as well as many contours on head.

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | 2 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 1 |
| P5 | 3 | 1 |
| P6 | 0.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 2 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

2144—F released with SAF (S). Excellent bird in hand. Just top notch. *Shout out to the B21\_2016 F, wherever she may be*. I leave.

## 12 July 2016

1628—Flam crew arrives at the B21\_2016 nest to band and bleed owlets.

1630—F flushes, ladder up, we peep.

1633, 1635—Owlets out of the cavity.

**Black Owlet**

56.1 g

P#5: 48 mm

P#6: 48 mm

Rect: 13 mm

Band#: 1783-74345 (L)

Notes: bled L wing

**Blue Owlet**

54.0 g

P#5: 50 mm

P#6: 49 mm

Rect: 17 mm

Band#: 1783-74346 (R)

Notes: poop sample, bled L wing, facial disk starting to come in.

1658—Owlets back in cavity.

Cavity Dimensions

Width: 50

Height: 75

Thickness: 40

Horizontal depth: 130

Vertical depth: 230

DOH: 29.5

# B21—2017

## 31 May 2017

Afternoon—MC, ZM, ER, and LD cherry peep in B6, B21 and B19.

1630—**LD and ER approach tree B6\_118 Tag #370 and a F is up in a cavity entrance, this is the suspected B6\_2017 nest!** The tree is a full snag potr ~50m N of the B6 aspen flat on the E side of E Missouri Creek. The cavity is a keyhole ~20ft. high and facing ENE. This cavity was previously the B6\_2004 nest.

2038—MC, KM, and ES arrive at B6\_2017 to peep the cavity and observe its contents. We crouch down ~20m S of the tree.

2105—The F gives an FSC ~40m S. She likely flushed the cavity before we arrived. **We peep the nest and find it empty.** We leave.

2110—MC, ES, and KM begin listening in the B6/B21 drainage. We distribute ourselves about 60m apart and walk in small circles around N Missouri Cr. KM spends time listening between B21\_2016 and B19\_2016 and on the low slope of Lodge pole. All is silent for the entire time we listen. We abandon efforts after over an hour of listening.

2232—We set up a lure net and begin playbacks on the S ridge of Grave about 60m N of the rabbit gravestone.

Vegetation: mixed pipo/psme, young potr, mostly open

Weather: 12C, mostly cloudy, slight breeze

X: 496200

Y: 4333436

+/- 3

2300—KM ventures into the B6 aspen flat to listen for vocalizations. No sauce. MC makes a few vocalizations on Grave but we did not hear responses either at the net or in the aspen flat.

2310—MC hears periodic possible TCs from Lodgepole Ridge; could have been an echo from PB.

2330—We take down the net and move to the SW corner of the B6 aspen flat to lure for the remainder of the night. We set up the net about 20m W of the game trail. We are approximately 215m SW of the presumed B6\_2016 nest tree.

2338—Playbacks begin.

Vegetation: young potr/psme, mostly open

Weather: 12C, partly cloudy, slight breeze

X: 496265

Y: 4333617

+/- 3

2415—We hear three TCs from a M about 50m E of the lure net, after which he falls silent. We hear no other vocalizations.

2430—We break down the lure net and head back to the B21 parking spot to end the night.

## 5 June 2017

2055-2120—After peeping the presumed B19\_2017 nest, KM heads to B21 to listen for vocalizations. As soon as I reach the mid-upper N Missouri Cr of B21, I hear an FSC right above my head. I follow the F E across the Cr and spot her in an unmarked potr snag. She gives a few FSCs to which a M responds with LCs further up the slope of Lodgepole Ridge. She then flies N towards the group of cavity trees just S of the B6 Aspen Flat. I listen and tap a few trees, but the pair has gone silent. I head back to the road and hike up to B17 to join ES and MC.

## 8 June 2017

2051-2215—KM listens in B21. I start at the location I heard and saw the F on 6/5/17, and circle around to the B21\_2014 nest tree. I listen around that main clump of cavity trees and tap as many trees I can find. I do not hear anything the entire time I listen. I potentially see a bird of some sort fly in the crown of some of the potr on the W side of the creek, but I have uncertainty that it was a FLOW. The creek was pretty loud this night after some rain earlier in the day, which may have impeded my listening. I abandon efforts and meet ES and ER back in B19/B8 area.

## 14 June 2017

2035—JE, ER, ZM, and LD spread out along N. Missouri Cr. in B21. ZM mans the lower segment by the B21\_2016 nest tree and the rest of us spread out at about 50m intervals up drainage with ER at the top near the B21\_2015 nest tree. We intend to tap cavity trees and listen for courtship or nesting vocalizations.

2041—As ER is working my way down drainage, I spot a cavity on B6\_1298 and circle the tree to see if there are more. When I come back around to the first cavity, there is a F FLOW in the entrance! **This is the B21\_2017 nest! The nest tree is ~200m up drainage from the B6 parking spot on the S side of the creek. The tree is about half-way between the B21\_2014 and B21\_2015 nest trees. The tree is a potr full snag with ~30cm dbh in a patch of live potr. The NOFL excavated cavity is about 20’ high and faces NE.** JE, ZM, and LD scurry up drainage to bring the peeper it is likely before the F will flush.

2050—F flushes the cavity. **Peep reveals two eggs touching in the cavity center**. The cavity is relatively shallow as the two eggs take up the entire image. We back off.

2055—ZM and JE leave to help MC and BL with their respective captures. LD returns to observe the F coming back on cavity. ER goes to fetch a capture pole from the car.

~2110—ER returns to meet LD at the B21\_2017 nest to attempt to capture the M on a PD. The F has not come back on cavity, but we do not believe our observations are affecting her. This M is a target for a PinPoint GPS.

2121—LD and ER hear FSC vocalizations off cavity ~15m to the NE of the nest tree. The M responds with LC and we hear chittering off cavity, likely a PD.

2123—F returns to cavity tree and continues to give FSCs

2125-2147—M makes 8 PD to nest cavity. See PD sheet for details. When the M entered the site, he consistently gave 1-2 LC before flying to the cavity. Each time, the F immediately responds with FSC. While making the PD, both M and F vocalize. The M approaches the nest tree from the NE.

~2147—ER begins approaching nest with capture pole with intent to capture M.

~2150—ER begins to raise net in nest site.

~2155—Net is at capture height.

2215—MC and ZM capture the B6\_M at the nest. LD and ER collapse capture pole and leave the nest site to assist in attaching a PinPoint GPS to the B6\_M.

~2255—LD and ER return to nest site and set up capture pole. ER begins approach.

~2300~Net at capture height.

2331—F gives two FSC on cavity.

2333—**M gives LC to the NE of the nest tree. The M immediately approaches the nest cavity and makes a PD. ER successfully captures banded M upon his exit of the cavity. This is the B21\_2014, 15, 16 territorial M and the B5\_2012 floater.** LD and ER bring M down to the B6 parking spot to attach a PinPoint with BL and MC.

**Band # 1783-64322 (on x leg)**

82.0 g

- 31.0 g

51.0 g

~2345—**We begin attaching PinPoint #48202**.

2406—Finish PinPoint attachment. LD and ER take the B21\_M about 50m S of the B21\_2017 nest for release,

2413—Release M with a strong flight out of view. We return to the B6 parking spot to help process the B8\_M that KM and crew captured.

## 19 June 2017

2032—ER, ES, and JE arrive at B21\_2017 nest to attempt a F capture and nest peep. The F is down and is silent. ER quickly gets into position with a capture net and we silently wait.

2055—We hear an LC from the M nearby and immediately after, the F flushes into the net. The net is caught on the tree and while attempting to free it, the F escapes.

2056—A swift peep reveals that the **F is still on 2 eggs.**

2058—We leave and head for B12.

## 25 June 2017

2020—LD arrives at B21 to observe PD behavior of M.

2051—M begins giving LCs to SW of cavity akin to previous location observations.

2056—M does not approach after giving LCs.

2101—F gives FSC to S of cavity, LD did not observe a flush.

2103—Owl flies to cavity, but flies away. Potentially M FLOW giving PD to hatchlings.

2105—F returns to cavity.

2106-2134—LD observes PD behavior, view B21 6/26/2017 PD sheet.

2114—F flushes on own volition.

2116—M makes PD to empty cavity.

2125—F returns to cavity.

2135—LD leaves cavity site to find a lure net area and to set up a lure net in order to capture B21\_2017 M FLOW.

2150-2230—KM stands at capture net and watches the B21 M dance around the nest giving LCs and HECs while the F begs. I bring my capture net away from the cavity tree, but he does not get close to the cavity. As soon as LD starts the PB, the M loses interest in teasing both his F lover and KM at the capture net. I set the capture net on a nearby potr snag and plan to give him a few free PDs to increase his confidence. He doesn’t take the bait and doesn’t return to the nest site for the rest of the night, even when the PB turns off and I am away from the cavity.

2223—LD begins PB. Net opens N/S with young potrs/young psme as target trees. Net is on the E slope of Graveyard R ~50m SW of B21\_2016 nest site.

Vegetation: Mature pipo, young potr, mixed psme

Weather: Calm, Cloudy, 14C

X: 496241

Y: 4333402

+/- 4m

2234—HECs heard 100m to N of lure net, presumably B21 M.

2242—M FLOW hits net, but does not get captured.

2304—Presumed B21 M goes silent after flying around it.

2323—LD pauses PB.

2333—LD restarts PB.

2334—M gives HECs to N, again presumed to be B21 M. HECs ~100m+ away.

2339—Presumed B21 M approaches with HECs, now under 50m away

2345—Presumed B21 M goes silent

2402—M goes silent

## 26 June 2017

2030—LD, KM, and JE arrive at B21\_2017 nest cavity in order to capture B21 M and remove pinpoint.

2040—KM is in position w/ net at capture height.

2052—B21 F pops head out of cavity apparently preparing to flush.

2054—F flushes, LD peeps, 2 eggs are centered and touching with one that has an apparent pip mark at the top.

2055—F gives FSCs off cavity and M responds with LCs nearby, M potentially gives off cavity PD.

2109—F returns to cavity.

2121—M makes PD

2129—KM begins approach

2134—KM is in position with net at capture height on

2138—M attempts PD, but fails as KM brings net over cavity. M makes LCs around nest cavity.

2140—F flushes on own volition.

2143—M makes presumed off cavity PD.

2145—F returns to cavity.

2146-2208—M jumps around cavity giving LCs and HECs without making a PD. F continuously gives FSCs to the M without enticing him to make a full PD.

2210—LD, JE, and KM leave site and meet ZM and MC on the game trail.

2218—ZM and MC enter the nest site. The M is giving a mixture of LCs and HECs. The F is giving FSCs from the cavity.

2223—MC is in capture position while ZM spots the cavity.

2227—The M flies SW giving TCs.

2237—The M gives LCs/TCs ~75m SW of the nest while the F gives FSCs for about 3 min.

2254—For the next 10 min, the F gives FSCs while the M gives LCs and HECs around the cavity. The M then backs off a ways, still giving TCs/HECs.

2312—ZM and MC get out of the nest site because the M has still not come onto the tree for a PD and is clearly stressed about our presence. We head back to the car.

## 29 June 2017

2031—Emilio (CSU intern) and BL arrive at the B21\_2017 nest to attempt capture of M and recovery of his PinPoint GPS. F is not in the cavity entrance when we arrive. BL gets in capture position at the nest in case M makes PD prior to F leaving to feed/defecate. Weather: Clear, calm, 17 C.

2053—M calls off roost from his location ~50 m upslope (E) on Lodgepole Ridge.

2056—F flushes from cavity in the direction in the M had vocalized. **We peep nest and observe 2 unhatched, and apparently unpipped, eggs.** We back away ~20 m from nest site.

2109—F returns to nest cavity.

2114—M arrives in nest area giving LC; F responds with FSC and M makes PD in cavity at this time.

2119—M makes PD in cavity.

2121—M makes PD in cavity, and F flushes following the M’s exit.

2127—F returns to cavity.

2139—M makes PD in cavity.

2155—As BL starts to return to capture position at the nest tree, KM/ZM call to report capture of B6\_2017 M, and BL leaves to assist. Emilio remains in nest area to observe.

2226—ZM and KM take over at B21 so that BL and Emilio may head down to B8.

2232—KM starts her approach with ZM spotting the cavity.

2235—KM is in capture position.

2239—We hear FSCs in the cavity.

2244-2317—The M gives a mixture of LCs and HCs starting ~20m E of the nest. During this time, the M flies back and forth across the site giving HCs. The F continues to give FSCs in the cavity. However, the M never really comes in close to the cavity.

2317—The M appears to fly S and stops vocalizing near the nest site.

2324—KM backs off the capture pole and moves ~15m away from the nest tree with ZM. We hope that this will make the M come into the site more easily and make a PD.

2327—The M is seen perching ~1 ft above the cavity entrance on the cavity tree. However he still never enters the cavity.

~2330-2340—The M continues to fly around the tree but never entering the cavity. He then leaves the site and is silent.

2355—ZM and KM leave the site because the M still hasn’t returned to the cavity tree. We start walking back to the road with the intent of playing PB on Coopers Hawk R.

## 4 July 2017

2035—BL arrives at the B21\_2017 nest to attempt capture of M, and hopefully to retrieve and reattach a PinPoint GPS. F not in cavity entrance upon arrival. Weather: mostly clear, calm, 18 C, ¾ moon rising in east.

2057—M arrives on perimeter of nest site giving TC and LC.

2058—M flies to the cavity giving LC and makes a PD, and the F responds with FSC.

2102—F flushes from cavity. **I peep—2 owlets in white down, face down, but moving actively—I estimate age to be ~3 days.** I remove peeper and prepare measure net height for capture—**net height is 21’8”.** I back away to allow F to return.

2110—F returns to cavity.

2118—M PD in cavity. M makes 3 more PDs between 2119 and 2130, and I get in capture position after this 5th PD.

2139—**M makes PD, and I capture him as he exits cavity—he is the B21\_2017 M, and was banded previously as #1783-64322. The position of the PinPoint he is carrying is upright and does not appear to have shifted any out of position. I prepare to carry him down to the B6 parking area for processing, where B6\_2017 M and B8\_2017 M will also be processed for attaching PinPoints.**

**Band # 1783-64322 (on L leg)**

65.0g LWC: XXX mm

- 7.0 g LLP(5): XX mm

58.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: No measurements taken. Mass with old PinPoint (before removal) was approximately 0.5 g heavier. Upon removal of the existing PinPoint (M was carrying for ~ 2 week), BL noted a small matting of down and dried body fluid on the harness underneath the L wing. However, no scabbing or skin irritation was noted on the body of the bird in this area.**

2228—ZM released the M from the vicinity of the B6 parking area, and the M showed strong horizontal flight across the meadow to the E. We leave for the B4 parking area.

## 6 July 2017

2030—MC, JE, and Whit Walker arrive at B21\_2017 nest to attempt F capture. JE approaches the nest.

2035—JE raises the net to height and places it over the cavity. The F flushes into the bag. **She is the B21\_2016 F, who was new last year. She has returned for another breeding season.**

**Band # 1833-03388 (on x leg)**

95.5 g LWC: XXX mm

- 34.5 g LLP(5): XX mm

61.0 g LLP(6): XXX mm

Rect: XX mm

2039—We release the F, she has a SHF W.

## 13 July 2017

2032—KM and ZM arrive to the B21\_2017 nest site to attempt a male recapture to remove a pinpoint.

2040—ZM begins her pre-flush approach.

2044—Net is up ready to swing if M makes a PD.

2053—F flushes to the E. **We peep and see two owlets in mostly grey, juvenile plumage. Their heads still appear mostly white. We do not see any beginnings of facial disks.**

2100—ZM stays in capture position. KM observes an off cavity PD from M to F. ZM hears raspy begging from the cavity. Neither M or F seem motivated to give PDs as the capture net is up. M gives occasional HECs towards the net. F aborts a few PDs.

2114—F gives a PD.

2021-2207—The F gives a few PDs, while the M occasionally comes into the site but does not enter the cavity. He leaves the nest site to song post for a few minutes. After the F gives at least 4 PDs, ZM re-approaches the cavity.

2214—F aborts a PD.

2223—F gives a PD.

2235—M comes into the nest site and gives his first confirmed PD of the night. ZM gets the net over the cavity and snags him. We extract him from the net, take off his pinpoint, and get a quick bleed on him.

**Band # 1783-64322 (on x leg)**

84.0 g LWC: XXX mm

- 29.5 g LLP(5): XX mm

54.5 g LLP(6): XXX mm

Rect: XX mm

**Notes: Bleed L then R, Moderate Hem**

2249—We release the M who makes an SAF. We leave.

## 19 July 2017

2055—ER gets to B21\_2017 nest to peep to view nesting status. **Peep reveals an empty cavity. Given that the B21\_2017 nest had a projected fledge date of 7/25/17, this highly suggests that the nest failed rather than us missing the fledge.** ER calls JE up to search for potential dead owlets.

2100—As JE get to the nest site, ER hears a M giving LCs about 40m to the N. ER pursues.

~2102—JE sees a silent FLOW fly into the nest site from the S. It flies and hits the trunk of a potr (probably foraging) then perches on the tree next to it. After a minute or so, the bird flies N.

2123—ER gives a few hoots near the nest cavity, but we hear nothing.

~2128—Having not found any signs of predation or fledging, we leave B21 to go check back on B8 in case there was a fledge observed by Paul Bannick and co.

# B21—2018

## 30 May 2018

1530-1700—KM, JE, SF, and AM cherry peep in B6 and the northern part of B21 in order to find nest trees. We do not find any owl nests.

2031—SF arrives in B21, ~20m S of B21\_2017 nest tree, for some listening.

2045—M calling off roost to the E, up Lodgepole R.

2049—M quiet, unclear which direction he moved off.

2100—M giving TCs 100m + down drainage, likely B19. SF leaves B21 proper, unclear if the bird heard calling of roost was B21 or B19.

Vegetation: POTR with PSME, spruce, and mixed pine species (pipo, pifl, lodgepole). Understory of water birch and other woody shrubs.

Weather: 16C, calm, 15% cloud cover.

## 13 June 2018

1445—KM, JE, KA, AM, ON, ES (the flamily) arrive at B21 parking spot to peep remainder of B8 territory, B19 territory, and B21 territory. Group peeps the N portion of A8 (beginning where the group left off peeping on June 12th). Group worked N and peeped all past nest sites and most known cavity trees, as well as enumerating new trees, in B8, B19, and worked halfway up B21 into the central potr stand of the territory. Nest found in B8, but not B19 or B21.

## 15 June 2018

1500-1700—Flam crew plus MAX CIAGLO peeped the N part of B21 and up through most of B6. JE and BL took a side drainage going W in B19. Goose eggs.

## 16 June 2018

1500-1800—KM, ES, and JE peep the rest of B6. We hit almost all of the cavity trees on record and enumerated a handful of new trees. We additionally do a quick peep of the cavity trees left in the S part of B8, hitting past nest trees in B7. Goose eggs. Womp womp.

# B21—2019

## 29 May 2018

1500-1630—ES and KA cherry peep the B21 territory. We successfully peep all past nest trees but don’t find any flam nests.

2157—AM hears two lone M LCs 20m NE of B6 parking lot from his position in B6.

2202—AM, SL, and ES arrive in B21 to listen for FLOW activity. AM walks along both sides of N Missouri Cr near the B6 parking lot, SL listens in the northern portion of B21 along E side of N Missouri Cr., and ES listens around historic nest trees along the creek in the middle of B21.

Weather: 100% cloud cover, no wind, 5 C, drizzling.

2206—AM hears F FSCs 30m upslope of N Missouri Cr and 50m NE of B6 parking spot. ES and SL go join AM to try to get eyes on the F FLOW.

2215-2230—We listen on the W facing slope ~10-30 m E of N Missouri Cr and F makes FSCs off and on. **We are unable to get eyes on the F but think she is perched in one of the large psmes ~30m SE of the B6\_2002,03,07,08, B19\_2012, B21\_2016 nest tree (tag #94). The approximate coordinates of the F giving FSCs are x=496281, y=4333305**. ES gives occasional hoots and AM, SL, and ES hear F FSCs in response directly above us in large psme.

2232—We hear F FSCs followed by M LCs in the same location, AM hears wing flaps headed NE upslope.

2235-2315—ES listens and watches the past nest tree (#94) for signs of nesting activity. AM and SL remain on the slope E of the creek and listen. We do not hear or see any FLOWs for the remainder of the night.

2316—We leave B21. All is quiet.

## 31 May 2019

2040—AM, ON, and KA arrive in B21 to lure net and listen for FLOW activity. Net is open N-S on S terminus on the upper slope of Grave Ridge, 50m NW of B6 parking lot. We pick this location to attract FLOWs from the main drainage, while remaining far enough away from the area where a F FLOW was heard two nights prior (near past nest tree#94). AM remains at the net while KA and ON listen in N terminus of B21 territory in the drainage of N Missouri Cr near historic B21 nest trees.

Vegetation: open, mixed age pipo, pifl, potr

Weather: 60% cloud cover (later cleared up), calm wind, 8 C

X: 496155

Y: 4333413

+/- 3m

2130—PB starts, T42. All is quiet.

2154—KA hears a single M FLOW hoot from her position 20 m S of the B6 parking spot. It appears like a possible LC coming from 40 m S of parking spot, but I don’t hear any further vocalizations in the area.

2200—ON heads S to join KA near B6 parking spot after hearing nothing up drainage.

2205—ON and KA tap and listen around historic nest tree # 94, where F FLOW vocalizations were heard two nights prior.

2230—ON and KA return to net after no signs of FLOW activity seen nor heard.

2231—ON walks PB up Grave Ridge. No response.

2245—We cut PB, break down net, and leave. All quiet.

## 14 June 2019

1530-1650—ML, JE, ES, and KA arrive in B19, B21, and B6 to cherry peep past nest trees and cavity trees in the territories.

1655—Nothing is found. We leave the study site.

## 18 June 2019

1430-1600—Flam Crew starts a full peep of B21, B19, and B21, sending several teams N and S of the B6 parking spot. We make it about halfway through the cavity trees S of the parking spot, and we peep most of the cavity trees in B21 up to the northern edge of the territory. We don’t make it into B6. It begins to rain at 1600, halting our peeping efforts.

2320—KC, ES and AM arrive at B21 to spot map FLOWs and listen for nesting activity. ES heads W of E Missouri Rd. AM and KC head N up drainage towards B6 territory. KC stays on the W side of N Missouri Cr and AM stays on E side of N Missouri Cr.

2330—KC has M FLOW flush in front of him, definitely not from a cavity tree. M flies directly N up drainage.

23232—KC follows hearing three TCs ~20m N.

2340—KC reaches the S end of B6 after following M TCs. M goes quiet.

2343—KC turns around to head back to the cars and we leave the territory.

## 20 June 2019

2315—ES, AM, KC, JE, ML, and KA spread out in B19 and B21 to listen for nesting vocalizations, tap cavity trees, and look for new cavity trees.

2330—ES hears LCs on the W-facing slope of Lodgepole R, directly E of the parking spot and ~30 m up from the drainage bottom. The others make their way in that direction.

2335—JE hears LCs again ~20 m E (further up the slope) from where ES previously heard them.

2341—JE hears FSCs in that location.

2345—JE and ES get eyes on the F, perched openly on a branch of a potr snag, in the same spot on Lodgepole R where we’d heard the M LCs earlier. We watch her for ~3 minutes. The M flies into the area, perches ~5 m SE of the F for a few seconds, and then joins her on the potr snag, giving a PD. **The M is banded on the L, and the F appears to be unbanded.** They both flush to the N, and we follow.

2345-2400—We follow the F and M, who are both vocalizing, as they move NW ~50 m along the low slope of Lodgepole R. Eventually they seem to come to a stop, and the F gives quiet FSCs near some unenumerated potr snags. ES and ML look for cavities on the potr snags but we don’t find any, and we aren’t able to get eyes on the F again, but continue to hear her calling as we get ready to leave. We decide that they probably had a nest failure, which is why the F has been moving around and accepting PDs off cavity for so long. We leave the area, heads hung. We did not find any new cavity trees on Lodgepole R.

## 24 June 2019

1450-1715—Flam Crew (-BL) peep out all remaining cavity trees of B19, B21, and B6. We find several new trees and find many on the ground. There are a handful of trees that could not be found and are presumed to be down given the sight of fallen trees in the area. We do not find a nest.

# B21—2020

## 16 June 2020

1454—KC, ON and SL arrive at B6/21 to cherry peep. We all head down to the aspen flat and peep past nests. KC heads S on the E side of the creek.

1543— **KC peeps Tree #14 and finds the B6/21\_2020 nest. Tree #14 was the B6\_2009 and B21\_2015 nest**. **Tree is 10 m E of Missouri Cr, 20 SE of B6 aspen flat, and 200 m NEof B6 parking spot. Full potr snag with NW facing key hole 23 ft high.**

X: 496310

Y: 4333542

+/- 3

1550—We leave the territory.

2030—KC and AM arrive at presumably the B6/21 nest to peep and observe PD rates. F is down upon arrival.

Weather: 10% cc, slight breeze, 16℃.

2031—AM realizes his headlamp is out of juice, so he heads back to the car to get new batteries.

2045—AM returns to the nest site.

2053—M gives LCs from 50m SE of the nest.

2057—F is up. She flushes to the W. KC peeps, we find 3 eggs, centered and touching. One of the eggs potentially has a small pip, but it could just be a speck of dirt.

2100—M gives LCs 10m E of the nest. F FSCs off cavity. The M gives at least 2 PDs off cavity.

2107—M perches at cavity entrance, gives TCs at us and flushes to NE.

2115—F enters cavity and stays down.

2117—M LCs, FSCs, M PD.

2122—M PD.

2124—M PD.

2129—M PD.

2132—M TCs 50m W on Grave Ridge.

2146—M PD.

2147—M TCs 70m NW.

2155—M PD.

2159—M PD. We leave to set up a lure net in the B6 aspen flat.

2210—While we are setting up the net, we hear M TCs 70m SW/W on Grave Ridge.

2222—We start PB, TC UT track, on a low slope position, S-facing slope, at the northern end of the B6 aspen flat. Net is open N/S. We hear M TCs 50m NW.

Vegetation: mixed age psme, potr, pifl.

Weather: clear, slight breeze, 16℃.

X: 496270

Y: 4333684

+/- 3m

2230—M TCs 50m W on Grave Ridge.

2237—Switch to TEC track. M still gives TCs 20m N of net.

2245—AM leaves to tap and listen up a side drainage NW of the aspen flat.

2315—AM returns to the net site.

2318—We cut PB and leave.

## 23 June 2020

2049—KC arrives at B21\_2020 nest to peep and attempt a M capture if all nestlings are hatched. Upon arrival F is down.

2115—All is quite so I proceed to tap the tree. As I tap the tree a silent bird flies into the nest area and attempts to give a PD. He never goes fully into the cavity, and then gives HECs above my head. I go back to watch the nest, and see a silent bird flying around the nest area, so I presumed I missed the F flush. I tap the tree again and no one comes to the cavity. I peep the cavity and find only egg shells. **B21\_2020 nest has been predated.** I leave the territory.

# BM1 (B-Miscellaneous 1)—2013

## 19 July 2013

2055—As JV and RC are setting up a lure net (with intent to capture a M to equip with a geolocator) just up slope from Co Rd 347 there are two Ms calling off roost. One M calls from the W down in the drainage in an aspen flat and the second calls from the S.

2102—Start playback. Net is flat on 5 poles and opens E/W on upper mid-slope (W-facing).

Vegetation: young/medium pipo/psme, open

Weather: calm, cloudy, 13C

X: 493693

Y: 4334024

+/- 3m

2106—One M appears in the site giving TCs W of net.

2107—M goes silent.

2109—Another M with a higher pitched voice starts giving TECs and TCs from the W. First M (lower pitched voice) picks back up giving TECs and TCs at the net.

2111—M from the W comes closer to the net giving TCs and TECs. The first M goes silent.

2114—High-pitched M flies over net from W to E and starts giving HECs.

2116—As higher-pitched M retreats SE the lower-pitched M starts giving TECs again just E of net.

2117—Both Ms are silent.

2128—First M (lower-pitched) starts calling again just W of net for about 30 seconds.

2130—First M gives one TC.

2132—Higher-pitched M comes back again calling at the net just WSW.

2134—While second M is still calling, there is another bird (unclear if it is the lower-pitched M or a third M) giving TCs WNW in the drainage bottom.

2135—All silent.

2140—A silent bird flies low into the net site from N to S.

2149—JV switches playback to FLOW\_MEFmale

2204—The higher-pitched M starts calling again from the drainage bottom.

2215—JV switches playback to original track.

2235—Lower-pitched M appears in net site just N of net giving TCs.

2236—M goes silent.

2240—Lower-pitched M picks back up with TCs and TECs while hopping around the net site with short, loud, and low flights.

2243—M lands in a pipo just E of the net and goes silent.

2304—A silent bird is caught in the net in the third shelf coming from the west. It appears to be a F with pin feathers covering a brood patch.

**Band # 1783-64436** (on R leg)

74.5 g LWC: 130 mm

- 15.5 g LLP(5): 101 mm

59.0 g LLP(6): 109 mm

Rect: 60 mm

Note: We bleed F on R wing for genetics and smear.

2343—JV releases F. She takes a very long time to release and does so poorly. She flies into two trees ~1m off the ground before hitting the ground. As JV moves towards her she takes a stronger flight up across a 15m clearing to land ~3m off the ground in a live pipo. JV stays with her. She is perching normally and made one short flight 3ft higher in the same pipo. M gives TCs 30m W of net, and approaches site.

2350—A M begins giving TCs and TECSs at the net (sounds like the lower-pitched M). M starts giving very hoarse HECs in mature pipo 5m E of net, then makes low flight to perch in tree adjacent to N side of net.

2352—JV leaves the F in pipo confident that she is regaining her senses. Part of her difficulty may have been due to the fact that she was struggling quite a bit in hand.

2359—The second, higher-pitched M begins giving TECs straight downslope of the net at the same time as the lower-pitched M is still calling in the net site.

2400—Higher-pitched M comes into the net site and the lower-pitched M quickly goes quiet.

2406—Both Ms are silent. JV checks in the pipo that the F was in and she has left.

2415—BL and LL arrive. High-pitched M gives brief TCs from drainage bottom to W.

2435—Turn off playback and take down net.

# BM2 (B-Miscellaneous 2)—2019

## 25 July 2019

2230—ES and KC start PB (T42) at a lure net S of the MGSA, near the southern terminus of Beartorn Cr. The net is ~300m W of FSR 347 along the fenced-off two-track road cuts W from the BG5 area. Net is ~20 m N of the two-track and ~30m S of the creek. The mouth of Beartorn Cr is immediately to the N. Net is open N/S.

Vegetation: young potr

Weather: clear, gentle breeze, 14C

X: 495008

Y: 4331497

+/- 3m

2246—We hear low-pitched TCs (that sound very similar to T42) ~150 m E of us, in the direction of FSR 347. FLOW moves in to give TECs ~50 m E of the net.

2248—Change PB to Psiloscops AZ.

2249—M to the E goes quiet.

2251—TCs again ~75 m E.

2253—We hear two FLOWs calling to the E, the initial M that was giving lower pitched TCs and a second M giving higher pitched TECs/HECs. The birds have an encounter ~75 m to the E.

2255—The high pitched M moves in and gives HECs ~30 m SE of the net. The low-pitched M continues to call ~50 m E.

2258—ES walks PB E to try to draw a bird in.

2301—Return PB to net. High-pitched M gives TCs ~50 m E.

2303—High-pitched M gives TECs ~30 m SE.

2304—We stop PB and prepare to move the net a couple hundred meters to the E as neither bird has come within ~30m E of the net.

2325—While setting up our net ~200 m E of our previous location, we hear low TCs, then HECs ~40 m E.

2327—While we are still setting up the net, we hear a second bird to the E. The two M’s have an encounter ~60 m E of us, seeming to come from very close to the BM2 parking spot. Again, one of the M’s is high-pitched and one is low-pitched.

2330—We start PB (T42) along the fenced-off two-track road ~100 m W of the BM2 parking spot. Net is open N/S. M continues to give high-pitched TECs ~30 m E. The low-pitched M seems to have gone quiet.

Vegetation: young potr, mature water birch

Weather: clear, calm, 10C

X: 495172

Y: 4331448

+/- 3m

2335—Change PB to Psiloscops AZ. High-pitched M still calling in same location.

2339—KC walks PB E toward the calling bird. The M gets louder and higher-pitched with his TECs, but doesn’t follow the PB back to the net.

2342—Return PB to net and change to T42.

2347—M to the E goes quiet.

2350—All has been quiet for a few minutes. It’s time to meet up with the rest of the crew, so we stop PB and pack up the net. We don’t hear any more FL

# BG1—2012

## 9 July 2012

2406-0136—Flam Crew lure nets in the vicinity of FS 347, just NW of the MGSA study area boundary, to attempt to attach geolocators on territorial males. Lure net on R. just N of rd. M in site several times giving TECs and HECs in close vicinity to lure net. This M is presumed to be the eventual BG1 M (See below). Lure net details on data sheet. 2nd M briefly at lure net, presumed to be different from BG1.

0126—As JV begins to climb up to help SY take down his lure net he has a bird come into the net site giving HECs. JV stops and waits at the bottom of the slope.

0128—JV hears nestling begging. MD and PPS join her.

~0130—After crossing over to the S side of the road in the drainage JV follows the nestling begging and comes across an un-enumerated cavity and see an adult making a PD to one of the cavities. The M at SY’s lure net went silent just before this. **This is the BG1\_2012 nest. A full potr snag, dbh: 24.5 cm with > 2 cavities. The nest cavity is flicker-sized facing N about 22.5 ft up.**

**X: 493016**

**Y: 4334161 +/- 6m**

0135—Unknown PD.

0136—Unknown PD.

0138—Unknown PD.

~0140—JV has capture net in place in attempt to capture the M.

0144—A silent bird comes in and makes a PD. **JV catches the F in the net. She is unbanded. This is the BG1\_2012 F. JV bands right leg. JR bleeds right wing for genetics and a parasite smear. No hematoma.**

Blacklight Results: (JV has pictures)

Ware 0-5 Scale: Blacklight 0-5 Scale: Blacklight 0-3 Scale:

P1-3: 4 P1-2: 3 P1-2: 2

P4-6: 3 P3-4: 0 P3-4: 0

P7: 2 P5: 2 P5: 1

P8-10: 1 P6: 1 P6-10: 0

P7-10: 0

**Female: Band # 1783-64349** (on right leg)

95.5 g LWC: 134 mm

- 34.5 g LLP(5): 95 mm

61.0 g LLP(6): 105 mm

Rect: 60 mm

0146—MD peeps the nest. ***There is one nestling who looks to be about 18-20 days old****. JV and SY heard two nestlings begging from the cavity. There might be another nestlings in view just underneath the nestling that is in view.*

0150—After two aborted PDs, **PPS captures the M in the net on a PD. He is unbanded. This is the BG1\_2012 M *(and the lucky recipient of the first geolocator of 2012!)*. SY bands him on his right leg. SY and BL fit him with a geolocator.**

**Male: Band # 1783-64323** (on right leg)

75.0 g

- 27.0 g

48.0 g

Geolocator (Model # MK5720C, V457): **Unit # 002**

0210—F released. Strong, ascending flight to N.

0225—SY releases M. Horizontal to ascending flight. The initial flight was about 15m to a high perch. He preened lightly for a bit and tugged a little at the geolocator. His balance on the perch was very good. He exhibited normal behavior.

0230—Team leaves.

# BG1—2013

## 14 June 2013

2012—NS, CK and MC arrive in W Missouri to try and recapture the BG1\_M. NS and CK find

a suitable lure net location up a side drainage from the main road on an E facing slope.

2103—While MC approaches the lure nest location on crutches slowly, NS and CK set up the

net but don’t start playback yet.

Vegetation: lure net adjacent to young to medium psme in an open area on the upper slope. Lower in the side drainage there were mature pipo/psme.

Weather: mostly clear with some gusts (5-10mph sustained) to start the night. Later, after playback started the weather became calm. 15C.

X: 493044

Y: 4334255

+/- 3

2135—We start playback.

2159—We hear M TCs to the south of the net in the direction of the road near the aspen flats.

2200—We hear M TECs to the SE ~20m away. It appears that the M is approaching up the side drainage.

2202—M FLOW is captured in the E facing side of the net. **M is the BG1\_2012 M carrying a**

**geolocator!** **He is previously banded with band #1783-64323.** M was very tangled in

the the net and had to be cut out.

**Band # 1783-64323** (on L leg)

80.5 g LWC: 132 mm

- 29.5 g LLP(5): 94 mm

51.0 g LLP(6): 103 mm

Rect: 56 mm

Blacklight on the LW. We did not have time to blacklight the RW.

1-6=2

7-10=1

Heavy wear on 6-10.

2234—BG1\_M is released and the GEO is in hand! M had a strong ascending flight to the S. M stopped in a nearby tree ~5m off the ground in the side drainage. M landed in a live psme.

2239—M TCs from the S. This is presumed to be the BG1 M. CK departs to listen for vocalizations in the aspen flats. NS and MC stay at the lure net.

2258—NS and MC hear a second M give TCs from the W over the Ridgetop. CK heads over to check it out.

2300—NS and MC hear a F give FSCs down in the direction of the aspen flats. Presumed BG1\_ M giving TCs in the side drainage leaves immediately to head to the possible nest.

2315—CK returns to the aspen flats and hear M TCs to the NE ~30M away. This is presumed to be the BG1\_M. NS and MC hear the second M over the ridgetop to the NW.

*Note: We believe our net location was the boundary between the BG1\_M territory and the second M territory from over the ridgetop to the N.*

2330—We turn off the playback and depart the area.

# BG1—2014

## 11 July 2014

2109—MC, NS and Maggie Bailey arrive at our lure net location ~150m up drainage from the BG1 campsite on the N slope ~ 50m from the road in a patch of small pipo/psme on a small spur ridge. The net opens E/W, PB begins.

Vegetation: young-medium pipo/psme.

Weather: Clear, calm ~19C.

X: 493263

Y: 4334203

+/- 3m

2245—We hear nothing so we move ~ 300m up the road to a new site. Still on the N side of the road. Net opens E/W on the high slope.

Vegetation: young-medium pipo/psme.

Weather: partly cloudy, calm ~13C.

X: 493594

Y: 4334136

+/- 3m

2340—We hear nothing so we turn of PB and leave.

## 22 July 2014

2254—MC and MP arrive at lure net site ~100m E of the 347 and 348C junction on top of the ridge S of 347 with intent to lure for any BG1 occupant for the possibility of geolocator attachment. PB starts.

Vegetation: young-mature pipo/psme

Weather: clear, slight breeze, 19C

X: 493131

Y: 4334093

+/- 3m

2345—PB off. We have heard nothing all night and leave for the car.

# BG1—2016

## 22 July 2016

2030—MC and KM set up a mist net in BG1 ~50m NE of the road on a small ridge ~100m up drainage from the large campsite. We spread out in the drainage to listen.

Vegetation: mature pipo/psme

Weather: partly cloudy, calm, ~12C

X: 493012

Y: 4334205

+/- 10m

2100—MC return to the net to begin PB.

2104—A M begins giving TCs ~200m ENE up the drainage but goes silent after ~1 minute.

2107—One TC is given ~50m E of the net downslope.

2123—A silent bird flies into the site from the SSW. IT perches for ~1 minute and then flies into the net. **This is the BG7/8 2015 M! He is still carrying Geo #V259.** We remove the package. While there is some feather loss on the back of the bird there is no apparent irritation on the skin.

**Band # 1783-64471 (on x leg)**

78.0 g LWC: XXX mm

- 20.0 g LLP(5): XX mm

58.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: We do not take any additional measurements as we intend to attach a pinpoint backpack to this bird. With this Ms ability to migrate (backpack laden) great distances, his substantial weight, lack of wear, and apparrent capturability, BL determines that this bird would be a good candidate for a Pinpoint GPS.**

2146—MC and KM turn off PB as the crew joins us to attach a pinpoint GPS.

2154—We begin attaching the Pinpoint GPS. **This M will get unit #40945.**

2210—We finish the attachment of the unit.

2213—We release the M. He makes a short ascending flight S. After ~ 1 minute preening he makes another, longer ascending flight just out of view. The crew disassembles.

2221—MC and KM return to the original lure net site and continue PB in hopes of learning more about territory ownership in the area.

2251—With no response to the PB we turn it off and walk S down the road.

2312—We start the PB ~200m down drainage (100m down from the campsite). No response after ~ 5 minutes.

2323—We start PB ~150m S and up a small ridge to the E.

2350—With no response we kill our PB and join the crew.

# BG1\_2017

## 5 June 2017

2410—ZM and BL arrive in the BG1 territory to operate lure net, targeting the BG1\_2016 M that was carrying a PinPoint GPS. We set up the lure net near the GPS coordinates of the net where he was captured last summer, which was approximately 100 m E (up-drainage) from the large, open camping location on FS347, ~1 mile E of the intersection of FS347 and the Rainbow Falls Road.

Vegetation: Sub-mature PIPO-PSME, with net flanked by two smaller PIPO.

Weather: Mostly clear, calm, 15 C.

X: 492907

Y: 4334190

+/- 7 m

2425—Playback started.

2445—ER and JE arrive at BG1 and spread out within the drainage bottom to search for cavity trees. They see and hear nothing.

2455—We break down lure net and leave. Nothing heard or seen.

## 24 June 2017

2307—ER, ES, and ZM start PB in BG1 on the S-facing slope ~75m N of the large campground on the S side of the road.

Vegetation: young pipo, psme, and mature pipo

Weather: partly cloudy, calm, 15C

X: 492933

Y: 4334219

+/- 3m

2312—We hear TCs ~100m E of the net. He is approaching.

2317—We switch to MEGA PB.

2320—After going silent for a few min, a M gives HECs right by the net on the PB tree (S side of net).

2325—The M backs off to the E again but is still giving HECs ~30m away.

2344—The M goes silent.

2348—A M gives HECs ~15m S of the net.

2359—The M backs off ~50m E of the net still vocalizing.

1208—We hear TCs ~75m E of the net.

1215—The bird goes silent.

1235—We stop the PB and collapse the net.

## 24 July 2017

2306—BL, KM, and JE arrive at BG7, set up a lure net for pinpoint attachment, and begin pb of T42. The net is located in the BG7 spot.

Vegetation: mixed pipo/psme

Weather: calm, mostly clear, 15C

X: 493655

Y: 4333644

+/- 3m

2309—A M approaches the net site quickly from the W. He jumps over and around the net for a few minutes.

2312—M goes silent so we check the net check to find **that the M entered the 2nd shelf from the E. He is unbanded.** As the bird is being extracted, a 2nd FLOW is heard ~150-200m W.

**Band # 1833-03598 (on L leg)**

60.5 g LWC: XXX mm

- 7.5 g LLP(5): XX mm

53.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: BL and KM drive down the road to meet ER near BG1. ER secures a pinpoint GPS onto the M. The first attempt does not result in a secure backpack stabilization for the pinpoint, but the second application yields a secure pinpoint attachment to the male.**

2322—2nd FLOW falls silent at the lure net.

2419—On a net check, JE sees a FLOW silently perched ~5ft high on the psme with the pb in it.

2422—At the lure net, the silent bird is out of sight.

2425—JE watches the **silent bird fly into the top shelf from the E.** **It is unbanded.**

**Band # 1833-03599 (on R leg)**

65.5 g LWC: 135 mm

- 07.0 g LLP(5): 55 mm

58.5 g LLP(6): in shaftt mm

Rect: 63 mm

**Notes: Feathers on the top of the head are lacking barbs and coloration on the end of them. This is likely an indication of feather lice. It suspected to be a F as an abundance of pin feathers were present where the brood patch may have been formerly. On both the R and L wings, P1-5 are new feathers, P6 is in shaft, and P7-10 are old.**

2440—KM and BL return to the lure net spot.

2446—We stop pb.

2449—KM releases the first bird with a newly attached pinpoint. He makes a SHF after resting in KMs hand for a few minutes. I look for him for a few minutes, but he apparently flew out of sight.

2457—FLOW is released. It hops out of BL’s hands onto the ground and flies horizontally, landing on the ground under a tree. We break down the net and leave.

# BG1—2018

## 17 July 2018

2107—ON and ES set up lure net open E/W on ridgetop ~200m N of BG1 parking spot. Start PB T42.

Vegetation: mixed age psme/pipo

Weather: 50% cloud cover, windy, 15C

X: 492984

Y: 4334300

+/- 3m

2110-2140—ES taps around cavity trees down in the drainage near the road. I don’t see any FLOWs or hear any vocalizations.

2142—Change PB to FLOW HECs.

2152—M FLOW comes in from SW giving TECs and HECs.

2155—M goes quiet.

2200—We cut PB and break down the net to move to a different spot further SW from where the M came from.

2215—We move a couple ridges SW from previous spot, ~100m NE of BG1 parking spot and start PB T42.

2221—M gives TCs ~50 m S.

2230—We set the lure net up again open NE/SW and meanwhile we hear a M giving TCs to the S. We change PB to FLOW HECs.

Vegetation: mixed age psme/pipo

Weather: clear, windy, 15C

X: 492783

Y: 4334170

+/- 3m

2238—After M is silent for a while, we switch PB back to T42.

2305—TCs ~100 m S.

2306—M TCs coming in from NE but he doesn’t get closer than ~30m from net.

2307—M goes quiet.

2310—M briefly comes into net site from S.

2313—M gets further away and goes quiet. We move PB to the ground and switch to FLOW HECs.

2320—After several minutes of silence, we cut PB and break down net.

2327—Leave BG1 territory to meet up with the crew.

# BG1—2019

## 19 July 2019

2145—JE, AM and SL arrive in BG1 territory to lure with the intention of capturing a strongly territorial M FLOW to attach a pinpoint GPS tracker to.

2209—We start PB T42. Our net is open N/S, in the drainage bottom, ~5m S of the road and ~75m E from the BG1 parking spot.

Vegetation: young potr, mixed age psme and pipo

Weather:80% cc, calm, 24 C

X: 493045

Y: 4334178

+/- 3m

2222—We hear M TCs ~35m SW and FLOW quickly enters net site from the SW direction.

2224—M HECs ~15m N. AM hears wing-flaps.

2225—**JE checks the net and there is an un-banded M FLOW on the S side in the 3rd shelf. We band him #1833-32631.**

2226—While extracting him we think that we hear F LCs in the net site so we turn off PB.

2234—**Due to the M’s strong territorial behavior we decide he is a good candidate for a pinpoint. JE drives up to BG2 with the FLOW to meet BL to attach a pinpoint.**

2242—We hear over the radio that BG7 net also caught a territorial FLOW. BL, JE, Ellie Harrison, and the BG1 M take a trip up to BG7 to attach both pinpoints up there.

**Band # 1833-32631 (on L leg)**

66.0 g LWC: XXX mm

- 7.0 g LLP(5): XX mm

59.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: Pinpoint #49663 attached. No measurements or blood taken.**

2313—Pinpoint attachment is complete.

2354—BL drives the BG1 M back to the area. JE release him and he has a SH then AF. The crew leaves Missouri for the night.

*Notes below are from AM and SL staying in the territory while JE left with the bird*

2226—While extracting him we think that we hear F LCs in the net site so we turn off PB.

2235—AM and SL take the net down to two poles and walk around the territory tapping cavity trees and listening for F vocalizations.

2252—It has been completely silent except for the occasional laugh from nearby campers and we hypothesize that the potential F vocalizations maybe have actually been from campers, so we decide to raise the lure net back up on four poles and start PB again.

2305—All is quiet. AM changes PB to Psciloscops AZ.

# BG1—2020

## 30 June 2020

2015-2131—ON and SL arrive at BG1 to tap cavity trees and listen for FLOW nesting vocalizations with the hopes of capturing last year’s BG1 M (#1833-32631) who is carrying migration pinpoint #49663. We begin at the BG1 parking area/campsite and work our way up drainage ~250 m and back down deliberately tapping, scanning, and flagging every cavity tree we find. We do not find any FLOW nest.

2118—After ON gives some hoots, a M responds with TCs E of last year’s lure net site (where we lure again later in the night). He does not sing continuously, but rather, he just responds to my calls. I chase him up drainage and then back down drainage where it sounds like he’s calling closer to the parking area.

2131—After the M stops responding to my calls, we decide to try our luck with a lure net in the same spot where the BG1 M was caught last year.

2200—ON and SL set up a lure net in hopes of recovering the pinpoint that was attached to the BG1\_2019 territorial M. The net is in the same location where the BG1\_2019 M was captured and given a migration pinpoint in 2019; ~5m from 347 and ~75m W of the BG1 parking spot. The net is open N/S in the drainage bottom next to a stand of young potr.

Vegetation: mixed, mostly young potr, young psme

Weather: 20%cc, calm, 13°C

X: 493045

Y: 4334175

+/- 3m

2201—Start PB with FLOW TCs track.

2219—Change PB to megascops.

2225-2235—M giving TCs in net site. Shorty after, he switches to HECs and TECs.

2236—ON walks PB to the E to try and move the M into the net, he instead goes quiet, so she changes the PB to HECs and walks towards the BG1 parking spot. M starts giving TCs again in the net site.

2253—M has gone silent. Change PB to Megascops; M is back in site giving TCs.

2303—M giving TCs in net site. Shortly after, M goes quiet.

2311—Change PB to FLOW TCs to try and get M back in the net site and finally go in the net.

2313—M TCs ~15m NW, approaching the net site.

2345—It’s been silent for about 20min.

2350—We cut PB and take down the net. No flammies were caught and no pinpoints were retrieved ☹.

## 14 July 2020

2210—BL arrives in BG1 to attempt capture of territorial males for geolocator attachments (ES at up-drainage at BG2, and KC and AM down-drainage near confluence of FS348 and 347). I set up net approximately 100 m up-drainage (E) of the large dispersed party/campsite along the W-portion of FS347, about 2 km W of the MGSA boundary.

Vegetation: Mature PIPO/PSME; net adjacent to small stand of small-dbh PSME in drainage bottom, 10 m S of FS347.

Weather: <20% cloud cover, calm, 14 C.

X: 493039

Y: 4334183

+/- 7 m

2223—I start playback.

2345—Start net breakdown, just as light rain starts to fall. No owls heard since I arrived.

# BG2—2012

## 16 July 2012

2250—JV and MD have a lure net set up and playback on in attempt to capture any territorial Ms for geolocating. The net is about .6 miles N of the junction of 351 and 348 on 348 in the Fern Creek drainage. Net runs NW to SE.

Vegetation: young potr, mature psme/ipo

Weather: mostly clear, calm, 15 C

X: 492912

Y: 4335933

+/- 4m

2251—A M starts giving TCs and TECs from SW across the road. He comes into the net site giving some HECs as well.

2256—JV begins walking to playback back and forth underneath the net as the M is swooping low giving TECs.

2303—**Catch M in net in 2nd tier coming from the S. He is unbanded and will be the BG2\_2012 M. BL and PPS arrive shortly after this time, and BL affixes the M with geolocato**r **Unit #B721**. JV bands on right leg.

**Band # 1783-64353** (on right leg)

85.0 g

- 30.0 g

55.0 g

2328—Release M. He as a strong, ascending flight about 15m to a live pipo. He makes another short flight, then leaving his perch to go SW out of sight.

2330—Turn off playback and leave.

## 17 July 2012

2050—JV and MD arrive 0.9 miles N of the 348/351 intersection to lure net for a territorial M.

2100—Playback is started. Net runs E-W and is set up on 5 poles.

Vegetation: young potr, mature psme/pipo

Weather: calm, 13C, partly cloudy

X: 492929

Y: 4336422

+/- 3m

2150—Territorial M begins giving TC/TECs from E.

2204—M is silent.

2206—F calls started on playback.  
2218—We move the net so now it runs across the road (runs N-S)

2222—Playback is started.

2224—M begins giving TC/TECs by net.

2229—M is silent.

2243—M gives a couple TECs by the net. Net must be moved due to woods pirates.

2302—F calls started.

2317—TC/TEC playback started.

2320—M calling from the N.

2328—**M caught in 2nd shelf from the W.** **This is the BG2 M (1783-64353) caught and geolocated on 16 July 2012! Unit #B721**

**Band # 1783-64353** (on R leg)

No measurements were done. The geolocator appears to be doing well.

2330—Playback stopped and we leave.

# BG2—2013

## 3 July 2013

~2130—SY, MC, and LL arrive in BG2 with intention of lure netting for the BG2\_2012 M and acquiring a geolocator return.

2135—We start playback. Our net is <5m E of Road 348 ~6/10ths of a mile N of the junction with Road 351.

Vegetation: Young potr stand, medium psme, open

Weather: calm, clear, 9 C, it had rained a little earlier on in the night.

X: 492919

Y: 4335913

+/- 4m

2137—M gives HECs ~20m NE of net for <1min.

2138—M gives TCs ~30m SW of net for ~1min.

2140—M gives HECs and TCs in immediate net vicinity.

2145—M goes silent.

2146—M gives TCs ~40m S of net for <1min.

2147—M gives a single TC ~40m S of net.

2151—SY and LL leave to tap and listen in drainage while MC stays at net.

2204—MC hears M give TCs N of net. M jumps to E of net, then S giving TCs.

2206—M goes silent.

2208—MC hears M give TCs in close proximity E of the net, then M goes silent.

2214—MC hears M give TCs directly N of net, but to the E of the road.

2241—**SY taps a previously unenumerated cavity tree and a FLOW flushes – I did not see the exact cavity on the tree, but the F came from the W side less than 20 feet up. The tree is a potr snag in the main drainage bottom ~5-10m E of FR 348. This is the BG2\_2013 Nest!**

X: 492952

Y: 4336216 +/-6m

I back off to allow F back onto the cavity.

2251—SY flushes F on tap for second time in attempt to determine exact nest cavity. Cavity is the middle NOFL sized cavity ~16 feet up on the W side.

2252—SY sets up in capture position again.

2255—MC hears M give TCs to the N of net, then M jumps net and gives TECs to the S.

2257—M goes silent.

~2259—M enters the nest site. SY is able to get view of **band, which is on M’s L leg(**?)

~2300—F gives FSCs from nest and we are able to hear nestlings “chittering”.

2304—M makes a PD and SY covers the cavity entrance with the capture net. The M stays in the cavity and we assume he and the F are allopreening. We can hear F making “cooing” sounds.

2312—**F flushes into capture net, she in unbanded**. We do not see M leave the cavity, but he must have flushed immediately after F was captured. We band the F.

## 8 July 2013

2025—SY, LL and MC arrive at BG2\_2013 with intent to capture the male and etieve a geolocater.

2028—As we approach the female comes to the front of the cavity so we back off.

2047—Female flushes.

2049—Peeper up. **Peep reveals 2 nestlings. Grey color coming in, eyes open and fairly active (recording in dropbox).**

2053—Female back on.

2054—Prey delivery by male.

2055—2 prey deliveries by the male, female leaves cavity.

2057—M goes in cavity, SY raises net, capture bird in the net.

**Band # 1783-64353** (on right leg) **This is the 2012 BG2 male with the geolocater!!**

66.5 g LWC: 133 mm

- 17.0 g LLP(5): XX mm

49.5 g LLP(6): XXX mm

Rect: XX mm

Notes: Geolocater positioned very well. Small bare spot on back under the geolocater.

2106—Bird released totally on purpose (actually, bird was accidently released) after getting the

necessary LWC and geolocater.

**Band # 1783-64408** (on L leg)

MC stops playback at this point.

~2317—F is released. She has a pretty low, short, zigzag-y flight and lands at eye-level in a potr ~3m away. We wait around to see F make a stronger, ascending flight to a potr ~10m away, then pack up our stuff and head back to the lure net to help MC take it down.

2334—We leave.

# BG2—2014

## 22 July 2014

2230—BL and RD arrive in BG2 intending to lure for the territory M, and attach a Geolocator if we catch him.

2234—BL starts PB at the vehicle, and we walk 50m S down the rd to a net site 10m W up the steep slope above the rd.

2245—BL and RD finish assembling the net, M starts giving TCs SE of the net across the rd. M then hops over the rd. to the NE then NW of net giving TCs constantly.

Vegetation: Medium Pipo/Psme w/ adult pipo and psme to NW of net, and an opening down to the rd. to SE.

Weather: Few clouds on the horizon, calm, 21C

X:492873

Y:4335866

+/-4m

2257—M goes silent.

2258—BL and RD hear wing flaps from the net, **we have caught an unbanded bird in the 4th shelf from the E.** The bird turns out to be a F in molt on P(2,3,4) on both wings, and pin feathers coming in on her breast.

**Band # 1783-64555 (on L leg)**

71.5 g LWC: 130 mm

- 7.0 g LLP(5): 102 mm

64.5 g LLP(6): 109 mm

Rect: 66 mm

*Both wings:*

*P(2):70 mm*

*P(3):68 mm*

*P(4):45 mm (25 in shaft)*

*Note: Very dark vanes w/ chocolate spots on sides of vane.*

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | .5 | .5 |
| P6 | .5 | .5 |
| P7 | .5 | .5 |
| P8 | .5 | .5 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | N/A | N/A |
| P3 | N/A | N/A |
| P4 | N/A | N/A |
| P5 | .5 | .5 |
| P6 | 1 | 1 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2317—RD releases F, she flies into BL’s truck and lands on the ground. After a moment of rest, F makes strong ascending flight to the S. M was calling while BL an RD were processing F, then stopped before we release F.

2328—BL goes to check in w/ AW and LL, walking S down the rd. No activity at net.

2353—We turn PB off and disassemble net, leave off for the night.

# BG2—2015

## 24 July 2015

2307—BL and LP arrive in the BG2 territory to lure net for the BG2\_2015 M. We do not setup a mist net here. PB is located ~5m SW of road, ~600m W of B11 turnoff on FS Rd 347. LP stays at area of PB. BL moves down drainage to identify cavity trees.

Vegetation: young-mature pipo, young-mature potr, fairly closed

Weather: mostly clear, calm

X: 493651

Y: 4333936

+/- 3m

2332—We hear no vocalizations during the entirety of our time in BG2. PB is turned off. We leave area. This is end of our night.

# BG2—2016

## 22 July 2016

2034—BH and ER arrive in BG2, and spread out in drainage to listen and tap trees for signs of FLOW nesting.

2105—After hearing nothing, we head up the slope S of the BG2 parking spot to set up a lure net with the intent of capturing a territorial M for a PinPoint GPS.

~2115—We start PB on a net ~50m S upslope of the BG2 parking spot.

Vegetation: Young to mature pipo/psme

Weather: Calm, clear, 15 C

X: 493722

Y: 4333978

+/- 21m

~2130—ER walks W with the PB in hopes of inciting FLOW activity at the net.

2141—After hearing nothing, we turn off PB and leave to join BL, MC, and KM in putting a PinPoint GPS on a captured FLOW in BG1.

2229—We return to BG2 lure net and restart PB.

2249—After hearing nothing, we walk S on the ridge with the PB, and down the road into the dr. We do not hear any FLOWs.

~2300—We turn off PB as we hide from very nearby woods pirates.

~2330—We return to net, break down, and leave BG2.

# BG2—2018

## 17 July 2018

2117—KA and DL start PB of T42 in BG2 territory. Goal is to capture a territorial M for a migration pinpoint. Net is located ~50 m NE of study road across from drainage with large potrs. Net is mid slope, open N/S. All quiet upon arrival.

Vegetation: mixed age pipo, psme

Weather: 70% cloud cover with scattered showers and potential storm rolling in, breezy, 15 C

X: 493666

Y: 4334017

+/- 3 m

2130-2200—KA walks down into drainage with large potrs and mixed conifers along road. I tap and flag a few cavity trees, as well as listening for any FLOW vocalizations, including possible fledgling begging. Nothing heard or seen. I can clearly hear our PB coming from the opposite ridge the whole time. After giving a few TCs on the slope SW of the road, I get no response and head back to the lure net.

2206—DL walks PB NE up to the ridgetop to see if we can broadcast the sound further. No response.

2220—DL returns PB.

2311—It has been silent all night, so we cut PB, leave the site, and head to pick up the other group.

# BG2—2019

## 19 July 2019

2211—ON, ML, KA, and Ellie Harrison start PB T42 in BG2\_2019 territory with the goal of deploying a migratory Pinpoint GPS to a territorial M. Net located ~10m N of FS road 347, ~50m W of the BG2 parking spot. Net open N/S, on a low S-facing slope.

Vegetation: mixed age psme, pipo

Weather: calm, 30% cc, 25 C

X: 493662

Y: 4333949

+/- 3m

2220—Net check empty, all quiet. ON and ML head off to listen and look for cavity trees. They also scan for better lure net sites. ON heads across the road to the potr drainage, ML heads W along the ridge.

2237—All quiet so KA switches track to Psiloscops AZ. Ellie Harrison leaves to join BL and JE for Pinpoint attachment.

2239—KA walks PB N ~150m to the top of the ridge.

2245—From the top of the ridge, KA switches PB to T42. No response.

2254—PB returned to the net site.

2302—We walk PB S across the road ~40m. ML has identified this as a better lure net site, so we leave PB here for ~10 mins to check for a response.

2307—Track switch to Psiloscops AZ.

2310—KA walks PB W down the road ~75m, then back to the net site.

2325—After a completely quiet night, we cut PB and break down the net.

2330—We head back to the cars to meet up with the rest of the crew. No other signs of FLOW activity are seen nor heard in BG2.

# BG2—2020

## 14 July 2020

2200—ES arrives at BG2 to lure for a territorial M to put a PinPoint on. While setting up the net, I hear a M giving TCs ~75m N of my position.

2218—Start PB at lure net located on low slope ~30m SW of Road 347, ~1/2 mile up drainage from the large campsite, and ~3/10 mile NW of PPG Ridge. Net open NE/SW.

Vegetation: young potr/psme, mature psme

Weather: clear, calm, ~16C

X: 493621

Y: 4333946

+/- 3m

2220—TCs ~50m NE.

2221—M comes into net site making HECs. He flies over the net a couple of times.

2226—Change PB to Megascops. M flies over net again, still making HECs.

2231—M flies over net a few more times.

2236—I get eyes on the M. He appears to be unbanded and not carrying any hardware.

2237—Change PB to Psiloscops AZ. M flies over net again.

2245—M goes quiet.

2248—M gives HECs in net site.

2250—I stop PB and pack up the net. I’m going to try to find a better site with fewer tall trees for the M to perch in.

2325—Start PB at new location ~60m SW (uphill) of previous net site. Net open E/W.

Vegetation: young potr/psme

Weather: 90% cloud cover, calm, ~12C

X: 493577

Y: 4333892

+/- 3m

2329—Presumably the same M comes into the net site from the NE, giving HECs. I change PB to Megascops.

2330—M gives HECs ~10m N of net. A different M calls ~150m NW.

2333—M in site goes quiet. Second M still calling far off to NW.

2334—HECs ~15m N of net.

2336—All quiet.

2337—HECs in net site.

2342—M goes quiet. It’s starting to drizzle, so I stop PB and pack up the net. There is definitely a territorial M in BG2! This second net site would be good to target him next time.

# BG3—2012

## 17 July 2012

2125—CC and AW arrive at the furthest part of FS 351 attempting to lure net a territorial M for geolocating purposes.

Vegetation: mature psme/pipo with some small potr and psme next to them.

Weather: mostly clear, calm, 13C

X: 496042

Y: 4335186

+/- 7m

2130—Playback started

2132—M begins responding with TC/TEC (M started giving TC’s while we were walking up the road in the drainage bottom to our lure net site).

**2145—M captured in 4th shelf from the E.**

**Band # 1783-64360** (on L leg)

92.0 g

- 34.5 g

57.5 g

**Geolocator LD**: B722

2208—AW/CC travel down 351 and meet BL at junction of FS 348 and 350A. BL affixes **Geolocator # B722** to M at this time.

2252—M released with short horizontal flight to adjacent potr where he then proceeds to tug at the geolocator and harness until 2307.

2310—Finished observing.

# BG3—2013

## 3 July 2013

2120—RC, AW, and BDG arrive in Fern Gulch intending to lure for the BG3 geolocator M. We

begin playback. Net is located N of FS Rd 351 at the eastern most end in roughly the same location as when AW and CC captured the BG3 originally.

Vegetation: med-old psme/pipo with some younger potr snags near net

Weather: slightly overcast with nearby thunderstorms early on becoming clear towards

end of night, 10C

X: 496046

Y: 4335193

+/- 7 m

2129—M begins responding to playback with TCs to our E. M approaches playback

immediately after and remains in net vicinity giving TC/HECs until 2200. M is never captured.

2200—AW decides to move playback to different location, hoping to alter Ms perch sites. At

this point, M goes silent. AW and BDG leave to look for alternative lure net locations.

2217—RC ends playback. We disassemble lure net and move locations.

2239—RC, BDG, and AW start playback at second lure net location ~200 m E of previous

location. Lure net is located just N of FS Rd 351 in the drainage bottom in a patch of live small potr.

Vegetation: young potr, young pipo

Weather: clear, calm, 7C

X: 496249

Y: 4335135

+/- 4m

2310—We end playback. M never responded to playback and was last heard at 2200.

~2320—AW high centers vehicle on a small boulder while backing out. Flam Crew joins us and

we attempt slowly jacking rear wheels up onto elevated rock tracks. After several failed

attempts to obtain enough traction on the rear right wheel, SY, BDG, CK, and AW locate

a large rock (“Big Bertha”) approximately 100 m to our E. We retrieve boulder by

rolling it down the road and position it behind the right rear wheel. BL starts the car,

shifts into gear, and slowly drives along rock tracks to the road! We leave Fern Gulch

after this at approximately 0515 (also, 2915).

## 15 July 2013

2405—BL, RReynolds, MSnyder, and Gazette reporters (Michael, Rian) arrive in the BG3\_2013

territory to attempt recovery of the 2012 geolocator. We start playback at this time.

Vegetation: Mature Pipo/Psme stand (30 m N of FS 351), and net adjacent to young stand (~ 10 cm dbh) of Potr on one side, open on other.

Weather: clear, calm, ~ 8 C.

X: 495899

Y: 4335236

+/- 4 m

2440—We break down net and leave. Nothing captured, and nothing heard.

# BG3—2014

## 31 May 2014

2136—After one failed attempt at locating the BG3 parking spot, RC and Kimi Tanabe arrive at BG3 with intent to lure net for BG3\_M and potentially to remove his geolocator.

2150—PB begin. Net is flat, opening N/S 80m NE of parking area on low south-facing slope.

**Vegetation**: Mixed pipo/psme, open (net adjacent to stand of young psme and psme snags on rocky outcrop).

**Weather**: Clear, wind 5-10 mph from W with some stronger gusts, 11.5C.

X: 496053

Y: 4335167

+/- 3m

2155—Brief TC/TECs to S in net area, then loud wing flaps heard. Net empty upon check. TC/TECs continue intermittently nearby to S of net. Calls continue for at least half an hour, but M never hits net again. Calls are quiet and wind and stream noise prevent accurate understanding of continuity and extent of vocalizations.

2307—PB off. We leave.

## 7 June 2014

~2245—MC, RC, and Kimi Tanabe arrive at BG3 parking spot to lure for BG3 M and hopefully to retrieve geolocator. We set up net flat, opening E/W on low S-facing slope and flanking the stand of small potrs 10m N of rd 351 at parking area.

Vegetation: young potr stand with mature pipo flanking clearing, open.

Weather: Overcast, mostly calm, 7C.

X: 495915

Y: 4335235

+/- 4m

2253—PB on.

2255—M TCing in net area, having approached from S and bounced quickly to W side.

2300—2 Ms TCing near net. First bird still TC/TECing to W down drainage while new bird begins TC/TECing to E 40m slightly higher up on low S-facing slope.

2302—Downstream M goes silent. Upstream bird still calling.

2304—Both birds silent. **Unbanded M in net, 4th shelf from W. We hear TCs of second bird to W, then to E. We are unsure, but think that the uncaptured M is the upstream bird (and may hopefully be carrying a geo).**

**Band # 1783-64532 (on L leg)**

66.0 g LWC: 125 mm

- 15.5 g LLP(5): 94 mm

50.5 g LLP(6): 102 mm

Rect: 53 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 1 |
| P6 | 2 | 1.5 |
| P7 | 2.5 | 1.5 |
| P8 | 3 | 2 |
| P9 | 3 | 2.5 |
| P10 | 3 | 2.5 |

Notes: No black light in net bag. M bled on L wing, small hematoma.

2328—**1783-64532** released with strong, steeply ascending flight S to mature pipo perch. Second M was calling intermittently while this bird was in hand and goes silent around the time this bird is released.

2351—MC walks E up drainage to try to draw upper bird back in. No luck.

2400—PB off. We leave.

## 11 July 2014

2101—RC and JS arrive at BG3 parking spot in small potr stand 10m N of rd 351 across from campsite. After chatting with the campers, we begin setting up our net, which flanks the N side of the potr stand. This is the site where MC and RC captured 1 and heard 2 territorial birds on 6/7/14.

~2105—LL, RD, and friend arrive in BG3 with intent of luring for a territorial M to attach a geolocator to. They discover several fist to head-sized holes in the 4th shelf of the net and spend the next 30mins repairing them.

2115—PB begin at RC net.

Vegetation: young potr, mixed pipo/psme, very open.

Weather: mostly clear and calm, ~13C.

X: 495927

Y:4335244

+/- 3m

2141—Upper net finally up and PB started. Net just on the N side of Rd 351, ~300m E of the BG3 parking spot/Big Bertha and our lovely rock piles.

Vegetation: Young-medium potr, young-mature pipo/psme.

Weather: Clear, calm, 13C

X: 496250

Y: 4335103

+/- 4m

2143—M gives TCs/TECs to W ~50m, comes into net site almost immediately giving TCs/TECs.

2145—M goes silent.

2146—LL checks net, **M is captured in 2nd shelf from the E side. M is unbaded. This is the newly created BG10\_2014 M.**

**Band # 1783-64528 (on R leg)**

Once M is extracted, we immediately take down the net and meet up with RC and JS to drive the M down to BL in BG9.

2154—Not a sound at the lower net. RC and JS shut PB off as LL and RD come to join with

their unbanded upper BG3 M to be geo’d.

2222—We arrive at BL’s truck in BG9. **BL attaches Geo #N698 to BG10\_2014 M (#1783-64528).**

2245—The Geo is securely attached and LL, RC, JS, RD, and friend all return to BG3 to release the newly Geo-ed M.

2309—M is released in the vicinity of the lure net where he was captured. M has extremely strong flight to the S, curving SW and disappearing around a large psme. We leave.

## 22 July 2014

2240—RC and JS arrive at BG3 parking spot to lure for BG3 and adjacent Ms.

2242—We start PB and begin setting up net in same potr flat location that has been used several times this year. Net flanks small potr stand in BG3 parking area 15m N across rd 351 from campsite.

Vegetation: young potr with mixed pipo/psme surrounding clearing, very open.

Weather: mostly calm, clear, ~18C.

X: 495927

Y: 4335244

+/- 3m

2250—Net up.

2327—PB off. Nothing seen or heard. We break down (emotionally) and leave.

# BG3—2018

## 19 July 2018

2124—KA and DL start PB of T42 in BG3 territory. Our goal is to capture a territorial M and attach a pinpoint with a migration schedule. Net is ~10 m N of the Fern Gulch Rd on N side of a small potr stand across from parking spot. Parking spot is 2.2 miles from the junction between Rd 348 (Fern Gulch Rd) and Rd 351. Net site previously used in 2014. Net near drainage bottom, open N/S.

Vegetation: young potr stand surrounded by mixed age pipo/psme

Weather: 10% cloud cover, calm, 20 C

X: 495936

Y: 4335247

+/- 3m

2125—M immediately begins calling at the net, giving TECs then HECs from ~20 m SE of net. He appears to come from up drainage across the road, in the direction of BG10. M comes right into net site, hops from pipo to potr stand. A second M also gives a few TCs from further off (~50 m) S of the net, but does not come closer into the net site.

2128—**We capture unbanded, (very) territorial M FLOW in 3rd shelf, S side. He continues to make HECs as DL extracts him. We cut PB. DL then heads up ridge to make radio contact with BL. We get the go ahead to put a pinpoint on M. SF brings us banding pliers, then leaves to extract bird at BG10 net. We band and measure M (he keeps making HECS), then DL attaches pinpoint #48202. SF returns to check her handiwork. The harness looks good and fits well!**

**Band # 1833-32579 (on L leg)**

86.0 g LWC: 133 mm

- 34.5 g LLP(5): 102 mm

51.5 g LLP(6): 110 mm

Rect: 61 mm

**Notes: Pinpoint #48202 attached. For the sake of time, we don’t take full wear data, but primaries 6 through 10 are very worn (a 3) on both wings. RP2 is in molt.**

2212—We release M, he shows fluttery ascending flight to nearby pipo where her preens and tugs at the pinpoint for ~15 min. We wait to start PB to avoid immediately recapturing him. Then he leaves.

2222—We start PB again, hoping to capture the other M who vocalized earlier in the night in case he was carrying a geo.

2223—Pinpoint M begins making HECs again.

2227—Other bird makes TCs (lower pitched) from ~20 m SE, Pinpoint M also continues calling.

2235—The second M leaves to the SE.

2238—Second M returns, making a few TCs again, then both birds go out of earshot.

2241-2244—A bird vocalized to the W ~60 m away. These are higher pitched TCs, and could be either the pinpoint M or another bird.

2254—DL walks PB E to see if she can draw the birds back to the net site.

2256—DL thinks she hears a nestling beg from very close to the net site. KA scans the area with a light and listens while DL walks PB. No other vocalizations heard.

2302—No birds return to the site with DL, so we cut PB and leave the site.

# BG3—2019

## 14 June 2019

2105—AM, BL, and ML arrive in BG10/BG3 to attempt capture of M equipped with PinPoint in 2018. We start PB, T42 on a S facing low slope 30m N of FS351 Rd 50m NW of BG10/BG3 parking spot, open E-W. Within seconds, two M FLOWs begin responding, one originating from the E/SE and one from the SW. Both start from 50-70m and come in hot to the net site, giving TCs, TECs, and a few HECs to one another and the PB.

Vegetation: open, mixed age pipo, psme, pipu, and young potr

Weather: 10% cc, wind calm, 10 C

X: 495904

Y: 4335245

+/- 5m

2107-2120—Both M FLOWs are in the site, bouncing around the net, giving TCs, TECs, and HECs, and occasionally flying over net.

2123—Only one M calling in the net site now. He flies over the net giving TECs still.

2128—AM hears wing flaps and checks the net as M goes quiet. **A FLOW is in the net! Unbanded from the E on the 2nd shelf.**

2130-2205—AM and BL process the FLOW.

2131—M heard calling within ~20 m of net.

2133—M stops calling.

2147—M begins calling once again, ~20 m SW of the net.

2150—Calls stop.

**Capture #1: Band # 1833-32523 (on L leg)**

65.0 g LWC: 130 mm

- 7.0 g LLP(5): 96 mm

58.0 g LLP(6): 105 mm

Rect: 63 mm

**Notes: Unbanded. Bled on R, med hematoma. Because of SAF to W followed by TCs from the SW, we presume him to be the BG3\_2019 M.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 3 |
| P2 | 2.5 | 3 |
| P3 | 2.5 | 3 |
| P4 | 2 | 2.5 |
| P5 | 2 | 2.5 |
| P6 | 1.5 | 2.5 |
| P7 | 1.5 | 2 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2207—FLOW is released, SAF to W.

2210—Quiet around the net; PB is changed to Megascops track.

2215—M TCs 30m SW, presumably the M we just released.

2217-2226—There are two M FLOWs calling again, the SW bird still and now the 2nd M originating from the E but bouncing around the site.

2226—**ML hears wing flaps, checks the net, and finds a FLOW caught in the top shelf from the E! The bird is unbanded.** We cut PB, ML and AM break down the net while BL processes the FLOW.

2227-2230—M TC’s continue for a few minutes after PB is cut before stopping.

2228-2248—BL processes FLOW.

**Capture #2: Band # 1833-32594 (on L leg)**

60.5 g LWC: 133 mm

- 7.0 g LLP(5): 98 mm

53.5 g LLP(6): 107 mm

Rect: 60 mm

**Notes: Unbanded. Bled on R, moderate hematoma. Because of his calling from the E prior to capture, we presume him to be the BG10\_2019 M. However, more lure netting farther E on FS351 is needed to verify the Pinpoint BG10\_2018 M is no longer the BG10 territory holder.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2.5 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0 | 0 |
| P5 | .5 | .5 |
| P6 | 1 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2249—ML releases the FLOW, SHF to the S. We leave.

# BG4—2012

## 17 July 2012

2051—SY, AP, Abby Pyle and friend Kate arrive .1 mile N of confluence with S Missouri on Road 347 (where the pygmy owl nest was from ~2006) to attempt to capture a territorial M in order to place a geolocator on him. We start playback.

Vegetation: young Potr

Weather: calm, cloudy, ground wet. 8 C.

X: 495747

Y: 4331559

+/- 4 M

2056—M gives TECs, HECs, TCs around the net.

2103—A bird is in the net. **He is an unbanded M**. He flew in from the N and was in shelf 4.

2105—Bird is in hand. **We proceed to place a geolocator on him. He is BG 4, and his geolocator number is 007. We find parasites on him and collect them.**

**Band # 1783-64327** (on L leg)

75.5 g LWC: 128 mm

- 16.0 g

59.5 g

2126—M is released, he has a strong ascending flight to NW.

2136—We stop playback and take down net. We can hear the same M giving TCs from nearby.

2143—We leave.

# BG4—2013

## 9 May 2013

2030—BY410 students, AW, and BL arrive in the BG4\_2012 and BG5\_2012 territories to attempt capture of the territorial males and retrieve their geolocators. AW takes approximately half of the class with her to set up a lure net in BG5, and BL takes the other half of the class to BG4.

**Weather:** Mostly cloudy (but clouds starting to break), calm, approximately 0 C, with approximately 10-15 cm of wet snow on the ground. We parked at the cul-de-sac at the N end of Ridgewood Subdivision and hiked in.

2121—Playback started at the BG4 site, which was ~ 50 m E of FS347 near where the road crosses Missouri Cr. While we were setting up the net, we could hear first hear a FLOW M, then F, vocalizing intermittently down by the creek.

X: 495747

Y: 4331650

+/- 3 m

~2130—M approaches lure net and vocalizes in its vicinity. Over the next ~ 45 min, the M and at times the F approach the net area 4-5 times, and at one point I observe both the M and F perched on the guy lines on the end of the net.

2224—**We capture the presumed BG4 M in the net, and as soon as we extricate him we see that he is both banded and is carrying a geolocator!!** BL stuffs him in a holding bag, and walk to meet AW and the other students mid-way between the two territories. Both playbacks were shut down. **M has Band # 1783-64327—this is the BG4\_2012 M!!**

**Band # 1783-64327** (on x leg)

80.0 g LWC: 131 mm

- 28.0 g LLP(5): 96 mm

52.0 g LLP(6): 105 mm

Rect: 59 mm

**Notes:** Geolocator is removed after noting that it still was well-positioned on the back, and caused minimal wear—feathers were worn down in the path of the harness, but no evidence of damaged or calloused epidermis. An adult ectoparasite was collected from the primaries. P6-P10 were well worn on the ends. No blood sample was taken.

## 29 May 2013

1521—Flam crew arrives in BG4 to flag new cavity trees and to peep.

1541—Cavity tree #1021 is peeped. We observe F FLOW in bottom of cavity. **This is the BG4\_2013 nest tree (tag #1021)!** Nest tree is a POTR snag approximately 3 m W of main road (FS347) in drainage bottom of main Missouri Cr, and is approximately 120 m N of the 2-track that goes S into S Missouri Cr, and ~ 300 m S of the S boundary of the MGSA. Nest cavity is a double entrance with both entrances facing S. The top cavity is 22’7” and the bottom cavity is approximately 1’ below this. F remains down the entire time.

1550—Flam crew leaves BG4 to peep B6 and B7 territories.

2025—AW, RC, and BDG arrive at BG4\_2013 nest tree to peep and check on the status of the nest.

Weather: calm, clear, 15 C.

2030—F is up in top cavity.

2039—F flushes.

2040—**We peep and find 1 egg, centered.**

2041—We leave to lure on Grave Ridge.

## 4 June 2013

2012—AW, RC, and LL arrive in the vicinity of the BG4\_2013 nest tree. AW approaches the

nest tree from the N with the intent of capturing the F on her flush.

2016—Net is in capture position. F comes up as soon as net is placed against tree.

2018—**F flushes into net and is captured. The BG4 F is unbanded and we band her with #1593-64893 on her R leg. She maxes out the scale when we mass her, so her weight is >71.0 g (100.0 g – 29.0 g tare = 71.0 g). We do not take measurements, blood, or blacklight. While we are processing the F, RC peeps cavity and finds 2 eggs, centered, and touching.**

**Band # 1593-64893 (on R leg)**

2023—F is released with horizontal, but normal flight to the SW.

2024—We leave.

## 24 June 2013

2149—AW, RC, and BDG arrive at BG4\_2013 nest with intent to peep. F rises to tap, then flushes when peeper is raised. **Peep reveals 1 hatchling, moving in place but not raising head, as well as 1 un-hatched egg. Hatchling may have gray down growing in, but camera view makes it difficult to tell. Estimated hatch date at this time is 6/20.**

2151—Crew departs for B20.

## 28 June 2013

2236—RC and AW arrive at the BG4\_2013 nest tree, attempting a quick capture of the M on a PD. F comes up as RC approaches base of nest tree.

~2245—F still up as we leave. We never get capture pole up and we do not see M come into nest vicinity.

## 1 July 2013

0105—AW, CK, and RC arrive at BG4\_2013 nest site with intent to capture M and peep nest. F is up on arrival.

0108—M makes a PD. RC approaches nest.

0123—**M makes a PD, and is captured**. F flies into net as well, but frees herself. **M banded. ID confirmed at BG4 M—the geolocator bird captured in the Spring 2013 Ornithology class. Peep reveals 2 owlets of 10-11 days of age. Peep recorded on monitor #5.**

**Band # 1783-64327**

81.0 g

- 29.0 g

52.0 g

Notes: No measurements taken aside from mass. M was not molting, but additional wear data was not taken. Blood was taken for genetics and parasite smear.

0137—M released. Strong ascending flight N. We leave.

## 2 July 2013

2030—MC arrives at BG4\_2013 to observe prey deliveries.

2048—PD by the male, gets chased of by a larger bird with a high pitched call.

2053—Female flushes. Prey deliveries by both female and male throughout night (see prey delivery data). TCs/TECs heard throughout the night by other males to SW and SE.

0130—Observation ends, MC leaves.

## 8 July 2013

~2455—AW and BDG arrive at BG4 nest with the intention of catching and bleeding the F.

~0103—FLOW makes a PD and flushes into the net, but does not go into the bag and escapes. FLOW continues to make flights around the nest tree, but does not make any flights towards the cavity.

~0112—**We peep and see two owlets with a mixture of white and juvenile plumage**. We take net down and leave.

## 9 July 2013

2243—AW, RC, and MC arrive at BG4\_2013 nest site with intent to capture, measure, and bleed F. There is a bird in the cavity entrance on arrival that flushes quickly. This could be PD or F flushing. Carol reports that M and F have both been making PDs. MC approaches nest to attempt capture.

2247—PD.

2258—PD attempt. MC swings, but bird does not enter cavity.

Weather: Overcast, very light rain transient, light breeze, 12C.

2300—PD. Bird in net. MC begins lowering, and bird escapes through hole in net. We repair largest holes.

2303—PD.

2308—Net in capture position. M is giving TCs just off rd. to W (<5m). Vocalizations are ambiguous. We think it may be F.

2309—PD.

2311—PD.  **Bird captured. ID’d as BG4\_2013 M.** We decide to hold him to incite F to make PDs.

**Band # 1783-64327** (on L leg)

77.0 g

- 29.0 g

48.0 g

2313—Net in capture position.

2323—F in nest area, perching 5m S of nest tree.

2324—**F makes PD, and is captured.**

**Band # 1593-64893** (on R leg)

84.5 g LWC: 129 mm

- 29.0 g LLP(5): 98 mm

55.5 g LLP(6): 107 mm

Rect: 55 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 (50%) | 1.5 |
| P2 | In molt | 1.5 |
| P3 | 1.5 (40%) | 1.5 |
| P4 | 2 (50%) | 2 (50%) |
| P5 | 1.5 | 1 |
| P6 | 1.5 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | .5 | .5 |

**Primary wear data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | In molt | 1 |
| P3 | 2 | 2 |
| P4 | 1 | 0 |
| P5 | 1 | 1.5 |
| P6 | 2.5 | 2.5 |
| P7 | 2.5 | 2.5 |
| P8 | 2.5 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2 | 2 |

Note: We bleed F, but L wing produces only a very small drop of blood before clotting so we move to R wing. R wing bleeds almost entirely subsurface, creating a large hematoma, so we opt for a bleed at a different location on the L wing. AW bleeds L wing on posterior (primary/trailing edge) side of humerus. Again, we only get a small drop of blood before the wound clots, so we use the sample for genetics only.

2328—M released. Strong flight W. M gives TCs for ~5 min at 2331, 10m S of cavity.

2404—F released. Very strong ascending flight NW. We leave.

## 13 July 2013

2253—AW and LL peep BG4\_2013 nest to determine if fledging has occurred. **There are still 2 nestlings (with very developed facial discs) in the cavity,** indicating that no fledging has occurred. We leave.

## 15 July 2013

0105—We peep BG4 where a NOGO was observed just before sunset – **both Ns are still present in the cavity.**

## 21 July 2013

2326—CK and AW begin playback on the W slope of the drainage extending from the

BG4/BG5 road cut. Net is located near the terminus of the drainage, where it empties

into the BG4/BG5 meadow. We are targeting the more northern bird we heard during the

previous week with this net site. Lure net is a single net set up on 5 poles.

Vegetation: young-medium potr; mature pifl; medium psme; open

Weather: calm, clear, 12C

X: 495660

Y: 4331196

+/- 3m

2332—M begins responding to playback from drainage bottom E of net.

2340—We hear a bird hit the net and find a FLOW captured in the 2nd shelve from the

bottom. We extract bird and find him to be previously banded. **He is the BG4­\_2012**

**M!** This ismost likely the same M (more northern) we heard responding to our playback

during the previous week. Even though we cannot put a geolocator on him, it is good

confirmation that there are no other additional Ms N of BG6 worth luring for. We

mass him, but do not take any other measurements, blood, or blacklight. We calculate

the straight-line distance from the net to the BG4\_2012 nest and find it to be 334 m.

**Band # 1783-64327 (on R leg)**

80.0 g

- 29.5 g

51.5 g

2431—End playback.

# BG4—2014

## 6 June 2014

2040—Most of the Flam Crew spreads out in 100m increments along Missouri Cr from B7 up to B6 to listen for nest vocalizations. LL gets dropped off on the road across from the B8\_2013 nest tree. ER is stationed at S most point about 100m down drainage from LL in B7. RD (with friends) is stationed 100m up drainage from LL.

2051—LL hears a F give FSCs ~40m NE of the B8\_2014 nest. The F is very mobile making ~20m flights and giving FSCs in the area as she goes. ER comes up to join LL from her position 100m S in the drainage and RD and his friends come to join LL from their position ~100m N in the drainage.

2058—RD hears one FSC near his position about 50m updrainage from LL and ER, but immediately loses F afterward. LL and ER hear M give LCs in the vicinity of the F, but he never gets within 5m of her. **ER flags the tree that he was singing in**. This is songpost B8\_1 in a fully live potr with a dbh of 17.4 cm.

X: 496048

Y: 4332377

+/- 6m

~2100—The M and F both go silent and we lose sight of them.

2110—LL hears a M give TCs ~150m E of the B8\_2013 nest up the slope of Genesis R.

2112—LL hears M LCs and F FSCs in a small drainage ~30m S of her position, which is ~50m upslope (E) from the B8\_2013 nest.

2118—ER and LL hear FSCs ~40m upslope in a patch of young potrs (this patch is ~100m up the slope of Genesis in the small drainage).

2125—ER hears a quiet FSC from the same patch of potrs. We move upslope to explore for possible cavity trees.

2154—After exploring the potr patch, finding no cavity trees (trees are too young, small, and alive), and hearing nothing more, we head back down and across the road to set up a lure net with MC.

2227—PB started. Our net is 10m W of the road across from the B8\_2013 nest.

Vegetation: Young-medium potr/psme, open

Weather: Clear, calm, 9.5C

X: 495982

Y: 4332402

+/- 3m

2230—M gives TCs from drainage SE of net.

2238—LL and ER go to listen near where we heard and saw F giving FSCs earlier.

2254—M gives TCs up on Genesis ~150m E/SE of PB.

2256—M gives TCs SE of net in drainage bottom ~50 SSE of PB.

2300—M goes silent.

2301—M (potentially different from M upslope) gives a few angry-sounding (very low) TCs ~50m E of B8\_2013.

2303—M starts giving TCs up on Genesis ~150m E/SE of PB again.

2304—M gives TCs from drainage bottom ~50m SSE of net from drainage bottom.

2306—While the other M is TCing on Genesis a second M gives TCs ~60m SE of B8\_2013. ER follows more S male and LL stays near original M on Genesis.

2307—Both Ms go silent.

2311—M begins giving TCs on Genesis again ~120m E of PB.

2314—M then moves, giving TCs ~90m E of PB.

2316—M goes silent.

2319—We turn the PB off and move our net ~100m further S in order to target the southern M that has been calling all night.

2322—M gives TCs ~60m SE of the net as we’re taking it down.

2329—PB restarted in new location. Two Ms begin to call, one ~50m up drainage and the other ~50m down drainage.

Vegetation: Young-medium potr/psme, open

Weather: Mostly cloudy, slight breeze, 9C

X: 495950

Y: 4332272

+/- 3m

2334—Ms that were calling are both silent.

2343—ER and LL head back into the drainage to listen. ER goes into E side of drainage right across from new lure net site, while LL goes back to the vicinity of the B8\_2013 nest to tap and listen.

2354—LL hears wing flaps over her head when she is ~20m SE of the B8\_2013 nest. She is unable to identify what type of bird flew over her, so it was not necessarily a FLOW.

2406—MC goes to d a final net check, a FLOW flushes from a low potr snag ~1m off ground, it flies under the net, E into drainage bottom.

2408—We turn off the PB and take down the net.

2416—We hear a M give TCs in the drainage after the net is completely taken down.

## 20 June 2014

2215—SY enters BG4 area to do some listening and tapping.

2217—SY taps cavity tree #1019 and a F rises to the cavity entrance. **This is the BG4\_2014 nest - for those keeping score at home, this is SY’s 3rd nest find of the day, giving him a hat-trick! The cavity is ~23ft. up the SW side of the tree and appears to be the only cavity on this side of the tree. Tree is a full snag potr ~2.5 m E of the creek just a few m S of where the Missouri Gulch Rd crosses to the W side of the creek. This is ~80m N of the BG4\_2013 nest.** I back out of the site for a few minutes to allow the F to go back down.

2225—From my position across the road, I hear a couple short TCs from the nest site.

2231—SY returns to the nest site to attempt to capture the M. I raise the net and almost immediately a silent FLOW enters the site.

2240—Silent FLOW (M) makes a PD and is captured. F flushes as net is lowered. **M is previously banded. He is the BG4\_2012 M.**

**Band #1783-64327**

68.5 g LWC: 126 mm

- 16.0 g LLP(5): 96 mm

52.5 g LLP(6): 104 mm

Rect: 57 mm

2251—M is released – strong flight to the S – I pack up and leave.

## 7 July 2014

2450—JV and AW arrive at the BG4\_2014 nest tree to capture the F and peep.

Weather: cool, cloudy and stormy, wind 5-15mph

2451—AW has net in place over next cavity. JV taps. Nothing.

2453—JV peeps. **There is a Red Squirrel in the nest cavity that AW almost caught in the capture net. It appears the BG4\_2014 nest has been predated/failed.** We search around the nest tree for a couple of minutes for any sign but we don’t have a ton of time so we leave.

# BG4—2015

## 24 July 2015

2001—SY sets up a lure net targeting BG4 and BG5 using the original capture location for BG4. Just on the E side of the rd. ~50m NE of the cottonwoods.

2015—SY heads into the past BG5 nesting area to listen before starting PB at net.

2050—Nothing heard in BG5, SY heads to lure net location.

2100—SY starts PB at net

Vegetation: Young potr, relatively open site just E of road on low slope.

Weather: 13C, mostly clear, calm, heavy dew.

X: 495737

Y: 4331555

+/- 13m

2106—HECs at the lure net. M started calling very close to the net – likely BG4?

2108—M quiet.

2109—Net check – FLOW captured in the 3rd shelf, E side.

**Previously Banded # 1783-64327**

66.0 g LWC: 126 mm

- 17.0 g LLP(5): 95 mm

49.0 g LLP(6): 104 mm

Rect: 61 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 1.5 |
| P2 | 2 | 1.5 |
| P3 | 0.5 | 1 |
| P4 | 0 | 1 |
| P5 | 1 | 1 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2.5 |
| P10 | 2 | 2.5 |

2111—FLOW flies past SY from the SW giving HECs. Flies towards net and goes quiet almost immediately

2114—Net check: 1 FLOW captured in the 3rd shelf, W side. A 2nd FLOW is perched ~5cm from PB on the E side of net. I circle around to E side to attempt to flush the FLOW into the net – **instead I capture the FLOW with my bare hands.** 2 birds in hand – both unbanded.

*Note: Based on behavior and measurements below, we suspect the hand captured bird to be a F, and the bird captured in the net to be a territorial M.*

**Suspected BG5 M: New Band# 1833-03294**

73.0 g LWC: 121 mm

- 17.0 g LLP(5): 51\* mm

56.0 g LLP(6): 12\* mm

Rect: 61 mm

\*Molting several feathers including P5 and P6.

We do not bleed or take blackligh/wear data. **We affix geolocator A264.**

**Suspected BG5 F: New Band# 1833-03197 on L leg.**

75.0 g LWC: 127 mm

- 17.0 g LLP(5): 28\* mm

58.0 g LLP(6): 108 mm

Rect: 59 mm

\*Molting P2-5.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | Molt | Molt |
| P6 | 0 | ? |
| P7 | 0.5 | ? |
| P8 | 0.5 | ? |
| P9 | 0.5 | ? |
| P10 | 0.5 | ? |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | Molt | Molt |
| P6 | 1.5 | 1 |
| P7 | 1.5 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2 |

2137—Release #1783-64327 (BG4 M).

2140—TECs W of the net near the road – BG4?

2153—Release #1833-03197 (BG5 F). Strong flight S.

2217—Release #1833-03294 (BG5 M). M makes an initially descending, then horizontal flight to a low perch in a potr (~0.5m up).

2235—After hearing possible winglaps at net, SY tries to flush the BG5 M to see how he’s flying. M makes a fluttery horizontal flight to a small *Salix* twig and hangs on there. I grab M out of the *salix* and re-release: Horizontal flight to a potr ~7m away. Perched ~1.5m up.

2241—SY hears TECs ~50m S of the net.

2245—SY hears more distant TCs to the NNE – likely B7.

2247—At SY’s net: BG4 quiet. B7 still singing ~75-100m NNE.

2250—At SY’s net: 2 FLOW singing near net: 1 NNE (B7) and 1 W (BG4).

2252—SY returns from a net check to find that BG5 has flushed – good sign.

2302—Only BG4 signing at SY’s net now - ~25m S of net: TECs.

2304—All quiet at SY’s net.

2317—SY Stops PB and breaks down and leaves.

# BG4—2016

## 21 July 2016

2240—MC, KM, and BH arrive in BG4 to lure for a geo’ed M or any area males. We set up a lure net ~20m E of the road where the power lines first cross after the big mud puddle and cottonwoods. The net is just E of BG4\_2013. We start PB.

Vegetation: young-medium pipu/potr

Weather: mostly cloudy

X: 495762

Y: 4331550

+/- 8m

2248—A M responds with 2 TCs ~75m SE and then approaches giving HECs. *This M rarely leaves the net site of the rest of the night. He switches between TCs and HECs and will back off up to ~20m but is almost always in the site. A silent bird is also seen.*

2300—A second bird begins calling ~150m E. *This bird gives intermittent TCs throughout the night, he moves in up to ~745m away but does not approach further.*

2316—We move the net ~20m SE to better target the M giving HECs as he will not approach the net.

2403—With no success in capturing a bird we kill our PB.

2409—A M gives TCs ~150m N of the net.

## 29 July 2016

2100—MC and KM start PB at a lure net site with the intention of luring for the BG4\_2015 M with a geo backpack attached. The net is ~30m S from the net on 7-21-16. The net is ~10m on the E side of the road ~50m S from where the powerlines cross the road.

Vegetation: young potr, mixed psme

Weather: ~14C, clear and breezy

X: 495755

Y: 4331591

+/- 4m

2145—With no response we turn off the B to walk around and try to incite a response. We move PB S up to ~100m S along the road.

2205—With no response to the moving PB we return to our net site.

2330—PB off. We leave. Nothing heard.

2100—BH and DL start PB on a lure net ~200m N of BG4 parking spot, on low slope of ridge, in an attempt to lure the B64\_M. (Located ~190m N of MC and KM’s lure net)

Vegetation: Open, young potr, young to mature psme/pipo

Weather: Calm, slight breeze, 16C

X: 495822

Y: 4331790

+/- 3m

2145—After hearing nothing, BH walks PB around, moving across road.

2204—BH returns to net site with PB. Nothing heard.

2224—After no FLOWs, we turn of PB and begin net breakdown.

*Below represents a lure net effort in BG6 that pulled in a bird from the N.*

2100—RC and ER set up a lure net on the S spur off of 347 ~50m up the road from where the road turns E. PB starts. Net opens E/W.

Vegetation: mixed pipu, psme, pifl

Weather: clear, breezy

X: 495770

Y: 4331303

+/- 12m

2104—M begins giving TC within 50m N of the net for ~two minutes. He backs off further to the N.

2150—M TCs ~50m from NW.

2151—Change PB to Megascops and we walk PB toward the M. The M immediately approaches PB and changes calls to TEC and HEC.

2155—**M captured in the first shelf headed E across our site. He is an unbanded territorial M, and presumed BG6\_2016 M**. He receives a PinPoint GPS. RC and ER walk the M down to the junction with 347 to meet BL and attach GPS.

**Band # 1783-74389 (on L leg)**

77.5 g

- 15.5 g

62.0 g

**Notes: Receives PinPoint GPS #40918.**

2211—Begin attaching GPS.

2231—Stop attaching GPS.

2236—Release M. Strong, but short flight about 5m where M perches and does not preen or fiddle with new backpack.

2246—RC and ER incite a second flight that is also strong and out of sight.

# BG4—2017

## 25 July 2017

2045—BL and ZM search drainage near road in BG4 for cavity trees. We listen and tap trees for 15 min.

Vegetation: Young potr/pipu/pifl

Weather: Overcast, on/off drizzling, calm, 16C

X: 495767

Y: 4331555

+/- 5m

2102—We start PB with a lure net set up ~45m E of Rd 347.

2115—We hear a M ~250m N of the net.

2117—F vocalizing by the net. She moves so that she is on the tree adjacent to the speaker. She vocalizes for a few min before flying away.

2135—We stop PB because there is too much rain.

2200—We restart the PB.

2210—ZM hears a few TCs ~175m to the NW (W side of the rd and creek).

2215—The M approaches a little closer and continues to give TCs from ~150m away. He gives TCs for about 5 min.

2226—There are a few FSCs by the net ~10m E of the net. She vocalizes on and off for ~2 min.

2254—We hear TCs to the NW (opp slope) ~175m and approaching to ~150m away.

2305—We stop the PB. The M never crossed the road towards the net site. We get in the car and join up with the rest of Flam Crew.

# BG4—2018

## 23 July 2018

2120—ON and SF arrive at BG4 territory to attempt to pinpoint a territorial M. We set up a lure net open N/S 10m W of road and 50m N of the BG5/6 parking spot.

Vegetation: open, young potr, mixed age pipu/pifl/psme

Weather: 100% cloud cover, windy, rainy, 14C

X: 495753

Y:4331564

+/- 3m

2126—We never start PB due to bad weather but a M gives TCs N/NW ~30m as we walk back to the parking spot.

2230—We break down the net after getting rained out.

2235—Right before heading out, we give some hoots and a M immediately responds ~20m away from W side of the road.

## 24 July 2018

2120—ON and SF arrive at BG4 territory to attempt to pinpoint a territorial M. We set up a lure net open N/S 10m W of road and 50m N of the BG5/6 parking spot.

Vegetation: open, young potr, mixed age pipu/pifl/psme

Weather: 50% cloud cover, calm, 14C

X: 495756

Y:4331564

+/- 3m

2115—Start PB T42.

2123—M starts giving distant TCs from N. He never gets closer than ~50m from net site.

2126—M goes quiet.

2131—M from N starts giving TCs again and comes in ~40m away from net site.

2145—ON walks the PB towards M and he follows back and perches ~10m E of net.

2150—Change PB to FLOW HECs. M continues giving TCs E of net.

2200—M leaves the site and goes quiet. We change PB back to T42 and walk it around the site some more.

2221—Cut PB.

2231—Start PB again T42. M gives TCs from the N again and comes in ~40m from net.

2234—M goes silent.

2236—Walk PB around again.

2240—Cut PB.

2255—Start PB again T42.

2258—M gives TCs ~40m W on the other side of the road.

2300—We walk the PB toward the M. He continues giving TCs but doesn’t want to follow the PB back to the net site.

2304—Change PB to FLOW HECs (while still on W side of road).

2307—Change PB back to T42 and walk back to the net site after M goes silent again.

2315—Cut PB and break down net.

2325—We head out for the night to meet up with the rest of the crew.

# BG4—2019

## 18 July 2019

2030—ON, AM and SL arrive in BG4 territory to lure net with the intent of capturing a territorial M on which to deploy a migration pinpoint.

2043—We set up lure net on two poles and start tapping around and listening for FLOW activity.

2052—We hear a F scold ~15m E from lure net site, and immediately after we begin hearing M LCs in the same area. AM starts chasing the M E, and ON and SL try to get eyes on the F and start looking for cavity trees as well as signs of nestling begging.

2103—ON and SL hear F LCs and FSCs off cavity ~10m S of where we heard her scold. We briefly get eyes on her before she flushes to the SE.

2110—SL gets eyes on a silent FLOW perching in a mature psme ~10m S of where we last got eyes on the F. We presume this silent FLOW is a F but cannot be sure. We mark the silent perch tree and get coordinates.

X: 495796

Y: 4331540

+/- 3m

2115—Neither M nor F are vocalizing anymore and we have lost sight of the F so we head back to our lure net site to start PB.

2120—We start PB, T42. Our lure net is open E/W ~25m E of the road and ~250m N of the BG5 parking spot.

Vegetation: Mixed age potr, sub-mature psme

Weather: calm, clear, 17 C

X: 495773

Y: 4331603

+/- 3m

2123—We hear M TCs ~30m SW, but he goes quiet quickly.

2130—**We check the net to find a silent unbanded FLOW in top shelf on the E side. There is no visible brood patch, so we presume he is M; we band him #1833-32626. Note: because he came in silently, only giving a few TCs ~30m SW 5-10 min before capture, we decide that he is not a good candidate for a pinpoint.**

**Band # 1833-32626 (on L leg)**

75.0 g LWC: 136 mm

- 22.0 g LLP(5): 100 mm

53.0 g LLP(6): 111 mm

Rect: 65 mm

**Notes: His LP7 shaft is broken in half. Bled L, not enough blood, small hematoma, bled R with enough blood, moderate hematoma.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1.0 | 1.0 |
| P5 | 1.5 | 1.0 |
| P6 | 2.0 | 1.5 |
| P7 | broken | 2.0 |
| P8 | 2.0 | 2.5 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2144—**ON checks the net, there is a silent unbanded FLOW in the 2nd shelf on the E side. No brood patch is visible so we presume him to be a M. We band him #1833-32606 (L) and cut PB.**

**2147—ON extracts bird from net.**

**Band # 1833-32606 (on L leg)**

81.0 g LWC: 127 mm

- 32.0 g LLP(5): 73 mm

48.0 g LLP(6): 53 mm

Rect: 58 mm

**Notes: P1, P5, and P6 are clearly in molt on both wings. Bled R but did not get enough blood, small hematoma, bled L got enough blood, moderate hematoma.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | molt | molt |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | molt | molt |
| P6 | molt | molt |
| P7 | 1.5 | 2.0 |
| P8 | 2.0 | 2.0 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2115—ON releases first FLOW (1833-32626); he makes a SAF to the NW.

2212—SL goes to check the net and finds a little brown bat in the 4th shelf on the E side. ON and SL extract it while AM is processing the 2nd FLOW. Two ATVers see us from the road and watch us as we try to get the bat out of the lure net. They exclaim “What the hell are they doing?!” and just stare at us. After a few minutes we get the bat out and they leave.

2227—AM releases second FLOW (1833-32606) and he makes a SH/AF to the E.

2230—We break down lure net and head N looking for a second lure net site.

2250—We arrive at our second lure net site 70 m N of our first site and begin set up to lure for a territorial M to deploy a migration pinpoint.

2257—With the net in place, we begin PB T42. Net is open E/W in open meadow-like area of the drainage bottom 10 m E of FS Road 347.

Vegetation: Mixed age potr/pifl, young psme, open

Weather: Clear, calm, 11C

X: 495751

Y: 4331680

+/- 3m

2311—We hear M TCs coming in from about 60 m SW. He comes into site and continues to give TCs/HECs.

2316—After M goes quiet for a few minutes, we try to nuke him with the Megascops.

2318—M continues to bounce around the net site making TCs/HECs.

2325—He goes quiet.

2327—ON walks the PB S/SW of the net ~30 m and the M starts giving TCs again ~50 m SW, but quickly goes quiet again.

2335—We cut PB and break down our net.

2341—We leave the BG4 territory to meet up with the rest of the crew. No other signs of FLOW activity are seen nor heard for the rest of the night.

## 25 July 2019

2214—ON and AM arrive at BG4 territory to lure for a territorial M FLOW on which to deploy a migration pinpoint. We begin net set up on low slope ~10 m E of FS Road 347 and ~250 m N of BG5 parking spot, ~25 m S of our last net site in BG4. Net is open E/W.

2233—Begin PB Psiloscops.

Vegetation: Mixed age potr/pifl/pipu/psme

Weather: Clear, calm, 10 C

X: 495750

Y: 4331563

+/- 3 m

2237—We hear a M give a couple TCs ~50 m SE of net site.

2251—M begins giving TCs ~75 m E of net and pretty quickly starts coming in towards our site.

2255—M gives TCs/TECs/HECs within 25 m of the net.

2305—With the M still bouncing around our net site giving a variety of vocalizations, we change PB to T42.

2312—AM walks PB S following a second M ~60 m away from net site. Meanwhile, the first M is still vocalizing in our net site.

2318—With no one following the PB back to the net, AM puts the PB on the ground and switches the track to Psiloscops.

2322—The M in our net site finally loses interest in our PB and goes quiet. ON tries walking the PB E where he had come in from but hears no response.

2326—While walking the PB E, ON switches the track to T42.

2331—PB is back at net site and all is still quiet.

2342—With no signs of FLOWs around, we switch the PB to Psiloscops for our last few minutes.

2348—Cut PB and break down net.

2358—We leave the BG4 territory for the night. No more signs of FLOW activity are seen nor heard.

# BG5—2012

## 17 July 2012

2209—JR and NS arrive at site up South Missouri Creek on FS 347 (S of the MGSA) to lure net for geolocator attachment. We turn on playback.

2215—During net setup, we hear territorial M call from S, approx. 30 m away (first bird heard in 3 nights??!!) He gives TCs, TECs, and HECs moving towards our net site.

2220—Net up. Our net is low slope near the south Missouri Creek drainage.

Vegetation: Mixed psme/pipo, 1-2 young pifl

Weather: Mostly cloudy, calm, 6°C (taken from SY’s measurement near our net site)

X: 495754

Y: 4331294

+/- 4m

2225—**M in net. M is unbanded, very territorial into net. SY begins traveling towards our net for geolocator attachment. We band, mass and begin measurements; SY arrives and attaches geolocator. This is the BG5\_2012 M.** During our processing, another territorial M approaches from NNW giving TCs and TECs (potentially BG4 geolocated M?) He bounces over net multiple times while we hold BG5 M.

**Band # 1783-64345** (on L leg)

78.0 g LWC: 132 mm

- 29.0 g LLP(5): 98 mm

49.0 g\* LLP(6): 109 mm

**M is equipped with Gelocator # 005.**

\*After geolocator is attached, we remass BG5\_2012 M at 50.0 g.

2250—BG5\_2012 M released. Release is strong; ~40 m ascending flight to W. Second M goes quiet. SY moves playback down slope to attempt to force second M to swoop into net site.

2300—SY leaves site for other lure net. JR begins giving hoots from N (upslope) of net to attempt to call second territorial M back into net. He responds quickly with TCs and TECs, but does not come back into net site.

2320—We hear more singing from SW of the net. Because of his recognizable TECs, we suspect this is the BG5 M. JR continues giving hoots near the net site to attempt to draw M back in, but he does not approach net site a second time.

2330—We break down net and leave for next net site.

Vegetation: Mixed psme, young pifl

Weather: Mostly cloudy, calm, 6°C (taken from SY’s measurement near our net site)

X: 495754

Y: 4331294

+/- 4m

# BG5—2013

## 9 May 2013

2030—BY410 students, AW, and BL arrive in the BG4\_2012 and BG5\_2012 territories to attempt capture of the territorial males and retrieve their geolocators. AW takes approximately half of the class with her to set up a lure net in BG5, and BL takes the other half of the class to BG4.

**Weather:** Mostly cloudy (but clouds starting to break), calm, approximately 0 C, with approximately 10-15 cm of wet snow on the ground. We parked at the cul-de-sac at the N end of Ridgewood Subdivision and hiked in.

2121—Playback started at the BG4 site, which was ~ 50 m E of FS347 near where the road crosses Missouri Cr. While we were setting up the net, we could hear first hear a FLOW M, then F, vocalizing intermittently down by the creek.

X: 495747

Y: 4331650

+/- 3 m

~2130—M approaches lure net and vocalizes in its vicinity. Over the next ~ 45 min, the M and at times the F approach the net area 4-5 times, and at one point I observe both the M and F perched on the guy lines on the end of the net.

2224—**We capture the presumed BG4 M in the net, and as soon as we extricate him we see that he is both banded and is carrying a geolocator!!** BL stuffs him in a holding bag, and walk to meet AW and the other students mid-way between the two territories. Both playbacks were shut down. **M has Band # 1783-64327—this is the BG4\_2012 M!!**

**Band # 1783-64327** (on x leg)

80.0 g LWC: 131 mm

- 28.0 g LLP(5): 96 mm

52.0 g LLP(6): 105 mm

Rect: 59 mm

**Notes:** Geolocator is removed after noting that it still was well-positioned on the back, and caused minimal wear—feathers were worn down in the path of the harness, but no evidence of damaged or calloused epidermis. An adult ectoparasite was collected from the primaries. P6-P10 were well worn on the ends. No blood sample was taken.

## 7 June 2013

~2300—BDG and BL arrive in the BG5 territory to attempt capture of the BG5\_2012 M, who

was equipped with a geolocator last year, and which we hoped to remove.

2320—We start playback.

Vegetation: One net set up adjacent to small stand of 10-15 cm dbh Pipu; net was open on the other side and ~15m from mature Psme/Pipu, which surrounded the net on all sides.

Weather: clear, calm, 4 C.

X: 495727

Y: 4331281

+/- 6 m

2324—M approaches from the NW and gives HECs in the net area. Over the next 15-20 min, we hear another territorial M approach the net area from the ridge to the WSW—this M never got much closer than S Missouri Cr (about 30 m from the net), and a 3rd territorial M who we heard ~ 100 m to the SSE—all these Ms were calling simultaneously. M #1 gave territorial pursuit of M #3, and at one point the #1 M flew so far to the S that we could only faintly hear him before he returned to the net area. He aggressively flew back and forth over the net, but too high for capture.

2354—We collapse the net and carry it (still assembled on the poles) down the trail to a stand of smaller Potr ~ 100 m to the N (not far from the meadow in the bottom where we parked), where we quickly erect the poles.

Vegetation: Net set up adjacent to 2-track road, which was lined with 10-15 cm dbh Potr.

X: 495685

Y: 4331366

+/- 4 m

~2410—We start playback. Prior to the start of the playback, we heard a M giving TCs in the

vicinity of N Missouri Cr, ~ 30 m to the SW. This M approaches playback.

2416—**As we approach the net to collapse it and go home, we observe a FLOW near the S-**

**most pole in the 2nd** **shelf from the bottom. We extract him and note that not only is he banded—he also is carrying a geolocator! This M had Band # 1783-64345, and was the BG5\_2012 M! We remove the geolocator and proceed to mass him.**

**Band # 1783-64345** (on x leg)

90.0 g LWC: 133 mm

- 34.5 g LLP(5): 97 mm

55.5 g LLP(6): 107 mm

Rect: 60 mm

2433—We release M, without bleeding or black-lighting him.

2445—We break down the lure net and leave.

## 18 July 2013

~2250—JV, RC, and LL arrive at the turnoff in the cottonwoods of FSRd 347 with intention of

lure netting for new M to use for geolocating.

2300—Playback is started. The net is an L open to the W and is located near the cottonwoods

~30m SE of FSRd 347.

Vegetation: Young to mature potr, mature psme, open.

Weather: Partly cloudy, calm, 8 C

X: 495396

Y: 4331347

+/- 6m

2310—M give TECs ~30m S of net, flies to NE of net, still giving TECs

2312—M goes silent for ~20secs, then gives TECs S of net in immediate net vicinity. M

bounces back and forth over the net a few times in the next few minutes.

2317—M goes silent for ~30secs, then gives TCs NE of the net.

2318—M goes silent.

2319—**We check the net and the M is in the 3rd shelf, having come in from the NE side. M**

**is previously banded and is the BG5\_2012 M.**

**Band # 1783-64345 (on ? leg)**

64.5 g LWC: 131 mm

- 15.5 g LLP(5): 99 mm

49.0 g LLP(6): 108 mm

Rect: 61 mm

2334—M is released with strong flight S to nearby psme, where he perches ~7ft off the ground.

He soon makes another flight higher further to the S.

2335—Playback is stopped. We pack up and head further S to try a new lure net location.

2351—JV, RC, and LL arrive on the ridge top just S of the first really sharp turn on FSRd 347

with intention of lure netting for new M to use for geolocating.

2401—Playback is started. The net is an L open to the E on the ridge top ~30m S of sharp turn

and ~2m E of FSRd 347.

Vegetation: Young to mature psme/pipo open.

Weather: Partly cloudy, calm, 9 C

X: 495239

Y: 4331263

+/- 5m

2419—M gives TCs/some TECs in a pipo ~2m W of net after coming in silently from the W.

2423—M goes silent.

2424—M gives TCs to E, comes N of the net, moves back E.

2429—M goes silent after giving TCs to N again.

2430—M gives TCs ~20m N of net for ~30secs.

2432—M gives TCs ~40m N of net.

2436—**Silent FLOW flies into net as first M is still giving TCs to the N. The FLOW flew into the 4th shelf from the E side of the net and is banded. It is the BG5\_2012 M, again, captured for the 2nd time tonight, though in a new location and not acting territorially this time.**

2439—M is released.

2440—JV gives hoots.

2441—M gives TECs N of net.

2447—M goes silent. ~30secs later, M gives TECs to the E in immediate net vicinity.

2451—M goes silent.

2452—M gives TECs to E again.

2454—M now gives HECs before returning to TECs.

2456—M goes silent. ~30secs later, M gives TECs from N, then goes silent again briefly.

2457—M gives TCs/TECs S of the net.

2459—JV starts moving playback around, in hopes of drawing M in closer. M goes silent.

0100—M gives TCs from W, goes silent for ~20secs.

0101—M gives TECs from S again, JV moves playback.

0102—M goes silent.

0103—M gives TECs to N.

0106—BL and MC drive up to join us, M moves to give TECs to the SE moving further E.

~0110—AW, CK, and BDG drive up to join us as well.

0112—M goes silent?? It’s a bit difficult to tell as everyone is now discussing the various

escapades of their nights.

0115—Playback is turned off. The whole crew helps take down the net and we leave.

# BG5—2014

## 25 June 2014

2318—SY and JS arrive at end of spur road in BG5 territory to listen and lure. M is heard giving TCs ~50m N of the net site while we are setting up.

2325—Lure net set up ~10m NE of the end of unofficial spur road off Missouri Gulch Rd. on the low slope. PB started.

Vegetation: rel. open slope, young potrs spaced around net mixed with mature pipu, pipo, psme and pifl.

Weather: clear sky, slight wind, 11C

X: 495767

Y: 4331296

+/-4m

2326—TCs heard faintly from SW while the 1st bird is calling from the N.

2337—TCs heard from the N jump down to SW right in the immediate vicinity of the net. 2nd bird from SW goes quiet.

2341—1st M gives HECs in net vicinity.

2345—Two different birds heard one ~100m SW and one more distantly from the SW.

2404—M goes quiet.

2406—Very faint TCs heard from SW and the M moves closer within the minute.

2410-2435—SY goes into drainage to tap and listen. At one point I hear a couple TCs from drainage bottom ~150m SSW of the net. I give some hoots and M begins calling from a potr in drainage bottom. I hear the M make what sounds like a forage then flies off. A bird is reported at the net ~1 minute later – presumably the same individual*.* ***Note: Suspect that there may be nesting activity in the drainage S and SE of the net location.***

2430—M is perched on the NE side of the net, JS witnesses a large swoop to the SW and the M continues giving TCs.

2441—M heard very distantly to SW. Within a couple minutes he is calling from NE.

2450—JS eyes swoop of silent bird in net vicinity coming from the SW. M still calling to the N so this is a 2nd FLOW.

2451—**Silent FLOW caught. She is an unbanded F. We left bands at B7\_2014 nest site, but went on to mark her legs and P5 and P6 feathers on R wing with black sharpie with hope of capturing her in the future.**

2455—F released, low flight to SW.

0102—PB off. We leave.

***Note: There is strong evidence that the BG5 or BG6 nest (likely BG5) is located in the drainage SW of the end of the spur road. The continual calls from the SW and the rate of return to that area and the fact that we caught a F late in the night with a M calling in the net site not too long before, suggests that they are nesting together. Little is known about the second FLOW calling more distantly to the SW, but this may be BG6. Further lure netting and or nest searching in close proximity to that area is needed.***

## 27 June 2014

Afternoon—**While the crew is peeping the BG5 and BG6 territories, ER approaches an unenumerated cavity tree when a female FLOW pops up in the cavity! This is the BG5\_2014 nest! The nest is in a large flicker cavity about 30 ft up on the S-facing side in a medium potr snag. The nest tree is located about halfway between the two spur roads and S of the cottonwoods about 150m from the parking spot in the campsite.**

X: 495556

Y: 4331372

+/- 5m

Crew resumes peeping in the main BG6 aspen flat, attempting to locate another nest. We flag cavity trees, but do not enumerate any. Crew ends having peeped the main aspen flat and the W-facing low to mid slope of Genesis.

2150—MC, RC and JS arrive at the end of the spur road in BG6. MC and JS spread into aspen flat to listen as RC stays at previous lure net site just E of the spur road.

2155—MC and JS hear TCs ~20m W of their position in the aspen flat. We pursue. M giving TCs ventures S ~200m down drainage.

2200—MC and JS hear another M calling, RC joins. We witness a territorial encounter between what we believe to be BG5 M and BG6 M. HECs and TECs are exchanged right over our heads.

2202—MC and JS mark general songpost BG6\_1 in the aspen flat.

2211—SY and MP begin PB at lure net location on the slope ~200m E of the parking spot, targeting birds in the BG5 territory.

2216—RC, MC, and JS arrive in BG5\_2014 nest site to capture M. F up. We kill lights and wait.

2219—M PDs, then perches in site before flying ESE. TCs heard this direction toward the lure net of SY and MP.

2222—PD at nest. TCs continue to S of SY’s PB. **The bird calling at the net is not BG5 M**.

2225—M in nest site, then out.

2227—SY and MP hear TCs to the SE of their lure net location.

2230—JS approaches nest tree.

2233—M in nest site. Lights out. 2nd M still TCing SSE of SY net.

2235—PD at nest. JS raises net.

2241—PD at nest. SY calls in with 2 other confirmed Ms. **This makes 3 birds total confirmed in BG5/6 area.**

2243—2 birds approach nest cavity, one right on the other’s tail. First bird enters cavity, while second flutters near entrance before flying off to the W. We suspect that the first bird may be BG5 F. There could also be a non-territorial bird in the nest site.

2245—Bird enters cavity, does not exit quickly. Acting cautiously in case one of these birds was the F, RC/MC/JS drop net and back out up rd to E.

2250—AW and RD start PB on W ridgetop above S. Missouri Cr. in a small saddle with young conifers. This lure net is the farthest south in the drainage, intending to focus mainly on capturing BG6. Net is located ~350 m S of the current BG5\_2014 nest.

2255—RC/MC/JS approach nest area again. MC heads to nest tree for capture.

2256—M that MP and SY were hearing seems to have moved more due S of their net and may be calling from drainage bottom.

2258—F up in nest cavity entrance.

2259—Loud flight of unknown source heard (presumably M in nest site).

2300—AW and RB hear response to our playback to the E-SE ~25 m. M gives a few TCs, then goes quiet. **This was not the BG5 (who made a PD at the nest at the same time) or presumably the BG6 M (who came into SY’s net site at 2301). Instead, this M appears to be a 3rd territorial M in the area, possibly further S than BG6.**

2300—PD in cavity entrance.

2301—SY and MP have a M briefly come into their net site giving TCs before returning to the SE of their net site, where he has been calling all night.

2302—PD in cavity entrance.

2304—PD in cavity entrance.

2307—F down. MC raised net.MP and SY can hear M back to the SE more distantly now (~200m)

2309—Net at height. MC steels himself in preparation for a long, hard battle with BG5\_2014 M.

2311—PD. M remains momentarily in cavity.

2312—**M exits cavity and is captured! Previously banded. This is the BG5\_2013 and now 2014 M. Geolocator removed in 2013. No new geolocator will be affixed in 2014.**

**Band # 1783-64345 (on R leg)**

67.0 g LWC: 131 mm

- 16.0 g LLP(5): 99 mm

51.0 g LLP(6): 107 mm

Rect: 64 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | 1 | .5 |
| P5 | .5 | .5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 2 |
| P8 | 2 | 2.5 |
| P9 | 2 | 2.5 |
| P10 | 2.5 | 2.5 |

Note: M bled on L wing. Small hematoma. No black light taken.

2316—MP and SY can still hear TCs to the SE while the BG5 M is in hand – confirming that the SE bird is fact a different individual.

2322—SE M that MP and SY were hearing is now quiet.

2326—While listening in the drainage bottom just E of our net, AW hears TCs to her S. M is approximately ~125 m SE of net. **This is presumably not BG6, but a more southern bird.**

2327—M that AW had been hearing goes quiet.

2330—MP and SY hear Tcs to the Se – presumed to be the same M we were hearing before.

2335—BG5 M released with moderate, fluttery but ascending flight E to terrible perch on broken twig. Twig sags under weight of M as he reflects on his recent experience—a little flustered perhaps, but more or less unscathed. RC/MC/JS leave.

2339—MP and SY stop PB, breakdown the net and leave.

2340—AW and RB end playback and leave. BG6 never came into the net area. The only response we heard was from a more southern bird.

## 7 July 2014

0104—AW and JV arrive at the BG5\_2014 nest tree to capture the F and peep.

0105—Unknown PD.

0107—AW has capture net in place.

0108—JV peeps. **There are two nestlings and they look to be pretty old. Both have juvenile plumage and facial disks. They look to be on par with B8 who we have fledging on July 12th +/- 1 day.**

0118—AW captures the M in on a PD. **He is the current BG5\_2014, as well as the geo-carrying BG5\_2013 M.**

**Band # 1783-64345 (on R leg)**

0119—JV releases M. Strong flight E. The F comes into the site and gives three FSCs but, in the interest of time, we have to leave.

## 10 July 2014

2205—BL and the Florissant Fossil Beds seminar group arrive in the BG5\_2014 nest site to attempt capture of F. FLOW in entrance when we arrive, and it flushes shortly thereafter (sex unknown).

Weather: Mostly clear, light breeze, ~ 15 C.

2210-2230: While observing nest activity during this time, the M made 4-6 PDs and the F made 1-2 PDs. M and F vocalized only sporadically.

2235—BL gets in capture position beneath nest.

2237—F makes PD and is captured momentarily as she exits, but she escapes as the net is lowered.

2256—**F makes PD and is captured as she exits. She was previously unbanded—I band her with Band # 1783-64516**. (Note: M made 3-4 PDs while BL was in capture position). **I peep cavity—nest contains 2 owlets that are quite well developed. Only one was facing the camera, but it had a well-developed facial disk, and both had extensive juvenal plumage on the back, wings, and head. BL estimated the age of the owlet facing the camera at ~ 19-20 days.**

**Band # 1783-64516 (on l leg)**

60.0 g LWC: 126 mm

- 7.0 g LLP(5): 96 mm

53.0 g LLP(6): 106 mm

Rect: 60 mm

**Notes: We take genetic blood sample. On both L and R wings, P1-3 show mostly tan barring on edge of vanes, P4 shows mix of tan/white barring, and P5-10 show mostly white barring.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 |  |
| P2 | 0.5 |  |
| P3 | 2.0 |  |
| P4 | 2.0 |  |
| P5 | 2.0 |  |
| P6 | 2.0 |  |
| P7 | 2.0 |  |
| P8 | 2.0 |  |
| P9 | 1.0 |  |
| P10 | 1.0 |  |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.0 | 1.0 |
| P2 | 1.0 | 1.0 |
| P3 | 0.5 | 0.5 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 0.5 | 0.5 |
| P7 | 1.0 | 1.0 |
| P8 | 2.0 | 2.0 |
| P9 | 2.0 | 2.0 |
| P10 | 2.5 | 2.5 |

2335—While the seminar group was handling the F, she escapes, and show strong, ascending

flight to the S of the nest.

2345—We leave.

## 21 July 2014

2345—RC arrives in BG5\_2014 nest area to peep. **Peep reveals an empty cavity.** RC listens near nest site.

2353—RC leaves, having heard nothing. We expect that the fledglings are long gone!

# BG5—2015

## 24 July 2015

2001—SY sets up a lure net targeting BG4 and BG5 using the original capture location for BG4. Just on the E side of the rd. ~50m NE of the cottonwoods.

2015—SY heads into the past BG5 nesting area to listen before starting PB at net.

2050—Nothing heard in BG5, SY heads to lure net location.

2100—SY starts PB at net

Vegetation: Young potr, relatively open site just E of road on low slope.

Weather: 13C, mostly clear, calm, heavy dew.

X: 495737

Y: 4331555

+/- 13m

2106—HECs at the lure net. M started calling very close to the net – likely BG4?

2108—M quiet.

2109—Net check – FLOW captured in the 3rd shelf, E side.

**Previously Banded # 1783-64327**

66.0 g LWC: 126 mm

- 17.0 g LLP(5): 95 mm

49.0 g LLP(6): 104 mm

Rect: 61 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 1.5 |
| P2 | 2 | 1.5 |
| P3 | 0.5 | 1 |
| P4 | 0 | 1 |
| P5 | 1 | 1 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2.5 |
| P10 | 2 | 2.5 |

2111—FLOW flies past SY from the SW giving HECs. Flies towards net and goes quiet almost immediately

2114—Net check: 1 FLOW captured in the 3rd shelf, W side. A 2nd FLOW is perched ~5cm from PB on the E side of net. I circle around to E side to attempt to flush the FLOW into the net – **instead I capture the FLOW with my bare hands.** 2 birds in hand – both unbanded.

*Note: Based on behavior and measurements below, we suspect the hand captured bird to be a F, and the bird captured in the net to be a territorial M.*

**Suspected BG5 M: New Band# 1833-03294**

73.0 g LWC: 121 mm

- 17.0 g LLP(5): 51\* mm

56.0 g LLP(6): 12\* mm

Rect: 61 mm

\*Molting several feathers including P5 and P6.

We do not bleed or take blackligh/wear data. **We affix geolocator A264.**

**Suspected BG5 F: New Band# 1833-03197 on L leg.**

75.0 g LWC: 127 mm

- 17.0 g LLP(5): 28\* mm

58.0 g LLP(6): 108 mm

Rect: 59 mm

\*Molting P2-5.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | Molt | Molt |
| P6 | 0 | ? |
| P7 | 0.5 | ? |
| P8 | 0.5 | ? |
| P9 | 0.5 | ? |
| P10 | 0.5 | ? |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | Molt | Molt |
| P6 | 1.5 | 1 |
| P7 | 1.5 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2 |

2137—Release #1783-64327 (BG4 M).

2140—TECs W of the net near the road – BG4?

2153—Release #1833-03197 (BG5 F). Strong flight S.

2217—Release #1833-03294 (BG5 M). M makes an initially descending, then horizontal flight to a low perch in a potr (~0.5m up).

~2225—RC and DL arrive in BG6 to geo lure, targeting BG6 M/BG5 M.

2228—Before we begin PB at BG6, RC/DL hear unsolicited TCs 150-200m ESE toward BG6 dr. We hurriedly begin setting up net.

2230—PB begin at BG6 net. M starts approaching net site immediately as we continue setting up. Net set up in clearing at the end of the turnaround on the two track, a previous net site used by AW/RC in 2014.

Vegetation: Open meadow flanked by dense mixed pipu, young-mature potr.

Weather: Partly cloudy, mostly calm.

X: 495752

Y: 4331268

+/- 10m

2234—BG6 net up. M in site. We back off. N gives TCs🡪HECs over the next 10 min but for the most part does not move from a perch midway up a large pipu just SE of net.

2235—After hearing possible winglaps at net, SY tries to flush the BG5 M to see how he’s flying. M makes a fluttery horizontal flight to a small *Salix* twig and hangs on there. I grab M out of the *salix* and re-release: Horizontal flight to a potr ~7m away. Perched ~1.5m up.

2241—SY hears TECs ~50m S of the net.

2245—SY hears more distant TCs to the NNE – likely B7.

~2245—RC moves around with PB, taking it to the W side of the meadow, further from the M and across the net. M circles perimeter of meadow giving HECs, but is not making many flights nor crossing the meadow/net. FSCs near net to E. At same time, still with BG6 M giving HECs in site, RC spots a silent FLOW in net site. Bird flies in to perch on potr in middle of meadow, never vocalizes. After a couple of minutes here, RC takes PB back to net (N side). Silent FLOW flies around S end of net to perch in one of the pipus on SE side.

2247—At SY’s net: BG4 quiet. B7 still singing ~75-100m NNE.

2250—At SY’s net: 2 FLOW singing near net: 1 NNE (B7) and 1 W (BG4).

2251—**Silent FLOW in RC/DL net, unbanded**. 3rd shelf from E. BG6 M is still HECing in net site. This is either the silent bird or the F that we heard previously on E side of net. Captured FLOW is a F, with pin feathers coming out of shaft in on brood patch. We do nt hear any more from F previously vocalizing in the site. We tentatively call captured F BG6\_2015 F.

**Band # 1833-03295 (on R leg)**

96.0 g LWC: 134 mm

- 29.0 g LLP(5): 105 mm

67.0 g LLP(6): 114 mm

Rect: 65 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molt | Molt |
| P2 | 2 | Molt |
| P3 | Molt | Molt |
| P4 | 1 | Molt |
| P5 | 1 | 0.5 |
| P6 | 2.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2.5 |
| P9 | 2 | 2.5 |
| P10 | 2 | 3 |

Note: We do not take black light due to dimness of light, even with batteries having just been replaced. Bled R wing for gen. sample. Great clot, small hematoma.

2252—SY returns from a net check to find that BG5 has flushed – good sign.

2302—Only BG4 signing at SY’s net now - ~25m S of net: TECs.

2304—All quiet at SY’s net.

2317—SY Stops PB and breaks down and leaves. BG6 F released with strong ascending flight S. BG6 M remained in net site for ~15 min after F capture, giving decreasingly aggressive calls. We periodically moved the PB during this time in an effort to draw M into net, but to no avail. M silent by the time we release F.

2320—PB off at RC/DL net. We break down and leave.

# BG5—2016

## 21 July 2016

2329—ER, RC, DL, and Jenna Wu set up a lure net with the intent to lure for potential geo and PinPoint Ms. The net opens N/S on the spur road off of 347, about 400m SE of the junction, where the spur road turns NE.

Vegetation: Mixed psme and pipu, young potr

Weather: Rained earlier, cloudy, 11C

X: 495760

Y: 4331287

± 8m

2230—A M begins giving TCs from about 100m SE toward BG6. He approaches and jumps over the net a few times as he transitions to TEC and HEC for the next 20 minutes.

2250—M goes quiet.

2253—M gives a couple hoots about 100m SE where the M first started calling.

2313—RC, DL, and JW leave to set up a second lure net on the more western side of BG5.

~2320—RC, DL, and Jenna Wu arrive in BG5\_2014 nest vicinity to lure for BG5 M, with goal of affixing a PinPoint GPS tag. We erect net ~20m W of BG5\_2014 nest tree and 5m N of logger rd, in a stand of small potr.

2321—During net setup, we hear M TCing 100m NNE toward the junction of 347 and S spur rd with campsite. We suspect M is responding to either MC or ER’s PB.

2324—PB begin. M still TCing to NE.

Vegetation: young-mature potr/psme (live and snags), open.

Weather: overcast, wind <5mph, ~13C.

X: 495536

Y: 4331372

\*Estimated from BG5\_2014 nest GPS

2328—M TCing in net site, on W side. We no longer hear NE bird, but we also did not hear an approach. *This bird does not seem to be a M that was calling at MC’s net in BG4, and ER never heard this M at her net closer to BG6. We suspect this is the BG5 M.* M remains in site, giving progressively more aggressive calls, until…

~2335—**Wingflaps! Presumed BG5 M\_2016 M is captured in net, 3rd shelf from W.** M is previously unbanded. We extract M, crash net, kill PB, and move to join BL at 347/spur rd junction to affix PinPoint.

**Band # 1783-74374 (on L leg)**

85.7 g

- 35.6 g

50.1 g

**PinPoint GPS Tag: PP10 Swift V4257 (40919) – 1.5g**

**Notes:** We forego blood sample and feather measurement/assessment for the sake of limiting time in hand.

2344—A F begins giving LC and a few FSC about 30m S of the BG5/BG6 net.

2346—The F flies across the net site, hits the net, but bounces out. Whatever F, we wouldn’t put a geo on you anyway.

2353—F backs off to the SE.

2401—PB off. ER breaks down the net and leaves.

~2345-2410—We affix PinPoint. Harness appears to be a bit loose around neck, but seems like it will be able to slide down and fit appropriately.

2415—Newly PinPointed M released, with fluttery but strong, ascending flight SE to low potr perch. M perches here for ~2min without preening or picking at harness, then makes a strong second flight out of sight to S, radiating enthusiasm about his lofty aspirations of supplying flam crew with unprecedented data describing migratory and wintering grounds. **This is the first PinPoint GPS tag attached to a migrating flam!** Flam crew arrives to join. We break down all nets and leave.

## 29 July 2016

2100—RC and ER set up a lure net on the S spur off of 347 ~50m up the road from where the road turns E. PB starts. Net opens E/W.

Vegetation: mixed pipu, psme, pifl

Weather: clear, breezy

X: 495770

Y: 4331303

+/- 12m

2104—M begins giving TC within 50m N of the net for ~two minutes. He backs off further to the N.

2150—M TCs ~50m from NW.

2151—Change PB to Megascops and we walk PB toward the M. The M immediately approaches PB and changes calls to TEC and HEC.

2155—**M captured in the first shelf headed E across our site. He is an unbanded territorial M, and presumed BG6\_2016 M**. He receives a PinPoint GPS. RC and ER walk the M down to the junction with 347 to meet BL and attach GPS.

**Band # 1783-74389 (on L leg)**

77.5 g

- 15.5 g

62.0 g

**Notes: Receives PinPoint GPS #40918.**

2211—Begin attaching GPS.

2231—Stop attaching GPS.

2236—Release M. Strong, but short flight about 5m where M perches and does not preen or fiddle with new backpack.

2246—RC and ER incite a second flight that is also strong and out of sight.

# BG5—2017

## 8 June 2017

2358—Playbacks start. We set the mist net up about 150m SE from the BG5/BG6 parking spot.

Vegetation: mixed age pipo/potr, fairly open

Weather: partly coudy, breezy, 9C

X: 495568

Y: 4331388

+/- 3m

2401—M makes TCs within 20m S of the net. He approaches the net, transitioning into TEC and HEC in the net site.

2403—Change PB from Track 42 to the four-note Megascops call. M swoops over net.

2404—Un-banded M in the net. He is in the 2nd shelf and came in from the NW. This is presumed BG5\_2017 M. We begin to process.

**Band # 1833-03550 (on L leg)**

68.5 g LWC: 136 mm

- 15.0 g LLP(5): 102 mm

53.5 g LLP(6): 112 mm

Rect: 61 mm

**Notes: He was a notably fluffy bird, and we noticed he held his legs at a wider angle than other individuals. We noticed this characteristic before and after banding.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 2.5 |
| P2 | 2 | 2.5 |
| P3 | 2 | 2 |
| P4 | 1.5 | 1.5 |
| P5 | 1.5 | 1.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | .5 | .5 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1.5 |
| P6 | 2 | 2 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

2424—We hear another M calling to the SE as we have the \*BG5\_M in hand. We think this might be the pinpoint bird we are trying to target. He stops calling after a minute, and KM switches to Megascops. No juice.

2444—ES releases the \*BG5\_M who makes a strong horizontal flight to the W.

2455—With little time left in the night, KM and ES move the lure net (without fully breaking it down) about 150m NW of our original BG5 lure net spot. Net is about 200 m SE of confluence of S Missouri Cr and Missouri Cr.

Vegetation: mixed age pipo, potr

Weather:9C, partly cloudy, slightly breezy

X: 495627

Y: 4331260

+/- 3m

2510—We do not hear any birds responding to our playback, so we break down the net and head out of Missouri for the night.

## 7 July 2017

~2315—MC, JE and Whit Walker arrive at BG5 to set up a lure net.

2324—We start PB of T42. The net is on top of the BG5\_2016 net coordinates, ~100m SW of the parking spot at the base of the two track road coming out of S Missouri Creek. The net is on top of a bench in the hillside populated by young potrs.

Vegetation:Young potr, young-mature pipo/psme

Weather: partly cloudy, calm, 14C

X: 495527

Y: 4331375

+/- 3m

2327—We hear TCs from the S. The M approaches and gets to within 20m E of the net.

2333—He continues giving TCs and TECs, jumping around the net site for several minutes.

2341—M is once again just E of the net giving TCs and TECs. After a couple minutes, the M backs off.

2347—M gives TCs and approaches from the SE into the net site. He stays in the site for several minutes.

2348—MC switches to megascops and then back to T42.

2405—JE hears lots of TCs to the S. After several seconds, I confirm that there are 2 distinct birds calling and it is not just echoes from the other playback running in BG6. The continue giving TCs and TECs at one another for several minutes, both hanging around 30-60m S and/or SW from the net site.

2413—One of the two birds comes closer into the net site, and at his closest, perches ~15m just E of the net. The second bird is still calling.

2416—After a minute or so of silence from the bird closest to the net (second bird still calling S of the net), JE checks the net **to find a FLOW caught in the 3rd shelf coming in from the N. This is a B12\_2016 nestling! He was also captured on 8/26 on the saddle as part of MC, RC, and ERs 2016 fall lure netting effort. He was 51.6g.**

**Band # 1783-74351 (on L leg)**

74.0 g LWC: 125 mm

- 20.0 g LLP(5): in molt

54.0 g LLP(6): 102 mm

Rect: 61 mm

**Notes: P1-5 are molting on both wings. Feathers also show damage from mites. We do not quantitatively blacklight the wings as feathers are currently in molt and all other feathers should be 1 year old only.**

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | - | - |
| P2 | - | - |
| P3 | - | - |
| P4 | - | - |
| P5 | - | - |
| P6 | 3 | 3 |
| P7 | 3 | 3 |
| P8 | 3 | 3 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2427—As we are processing the bird, the 2nd M is still calling in the site and continues the entire time.

2442—M is released with SHF into a nearby aspen that he stays silently perched in for several minutes.

~2445—PB is stopped and lure net is broken down. M is still calling in the site. We follow him for a few minutes to check for a band and pinpoint but do not see anything with any certainty.

0105—We hear the M still giving TCs as well as a 2nd M also giving TCs during debrief at the parking spot.

## 25 July 2017

2045—KM and JE set up a lure net to attempt a pinpoint M capture in the BG5 territory.

Vegetation: young-mature potr, mature psme and pipo, relatively open

Weather: cloudy, slightly rainy, ~16C

X: 495541

Y: 4331362

+/- 3

2050—KM listens W of the net spot working her way E, while JE listens near the net site working her way W.

2100—We begin playbacks. (T42)

2127—We turn PB off as rain increases.

2200—Rain subsides so we begin playbacks again.

2225—We do a quick net check and find a FLOW, who apparently came in silently, in the top shelf (from the N) and a bat in the second to bottom shelf. The FLOW is an unbanded M. We extract the silent bird and JE begins processing as KM extracts the scrappy little bloodsucker.

**Band # 1833-03600 (on L leg)**

61.0 g LWC: 121 mm

- 7.0 g LLP(5): 84

54.0 g LLP(6): in shaft mm

Rect: 52 mm

**Notes: P1-4 look newer, P5 is new, P6 is in shaft; We do not put a pinpoint on this bird as he came into the net site silently.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 2 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | New | New |
| P6 | Shaft | Shaft |
| P7 | 1 | 1 |
| P8 | .5 | .5 |
| P9 | .5 | .5 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | .5 | .5 |
| P5 | .5 (new) | .5 (fresh as hell) |
| P6 | Shaft | Shaft |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

2257—We release the M, who makes a SHF which majestically turns into a SAF.

2305—We watch some bro-y motor-bikers drive up and down the road. When they leave, we deem our exist safe and meet the rest of the owl crew at the BG5/6 parking spot.

# BG5—2018

## 16 July 2018

2150—DL, ON, and JE arrive at BG5 to target a territorial M for a migration pinpoint.

2157—PB of T42 begins. Net is located in vicinity of previously used net sites, just up the slope on the flat area.

Vegetation: young and sub-mature potr/psme/pipo

Weather: 100% cloud cover, calm, 18C

X: 495568

Y: 4331412

+/- 3m

2158—DL sees a silent bird fly over the top of the net from the SE and perch in a nearby potr snag, ~10m N of the net. Immediate, this bird begins making TCs and TECs at the PB.

2200—M is now making HECs right on top of the net.

2202—**We hear wing flaps and see a bird caught in the top shelf, entered from the S! This territorial M is unbanded so we extract, throw on a band, and meet up with BL and the Audobon group to attach a pinpoint.** As doing this, we hear a 2nd M making TCs N/NE of the net.

2207—M is extracted from the net. DL and JE take him to BL and visitors to process and place a pinpoint on him while ON watches the net.

**Band # 1833-32578 (on L leg)**

74.0 g LWC: 125 mm

- 17.5 g LLP(5): 71 mm

56.5 g LLP(6): 20 mm

Rect: 61 mm

**Notes: LP6 was entirely in shaft and LP5 was still coming in. P2-5 were still growing after molt while 7-10 looked pretty worn, for both sides. There looked like some there was some feather damage on the head due to lice. The skin on part of the body also looked very dry, indicating a body molt.**

2220—The 2nd M we were hearing gets further N/NE from the net until ON can no longer hear him. ON changes PB to FLOW HECs and presumable a different M immediately comes into the net site from the E with HECs and TCs.

2223—M goes quiet.

2228—ON changes PB back to T42.

2231—M comes back to net site from E giving TCs. He continues to give TCs at the net for about five minutes.

2237—M goes quiet.

2240—Change PB to FLOW HECs.

2245—2 Ms come into the net site and give TCs/HECs. One comes in from the E again while the other comes from the N/NE.

2247—Both Ms in the net site go quiet.

2247—The captured M is released after taking a minute or two to wake up. Flight is strong, but parabolic, eventually perching in a nearby potr. Flight looked strong enough and M was found in a perch so we left him alone and returned to the lure net.

2305—Change PB back to T42.

2307—M from N starts making TCs again. He begins to approach to within 50m, but backs off and continues calling distantly for a couple minutes.

2311—M from N is silent, but we hear presumably a 2nd M quickly approach from the E, coming into the net site then progressively backing off over a couple of minutes. We assume this is 2nd bird as it’s TCs sounded much deeper and a bit coarser.

2316—M from N begins makings TCs again, still distant and at least 80m away.

2322—Both Ms have been silent.

2325—We stop PB and pack up for the night.

## 23 July 2018

2113—JE and DL set up a lure net in BG5 to target a bird for a migration pinpoint. Our net is located just up the slope on the flat area, ~50m from the road and ~100m S of the parking spot. We begin pb of T42.

Vegetation: mixed potr/pipo/psme/pifl

Weather: 15 C, 100% cloud cover, light sprinkle, some wind, very wet from earlier rain

X: 495438

Y: 4331356

+/- 3m

2118—Light sprinkling becomes light rain.

2124—There is too much rain and wind so we stop pb. We go sit in the car, and after a solid 45 minutes of rain/lightning, we have a window in which we break down the net and leave.

## 24 July 2018

2115—JE and DL set up a lure net in the same exact spot as the previous night, once again targeting a M for a migration pinpoint deployment. We begin pb.

Vegetation: mixed potr/pipo/psme/pifl

Weather: 13 C, 40% cloud cover, calm, wet from earlier rain

X: 495438

Y: 4331356

+/- 3m

2116—M is immediately giving HECs SE/S of the net, within 20m of the net. M seemed to approach from the S.

2117—M is as quiet just as quickly as he had approached, but the net is empty.

2120—M returns, once again just SE of the net, giving HECs and TECs.

2122—M once again silent.

2210—M approaches from S once again.

2211—We switch to megascops, M continues to stay in net site, giving very hoarse HECs.

2216—M has seemed to back off a little bit, so we switch back to T42. M is calling and is perched on a tree just W of the net.

2220—M is once again gone.

2231—We temporarily kill pb.

2246—PB is resumed. M once again immediately approaches to a spot within 10m of the net. PB is walked, but M loses interest and once again leaves. For the remained of the night, we try different tracks and walk the speaker, but the M does not return.

2315—PB is stopped. We break down the net and head out.

# BG5—2019

## 31 May 2019

2045—SL and JE arrive at BG5 to recover a pinpoint set out last year. We head for a previously used net site.

2059—Start PB of T42. Net is located on the flat area of the low slope of the main ridgetop, just S off Missouri Gulch Rd and is ~75m E of the S Missouri Cr two-track Rd. Net is open N/S.

Vegetation: young potr, mixed pifl

Weather: 10C, cloudy, quiet breeze

X: 495524

Y: 4331375

+/- 3m

2105—JE hears F FSCs ~25m SE of the net. PB is stopped.

2106—F moves to ~30m SW of the net. JE begins to chase the F as she continually gives very loud FSCs. We move S, up the ridge.

~2110—M makes a PD after giving a few LCs. **The F appears to be banded on the L leg.**

~2115—M makes LCs, enters area, is seen foraging, then makes more LCs and a PD of a moth to the begging F. **M appears to also be banded on the L leg.**

2125—JE watches another PD of a moth. **Before M makes the delivery, JE spots what might have been a shiny silver wire sticking out from the back—this might be the BG5 M we attached a pinpoint to!**

2129—JE notices the F flights are getting shorter and lower. M has not been seen for a few minutes, but F is still begging and I realize we are now 250m+ away from the net site. The great chase has ceased so I return to the silent net.

2130—PB is turned back on.

2152-2214—It has been silent at the net so PB is walked 150m S, up towards where the birds were last seen to try to draw them back towards the net. We walk E/W and then back S to the net site.

2205—We potentially hear a FLOW responding to BL and ML’s net, but it is very distant.

2223—Two single TCs are heard ~80m W of us.

2227—We potentially hear a FLOW calling from the E, potentially from BG4 as it was definitely closer to BL and ML.

2229—A couple of FSC are heard for a brief moment just N of the net. We stop PB but quickly resume and become extra careful in avoiding to draw in a F.

2240—PB is ended. We pack up and leave.

## 14 June 2019

~2015—Flam Crew arrives at BG5 to search for cavity trees and look for a nest. Our goal is to find the nest for a possible M nest capture in case we are unable to recover the BG5 M at a lure net (he is likely carrying a pinpoint).

2023—**ES taps an unenumerated tree and a F FLOW pops up to the entrance! This is the BG5\_2019 nest! The nest tree is ~40m S of the ridgetop flat where lure nets have been previously used and directly adjacent to the roadcut two-track along that ridgetop. The nest tree is a potr full snag ~50m SE of the BG5 parking spot and the nest is in a SE-facing NOFL cavity 22’ 8.5” high (measured later during peep).** ES backs away to take notes.

2025—The F goes back down into the cavity.

~2030—JE, SF, and KA gather at the nest to wait for the F flush and peep the nest.

2043—M calls off roost from ~30 m to the SE. We decide to look for a lure net location to the S later in the night based on the direction of these calls.

2048—F makes a single-note LC then a four-note LC from the cavity.

2054-55—M makes another LC. F makes an FSC from the cavity. This repeats once and then the F pops up and flushes.

2056—**We peep the nest to find three eggs, centered and touching.** **Cavity height is measure at 22’8.5”.** We leave to set up a lure net.

2119—PB starts. T42. Net is located ~75 m E of BG6 parking spot, ~15 m NE upslope of the two-track road. Net is open SW/NE on a low slope. We confirm that our position is at least 150 m away from the nest.

Vegetation: open, mixed age pipo, psme, pifl, young potr

Weather: calm, clear, 11 C (wind picks up throughout the night)

X: 495705

Y: 4331374

+/- 3

2142—It has been quiet, so we go nuclear and change the track to **“Nuke him with the Megascops”**

2143—M immediately gives TECs in the net site. It appears that he came from the S, in the direction of the nest.

2148—The M bounces over and around our net for 5 mins, and then goes quiet.

2152—We change PB to FLOW AZ and drop the speaker to the ground.

2204—We hear a different M FLOW give TCs from ~20 m NE up the ridge, but he does not enter the site.

2205—Track switch to Megascops, but all is quiet.

2215—KA walks PB down towards BG5 parking spot ~50 m. No luck drawing in the BG5 M, so I return PB to the net.

2248—We cut PB and leave the site.

## 18 June 2019

2130—KA, JE, ML, and Lacey arrive at the BG5\_2019 nest site to attempt a M capture and potential migration pinpoint recovery.

Weather: 11 C, Calm, 100% cloud cover (on and off rain, clouds clear at times)

2132—M PD and LCs, F FSCs on cavity. We sit to wait ~30 min and watch PDs before getting into capture position.

2137—M PD, F FSCs while M is in the site.

2148—A M gives TCs from ~175 NE. He calls for a few minutes.

2157—The rain starts again.

2205—Still raining, F FSCs on cavity.

2217—The rain slows down and skies are clearing up.

2218-2233—M gives 3 PDs, F occasionally begs. Nest activity seems to have resumed to normal after the rain, so we get ready for a M capture.

2234—JE begins approach.

2236—M PD while JE is at base of tree, fully entering the cavity.

2240—JE raises the net to height.

2253—M gives a PD. JE swings the net over the cavity, and perfects the height. M stays on the cavity. We check with headlamps every minute, but never see M rise to the cavity entrance.

2259—The M has still not left the cavity. All four of us have had eyes on the cavity with a good silhouette and have not seen him exit. To be cautious with this unusual behavior, JE moves the net away from the cavity entrance.

2302—After 9 minutes on cavity, the M finally flushes.

2312—The M re-enters the site and the F gives FSCs on cavity. This confirms that the M stayed on for 9 minutes during the last PD, and it was not the F who left. M gives a PD, only partially entering the cavity. JE swings when it appears his butt has entered the cavity, but M leaves and avoids the net.

2313—M stays in the site and gives two aborted flyby PDs and some HECs at the net. He pauses to perch at the cavity entrance, then flushes to the E.

2314—F flushes after the M. We leave the nest site and head to the vehicles.

## 20 June 2019

2106—KA, ML, and JE arrive at BG5\_2019 for a second attempt at capturing the M at the nest (after the failed attempt on 6/18/19). The belief is that this male may be the BG5 pinpoint male from 2018 given JE likely seeing a shiny object on the back of a M in BG5 on 5/31/19.

2114—We arrive at the nest. The F is either down in the cavity or off cavity.

Weather: calm to slight breeze, 11 C, 30% clouds

2121—We hear FSC’s and LC’s ~15 m SE of the nest. This is followed by the F entering and the M entering less the 10 seconds later for a PD. This means the F was off cavity, not down in the cavity. After the PD, F makes FSCs.

2122-2142—We watch 6 more PD’s See PD sheet. F vocalizes intermittently, particularly when M enters the site.

2152—KA approaches tree to try to snag the M.

2159—Net is at the height of the cavity and we wait for M to reenter the site.

2200—Another PD. M enters cavity and KA puts net over cavity.

2201—FSC’s and HEC’s heard from inside cavity.

2202—**M flushes. We capture him in the net! He was the BG5\_2017 M that was captured in a lure net. He is not the guy who got a pinpoint last year.**

**Band # 1833-03550 (on L leg)**

69.0 g LWC: 140 mm

- 15.5 g LLP(5): 103 mm

53.5 g LLP(6): 110 mm

Rect: 65 mm

**Notes: He had hippoboscid flies. He was bled in 2017.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 3 | 3 |
| P5 | 2.5 | 2.5 |
| P6 | 1 | 1 |
| P7 | 1 | 1 |
| P8 | 1 | 1 |
| P9 | 1 | 1 |
| P10 | .5 | .5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | 1 | 1 |
| P5 | 1 | 1 |
| P6 | 2.5 | 2 |
| P7 | 2 | 2 |
| P8 | 3 | 2 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2238—M released by KA. SAF to the W.

2240—We leave the nest site.

2250—We leave BG5 and head for B6/21.

## 15 July 2019

2020—ES, KA and SL arrive at BG5 territory to peep the nest. Upon arrival all is quiet and F is down.

Weather: 40% cc, calm, 14 C

2031—F pops up to cavity entrance.

2048—F gives FSCs on cavity.

2049—F gives FSCs on cavity followed by M TCs ~ 30m NE off roost.

2050—F flush to the E.

2052—**We peep and see three nestlings in all gray, two of which have visible facial disks. BL approximates their age to be ~ 16 days.**

2056—We leave BG5 territory and head to B5.

## 18 July 2019

2031—ML, KC, and JE arrive at BG5\_2019 nest with the intention of catching BG5\_2019 M to attach a pinpoint on him. F is up upon our arrival.

Weather: 19 C, clear, calm

2044—F gives a few FSCs.

2046-2049—F gives continuous FSCs as well as LCs. Has remained up since our arrival.

2047—M LCs in nest site.

2047—M PD.

2049—F flushes from the nest.

2049—F goes back on for ~10 seconds.

2050—F flushes again.

2052—**We peep the nest. 3 nestlings in center of the cavity. They are all nearly entirely gray and the eldest has a facial disk. BL approximates the eldest is ~21 days old.**

2054-2114—10 PDs are seen. Both M and F are giving PDs. See 7/18/19 BG5 PD sheet for more details. M LCs and F LCs are heard before and after some PDs. Nestling begging is also heard throughout the observation time and it is very raspy.

2114—JE approaches and starts raising the net.

2115—F PD and M HECs at the net.

2116—Capture net to height.

2117—F and M enter the site. F makes a PD

2118—M makes PD and flushes into the bag. Unfortunately, he is not caught very well and escapes.

2119—Net back at cavity height.

~2125—M enters site and makes a PD. JE tries to swing but is too slow.

2138—F and M are both enter the site.

2139—**Silent FLOW flies up the cavity and seemingly aborts to head to an approach perch the M had been using. Silent FLOW goes in for a PD and flushes into the bag! He is the BG5\_2019 M. JE drives over to BL, bird in one hand steering wheel in the other, to put a pinpoint on the M. ML and KC go to set up a lure net in BG6.**

**Band # 1833-03550 (on L leg)**

62.5 g

- 7.0 g

55.5 g

**Notes: Pinpoint attached successfully without issue. Pinpoint is #49662.**

2142—While JE drives the bird up, KC and ML leave to set up a lure net.

2218—ML and KC start PB in BG5. ML and KC intended to set up lure net in BG6, but were confused on the location of BG6 and accidentally set up in BG5 due to a miscommunication. Lure net was open N/S. Lure net was placed in the drainage bottom 250m S of BG5\_2019 nest and 10m E of Missouri Rd. T42 was played.

Vegetation: Mixed age potr and psme. Mature pipo

Weather: Clear, Calm, 15 C.

X: 495440

Y: 4331416

+/- 3m

2240—JE returns to BG5 and releases the M just upslope from the parking spot. M wakes up pretty quickly and has a SHF to a perch I couldn’t see.

2247—All is quiet. KC walks PB N ~100m.

2250—JE joins ML and KC at the net.

2257—We cut PB and breakdown the net, realizing we are in the wrong spot. We head up to BG6 to set up a net.

# BG5—2020

## 16 June 2020

2145—ES and BL arrive on the BG5 ridge to check the status of the BG5\_2019 nest tree and look for the BG5\_2020 nest, ultimately to try to retrieve the PinPoint on the BG5\_2019 M. **No response to a tap at the 2019 nest tree, but ES taps a POTR snag cavity tree ~5 m to the W, and a F FLOW rises to a cavity entrance—this is the BG5\_2020 nest! Nest cavity is NOFL excavated and faces S, and is about 25 ft high. Nest tree is ~23 cm dbh. The nest site is on the BG5 ridge ~100 m SE of the parking spot. I put two pieces of orange flagging on the nest tree.**

**X: 495541**

**Y: 4331345**

**+/- 3m**

F stays in cavity entrance for ~1 min, then goes down. We stay to observe nesting behaviors.

2150—M arrives giving LC, and proceeds to make PD.

2210—All is quiet, and we leave to find a suitable location for a lure net.

2235—We find few reasonable locations for lure net on the BG5 ridge, and proceed to set up the net in the drainage bottom of S Missouri Cr, approximately 120 m SSE of the BG5 parking location.

2245—We start playback.

Vegetation: small clump of young POTR near base of W-facing slope, surrounded by mixed age PIPO/PSME.

Weather: Light breeze (but blowing more strongly on surrounding ridge tops), clear, 17 C.

X: 495675

Y: 4331400

+/- 3 m

2305—We hear the presumed BG5 M give TC from the BG5 ridge top to the W. He quiets after 1-2 min.

2343—We periodically hear M calling several hundred meters away to the NW (fades in/out with breeze). This might be the B12 M coming down Beartorn Cr.

2345—We stop playback and proceed to break down net. We only heard from BG5 once tonight, but we’ll be back…next time a bit closer to home!

2353—We leave.

## 23 June 2020

2045—ES and BL arrive at the BG5 nest tree to peep and attempt a M capture. We’re hoping that he’s carrying the PinPoint deployed in BG5 in 2019! The F is down when we arrive.

Weather: Mostly cloudy, very light drizzle, hail on the ground from evening storms (~1 hr ago), 9C.

2052—M PD (silent).

2053—F flushes. **We peep to find 4 (!!) nestlings, all in white, holding their heads up and bobbing but with eyes closed. BL estimates they are 4-5 days old. Cavity height = 21’8”.** We back off to observe. Because of the hail and cold temperatures, we plan to give them at least until 2145 before going in for the M capture.

2056-2103—M gives 5 PDs.

2103—F goes back on.

2108-2114—M gives 4 PDs.

2114—F flushes, then comes back on ~20 seconds later. M gives a PD while vocalizing. We presume the F had gone off to forage briefly.

2120—F flushes again, then goes back on cavity. A few seconds later, she flushes and then promptly goes back on. Due to high nestling energy demands, she may be assisting with PDs.

2122—F flushes.

2123—F enters cavity and then leaves again (PD?). M also gives a PD.

2126—F comes back on. M PD.

2130—M PD.

2132—F flushes and gives 2 PDs.

2133—M PD. F comes back on.

2134—F flushes and then makes apparent PD, followed by M PD.

2137—F comes back on for the remainder of the night.

2145—M PD. ES prepares to get in capture position.

2150—ES in capture position.

2152—**ES captures M after he makes PD. M was banded previously, with Band #1833-03550—this is BG5\_2019 M (originally banded as the BG5\_2017 M), and he is carrying a PinPoint! Upon capture, we see that the PinPoint was still in its original position, centered on the back and firmly in place. After removing the harness, we find a small amount (2-3 mm diam) of dried tissue on the L and R harnesses near where they likely rubbed the epidermis under the wings—however, this likely scarred over with no longer term issues.**

**Band # 1833-03550 (on l leg)**

61.5 g, (**w/ PP**) LWC: XXX mm

- 7.5 g LLP(5): XX mm

54.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: Feathers on the head, back, and wings were moderately wet (but not matted) when we started to handle him, so we forewent taking any measurements, blacklight and wear data to allow for quick release. Except for the dried tissue on the harness noted above, M appeared in excellent condition.**

2209—BL releases the M. Strong horizontal flight E.

2212—We leave, PinPoint in hand!

## 7 July 2020

2022—ES and BL arrive at the BG5\_2020 nest to attempt capture of F and assess status of owlets. F in cavity entrance when we arrive (protruding slightly like an emergent fledgling).

Weather: <10% cloud cover, light breeze moving twigs in POTR crowns (wind speed increases to moving entire limbs during observation period), 22C.

2040—ES starts approach to attempt capture with F still in cavity entrance with BL providing distraction from opposite side of nest tree. Close call, but F escapes around rim of net. **We peep cavity—3 owlets visible (we confirm this after F capture, since one owlet seemed to have two parts), instead of the 4 owlets observed on earlier date. Eldest owlets entirely in grey and the runt all grey except for head with 30% white. Eldest owlets, with facial disk developing, appear to be ~20-21 days old (fledging expected on ~10-11 July).**

2052—F gives FSC approximately 30 m to E.

2056—M starts giving TC approximately 50 m to E.

2058—M makes PD in cavity, giving LC on approach.

2101—F makes PD at cavity entrance, where owlet is now begging loudly.

2102-2116: M and F make 13 PDs during this time (see PD sheet for details). Owlet in cavity entrance until 2116, when it goes down after PD, and ES approaches nest tree at this time.

2121—M makes 2 PDs in cavity.

2123—ES with net in capture position.

2125-2134: M and F make 3 PDs during this time. ES inadvertently captures M at 2134, and immediately releases him.

2138—**ES captures F after PD. F was previously banded, with Band # 1833-03249. She was originally captured on 5/27/2015 at a B6 lure net, and was not known to breed in that year (she was not the B6\_2015 F), nor was she subsequently captured anywhere until tonight!**

**Band # 1833-03249 (on L leg)**

64.5 g LWC: 126 mm

- 7.5 g LLP(5): 98 mm

57.0 g LLP(6): broken off at 82 mm

Rect: 58 mm

**Notes: F was bled on L wing (not bled in 2015), small hematoma. Breast still mostly clean w few emerging pin feathers.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1.5 | (same as L for all) |
| P2 | 0.5 |  |
| P3 | 2.5 |  |
| P4 | 3 |  |
| P5 | 3 |  |
| P6 | 3 |  |
| P7 | 3 |  |
| P8 | 3 |  |
| P9 | 3 |  |
| P10 | 2.5 |  |

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| S1 | 3 | 3 |
| S2 | 2.5 | 1.5 |
| S3 | 1 | 2.5 |
| S4 | 3 | 2.5 |
| S5 | 1 | 2.5 |
| S6 | 1 | 1 |
| S7 | 1.5 | 1 |
| S8 | 1.5 | 0.5 |
| S9 | 1 | 0.5 |
| S10 | 1 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0.5 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1.5 |
| P6 | (broken) | 2 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2.5 |
| P9 | 3 | 3 |
| P10 | 3 | 3 |

2210—F released; she shows strong, ascending flight. We leave shortly thereafter.

# BG6—2013

## 21 July 2013

2109—AW and CK begin playback intending to capture a territorial M for a geolocator. We set up lure net approximately 90 m S & 70 m E of where BDG, CK, and AW set up a lure net the previous week and had 2 territorial Ms responding (1 from the S and 1 from the N-NW). We plan on targeting the southern M with this lure net site. Net is located on the E slope, just out of the drainage bottom, near the bend in the drainage (where it transitions from running SE to W-SW). Lure net is a single net set up on 5 poles.

Vegetation: dense, mixed aged psme/pipo w/ young potr; some pifl at net site

Weather: calm, clear, 16C

X: 495791

Y: 4331036

+/- 3m

~2130—M begins responding to playback from drainage bottom to our SW. M moves along drainage bottom to our N-NW ~50 m. M then begins moving E, upslope, just N of our playback.

2136—M begins to approach our playback from the NE, upslope of the playback, giving

TC/TECs.

2144—We hear a bird hit the net and find a FLOW captured in the 2nd shelve from the top.

**He was territorial until capture and find he is unbanded**. While we are extracting

him from lure net, the F swoops net a number of time and gives FECs.

2152—M extracted from net. AW quickly checks for incubation patch and finds none,

confirming identity as a M. We collapse net and hike M out to find BL for geolocator

attachment. **BL and AW attach geolocator #F790. This will be the**

**BG6\_2013 M!!!!**

**Band # 1783-64449 (on R leg)**

78.5 g

- 29.5 g

49.0 g

No measurements were taken at this time. Blood and blacklight was also omitted.

2250—M released with strong, ascending flight to NW. He lands in a young potr where he

perches for 3-4 minutes, lightly flapping wings and ruffling feathers. He appears to tug gently at the geolocator strap, but **overall seems to be wearing the geolocator very** **well**. We end observing him when he takes off to the W from the potr. *Note: while we are releasing M, we hear a territorial M calling to our E-SE ~100-150 m.*

# BG6—2014

## 23 June 2014

~2300—AW and RC arrive in BG6 (near original lure net site where BG6 M was captured) to lure for BG6 M and possibly remove a geolocator!

2317—PB begin. Net opens NE/SW on low W-facing slope 100m S of roundabout on 2-track rd.

Vegetation: Young-mature potr, mixed pipo/pipu/psme, low-moderate density—open area in otherwise dense slope.

Weather: clear, mostly calm, 6.5C.

X: 495826

Y: 4331126

+/- 8m

2326—M begins TC/TECing in near net site, having approached from the SW side toward the drainage bottom.

2328—2nd M approaches site from S (40-50m up drainage on low W-facing slope), initially giving low TCs, but quickly transitioning to TECs.

2338—Both Ms HECing, 20m N and E of net, respectively.

2343—Bird from S never crosses to N side of net, then goes silent and backs off to SE, giving occasional distant TCs. 2nd M (presumably the bird that originated in the drainage bottom) continues TC/TEC/HECing fairly consistently in net vicinity.

2407—Both Ms back within 20m of net, giving HECs.

2423—PB off. There are several large trees in net site and while Ms are calling close to net, neither M ever comes in lower than ~15m. We move net to clearing in drainage bottom just NW of roundabout in 2-track road. Net opens NE/SW, flanking a stand of small potr.

2441—PB on at new site. TCs heard to S near first net site during set up.

Vegetation: young-mature pipo/pipu/psme/potr, open meadow flanked by older trees.

Weather: clear, calm, 4.5C.

X: 495761

Y: 4331275

+/- 4m

2443—M approaches quickly from S, giving very low HECs in flight. M initially flies fairly low, but then returns to staying high in the old trees surrounding the meadow. He jumps around the periphery of the net site multiple times, but never crosses directly over the net. After several minutes of this, AW walks around with PB, but has no luck in pulling M in closer.

0111—PB off. We leave.

## 25 June 2014

2318—SY and JS arrive at end of spur road in BG5 territory to listen and lure. M is heard giving TCs ~50m N of the net site while we are setting up.

2325—Lure net set up ~10m NE of the end of unofficial spur road off Missouri Gulch Rd. on the low slope. PB started.

Vegetation: rel. open slope, young potrs spaced around net mixed with mature pipu, pipo, psme and pifl.

Weather: clear sky, slight wind, 11C

X: 495767

Y: 4331296

+/-4m

2326—TCs heard faintly from SW while the 1st bird is calling from the N.

2337—TCs heard from the N jump down to SW right in the immediate vicinity of the net. 2nd bird from SW goes quiet.

2341—1st M gives HECs in net vicinity.

2345—Two different birds heard one ~100m SW and one more distantly from the SW.

2404—M goes quiet.

2406—Very faint TCs heard from SW and the M moves closer within the minute.

2410-2435—SY goes into drainage to tap and listen. At one point I hear a couple TCs from drainage bottom ~150m SSW of the net. I give some hoots and M begins calling from a potr in drainage bottom. I hear the M make what sounds like a forage then flies off. A bird is reported at the net ~1 minute later – presumably the same individual*.* ***Note: Suspect that there may be nesting activity in the drainage S and SE of the net location.***

2430—M is perched on the NE side of the net, JS witnesses a large swoop to the SW and the M continues giving TCs.

2441—M heard very distantly to SW. Within a couple minutes he is calling from NE.

2450—JS eyes swoop of silent bird in net vicinity coming from the SW. M still calling to the N so this is a 2nd FLOW.

2451—**Silent FLOW caught. She is an unbanded F. We left bands at B7\_2014 nest site, but went on to mark her legs and P5 and P6 feathers on R wing with black sharpie with hope of capturing her in the future.**

2455—F released, low flight to SW.

0102—PB off. We leave.

***Note: There is strong evidence that the BG5 or BG6 nest (likely BG5) is located in the drainage SW of the end of the spur road. The continual calls from the SW and the rate of return to that area and the fact that we caught a F late in the night with a M calling in the net site not too long before, suggests that they are nesting together. Little is known about the second FLOW calling more distantly to the SW, but this may be BG6. Further lure netting and or nest searching in close proximity to that area is needed.***

## 27 June 2014

Afternoon—While the crew is peeping the BG5 and BG6 territories, ER approaches an unenumerated cavity tree when a female FLOW pops up in the cavity! **This is the BG5\_2014 nest**! The nest is in a large flicker cavity about 30 ft up on the S-facing side in a medium potr snag. The nest tree is located about halfway between the two spur roads and S of the cottonwoods about 150m from the parking spot in the campsite.

X: 495556

Y: 4331372

+/- 5m

Crew resumes peeping in the main BG6 aspen flat, attempting to locate another nest. We flag cavity trees, but do not enumerate any. Crew ends having peeped the main aspen flat and the W-facing low to mid slope of Genesis.

2150—MC, RC and JS arrive at the end of the spur road in BG6. MC and JS spread into aspen flat to listen as RC stays at previous lure net site just E of the spur road.

2155—MC and JS hear TCs ~20m W of their position in the aspen flat. We pursue. M giving TCs ventures S ~200m down drainage.

2200—MC and JS hear another M calling, RC joins. We witness a territorial encounter between what we believe to be BG5 M and BG6 M. HECs and TECs are exchanged right over our heads.

2202—MC and JS mark general songpost BG6\_1 in the aspen flat.

2211—SY and MP begin PB at lure net location on the slope ~200m E of the parking spot, targeting birds in the BG5 territory.

2216—RC, MC, and JS arrive in BG5\_2014 nest site to capture M. F up. We kill lights and wait.

2219—M PDs, then perches in site before flying ESE. TCs heard this direction toward the lure net of SY and MP.

2222—PD at nest. TCs continue to S of SY’s PB. **The bird calling at the net is not BG5 M**.

2225—M in nest site, then out.

2227—SY and MP hear TCs to the SE of their lure net location.

2230—JS approaches nest tree.

2233—M in nest site. Lights out. 2nd M still TCing SSE of SY net.

2235—PD at nest. JS raises net.

2241—PD at nest. SY calls in with 2 other confirmed Ms. **This makes 3 birds total confirmed in BG5/6 area.**

2243—2 birds approach nest cavity, one right on the other’s tail. First bird enters cavity, while second flutters near entrance before flying off to the W. We suspect that the first bird may be BG5 F. There could also be a non-territorial bird in the nest site.

2245—Bird enters cavity, does not exit quickly. Acting cautiously in case one of these birds was the F, RC/MC/JS drop net and back out up rd to E.

2250—AW and RD start PB on W ridgetop above S. Missouri Cr. in a small saddle with young conifers. This lure net is the farthest south in the drainage, intending to focus mainly on capturing BG6. Net is located ~350 m S of the current BG5\_2014 nest.

2255—RC/MC/JS approach nest area again. MC heads to nest tree for capture.

2256—M that MP and SY were hearing has moved more due S and may be calling from the drainage bottom.

2258—F up in nest cavity entrance.

2259—Loud flight of unknown source heard (presumably M in nest site).

2300—AW and RB hear response to our playback to the E-SE ~25 m. M gives a few TCs, then goes quiet. **This was not the BG5 (who made a PD at the nest at the same time) or presumably the BG6 M (who came into SY’s net site at 2301). Instead, this M appears to be a 3rd territorial M in the area, possibly further S than BG6.**

2300—PD in cavity entrance.

2301—SY and MP have a M briefly come into their net site giving TCs before returning to the SE of their net site, where he has been calling all night.

2302—PD in cavity entrance.

2304—PD in cavity entrance.

2307—F down. MC raised net. M that MP and SY were hearing is now backed off more distantly to the SE (~200m).

2309—Net at height. MC steels himself in preparation for a long, hard battle with BG5\_2014 M.

2311—PD. M remains momentarily in cavity.

2312—**M exits cavity and is captured! Previously banded. This is the BG5\_2013 and now 2014 M. Geolocator removed in 2013. No new geolocator will be affixed in 2014.**

**Band # 1783-64345 (on R leg)**

67.0 g LWC: 131 mm

- 16.0 g LLP(5): 99 mm

51.0 g LLP(6): 107 mm

Rect: 64 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | .5 | .5 |
| P2 | .5 | .5 |
| P3 | .5 | .5 |
| P4 | 1 | .5 |
| P5 | .5 | .5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 2 |
| P8 | 2 | 2.5 |
| P9 | 2 | 2.5 |
| P10 | 2.5 | 2.5 |

Note: M bled on L wing. Small hematoma. No black light taken.

2316—While BG5 M is in hand, MP and SY hear the M to the SE.

2326—While listening in the drainage bottom just E of our net, AW hears TCs to her S. M is approximately ~125 m SE of net. **This is presumably not BG6, but a more southern bird.**

2322—SE M that MP and SY were hearing goes quiet.

2327—M that AW had been hearing goes quiet.

2330—SY and MP hear TCs to the SE on the side of Genesis R.

2335—BG5 M released with moderate, fluttery but ascending flight E to terrible perch on broken twig. Twig sags under weight of M as he reflects on his recent experience—a little flustered perhaps, but more or less unscathed. RC/MC/JS leave.

2339—MP and SY stop playback, break down the net and leave.

2340—AW and RB end playback and leave. BG6 never came into the net area. The only response we heard was from a more southern bird.

## 29 June 2014

2237—AW and MC arrive in BG6 attempting to retrieve a geolocator. We erect a mist net in the original BG6 capture location, ~250m up the main drainage after it turns on the low E slope. PB starts.

Vegetation: Dense, young-old pipo. Young potr/pipu in site.

Weather: Clear, calm 19C

X: 495790

Y: 4331025

+/- 6m

2243—M comes into the site giving TCs/TECs/HECs. Moves closer towards the net and then goes silent but no bird is in the net.

2250—M TCs ~100m due N of the net.

2305—M starts TCing ~50m S in the drainage, moving N up drainage as another M is still TCing ~100M N.

2308—AW hears silent bird in the site. Then we hear wingflaps and there is an **unbanded F in the net.** Second shelf from E.

**Band # 1783-64502 (on L leg)**

2314—We release her with a very strong, ascending flight N. *This is likely the BG6 F. She had a large incubation patch and we likely missed a nest while peeping in the drainage. SY had caught a F at a net ~250m down drainage on 6/25 but, rookiely, did not have bands, and instead colored her feet like a child with a coloring book. This Fs legs were bare of feathers on the backside of the tarsi but we do not have reason to believe that this is the same F.*

2338—The territorial M has not returned to the net so we go to break it down and turn PB off. As we do so two Ms start to TC ~20m NW up drainage, likely BG6 and BG5 so we turn the PB back on.

2344—As we turn the PB off again the territorial M comes closer to the net so AW gives hoots. We turn the PB back on while AW has an encounter with both the PB and the supposed BG6 M.

2400—The M never gets much closer, showing no interest in the PB, so we break down and leave, definitely NOT forgetting to bring the PB with us

## 21 July 2014

2357—BL, RC, LL, and ER arrive in BG6 where AW snagged the BG6\_M in 2013. We are S of the MGSA about ¼ mile up S Missouri Creek on the low, W-facing slope of Genesis R. We start playback without setting up the net while BL and RC search for a better net site. Maybe 15 secs after starting playback, a M begins giving TCs in response to the playback about 50m S. We presume this southern bird is the BG6\_M. He gives TCs for about 3 mins.

2400—BG6\_M silent.

2405—BL finds a more appropriate net site just 20m SE of where we initially started PB to survey for FLOWs. Playback is stopped while we set up the lure net. While setting up the net the BG6\_M gives a few TCs around the net site.

2411—PB is started again at the lure net.

Vegetation: Some young psme and potr with larger medium and mature psme and pipu surrounding. Somewhat open.

Weather: Clear, calm, 14C

X: 495831

Y: 4331102

+/- 3m

2414—A male starts responding to the PB within 20m N/NW of the net site. We assume him to be the BG5\_M.

2422—M goes silent, but picks back up within 5m of the net giving hoarse TCs.

2425—ER takes PB for a walk around the net site.

2428—Presumed BG6 M approaches from S, TCing and presumed BG5 M begins TECing and moving around a bit on the N side of the net. Both Ms drop low briefly at times, but mostly remain high in the psmes.

2436—BG6\_M is still giving TCs/TECs in the net area, while BG5\_M has now moved off, giving TCs from ~100m N of the net.

2438—The BG6\_M goes silent.

2440—BG6\_M picks up with TCs/TECs just E of the net again.

2446—BG6\_M goes silent.

2447—Playback is stopped. We break down the net and leave.

# BG6—2015

## 24 July 2015

2001—SY sets up a lure net targeting BG4 and BG5 using the original capture location for BG4. Just on the E side of the rd. ~50m NE of the cottonwoods.

2015—SY heads into the past BG5 nesting area to listen before starting PB at net.

2050—Nothing heard in BG5, SY heads to lure net location.

2100—SY starts PB at net

Vegetation: Young potr, relatively open site just E of road on low slope.

Weather: 13C, mostly clear, calm, heavy dew.

X: 495737

Y: 4331555

+/- 13m

2106—HECs at the lure net. M started calling very close to the net – likely BG4?

2108—M quiet.

2109—Net check – FLOW captured in the 3rd shelf, E side.

**Previously Banded # 1783-64327**

66.0 g LWC: 126 mm

- 17.0 g LLP(5): 95 mm

49.0 g LLP(6): 104 mm

Rect: 61 mm

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 1.5 |
| P2 | 2 | 1.5 |
| P3 | 0.5 | 1 |
| P4 | 0 | 1 |
| P5 | 1 | 1 |
| P6 | 0.5 | 0.5 |
| P7 | 0.5 | 0.5 |
| P8 | 0.5 | 0.5 |
| P9 | 0.5 | 0.5 |
| P10 | 0.5 | 0.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | 0.5 | 0 |
| P3 | 0.5 | 0.5 |
| P4 | 1 | 0.5 |
| P5 | 1 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 1.5 |
| P8 | 2 | 2 |
| P9 | 2 | 2.5 |
| P10 | 2 | 2.5 |

2111—FLOW flies past SY from the SW giving HECs. Flies towards net and goes quiet almost immediately

2114—Net check: 1 FLOW captured in the 3rd shelf, W side. A 2nd FLOW is perched ~5cm from PB on the E side of net. I circle around to E side to attempt to flush the FLOW into the net – **instead I capture the FLOW with my bare hands.** 2 birds in hand – both unbanded.

*Note: Based on behavior and measurements below, we suspect the hand captured bird to be a F, and the bird captured in the net to be a territorial M.*

**Suspected BG5 M: New Band# 1833-03294**

73.0 g LWC: 121 mm

- 17.0 g LLP(5): 51\* mm

56.0 g LLP(6): 12\* mm

Rect: 61 mm

\*Molting several feathers including P5 and P6.

We do not bleed or take blackligh/wear data. **We affix geolocator A264.**

**Suspected BG5 F: New Band# 1833-03197 on L leg.**

75.0 g LWC: 127 mm

- 17.0 g LLP(5): 28\* mm

58.0 g LLP(6): 108 mm

Rect: 59 mm

\*Molting P2-5.

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0.5 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | Molt | Molt |
| P6 | 0 | ? |
| P7 | 0.5 | ? |
| P8 | 0.5 | ? |
| P9 | 0.5 | ? |
| P10 | 0.5 | ? |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0.5 | 0 |
| P2 | Molt | Molt |
| P3 | Molt | Molt |
| P4 | Molt | Molt |
| P5 | Molt | Molt |
| P6 | 1.5 | 1 |
| P7 | 1.5 | 2 |
| P8 | 2.5 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2 |

2137—Release #1783-64327 (BG4 M).

2140—TECs W of the net near the road – BG4?

2153—Release #1833-03197 (BG5 F). Strong flight S.

2217—Release #1833-03294 (BG5 M). M makes an initially descending, then horizontal flight to a low perch in a potr (~0.5m up).

~2225—RC and DL arrive in BG6 to geo lure, targeting BG6 M/BG5 M.

2228—Before we begin PB at BG6, RC/DL hear unsolicited TCs 150-200m ESE toward BG6 dr. We hurriedly begin setting up net.

2230—PB begin at BG6 net. M starts approaching net site immediately as we continue setting up. Net set up in clearing at the end of the turnaround on the two track, a previous net site used by AW/RC in 2014.

Vegetation: Open meadow flanked by dense mixed pipu, young-mature potr.

Weather: Partly cloudy, mostly calm.

X: 495752

Y: 4331268

+/- 10m

2234—BG6 net up. M in site. We back off. N gives TCs🡪HECs over the next 10 min but for the most part does not move from a perch midway up a large pipu just SE of net.

2235—After hearing possible winglaps at net, SY tries to flush the BG5 M to see how he’s flying. M makes a fluttery horizontal flight to a small *Salix* twig and hangs on there. I grab M out of the *salix* and re-release: Horizontal flight to a potr ~7m away. Perched ~1.5m up.

2241—SY hears TECs ~50m S of the net.

2245—SY hears more distant TCs to the NNE – likely B7.

~2245—RC moves around with PB, taking it to the W side of the meadow, further from the M and across the net. M circles perimeter of meadow giving HECs, but is not making many flights nor crossing the meadow/net. FSCs near net to E. At same time, still with BG6 M giving HECs in site, RC spots a silent FLOW in net site. Bird flies in to perch on potr in middle of meadow, never vocalizes. After a couple of minutes here, RC takes PB back to net (N side). Silent FLOW flies around S end of net to perch in one of the pipus on SE side.

2247—At SY’s net: BG4 quiet. B7 still singing ~75-100m NNE.

2250—At SY’s net: 2 FLOW singing near net: 1 NNE (B7) and 1 W (BG4).

2251—**Silent FLOW in RC/DL net, unbanded**. 3rd shelf from E. BG6 M is still HECing in net site. This is either the silent bird or the F that we heard previously on E side of net. Captured FLOW is a F, with pin feathers coming out of shaft in on brood patch. We do nt hear any more from F previously vocalizing in the site. We tentatively call captured F BG6\_2015 F.

**Band # 1833-03295 (on R leg)**

96.0 g LWC: 134 mm

- 29.0 g LLP(5): 105 mm

67.0 g LLP(6): 114 mm

Rect: 65 mm

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | Molt | Molt |
| P2 | 2 | Molt |
| P3 | Molt | Molt |
| P4 | 1 | Molt |
| P5 | 1 | 0.5 |
| P6 | 2.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2.5 | 2.5 |
| P9 | 2 | 2.5 |
| P10 | 2 | 3 |

Note: We do not take black light due to dimness of light, even with batteries having just been replaced. Bled R wing for gen. sample. Great clot, small hematoma.

2252—SY returns from a net check to find that BG5 has flushed – good sign.

2302—Only BG4 signing at SY’s net now - ~25m S of net: TECs.

2304—All quiet at SY’s net.

2317—SY Stops PB and breaks down and leaves. BG6 F released with strong ascending flight S. BG6 M remained in net site for ~15 min after F capture, giving decreasingly aggressive calls. We periodically moved the PB during this time in an effort to draw M into net, but to no avail. M silent by the time we release F.

2320—PB off at RC/DL net. We break down and leave.

# BG6—2016

## 21 July 2016

2329—ER, RC, DL, and Jenna Wu set up a lure net with the intent to lure for potential geo and PinPoint Ms. The net opens N/S on the spur road off of 347, about 400m SE of the junction, where the spur road turns NE.

Vegetation: Mixed psme and pipu, young potr

Weather: Rained earlier, cloudy, 11C

X: 495760

Y: 4331287

± 8m

2230—A M begins giving TCs from about 100m SE toward BG6. He approaches and jumps over the net a few times as he transitions to TEC and HEC for the next 20 minutes.

2250—M goes quiet.

2253—M gives a couple hoots about 100m SE where the M first started calling.

2313—RC, DL, and JW leave to set up a second lure net on the more western side of BG5.

~2320—RC, DL, and Jenna Wu arrive in BG5\_2014 nest vicinity to lure for BG5 M, with goal of affixing a PinPoint GPS tag. We erect net ~20m W of BG5\_2014 nest tree and 5m N of logger rd, in a stand of small potr.

2321—During net setup, we hear M TCing 100m NNE toward the junction of 347 and S spur rd with campsite. We suspect M is responding to either MC or ER’s PB.

2324—PB begin. M still TCing to NE.

Vegetation: young-mature potr/psme (live and snags), open.

Weather: overcast, wind <5mph, ~13C.

X: 495536

Y: 4331372

\*Estimated from BG5\_2014 nest GPS

2328—M TCing in net site, on W side. We no longer hear NE bird, but we also did not hear an approach. *This bird does not seem to be a M that was calling at MC’s net in BG4, and ER never heard this M at her net closer to BG6. We suspect this is the BG5 M.* M remains in site, giving progressively more aggressive calls, until…

~2335—**Wingflaps! Presumed BG5 M\_2016 M is captured in net, 3rd shelf from W.** M is previously unbanded. We extract M, crash net, kill PB, and move to join BL at 347/spur rd junction to affix PinPoint.

**Band # 1783-74374 (on L leg)**

85.7 g

- 35.6 g

50.1 g

**PinPoint GPS Tag: PP10 Swift V4257 (40919) – 1.5g**

**Notes:** We forego blood sample and feather measurement/assessment for the sake of limiting time in hand.

2344—A F begins giving LC and a few FSC about 30m S of the BG5/BG6 net.

2346—The F flies across the net site, hits the net, but bounces out. Whatever F, we wouldn’t put a geo on you anyway.

2353—F backs off to the SE.

2401—PB off. ER breaks down the net and leaves.

~2345-2410—We affix PinPoint. Harness appears to be a bit loose around neck, but seems like it will be able to slide down and fit appropriately.

2415—Newly PinPointed M released, with fluttery but strong, ascending flight SE to low potr perch. M perches here for ~2min without preening or picking at harness, then makes a strong second flight out of sight to S, radiating enthusiasm about his lofty aspirations of supplying flam crew with unprecedented data describing migratory and wintering grounds. **This is the first PinPoint GPS tag attached to a migrating flam!** Flam crew arrives to join. We break down all nets and leave.

## 29 July 2016

2100—RC and ER set up a lure net on the S spur off of 347 ~50m up the road from where the road turns E. PB starts. Net opens E/W.

Vegetation: mixed pipu, psme, pifl

Weather: clear, breezy

X: 495770

Y: 4331303

+/- 12m

2104—M begins giving TC within 50m N of the net for ~two minutes. He backs off further to the N.

2150—M TCs ~50m from NW.

2151—Change PB to Megascops and we walk PB toward the M. The M immediately approaches PB and changes calls to TEC and HEC.

2155—**M captured in the first shelf headed E across our site. He is an unbanded territorial M, and presumed BG6\_2016 M**. He receives a PinPoint GPS. RC and ER walk the M down to the junction with 347 to meet BL and attach GPS.

**Band # 1783-74389 (on L leg)**

77.5 g

- 15.5 g

62.0 g

**Notes: Receives PinPoint GPS #40918.**

2211—Begin attaching GPS.

2231—Stop attaching GPS.

2236—Release M. Strong, but short flight about 5m where M perches and does not preen or fiddle with new backpack.

2246—RC and ER incite a second flight that is also strong and out of sight.

# BG6—2017

## 8 June 2017

2449—MC and ZM start PB on the N slope of S Missouri Creek, near what MC understands to be the BG6 lure net location (*This appears to be ~75-100m N of the actual lure net location).* X:495734 Y:4331363.

2452—A M responds ~100m E, giving TCs for ~2 minutes.

2457—A M approaches from the E within 20m of the playback. Unfortunately we do no have enough time to set up a lure net and have to leave. We kill PB and leave, M still calling.

## 10 June 2017

2143—MC, ER, and AW return to correct MCs location mistake on 6/8 and erect a lure net on the proper BG6 lure net site.

Vegetation: mixed pipo/psme, young pifl.

Weather: clear, calm 13.5C

X: 495770

Y: 4331303

+/- 3m

2217—With no response at the net we kill PB and move N down the ridge.

2220—We play PB at MCs location on 6/8 for ~10 minutes.

2230—PB off, we leave.

## 6 July 2017

2304—ER, KM and ZM start PB while setting up a lure net in BG6 where the BG6\_2016 M was captured and outfitting with a PinPoint GPS. The net opens E/W and is located ~50m up the road from where the two-track rd turns NE upslope.

Vegetation: Young pipo, psme, pifl. Mature psme, pipu.

Weather: 70% cloud cover, occasional breeze, 15C

X: 495775

Y: 4331305

+/- 3m

~2315—The mist net falls down. We set back up by 2324.

2335—M begins giving TC ~100m SE of the net. The M goes silent after 1 minute. ER leaves to chase the M and tap cavity trees.

2350—ER spots a potr snag in a very open area in the drainage bottom. I spotlight the tree to see if there are any cavities and I spot a FLOW on a perch ~30’ high. I subsequently see two cavities, both within three feet of the FLOW’s perch. FLOW is not prey-laden. I sit back to observe. I flag and get GPS of the cavity tree.

X: 495762

Y: 4331208

+/- 3m

2353—FLOW flies from potr perch to a clump of large psme ~30m E of the cavity tree where I immediately hear a M pick up with TC. I believe this singing M is the same as the one previously perched.

2355—A second M gives TC to the SW of the net.

2358—The SE M that ER and KM are following and the SW M get into an encounter where the two-track rd turns upslope. MC follows the encounter, arriving out-of-the-blue from BG5.

~2400—KM joins ER in the drainage to tap new cavity trees, stake out the suspected cavity tree, and follow the singing M. KM stays at the suspected cavity tree and thinks she hears an FSC at one point. ZM walks the PB down into the encounter, but unfortunately both M go silent.

2416—PB back at net.

2434—Having no more action near the net, we turn PB off and breakdown. We leave to join MC and JE at BG5.

## 25 July 2017

2100—ER and ES begin PB at a lure net in BG6 in hopes of capturing a territorial male to attach a pinpoint GPS to. It is drizzling very lightly when we arrive. The lure net is on the E facing slope, W of S Missouri Cr, about 300 m SW of the previous BG6 lure net site.

Vegetation: young-mature pipo/psme/pifl

Weather: Cloudy, drizzling, calm, 18C

X: 495592

Y: 4331081

+/- 3m

2102—We think we hear TCs from about 150 m NW of us, but it might be the other PBs.

2122—ER heads down drainage to listen for nest vocalizations and fledglings.

2125—ES kills PB because the rain has picked up.

2159—The rain stops almost completely, so ES turns PB back on.

~2210—ER returns to the lure net, having heard nothing in the drainage.

2257—The PB device dies. By the time we’ve replaced the battery, it’s time for us to pack up and head back to the vehicle.

# BG6—2018

## 16 July 2018

2207—KA and ES start PB of T42 in BG6. Goal of lure net is to capture a territorial M for a migration pinpoint. Net is located ~250 m SE of BG5/BG6 parking spot, ~15 m from the bend in the two-track road. Net location has been previously used for geo birds. Net on low slope, open E/W.

Vegetation: open, young to mature psme w/ scattered young potrs

Weather: Calm but thunderstorm approaching, 100% cloud cover, 19 C

X: 495751

Y: 4331299

+/- 3 m

2211—M gives TCs ~70 m SW of net.

2216—ES switches PB to megascops to try and pull M into net site.

2219—M comes in from the NW. He comes within ~20 m of the net and gives TCs then HECs.

2221—M switches to other side of the net and gives HECs from within a few meters of the net.

2223—M hops to the W side of the net, gives HECs ~10 m away. ES moves PB to the ground, since it appears M keeps flying over our net.

~2230-2238—M began moving SW, so ES calls him back with TCs and TECs. M comes back to the net site and hops around the psmes.

2241—M goes silent, potentially leaving the area.

2245—KA walks the PB SW. She doesn’t hear anything, but ES hears the M come back to the net site. We return PB, but M keeps flying over net site. We decide to partially break down and move net to a better site that KA noticed while walking PB.

2308—We leave PB running and set up the net in the new site. Net is ~50 m NW of original net site, still ~250 m SE of BG5 parking spot. Net open E/W on low slope.

Vegetation: open, young to mature pipo/psme with young potr grove

Weather: Calm but thunderstorm approaching, 100% cloud cover, 19 C

X: 495734

Y: 4331369

+/- 3 m

2308—ES hears M call ~40 m W of site. He only gives a few calls. Then all is quiet.

2315—It has been quiet (besides hearing the other groups PB from BG5), so we switch back to T42.

2325—We cut PB, break down the net, and leave the site.

## 23 July 2018

2030—Flam crew waits for the rain to stop so that we can start PB with the goal of capturing territorial Ms for migration PinPoints.

2117—Rain finally stops, so ES and KA start PB of T42 in BG6 territory. Net located on low slope/drainage bottom. Net is just past campsite along two track road from BG5/BG6 parking spot. We are ~50 m E/SE of parking spot. Net open N/S.

Vegetation: open, young conifers and potrs

Weather: 15C, 100% cloud cover, windy and rainy

X: 495679

Y: 4331372

+/- 3m

2122—Rain starts up again, so we kill PB and leave the site. We never get a chance to start PB again, so BL calls it and we live to try again another day.

## 24 July 2018

2050—KA and ES arrive at BG6 territory and set up a lure net in the exact same location as 7/23/18, because we were rained out the night before. Our goal is to capture a territorial M and attach a PinPoint for migration.

2114—We start PB of T42. Net located on low slope/drainage bottom. Net is just past campsite along two track road from BG5/BG6 parking spot. We are ~50 m E/SE of parking spot. Net open N/S.

Vegetation: open, young conifers and potrs

Weather: 13C, 30% cloud cover, calm

X: 495679

Y: 4331372

+/- 3m

2136—A F FLOW vocalizes 6 or so times, (likely FSCs) from ~20-25 m SW of the net in the potr filled drainage. She then goes quiet.

2145-2148—The F moves closer to the net and gives very loud FSCs from ~5m SW of the net.

2149—A M gives a few TCs from ~30-40 m S up drainage from the net, then goes silent.

2150—The F calls from right on the net site, then both F and M birds go silent for the rest on the night. KA searches the potr stand where we presumed the F called from, but never gets eyes on a bird.

2206—We switch PB to FLOW HECS.

~2216—It appears that the birds may be bouncing between lure net sites, so BL instructs us and other sites to cut PB and alternate nets. We turn off PB just as KA begins walking PB S.

2241—We restart PB of T42. ES walks PB S up drainage. No FLOW response.

2256—PB is returned to the net.

2317—It’s been quiet, so we cut PB and leave the site.

# BG6—2019

## 31 May 2019

2038—ML and BL arrive at the intersection of FS 347 and the S Missouri Cr two-track trail, just off the S border of the MGSA, to set up a lure net to target BG5 (w/ a PinPoint) and/or BG6 MM. We proceed to set up the net ~ 60 m SE of the parking area, and ~20 m E of the two-track trail.

Vegetation: Open meadow, with net flanked on E side by 25 cm dbh PIPU. Surrounding habitat was mixed age POTR/PIPU.

Weather: Calm, 50% cloud cover (thin clouds), 10C.

X: 495665

Y: 4331383

+/- 3 m

2120—We start playback (track 42).

2140-2215—BL leaves to check status of cavity trees in bottom of S Missouri Cr to the S of the net.

2225—BL returns and hears presumed BG4 giving TC for 5-10 min, approximately 150 m to the NE of the net.

2235—ML reports hearing owl vocalizations in the vicinity of the lure net. BL returns to the net area, and hears F giving FSC just to the E of the net. She was never observed, but she continued giving regular FSC in this area until ~2250, when we began to break down the net. A few M LC’s may have been heard within the first few minutes after the first calls, but were not heard after 2240. Both birds were heard within approximately 30 m of the net. Neither bird was seen visually. **NOTE:** This was likely the presumed BG5 F (and M) that JE and SL had been tracking in the vicinity of their lure net in BG 5—soon after the last FSC were heard near their lure net, we began hearing FSC near our net.

2305—We break down net and leave.

## 18 July 2019

2322—JE, ML, and KC start PB in BG6. Lure net is open N/S. Lure net is placed on the mid slope 300m S of BG5 parking spot and 50m N of the two track road running through BG5 and BG6. T42 was played.

Vegetation: Mixed age potr. Mature psme and pipo.

Weather: Clear, Calm, 17 C.

X: 495812

Y: 4331412

+/- 3m

2332—We hear M TCs N ~50m.

2335—We switch tracks to megascops.

2342—All is quiet. We cut PB and leave the territory.

## 25 July 2019

~2230—JE, ML, and their guest Kiera Connelly arrive at BG6 to lure net for a territorial M to attach a pinpoint to.

2245—We hear a fledgling begging ~20 m S of net site as we set up net.

2246—PB initially started on T42 but soon paused as some trouble with the net came up.

2247—M TCs heard 120m NE of us. In the moment, JE was unsure if this was the PB in BG4 or actually a real, live FLOW.

2252—PB of Psiloscops AZ track begins. Net open NE/SW and is located ~40 m SE of the BG5/BG6 parking spot.

Vegetation: young potr, mixed psme, mature poan

Weather: 12 C, 100% cloud cover, calm, wet conditions from evening rain

X: 495640

Y: 4331422

+/- 3m

2254—JE leaves to follow nestling begging.

2301—M TCs heard ~100 m NE of net. He continues calling for the next several minutes and begins making TECs as well.

2303—While chasing the fledgling begs, JE ends up near the parking spot. From this location, I realize that I can hear 2 different M FLOWs calling to the NE and E. At first I think it again may be the BG4 net that is running, but I realize that one bird is making HECs ~80 from the net while the 2nd FLOW is >120m away.

2308—M making TCs and TECs continues from ~100 m N. Goes silent afterwards.

2319—JE can hear a M ~80m E of the BG5/6 parking spot.

2322—Both Ms are quiet and JE has lost the fledgling. It is all quiet.

2325—PB changed to Megascops. JE returns to net site.

2333—We think we hear pretty loud wing flaps, likely in the large poan next to the net. We are very unsure as to whether this was water dripping or a fledgling trying to fly into the site?

2337—Fledgling begs heard ~10 m of net. May be coming from the poan.

2338—JE leaves to search for fledgling in the drainage bottom. Fledgling begs are very quiet and hard to trace.

~2340—JE can very faintly hear a FLOW to the W, down the Missouri Gulch Rd, ~100m from the BG5/6 parking spot.

2348—JE returns to the net site. We cut PB and begin to break down.

2351—M is heard making TCs ~70 m W as we break down net.

2359—We head for the car and meet up with the rest of the crew.

# BG7—2013

## 24 July 2013

2045—SY, MC and BDG arrive at junction between FR344 and FR348B with the intention of luring and placing geolocators on territorial males. Three males had been heard in the vicinity in 2012.

2059—We start playback just NE of junction between FR344 and FR348B.

Vegetation: young pipo/psme, fairly dense

Weather: light breeze, mostly cloudy, 13C

X: 493223

Y: 4332873

+/-3

2218—We hear a M giving TCs and TECs ~20m ENE of net.

2221—We begin hearing a second higher pitched M giving TCs NNW of the net.

2223—The two Ms have a territorial encounter to the ENE of the net giving each other TECs. SY begins giving TCs in an attempt to distract them from each other.

2224—The first male who originated from the ENE goes silent while the second higher pitched M who originated NNW of the net continues to give TCs to the ENE of the net.

2225—SY approaches net and sees the first bird perched next to the playback. SY attempts to flush him and he makes a short flight closer to the net.

2226—**SY flushes him again and he flies directly into the net and we successfully capture him. He was captured earlier in the season and is the presumed B11\_2013 M.**

2230—**The second higher pitched M goes silent and BDG finds him in the net.** The M gives TECs during extraction and once in hand gives chitters for at least three minutes. He defecates clear liquid several times during handling. He also has a number of missing and/or damaged feathers on his head.

First Male:

**Band # 1783-64371** (on ? leg)

78.0 g LWC: XXX mm

- 18.0 g LLP(5): 49 (25 in shaft) mm

60.0 g LLP(6): 108 mm

Rect: 61 mm

**We put geo 795 on the first male (presumed B11\_2013).** We do not take blood or look at the wings under blacklight. LP5 was in molt. We did not look at the right wing. **He is the BG7/B11\_2013 M.**

Second Male:

**Band # 1783-64421** (on L leg)

78.5 g LWC: 130 mm

- 22.0 g LLP(4): 68 mm

56.5 g LLP(5): 37 (22 in shaft) mm

LLP(6): (22 in shaft, none out of shaft) mm

Rect: 56 mm

RLP(4): 74 mm

RLP(5): 37 (15 in shaft) mm

RLP(6): (22 in shaft) mm

**We put geo 793 on the second previously unbanded M.**  He is molting P4-6 on both wings. We do not take blood or look at the wings under blacklight. **He is the BG8\_2013 M.**

2259—MC releases the presumed B11\_2013 M who has strong ascending flight to perch >9m in a pipo snag. He does not appear troubled by the geo. MC checks checks the net and returns to find that the presumed B11\_2013 M is no longer in the pipo snag. We are unable to locate him.

2312—We release the second male who has level fluttering flight to perch ~12m away ~2m high. He wobbles on the branch for 30s before perching well. He begins looking down at his chest, but does not appear to be tugging at the geo straps. After ~1min he makes another level fluttering flight N passed the net. We are unable to locate him.

2420—We take the net down and leave.

# BG7—2014

## 30 June 2014

2345—SY and JS arrive in BG7/8 to lure possible territory holders.

2401—Lure net up and PB started NW of the BG7/8 junction ~10m from the road.

Vegetation: young psme w/ adolescent pipos, rel. dense

Weather: cloudy sky, windy (gusts 10+ mph), 14C

X: 493332

Y: 4333321

+/- 7m

0100—PB off.

0110—Lure net down. We leave, nothing heard or seen.

***Note: This was a great net site and should be taken advantage of in the future for its 360 deg. exposure to the territories that surround it. We can attribute our silent night, not to the beautiful Christmas hymn, but to the terrible tortuous wind that prohibited us from hearing any sign of life.***

## 11 July 2014

2106—SY and ER set up a lure net at the junction of 347B and 344 to attempt to catch some geo birds!

Vegetation: young psme w/ adolescent pipos, rel. dense

Weather: Partly cloudy, calm with wind less than 5mph, 12C

X: 493332

Y: 4333321

+/- 7m

2322—We have not heard a single hoot or seen a single bird all night. Playback is stopped and we take down the net. One lost battle is not a lost war.

## 22 July 2014

2219-2347—SY and ER arrive at the junction of 344 and 344B to lure for geo birds BG7 and BG8. Having not heard anything at the junction of 344 and 348B where we lured on 7/11, we intend to run the playback for 10-15mins at a time at 150-200m intervals along 344 to census for territorial males. We initially start the playback at the junction of 344 and 344B then work our way S down to the junction of 344 and 348B then further SW down 344, using the said increments for playback time and distance. Despite our dedication to the owls and resilience to listening to the PB for that long, BG7 and BG8 apparently have better things to do (probably at Pagan Fest) and we hear nothing all night. However, on some of our higher listening points, the wind on ridges and in treetops did negatively impact listening conditions. We leave.

Weather: Lightening and storm in the S, but overall mostly clear. Wind was initially less than 5mph, but later on started gusting between 5-7 mph, especially in treetops and on ridges.

# BG7—2015

## 24 July 2015

2055—BL and LP arrive on BG7 ridgetop with intent to lure possible BG7\_2015 M and attach geolocator. We setup lure net on top of ridge that runs perpendicular to road. Lure net is setup ~60m S of road on southern-most end of R (there is a stone fire ring here). Net opens NE/SW. After helping to setup net, BL leaves area to go to B11\_2015 nest area, while LP stays at net.

Vegetation: young-mature pipo, medium psme, open

Weather: mostly clear, calm

X: 493661

Y: 4333607

+/- 11m

2106—PB is turned on (Track 42). LP remains at net to monitor net until ~2155 when bird is released from net. There is a really loud concert/party happening ~ 2 km W of the area which might have compromised LP’s detection of vocalizations.

2144—**Wing flaps heard at net. LP immediately checks net to find FLOW in top shelf on NE side. Bird seems to be silent into net, but loud music from the concert could have masked potential vocalizations**. **This is previously banded M 1783-64471—this was the M identified as BG7\_2015 when captured at lure net on 5/17/2014.** There is difficulty removing bird’s wing from netting, so he is not freed from net until ~2158 when BL arrives. LP and BL take measurements on this bird, and then move to BL’s truck to attach geolocator.

**Band # 1783-64471 (on x leg)**

62.5 g LWC: 134 mm

- 7.5 g LLP(5): 48 mm (Right W)

55.0 g LLP(6): 107 mm

Rect: 62 mm

**NOTE**:

* **P5 on both L and R wing is in molt, emerging from shaft on RW.**
* **We attach Geolocator #V259 with Spyder nylon fishing line harness (crimp on breast, and securing knot on posterior end of geo)**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | None taken on RW. |
| P2 | 1.5 |  |
| P3 | 1.5 |  |
| P4 | 1.5 |  |
| P5 | Molt |  |
| P6 | .5 |  |
| P7 | .5 |  |
| P8 | .5 |  |
| P9 | .5 |  |
| P10 | .5 |  |

2240—**M is released with a short flight to head-height perch ~5 m to N.** **He takes off from this perch with a strong, 30 m ascending flight at 2245. While the M appeared to shudder for a few minutes on the first perch, he flew cleanly and strongly with each flush. No preening or tugging on harness during observation.**

2246—PB off.

2254—MN is taken down. We leave BG7.

# BG7—2016

## 22 July 2016

2030—MC and KM set up a mist net in BG1 ~50m NE of the road on a small ridge ~100m up drainage from the large campsite. We spread out in the drainage to listen.

Vegetation: mature pipo/psme

Weather: partly cloudy, calm, ~12C

X: 493012

Y: 4334205

+/- 10m

2100—MC return to the net to begin PB.

2104—A M begins giving TCs ~200m ENE up the drainage but goes silent after ~1 minute.

2107—One TC is given ~50m E of the net downslope.

2123—A silent bird flies into the site from the SSW. IT perches for ~1 minute and then flies into the net. **This is the BG7/8 2015 M! He is still carrying Geo #V259.** We remove the package. While there is some feather loss on the back of the bird there is no apparent irritation on the skin.

**Band # 1783-64471 (on x leg)**

78.0 g LWC: XXX mm

- 20.0 g LLP(5): XX mm

58.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: We do not take any additional measurements as we intend to attach a pinpoint backpack to this bird. With this Ms ability to migrate (backpack laden) great distances, his substantial weight, lack of wear, and apparrent capturability, BL determines that this bird would be a good candidate for a Pinpoint GPS.**

2146—MC and KM turn off PB as the crew joins us to attach a pinpoint GPS.

2154—We begin attaching the Pinpoint GPS. **This M will get unit #40945.**

2210—We finish the attachment of the unit.

2213—We release the M. He makes a short ascending flight S. After ~ 1 minute preening he makes another, longer ascending flight just out of view. The crew disassembles.

2221—MC and KM return to the original lure net site and continue PB in hopes of learning more about territory ownership in the area.

2251—With no response to the PB we turn it off and walk S down the road.

2312—We start the PB ~200m down drainage (100m down from the campsite). No response after ~ 5 minutes.

2323—We start PB ~150m S and up a small ridge to the E.

2350—With no response we kill our PB and join the crew.

2126—BL starts playback in BG7 territory to target the BG7\_2016 M for capture and removal of 2015 geolocator, and hopefully for subsequent attachment of PinPoint GPS as well. BL targets the same area for the lure net as BL and LP used in 2015. Weather: Mostly cloudy but clearing, calm, dry, 22 C.

Net Location:

X: 493661

Y: 4333624

+/- 3 m

2134—Playback turned off, as BL leaves to assist in the attachment of PinPoint on M captured in BG1 territory by MC and KM! **NOTE: BG7\_2015 M (Band # 1783-64471) was captured by MC and KM, who removed his 2015 geolocator! We then attached PinPoint GPS (see details in BG1 territory entry).**

2232—BL turns playback back on.

2230—BL breaks down net. Nothing heard or seen at this net all evening.

~2230—DL and RC arrive on top of PPG ridge ~30m E of the parking spot to set up a pin point lure net.

2238—Begin playback.

Vegetation: mixed PSME, PIPO

Weather: breezy, partly cloudy, 16C

X: 494242

Y: 4333857

+/- 8

~2300—DL walks PB W for ~15 minutes and hears nothing.

2330—PB off. We break down and leave to meet flam crew.

# BG7—2017

## 21 July 2017

2227—ER, ZM, and JE set up a lure net and begin pb of T42 on PPG. The net is ~250m S down PPG and is open NE/SW.

Vegetation: mixed pipo/psme, young pifl

Weather: breezy, cloudy, 13C

X: 494194

Y: 4333537

+/- 3m

2243—We hear a M vocalizing very distantly S.

2245—It begins raining so we stop pb and collapse the net.

2259—Resume pb and raise net.

2205—M comes in pretty quickly from the NW, moving down the W slope of PPG, stopping ~20m from the net. We switch to megascops.

2206—M is now making TECs and enters the net site, perching just next to the net.

2208—M moves further W down the drainage, away from the net. ER walks the pb down to try and lure him back in.

2211—M returns to the net site.

2214—Just as it sounds as if the M has gone silent, a loud plane flies overheard.

2217—It is silent to we switch it back to T42.

2221—The M returns, but is 100+m W. He does not approach.

2225—We stop pb, break down the net and leave.

## 24 June 2017

2307—ER, ES, and ZM start PB in BG1 on the S-facing slope ~75m N of the large campground on the S side of the road.

Vegetation: young pipo, psme, and mature pipo

Weather: partly cloudy, calm, 15C

X: 492933

Y: 4334219

+/- 3m

2312—We hear TCs ~100m E of the net. He is approaching.

2317—We switch to MEGA PB.

2320—After going silent for a few min, a M gives HECs right by the net on the PB tree (S side of net).

2325—The M backs off to the E again but is still giving HECs ~30m away.

2344—The M goes silent.

2348—A M gives HECs ~15m S of the net.

2359—The M backs off ~50m E of the net still vocalizing.

1208—We hear TCs ~75m E of the net.

1215—The bird goes silent.

1235—We stop the PB and collapse the net.

## 24 July 2017

2306—BL, KM, and JE arrive at BG7, set up a lure net for pinpoint attachment, and begin pb of T42. The net is located in the BG7 spot.

Vegetation: mixed pipo/psme

Weather: calm, mostly clear, 15C

X: 493655

Y: 4333644

+/- 3m

2309—A M approaches the net site quickly from the W. He jumps over and around the net for a few minutes.

2312—M goes silent so we check the net check to find **that the M entered the 2nd shelf from the E. He is unbanded.** As the bird is being extracted, a 2nd FLOW is heard ~150-200m W.

**Band # 1833-03598 (on L leg)**

60.5 g LWC: XXX mm

- 7.5 g LLP(5): XX mm

53.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: BL and KM drive down the road to meet ER near BG1. ER secures a pinpoint GPS onto the M. The first attempt does not result in a secure backpack stabilization for the pinpoint, but the second application yields a secure pinpoint attachment to the male.**

2322—2nd FLOW falls silent at the lure net.

2419—On a net check, JE sees a FLOW silently perched ~5ft high on the psme with the pb in it.

2422—At the lure net, the silent bird is out of sight.

2425—JE watches the **silent bird fly into the top shelf from the E.** **It is unbanded.**

**Band # 1833-03599 (on R leg)**

65.5 g LWC: 135 mm

- 07.0 g LLP(5): 55 mm

58.5 g LLP(6): in shaftt mm

Rect: 63 mm

**Notes: Feathers on the top of the head are lacking barbs and coloration on the end of them. This is likely an indication of feather lice. It suspected to be a F as an abundance of pin feathers were present where the brood patch may have been formerly. On both the R and L wings, P1-5 are new feathers, P6 is in shaft, and P7-10 are old.**

2440—KM and BL return to the lure net spot.

2446—We stop pb.

2449—KM releases the first bird with a newly attached pinpoint. He makes a SHF after resting in KMs hand for a few minutes. I look for him for a few minutes, but he apparently flew out of sight.

2457—FLOW is released. It hops out of BL’s hands onto the ground and flies horizontally, landing on the ground under a tree. We break down the net and leave.

# BG7\_2018

## 17 July 2018

2125—AM and BL arrive in BG7 to lure net for potential PinPoint FLOWs. PB is started, T42 on an unnamed ridgetop 300m W of PPG Ridge and 30m SW of the BG7 parking spot. AM remains at lure net while BL walks around and listens W of the road. Net is open N- S.

Vegetation: mixed age pipo, psme, open stand.

Weather: 30% overcast, breezy, 14.5 C.

X:493653

Y:4333638

+/- 3m

2225—AM walks PB N up road towards PPG Ridge.

2245—AM returns with PB. No vocalizations are heard. AM returns PB to original spot behind mist net.

2300—BL walks the PB SW down the road.

2315—BL returns. No vocalizations are heard. We cut PB and break down. We leave BG7.

# BG7—2019

## 19 July 2019

~2200—KC, ES and Ethan Cutler arrive at BG7 to lure in attempts to capture a territorial M for GPS PinPoint deploying.

2213—PB begins with T42. Net is open E/W. Net is placed ~25m S of Forest Service Rd 344 and ~400m W of PPG Ridge, on the BG7 ridgetop ~15 m SE of the campsite. There is a large hole in the 3rd shelf of the net, so we spend a few minutes repairing the net while all is quiet.

Vegetation: Mixed age psme. Mature pipo and pifl.

Weather: 50% cc, slight breeze, 19 C

X: 493666

Y: 4333604

+/- 3m

2220—BL joins us at the lure net. We sit near the fire ring to listen.

2226—BL leaves to help JE put on a PinPoint at BG1.

2228—We hear TCs ~75m E. M quickly comes within ~50m E of the net.

2229—M is giving TCs in the net site ~5m E.

2233—M gives TECs/HECs in the net site ~5m E.

2236—M is still giving TECs/HECs in the net site hopping around on the E side of the net where all of the young psmes are. He does not appear to fly W over the net.

2240—KC moves PB to the W side of the net and places it on the ground. We switch track to psiloscops AZ.

2242—M goes quiet. **We check the net to find the territorial M in the 2nd shelf, having come in from the E. He is an unbanded M (we put band #1833-32625 on L leg).** We radio BL and he, JE, Ellie Harrison, and the BG1 M drive up the road to attach pinpoints at the BG7 parking spot. We keep the BG7 M in a capture bag while BL and JE finish attaching the BG1 PinPoint.

**Band # 1833-32625 (on L leg)**

92.5 g LWC: XXX mm

- 29.5 g LLP(5): XX mm

63.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: PinPoint #49661 deployed. Due to mass, this M is likely not a breeder.**

2300—We cut PB because we used all of the GPS units we had for the night. ES and BL begin putting PinPoint #49661 on the BG7 M.

2338—PinPoint is successfully attached. We release the BG7 M, he shows a SAF.

# BG7—2020

## 30 June 2020

2323—KC and AM set up lure net in BG7 and start PB with T42 with the hopes of recovering migration pinpoint #49661 deployed on the BG7\_2019 territorial M (#1833-32625). Lure net is ~400 m W of PPG ridge and ~60 m SE of FS Rd 344. Net is open E/W.

Vegetation: Mixed age psme, mature pipo/pifl

Weather: Clear, Calm, 11C

X: 493668

Y: 4333605

+/- 3

2329—M gives TCs NW ~100m. We switch tracks to Psiloscops AZ.

2340—AM walks the PB around the ridge top.

2353—We switch tracks to Megascops.

2401—Great horned owl comes into the net site. We stop PB.

2409—We start PB again

2410—M gives TCs ~100 m S

2415—M gives TCs ~75 m S

2417—We have two Ms giving TCs. First M is ~5 m SE and second M is ~50 m SE.

2424—M gives TCs/HECs ~5 m SE

2427—M gives TCs ~25 m E. Second M gives TCs ~75 m S

2428—We cut PB and leave the territory.

# BG8—2013

## 24 July 2013

2045—SY, MC and BDG arrive at junction between FR344 and FR348B with the intention of luring and placing geolocators on territorial males. Three males had been heard in the vicinity in 2012.

2059—We start playback just NE of junction between FR344 and FR348B.

Vegetation: young pipo/psme, fairly dense

Weather: light breeze, mostly cloudy, 13C

X: 493223

Y: 4332873

+/-3

2218—We hear a M giving TCs and TECs ~20m ENE of net.

2221—We begin hearing a second higher pitched M giving TCs NNW of the net.

2223—The two Ms have a territorial encounter to the ENE of the net giving each other TECs. SY begins giving TCs in an attempt to distract them from each other.

2224—The first male who originated from the ENE goes silent while the second higher pitched M who originated NNW of the net continues to give TCs to the ENE of the net.

2225—SY approaches net and sees the first bird perched next to the playback. SY attempts to flush him and he makes a short flight closer to the net.

2226—**SY flushes him again and he flies directly into the net and we successfully capture him. He was captured earlier in the season and is the presumed B11\_2013 M.**

2230—**The second higher pitched M goes silent and BDG finds him in the net.** The M gives TECs during extraction and once in hand gives chitters for at least three minutes. He defecates clear liquid several times during handling. He also has a number of missing and/or damaged feathers on his head.

First Male:

**Band # 1783-64371** (on ? leg)

78.0 g LWC: XXX mm

- 18.0 g LLP(5): 49 (25 in shaft) mm

60.0 g LLP(6): 108 mm

Rect: 61 mm

**We put geo 795 on the first male (presumed B11\_2013).** We do not take blood or look at the wings under blacklight. LP5 was in molt. We did not look at the right wing. **He is the BG7/B11\_2013 M.**

Second Male:

**Band # 1783-64421** (on L leg)

78.5 g LWC: 130 mm

- 22.0 g LLP(4): 68 mm

56.5 g LLP(5): 37 (22 in shaft) mm

LLP(6): (22 in shaft, none out of shaft) mm

Rect: 56 mm

RLP(4): 74 mm

RLP(5): 37 (15 in shaft) mm

RLP(6): (22 in shaft) mm

**We put geo 793 on the second previously unbanded M.** He is molting P4-6 on both wings. We do not take blood or look at the wings under blacklight. **He is the BG8\_2013 M.**

2259—MC releases the presumed B11\_2013 M who has strong ascending flight to perch >9m in a pipo snag. He does not appear troubled by the geo. MC checks checks the net and returns to find that the presumed B11\_2013 M is no longer in the pipo snag. We are unable to locate him.

2312—We release the second male who has level fluttering flight to perch ~12m away ~2m high. He wobbles on the branch for 30s before perching well. He begins looking down at his chest, but does not appear to be tugging at the geo straps. After ~1min he makes another level fluttering flight N passed the net. We are unable to locate him.

2420—We take the net down and leave.

# BG8—2014

## 30 June 2014

2345—SY and JS arrive in BG7/8 to lure possible territory holders.

2401—Lure net up and PB started NW of the BG7/8 junction ~10m from the road.

Vegetation: young psme w/ adolescent pipos, rel. dense

Weather: cloudy sky, windy (gusts 10+ mph), 14C

X: 493332

Y: 4333321

+/- 7m

0100—PB off.

0110—Lure net down. We leave, nothing heard or seen.

***Note: This was a great net site and should be taken advantage of in the future for its 360 deg. exposure to the territories that surround it. We can attribute our silent night, not to the beautiful Christmas hymn, but to the terrible tortuous wind that prohibited us from hearing any sign of life.***

## 11 July 2014

2106—SY and ER set up a lure net at the junction of 347B and 344 to attempt to catch some geo birds!

Vegetation: young psme w/ adolescent pipos, rel. dense

Weather: Partly cloudy, calm with wind less than 5mph, 12C

X: 493332

Y: 4333321

+/- 7m

2322—We have not heard a single hoot or seen a single bird all night. Playback is stopped and we take down the net. One lost battle is not a lost war.

## 22 July 2014

2219-2347—SY and ER arrive at the junction of 344 and 344B to lure for geo birds BG7 and BG8. Having not heard anything at the junction of 344 and 348B where we lured on 7/11, we intend to run the playback for 10-15mins at a time at 150-200m intervals along 344 to census for territorial males. We initially start the playback at the junction of 344 and 344B then work our way S down to the junction of 344 and 348B then further SW down 344, using the said increments for playback time and distance. Despite our dedication to the owls and resilience to listening to the PB for that long, BG7 and BG8 apparently have better things to do (probably at Pagan Fest) and we hear nothing all night. However, on some of our higher listening points, the wind on ridges and in treetops did negatively impact listening conditions. We leave.

Weather: Lightening and storm in the S, but overall mostly clear. Wind was initially less than 5mph, but later on started gusting between 5-7 mph, especially in treetops and on ridges.

# BG9—2013

## 25 July 2013

2045—AW, BDG and MC arrive at geo lure net site ~50m N of the junction of FSRd 348 and 351 on the ridgetop to the E with the net opening N/S. Purpose is to capture territorial M heard in 2012, but was never captured.

2048—Playback starts.

Vegetation: Young to mature psme and pipo, open stands.

Weather: Partly cloudy. Calm with storms earlier in the day. 10°C

X: 0492546

Y: 4334798

+/- 4m

2200—AW walks S along the ridgetop with playback intending to draw in a territorial M.

2222—AW walks N with playback after hearing nothing to the S. While N, AW picks up a

territorial M in the drainage bottom to the NE (along the FSRd 348). M begins calling

from approximately 100-150 m N of the junction of FSRds 348 and 351. M follows playback up E facing slope to ridgetop. AW draws M closer to net, leaves playback in small pipo, then backs away from net.

2225—AW hears bird go silent and approaches net to check for capture. M is captured and is

previously unbanded. We collapse net and bring M to BL for geolocator attachment. **He**

**is the BG9\_2013 M with geolocator #F788!!!**

**Band # 1783-64450 (on x leg)**

83.5 g LWC: XXX mm

- 29.5 g LLP(5): XX mm

54.0 g LLP(6): XXX mm

Rect: XX mm

2339—We return to the drainage where the M was first calling and release him. After ~1 min in hand he gives a strong, ascending flight to the E into a large pipo

1210—After dealing with another flat tire (courtesy of AW) we strike the net and leave the site.

# BG9—2014

## 31 May 2014

2100—MC and AW arrive at the net site with intent to capture BG9 male and retrieve a geolocator. Net is located ~200m up road 348 from the junction of 341&358, N of the first aspen flat on the ridgetop. Net opens N/S.

**Vegetation**: young-old pipo/psme

**Weather**: clear, 15C

X: 492475

Y: 4334995

+/- 3

2111—PB starts and TCs are immediately heard coming from the aspen flat. Bird begins giving HECs in the net site.

2114—**Unbanded bird in net,** in top shelf coming from the S. **He is presumably the new BG9 M. The geo-ed M (BG9\_2013) apparently did not return although an additional capture of this M is necessary to confirm this.**

**Band # 1783-64512** (on L leg)

91.5 g LWC: 130 mm

- 34.0 g LLP(5): 100 mm

57.5 g LLP(6): 107 mm

Rect: 56 mm

**Blacklight data**:

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2 | 1 |
| P2 | 2 | 1 |
| P3 | 2 | 1 |
| P4 | 2 | 0.5 |
| P5 | 1.5 | 0.5 |
| P6 | 1 | 0.5 |
| P7 | 1 | 0.5 |
| P8 | 1 | 0.5 |
| P9 | 1 | 0.5 |
| P10 | 0 | 0 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 1 | 1 |
| P2 | 1 | 1 |
| P3 | 1 | 1 |
| P4 | 1 | 1 |
| P5 | 1.5 | 1 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 2 | 1.5 |
| P9 | 2 | 1.5 |
| P10 | 1 | 1.5 |

2147—Bird released, strong flight S.

2154—PB off. We decide that this is the territorial male, and as he is unbanded, last years BG9 has likely not returned to this territory so we move back to the original net spot to see if it produces better results.

2217—PB starts at same site from last year.

**Vegetation**: young-old pipo

**Weather**: clear, 11C, slight breeze

X: 495542

Y: 4334813

+/- 3

2350—MC walks into drainage where BG9 called from in 2013. Nothing is heard.

2410—PB off, we leave.

## 22 July 2014

~2245—AW and LL arrive in BG9 with the intent of luring for the BG9\_2014 M.

2254—PB is started. Our net is ~150m N-NW upslope of junction of Roads 351 and 348(?) in the same location where AW and MC captured the BG9\_2014 M earlier in the season.

Vegetation: Young-mature pipo/psme

Weather: Calm, a few clouds, 15C

X: 492475

Y: 4335001

+/- 3m

2326—M gives TCs ~100m to the NE for ~1 min.

2343—PB off. We take down the net and go down to the road to listen in the drainage for any vocalizations.

~2400—We leave.

# BG9—2018

## 19 July 2018

2112—ON and BL arrive in BG9 to attempt to lure in a territorial M to pinpoint. We set up the lure net open N/S 30m E of Road 351 and 100m N of the intersection of Road 348 and Road 351 (E end of Fern Gulch) and start PB T42.

Vegetation: mixed age pipo/psme

Weather: 10% cloud cover, calm, 20C

X: 492626

Y: 4334921

+/- 3m

2159—After no action at the net since PB started, ON starts walking PB S along the road towards Fern Creek while BL stays at the net.

2202—BL hears a M calling ~50m up drainage from the net.

2205—ON returns to the net site with PB. M continues to give TCs and HECs just S of the net. He hops around the net site perching in tall conifers and vocalizing at the PB.

2223—Change PB to FLOW HECs after M goes quiet for a few minutes.

2225—M comes back into the site.

2228—M goes quiet again.

2233—Change PB to Megascops.

2245—Change PB to T42.

2252—M comes back into the site making mostly TCs but some TECs and HECs as well.

2307—Change PB to FLOW HECs and BL walks PB around the net site as the M continues calling while hopping around to high perches in the net site.

2323—We cut PB after the M remains in the net site but doesn’t ever come into the net. We break down the net and head out for the night to meet up with the rest of the crew. **Note**: Given that it initially took the M 50 minutes to come into the net site after PB started and he kept leaving and returning to the site throughout the night, we believe that he was likely tending to a fledgling.

# BG10—2014

## 11 July 2014

2101—RC and JS arrive at BG3 parking spot in small potr stand 10m N of rd 351 across from campsite. After chatting with the campers, we begin setting up our net, which flanks the N side of the potr stand. This is the site where MC and RC captured 1 and heard 2 territorial birds on 6/7/14.

~2105—LL, RD, and friend arrive in BG3 with intent of luring for a territorial M to attach a geolocator to. They discover several fist to head-sized holes in the 4th shelf of the net and spend the next 30mins repairing them.

2115—PB begin at RC net.

Vegetation: young potr, mixed pipo/psme, very open.

Weather: mostly clear and calm, ~13C.

X: 495927

Y:4335244

+/- 3m

2141—Upper net (BG10) finally up and PB started. Net just on the N side of Rd 351, ~300m E of the BG3 parking spot/Big Bertha and our lovely rock piles.

Vegetation: Young-medium potr, young-mature pipo/psme.

Weather: Clear, calm, 13C

X: 496250

Y: 4335103

+/- 4m

2143—M gives TCs/TECs to W ~50m, comes into net site almost immediately giving TCs/TECs.

2145—M goes silent.

2146—**LL checks net, M is captured in 2nd shelf from the E side. M is unbanded. This is the newly created BG10\_M.**

**Band # 1783-64528 (on R leg)**

Once M is extracted, we immediately take down the net and meet up with RC and JS to drive the M down to BL in BG9.

2154—Not a sound at the lower net. RC and JS shut PB off as LL and RD come to join with their unbanded upper BG3 M to be geo’d.

2222—We arrive at BL’s truck in BG9. **BL attaches Geo #N698 to BG10\_M**.

2245—The Geo is securely attached and LL, RC, JS, RD, and friend all return to BG3 to release the newly Geo-ed M.

2309—M is released in the vicinity of the lure net where he was captured. M has extremely strong flight to the S, curving SW and disappearing around a large psme. We leave.

## 17 July 2014

1100-1600: **Note: Steve Alton learns from the IREA utility company that they have inadvertently cut down a FLOW nest tree in Fern Gulch. We later learn from the GPS coordinates that this nest is very close to the location where we geo lure-netted in BG10\_2014 on 7/11/2014—consequently, this likely is the BG10\_2014 nest. The nest tree was a Potr snag, approximately 25 cm, and the NOFL nest cavity was approximately 4 m above the ground. The tree was felled against an adjacent slope, which must have buffered the fall, as the owlets did not appear to be injured.**

**GPS coordinates of the original nest are as follows:**

**X: 496250**

**Y: 4335103 +/- 3 m**

1632—BL and Steve bring in two nestlings retrieved from felled nest tree in BG10\_2014. These are the BG10\_2014 nestlings. We process them and plan to return them to their original nest area, but erect a surrogate nest using the Potr cavity tree that we’ve kept for educational purposes in the MEF office.

**Band # 1783-64584 (on R leg)**

49.5 g

P#5: 43 mm (27 in shaft)

P#6: 41 mm (25 in shaft)

Notes: Nestlings are not bled in an effort to minimize the already substantial amount of stress they have experienced.

**Band # 1783-644585 (on R leg)**

50.4 g

P#5: 40 mm (26 in shaft)

P#6: 39 mm (26 in shaft)

Notes: Nestlings are not bled in an effort to minimize the already substantial amount of stress they have experienced.

2006—**SY, AW, JS, RC, RB, and ER arrive in BG10\_2014 to set up surrogate nest cavity for nestlings.** We locate the fallen nest tree, approximately 2 m off the road to the W. There is a patch of live aspen just W of the fallen nest tree (on the other side of the power lines), and we find a relatively open site to place the office Potr section ~20 m W-SW of the fallen nest tree. We attach the surrogate Potr cavity-tree section to the base of a live Potr using a bungie cord, facing the cavity W (away from road and power lines). We place owlets in the cavity and attach a metal lid to the top of the Potr section to provide coverage. **GPS of new nest location is recorded.**

**X: 496345**

**Y: 4335024**

**+/- 8 m**

~2020—We leave.

## 22 July 2014

2342—RC and JS arrive at BG10\_2014 nest to check status of nestlings and recent home improvement. **We peep (downward): 2 nestlings with full juvenile plumage and developed facial disks, happy, healthy and ready to make the hop. ~20-21 days old.**

2344—We leave.

# BG10—2015

## 19 June 2015

2315—J Salgado and BL arrive in BG10\_2015 to attempt lure-netting and geolocator recovery of M. We set up lure net in same area as M was captured in 2014 (at top of steep, rough section of road and near confluence of small N drainage and Fern Creek, near small section of fenceline).

Vegetation: Patch of young POTR surrounding by mature PIPO/PSME

Weather: Clear, calm, 18 C.

X: 496234

Y: 4335123

+/- 3 m

2345—Nothing. We break down net and leave.

## 26 June 2015

2207—J Salgado and BL arrive in BG10\_2015 to attempt lure-netting and geolocator recovery of M. As on 6/19/2015, we set up lure net in same area as M was captured in 2014 (at top of steep, rough section of road and near confluence of small N drainage and Fern Creek, near small section of fenceline). We start playback at this time.

Vegetation: Patch of young POTR surrounding by mature PIPO/PSME

Weather: Clear, calm, 18 C.

X: 496233

Y: 4335129

+/- 4 m

2235—J Salgado, who was at the net, hears a M giving TC from across Fern Cr and near the ridgetop to the S. This M approaches to within 30 m to the E before moving 30 m to the W and quieting.

2250—We break down net, and carrying the live playback in hand, move back down the road to the vicinity of the parking spot (where Flam Crew worked till dawn to get Expedition back on firm ground in 2013) to set up lure net there.

2313—We start playback at location #2.

Vegetation: Patch of young POTR adjacent to small meadow and mature PIPO/PSME

Weather: Clear, calm, 18 C.

X: 495911

Y: 4335243

+/- 3 m

2345—Nothing. We break down net and leave.

# BG10—2016

## 10 May 2016

2036—MC begins PB at the original BG10 net site.

Vegetation: young potr, mixed pipo

Weather: partly cloudy, light breeze , ~10C (no thermometer)

X: 496250

Y: 4335103

+/- 3m

2110—A bird comes in to the site giving short but high-pitched calls, sex is hard to identify. The pitch is similar to an FSC but the cadence and length of call are closer to TCs.

2119—A bird is found in the net! **This bird is previously banded! This bird was banded as a HY on 9/1/15 on Fountain of Youth Ridge by MC and RC.**

**Band # 1833-03329 (on L leg)**

73.2 g LWC: 128 mm

- 20.2 g LLP(5): 99 mm

53.0 g LLP(6): 107 mm

Rect: 60 mm

**Notes: Wear and blacklight both show that there is only one generation of flight feathers present, no values given. Feathers taken, no blood sample.**

2140—The bird is released with a strong flight.

2200—More high pitched, short calls are coming from the area of the PB. I go to observe and spotlight two birds flying around the area. The high-pitched calls seem to be slightly longer and closer to an FSC, but it could be coming from the same bird and sex is still difficult to discern.

2300—The two birds periodically go silent and fly around the site but neither get captured again. I kill PB and leave.

## 11 May 2016

2025—MC starts PB at a more eastern site to target BG10. The net is placed almost immediately across the road from where BG10\_2014 was found fallen.

Vegetation: , mixed pipo/psme, young potr, open

Weather: clear and calm, ~10C (no thermometer)

X: 496337

Y: 4335095

+/- 3m

~2200—No activity. I kill PB. (Exact time not found in notebook. Possibly in lure net record.)

# BG10\_2018

## 19 July 2018

2119—AM and SF arrive in BG10 to lure net for potential PinPoint FLOWs. PB is started, T42 20m N of the road and 300m E of the parking spot. Net is open E-W on a low S facing slope.

Vegetation: young potr, mature pipo, open stand.

Weather: <10% cloud cover, slight breeze, 18.5 C.

X: 496254

Y: 4335135

+/- 3m

2138—**AM checks net and finds a silent FLOW on the first shelf from the W. FLOW was previously unbanded. We check and find a brood patch with pin feathers coming in. Due to the presence of a brood patch and weight of the FLOW, we assume it is a F.**

**Band # 1833-32549 (on R leg)**

95.0 g

- 29.0 g

66.0

**Notes: Since we don’t know if F was still tending nestlings, we forego taking feather measurements and release F.**

2158—We release F. SHF to SW.

2233—PB is changed to HEC track.

2248—PB is changed back to T42.

2255—We cut PB, pack up, and leave BG10. Territory is silent when we leave.

# BG10—2019

## 14 June 2019

2105—AM, BL, and ML arrive in BG10/BG3 to attempt capture of M equipped with PinPoint in 2018. We start PB, T42 on a S facing low slope 30m N of FS351 Rd 50m NW of BG10/BG3 parking spot, open E-W. Within seconds, two M FLOWs begin responding, one originating from the E/SE and one from the SW. Both start from 50-70m and come in hot to the net site, giving TCs, TECs, and a few HECs to one another and the PB.

Vegetation: open, mixed age pipo, psme, pipu, and young potr

Weather: 10% cc, wind calm, 10 C

X: 495904

Y: 4335245

+/- 5m

2107-2120—Both M FLOWs are in the site, bouncing around the net, giving TCs, TECs, and HECs, and occasionally flying over net.

2123—Only one M calling in the net site now. He flies over the net giving TECs still.

2128—AM hears wing flaps and checks the net as M goes quiet. **A FLOW is in the net! Unbanded from the E on the 2nd shelf.**

2130-2205—AM and BL process the FLOW.

2131—M heard calling within ~20 m of net.

2133—M stops calling.

2147—M begins calling once again, ~20 m SW of the net.

2150—Calls stop.

**Capture #1: Band # 1833-32523 (on L leg)**

65.0 g LWC: 130 mm

- 7.0 g LLP(5): 96 mm

58.0 g LLP(6): 105 mm

Rect: 63 mm

**Notes: Unbanded. Bled on R, med hematoma. Because of SAF to W followed by TCs from the SW, we presume him to be the BG3\_2019 M.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 2.5 | 3 |
| P2 | 2.5 | 3 |
| P3 | 2.5 | 3 |
| P4 | 2 | 2.5 |
| P5 | 2 | 2.5 |
| P6 | 1.5 | 2.5 |
| P7 | 1.5 | 2 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0.5 | 0.5 |
| P5 | 0.5 | 0.5 |
| P6 | 1.5 | 1.5 |
| P7 | 2 | 2 |
| P8 | 2 | 2 |
| P9 | 2.5 | 2.5 |
| P10 | 2.5 | 2.5 |

2207—FLOW is released, SAF to W.

2210—Quiet around the net; PB is changed to Megascops track.

2215—M TCs 30m SW, presumably the M we just released.

2217-2226—There are two M FLOWs calling again, the SW bird still and now the 2nd M originating from the E but bouncing around the site.

2226—**ML hears wing flaps, checks the net, and finds a FLOW caught in the top shelf from the E! The bird is unbanded.** We cut PB, ML and AM break down the net while BL processes the FLOW.

2227-2230—M TC’s continue for a few minutes after PB is cut before stopping.

2228-2248—BL processes FLOW.

**Capture #2: Band # 1833-32594 (on L leg)**

60.5 g LWC: 133 mm

- 7.0 g LLP(5): 98 mm

53.5 g LLP(6): 107 mm

Rect: 60 mm

**Notes: Unbanded. Bled on R, moderate hematoma. Because of his calling from the E prior to capture, we presume him to be the BG10\_2019 M. However, more lure netting farther E on FS351 is needed to verify the Pinpoint BG10\_2018 M is no longer the BG10 territory holder.**

**Blacklight data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 3 | 3 |
| P2 | 3 | 3 |
| P3 | 3 | 3 |
| P4 | 2.5 | 2.5 |
| P5 | 2.5 | 2.5 |
| P6 | 1.5 | 1.5 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 1.5 | 1.5 |
| P10 | 1.5 | 1.5 |

**Primary wear data:**

|  |  |  |
| --- | --- | --- |
|  | Left wing (scale 0-3) | Right wing (scale 0-3) |
| P1 | 0 | 0 |
| P2 | 0 | 0 |
| P3 | 0 | 0 |
| P4 | 0 | 0 |
| P5 | .5 | .5 |
| P6 | 1 | 1 |
| P7 | 1.5 | 1.5 |
| P8 | 1.5 | 1.5 |
| P9 | 2 | 2 |
| P10 | 2 | 2 |

2249—ML releases the FLOW, SHF to the S. We leave.

# BG11—2018

## 16 July 2018

2220—AM and SF arrive in BG11 territory to set up a lure net. PB is started, T42 near the northern boundary of the Missouri Gulch Study Area on Grave Ridge. Net is 200m N and 100m W of 2017 B6 nest. Net is open N-S on a SE facing mid-slope.

Vegetation: Mixed age, mixed conifer. Very dense.

Weather: 100% cloud cover, no wind, 18.5 C.

X: 496358

Y: 4334096

+/- 5m

2236—We hear wing flaps come in from the N and see a FLOW perch on a pipo in which the speaker is placed. The FLOW makes F LCs. SF walks playback back and forth around the net site. F follows SF but stays high in the tall conifers.

2240—F departs to SW. SF returns playback to its original position N of net on the ground.

2245—SF moves playback 10m S of net.

2250—F returns and bounces around between several conifers.

2300— F perches on top of the lure net, then departs to SE.

2307—We cut playback and break down. We leave BG11.

# BG13—2018

## 17 July 2018

2110—SF and JE walk down a spur from the B14 parking spot to set up a lure net to target a M for a migration pinpoint. We find a spot ~400m down the ridge N of the old quarry that curves to the NW.

2119—After waiting for the rain/mist to pass, we set up the net and PB of T42 begins.

Vegetation: young and sub-mature pipo/psme

Weather: windy, 80% cloud cover (cleared up later in the night), 13.5 C

X: 494781

Y: 4334629

+/- 3

2147—On a net check, we find a silent FLOW in the 1st shelf of the net! While extracting, it makes some vocalizations, indicating it is a F. We do minimal processing.

**Band # 1833-32527 (on R leg)**

81.0 g LWC: XXX mm

- 17.0 g LLP(5): XX mm

64.0 g LLP(6): XXX mm

Rect: XX mm

**Notes: Brood patch still visible and pin feathers present.**

2154—F is release with SAF to the SW.

2110—SF and JE walk down a spur from the B14 parking spot to set up a lure net to target a M for a migration pinpoint. We find a spot ~400m down the ridge directly N of the old quarry that curves to the NW. The net is ~50m from the terminus of the ridge.

2245—On another net check, SF flushes a silent FLOW perched next to the pb. It perches in a tree ~15m SE of the net so we follow it for a couple minutes, looking for band. We see nothing on the L leg and are unable to get a good look at the R leg. While observing, JE hears a vocalization leading me to believe it is a F so this could potentially have been the F caught earlier in the night.

2305—PB is stopped, net is broken down. No M vocalizations were heard all night. We give some hoots on the walk back to the car but hear no response. Additionally, coordinates are taken for another potential net site closer to the parking spot as we walk out:

X: 494954

Y: 4334414

+/- 3

# BG14—2018

## 19 July 2018

2101—ES and JE start PB at a lure net in BG14 in an attempt to put a PinPoint on a territorial male. The net is ~30 m NE of the northern BG14 parking/turnaround spot off of road 351, ~1 mile N of the junction with 348.

Vegetation: young potr, mature pipo/psme

Weather: clear, calm, 24C

X: 492883

Y: 4336458

+/- 3m

2110—ES heads S down the drainage bottom along the road to tap cavity trees and listen for nesting vocalizations.

2130—ES hears two TCs down drainage of her location ~200 m S of the net site. I give TCs of my own for ~3 minutes, but the M doesn’t give any more vocalizations.

2150—After hearing nothing near the net site, we kill PB and break down the net. We want to move in a few hundred meters down drainage to try our luck where ES heard the TCs.

2218—Start PB at a new net site ~500 m S of the last one. We are ~1 mile N of the 351/348 intersection, in the drainage bottom just E of 351 where we begin to see tall potrs in the drainage.

Vegetation: young potr/psme, mature pipo/psme

Weather: clear, calm, 17C

X: 492950

Y: 4335983

+/- 3m

2245—JE leaves to walk N up the drainage that parallels the road, making it ~250m up where ES had previously been. I tap trees and flag a few along the way, but don’t see any flam faces. I did find a communal roost cavity of what I initially thought were small bats but quickly realized was a small songbird sp, likely PYNU.

2256—It has been silent since we began PB, so we decide to put on FLOW HEC track to see if that will work in our favor.

2258—JE hoots at various points along the drainage but I hear nothing. I took coordinates of an area that could potentially be used as a future lure net spot:

X: 492953

Y: 4336165

+/- 3m

2318—After a silent night, we kill PB and break down the lure net. If there is a territorial M in here, he must be busy with other fledglings—ahem, I mean things.

# BG15—2020

## 14 July 2020

2216—KC and AM start PB with T42 in BG15. Lure net is open N/S. Net is ~130 m E of the intersection of Rd 247 and Rd 248, ~250 m W of the large campsite/party site on Rd 247, and ~10 m S of Rd 247. We are attempting to deploy a GPS pinpoint on a territory M, and possibly recover some hardware. The night is quiet.

Vegetation: Young potr, mature pipo

Weather: Clear, Calm, 12C

X: 492667

Y: 4333916

+/- 3

2343—We cut PB and leave the territory.