

CONTENTS

18 May 2013

- Party set out to Blackwater to check nets
- Caught 4 turtles and collected 3 shirt staples (KEB, MEBS, CLS, JKm, DWB, JWW)
- KSL and LBR left for AZ before BW
- Party hiked to Hauling Tank which was completely dry, pictures taken on my camera
- 3 sets of shirts from GPS markers
- Hiked to Maverick Springs, arrived around 11:30am and ate lunch w/ Corral, saw a few cows, new barbed wire fence placed at entrance to corral
- Set out to noodle Maverick after lunch, KEB and CLS walked downstream and noodled a large pool and 5-7 small pools but no turtles found.
- Maverick low water, a series of large to small pools, roughly 10 turtles caught, shirt collected from all of them
- Hiked up through Shallows which was completely dry
- Reset nets in BW on way home, Arrived back at Camp AB at 5 to meet up with PAS and BRF who noodled BW canyon and took GPS of all water found - almost completely dry sans a few medium pools

19 May 2013

- PAS, CLS, BRF left about 9am to AZ
- Remaining party (KEB, MEBS, JWW, JKm, DWB) hiked in BW to check nets
- 3 turtles captured, shirt collected from all
- tried to set a small net in mosquito pool but couldn't stake it so noodled it but found nothing
- Reset small net in BW to bring total of 4 nets
- Out of 3 captured, 2 new captures; 1 from yesterday
- JKm and DWB hiked into camp to reset drift loggers
- Left BW around noon and headed to New Canyon (aka Beehive according to Border Patrol)
- Hiked into Beehive and set 1 net in the Grotto; 1 large pool found below Grotto that we noodled but nothing was found.
- Got back to Camp AB around 3pm, decided to rest
- Found some sort of pelt with deer bones hanging in tree behind camp. KEB thinks its a deer, JKm thinks its a kudu

20 May 2013

- KEB, MEBS, JKM, JWW, DNB hiked into BW AROUND 9AM to check nets; 4 turtles caught.
- 3 new captures. Caught 3 total ALL 3 DAYS
- Shit collected from all new captures
- JKM Sampled mosquito pool near pool below Dam At the grotto
- KEB took pictures of BW Hole, Mosquito pool, and pool below Dam
- Heading to New Canyon to check nets in Grotto And then to set nets At Chortol Dam
- Sat in camp and doctored foot while P.D.C. went to Grotto; caught 1 turtle
- JPM and DNB went on to sample up the canyon
- MEBS and JWW came and picked KEB up and went to Chortol to set nets. Took 1 net; 1 small set them at either end of tank.
- JWW saw possible leoparded frogs and encountered Mountain Lion Right by 5m from tank - it ran up the hill and walked slowly toward KEB Around other side of embankment
- picked up deer jaw that JWW found on bank
- PAS, BRF; CJS returned to camp

21 May 2013

- white crew went to Chortol to check nets and look for leoparded frogs. JKM Sampled
- Spent roughly 2 hours looking but no positive identification. DNB took pics of frog yet to be identified.
- No Mountain Lion seen
- No turtles
- PAS, MEBS, KEB, JWW went to Buckhorn
- JKM, BRF, DNB, CJS hiked Tresillo Canyon
- found 2 turtles
- 20C crew set 2 nets; 1 large; 3 small nets in Buckhorn. JWW found turtle at Buck and dead turtle at base of Dam in grass
- KEB and JWW found 2 turtles Noodling below Dam in lake pools
- KEB has JWW park truck and drove to 3-way dam and noddled the small, dirty pools in small pools surrounding the hiker to hell but it was dry.
- PAS and MEBS walked to 3-way from Buck. found 2 lake pools they noddled but 4 hummingbirds nest roughly 3m from fence

22 May 2013

- while crew went to Buckhorn to check nets, 32 turtles caught - MERS, KEB, PAS started to measure and reset nets.
- 10 soil samples collected from this
- JKM and DWB hiked to 3-way to sample pools below Buckhorn and on way to 3-way
- JWW, BRF, CLS hiked to 3-way to look at hint ants take pictures of possible restoration
- KEB, DWB, JKM took truck and drove to 3-way
- PAS and MERS met us there
- JKM, KEB, BRF, CLS took truck to get soil sample of dry black c.c.c. while R.O.C. hiked back to camp to pick up
- MERS and JWW left for home
- JKM, KEB, PAS, DWB + heads to Diamond A to get permits to set net in pink pool
- PAS got mad at crew for "talking shit"

22 May 2013

- Buckhorn turtles don't seem to poop as often or as much as turtles in BW or Wharlick Springs thus far
- possibly turtles in these areas eat more to eat than those in Buckhorn? But - Buckhorn looks pretty lush and offers back past the fence, so ants and food would be plentiful but maybe not - possibly looking at content of final samples to answer this question as this will effect parasite loads among populations

23 May 2013

- Crew split up to walk the Canyon from Park to Sardini Tank. CLS, JKM, DWB, BRF got prepped.
- OFF at Canyon just below Buckhorn to work to Sardini and Nettle and JKM sample.
- KEB and PJS checked and reset Net w/ Buckhorn. Roughly 9 new captures, 1 shift sample collected.
- KEB and PJS drove back down and walked to Fink pool to check the Net but no turtles.
- Went to Camp for lunch and picked up R.O.C. At the first "Y" around 1:45 p
- headed back to Camp to pick up to take CLS and BRF to AZ (KEB, DWB)
- In Douglas stopped up on Supplies; Dropped CLS and BRF off at El Coronado Ranch and headed back to Camp
- 7/10 of a mile before mile marker 30 on Hwy 191 heading South DWB spots a SNAKE on the ROAD; we turned around. Found the SNAKE and pulled off the ROAD about 20m North of the SNAKE with hazards flanking.
- KEB was walking up the ROAD when a TRUCK swerved to RUN over the SNAKE, killing it instantly. KEB obtained Aplastic by hand collected the juvenile Bull SNAKE for a

Museum Specimen. KEB has TWB get back into Petrolia 110 Camp About 9:30 pm. SNAKE will double-bagged and put in ice chest overnight.

- Medium Net was broken and holes patched sent with CLS and BRF to set in pond at El Coronado, Measuring 14' , turtle trays 2 stakes, rope wills sent to ensure DATA collection if turtles have recolonized.

24 May 2013

- juvenile Bullsnake injects with formalin every 1m and within brain. Coiled and places in large formalin jar
- PAS, JKM, DNB, KEB headed to Burkhardt to check nets
 - Roughly 20 turtles caught; 15 new captures; nets pulled
 - Sunfish were caught and taken for specimens; females (pregnant) caught in turtle nets. JKM caught 2 males with fly BD (4 total caught)
 - Nets taken back to camp to hang up and bleach before setting in Cloverdale Springs; PAS cooked breakfast burritos
 - 10 nets set in Cloverdale Spring. 4 in main body of water, 2 in small ponds that is typically connected to main body.
 - water levels low with much clay and muck in bottom
 - Got back to Camp Roughly 3:30 and DNB set out + find "NW Pasture" + Clinton Tank. Round trip took about 9 hr 15 min. Also described gullions in canyon, Roughly 0 - at least 1 or 2 were man made

25 May 2013

- Wildlife seen:
 - pack of about 13-15 mule deer just outside camp at entrance to Forest - same pack that's been seen behind camp that show little fear of humans
 - Another pack of mule deer further up Cat Hill
 - large male turkey
 - Once on Battalion close to Cloverdale saw 3 peccary (adults) on side of road
 - pack of 4 pronghorn
 - checked nets in Cloverdale - only fish caught in main body of water. 2 large sunfish (~300g and 570g) caught in large net were measured and recorded on turtle sheet then let go. DNB took pics.
 - In small pond 1 large adult female turtle caught in small net. Many small sunfish in both nets - probably hybrids
 - Reset 3 nets in main body and 1 medium in small pond
 - pulled 2 small nets and species in bleach solution for three pasture tank
 - took the road to these pasture, about 45 min walk and set 2 small nets

25 May 2013 (cont...)

- water level similar to August 2012
- JLM thinks that Cowen Tank is a little over 1km from the 2nd gate, across a small wash, may explore tomorrow if time permits
- Initiated Terrestrial Flight Response at Horse Pasture AND caught 3 turtles, 1 large unmarked male among those
- found 2 dead turtles, 1 marked AND 1 unmarked about 4m from the DAM
- saw small-throated lizards; pics taken.
- As well as a few mule deer up around Horse pasture
- Came back to camp and will set out for Clinton Tank from camp, the way DWB found yesterday
- Decided to name NW Passage Turkey Canyon; contained w/ 4 small dams state-stepped at the base of canyon built by Turkey Federation circa 1999; seems to hold water, canyon great spot for wooding when there's water - like is shaped and nice; roughly 1.2 km from camp

26 May 2013

- set out to check the nets for the 2nd day of Chuaratile AND first at Horse pasture. No turtles caught w/ Chuaratile, few fish pulled nets AND set out to Horse pasture 1km AND DWB set out to find Cowen tank while PAS AND KEB went to check nets.
- KEB found dead turtle marker behind dam; Waypoint given - 491(?)
- PAS pulled Net while KEB searched for more dead turtles, 2 found - Both unmarked. GPS points given
- While searching for dead turtles, saw a large turtle going up hill beside dam; grabbed it - large female, very dry, shift wile after
- Spoke with Ranchhand who informed us DIAHARD & doesn't own the allotment containing H.P. Tank; some possible DIAHARD bc we accessed the tank from DIAHARD A land.
- Roughly 10 turtles caught in H.P. many of which unseen since 2007; immigrant from Buckhorn.
- Juvenile right unmarked KEB measured AND marked 1888 while PAS dealt with Ranchhand

26 May 2013 (cont...)

- Set back to camp and had lunch; packed up PAS to pick up CIS and BRF from El CORONADO Ranch

- JKM, KEB, DNB took second vehicle to GST for JKM to sample

water level below normal but still relatively cool and clean

JKM samples; fishes

2 wide mouth bass caught and collected for specimens, possibly male and female

arrived back at camp around 4:30 p.

• pickles fish collected; bleached nets - all except 1 small net due to squirrel bottle breaking

PAS, CIS, BRF arrived back in camp around 1 am

27 May 2013

- KEB took CIS and BRF up Turkey Canyon to see small streams

• Af Clinton frogs chirping heavily during much of the time but no sightings; saw 2 toads (possibly) also

• BRF took pics of dams and natural caverns Clinton Tanks, mapped them

• R.C. went to horizon side to set nets at Hill tanks dry

• Met back at camp & Bad Moon for lunch

29 JUN. 2013

- PAS KEB JKM went to DA to obtain permits; woman from office told us the area had received 6 in of rain already plus an additional 2 in just last Tuesday. This had made many wishes impossible.

on the way in there was much water, at least 3 washes still had water and signs of major flooding.

Arrived at camp around 10:30 AM - very green everywhere with lots of vegetation.

Set out to Buckhorn after setting up camp.

Buckhorn very full; road leading to Buckhorn showed obvious signs of flooding.

Lots of water below Buckhorn - pools to some extent all the way to the fence towards 3-way dam.

PAS set 8 nets with difficulty given the high water and now rocky substrate.

JKM, KEB, PBF netted - 12 turtles caught, 3 of which were hatchlings - below Buckhorn to the fence.

PAS and LBK measured

walked back to camp to meet Justin Congdon

just before camp off of Geronimo Trail

PRF saw what looks like a long Javelina tail but raw like a beak - don't know which it was yet.

3 shift samples collected from pools below Buckhorn

Fisher and Clinton occurs both common - flowing trickling water

Flowing water in wash directly behind camp which extends past Geronimo Trail and into what looks to think pool

30 JUL 2013

- checked nets in Buckhorn
- IBK PAS KEB measured turtles in 17 caught mostly females, 12 help for + Rhy, 3 shift samples collected
- BRF and JKM went below Buckhorn to map water we needed yesterday and JKM samples
- Drove back to camp around 10:30 AM
- KEB helped the people + Rhy the 12 females
- BRF and IBK left for AZ
- KEB dropped PAS and JKM at Buckhorn to set nets and needed below DAM
- KEB drove back to Buckhorn to let turtles go, set nets in Black C.C.C.
- First Net set nicely but majority of group back underneath and so used paracord to secure second until net
- KEB came back to camp until time to pick up PAS and JKM
- checked nets in Buckhorn - no turtles in any nets - nets sat approx. 3 hours with no turtles or signs of any being interested in the nets
- walked down to Clinton Draw across the street from camp to set nets in Fink Pool (PAS, KEB, JKM, Rhy)

water was continuous and flowing from the River to half mile pool, all not able to move BC of moving water; set 1 square net in the corner pool just past fence; set biffle net around the little bend and then set 1 gillnet and 1 square net in Fink Pool

31 JUN 2013

- set out to Bucklerent to check nets (PAS, JKM, KEB, Pope) - caught ~14 turtles, 5 of which we held for X-RAY
- checked nets in Bluk C.C.C. but no turtles
- female caught again that was blind in R eye and looked to be losing it, eye sunburned and put in Formalin to examine later
- PAS and KEB dropped off at BW hole to check 4 nets set yesterday
- saw interesting display of courtship on the trail as KEB led just above Waterfall Rapids A male did a broken wing display then its mate presumably did the same but I'm in front, KEB and PAS looked for a nest and saw 3 babies sunny and burrow into a nearby bush - GPS point taken
- caught 15 turtles in BW hole, 10 females held for X-RAY, nets reset
- came back to camp when JKM picked KEB and PAS up around 2 pm
- PAS and KEB set out for Bluk to check nets while JKM took turtles back to BW
- PAS, KEB & Pope set out to Bluk to check nets; 4 turtles caught in stick net, 2 held for X-RAY, 3 shells collected
- No resetting w/ Bluk due to impeding thunder storm, return at camp

• thunder storm in 7pm to midnight
incredible lightning storm

1 AUG 2013

- JKM and KEB checked nets in Buckhorn after dropping PAS and the Pope in Bush Hole to check nets & road cross time now
- SAW A mule deer run across the ROAD on the way to Buckhorn AND Roadrunner driving home, 2 white tails off GT
- Caught 18 turtles in Park but due to not having Park turtle book measured all turtles and brought 11 females back for + Rely along w/ 9 males who's water was changed yesterday and not in our DMA book
- 4 turtles new captures (18 + day total) along w/ 3 females from BW
- Rained like crazy after lunch so PAS JKM, KEB sat around w/ turtles to return for a while until it was apparent rain wouldnt let up, set out to take turtles to Buck. and BW
- Had rained in Buckhorn as the road was a bit wet and elevation was higher than before; set turtles go
- Headed to BW; JKM and KEB hiked 3 turtles into BW while PAS waited

At CH2

- checked nets again in CH2; checked nets and caught 5 turtles (2 new captures) met me there returning to BW Lof
- came back to CH2; set 4 more cameras off road where JKM saw Lion tracks
- Wish water levels have risen significantly more rain = trapped here
- clouds, threatening from 360° - storms appear earlier than previous August - lots of clouds and lightning today - over

At Dawn

2 AUG 2013

- PAS KEB JKM set ad to BW Hole to check nets. 1 medium net had collapsed but thankfully no turtles in it
- pulled nets (4)
- caught ~ 10 turtles including 2 juveniles which hadn't been noted and 2-3 new captures
- PAS and KEB noodled below BW Dmns Area past the first bend - no turtles - water continuous flowing
- KEB and JKM noodled up to mosquito pool and up the canyon to meet PAS noodling down from Hello Hill, caught 1 recap from BW and found 1 dead turtle, shell only (#100) GPS point taken
- Crew went back to camp then set off to Turkey Wash, noodled the Turkey Fed dams which were full (~5 ft deep in some places) the entire wash was flowing and continued to the RWD. Crew only walked to the end of the dam series before turning back to camp
- BPF and LPK arrived back in camp from AZ around 6:30p

→ DAVID HALL: (520) 975-0912

→ BENJAMIN STANLEY: (405) 651-8875
Bring cigarettes, PAS and JKM
ice

• Deer (cooks)

→ CALL Paul Tuesday AM or PM

→ Be Black in Petronella's pm of 9 Aug

3 Aug 2013

- KER and LBK to Parajitos from camp in AM.
- ROC took nets to Javatina and to Middle Saltens - Brian and Josiah may have problems getting into Peloncillos due to heavy rains.
- Drive to Parajitos very nice - took Hwy 191 North past trail off for El Coronado, took Hwy 83 South of Tucson to cut west to Hwy 19 South. Stopped in Green Valley for gas.
- Waited for RENA BLANCA lake in 2pm. Found white rock camp ground just off FS 39. Set camp; set out to Ruby.
- Ruby approx 14mi from camp ground on FS 39 - about 1.5 hr drive.
- 3 tanks visible from road, will GPS.
- Arrived in Ruby approx 3:30-4:00 pm.
- Ruby is gated; upon stopping to check in with the caretaker Michael and his CADA find Mineral Town and Eagle Lake are all on private land. As luck would have it - the owners (who live in Tucson) will be in tomorrow (4 Aug) and son HOWARD JR. is in office visiting.
- Upon speaking with Howard Jr. he grants us permission to sleep here and even offers to let us camp here free of charge - will get contact info for Howard Jr. and owners to give them pictures and any info to post on their website in exchange for using the land.
- Town lake seems to have dried up for a few years, mostly swampy marsh now, water deep at its deepest point.
- Set 3 small nets here.

- Mineral lake is quite a bit bigger as it's fed by an intermittent stream leading to Eagle Lake and the water shed.
- Large sandy beach stretching between Town and Mineral several hundred meters. This beach covers pilings from old lead mine operating here until the 1940s.
- Set 8 nets total in Mineral lake, bass and blue gill sun fish in lake; fishing terminated here.
- 2 large nets
- 2 medium
- 4 smalls
- Left Ruby around 6pm - Michael has been very accommodating and gives us safe cope so we could arrive early tomorrow morning before the site opened (Hours 9am-10pm Thurs-Sunday) cost is 10/7 - unless prior arrangements made future visits should be inflated these rates though.

• Drove back to Peña Blanca now arrived at dusk, immediately headed to lake to set 2 nets - lake very busy. It is Saturday night so possibly not as busy during week. Not feasible to set many nets here. At least over the weekend no plans to stay with them. even setting 2 nets at dark was risky as there was still activity in and around lake during this time.

- Set 1 large and 1 small net and drove back to camp site
- Camp ground not ideal - very busy and loud; much activity with sometimes very sketchy people all around and driving through
- Arrived at camp spot after dark, quickly ate our meal plan for next day then went to bed
- Saw large tarantula crossing road on way back from Ruby - pictures taken GPS point taken as 'TARANTULA'

4 Aug 2013

- Set alarm for 5:30 AM. Arrived at lake to pull nets around beam at first light. Nets were safe and undisturbed but no turtles. Cannot say with certainty yet if no turtles in lake given its size and the very limited trapping here thus far and cautious net placement - will trap here again when we can sit on nets to try and establish if turtles present here.
- Broke down camp for reset at Ruby tonight; left White Rock at 1:20 AM
- Got to first tank, roughly 2 mi to 1.5 mi from camp ground and Río Ablanca canyon. No obvious road or trail leading to tank but very nice size, with concrete dam. Clearly a cattle tank. Dropped a GPS point for it about 200 m uphill - time constraints dictated this decision. If time permits can walk back up to lake to trap water and get better point. ultmep.
- White Rock Tank! In GPS
- Second tank much easier to get to - road leads to a small parking area and easy couple hundred meter walk down gently sloping hill. Barbed wire cuts tank in half and tank seems to extend back into a small deeper wash. According to GPS, this is

Summit Reservoir, appears to be quite lower than normal but still very good size - easy to set nets. GPS point taken as "Summit Reservoir"

- Tried to find 3rd tank but missed sighting of going opposite direction
- Arrived at Ruby gate at 8:45 AM. used combination given and left gates open to Michael instead of me.
- Pulled nets in Town lake first - very difficult as mud is very deep - sinking in mud up to thigh level experienced at every net
- Caught 4 turtles and reset nets - turtles very large; average 450g each, very adipose had to be used for me!
- blood samples taken from all 4, fecal samples collected from n 2
- pulled nets in Mineral, 12 turtles caught total. All turtles caught undisturbed, muscle samples with 100% fund so up sequentially from there
- Reset 5 of 8 nets to have enough to set in Eagle lake as well
- Measuring and marking took a very long time at Mineral given LBF wills getting blood and responsible for resetting nets

After pulling nets (difficult given terrain AND lack of any clear trail around SW side of lake) almost 3 hours to finish all turtles at Mineral. However, met owners, older couple - Howard SR. and T. May, as well as Howard JR's wife Kristy (a field geologist out of TCU) and other son? with his wife? and little girl Joe. Howard JR is a biologist working mainly out of East Africa doing his game counts from small aircraft. Kristy and Howard JR very interested in our study, how we trap, what we recover; etc.

Talked with Howard SR. about all the work he's done in the area testing for lead contamination from the mine tailings; he's had algae, trees, soil, fish all tested, seems high lead content in trees and algae but given the pH of the lake, the lead contamination seems to be pretty well trapped in the algae making the fish safe to eat thus water safe for swimming however turtles never tested - expressed interest in testing fecal samples from turtles for heavy metal contamination.

Howard JR told stories of seeing turtle tracks in the sand between Town and Mineral Lakes so population here has high rates

presumably of immigration between 2 bodies of water.

- About 5 other biologists come here regularly to study various insects and Ruby contains enormous population of Mexican free-tailed bats. Large permanent pop lives in cave and exits in mass every night around 6:30P with large collapse in West side of hill.
- finished turtles around 2pm and had lunch.
- Spoke with other son who told us about Ruby Ranch on the other side of Ridge which is fed by water holes that has so many turtles you can pull them out by hand.
- All spoke of seeing hatchlings along intermittent stream running from Mineral Lake to Eagle Dam.
- Decided to hike over to Eagle Dam with 4 nets - 1 large, 3 smaller.
- Took road until it ended then hiked in canyon to reach the dam - pools present throughout canyon not continuous but obvious signs of them being connected at some point this season.
- No measuring tape so don't measure but will when checking nests tomorrow.

- Eagle Dam very impressive - other sun spoke of a lek present. water being particularly low this year as it normally reaches top of dam
- Hole like behind dam, roughly half the size of Mineral, painted on as we set nets which presented problems given bedrock and lower than normal water levels
- Hiked back to Mineral, charged, set up camp, walked to bld look at to watch bats emerge from cave - very cool. Michael walked with us (and CADA) to find spot; also very enthusiastic about our work and wants contact info to keep him informed, invited us back many times, more plans to visit hopefully in May
- Set tent right in water - beautiful here, part of family set up camp back at parking lot and pavilion
- making plans to visit Arivaca lake and son wet's tomorrow or Tuesday
- will find Ruby Tank if time permits
- Many frogs present at Eagle - never saw one but hundreds were jumping into the water from the bank as we would approach

Howard Frederick

→ howard f @ gmail.com

Sim's amanuage @ gmail.com

HOWARD Frederick Sr.

PAT Frederick - Retired horse vet

HOWARD Frederick JR - big game biologist

Kristy - geologist thru

Liam Frederick - photographer
wife

Daughter - Zoe

Michael - camera

Michael - thistle @ hotmail.com

5 Aug 2013

- Woke up early and caught up on field

Notes, into the water to check nets by 9 am.

- 11 turtles caught in Mineral; 9 new caps

• 1 turtle (1017) was mismarked 4 Aug when we were taking to family. Luckily, this female had lots of damage so she was readily identified. Verified with LBK that her blood vials correctly labeled and they were, so fixed mark.

- Hiked to Eagle Dam in 10:30 am to check nets, eyed the few pools on the way up for any hatchlings

• Pulled the nets at Eagle Lake, caught n/a turtles all new caps. Many fish in all our nets, saw invasive crayfish here

• Caught a juvenile

- Hiked back and pulled the nets in town; caught 1 juvenile, no adults

• Reset 2 nets in Mineral at our most lucrative turtle spots, left everything else out of water due to lack of bait

- Drove to Arivaca for gas and more bait; as well as to recon Arivaca lake since Michael told us he'd heard it was quite low

• Arivaca had a small grocery store/gas station we used; turned around to find the

lake. The road to Arivaca significantly better than the section from Pima Blanca to Ruby, even paved for a few miles. Both of us got cell reception in this area as soon as the paved road started.

• Tanks are present along this stretch of FSR 37; however much of the land on either side of the road has many 'Private Property' and 'No trespassing' signs, as well as being fenced. Further investigation necessary before sitting out to find those to make sure they're actually on Forest Land.

• Made it to Arivaca lake in 4:30 pm + took the road which took us to the far north side of the lake, this road significantly smaller and less traveled than main road. Got to a gate for the USFS Wildlife Refuge which was closed and locked. Never saw lake from here.

• Drove back to main road and took that to the main parking area, tried to take nets down but got stuck in tall vegetation on all sides and sinking silty mud. And decided to try and drive around the opposite way. Took about 100-200 m before parking

The lake was obviously very low, there was a small path through the vegetation about 200 m to the water but path was knee-deep muddy silt that sucked our legs down into it with another 2 ft of water sitting on top of it - this was what Michael had described and presumably why the lake was totally deserted and the refuge closed.

With no (safe) way to get down to the main body of water we decided to turn around and scratch Arivaca from our list.

Possibly explore some tanks instead; sit on Peña Blanca tomorrow instead

Saw Howard Jr on our way back to Ruby; he waved us down, he reiterated his interest in our project and offered the use of a building that we could use as base camp. Neff time we're in town; he made sure we had his contact info and will be an excellent resource for us in the future.

Arrived back at Ruby n 10pm, monsoon threatened to blow our tent away so we secured everything and watched a very

impressive lightning storm.

Talking to Michael P, he told us the monsoons hasn't been great the past 2 years; Town lake has been dry for almost 2 yrs if dries up in winter, mineral is low; Eagle is very low.

Ruby tank possibly called Ruby lake

6 AUG 2013

- checked nets at Mineral Lake (2 mediums)
caught 3 turtles; out of these 2 new captures
and 1 throwback.
- Decided to find some of the tanks KER
mapped out between Ruby and Arivaca
- Found Dark Tank; set 2 small nets. It's got
a narrow feeder wash on the side which fills
it and a large cement dam that seems to
be leaking as we could hear water trickling towards
the base. About a goat size pool was immediately below
the dam, down the wash there are 2 more
smaller bodies of water; took pictures will
take more of dam tomorrow for RFF. This
tank was pretty nasty and filled with low silt and
had a very mucky silted bottom
- Japanese tank was roughly the same size, a
little bigger maybe but more clear with more
grass and vegetation around it. Easier tank.
No improvements or dam that we saw, set
1 large net and 1 small net. Had rocky bottom
that posed much difficulty for setting stakes -
next time get rocks and work before.
- Margarita tank was set below Mountain Peak
below an old mine that has been covered with
large boulders; upon inspection KER pulled

- 4 turtles from the bank that were sitting in
roughly ankle-deep water (mud). LBK pulled
out Walker around the tank to check for more
turtles, set 1 large net
- 4 of the turtles were covered in algae not only on
shells but also around their limbs
- KER got 2 fecal samples, LBK got 5 blood
samples - this tank n 3 km SSW from Ruby
- took California Grouse around until it hooked
back up with FGR 39 and made it back to
camp at Ruby n 12pm

II. Meet at Barn
603 N 3rd Ave 85705

- Go to Chihuahuan Canyon
- pack A lunch
- Got settled in camp n 1pm, rained shortly after
so took a break waiting for rain
- Left out of camp about 3:15p for Arivaca to
get gas, ice, & to call PAS. No cell service so drove
to C-19 and called PAS and David Hall to make
plans for Tucson. Back to camp at Dusk
- After lunch saw 2 small spots of baby deer on
the ridge just across from camp - got a picture

but had to make out what they were -
they seemed to be grazing along the
hillside, light brown in color with white
wings on tail

• Saw 1 juvenile Western Diamond Back
Rattle Snake in the road on our way back
from Arivaca at dusk. Had a rattle but
never heard its rattle, only sat in striking
position while we tried to get a picture, took
A GPS point

• Saw 2 more Turtles crossing the road
as we drove from Arivaca

• David Hall seemed to be familiar
with Mescalita Tank and asked if we saw
any bullfrogs which we didn't, said there
were tons of turtles and bullfrogs at Eagle
Lake last time he was there, but we never
saw bullfrogs only the 1 gray fish

• A coyote crossed the paved road in
front of us just south of Arivaca Lake,
he was above avg normal size 1 coloring,
he paused to look at us as we drove by

7 AUG 2013

- checked 2 medium nets in Mineral lake - No turtles, just fish
- checked 2 small nets at Dark tank, got 5 turtles; mapped the water in the tank itself, as well as the lake pools both above and below the dam. LBK mapped below the dam but found no turtles
- checked the nets in Japanese tank, 1 small and 1 large, caught 8 turtles and mapped water
- checked the 1 large net in Whisenhite tank and caught 6 turtles; LBK found 1 turtle on bank while mapping water - All new captures
- while we were measuring 2 (what looked like) pronghorn approached us curiously and watched us for a few minutes. LBK took pictures; presumably these 2 are the animals we saw yesterday at camp
- LBK got 23 blood samples from the 3 tanks; LKB got 4-5 fecal samples
- arrived back at camp around 1:30 pm to break camp and head to Tucson to meet David Hall in the morning

arrived in Tucson about 5pm, got hotel for 3 nights and turned in

8 AUG 2013

- Met DAVID HALL AT his home off 8th Stn; DISCUSSED our projects, his helper / employee ADAM met us & help pull nets; SET OFF IN his jeep to CERRO PERDIDO CANYON
- SAW Gila MONSTER AND BLACKtail RATTLESNAKE on the ROAD up to the Canyon
- ROAD VERY ROCKY - LBK'S CAR couldnt have MADE it DUE to tires AND clearance
- checked 12 nets along the CANYON, the U.S. population which used to be here CONSISTED OF about 250 individuals about some time ago now 2008 a fire wiped out the habitat AND silted up the canyon below where turtles Resided DAVID HALL wasnt caught a MARKED TURTLE from this pop since then
- Out of 12 nets we caught 11 turtles - ALL fairly young AND NEW captures except 1 which was A RECAPTURE from A few years prior
- The CANYON WAS NARROW with A CONTINUOUSLY flowing stream; rocky NO mud OR silted pools AT all. the silt from previous years had FINALLY washed out of the CANYON, the population is coming back now, albeit

SLOWLY

- D.H. USED ALL GRENLICKS WITH HOOP NETS AND INSIDE THE NETS HE HAS ATTACHED A PIECE OF WALKERS NOODLE TO PREVENT COMPLETE NET COLLAPSE WHICH MIGHT BE A SUBSTANTIAL HAZARD TO STAFF DURING AS AN ADDITIONAL SAFEGUARD
- GOT OUT OF THE CANYON AROUND 8pm AND ONCE BACK IN THE CITY, D.H. MADE A MAP OF THE RIVERPORT PASS AREA WITH DIRECTIONS TO 3 OF HIS OLD TRAPPING SIGHTS:
 - RACETRACK TANK
 - ALHAMBRA TANK
 - THE LAKE
- THE LAKE WAS THE MOST PROMISING AND D.H. SAID FIVE SET 12 NETS WE'D EASILY GET 100 TURTLES WHICH WERE EMERGING TO US; WILL GO SET NETS IN THE MORNING
- BOTH LBK AND I LEFT COLLECTION SUPPLIES FOR D.H. TO COLLECT BLOOD AND FECAL SAMPLES AS HE TRAPPED TURTLES
- D.H. SHOT HELD NANOKE TRAP IN RIVERPORT PASS AREA AGAIN SO TO WORK LONG NEW CAPTURES IN OUR CODE AND SEND THEM OVER INTO ON HIS RECAPTURES.

9 Aug 2013

- Set out for Redington Pass ~8am; went to Race track tank first. Road was navigable but the worst of the day.
- Tank was split into 2 pools there. First pool was fairly muddy with gravel bottom, set 1 small net.
- The main body of the tank was more with algae on the water surface. tracks taken at both pools, way point, 1 small net set in main body.
- Trash and bullet casings. All trash tank; because it was Friday we didn't want to leave nets overnight so pulled them at 2pm - NO turtles.
- Alambre tank was a short walk thru gated area across from small parking area. Tank was good size, muddy bottom; tracked and way point taken. 2 small nets set at either end of tank.
- The lake was the last stop - tracked and way point taken - when tracking satellite reception lost on top of Dam! lake seemed to be quite low based on the separation of water and the size of if on the tops with being quite a bit smaller.

The main body was fairly deep with muddy bottom
water below dam; pool (island) up the canyon.
1 medium and 2 large nets set in main body; 1 medium set in pool downstream.
water below dam likely needs to
workday but time was a factor, no easy way around. As the dam was not flooded between 2 large rock outcroppings.

D.H. Turtle:

$$10 + 4 + 8 = 22$$

set: 2

mcL: 128.8

gcw: 89.8

gpn: 72.0

sh: 50.3

mass: 310

matrix sharpened, blood drained

10 Aug 2013

- checked net in Altumbe Tank And the lake
- No turtles in Altumbe
- 22 turtles total captured from the lake, 22 blood samples, 2 fecal samples As well as n=50 leeches preserved in PVA
- Lake full of leeches, on vs And turtles, pictures taken
- 1 release intended by DH
- 21 new captures
- Visited Tanque Vaque Falls on the way back down - crowded, no water fall, water levels seem very low