

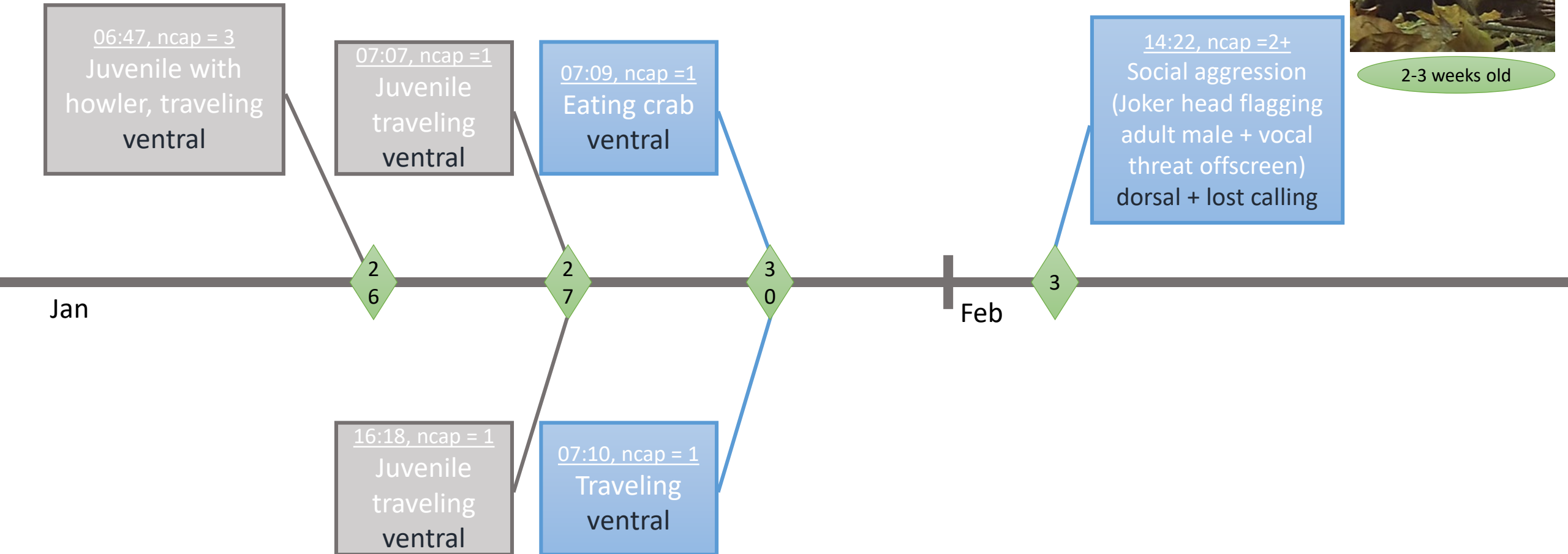
Timeline of Howler Abductions

Supplemental to Goldsborough et al. “The Rise and Spread of a Social Tradition of Interspecies Abduction”

Howler 1 (2022-01-26 until 2022-02-03)

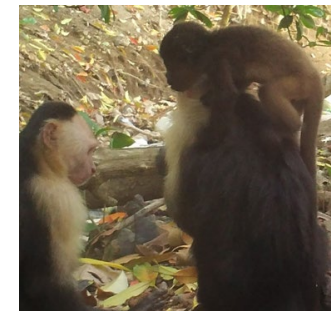


2-3 weeks old



Carrier:
Joker, Balthasar, Terry,
Mick, Zim, unclear

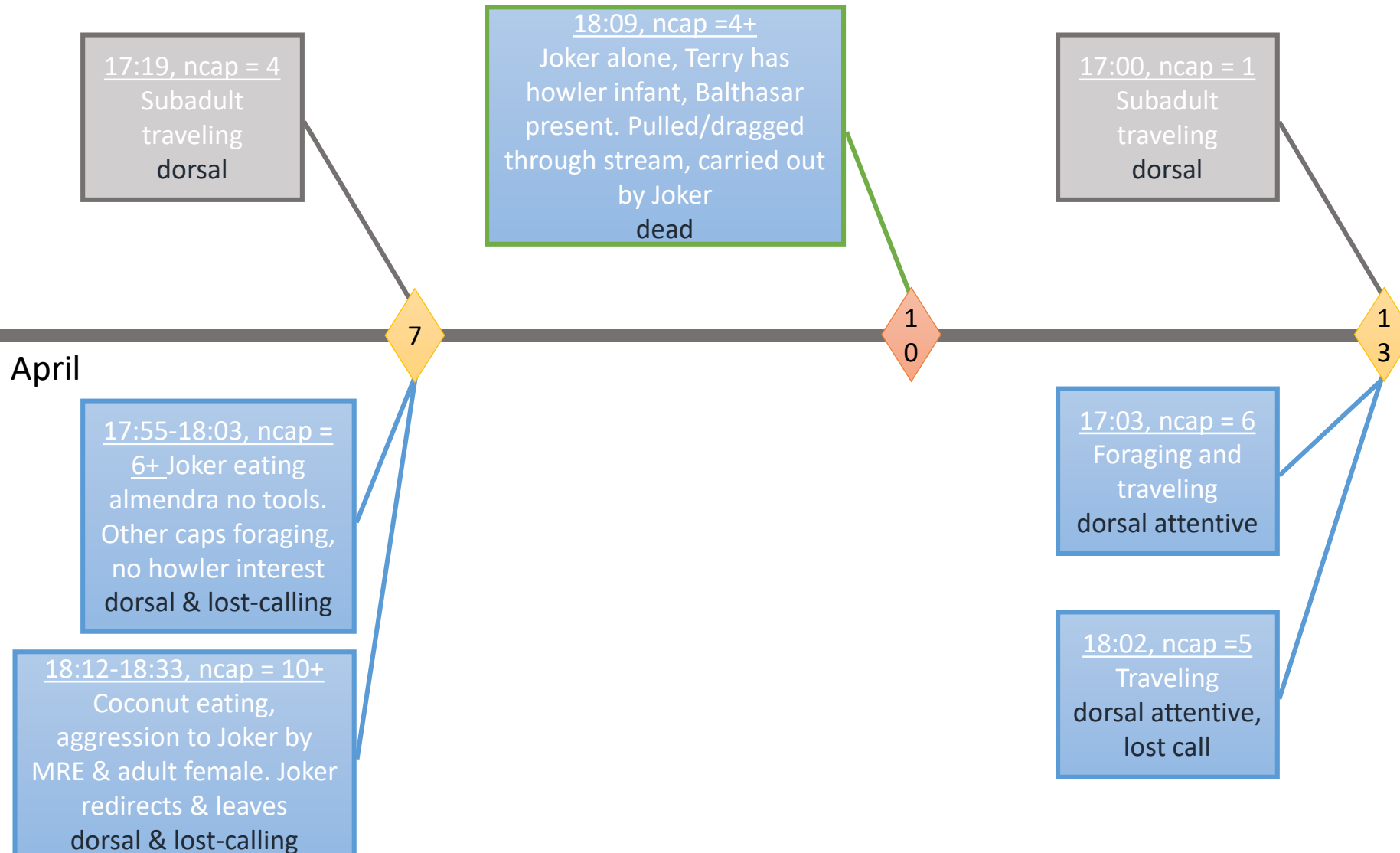
Howler 2 (2022-04-07 until 2022-04-13) & Howler 3 (2022-04-10)



3-4 weeks old



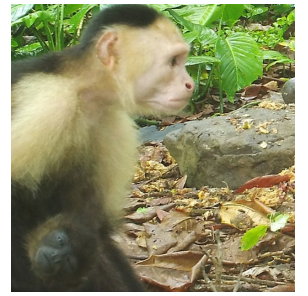
2-3 weeks old



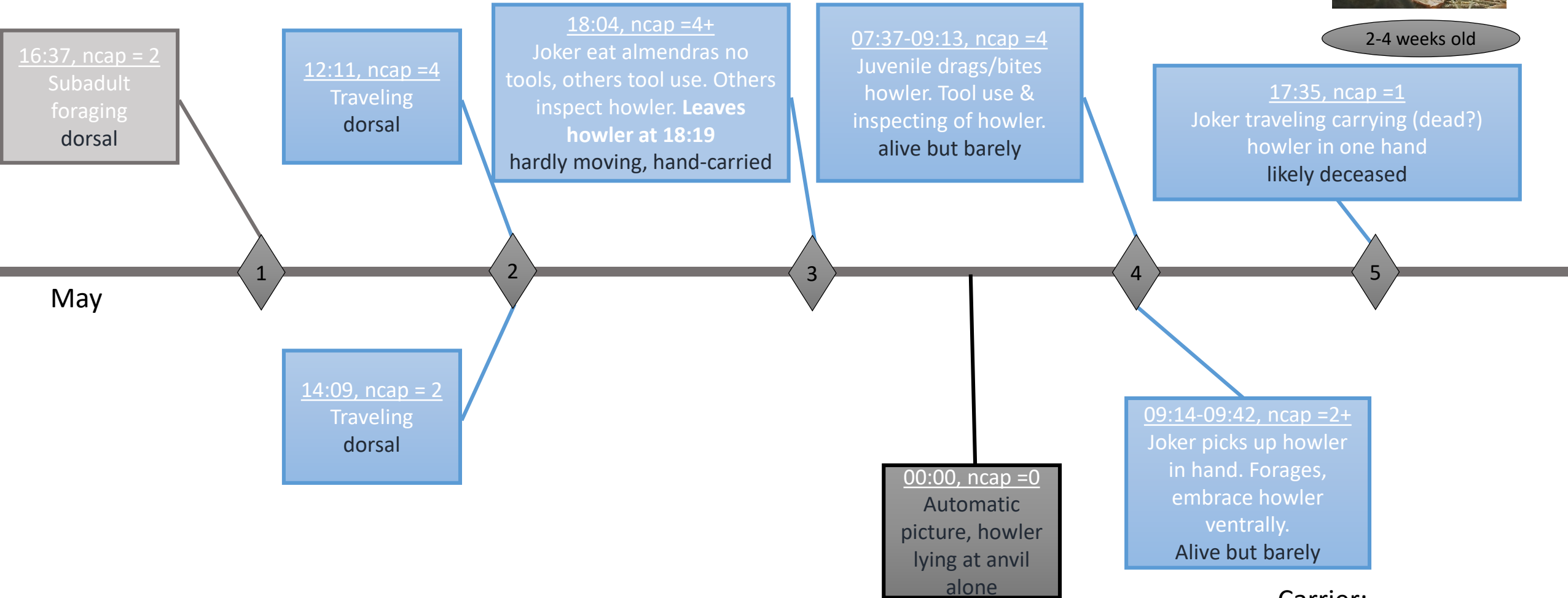
Carrier:

Joker, Balthasar, Terry,
Mick, Zim, unclear

Howler 4 (2022-05-01 until 2022-05-04)

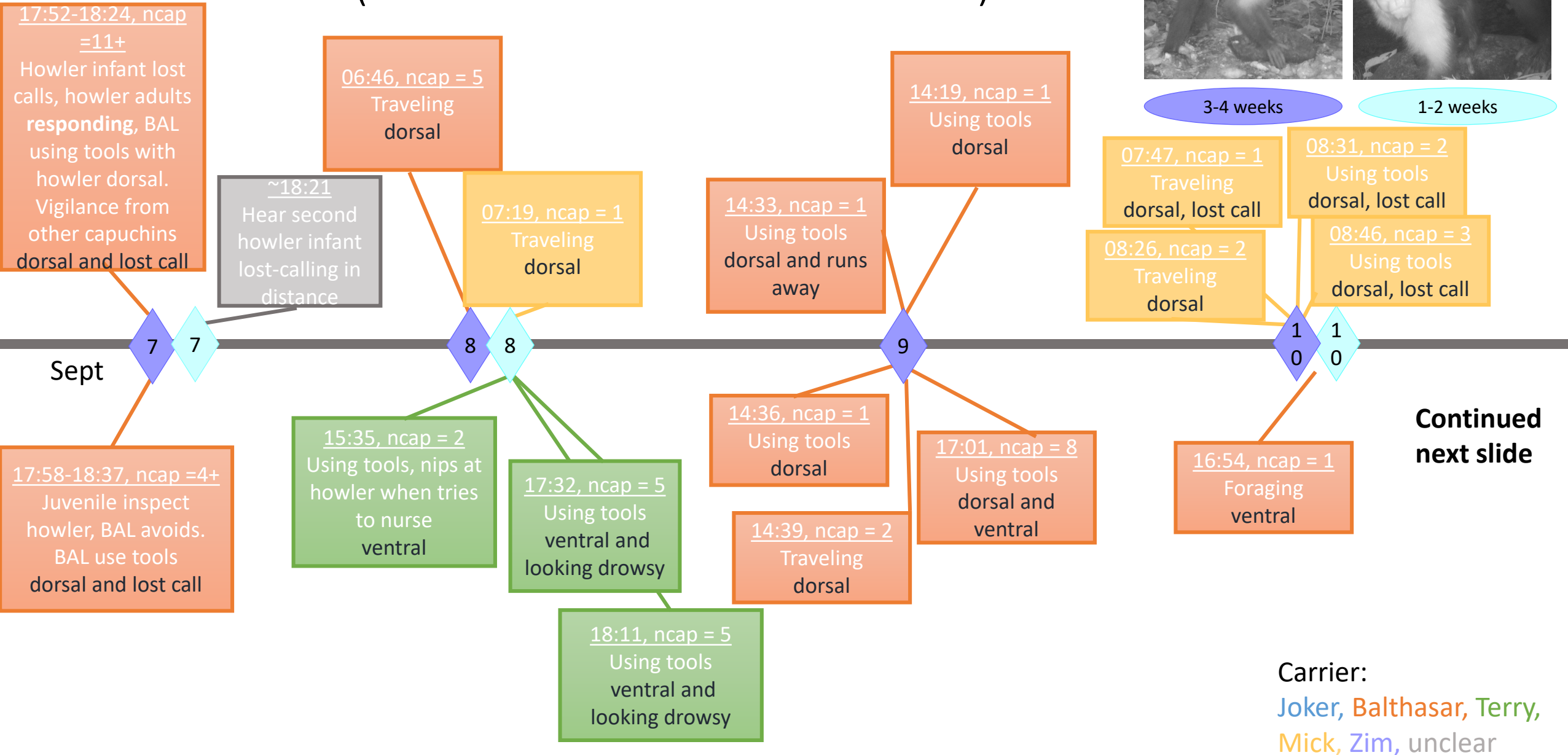


2-4 weeks old



Carrier:
Joker, Balthasar, Terry,
Mick, Zim, unclear

Howler 5 (2022-09-07 until 2022-09-14) & Howler 6 (2022-09-08 until 2022-09-12)



Howler 5 (2022-09-07 until 2022-09-14) & Howler 6 (2022-09-08 until 2022-09-12)



3-4 weeks

1-2 weeks

2022-09-11, 15:15 & 2022-09-12, 17:38 & 2022-09-13, 07:58: hear adult howlers roar

09:04, ncap = 2
Using tools
dorsal

09:15-09:55, ncap = 5 (incl TER)
BAL using tools, also nips and bites howler (who squeals) dorsal and ventral, trying to nurse

12:09, ncap = 3
BAL present (no howler).
Dead howler rolls down hill in background (present since ~10:25)

12:29, ncap = 2
Foraging
dorsal

08:11, ncap = 1
Using tools
ventral

09:16, ncap = 2
Traveling
dorsal

09:17, ncap = 1
Using tools, howler falls off, looks at howler but doesn't help it. Climbs back on
dorsal

06:37, ncap = 1
Using tools, carrying howler in hand.
Hitting side of head howler with rock
dead

Sept

10:32, ncap = 2
Foraging
dorsal

15:29, ncap = 3
Subadult male carrying howler
dorsal

11:45, ncap = 1
Subadult male carrying howler
dorsal

17:29, ncap = 2
Foraging
ventral

12:39-12:50, ncap = 4
BAL using tool, howler climbs off → BAL leaves (howler lost call). TER picks up howler and tool use dorsal, eating anvil debris, climbs off, vocalizes

15:44, ncap = 5
Using tools and displaces BAL
dorsal

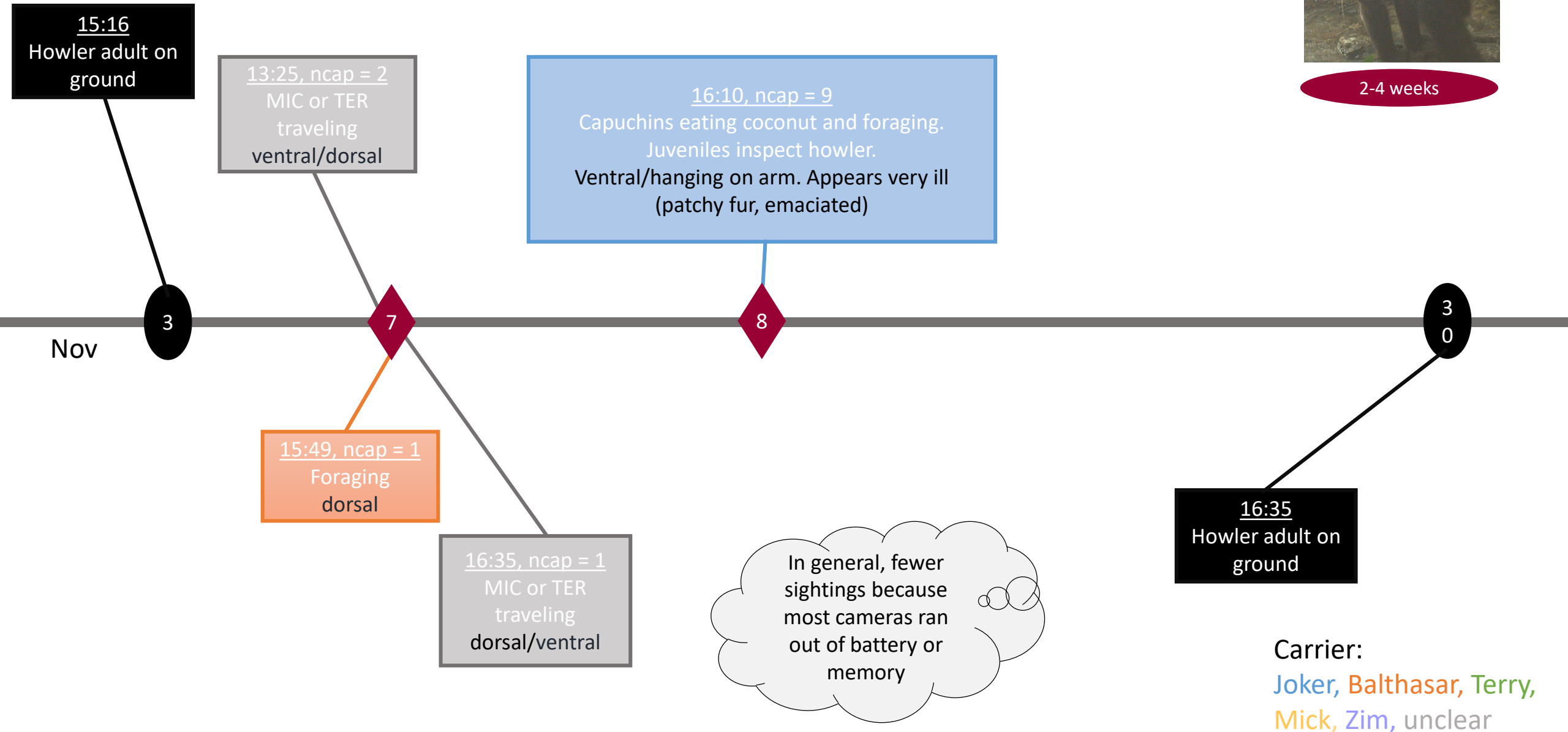
Carrier:

Joker, Balthasar, Terry,
Mick, Zim, unclear

Howler 7 (2022-11-07 until 2022-11-08)

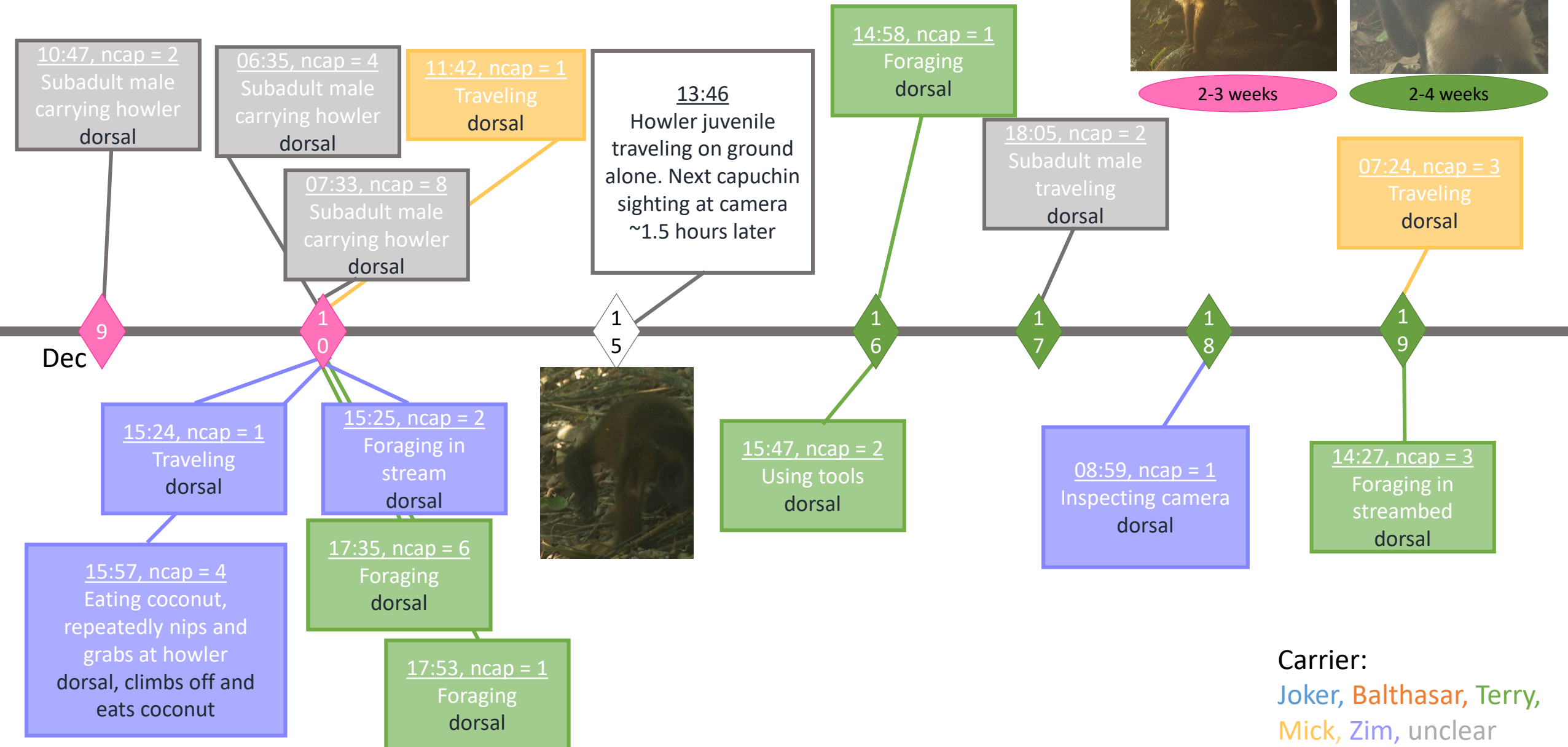


2-4 weeks

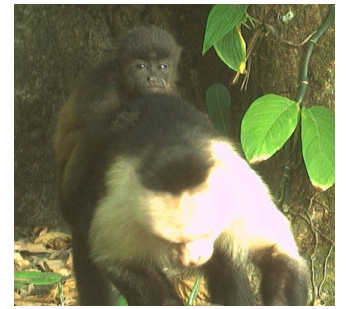


Howler 8 (2022-12-09 until 2022-12-10)

Howler 9 (2022-12-16 until 2022-12-19)

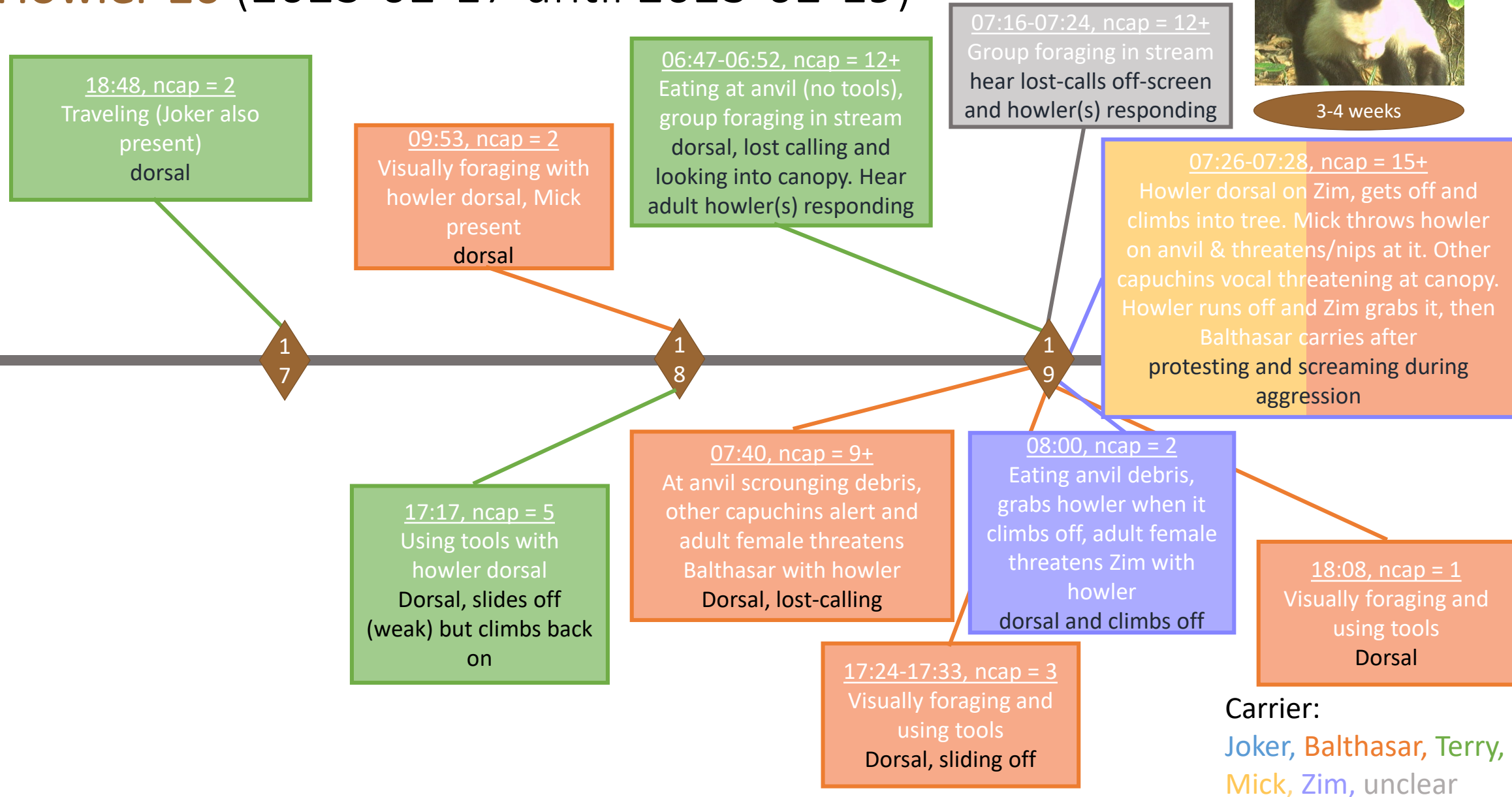


Howler 10 (2023-02-17 until 2023-02-19)



3-4 weeks

Feb
2023



Howler 11 (2023-03-20 until 2023-03-21)



<1 week
(potentially 1-
2 days old)

14:44-14:54, ncap = 3
Using tools at anvil, threatening of
something off-camera by carrier
and other capuchins
ventral/dorsal, eyes closed

15:37, ncap = 2
Using tools
ventral, upside down
(head beneath tail of
capuchin)

2
0

2
1

Mar
2023

Fewer sightings
because fewer
cameras deployed at
same time

15:52-16:02, ncap = 1
Traveling and using tools
Clinging to arm of capuchin and
upside down ventral

Carrier:
Joker, Balthasar, Terry,
Mick, Zim, unclear