

**From:** Mike Cardwell  
**Sent:** Monday, October 27, 2014 10:51 AM  
**To:** Cardwell, Mike  
**Subject:** Rattlesnake update 22 October

Hello all,

Denise and I were out of town during the last two weeks of September and, although data collection resumed immediately upon our return, I have not yet caught up on computing daily movements. But rattlesnake activity has slowed considerably as the weather has cooled, which will allow me catch up soon.

Nonetheless, there is news! Female #39 and her babies had all vacated their refuge by 13 September. At least some of the babies at the refuge with females #41 and #43 began to shed by 16 September, putting their birth date at around 6 or 7 September. Staff began spotting baby rattlesnakes around the buildings on 18 September. Since #41 did not look post-partum as late as 15 September, at least some of them must have belonged to another female. Number 43? Probably but we cannot be sure, although DNA may answer that question later. My assumption is that we had two litters born in the same shelter a week or more apart, probably to 43 and then 41.

On 15 September, we found female #39 in the berry vines across San Lorenzo Way from the Nature Center property. This is only the second time we have found a rattlesnake from the preserve off the property; the first was male #37's journey through some residential yards several weeks ago. Female 39 remained off property until I left town on 19 September but was back in the preserve by the time I returned at the end of the month.

The late summer/fall courtship season has been an active one at EYNC. We found male #37 hanging around with females #41 and #43 during the week of 16 September and George Nyberg, the videographer working with me in recent weeks, captured video of #37 courting #43 on 19 September (see screenshot below from George's video). Courtship in rattlesnakes involves the male crawling on top of the female, jerking his head, rubbing her with his chin, and many short rapid tongue-flicks.



Then on 30 September, we found the radio signal from female #41 emanating from a hollow log dozens of meters from the birth site. Introducing the BurrowCam into the log, we saw a rattle with red-over-red paint (see below)...our missing telemetered male #36! So he is alive and well and his transmitter has simply failed prematurely. He courted #41 inside the log for several days, never giving us an opportunity to capture him. On 4 October, female #41 had moved on and #36 was gone, too. But just knowing that he had not met his demise in the jaws of a predator or under the tires of a car is great news. He will turn up again, either prowling around the Maidu Village (where he was first encountered) or courting another telemetered female.



But there is also some sad news: I found female #43 dead on 17 October. She had been only partly visible the evening before but apparently OK. The next morning, her head and neck were found protruding from the same refuge and there was some minor trauma to her exposed body. A predator would have eaten her and a person would have done more damage. My best guess is that she succumbed to some natural cause and was scavenged upon a bit by rodents, which is not uncommon. I think back to our #5 female in El Dorado County a few years ago, who produced litters three years in a row – a very unusual feat for a temperate-climate pitviper. Our #5 female was so skinny after her third annual brood that we did not think she would live through the winter. She did, but was in bad physical shape the following summer before being nailed by a raptor. We don't know the history of female #43 but she may have just been literally worn out by several consecutive years of reproduction.

Daily movement of the telemetered rattlesnakes has been much reduced over the past couple of weeks, with several animals not moving at all, and the 2014 rattlesnake season may be nearing its end.

Best wishes,

Mike