

SEARCHING FOR A RATTLESNAKE HIBERNACULUM AT CHECKERBOARD HILL, SASKATCHEWAN

Doug Adams

127 Avondale Road
Saskatoon, SK S7H 5C6
dougadams@sasktel.net

While working as a naturalist in Saskatchewan, I was aware of only three general areas in the province where a prairie rattlesnake (*Crotalus viridis*) was most likely to be found: Grasslands National Park; along the South Saskatchewan River as it crosses the Alberta/SK border, between Empress, AB and Estuary, SK; and the Checkerboard Hill area near Leader, SK. The latter location was the only one I had yet to visit, so I decided to spend the afternoon of 26 September 2022 on and around Checkerboard Hill looking for a rattlesnake hibernaculum (Figure 1). With a sunny, 24°C day in the forecast, I was hoping that any snake having returned to its hibernaculum by this time would be out and about and easy to find. I was also hoping that by this time of the year, a fair number of the snakes would be back, increasing my chances of finding at least one snake.

I was searching for a large crevasse, or hole, deep enough to allow snakes to disappear below ground for the winter. I was 90 minutes into my search when my “hibernaculum” radar started tingling. There, on the eastern slope of a low hill, was a large opening in the ground, the size of an abandoned badger hole (Figures 2 and 3).

I had not seen a single hole since arriving — not even a gopher hole — occupied or abandoned. Knowing what I was about to see, the absence of any rodent activity in the area made perfectly good sense.

I poked the pasture sage along the rim of the hole with the end of my tripod, which was serving double duty as my snake stick and camera support. Instantly, a thin, three- to four-week-old rattler, about 25 cm in length, which was hiding in the silver foliage, plunged into the deep hole and disappeared from sight.



FIGURE 1. View of South Saskatchewan River from Checkerboard Hill Lookout



FIGURE 2. Thicket at the base of the eastern slope of the hibernaculum hill. The clumps of pasture sage in between the camera and the thicket mark the locations of the entrances to the hibernaculum.

Its dramatic escape reminded me of a diver jumping off a tall cliff and plunging headfirst into the deep, dark ocean below. I had found my first rattlesnake. This young snake probably wasn't born alone — a female rattlesnake may have up to 20 live young at one time.

It was the rattling that caught my immediate attention, a sound that continued for 23 seconds — another snake, and it was close by. I had to establish its location before taking another step. This individual, with the ability to rattle its tail, was at least a year older than the first snake. I forced my eyes to search the ground inch by inch. And there it was. Snake number two, stretched to its full length of about 60 cm. It disappeared into a small, mouse-sized hole 2 m from the large hole that drew my attention to this particular location in the first place.



FIGURE 3. One of the entrances to the hibernaculum. Notice the bushy pasture sage from which the young snake plummeted into the deep hole that went straight down.



FIGURE 4. Rattlesnake number two, with two tail segments, disappearing down a well-hidden mouse-sized hole.



FIGURE 5. A closeup, using my cell phone, of the three- to-four-week-old snake on the move.

Seeing the snake retreat into such a small hole made the afternoon even more exciting. In Grasslands National Park, where I have seen rattlesnakes on several different occasions, the snakes use large holes, sizeable boulders or sagebrush as a means of escaping, not small mouse-sized holes.

I ventured to the top of the small hill and then slowly walked down another section of the eastern slope. Two more three- to four-week-old rattlesnakes quickly disappeared into two other abandoned badger holes.

I made my way back to the first hole, only to find a snake out in the open. I only managed to take two photos before it disappeared down another mouse-sized hole (Figure 4). Was this another snake or the same snake that had rattled its tail earlier? It was impossible for me to know.

I went back to the top of the hill to check on spots I may have missed the first time. As I came down from the top again, a young of the year snake was trying to make its way to the thicket, only metres away (Figure 5). I was able to videotape its movements before it disappeared into

CONSERVATION AT THE CORE:

KEY MOMENTS AT NATURE SASKATCHEWAN

Exhibit runs January - March 2024

**REGINA
PERFORMING
ARTS CENTRE**

Nature
SASKATCHEWAN

the thick vegetation. At this point in the afternoon, I had encountered at least five individuals of the Checkerboard Hill rattlesnake population.

The snake head count had not changed for about 30 minutes, so I decided to head back to the car. There was another low hill adjacent to the hibernaculum hill. I slowly walked to the crest of the hill where I was forced to stop. Four metres in front of me was the largest rattlesnake of the day, moving across the exact same path I was

intending to take. Its estimated 100 cm body was marked with regularly spaced, dark splotches extending along its entire length. I truly believe, and I'm not being anthropomorphic, that the snake seemed to be as surprised to see me as I was to see it.

The snake's slow and deliberate reaction seemed to indicate that it was not in a rush to find safety. I was able to get my tripod set up and take some photos while the snake slowly lifted its head off the ground and cautiously

turned around. Its slow retreat was captured in a series of photographs. Notice that the tail section of its body was kept relatively motionless while the head and anterior section moved slowly in the direction from which the snake had come (Figures 6-14). Once the snake's entire body was pointed in the same direction, it moved much more quickly (Figures 13 and 14). It disappeared into a thicket, having never made a sound the entire time. 🦋



FIGURE 6. First photograph, in the series, showing the largest snake. It's about to make an "about face" maneuver, snake-style.



FIGURE 7. Second in the series. Notice how the posterior section of its body, for the most part, remains in the same place during the series of photographs.



FIGURE 8. Third in the series.



FIGURE 9. Fourth in the series. Snake doubling back on itself while keeping its eyes on me.



FIGURE 10. Fifth in the series. Notice tail with seven segments.



FIGURE 11. Sixth in the series. Again, notice that the last section of its body has moved very little during the slow retreat.



FIGURE 12. Seventh in the series.



FIGURE 13. Eighth in the series. Entire body now pointing in the same direction. The seven tail segments are still visible.



FIGURE 14. Last in the series. Now moving with a lot more urgency.