

Crotalus

Alcott Smith has studied Vermont rattlesnakes for twenty-two years. On one of his first trips to a rattlesnake site, he found himself unexpectedly amidst a number of rattling rattlers, including one between his feet. He remained still, everyone settled down, and Alcott moved slowly away. He says he learned that day that if you behave like a rattlesnake yourself, they will leave you alone. How do rattlesnakes behave? Once, in snake country, Alcott felt something tapping his leg. He looked down and saw that he was standing on a rattlesnake. The snake, bumping his leg with the side of its head, appeared to be saying, "Ahem! If you don't mind."

I met my first rattlesnake a week ago. A circular black pool at the base of a hemlock tree, the snake was as still as death. I could detect no respiration, not the slightest twitch of a scale. His stone gray eyes, staring from beneath protruding brows, gave no sign that my presence was registered. This was a beast that relied on stillness for survival. With his dark scales banded with irregular paler gray, he could have been a shadow on the forest floor. I would have walked right past him without the beep of the transmitter.

The young herpetologist wielding the antenna was Kiley Briggs. He has the enviable task of keeping tabs on Vermont's rattlesnakes during the course of a two-year study conducted by the Vermont Department of Fish & Wildlife, the Nature Conservancy, and the Orianna Society. They hope to learn more about the status of the timber rattlesnake in Vermont using telemetry and pit tags to identify and follow the movements of individual snakes. The pit tag, inserted under the skin of every rattlesnake the researchers locate, reveals the snake's identification number when scanned. A small group of snakes also received surgically implanted transmitters.

While Kiley does most of the study legwork, he gets occasional help from a larger team, and on September 21 I was lucky enough to be among their number. We split into two groups. My friend Wilson and I joined Kiley. As we hiked, Kiley told tales of the snakes he'd met over the course of the study, a total of 72 individuals. Five snakes in the area we were to explore were equipped with transmitters. Kiley was especially eager to relocate "Hank," a snake he had taped a transmitter to the day before, an unusual yellow-phase rattlesnake, one of only three such snakes he has found. Morning cloud cover was not likely

to inspire the snakes to emerge from cover, and indeed, Hank had not emerged from beneath the rock where Kiley had released him the day before.

The next snake, coiled beneath the hemlock tree, remained utterly motionless though we milled about for ten minutes. A red eft clambered up the scaly sides and strolled across the rattlesnake's head, with no notion that terrain was animate. Not a scale twitched. A third signal led to a snake poised in foraging mode; his head, raised several inches, was as fixed in position as the dead branches that partially concealed it. Ambush predators, rattlesnakes can wait, perfectly immobile, for days near a scent-trail of their quarry awaiting the chance to feed.

Once the telemetry snakes were accounted for, we surveyed an area that had been managed to improve a rattlesnake travel corridor. Near it we located a large rattlesnake that was on the move. The snake coiled itself when Kiley scanned it, then gradually stretched out to its three and a half feet again and continued its leisurely travels.

While Kiley, Wilson, and I sought out the telemetry snakes, the other team searched another part of the ridge. In one of the known "birthing rock" sites they found a number of young snakes, perhaps just a couple of months old. Female rattlesnakes do not lay eggs like many snakes, but give birth to live young. This strategy allows them to carry their embryos from warm spot to warm spot to hasten their development. They accomplish this at traditional birthing rocks, ledges with good sun exposure and safe shelter. When the young are born the mother remains to provide protection during their first vulnerable days, leaving them once they have shed their skin.



The fear of snakes is pervasive in our species. I suspect that when the fear is a heart-hammering phobia it has travelled in the sufferers' genes since primal days in a world where snakes were a real and constant danger. In Africa, many thousands of people die from snakebites each year. In North America, In Vermont, there are no historical records of snakebite fatalities. Vermont humans, on the other had, have killed thousands of rattlesnakes. The population has been reduced to a couple of remnants, a total that is likely to number below several hundred individuals, so few that their long-term viability is in question. With a very low reproductive rate, the death of a single adult snake can have serious consequences in the population.

In the early days of the American republic, the rattlesnake was a revered symbol. During the French and Indian War, Ben Franklin designed and printed a political cartoon, a rattlesnake split into eight pieces, each representing one of the existing colonies, and beneath it read "Join or Die," for according to legend, a dismembered snake could be restored to life if the pieces were joined just before sunset. The rattlesnake then appeared as symbol during the growing conflict with the British, appearing in many places, and finally emerging as the defiant coiled snake above the warning "Don't Tread on Me." Liberty and unity were the qualities represented by the snake, the strength of joining together to resist oppression. Vermonters may recall that the state motto is Liberty and Unity. Perhaps our long-beleagured rattlesnakes can regain their former status, a source of pride

