

WILDLIFE IN CONNECTICUT

STATE ENDANGERED SPECIES



Timber Rattlesnake

Crotalus horridus

Background

The timber rattlesnake is one of only two venomous species found in Connecticut; the other is the northern copperhead. This beautifully patterned snake is extremely rare in the state and is listed as an endangered species. This is due to habitat loss, encroachment, poaching, and deliberate killings.

This snake was probably widespread in Connecticut during colonial times, as evidenced by the many land features named "rattlesnake" (i.e., Rattlesnake Mountain). In the past, some Connecticut towns had bounties on rattlesnakes, and many dens were repeatedly decimated. Once documented in over 20 towns in Connecticut, this snake is now limited to isolated populations in about 10 towns in the central and western portions of the state. Timber rattlesnake populations have declined, mainly because of human activity and persecution, which involves illegal pet trade, intentional killing, habitat degradation and fragmentation, and human development. Protection of this snakes den and summer foraging/breeding grounds, is a priority.

Range

The timber rattlesnake historically occurred in 31 states, but is now found in only 27 states. It ranges from southern New Hampshire, west through the Champlain Valley, south through the Appalachian and Blue Ridge Mountains, into northeastern Texas and north along the Mississippi River to Wisconsin. A majority of the states where this species occurs (although not all) offers some protection for populations.

Description

Rattlesnakes can usually be identified by the distinctive, segmented rattle at the tip of the tail. Other distinguishing characteristics include vertical eye pupils; large pits between the eyes and nostrils; a flattened, unmarked, triangular head about twice the size of the neck; undivided scales on the underside between the vent and the tip of the tail; and keeled scales (raised ridge in the center of each scale, making the skin appear rough).

The timber rattlesnake is a heavy-bodied snake that can grow lengths between 36 and 54 inches (average 40 inches). Timber rattlesnakes that occur in Connecticut usually have black or brown crossbands on a yellow, brown, or gray background. The crossbands, which may be V-shaped, break up toward the head to form a row of

dark spots down the back and on each side. Sometimes the snakes are darker, with a heavy speckling of black or very dark brown that hides much of the lighter pigment. Both sexes are similar, although the males have longer tails (not rattles).

Habitat and Diet

In Connecticut, timber rattlesnakes inhabit deciduous forests (often second growth) in rugged terrain with steep ledges, rock slides, and a nearby water supply. Dens are usually located in rocky ledges. These snakes are an upland species seldom found in elevations less than 500 feet above sea level.

The timber rattlesnake feeds primarily on mice, other small mammals (voles, shrews, chipmunks, squirrels), and occasionally birds. Despite the venom, some other snake species, like the black racer, prey on rattlesnakes.

Life History

Connecticut's rattlesnakes are active mid-April through October. During the colder seasons, they retreat to communal dens that may include other snake species. After emerging from dens in spring, rattlesnakes will venture away in search of food, basking sites, and shelter. Males are active at this time, searching for females that have released pheromones (chemical attractants). Mating occurs in spring or fall; the females give birth to an average of 9 young in August to late September (range 5-22 young). This snake is ovoviviparous. Eggs are retained and hatched internally, resulting in live birth. Young emerge singly from the female, encased in a transparent membrane, which is shed in a few minutes. The 8 to 10-inch long young are born with a single, tiny rattle segment (button), venom, and fangs; they receive no maternal care, but are ready to fend for themselves. Males are sexually mature at about 5 years of age, while females mature at 7 to 10 years of age. Females breed every third or fourth year. The average lifespan of rattlesnakes is 16-22 years; therefore, a female may only reproduce as few as 3-5 times in her lifetime. Rattlesnake populations take a long time to stabilize after losing a significant number of breeding individuals due to their low reproductive rate.

Interesting Facts

Rattlesnakes (also known as pit vipers) are ambush predators that patiently wait for prey to come within reach. They use a keen sense of smell and advanced, infrared sensory organs (known as pit organs) to find prey. The pit organs are located in a cavity on each side of the head between the nostril and the eye. They enable the snakes to seek out and strike accurately at objects warmer than their surroundings; this adaptation helps the snakes prey on nocturnal mammals. Pit vipers also have large, hollow fangs at the front of their mouth that are connected to the bones of the upper jaw and palate. The fangs are folded against the roof of the mouth when the mouth is closed and are automatically brought forward when the mouth is opened. These fangs inject venom into prey. The venom is hemolytic, meaning it causes the breakdown of red blood cells in the bitten animal and this eventually subdues the animal, allowing the snake to easily swallow it. The venom's purpose is for eating and digestion, not defense. Therefore, a defensive strike has less and sometimes no venom compared to a prey strike. From birth, rattlesnakes have a small, nubby rattle. This rattle is keratinous (like our fingernails) and a small segment is added each time the snake sheds its skin (ends can also crack and split off). When these "segments" are vibrated together, a rattle-like sound is created.

Conservation Concerns

Timber rattlesnake populations have declined, mainly because of human activity and persecution. Poaching, illegal pet trade, intentional killing, habitat degradation and fragmentation, and human development all threaten the species and their habitat. Unprovoked, undisturbed rattlesnakes will not intentionally attack people; they prefer to stay camouflaged and undetected. Protection of their specialized habitats, both winter den and summer foraging/breeding grounds, are a priority.

Snakes and People

If you encounter a timber rattlesnake, observe it from a distance, calmly and slowly back away from it, and allow the snake to go on its way. Quick movements often scare snakes and may provoke a defensive strike. You should not try to agitate the snake by getting too close or handling it. Rattlesnakes will usually let you know if you are getting too close. All snakes will retreat from humans if given a chance.

Do NOT attempt to kill any rattlesnakes under any circumstances as this is an illegal action. Timber rattlesnakes are protected by Connecticut's Endangered Species Act and persons who kill or collect this endangered snake could be faced with fines or legal action. If you see or know of any suspicious or neglectful activity directed towards timber rattlesnakes, you can report violators to the DEEP at the 24-hour, toll-free TIP hotline (800-842-HELP) or DEEP Dispatch at 860-424-3333.

Take the time to learn about, understand, and respect this vitally important reptile, and share your knowledge with others. Also learn to identify Connecticut snakes and how to differentiate between similar-looking species. Identification help can be found on the DEEP website (www.ct.gov/deep/yearofthesnake) or by calling the DEEP Wildlife Division at 860-424-3011.

