



# Rat Snake

## North Carolina Wildlife Profiles



Jodie Owen

### Rat Snake (*Pantherophis alleghaniensis*)

This large, nonvenomous snake derives its common name from its food preference—rodents. Also known by such local names as “black snake,” “pilot black snake,” and “chicken snake,” it is one of North Carolina’s most familiar and conspicuous reptiles, although it is sometimes confused with the smaller and faster-moving black racer (*Coluber constrictor*).

#### Description

The rat snake varies in color depending on location. In the mountains and Piedmont, rat snakes are glossy black as adults, with grayish mottled bellies and considerable white on the chin and throat. In the southeastern Coastal Plain, rat snakes are greenish with four dark longitudinal stripes. Individuals from most of the inner and northern Coastal Plain may be predominantly black, greenish or intermediate. Their relatively slender bodies are shaped like a loaf of bread in a cross section; the flat belly meets the sides of the body at an angle, unlike the more cylindrical bodies of most snakes. This body shape is believed to be an adaptation for climbing. The rat snake is an excellent climber. Regularly reaching 5 to 6 feet in length, the rat snake is one of North Carolina’s longest snakes, surpassed only by the eastern coachwhip (*Masticophis flagellum*).

A juvenile rat snake looks nothing like an adult, with a bold, blotched pattern on a gray or light brown background. The pattern fades as the snake ages.

#### History and Status

Although habitat destruction has eliminated some local populations, and human activities cause other fatalities, the rat snake is still common throughout North Carolina and is one of the state’s most frequently encountered snakes. It is not currently listed under any category of special protection.

#### Habitats & Habits

Rat snakes occur in nearly every type of terrestrial habitat in North Carolina. They are the most skilled climbers among all native North Carolina snakes, and often ascend trees, sometimes residing in cavities high above the ground. Unlike most other snakes, they may climb straight up the trunks of large trees without the benefit of branches. Rat snakes are powerful constrictors. They seize live, active prey in their mouths and quickly suffocate it in their coils. All snakes swallow their food whole, but rat snakes are better swallows than most and can easily ingest items much larger than their heads. They have been known to swallow (usually with fatal results) inedible objects that somehow acquire the scent of food, most notably the artificial wooden or porce-

One of North Carolina’s longest snakes, the rat snake is an excellent climber.



Rat snake from Coastal Plain

Jeff Hall



Juvenile rat snake

Jeff Hall

#### Range and Distribution

Rat snakes range over most of the eastern and central United States, from Vermont and southeastern Minnesota to southern Texas and the Florida Keys. They occur throughout North Carolina and are absent only from the highest elevations in the Mountains and from the most heavily urbanized areas.

#### Range Map



■ Rat Snake Range

# Rat Snake

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### Habitats & Habits

lain eggs that are sometimes placed in hens' nests to stimulate laying. They have also swallowed such unlikely items as golf balls and glass bottles.

Rat snakes are fairly slow moving. When approached in the open, an individual will often lie still and kink its body so that it somewhat resembles a crooked stick. If further bothered or touched, it usually attempts to crawl away, but if cornered or restrained, many will assume a defensive posture, rapidly vibrating their tail and striking at their tormentor. The temperament of individual rat snakes varies, however, and occasional specimens may not bite, even if handled roughly. Like most snakes, rat snakes often release a foul-smelling musk from glands at the base of their tails when they are frightened or angry—an effective deterrent against some predators.

Adult rat snakes are active primarily by day, but juveniles are often nocturnal. Both are frequently encountered crossing roads, and they are commonly found in and around barns or other buildings, or under scrap metal, boards or similar sheltering objects.

### Human Interactions

Because of their climbing abilities and shelter-seeking habits, rat snakes enter buildings more frequently than any other North Carolina snake. Large shed skins found inside buildings are usually from rat snakes. Most specimens will bite if handled roughly or otherwise restrained, but a bite from even a large specimen is no more severe than a briar scratch. The economic value of these snakes as agents of rodent control is well known to many farmers, and some intentionally place them in barns, corn cribs or even human dwellings for that purpose, regarding them as “good” snakes. They have also gained a “bad” reputation because of their habit of eating the eggs and young of chickens and other domestic fowl, and of entering bird boxes to feed on eggs and nestlings. Fortunately, many humans are at last beginning to understand what nature has always known—that snakes, birds and rodents are all “good,” and that their age-old interactions represent essential processes in healthy ecosystems.

### For More Information

- Behler, John L., and F. Wayne King. *The Audubon Society Field Guide to North American Reptiles and Amphibians* (New York, N.Y.: Alfred A. Knopf, 1985).
- Conant, Roger, and Joseph T. Collins. *A Field Guide to Reptiles and Amphibians of Eastern and Central North America* (Boston, Ma.: Houghton Mifflin Company, 1991).
- Martof, Bernard S., William M. Palmer, Joseph R. Bailey, and Julian R. Harrison III. *Amphibians and Reptiles of the Carolinas and Virginia* (Chapel Hill, N.C.: University of North Carolina Press, 1980).
- Palmer, William M., and Alvin L. Braswell. *Reptiles of North Carolina* (Chapel Hill, N.C.: University of North Carolina Press, 1995)

### Wild Facts

#### Classification

Class: Reptilia

Order: Squamata

#### Average Size

Length: 3 to 6 feet; record 8.5 feet

#### Food

Small mammals, birds and their eggs. Juveniles also eat lizards and frogs, especially treefrogs.

#### Breeding/Young

Most mating takes place in the spring. Females lay a single clutch of 5 to 30 white, leathery-shelled eggs in late spring or early summer, in a damp, sheltered spot such as a rotten log, tree cavity or sawdust pile. Eggs hatch in late summer or early fall with no parental care.

Hatchlings average 11 to 16 inches in length, slightly thicker than a pencil, and strongly patterned with dark brown or gray blotches on a gray or light brown background. Pattern darkens as the animal ages and is usually replaced by the adult coloration in a year or two.

#### Life Expectancy

Has lived 23 years in captivity. Wild specimens are unlikely to live that long; most probably do not survive until adulthood.



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#### Credits

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