

Legless reptiles

with long flexible bodies, snakes are unique in appearance and easily recognized by everyone. Unfortunately, many people are afraid of snakes. But snakes are fascinating and beautiful creatures. Their ability to move quickly and quietly across land and water by undulating their scale-covered bodies is impressive to watch. Rather than moveable eyelids, snakes have clear scales covering their eyes, which means their eyes are always open. Some snake species have smooth scales, while others have a ridge on each scale that gives it a file-like texture.

To help locate food, snakes repeatedly flick out their narrow forked tongues to bring odors to a special sense organ in their mouths.

Snakes are carnivores, eating a variety of items, including worms, insects, frogs, salamanders, fish, small birds and mammals, and even other snakes. Prey is swallowed whole. Many people value snakes for their ability to kill rodent and insect pests. Although a few snakes are venomous, most snakes are completely harmless to humans.

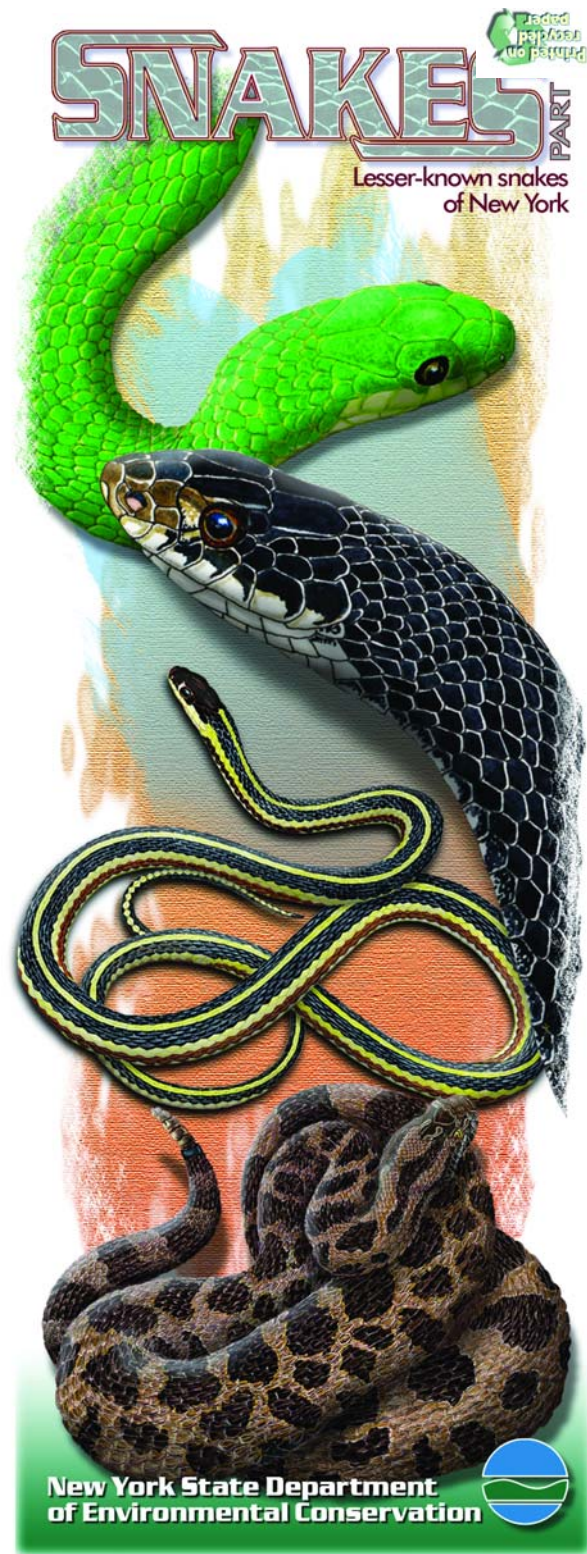
Most of the snakes described here are seldom encountered—some because they are rare, but most because they are very secretive, usually hiding under rocks, logs or vegetation. For information on the rest of New York's 17 species of snakes, see the August 2001 issue of *Conservationist*.

Text by Alvin Breisch and Richard C. Bothner,

Maps by John W. Ozard (based on NY Amphibian & Reptile Atlas Project)

Artwork by Jean Gawalt, Design by Frank Herec

This project was funded in part by Return A Gift To Wildlife tax check-off, U.S. Fish & Wildlife Service and the NYS Biodiversity Research Institute.



New York State Department
of Environmental Conservation

Massasauga



(Endangered-Venomous)

A medium-sized rattlesnake, the **massasauga** is one of three venomous snakes found in New York State. It can be identified by its gray to light-brown back with a center row of dark brown to black blotches, and three rows of smaller dark blotches along each side. The dorsal scales are keeled, and like all rattlesnakes, there is a rattle at the tip of the tail. Massasaugas overwinter in wetlands, but may move to old fields and woodland edges during the summer where they prey on mice, shrews and voles. Listed as endangered, there are only two known populations of massasaugas in New York State.

Female massasaugas give birth to 5 to 14 live young. **Adult length: 18 to 30 inches.**

Smooth green



Unique in appearance, the **smooth green snake** is a small slender snake with smooth,

bright green scales and a white or pale yellow belly. The green color is a mixture of blue and yellow pigments. Soon after death the yellow pigment degrades leaving a blue body which can confuse an uninformed observer. The smooth green snake primarily occurs in grassy areas that border forests, lakes, streams and wetlands where it will climb into low shrubs to bask and feed. Crickets, grasshoppers and hairless caterpillars make up the bulk of this snake's diet. Female green snakes lay 4 to 6 eggs.

Adult length: 10 to 20 inches.

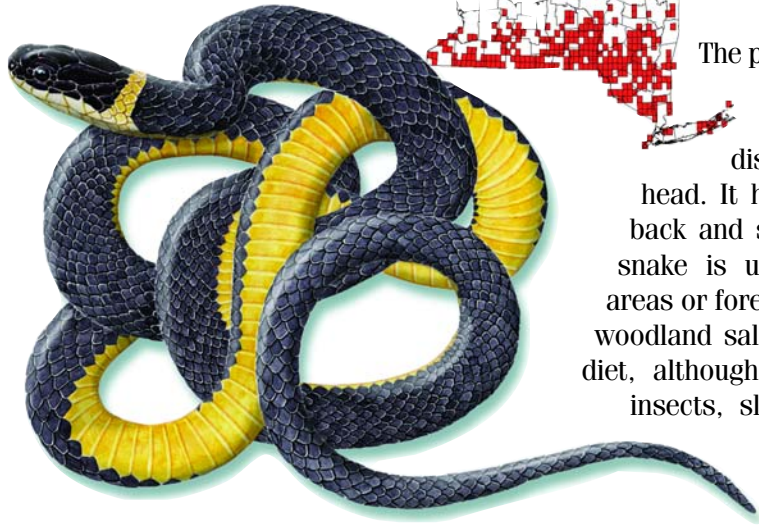
Eastern racer



The **eastern** or **black racer** is a large, slender, fast-moving snake with smooth glossy scales, a gray belly, and white on the chin and throat. Young racers are gray with large brownish blotches that disappear with age. Racers are typically found in open woodlands, shrubby grasslands, old fields and along the edges of wetlands. They primarily eat insects, frogs, nestling birds and eggs, other snakes, and many species of small mammals. Although not good climbers, racers may be seen basking in low bushes. Female racers lay 5 to 40 eggs that hatch into 12-inch long young.

Adult length: 3 to 6 feet.

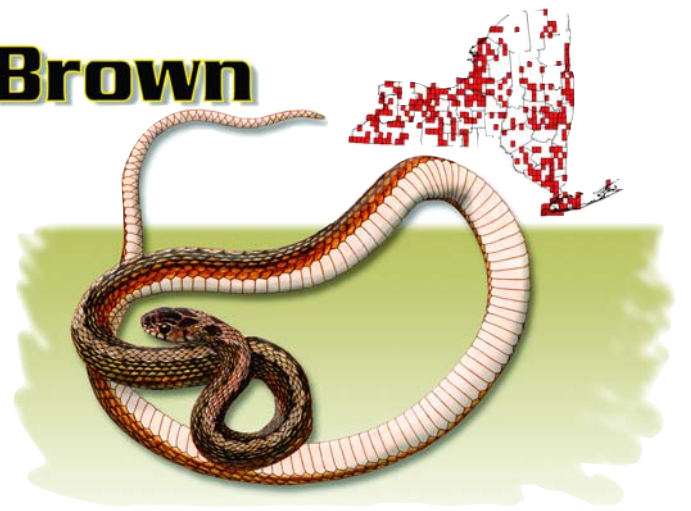
Ring-necked



The pencil-thin **ring-necked snake** is easily identified by its bright yellow belly and distinct yellow collar behind its head. It has a bluish-black to slate-gray back and smooth scales. The ring-necked snake is usually found in rocky wooded areas or forest edges. Earthworms and small woodland salamanders form the bulk of its diet, although it will also eat small frogs, insects, slugs, and other small snakes. The female lays 2 to 10 eggs.

Adult length: 10 to 16 inches.

Brown



A small snake with keeled scales, the **brown** or **DeKay's snake** is recognized by its grayish brown to drab brown back with two longitudinal rows of small dark spots. The area between the rows of spots is lighter, giving the appearance of a broad stripe down the center of the back. The snake's belly is cream colored to slightly reddish, and there may be small dark spots along the edges of the belly scales. Brown snakes are found under rocks, logs and boards in both terrestrial and wetland habitats. They prefer to eat earthworms, slugs and snails. Female brown snakes give birth to 3 to 20 live young.

Adult length: 9 to 18 inches.

Eastern worm

(Special Concern)

Resembling

an earthworm, the

eastern worm snake has a cylindrical body covered with smooth glossy scales. Its back is light brown to black, and its belly is pink to red. The worm snake has a small, narrow, pointed head with small eyes, adaptations for its subterranean life. There is a blunt spine on the end of its tail, which the snake uses to push itself forward. A species of special concern, worm snakes are only found in a few locations on Long Island and in eastern New York. These snakes prefer moist forests, damp ravines and sand plain pitch pine forests where they live under leaf litter, feeding on earthworms and insects. Female worm snakes lay 1 to 8 eggs. Newly hatched young are two-toned.

Adult length: 8 to 14 inches.

Red-bellied



The smallest of New York's snakes, a newborn **red-bellied snake** often measures less than three inches long and is only the diameter of a pencil lead.

Ranging in color from brown to reddish brown, or tan to gray, the snake gets its name from its distinct bright red belly. Other distinguishing marks include four dark stripes and a light band down the middle of the back, three spots just behind the head and keeled scales. Red-bellied snakes occur in deciduous or coniferous woodlands, upland grasslands, sphagnum bogs and other wetlands. Newborns eat ant eggs and small invertebrates; older snakes feed primarily on worms, insects, slugs and snails.

Adult length: 7 to 14 inches.

Queen



(Endangered)

Perhaps the state's rarest snake, the **queen snake** is limited to a few locations in western New York. Slender-bodied with keeled scales, it is dark chocolate brown to tan on its back, with a yellow stripe on each side. Four dark brown to black longitudinal stripes run the length of its yellow to red belly. Although it will eat aquatic insects, small fish, tadpoles and frogs, the queen snake feeds almost exclusively on crayfish and so is usually found in or near streams. Queen snakes can often be seen basking during the hottest part of the day on tree and shrub branches that overhang the water. Female queen snakes give birth to 10 to 14 live young.

Adult length: 15 to 36 inches.

Short-headed garter

A smaller cousin of the common garter snake, the **short-headed garter snake** can be identified by its narrow head that is scarcely wider than its neck. Often chocolate

brown in color, its body ranges from dark olive to almost black. The dorsal scales are keeled and there are three yellow to tan longitudinal stripes present—one in the center of the back, and one along each side. Unlike its cousin, however, the short-headed garter snake lacks any dark spots between the stripes. This species avoids deep woodlands, preferring early succession woodlots and open meadows. Adults feed primarily on earthworms and an occasional small amphibian. Garter snakes give birth to 7 to 11 live young.

Adult length: 14 to 20 inches.

Ribbon snakes are slender with extremely long tails and keeled scales. They are sometimes mistaken for garter snakes, but ribbon snakes display a much sharper contrast between their dark bodies and the bright yellow stripes located along their sides and down their backs. One of New York's most aquatic snake species, ribbon snakes almost always occur in or near water. They primarily eat frogs, but also eat salamanders, small fish, leeches and other small invertebrates. Female ribbon snakes typically give birth to 10 to 20 live young.

Adult length: 18 to 30 inches.

Eastern ribbon

