

Snakes of Rhode Island

Snakes are fascinating creatures but have long been misunderstood due to myth and misinformation. They are a natural and important part of healthy ecosystems and if left alone, pose no threat to humans. Fear comes from the unknown, by taking time to learn about Rhode Island's native snakes and their habits, this apprehension can be overcome.

VENEMOUS SNAKES

There are no venomous snakes in Rhode Island. Timber rattlesnakes (*Crotalus horridus*) were once found in Rhode Island but disappeared nearly fifty years ago. While rattlesnake populations still exist in surrounding states, they do not occur close to the border. Copperheads (*Agkistrodon contortrix*) are also found in southern New England, but have never been documented in Rhode Island.

Cottonmouths (*Agkistrodon piscivorus*), also called "water moccasins" are a southern species, occurring no farther north than Virginia, and are unable to survive in northern climates. They are often confused with our native, non-venomous, Northern watersnake (*Nerodia sipedon sipedon*), which can appear to have a "triangle-shaped" head, similar to cottonmouths.

It is important to note that vertical pupils in snakes, even venomous snakes, can appear to be round when dilated. These characteristics, along with the "triangle-shaped" head are all imperfect indicators of venomous species.



Vertical bars are present along the "lips" of non-venomous water snakes but are lacking in venomous cottonmouths.

THREATS TO SNAKES

Habitat Loss and Fragmentation: The biggest threat to snakes, similar to many other animals, is habitat loss and fragmentation. While Rhode Island snakes live in a variety of habitats, it is essential that these habitats are connected to allow animals to safely access the resources they require. Fragmentation increases road mortalities, killing snakes as they attempt to cross the road to reach isolated sources of food and shelter.

Disease: Snake Fungal Disease (SFD) is a newly emerging disease that causes dermatitis in snakes and can lead to death in many snake species.

Human Conflict: Although snakes are incredibly beneficial in pest control, many people fear snakes and would rather kill them than learn to live with them. **It is illegal to kill snakes and attempting to do so increases the chance of being bitten.**

I SAW A SNAKE! WHAT SHOULD I DO?

Leave the snake alone.

Snakes are ectothermic, or cold blooded. They need to bask in the sunlight in order to regulate their body temperature. Once they are warm enough, they will leave of their own accord.

If it is not possible to leave the snake alone:

- **Outside:** Gently spray the snake with a spray bottle, or gently prod the snake with a broom.
- **Inside:** Use a broom to sweep the snake into a garbage bin or box with a lid, then relocate it outside on the same property.

Keep in mind...

If a snake feels cornered or threatened, it may act aggressively. If you are not at all comfortable around snakes, to the point where you cannot perform these types of removal tasks, call a pest removal professional.

MAKE YOUR YARD SNAKE FRIENDLY!

Snakes are great allies in rodent and pest control. These docile reptiles can help keep your garden green by consuming small mammals and insects that feed on your plants.

- **Create shelter:** Leave brush piles on the edges of woodlands or yards.
- **Be vigilant when mowing your yard:** Take a walk before you start the mower.
- **Don't use pesticides and chemicals:** These are harmful to snakes not only to snakes, but also many other beneficial animals.

DID YOU KNOW?

- There are NO VENEMOUS snakes that occur in Rhode Island.
- Some cultures view snakes as symbols of renewal and fertility.
- Hognose snakes will “play dead” to avoid being eaten by predators.
- Rat snakes can climb trees, even without branches.
- Many non-venomous snakes will rattle their tails when threatened.
- Milksnakes got their name from the myth that they feed on cows' milk. They actually prefer small rodents.
- Most snakes will produce a foul smelling excretion, called “musk” when threatened.

TIPS ON SNAKE-PROOFING YOUR HOME

Snakes are beneficial in the control of pests and generally do not pose a threat to humans, when left alone. However, not everyone finds them welcome visitors inside homes or around yards. There are a number of effective and humane ways to exclude snakes from basements and to make your yard less inviting to snakes.

Snakes can enter structures through holes that are only 1/4 inch: Check for and seal up entry points such as corners of doors and windows, especially in window wells. Plumbing and electrical entrances are often problem areas, as well. Snakes do not chew through wood or screen but may use openings that were created by rodents.

Simply removing a snake will only make space for a new snake to move in: Entry points must be sealed to ensure a permanent solution.

Snakes like long grass and brush piles: Keep lawns well-trimmed. Snakes prefer longer grass, as it provides cover from predators.

Clear away brush piles and remove debris, such as stacked ply-wood: Snakes use these as hiding places, and see a yard with brush piles and debris as a welcome place. To deter snakes, simply don't offer shelter.

Rodents=snakes: Many snakes feed on rodents. Trapping and excluding mice and other rodents will make your home less appealing to snakes. Be sure to use snap traps instead of poisons. Rodents that ingest poison do not die immediately, and can be eaten by hawks, owls, foxes, and other predators. These predators can die from secondary poisoning. Setting out rodent poisons is not a humane solution, and can end up unintentionally harming other wildlife.

Killing snakes is illegal and not a humane or permanent solution: Poisons pose a risk to human occupants, even years after application and repellants are not proven to be effective. Naphthalene (moth balls) can also be unsafe for homeowners and is not recommended. Glue traps are dangerous to non-targeted wildlife and require a much closer encounter than most people are comfortable with.

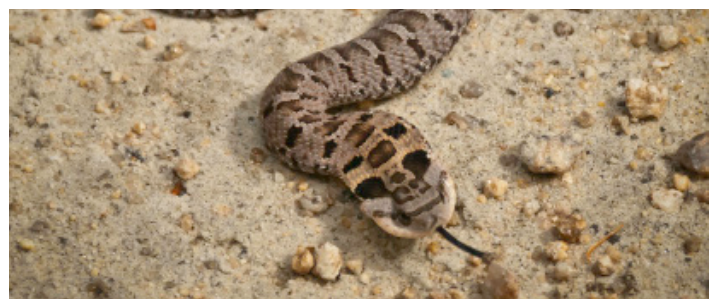
NEED MORE HELP?

[Click here to find a licensed Nuisance Wildlife Control Specialist near you.](#)

For additional resources visit:
www.wildlifehelp.org

BE A COMMUNITY SCIENTIST!

Amphibian and reptile sightings can be reported using the RI Division of Fish and Wildlife HerpObserver App. For more information [click here](#).



Mike Stultz

Snake Species Profiles

EASTERN RATSNAKE (*Pantherophis alleghaniensis*)

Habitat: Woodlands, fields or river bottoms. Often reside in hollow trees, outbuildings and old barns. Only found in the extreme southwestern portion of Rhode Island, primarily within the towns of Hopkinton and Exeter.

Diet: Eggs, small mammals and birds which they subdue by constriction.

Behavior: Slow-moving and not particularly aggressive, but can bite if threatened. Able to climb trees.

IDENTIFICATION

Appearance: Muscular with keeled scales (rough in texture). Body often appears “kinked.” Juvenile: Light gray blotched with darker brown or grey rectangles along back. Adult: Black above with white chin and black and white checkered belly. Sometimes retaining faded juvenile patterning.

Average Length: 42-72 in, max: 8 ft

Similar species: Northern black racer has smooth scales and lacks belly pattern.

EASTERN GARTERSNAKE (*Thamnophis sirtalis sirtalis*)

Habitat: Wetlands, forests, rocky hillsides and residential areas. Often spotted basking in the sun on rocks, hedges, and concrete surfaces.

Diet: Fish, tadpoles, amphibians and earthworms.

Behavior: Although these animals are not overly aggressive, gartersnake saliva seems to be toxic to the small animals upon which they prey, and some people may develop a rash if bitten. In spring and autumn, garter snakes often find their way into basements.

IDENTIFICATION

Appearance: Black, brown or dark green with a narrow tan or yellow stripe down the middle of the back. Sometimes appearing to have a bold, checkered pattern. Yellow/tan belly. Highly variable. Thick bodied with keeled scales (rough in texture).

Average Length: 18-26 in, max: 48 in

Similar species: Eastern ribbonsnakes have un-barred lips and white in front of eyes.

EASTERN HOGNOSE SNAKE (*Heterodon platirhinos*)

Habitat: Sandy soil; sandy woodland and grasslands. More common in interior areas of Rhode Island than along the coast.

Diet: Mostly toads and some small animals.

Behavior: One of Rhode Island’s most docile snake species. However, when threatened, they can perform an impressive display by puffing up, flattening their head, and hissing loudly. As a last resort, they will turn upside-down and play dead, sometimes defecating and vomiting up their last meal as a means of defense.

IDENTIFICATION

Appearance: Patterning is highly variable, from a light yellowish background with dark patterning, to a completely dark coloration. Characteristic upturned snout. Very thick bodied with keeled scales (rough in texture). Often flatten head to appear cobra-like. Coiled tail.

Average Length: 20-33 in, max: 45 in

Similar species: Eastern milksnakes and northern watersnakes both lack upturned snouts.

Christopher Raithe

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EASTERN WORMSNAKE (*Carphophis amoenus amoenus*)

Habitat: Inhabit moist woodland habitats with sandy substrates. Very rarely seen in the open, but can be found beneath stones, boards or inside rotting logs.

Diet: Earthworms and soft-bodied insects.

Behavior: Wormsnakes are fossorial (live underground). They have tiny mouths and rarely bite, but they can release a foul-smelling musk when threatened.

IDENTIFICATION

Appearance: Plain brown back with light pink belly. Worm-like. Smooth, almost shiny scales and rounded snout.

Average Length: 7-11 in, max: 13 in

Similar species: Dekay's brownsnake has patterned back. Northern red-bellied snake has bright red belly and keeled scales (rough in texture).



NORTHERN BLACK RACER (*Coluber constrictor constrictor*)

Habitat: Dry, terrestrial habitats. Grassy fields, agricultural land or adjacent open forests.

Diet: Small mammals, insects, birds, eggs and amphibians.

Behavior: Diurnal and fast moving. Racers typically flee from danger but may rear up and strike if cornered. When agitated, they often vibrate their tail rapidly to create a buzzing noise.

IDENTIFICATION

Appearance: Adult: Black or dark gray back with dark belly and white chin. Juvenile: Light grey patterned with reddish-brown or dark grey on back. Belly light with black dots. Smooth scales, long body and "fierce" demeanor.

Average Length: 36-60 in, max: 73 in

Similar species: Eastern ratsnake's white extends beyond chin to belly. Milksnakes are similar to juveniles but are a brighter red on whiter background.



NORTHERN WATERSNAKE (*Nerodia sipedon sipedon*)

Habitat: Usually found in and around wetlands, lakes and streams.

Diet: Fish, frogs, tadpoles and salamanders, although small mammals, birds and insects are also eaten.

Behavior: Very capable swimmers. Move quickly on and beneath the surface of the water. Often seen around the edges of water bodies, searching for prey or basking. Watersnakes will attempt to retreat quickly to water when confronted, but if cornered, they will not hesitate to bite. Bites from this species sometimes bleed profusely but are not dangerous. **Northern watersnakes will flatten their heads to imitate venomous cottonmouths.*

IDENTIFICATION

Appearance: Adult: Highly variable. Juvenile pattern typically faded or completely gone. Black or grey above. Belly marked with black and red half-moons. Vertical black lines on lips. Juvenile: Grey, tan or light brown patterned with reddish-brown or dark grey bands or blotches on back. Belly and lips same as adult. Keeled scales (rough in texture), heavy bodied. Large, "googly" eyes.

Average Length: 24-42 in, max: 55 in

Similar species: Milksnakes are similar to juveniles but are a brighter red on whiter background. Bars on lips set apart northern watersnakes from eastern ratsnakes and northern racers



NORTHERN RED-BELLIED SNAKE (*Storeria occipitomaculata occipitomaculata*)

Habitat: Mostly woodlands, occasionally found near bogs or marshes. More common in rural western Rhode Island.

Diet: Almost exclusively slugs.

Behavior: Secretive. Usually hide under rocks, logs, or in rotten stumps. Very rarely bite but will exhibit a “lip-curling” behavior when threatened.

IDENTIFICATION

Appearance: Highly variable in color, brown, gray, or orange on back, often sporting 3 cream colored dots on neck. Belly bright red or orange. Keeled scales (rough in texture). Small head and large eyes.

Average Length: 8-10 in, max: 16 in

Similar species: Dekay’s brownsnake has a paler belly. Eastern worm snake has smooth scales. Northern Ring-necked snake has solid light cream ring and smooth scales.



NORTHERN RING-NECKED SNAKE (*Diadophis punctatus edwardsii*)

Habitat: Moist woodlands. Found on ledges, under piles of debris. Often make their way into basements of older homes.

Diet: Salamanders, earthworms and small frogs.

Behavior: Generally nocturnal and spend most of their time underground or beneath leaf litter. Active in the daytime during rainstorms. Docile and rarely bite, but can release a foul-smelling musk when handled.

IDENTIFICATION

Appearance: Black or blueish grey back with light colored collar around neck. Belly pale yellow to orange. Smooth scales appear satiny. Small eyes and flat almost squared snout.

Average Length: 10-15 in, max: 25 in

Similar species: Eastern wormsnake lacks collar around neck. Northern red-bellied snake has keeled scales (rough in texture).



DEKAY'S BROWN SNAKE (*Storeria dekayi dekayi*)

Habitat: Most commonly encountered in developed or residential areas. Typically found in groups under debris.

Diet: Earthworms, slugs and salamanders

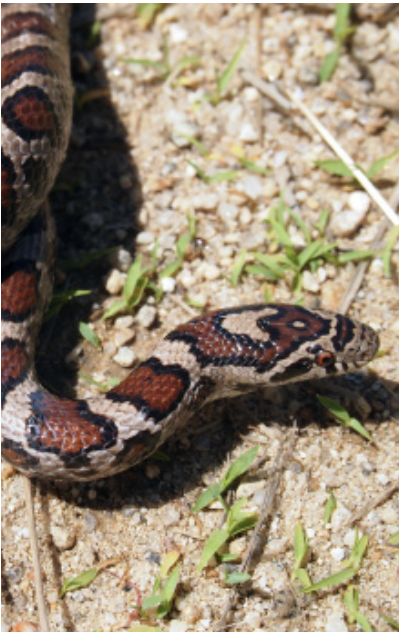
Behavior: Spend most of their time underground and come out mostly during the night. Very rarely bite, but will release musk if threatened.

IDENTIFICATION

Appearance: Light brown with two rows of darker brown spots down length of back. Belly tan or pale pink. Keeled scales (rough in texture). Small body and large eyes.

Average Length: 9-13 in, max: 20 in

Similar species: Northern red-bellied snake has distinct red belly. Eastern wormsnake lacks pattern on back.



EASTERN MILK SNAKE (*Lampropeltis triangulum triangulum*)

Habitat: Barns, houses, stone walls and other man-made structures. Woodlands, fields, and the outskirts of wetland areas.

Diet: Mostly small rodents, sometimes birds, eggs and other snakes. They subdue prey using constriction.

Behavior: Primarily nocturnal. If threatened or cornered, they will coil in an S-shaped striking position and often vibrate their tails rapidly to make a whirring noise.

IDENTIFICATION

Appearance: White, gray or cream colored body covered with red or reddish-brown blotches with dark outlines. Belly is checkered black and white. Small white triangle on top of head. Long and slender bodied. Scales are smooth and appear glossy

Average Length: 24-36 in, max: 52 in

Similar species: Northern watersnakes have keeled scales. Juvenile eastern ratsnakes and black racers lack bright coloration.



EASTERN RIBBONSNAKE (*Thamnophis sauritis sauritis*)

Habitat: Typically found near wetlands, streams and ponds.

Diet: Mostly amphibians and their larvae, sometimes small fish.

Behavior: They very rarely bite, although they will secrete a foul smelling musk if handled. Most active in the spring, which is also when they mate, they may become dormant if rainfall is not abundant enough to provide favorable habitat.

IDENTIFICATION

Appearance: Dark green, brown or black with three striking yellow stripes along the back. Belly is pale yellow or white. Long and very slender bodied. Scales keeled (rough in texture).

Average Length: 18-26 in, max: 38 in

Similar species: Eastern gartersnakes have bars on lip and lack white in front of eyes.



SMOOTH GREEN SNAKE (*Opheodrys vernalis*)

Habitat: Grassy meadows, open woodlands or even weedy vacant lots. In Rhode Island, they are found nearly throughout, but are more common in coastal regions.

Diet: Primarily insects, occasionally snails and salamanders.

Behavior: Active during the day, not aggressive. They are most often seen basking on rocks or hiding in low bushes.

IDENTIFICATION

Appearance: Bright, solid lime-green back with a white or yellow belly. Long and slender bodied. Scales are smooth.

Average Length: 12-20 in, max: 26 in

Similar species: None in Rhode Island