

- Wash the bite with soap and water.
- Immobilize the bitten area and keep it lower than your heart.

### What not to do if bitten by a venomous snake

- Do not attempt to draw venom from a wound by sucking. Attempts to draw venom from a wound should only be done with a snake-bite venom-extractor kit.
- Do not cut the wound or apply ice to the bite.
- Do not apply a tight bandage. If medical assistance will take longer than 30 minutes to reach you, wrap a bandage 2-4 inches above the wound to attempt to slow the venom transfer through the bloodstream. Be careful not to tie the bandage too tightly, constricting blood flow. You should be able to slip a finger beneath the tied bandage.

### Requesting assistance with a venomous snake

The Division of Fish and Wildlife's Endangered and Nongame Species Program (ENSP) has developed the Venomous Snake Response Team (VSRT) to respond to human/venomous snake interactions and increase an awareness of our responsibilities for living in venomous snake country. The VSRT is a group of trained volunteers that includes animal control officers, park rangers, local and state police, and other select individuals that are on-call to remove venomous snakes from private lands upon request. They also educate landowners about snakes and instruct them on how to live safely in snake country. Snakes are removed from harms way and returned to nearby areas away from human habitation.

Landowners that encounter timber rattlesnakes or northern copperheads on their property and wish to have them removed should contact ENSP immediately.

Monday–Friday (8:30 am–4:30 pm)

Northern Region Office: 908-735-8975, 735-9281 or 735-2931

Southern Region Office: 609-628-2103

After hours, weekends, or when unable to contact a biologist at one of the telephone numbers above:

1-877-WARN-DEP

### Do's and don'ts when living or recreating in venomous snake country

Always keep your dog on a leash when in state parks and forests. This is a state law created to protect your pet, NJ's native wildlife and other park visitors. Dogs are active, playful and are instinctive hunters. Dogs may kill ground nesting birds, small mammals, reptiles, and amphibians by running off-trail. They may chase black bears into other hikers or back to you or they may encounter a venomous snake, potentially risking a snake bite.

Stay on the trails when hiking where it is easier to see wildlife in your path. If you live in venomous snake country remain on paved paths, wear leather shoes and use a flashlight at night to scan the walkway in front of you and to the sides. Never walk barefoot!

Do not reach into your shrubs, wood piles or rock walls without first thoroughly looking for the presence of snakes using a stick or broom handle to push vegetation aside.

# SNAKES OF NEW JERSEY



## Introduction

Snakes have been around for over 100,000,000 years and despite the odds, historically, 23 species of snakes existed in New Jersey. However, most herpetologists believe the non-venomous queen snake is now extirpated (locally extinct) in New Jersey. 22 species of snakes can still be found in the most densely populated state in the country. Two of our snake species are venomous, the timber rattlesnake and the northern copperhead, and the remaining twenty species are non-venomous.

New Jersey's snake populations have declined during the past 50 years for a number of reasons. Habitat destruction in the form of urbanization has been a primary cause, but pollution, changing land use, commercial collecting and human persecution have all contributed to the reduction of our snake populations. The copperhead is a state species of special concern and the rattlesnake is listed as endangered. In fact, the timber rattlesnake is listed as endangered or threatened in all but one northeastern state. Aside from the listed venomous snakes, additionally listed state species include the threatened pine snake and the state endangered corn snake.

All snakes perform an integral ecological role in their control of rodents and insects and are food to other animals such as raccoons, opossums, black bears, coyotes, bobcats, other snakes, hawks and owls. Even mice will nibble on snakes when they are inactive during hibernation.

Snakes are not slimy or wet as some people think, but are actually dry to the touch. Most have a small head compared with the rest of the body, but the jaws are loosely hinged so that the mouth can be extended to swallow objects several times larger than the snake's own head. The non-venomous snakes in New Jersey have a single row of small, even-length teeth which point slightly backward to help hold prey. The venomous rattlesnake and copperhead have two large, hinged, hollow fangs, one on each side of the upper jaw, which may inject venom when they strike. The venom is used to immobilize and kill small prey, mostly rodents. Both of the venomous snakes are members of the pit viper family, which have (an) elliptical pupils and the characteristic heat-sensing pit that is located between the eye and the nostril.

The venomous snakes of New Jersey are feared the most due to misinformation and misunderstanding. Each year many non-venomous snakes are misidentified as venomous snakes and are killed needlessly, but all snakes in New Jersey are protected under the NJ Endangered and Nongame Species Conservation Act (N.J.S.A. 23:2A-1-13), which makes it illegal for anyone to kill, collect, or harass our native snake species. Often, the non-venomous northern water snake is misidentified as the water moccasin (cottonmouth) which does *not* occur in New Jersey.

It is extremely rare for the average citizen to encounter a rattlesnake or copperhead due to their elusive nature, preference for interior forest habitat, small, localized populations, and sensitivity to human disturbance. The chance of being bitten by a venomous snake in New Jersey is far less than being struck by lightning. Those who have been bitten in the last half-century, in most cases have attempted to handle the snake, or more rarely, were walking through venomous snake territory in the dark with inappropriate footwear. However, while still rare, increased development and encroachment into venomous snake territory has increased the likelihood of human-venomous snake interactions.

## Dispelling Myths

From historical times to present day Hollywood movies, snakes have been portrayed as evil, aggressive, and sneaky creatures.

Throughout history, no other group of animals has undergone and survived such mass disdain. Today, in spite of the overwhelming common sense and the biological facts that attest to the snake's value to our environment, a good portion of the general public still looks on the snake as something to be feared, destroyed, or at best relegated to glassed-in cages at zoos.

- All snakes can swim, but only the northern water snake and queen snake rely heavily on waterbodies. Northern water snakes are frequently found swimming in waterways and basking on embankments, and are often mistaken for water moccasins, which do not occur in New Jersey.
- Snakes do not chase people. Male snakes *may* defend their mates during the breeding season by moving towards a predator, including people, while the female escapes by moving in the opposite direction. Otherwise, snakes will try to move away from people.
- Snakes do not prefer to be around people. To snakes, people are predators and should be avoided.
- All snakes *can* bite if handled . . . just as all animals *can* bite if handled. Animals bite to protect themselves when they feel threatened.
- Rattlesnakes do not travel in pairs. Although rattlesnakes den communally and may share early-season basking areas, they spend much of their active season alone.
- The Division of Fish and Wildlife did *not* re-establish rattlesnake populations in New Jersey. Timber rattlesnake populations have been steadily declining due to wanton killing, illegal collection, and more recently, habitat destruction and encroachment. Rattlesnakes, copperheads, and many of our non-venomous snakes can not be relocated as they have a strong affinity to their home ranges and most likely will not survive in unfamiliar territory.

## Controlling snake presence

- Keep your lawn mowed short to deter snake presence and so you can view potential snake activity at a glance.
- Keep your property free of mulch and debris piles. Mulch is composting material that generates heat as it decomposes, creating a warm, inviting basking area for some snakes. Debris piles attract rodents which attract snakes.
- Remove any food that attracts rodents.
- Some snakes, such as garter snakes and milk snakes, can often be found near homes and in basements. During the summer months, homeowners should make certain that all cracks and crevices in the house and outbuilding foundations are sealed.
- Although not scientifically proven, some people believe the use of aromatic cedar mulch annually deters snake presence on their properties.

## Keeping snakes in captivity

- It is illegal for anyone in New Jersey to keep any venomous snake in captivity unless it is at an educational or rehabilitative facility or zoo. These facilities must have the appropriate permit(s).
- It is illegal to capture any snake, or other animal, from the wild and keep it as a pet in New Jersey.
- All owners of captive snakes require permits. The permits can be obtained through the Division of Fish and Wildlife's Exotic and Nongame Permits Office ([www.njfishandwildlife.com](http://www.njfishandwildlife.com)).

## Snakes: Descriptions, Pictures and Range Maps

### 1. Northern water snake (*Nerodia sipedon sipedon*):



22"-53"L. This is one of the most common snakes in NJ, inhabiting freshwater streams, ponds, lakes, swamps, marshes, and bogs throughout the state. Commonly observed basking communally on logs and rocks along stream banks, this snake is often misidentified as NJ's northern copperhead. The

ground color is brown or gray with darker brown, reddish, or black bands on the neck and back. The darker pattern color forms wider bands along the back and slightly narrower bands on the sides, resembling a "reverse" hour-glass pattern. Older water snakes are much darker, usually brown or black with faint remnants of pattern while juveniles' patterns are typically more vivid. They have keeled scales. They give birth to live young in late summer. The water snake often exhibits a highly defensive disposition and can inflict a painful, non-venomous bite if handled.



### 2. Eastern milk snake (*Lampropeltis triangulum triangulum*):



24"-52"L. The milk snake is a common species found in NJ. It inhabits various habitats including fields, wooded areas, riverbanks, and rocky hillsides. It may be found in barns or other buildings that house rodents. It is often mistaken for NJ's northern copperhead or timber rattlesnake. The ground color is creamy gray with red or brown blotches outlined in black along the back and sides.



Commonly, a Y- or V-shaped light patch can be found on the nape of the neck. They have smooth scales. Six to 24 eggs are laid in June and hatch in late August.

### 3. Coastal plain milk snake intergrade (*Lampropeltis t. triangulum x L.t. elapsoides*):



In southern NJ, the eastern milk snake intergrades with the scarlet snake and is referred to as the "coastal plain milk snake." The milk snake intergrade is a rare species found in southern NJ. It inhabits similar habitats as the eastern milk snake. It may be mistaken for NJ's timber rattlesnake. The ground color may be yellow with orange blotches outlined in black along the back and sides. There is typically no Y- or V-shaped patch on the nape of the neck. They have smooth scales.



### 4. Corn snake (*Elaphe guttata guttata*):



24"-72"L. The corn snake is a state endangered species found in the Pine Barrens of NJ. It inhabits sandy, forested areas preferring pine-oak forest with an understory of low brush. It may also be found in hollow logs, railroad ties, and foundations of old buildings as well as under boards

and logs. This snake is locally called the "red rat snake." The ground color is variable, ranging from orange to brown to gray. Orange, red, or brown blotches outlined in black extend the down the length of the back and some individuals may have stripes rather than blotches. They have weakly keeled scales. Five to 18 eggs are laid in July or August, hatching in late August–September.



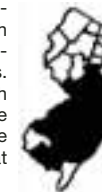
### 5. Northern scarlet snake (*Cemophora coccinea copei*):



Adult above; Juvenile below



14"-32 1/4"L. The northern scarlet snake is an uncommon snake in NJ. It inhabits sandy soils usually hiding under logs, boards, or debris. It may also be found in or near damp woodlands. It resembles the poisonous coral snake of the southern U.S., however, the northern scarlet snake is not poisonous. Its red bands do not extend all the way around the body and are bordered by black with white or creamy-yellow interspaces. They have smooth scales. This snake rarely comes above ground except at night.



### 6. Eastern kingsnake (*Lampropeltis getula getula*):



36"-82"L. This snake is only found in the southern region of NJ and is considered common. It inhabits borders of swamps and streambeds and can often be found under logs and debris, but will frequently bask in the open. It is frequently referred to as the "chain snake" because of its shiny black or dark brown color patterned with large white or cream-colored links. They have smooth scales. The kingsnake will eat timber rattlesnakes as well as other reptiles in addition to rodents, birds, and frogs. Three to 24 eggs are laid in June and hatch in August.

