

## Snakes

There are 37 different species of snakes in North Carolina, only six of which are venomous (see below for list of venomous species). Snakes are extremely beneficial to the environment, feeding heavily on rats, mice, and insects. Nine species of snakes are listed as threatened, endangered, or of special concern at the State or Federal level and cannot be harmed, harassed, or relocated without an Endangered Species Permit obtained from the NCWRC RAPS.

**Listed Species Include:** Eastern Diamondback Rattlesnakes, Timber Rattlesnakes, Carolina Pygmy Rattlesnakes, Eastern Coral Snakes, Northern Pine Snakes, Carolina Watersnakes, Outer Banks Kingsnakes, Smooth Green Snakes, Southern Hognose Snakes.

**What kind of damage is caused by snakes?** Damage caused by snakes is relatively uncommon compared to damage from birds or mammals. The most common types of damage that occur from snakes are predation of eggs in chicken coops and snakes entering buildings.

**Can a WDCA write a depredation permit?** Yes, a depredation permit can be issued for non-listed species by a WDCA but only if property damage has occurred or the animal is posing a direct threat to human safety (only applies to venomous snakes). See below for distinguishing between venomous snakes and non-venomous snakes.

**Can snakes be relocated?** Yes, non-listed species can be relocated on private property with landowner permission. However, most species will die from stress if they are relocated more than two miles away from the site of capture. If a snake is found inside of someone's house it is best to relocate the animal on the property if possible.

**What can I do with sick or injured snakes?** There are licensed wildlife [rehabilitators](#) across the state that can take in sick or injured snakes.

**Are there any safety concerns?** There are no major safety concerns related to non-venomous species (see the first pages of this document for general safety concerns related to handling wildlife), however if you are handling venomous species it is important to use the proper tools (e.g. snake hooks, snake tongs, gamma seal buckets with small holes in the lid for transport) to minimize your chance of being bitten. Do not use head shape or pupil shape to attempt to identify whether a snake is venomous (see photos below). If bitten by a venomous species, you should seek medical attention and call the NC Snake bite hotline at 1-800-222-1222.

### Non-lethal Options:

- See the [General Considerations for Handling Wildlife](#) document for general ways to prevent damage from wildlife.
- Education is the best coexisting option for snakes. Most snake species that people encounter in and around their homes are non-venomous and pose no threat to human/pet safety.
- Relocation- see the "Can snakes be relocated?" section for information on relocating snakes.
- For rat snakes entering chicken coops, identify the area where the snake is coming in (often at doors or windows) and seal it off.
- Removal of debris, junk, or wood piles from lawns as well as frequent mowing and weeding will help prevent both snakes and rodents (a common food source and attractant of snakes) from coming on to properties.

- There are many products advertised to repel snakes, but none are proven to work. Chemical applications such as Sulphur are ineffective. Additionally, applying any type of chemical in a manner different than what is stated on the label is illegal.

Lethal Options:

- Relocation (especially short distances) and education is **GREATLY** preferred to lethal options.
- A snake can be euthanized humanely (via [AVMA euthanasia guidelines](#) for reptiles) if a depredation permit has been written due to property damage, or if the snake is causing an immediate threat to human safety (only applies to venomous species) .

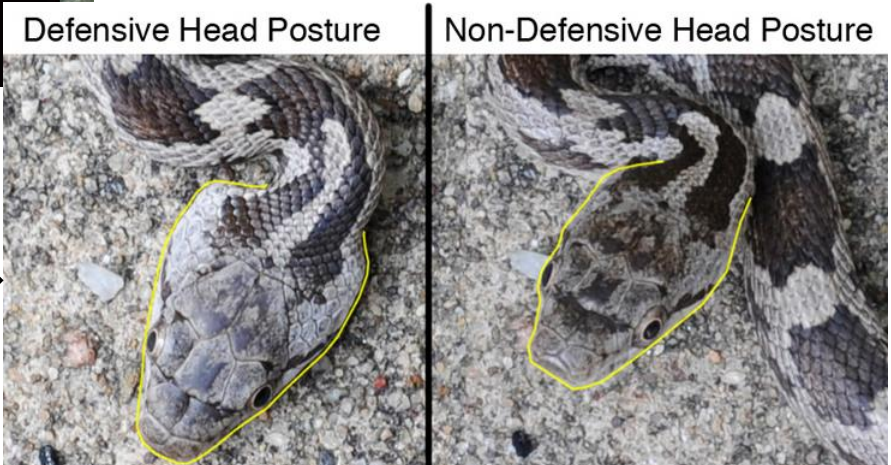
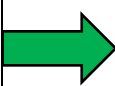
**Identifying Venomous from Non-Venomous Species:**

- When it comes to venomous snake identification there are a lot of myths about what to look for. The below items should NEVER be used to identify a venomous snake:
  - Head Shape (most non-venomous species flatten their heads to have a triangle shape when threatened).
  - Pupil Shape (snakes pupils dilate just like humans and look round).
  - Rattling Tail (many non-venomous species rattle tails to trick predators into thinking they are venomous when they are not).
- The best way to identify a venomous snake is to learn what venomous snakes are in your area and what they typically look like.
  - Use herpsofnc.org for range maps to show you which species are in your county.
  - Use a whole-body approach (e.g. color, pattern (bands vs saddles), size, and range) to identify species, there is no single “magic trick” to identifying a venomous snake.



*All pupils can and do dilate in low light conditions.*

**Non-venomous Rat Snake (same individual in both pictures)**





## Venomous Snakes of North Carolina



**Copperhead**

When identifying copperheads look for the signature “Hershey kiss” pattern. Copperheads are the most commonly encountered venomous snakes in NC.



**Cottonmouth**



**Cottonmouth**



**Cottonmouth**

Cottonmouths are only found in the Coastal Plain and are variable in coloration with older individuals typically appearing darker- sometimes even black. Still look for “Hershey kisses” but they are more pixelated in appearance than the “Hershey kisses” on copperheads.

## Protected and Endangered Venomous Snakes



**Eastern  
Diamondback  
Rattlesnake**



**Pygmy Rattlesnake**

### IDENTIFYING RATTLESNAKES:

- Look up the species range in the state.
- Look for presence of dark stripe near eye.
- Look for rattle segments.



**Timber/Canebrake  
Rattlesnake**

**Note:** The Coral snake is not pictured because there are only a few records of them from the Southeast portion of the state. They have wide red bands that touch skinnier yellow bands. They do not have red and black bands touching.