

Wildlife Damage Management

Snakes

Problem

Snakes found in proximity to human residences may cause concern in some individuals.

Description of Damage

Snakes cause no property damage, but seeing a snake or its shed skin may frighten some people.

Description of Animals

Snakes range in size from a few inches to more than 8 feet. Several poisonous snakes live in this region. Copperheads (*Agkistrodon contortrix*) have the widest distribution; rattlesnakes (*Crotalus* spp.) are found in most states but are not as common as copperheads. Cottonmouths (*Agkistrodon piscivorus*) may be common in some areas, while coral snakes (*Micrurus fulvius*) have the most restricted distributions. For information on snake identification, consult Martof et al. (1980) or Conant (1975). (See reference list on page 3.)

The pit vipers—which include copperheads, cottonmouths and rattlesnakes—are characterized by a pit between and slightly below the eye and nostril; long movable fangs; a vertically elliptical pupil; undivided scales on the underside of the tail; and a triangular head.

The coral snake, the only other poisonous snake in our region, is not a member of the pit viper family. It is recognized by its distinctive pattern: red, yellow and black rings. Each red and black ring is separated by a yellow ring. The head and tail are

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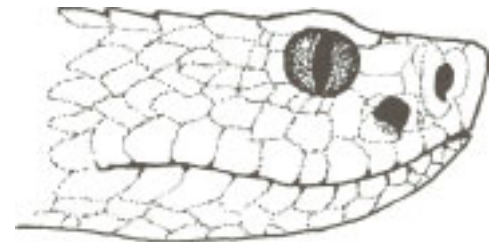
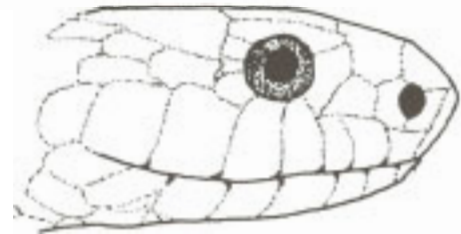


Figure 1. Side view of the head of a non-poisonous snake (top) and a poisonous snake (bottom).



Figure 2. Top view of the head of a poisonous snake (left) and a nonpoisonous snake (right).



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encircled by yellow and black. The scarlet snake (*Cemophora coccinea*) and the scarlet kingsnake (*Lampropeltis triangulum*) are often mistakenly killed because they have the same color bands as the coral snake, but they have a different pattern. The coral snake has small, permanently erect fangs and divided scales on the underside of the tail.

Nonpoisonous snakes have round pupils, divided scales on the underside of the tail, and no pits. There are



Coral snake



Scarlet snake and scarlet kingsnake



Figure 3. Color patterns of coral snake, scarlet snake, and scarlet kingsnake.

many more nonpoisonous snakes than poisonous ones. For example, more than 37 species of snakes are in North Carolina, but only 6 species are poisonous.

Life History

Snakes are seen most often in the spring or fall as they search for food or move to and from hibernation areas.

Snakes frequently are associated with small mammal habitat because rodents are a primary food source for many snake species. For this reason snakes are considered beneficial to man.

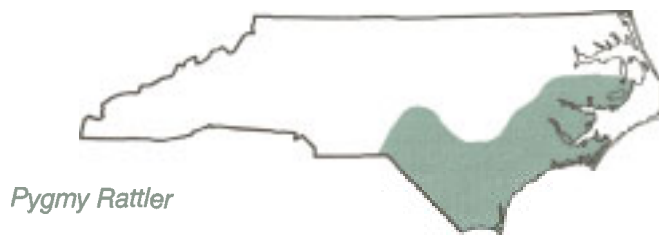
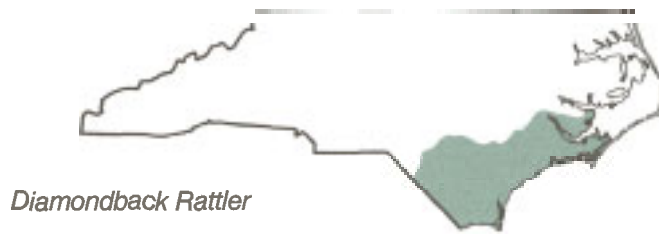
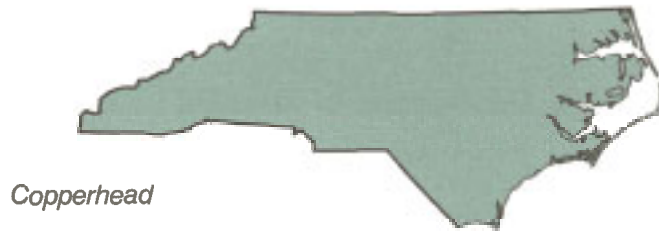


Figure 4. Distribution of poisonous snakes in North Carolina.

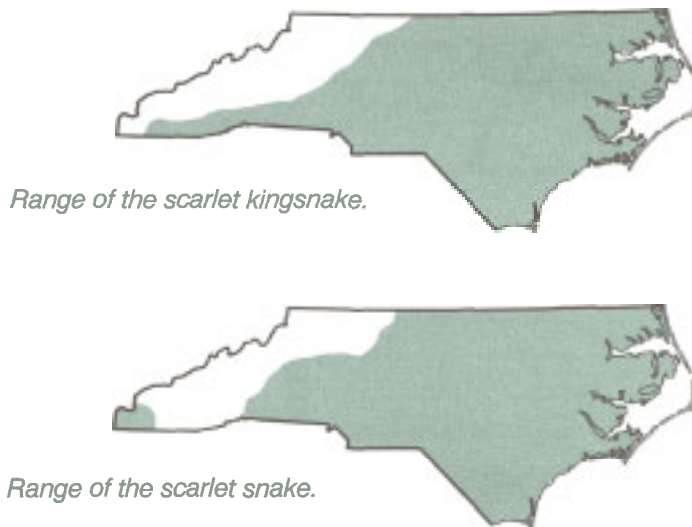


Figure 5. Distribution of nonpoisonous snakes in North Carolina.

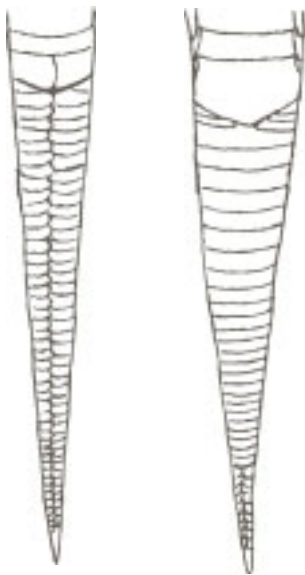


Figure 6. Tails of nonpoisonous snake (left) and poisonous snake (right).

Control

Nonlethal control measures can be taken whenever it is convenient for the homeowner. Lethal measures can be taken only when a snake is seen.

Legal Requirements

There are NO chemicals registered by the states or the U.S. Environmental Protection Agency for killing snakes. Local ordinances may have a bearing on how a particular animal damage control method is used and consequently must be checked. Outside North Carolina, investigate all state laws and regulations before starting control.

Nonlethal Measures

Snakes can be discouraged from staying in an area by cutting off their food supply and cover. Mow closely around homes and outbuildings, and store firewood and lumber away from residences. Reduce mulch layers around shrubs to discourage small animals. Close cracks and crevices in buildings and around pipes and utility connections with $\frac{1}{4}$ -inch mesh hardware cloth, mortar, or sheet metal. All doors and windows should have tightly fitting screens.

Small areas where children might play can be protected from all poisonous and most harmless snakes

with a snake-proof fence. However, the cost of the fence may make it impractical to protect a whole yard. The fence is made of $\frac{1}{4}$ -inch mesh wire screening built up 30 inches and buried 6 inches underground. It should slant outward at a 30° angle from bottom to top. (See Figure 7.) The supporting stakes must be inside the fence and any gates must fit tightly. Tall vegetation just outside the fence should be removed.

Repellents such as sulfur or mothballs have proven generally ineffective at keeping snakes away from residences. However, snakes can be easily moved. Small snakes may be swept into a box or bag and removed. A large snake can usually be carried outside suspended over a stick or garden rake.

If a snake enters a residence, it may be difficult to find. Since snakes seem to like moisture, they can be coaxed to one area by placing wads of damp cloth covered with dry ones at different places along a wall. The piles must be large enough to allow a snake to crawl under them. Check the piles each day and remove the snakes found there.

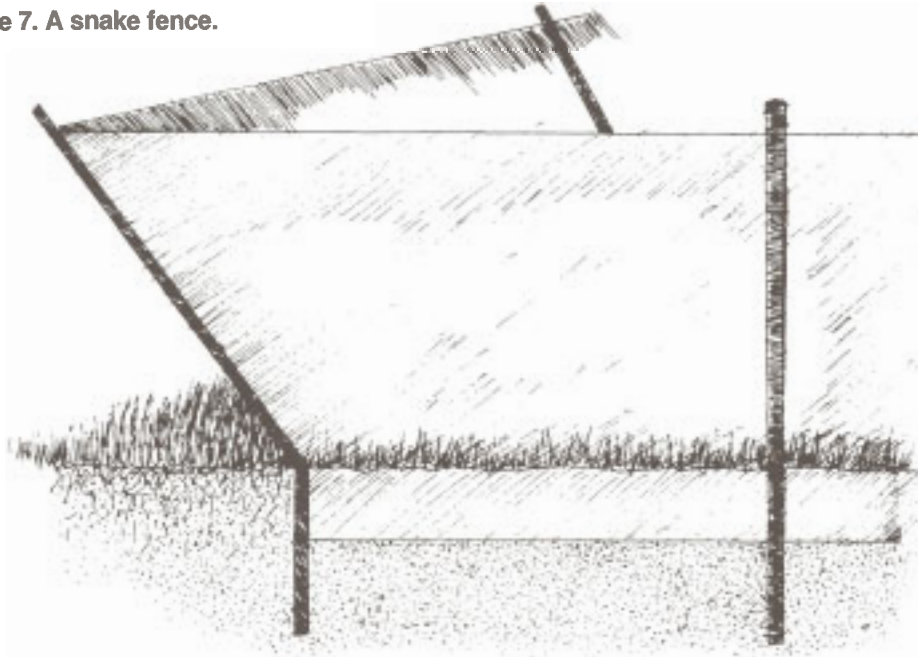
Lethal Measures

Use a long-handled shovel or hoe to kill a snake by severing the head from the body. **Caution:** Do not handle the head of a poisonous snake alive or dead. Recently killed snakes may bite by reflex action. Poisonous snakes should be killed only if their presence endangers humans or pets.

References

- Conant, R. 1975. *A Field Guide to the Reptiles and Amphibians*. Cambridge, Mass.: Riverside Press.
- Martof, B. S., W. M. Palmer, J. R. Bailey, and J. R. Harrison III. 1980. *Amphibians and Reptiles of the Carolinas and Virginia*. Chapel Hill: University of North Carolina Press.

Figure 7. A snake fence.



This publication has been reviewed and approved by the North Carolina Wildlife Resources Commission.

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