

Alabama's Venomous Snakes: *Be Aware!*

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No group of animals seems to generate such a combination of interest, intrigue, loathing, and fear as snakes. Classic literature often identifies snakes with evil and danger, such as the Biblical story of Satan appearing in the form of a serpent to tempt Eve. Some people believe that snakes have been cursed by God because of this temptation. And yet, fear and revulsion of snakes is not innate; most children who have not been taught to fear snakes find them fascinating. Children are curious about their characteristics and biology, and snakes, as well as other animals, can provide a natural, educational "tool" to stimulate the learning experiences of children (as well as adults). Many children will readily and eagerly hold snakes and giggle when a pet snake attempts to crawl up a shirt sleeve or into a collar. In contrast, people who have been taught to fear snakes, consider them dangerous and repulsive. Some will shudder when they see a snake, and some will refuse to even look at one. Unfortunately, some will attempt to kill every snake they see.

Those who fear snakes may not realize that snakes are an important part of our natural heritage. **Forty** species of snakes occur naturally in the state (about 65 if subspecies are included), and most are harmless. Because a few of

Alabama's snakes are venomous and dangerous, they must be respected. But no snakes should be indiscriminately killed. Some snakes are protected as threatened or endangered species by the state or federal government, and harming them is against the law. Only when there is an immediate threat to family or pets (such as a venomous snake in the yard) should any snake be killed. In a natural area, even venomous snakes should not be killed, but rather avoided.

The main function of a snake's venom is in capturing and subduing prey. Although the venomous bite can also be an effective defensive weapon, the typical snake will not bite except when threatened by a large animal (including humans) coming too close. Most venomous snake bites are not fatal. Deaths from snake bites in Alabama occur about once every ten years, and the national average has been less than four deaths per year for the last several years.

The best way to avoid a snake bite is to avoid the snake. Snakes will almost never chase a person; instead they will lie still to prevent detection, or crawl away from a potential threat if given the chance. Some will warn the intruder by vibrating the tail (especially the rattlesnakes, but also copperheads, cottonmouths, and many non-venomous



Photo by Steve Bennett

The venomous coral snake's alternating rings of red, black and yellow (with red rings bordered by yellow) resemble the harmless scarlet kingsnake and scarlet snake (with black rings bordered by yellow). Just remember the saying, "Red touching yellow, kill a fellow. Red touching black, OK Jack!"

snakes), coiling in preparation to strike, opening the mouth (as in the cottonmouths), inflating the body or spreading the neck to appear larger, or hissing (although contrary to what we learn in kindergarten, most snakes do not hiss).

Alabama snakes hibernate during the winter, although some may come out and sun on warm days, especially in the southern part of the state. With the coming of spring, snakes become more active and are more likely to be seen. Consequently, turkey hunters, hikers, or others frequenting snake habitat in the spring should be especially vigilant. By mid to late summer, snakes are less frequently encountered because they remain concealed in holes or other shelter where they can avoid higher temperatures. Speaking of "snake holes," this is another commonly held but erroneous misconception of snakes, which do not make holes, but rather use the holes of other animals or physical forces of nature. As cold-blooded animals, snakes **cannot** regulate their body temperature by internal means, but do so by behavior, such as **sunning** to increase their temperature or seeking shelter to lower their temperature.

People often request easy methods

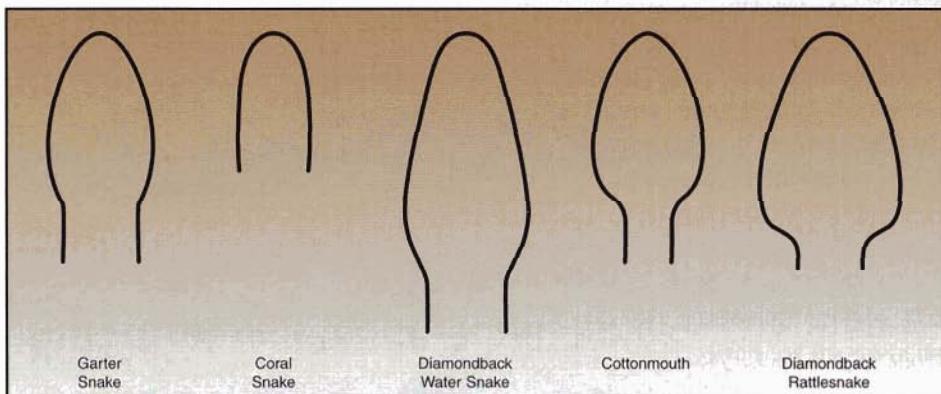


Figure 1. Comparative head shapes of common Alabama snakes.

of identifying venomous snakes, such as the “triangular head,” but there are no such methods that are completely reliable. Five of the six venomous species found in Alabama are closely related pit vipers and share many common characteristics, such as the “triangular” head, elliptical (cat-like) pupils, a sensory pit between eye and nostril, and undivided scales below the tail (subcaudal scutes). The latter three characteristics are not especially useful though, since they are usually not visible except at a very close, and dangerous, range. The triangular head shape is not completely reliable since some non-venomous snakes have a head shape that is often described as triangular by inexperienced observers, especially when the head is flattened in a threat display (see Figure 1). Three of the venomous species are rattlesnakes, with rattles on the tail, but one of these (the small pigmy rattlesnake) has small rattles that may not be readily visible, nor audible. None of these characteristics applies to the coral snake, which appears to be harmless but is actually one of our most dangerous species. Its distinctive coloration makes it readily identified, although several non-venomous species have similar coloration.

Since there are only six species of venomous snakes that occur naturally in Alabama, the best way to distinguish them from non-venomous species is to learn to identify those six species; all others (34 species in Alabama) are harmless. The six species of venomous snakes that occur in Alabama are as follows:

Coral Snake

(Micrurus fulvius)

This slender snake of moderate size (up to four feet long but usually less than three feet) can be identified by its alternating rings of red, yellow, and black, with red bordered by yellow (always remember “red touching yellow, kill a fellow”). The harmless scarlet kingsnake and scarlet snake resemble coral snakes but have the black rings bordered by yellow (“red touching black, OK Jack”). Mostly restricted to the southern part of the state (south of Greenville), this very

secretive snake spends most of its time underground, usually in wooded areas with sandy soils.

Eastern Diamondback Rattlesnake

(Crotalus adamanteus)

No non-venomous snakes can be confused with the diamondback rattlesnake—brown with distinctive diamond-shaped markings bordered with yellow. It is a large, heavy-bodied snake reaching up to eight feet in length with a prominent rattle. Restricted to the southern part of the state (south of Greenville), it can most commonly be found in dry forested habitats such as pine flatwoods and longleaf pine-turkey oak hills.

Timber (or Canebrake) Rattlesnake

(Crotalus horridus)

The timber rattlesnake can be tan, brown, or gray but it always has distinctive black bands across the back, often with a reddish median stripe down the back. This color pattern, plus the prominent rattle on its tail, distinguishes it from all non-venomous snakes. It is also a large, heavy-bodied snake, reaching lengths up to 6 feet. Occurring statewide, it can usually be found in forested areas, although in the southern part of the state it is mostly restricted to low swampy areas and floodplains (or “canebrakes”).

Pigmy Rattlesnake (or Ground Rattler)

(Sistrurus miliarius)

This smaller rattlesnake is usually less than two feet long and has a small rattle that may be difficult to see and hear. Gray or brown with rounded black blotches, it often has a reddish median stripe down the back. In coloration and body shape, a small hognose snake might be confused with a pigmy rattlesnake but differs in having a turned-up snout and lacking a rattle. The pigmy rattlesnake occurs statewide and can mostly be found in forested habitats, but may also occur in some suburban areas where suitable habitat is present.

Alabama's Venomous Rattlers



Photo by Steve Bennett

The eastern diamondback rattlesnake, restricted to the southern part of Alabama (south of Greenville), has distinctive diamond-shaped markings unlike any non-venomous snake.



Photo by David Steen

The timber rattlesnake can be tan, brown, or gray but it always has distinctive black bands across the back, often with a reddish median stripe down the back.



Photo by Mark Bailey

Usually less than two feet long, the pigmy rattlesnake may be confused with the non-venomous hognose snake, but the pigmy has a rattle and lacks the hognose snake's turned-up snout.

Copperhead

(Agkistrodon contortrix)

Reaching a maximum length of about 4 feet, a copperhead is tan, brown, or pink with copper-colored, hourglass-shaped crossbands allowing it to be perfectly camouflaged in dry leaves. Some banded watersnakes might be confused with copperheads because



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A young cottonmouth is similar to a copperhead but with a prominent dark stripe behind the eye.



Cottonmouths become darker as adults and turn almost totally black or dark brown with age.

Photo by John Willson

Photo by Dirk Stevenson

Photo by Dirk Stevenson

of similar coloration, but the banding patterns are usually quite different, with the darker bands broader at the midline rather than hourglass-shaped, or with darker blotches along the midline alternating with those on the sides. In addition, the head is not as broad in the watersnakes as in the copperhead (see Figure 1). The watersnakes are semi-aquatic, and seldom found far from water. The copperhead, however, usually

occurs in forested areas across the state but may be found in a variety of habitats, including upland rocky areas in the north part of the state and low floodplains to the south.

Cottonmouth (or Water Moccasin)

(*Agkistrodon piscivorus*)

With young similar to a copperhead but with crossbands more irregular and

with a prominent dark stripe behind the eye, cottonmouths become darker as adults and turn almost totally black or dark brown with age. This large, heavy bodied may reach lengths up to six feet but is generally shorter than four feet. Cottonmouths are frequently confused with several species of non-venomous watersnakes, which are sometimes called "moccasins." Generally cottonmouths are heavier bodied, have a broader head (see Figure 1), do not readily flee when approached, and swim, except when diving, with the body inflated and floating on the water surface. In contrast the non-venomous watersnakes swim at the surface with the body submerged and only the head above the water surface. When threatened cottonmouths will often display by gaping their mouth and showing the white inner lining (hence the common name). They occur in all areas of Alabama, but almost always in or near water.

Whether you're hunting, hiking, fishing or swimming this spring, keep an eye out for Alabama's native snakes. The best approach to protecting oneself from our venomous snakes is to learn to identify those six species, be familiar with their distribution and habitats, and be vigilant when in areas frequented by venomous snakes. And, of course, keep away from a potentially dangerous snake if you do see one.

FIRST AID FOR SNAKEBITES

According to the American Red Cross, these basic first-aid techniques should be taken:

- Wash the bite with soap and water.
- Immobilize the bitten area and keep it lower than the heart.
- Get to a hospital and don't delay.
- If a victim is unable to reach medical care within 30 minutes, a bandage, wrapped two to four inches above the bite, may help slow venom. The bandage should not cut off blood flow from a vein or artery. A good rule of thumb is to make the band loose enough that a finger can slip under it.
- A suction device may be placed over the bite to help draw venom out of the wound without making cuts. Suction instruments often are included in commercial snakebite kits.

How NOT to Treat a Snakebite

- No ice or any other type of cooling on the bite. Research has shown this to be potentially harmful.
- No tourniquets. This cuts blood flow completely and may result in loss of the affected limb.
- No electric shock. This method is under study and has yet to be proven effective. It could harm the victim.
- No incisions in the wound. Such measures have not been proven useful and may cause further injury.

The Best Advice: Don't get bitten! Be vigilant, be careful, don't play with or harass venomous snakes!

(Reprinted from www.fda.gov, FDA Consumer magazine, November 1995)