



# Is This Snake Venomous?

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## An Identification Guide for North Texas Snakes

*Text & Photos - Michael Smith*

There are many species of snakes living in north Texas, and most of them are harmless. A few species are venomous, and even those tend to avoid contact with people if they can. However, north Texans are understandably concerned about safety when they encounter snakes. This guide is designed to help you identify whether a snake that you find might be one of the four basic kinds of venomous snakes of north Texas.

By "north Texas," we mean roughly the northeastern quarter of Texas, east of Palo Pinto and north of Hillsboro.

This is a quick identification guide. For more information there are at least a couple of good sources to consult: *Venomous Snakes of Texas: A Field Guide*, by Andrew Price, and *Texas Snakes: A Field Guide*, by James Dixon and John Werler.

## Is This Snake Venomous?

In North America, the dangerously venomous snakes fall into one of two groups: the pit vipers or the coral snakes

### Pit Vipers — These snakes have:

- Fangs that fold against the roof of the mouth when not in use
- Venoms that mostly (with some exceptions!) affect tissues, causing pain, swelling, and bruising
- Elliptical pupils (like a cat's)
- A small heat-sensing pit in the face between the eye and the nostril
- Rather chunky bodies, and some have broad or arrow-shaped heads

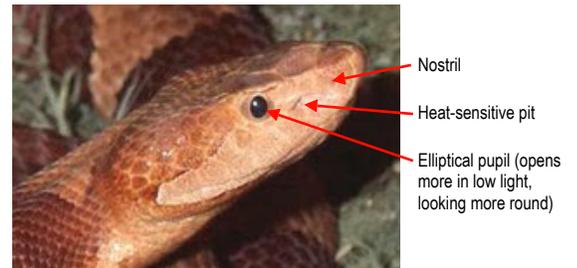
In north Texas, there are three groups of pit vipers: copperheads, cottonmouths, and rattlesnakes.

## The Copperhead

venomous

*Agkistrodon contortrix*

These are relatively small, shy snakes that blend in very well with leaves on the ground. Copperheads have a pattern of darker and lighter reddish-brown bands that may be wavy (or hourglass-shaped in the southern copperhead). Newborns have bright yellow tail tips that fade to greenish as they get older. These snakes average around two feet long or so.



Broad-banded  
Copperheads



Southern  
Copperheads



Broad-banded copperheads are found west of a line that runs roughly through Dallas County. Southern copperheads are found east of that line, although the copperheads found near that line may look a little like both of these forms.

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### The Western Cottonmouth

*Agkistrodon piscivorus*

Also called "water moccasin" by some people

venomous

These snakes are usually found near or in water. They are larger and bulkier than copperheads and have a darker pattern, but they are closely related to copperheads. Cottonmouths have flat, chunky heads, elliptical pupils, and a heat-sensing pit in the same location as shown for the copperhead. The cottonmouth pattern is dark brown or nearly black, with some indication of broad crossbands that are wider on the snake's sides. Newborns have a lighter, reddish pattern that is similar to that of a copperhead. Most of the cottonmouths in Texas grow to around three feet in length, but may look bigger because of their chunky proportions.

Cottonmouths have a bad reputation for being aggressive or even chasing people. However, it turns out that they would rather hide or get away than strike. Sometimes they provide a warning by gaping their mouths open to show the light, whitish inside (thus the name "cottonmouth").



At right: young cottonmouth showing the warning mouth-gaping display

Below: an adult cottonmouth.



Juvenile cottonmouths have a lighter, reddish pattern



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# The Western Diamondback Rattlesnake

venomous

*Crotalus atrox*

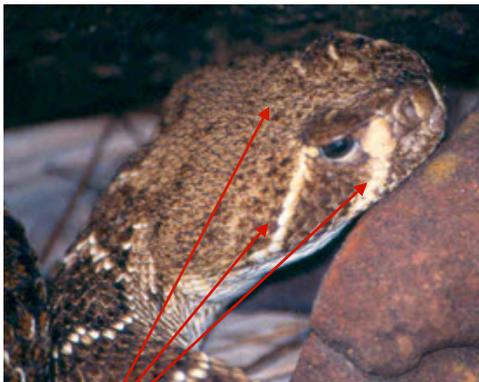
This is the largest and most dangerous snake in north Texas. The danger comes from the fact that these snakes can deliver a large dose of fairly potent venom, and they can defend themselves aggressively. Most western diamondbacks grow to about 3 to 5 feet, but the record is just under seven feet. Western diamondbacks have white-edged dark diamonds running down much of the back, two diagonal white stripes on the face, framing the eye, and a black-and-white banded tail ending in a rattle (unless it has been broken off). The scales on the top of the head are small. When nervous, the rattlesnake may twitch or briefly shake the tail, resulting in a few "chick-chick-chick" sounds. If more agitated, the tail is vibrated vigorously, producing a steady buzzing sound.



Note the diamond pattern with black and white banded tail



Rattle (with dry, loosely-interlocking segments)



Small scales on the top of the head  
Diagonal white lines on the face



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# The Timber (Canebrake) Rattlesnake

venomous

*Crotalus horridus*

The variety of timber rattlesnake that is found in the south used to be called the "canebrake" rattlesnake. It is also sometimes called a "velvet-tail" by local folks, because of the velvety-black tail. Key identifying features include: rusty brown or reddish vague stripe down the back, black chevrons or blotches, scales on the top of the head are small, elliptical (cat-eyed) pupils, pattern darkens toward the tail, and a black tail with rattle segments at the end. Adults may be around four feet in length, with the maximum reported length a little over six feet.

These snakes are generally uncommon, and tend to be found in scattered areas in or around woodlands. This is the only protected venomous snake in Texas - it cannot be collected and should not be harrassed or killed. However, be assured that this protection is not enforced against anyone who kills one in the belief that they were in danger from it.

Timber rattlesnakes often do not rattle and may sit quietly, relying on camouflage to escape harm. When they do bite, it is a serious emergency as they can inject a large dose and the venom is potent. There is variability in the degree to which the venom affects the nervous system and/or destroys tissue.



Pattern variation in an individual from Wise Co. (above) and a darker individual from Ellis Co. (to the left)



Juvenile

## **Western Pygmy Rattlesnake**

venomous

*Sistrurus miliarius streckeri*

These little snakes only reach about 18 inches in length, and the rattle is very small and not easily heard. They have large scales on the top of the head (as opposed to the small scales between the eyes and behind the snout for the larger rattlesnakes). The ground color may be grayish, brownish, or have a slight purple cast to it. A series of dark blotches run down the back, and a vague reddish stripe runs down the center of the back. These snakes are found in east Texas and in a small area of north Texas near the Red River. They occur in forested areas or open, sandy areas.



The fangs are short and the amount of venom injected is small, and there are no recorded fatalities from bites of this species. However, a bite would probably be a very uncomfortable experience, so don't be careless around them!

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## **Western Massasauga Rattlesnake**

venomous

*Sistrurus catenatus tergeminus*

There are records of these small rattlesnakes from Dallas westward, but it is more likely to be seen west of Tarrant county. Massasaugas grow to about two feet in length. Like the related pygmy rattlesnake, they have large scales on the top of the head.



The rattle is small but more noticeable and more visible than would be the case with pygmy rattlesnakes. Down the back is a series of rounded or vaguely heart-shaped blotches, and there is no reddish stripe down the back. The massasauga is colored mostly in grays or brownish-gray.



This little snake used to be a common sight at sunset on the prairie west of Fort Worth, but it is much less common these days. Most of them either sit still and hope humans will walk past them, or else try to get away. If touched or threatened at close quarters, however, it strikes in little lunging jabs. Like the pygmy rattlesnake, it should be treated with respect, though there are no fatalities recorded in Texas.

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**Coral Snakes** — These snakes have:

- Fangs that are short and fixed in position
- Venoms that mostly affect breathing and heart function, with little tissue damage near the bite
- Round pupils, but the eyes are small and this is not easy to see
- Long, fairly slender bodies and small heads

### **Texas coral snake**

venomous

*Micrurus fulvius tener*



These are secretive snakes that are not often seen, even though they may be fairly common in some places. Coral snakes have wide black and red bands separated by narrow yellow bands. The first yellow band is at the back of the head, and the head and initial part of the neck are otherwise black. The last few wide bands of the tail are black. Additionally, the red bands have some amount of black mottling in them, sometimes to the point that the red is not very apparent.

Coral snakes are very nonaggressive if left alone and so the best strategy when finding one is to let it go. People are at much greater risk if they try to move it or kill it than if they leave it alone. The fangs are in the front of the mouth so it is **not true** that coral snakes have to chew in order to envenomate a person. On the other hand, the short fangs and nonaggressive nature of this snake result in few human bites. Do not assume that this means coral snakes are not dangerous!



## Is This Snake Venomous?

**These snakes are harmless, but are sometimes confused with venomous snakes.**

Most snakes you will encounter are harmless. Those who live in the vicinity of snakes, or who like outdoor activities, may want to get familiar with the following harmless species so that they don't confuse them with the dangerous ones.



First and foremost is the Texas Ratsnake! This is a common, large snake which may be quite dark or may have blotches on a yellowish background. If picked up, they are likely to bite, but their tiny teeth leave only scratches. They do much good by eating rats and mice. Texas Ratsnakes are great climbers and sometimes seen in trees.



Bullsnakes are also large, harmless snakes that can hiss loudly and strike if cornered. Many ranchers recognize them as valuable because they eat large numbers of rodents.



The Eastern Hog-nosed Snake is a medium-sized snake that puts on a large show, flattening and hissing. Not only is it harmless, it never actually bites! In the photo to the left, the snake has spread its "hood," which reminds some of the cobra. Nevertheless, it is harmless.



The Louisiana Milk Snake is a harmless "mimic" of the coral snake.



Blotched Watersnake



Diamond-backed Watersnake



Broad-banded Watersnake

There are several varieties of harmless Watersnakes in north Texas, which are often confused with cottonmouths.