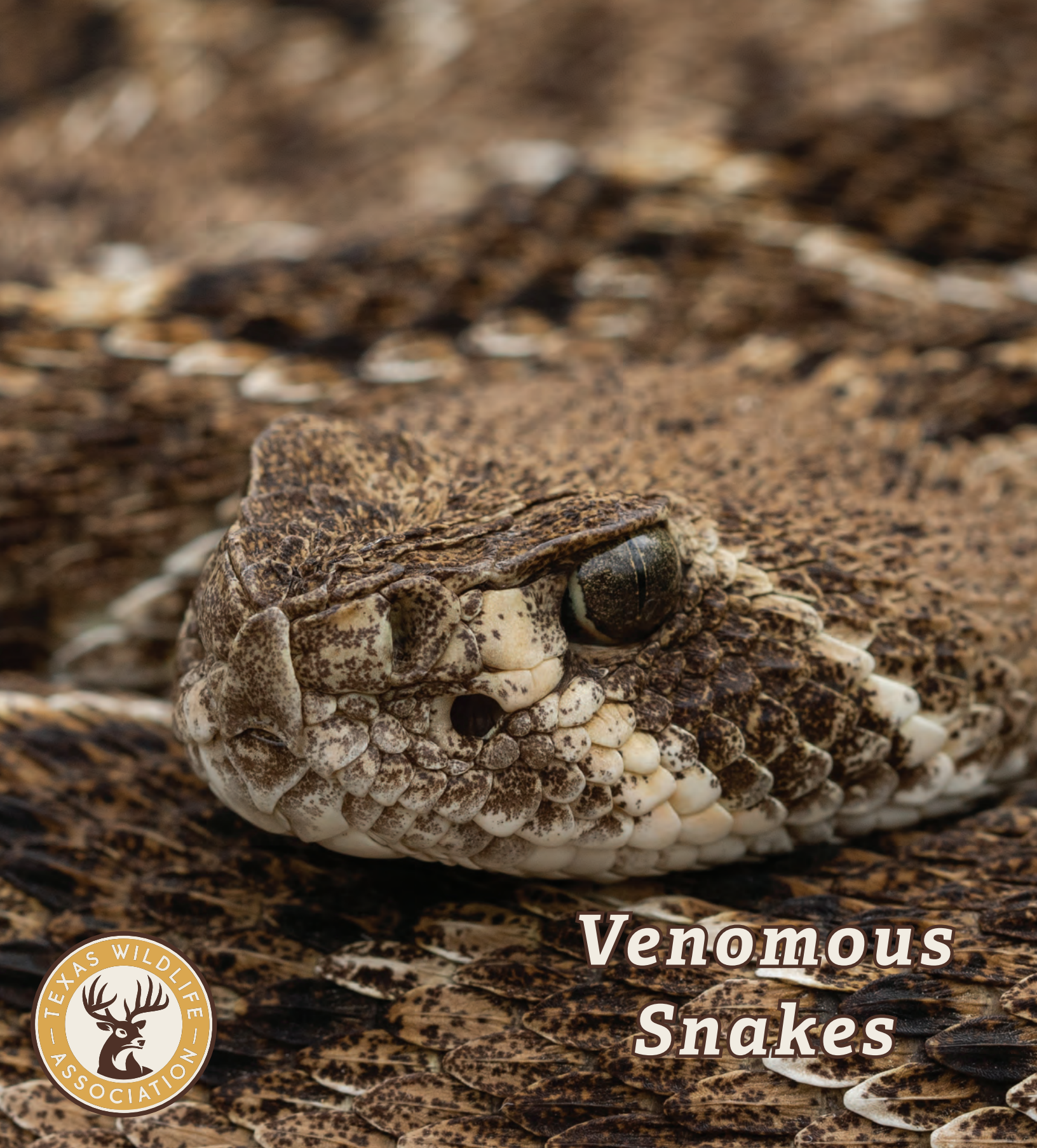




# CRITTER CONNECTIONS



## *Venomous Snakes*







# Texas Sage



Texas Sage (*Leucophyllum frutescens*), also known as cenizo, barometer bush and silverleaf, is the state native shrub of Texas. It is a medium-sized shrub, usually 2-5 feet tall, with a compact growth form. This makes it a common plant in landscaping, and several plants are often grown side by side to form hedges.



A couple of the common names, silverleaf and cenizo (Spanish for ash-colored), refer to the silvery-green color of the leaves. The leaves' silvery color comes from thousands of tiny hairs that also makes them feel soft. It has been said that Texas Sage will bloom when

it is going to rain, or more likely after it rains, which led to another common name, barometer bush. A barometer is a scientific instrument that measures pressure changes in the atmosphere and can be used to predict weather changes, such as rain. The purple flowers are bell-shaped and will bloom all over the plant, typically in spring and fall.

Texas Sage is an evergreen which means it has leaves throughout the year, and it grows well, even in difficult conditions. It will grow in poor quality soil and can survive droughts, extreme temperatures (high and low) and high winds. It is a host plant for the Calleta silkmoth and Theona Checkerspot butterfly, which means it is the primary food source for those caterpillars. It also provides shade and shelter to small mammals and birds.



Photos and article source from Ladybird Johnson Wildflower Center

Front cover photo by Romey Swanson

## Snake Craft

This month, we want to see your creativity! There are so many ways you can make a snake craft and snakes have different colors and patterns. Discover fun ways to make scales like dipping a sponge in paint. You can cut a paper plate or paper towel roll into a spiral to make a coiled up snake. You can make a bendy snake by stringing pasta or egg carton pieces together. You can make a snake by connecting loops of paper like a chain. What other ideas do you have?



**Email us a picture  
of your  
snake craft at  
[cl@texas-wildlife.org](mailto:cl@texas-wildlife.org)**



# Did you know...



- ...that Texas has over 100 species and subspecies of snake, 15 of which are venomous?
- ...that some venomous snakes, called pit vipers, can detect their prey with a heat-sensing pit between their eye and nostril?
- ...that venom is something that is injected from teeth or stingers and poison is something that makes you sick when eaten?
- ...that kingsnakes and indigo snakes are immune to pit viper venom so they can eat rattlesnakes and cottonmouths?
- ...that some venomous snakes have fangs that they can fold back or retract?
- ...that some harmless snakes mimic the colors and behaviors of venomous snakes?
- ...that rattlesnakes get a new segment on their rattle when they shed?
- ...that the treatment for a venomous snakebite, anti-venom, is made using the venom of that species of snake?
- ...that rattlesnakes cannot hear their own rattles?



Canebrake Rattlesnake

Photo source: Romey Swanson

## Color Me

### Pygmy Rattlesnake

(*Sistrurus miliarius*)



Pygmy Rattlesnake







# Venomous Snakes

by Elanor Dean

Texas is very rich in snake diversity with over 100 different species and subspecies of snake. However, only 15 of those are venomous. The first thing we need to identify is the term venomous. Venomous animals are often incorrectly referred to as poisonous, but there is a difference. An animal that injects venom, using something sharp like a stinger or teeth, is venomous. An animal that makes you sick when you eat it is poisonous.

Venomous snakes have organs that produce a special kind of spit or saliva called venom, which they use to kill their prey and for defense. Texas' venomous snakes can be grouped into four main types: coral snakes, which are related to cobras, and pit vipers - copperheads, cottonmouths and rattlesnakes. Snakes are different all over the world, and there are no physical traits that are only displayed by venomous snakes, but we will go into some details from each of the groups and discuss some safety tips and ways to avoid an encounter.



Black-tailed Rattlesnake

## Coral Snakes

The most colorful venomous snake in Texas also has some of the most toxic venom. Texas coral snakes are in the Elapidae family which includes cobras and mambas. They are typically found throughout southeastern Texas in woody habitats with leaf litter. They prey mainly on small reptiles like snakes and lizards. Unlike the other venomous snakes in Texas, coral snakes are brightly colored with black eyes and a narrow head. They also have smaller fangs which are always present and do not fold back. They have wide red and black bands which are separated by thinner yellow bands all along their body.



Texas Coral Snake

Bright colors on some animals are a warning to stay away, but sometimes harmless animals will mimic those color patterns. In Texas, non-venomous snakes like milk snakes and scarlet snakes have a similar color pattern to coral snakes as a way to trick predators into thinking they are also harmful. One way to tell them apart is by looking at the order of the colored bands. Have you heard this rhyme before? Red touches black, venom lack (or friend of Jack), red touches yellow, kills a fellow. If you look at the pattern of the venomous coral snake, the red band is next to a yellow band, so red touches yellow, kills a fellow. Coral snakes usually avoid humans and will crawl away if encountered, but they are dangerous.



Nonvenomous Milk Snake

## Pit Vipers

The rest of Texas' venomous snakes are in the Viperidae family and are also classified as pit vipers. Pit vipers have a special way of sensing their prey, through heat. The pit is an opening on the side of the head between their eyes and nostrils. This organ is able to sense warm-blooded prey using heat vision, even in total darkness. These snakes all have a wider, triangle-shaped head, cat-like eyes with vertical slits for pupils and their fangs can tuck back when not in use. Let's discuss some ways to identify each of the types of pit vipers in Texas.



Pit Viper face





## Copperheads

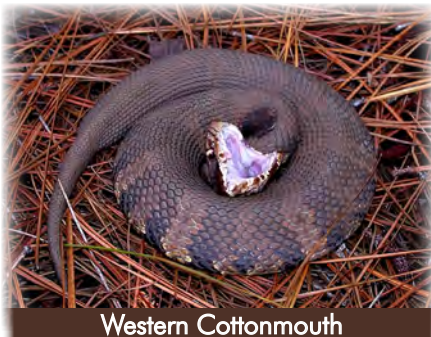
Like the name suggests, copperheads are a coppery color like a penny, with alternating light tan and darker tan bands. They typically live in wooded habitats with leaf litter, making their brownish color an excellent camouflage against the dead leaves. They find shelter in burrows, under logs and boards and in tree stumps, so avoid turning over logs or boards with your bare hands. Copperheads eat a variety of prey including small mammals, birds, reptiles, amphibians and even insects. Because they are masters of camouflage, it is a good idea to stay on paths and be careful where you put your hands and feet.



Copperhead

## Cottonmouths

These snakes, also known as water moccasins, are typically dark in color ranging from dark brown to black. They have a fairly thick body with rough scales and dark markings. However, the young are more coppery in color and resemble a copperhead. When threatened, they show the inside of their mouth which is white, leading to the name cottonmouth. They are usually found in and around water sources like swamps, lakes, rivers or even ditches. They prey on aquatic wildlife like fish, frogs and other snakes, including their own kind.



Western Cottonmouth

## Rattlesnakes

Probably our most well-known venomous snake is the rattlesnake. There are several species of rattlesnake found all over Texas in a variety of habitats. The most common rattlesnake is the western diamond-backed rattlesnake which has large diamond-shaped patches along its back. Like cottonmouths, rattlesnakes have rougher and more defined scales. And of course rattlesnakes have a rattle which they use to warn predators and humans of their presence. The rattle is made up of individual hollow chambers and it gets longer each time the snake sheds. They can move the muscles in their tail very quickly which causes the rattle segments to vibrate against one another, creating the buzzy sound. Some non-venomous snakes, like the Texas rat snake, are known to mimic the sound of a rattlesnake.

## Safety Tips

One safety tip to avoid a snake encounter, that applies to many wild animals, is to watch where you are going and be trail smart! Try to avoid tall grass and don't stick your hands into holes or under rocks and logs because snakes use these places for shelter. Move slowly and listen for movement or the sound of a rattle. Be careful when climbing and look where you are putting your hands and feet. If you do have to go into an area that looks like good snake habitat, then make noise by clapping your hands and stomping. That way if a snake is nearby, it will know you are coming and will either move away or warn you with its rattle. Snakes can sense vibrations, so you can carry a stick when you walk in tall grass to beat the ground or move it back and forth in front of you. You can also protect your legs and feet by wearing close toed shoes or even special boots called snake boots.

If you do see a venomous snake, you should back away and tell an adult. Do not get close or try to touch it, even if it seems dead as it may still be alive and can bite. If you, someone you know or a pet is bitten by a venomous snake, it is important to stay calm, find an adult and seek medical attention by calling 911. If possible, try to identify the type of snake that caused the bite from a safe distance and take a photograph, but do not touch. Another reminder is to stay calm and be safe; it is rare for snake bites to be deadly.

While we described many characteristics of venomous snakes, there are also some non-venomous snakes with triangle shaped heads, cat-like eyes, or bright colors, so don't rely on just those features for identification. The best method to identify snakes is to learn with a good field guide like *Texas Snakes: A Field Guide*. Snakes are very important to their ecosystems, even venomous snakes. They are important predators for rodents, and they are prey for other types of wildlife. One species of rattlesnake, the canebrake is state threatened, which means it is protected due to low numbers. We must ensure that we take care of Texas so there are clean and healthy habitats for these neat animals. Next time you are outdoors, just remember to be careful, stay alert and appreciate snakes from a distance.



Western Diamond-backed Rattlesnake

Sources: Texas Parks and Wildlife

Photos from Wikimedia Commons: Peter Paplanus, Romey Swanson, CDC, Accipiter, USFWS, Patrick Alexander

# Snake Search!

S	U	O	M	O	N	E	V	L	X	M	H	M	R	D
J	B	U	D	D	S	W	P	N	A	T	F	A	T	A
N	N	Y	H	D	L	A	X	M	U	R	T	D	A	E
V	Q	R	C	N	X	U	F	O	N	T	O	R	T	H
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O	V	V	F	D	S	N	E	E	T	T	O	Y	B	E
D	O	F	A	W	O	E	S	N	A	Y	F	Y	A	P
O	K	Y	E	T	V	N	L	D	H	D	A	L	H	P
F	F	I	T	I	A	P	E	A	E	F	N	X	C	O
Q	C	O	P	K	K	R	D	T	C	K	G	E	W	C
O	C	E	E	K	P	P	K	G	K	S	S	F	O	R
N	R	M	I	J	Y	E	W	C	N	L	P	C	N	U
P	E	K	V	Q	M	T	M	P	K	O	Z	H	B	T
E	G	A	L	F	U	O	M	A	C	E	S	U	N	H
P	R	E	Y	V	E	X	W	A	C	C	A	R	B	M

Created by Puzzlemaker at DiscoveryEducation.com

## FIND THESE WORDS:

**CAMOUFLAGE**

**SAFETY**

**COTTONMOUTH**

**VIPER**

**COPPERHEAD**

**FANGS**

**RATTLESNAKE**

**PREY**

**VENOMOUS**

**SCALES**

**PREDATOR**

**CORAL**

**WARNING**

**HABITAT**



Texas Coral Snake

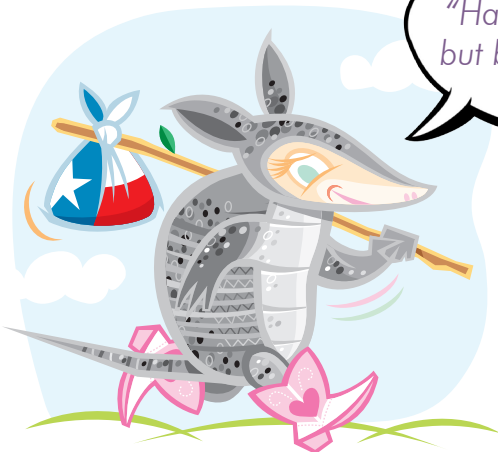
Photo source: Romey Swanson



## Nancy's Corner



"Have fun outside  
but be trail smart."



### **Remember these safety tips to avoid an encounter:**

Stick to the trails and bring a field guide

Move slowly and listen for movement or a rattle

Look where you put your hands and feet

Don't turn over rocks and logs with your bare hands

Clap or stomp your feet when entering snake habitat

Wear close toed shoes

**What is one neat fact you learned about venomous snakes?**

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- \* Hands-on materials and lessons
- \* TEKS aligned for Grades K-8



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