

Venomous Animals of Texas

By Carolyn Insall, M.S.
Central Texas Poison Center

The Poison Center is available at all times to advise you on bites and stings.

A venomous animal is one that produces a poison (venom) to attack its prey or defend itself. Some animal's venom is more toxic than others. People, who have an encounter with these animals, have varied reactions to their venom. This article is an overview of the more commonly reported animals in Texas that produce venomous bites and stings. Hopefully, this will help you identify critters you encounter including flying insects, crawling critters, spiders, snakes and marine life. Some of the information used is provided by Dr. John Jackman, and is used with his permission. To read or print more in depth information, click on this link or copy and paste in your browser: http://tcebookstore.org/publications_details.cfm?whichpublication=1585. If you are bitten or stung or have a question, call the poison center. If you are having life threatening symptoms, such as difficulty breathing, call 911.

Mistaken as Venomous

Texas has many insects, arachnids and arthropods that are mistakenly thought to be venomous. The list includes windspiders and windscorpions, "daddy long-legs", crane flies that look like giant mosquitoes, scorpionflies, dragonflies, and many more.

Nuisance Biters and Sprayers

Various insects, spiders and arthropods can produce painful bites or stings that vary in intensity depending on the victim's sensitivity. The effects are felt, but are not long lasting or life threatening. These bites or stings, however, can be quite painful or irritating for a short while. These include giant water bugs, wolf spiders, tarantulas, and jumping spiders.

Ground beetles and bombardier beetles spray caustic substances that can burn or irritate the skin. Whip scorpions can spray a vinegar-like substance from the tail. Millipedes produce chemicals that can irritate the skin if they are handled.

Flying Insects

Bees

Bees typically establish new hives in the spring and fall. This is when they are most active. Honey bees are the only bees with a barbed stinger that can sting only once. Bee stings are intense and immediate. If possible, remove the stinger and the attached poison sac by scraping it from the skin with a dull edge or fingernail. Do not pinch the stinger to remove it.



Honey Bees are about ½ inch long. Their color varies from light brown to black mixed with yellow. Africanized honey bees are a strain of this species and difficult to distinguish from managed honey bees.

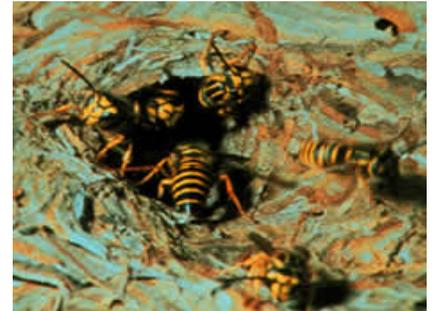
Bumble Bees are large, husky bees and about $\frac{3}{4}$ inch long. Their bodies are fuzzy with black and yellow or black and orange hairs. They usually nest in the ground or abandoned areas.



Other Bees you might encounter are Carpenter bees, leaf-cutting bees, and sweat bees.

Wasps

Wasps stingers are not barbed which allows for multiple stings. The pain is sharp and intense and may cause local swelling. Treat local reactions the same as other stings. Reactions should subside in a few hours.



Yellow Jackets, sometimes called “hornets” are about $\frac{1}{2}$ inch long. They are typically black with yellow markings on the head, thorax and abdomen. The body is smooth and wings are clear. They may be aggressive when looking for food, especially in the fall.



Paper Wasps include the common “red” wasp, with a reddish-brown body color that may have yellow markings. They are $\frac{3}{4}$ to one inch long. They usually nest under eaves or other sheltered areas, with less than 200 cells dangling on a single filament.



Mud Daubers come in several species that are $\frac{3}{4}$ to one inch long. Their body may be dull black, iridescent blue-black or black and yellow. They build mud tubes on the sides of buildings or other objects in sheltered areas. They can sting, but most attacks are bluffs.



Cicada Killers are large wasps measuring 1.5 inches long. The head and thorax are dark red, and the abdomen is black with yellow spots or bands. The wings are honey or rust-colored. They build nests in sandy soil or embankments that are about 6 inches deep. Females sting cicadas to paralyze them and carry them to their nests. Even though the female can sting, they are rarely aggressive. Males are aggressive, but cannot sting.

Velvet Ants are approximately $\frac{3}{4}$ inch long. The wingless female wasps look like “fuzzy ants”, but they are not ants. The black and orange-red markings make them strikingly colorful. The males have wings and can actually “squeak” when cornered. Stings are extremely painful. This species is commonly called the cow killer because of the pain it causes.



Reference for more information on insects: <http://insects.tamu.edu>

Crawling Critters

Ants

Fire Ants consist of four species in Texas. The most aggressive is the Red Imported Fire Ants which are found mainly in the eastern two-thirds of Texas. They are less than $\frac{1}{4}$ inch long. The females are reddish-brown and the males are darker. They respond rapidly and aggressively to any disturbance of the colony or to a food source. Ants both bite and sting. A single fire ant can and will sting repeatedly, even after the venom sac is empty. Initially the stings result in a localized intense burning sensation followed within 24-48 hours by the formation of a white pustule at the sting site. A minority of those stung who are hypersensitive to the venom require more intense treatment.



Velvet Ants : See wasps

Blister Beetles

Blister beetles have a long, cylindrical body with a narrow neck. They are $\frac{3}{8}$ to one inch long. There are more than 50 species in Texas. The color is variable, commonly black, gray metallic blue and yellow. They may have lines or spots on their back. Blister beetles are not venomous, in that they do not inject venom through a bite or sting. They do, however, produce a fluid which blisters the skin. They feed on alfalfa, soybeans and other legumes. They are poisonous if eaten and have been known to cause death when ingested by horses.



Puss Caterpillars

Puss caterpillars are sometimes called asp caterpillars. They are approximately 2 inches long and are covered with a thick mat of hair. They are usually tan or gray, but can vary from white to black. Adults are called flannel moths. They feed on oaks, elm and other woody plants. The hair conceals spines on the back that inject toxic chemicals. These are extremely painful and can cause fever, inflammation and nausea.



Scorpions

There are about 18 species of scorpions in Texas with most of them found in the Big Bend area. They have an average size of 2 inches. The color may vary from dark to light. Although Texas scorpions are not considered deadly, they can inflict a sharp, painful, sting which may produce a local reaction. Individual reactions may vary. The venom is a neurotoxin and anyone stung should be watched closely for adverse or allergic reactions.



Centipedes

Texas has several species of centipedes that are small and of little medical importance. The species of concern are the large ones that average about 6-8 inches, but can be larger. They have one pair of legs per body segment. The body is brown to deep blue with yellowish to orange head and legs.

Centipedes have a pair of pincers that produce an intense, scorpion-like pain. Most victims complain of a burning sensation. Each leg has a needle like structure on the tip that can also inflict pain.



Spiders

Spiders serve a very beneficial purpose in nature, often feeding on nuisance critters such as mosquitoes, gnats, flies, crickets, etc. All spiders have venom; that is how they kill their prey. However, most bites are usually not medically significant, with the exception of bites from widow spiders and recluse spiders. If you are bitten by a spider, you may experience a red, swollen, itchy area on your skin. In most cases, these go away without much care or attention. If you feel or see the spider biting you, wash the area with soap and water. Call the Poison Center for further instructions [1-800-222-1222](tel:1-800-222-1222).

Tarantulas

Tarantulas in Texas are large hairy spiders, brown to black in color, and adults are about 3 inches long. They may be seen in the evenings when they are looking for food. Males can sometimes be seen in numbers during warmer months. If you find one crawling, get your camera and take a picture or just leave it alone. Tarantulas are not aggressive spiders and only bite when cornered or feel threatened. They do possess venom. There is no scientific evidence that any of their venoms are lethal, but bites from some species can be painful and cause unpleasant symptoms.

Tarantulas can also brush hairs off their abdomen which can be irritating to the skin or eyes.



Wolf Spider

Wolf Spiders hunt at night. They are often large, generally brown and black, and may have stripes on both their abdomen and head. They are very common, especially in new housing developments where the soil has been disturbed. They frequently enter homes. They are relatively harmless but their bite can produce local pain and swelling.



Orbweaver Spiders

Orb-weaving spiders make the beautiful webs with concentric circles that are often very ornate. They come in many shapes, sizes, and colors. Orbweavers are generally harmless, but can be a nuisance if they build large webs in places you like to walk. If you've been bitten by a spider of any kind and feel concerned, collect the spider, if possible, and see your doctor or contact your local Poison Center.

Yellow Garden Spiders are the largest and best-known, of the orbweavers. They are marked with yellow, black, orange or silver. The female body can be more than 1 inch long, with much longer legs. The males are about half the size of females, and dark colored. This garden spider is also known for the zigzag design in their web and some folks call them the “writing spiders.” They are very beneficial and eat harmful insects, such as grasshoppers. It is possible for them to bite you if you get into their web or try to handle them. They will often spin a web across a walkway or trail, spanning several feet. If you notice these spiders building webs close to your home and would like them to move, you don't need to harm the spiders. Simply tear down the webs. The spiders will relocate further away where they can continue to do their part in keeping down the insect population.



Spinybacked Orbweavers are sometimes called hardbacked orbweavers, just in case you want to learn more about this unique little spider. They are common in wooded areas and their abdomen colors may be white, yellow, orange or red. The unusual flattened, spiny body shape makes it look like a crab...but it is not a crab spider...they are different.



Golden Silk Spiders weave very strong webs which look like gold thread in the sunshine. The female (3”) is much bigger than the male (1/2”). They rarely ever bite people. Although many people call them Banana Spiders because of their yellow bodies, they are not banana spiders. In fact they are very different from the spiders found in banana bunches.



Jumping Spiders

Jumping spiders are among the most interesting spider groups to watch. Jumping spiders come in many sizes and color patterns. Active hunters during the day, they have good eyesight, relying primarily on movement to locate prey. They stalk their prey before attacking in a fast leap. Jumping spiders put out a line of webbing when they jump and can sometimes be seen dangling from this silken dragline after a leap that fails. Many jumping spiders are bold, stocky and often brightly colored. They often have conspicuous bands of black and white on their bodies or legs. Others have velvety red abdomens. Like most spiders, jumping spiders are not considered hazardous to humans and are unlikely to bite unless cornered or handled. One of the most common and conspicuous of the jumping spiders is black with a distinct irregular orange to white spot on the top of the abdomen. It can be found in gardens and around homes.



Recluse Spiders

There are several different species of recluse spiders. The brown recluse spider is commonly known as a "fiddle-back" because of the violin-shaped marking on the top of the head portion. The shape and intensity of the fiddle design may vary. The body size is 1/4 to 3/4 inch with the leg span about the size of a quarter or half dollar. It lives in dark secluded places where there is little activity. Effects from a bite vary. It may be immediate or delayed; vary from no pain, to a stinging sensation, to intense pain. Within 24-36 hours fever, chills, weakness and pain may or may not occur. Within 2-3 days, the bite site may or may not erupt into an ulcerating lesion.



Widow Spiders

There are several species of widow spiders in Texas, but the most notorious is the southern black widow. It is the most recognized of the venomous spiders. They are shy and prefer to live in protected areas outdoors. The female is about 1.5 inches long with a red marking on the underside of her spherical abdomen. The marking typically is a red hourglass shaped, but not always. The color may vary from white, red, orange, pink, or other colors. The male is about half her size and along with juveniles tend to have more markings. Females bite when threatened or protecting an egg sac. The neurotoxin causes intense pain in 1 - 3 hours and may cause medical difficulties. Bites may be problematic, especially for infants and elderly. Call the Poison Center for instructions if bitten.



Reference for more information on spiders, click on this link or copy and paste in your browser:

http://tcebookstore.org/tmppdfs/viewpdf_252.pdf?CFID=21193191&CFTOKEN=56342965&jsessionid=8e3083f86cc328225a70

Snakes

In Texas, there are four types of venomous snakes, rattlesnakes, copperheads, water moccasins (cottonmouths), and coral snakes. The first three are in a group we call vipers. Vipers have a characteristic large head described as arrowhead or triangle shaped. They have heat sensing pits on their head, and elliptical eyes. They have retractable fangs in the upper part of their mouth that can pierce the skin and deliver venom when used for prey or defense. Anti-venom treatment is available when necessary for the majority of Texas vipers. The fourth snake is a coral snake which is not a viper. Its head is basically the same size as the rest of the body, it has round eyes, and 1/8 inch long fixed rear fangs. The venom is different from the others and therefore the anti-venom is different. If bitten by any of these snakes. Call the Poison Center **1-800-222-1222**. Although non-venomous snakes may bite to protect themselves, they have no venom. Wash the bite to avoid a bacterial infection.

Rattlesnakes

There are about ten different types of rattlesnakes in Texas. They range from the small pigmy rattler to the large timber rattler and include the massasauga, mojave, black tail, western diamond back, mottled rock, banded rock, and prairie. Rattlesnakes are pit vipers that have a triangular-shaped head which is broader than their neck. Their trademark is a rattle on the end of their tail, which usually serves as a warning signal when they feel threatened, however they may strike without warning. They have a wide range of color variation. They use heat sensitive areas in the pits on their heads. Venom is injected through fangs which puncture the victim's skin.



Copperheads

There are three different types of Copperheads found in Texas. The broadband copperhead and the southern copperhead cover a large area of the state. The trans-Pecos copperhead is only found around the Big Bend area. Copperheads are also pit vipers, and are recognized by their copper-colored head and body. The body is marked with bands of darker brown in somewhat of an hourglass pattern. Like all vipers, copperheads can pose a danger to humans. It is the most common viper bite in many parts of Texas.



Cottonmouth Water Moccasin

The cottonmouth is the only North American venomous water snake. This dangerous semi-aquatic snake is aggressive and will stand its ground or even approach an intruder. It is characterized by a brown, olive or blackish dark body with a lighter belly. The underbelly is frequently mottled with dark areas. The mouth is frequently in an ominous open position exposing the white inner surface from which it derives its name. It is a dangerous predator and can inflict a damaging bite. It is a very close relative of the copperhead and the young look the same.



Coral Snakes

This typically very small snake averages only 26 inches. The beauty of this snake represents a true danger since small children may want to pick it up. The coral snake found in Texas is the only black, red, and yellow cross-banded snake with the red and yellow bands touching. "Red against yellow kills a fellow, red against black, poison lack." It can be confused with the king, milk, or scarlet snakes, which have bands of similar color. The snake's small fangs do not penetrate well so many bites do not inject venom.



Marine Bites, Wounds, and Stings

There are other marine animals not discussed, including the Gulf Toadfish, Sea Urchins, and Scorpion Fish. If you have an encounter or suspected encounter, seek medical treatment if infection or allergic reaction develops.

Gaff Top Sail Catfish

The gaff top sail catfish is found in shallow water hunting for dead fish on the bottom. They can also be found on the beaches or docks where they are discarded by fishermen. Though these catfish don't usually attack, if someone were to step on or mishandle these catfish, the spines on its back are sharp enough to cause a deep cut, even if the fish is dead. The spines are shaped like a fishing hook and are not easily removed. The spines may also have bacterial slime over them increasing your chances of an infection. In fact, because the body's reaction to the slime can be very severe, the spines were once thought to be poisonous. Symptoms of infection include a gray to white wound changing to red in minutes, tingling and pain in the affected area, swelling, and a chilled feeling. You may also feel sick and vomit.



Sting Ray

There are many different types of sting rays. Many are found in the Gulf of Mexico. Most sting rays are gentle animals that rest along sandy or rocky bottoms or in crevices. When someone steps on the sting ray, it swats the person with its tail and the underlying stinger, or "barb", pierces the skin and releases its poison. The affected person will feel severe pain throughout the body and then feel weak and tired. Some people may have a drop in blood pressure, rapid heart beats, chills, feel sick or feel like they can't move.



Portuguese Man-O-War

The Portuguese Man-O-War can be seen floating on top of the water or on the beach. It cannot move on its own and relies on the current and wind for its movement. The tentacles below its body have numerous stinging cells called nematocysts. A sting will cause pain and swelling. In severe cases, a severe backache, inability to move or breathing problems can occur. This can be fatal. Permanent purple lines may also be seen at the wound site. The same reaction happens if stung by a Jellyfish.



Marine photos and information used with permission from Danger: Fish Crossing created by Linda Stephens. For more images of marine life, see www.seapix.com

Prevention and Treatment for Bites and Stings

For insect or spider bites:

- Remove webs and nests
- Remove stinger if applicable
- Wash with soap and water
- If victim develops itching, or irritation, call The Poison Center for instructions
- If patient develops breathing problems, wheezing or swelling around the lips or tongue, call 911.

For snake bites:

- Avoid habitat areas
- If bitten, note the time of the bite, remove jewelry or other items that might constrict swelling, remain calm.
- Do not try to capture the snake.
- Do not cut the wound and try to extract the venom by mouth.
- Do not use ice or a tourniquet.
- If possible, wash the bitten area with soap and water and cover with a cloth. Keep the bitten area level with the heart.
- Do not take pain relievers or other medications without medical advice. Do not drink alcohol.
- Call the Poison Center for instructions on all snake bites. [1-800-222-1222](tel:1-800-222-1222)

Treating a marine spine wound

- Do not attempt to remove spines, many are brittle and will break. Some are shaped like a fish hook and will tear skin.
- Immerse in hot water for 45-60 minutes to reduce pain and swelling
- Cleanse with soap and water **except** with sea urchin wounds
- Receive medical treatment if infection or allergic reaction develops

Treating a Jellyfish or Portuguese Man-O-War Sting

- Douse area with vinegar
- Remove tentacles using a towel or glove
- Apply a paste of vinegar and unseasoned meat tenderizer carefully while wearing gloves

If you have questions about any bite, wound, or sting from an animal, consult the free services of the Texas Poison Center Network, 1-800-222-1222.