

Herpetological Conservation

This brochure focuses on the nuisance value that venomous reptiles can sometimes offer. Although individual animals may pose a threat that requires action, please remember that they were here long before humans came to North America. Moreover, reptiles are important parts of the ecosystem, and many other species depend on the roles they perform for continued well being. Reptiles are often persecuted by humans, but in many areas their populations are declining as a result of habitat loss and other factors. please be respectful of these important animals and support the conservation of intact ecosystems and all their component species.

What to do when you encounter a venomous reptile

First of all, do not panic. Acting calmly and deliberately greatly reduces the risk to all involved. Do not approach the venomous reptile, remain at least four feet away from it. Attempting to kill an animal **increases** your risk, and is not recommended because a large percentage of venomous reptile bites are to untrained people attempting to kill or remove an animal thought to already be dead. In many cases, the animal is just passing through. Monitor it, alert people in the area to be cautious, and keep children and pets away while it is moving. This may take awhile, as many species are slow-moving. if the animal does not move on, or if it poses immediate risk, contact trained professionals to remove it. Depending on your location, your best bet might be the local emergency services, a municipal animal control agent, or a private pest removal service (the latter will charge for this service). Venomous reptiles should not be moved more than a mile from their capture location, as studies show that animals moved farther away have a very low chance of surviving.

Additional reading

- There are several field guides that cover the entire area included in this brochure. One of the better ones is *A Field Guide to Western Reptiles and Amphibians. 3rd Edition. By Robert C. Stebbins. The Peterson Field Guide Series. 2003.*
- Many state-level guides focus on the smaller number of species in your immediate area. Most good book stores will carry at least one, or contact your state game and wildlife department.
- Some books focus on dangerous species only. One example relevant to our area is *Poisonous Dwellers of the Desert: Description, Habitat, Prevention, Treatment. By Trevor Hare, Southwest Parks and Monument Assoc. 1995.*
- Although there are many web-based sites that include pictures or recommendations, always remember that anyone can post anything. Carefully evaluate the source of the information before you adopt their recommendations.

This brochure was produced by Southwest Partners in Amphibian and Reptile Conservation. We thank the Tucson Herpetological Society for sharing with us a similar document.



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Living with Venomous Reptiles in the Southwest

“Like other wild animals, reptiles are much more likely to bite when harassed.”

Many reptiles suffer from a PR problem. Even though most snakes are harmless to humans and ecologically important, most people fear them and consider them dangerous. An encounter with a venomous reptile is potentially dangerous, and the more you know, the less risk to you. This brochure covers the states included in Southwest Partners in Amphibian and Reptile Conservation: Arizona, California, Colorado, New Mexico, Nevada, Oklahoma, Texas, and Utah (Hawaii has no venomous reptiles).



Reptiles are cold-blooded, and avoid activity in the cold months of the year. Depending on your location, they are most likely to be active starting in the spring and continuing into the fall. Most species may be encountered during the day (especially during relatively cool periods) or night. During the night they may often be seen on a road, soaking up its heat.

Identifying venomous species

Of the many species of reptiles found in our region, few are dangerous. These fall into three main groups: rattlesnakes and their relatives, coral snakes, and the Gila monster.

Rattlesnakes and their relatives. These are the venomous reptiles you are most likely to encounter. There are a number of rattlesnakes in our area, and all of them have large triangular heads covered by small scales, rough skin, and rattles, which they do

Venomous Reptiles



rattlesnake



cottonmouth



copperhead



coral snake



Gila monster

Non Venomous



kingsnake



bullsnake

not always use. Many harmless snakes also vibrate their tails and produce a noise when scared, but lack rattles. There are also two venomous species, the cottonmouth and the copperhead, that look similar to rattlesnakes but lack a rattle. Like rattlesnakes, they have triangular heads covered in small scales. The colors and patterns of these snakes help them to blend with their surroundings, making them harder to spot.

Coral snakes. Much thinner than rattlesnakes and their relatives, coral snakes are typically no thicker than a finger. They have narrow black heads, no rattles, and their glossy bodies have very distinct color rings of black, yellow, and red coloration that go all the way around the body. A few non-venomous snakes mimic these colors in an attempt to scare potential predators, but the color bands are typically not as well defined.

Gila monsters. This is the only venomous lizard in the U.S. It can weigh up to 2 pounds and reach a total length of 20 inches. It has a broad head covered in bumpy scales, a thick tail, and pink or orange and black coloration which serves as a warning. It is slow-moving, active primarily during cooler spring and summer temperatures, and is found only in the desert areas of the Sonora and Mojave, including Mexico, Arizona, and small areas of California, New Mexico, Nevada, and Utah.

Reducing encounters with venomous species

Like most other animals, venomous reptiles fear humans and avoid them whenever possible. Because a number of them are well-camouflaged, there is a good chance you have already been close to one, but never knew it. Venomous reptiles will often stand their ground if cornered, but can also move surprisingly fast. They may engage in behaviors, like rattling or hissing loudly, that are intended to keep possible enemies away. Whenever possible, pay attention to this and stay away - many will simply move away if left unmolested. In the rare case that an animal moves toward you, remember that it is not trying to attack you, and simply back away slowly and let it go on its way. Like other wild animals, reptiles are much more likely to bite when harassed. **You should avoid approaching venomous reptiles and leave their removal, if needed, to trained professionals.**

"A venomous bite is the last line of defense..."

A venomous bite is the last line of defense, used only when other alternatives have been exhausted. Given a choice, they will try to remain hidden or get away. Basic precautions such as leaving animals alone, watching where you step, and only placing your hands where you can see them will greatly reduce your risk. Nonetheless, most homeowners will wish to reduce the chance of encountering a venomous reptile. Here are some strategies that will help achieve this.

Reduce the number of shelters. Most snakes and lizards do not dig their own holes, instead use the abandoned burrows of other animals, brush or wood piles, or rock crevices. Fill rodent holes in your yard and avoid creating inviting shelters like rock or wood piles. Carefully remove existing wood or junk piles, which may already have a resident snake!

Rodent control. Like most animals, venomous reptiles are attracted to easy sources of food. Many of them feed primarily on rodents and rabbits. By reducing rodents and their scent, you prevent the damage they do to your property, reduce the health risks they cause, and avoid attracting their predators. Bird feeders also attract rodents, and water attracts rabbits, and both should be avoided if you are concerned about attracting venomous neighbors. Harmless snakes such as the gopher snake also prey on rodents, and if left alone can help make your residence less appealing to dangerous species.

Deterrents. Several products claim to be snake repellents, but none of them have been shown to be effective when tested by scientists. Physical barriers such as solid walls will keep most species out. The wall should be smooth, 4 feet high and sunk into the ground so that animals cannot dig under it. Drainage holes should be covered with 1/4 inch hardware cloth (metal will also keep rodents out!). Snug gates will also help.

Vaccinate pets. Contact your vet and inquire about the existing pet vaccinations. These greatly increase the chance that a bitten pet will survive. Some places also offer rattlesnake

"The best protection against bites is knowledge"

avoidance training for your dogs, which greatly decreases the chance your dogs will be bitten by a rattlesnake, should they encounter one.

What to do if you are bitten

The best protection against bites is knowledge, and the best way to avoid being bitten is to leave venomous animals alone or rely on trained professionals for their removal. Other bites are rare: one is more likely to be killed by lightning in the United States than by snakebite! Nonetheless, they do occur, and some of the treatments commonly recommended can do more harm than good. The recommendations below are based on those currently offered by the medical profession.

Things to do:

- **Getting the victim to a medical facility without delay** is by far the most important thing you can do.
- **Memorize the appearance of the biting animal**, as this may help doctors determine the treatment.
- **Remove all constricting items such as watches or sleeves** from affected area, which is likely to rapidly swell.
- **Decrease your activity, immobilize the bitten area, and keep it below the heart** to reduce venom spread. Now that cell-phone service is common, it is easy to quickly summon help without moving.
- **Remain calm and reassure the victim.** Although the bite will be painful, it is unlikely to be lethal.

Things NOT to do:

- **Do NOT use incision of any kind.** Some of the "snakebite kits" being sold still contain sharp objects - these are likely to cause harm and unlikely to be helpful.
- **Do NOT use a constriction band or tourniquet**, which may cause gangrene.
- **Do NOT administer alcohol or drugs**, which may increase the rate of venom spread.
- **Do NOT use electric shock treatment** or apply ice, which do not appear to help but cause extra pain to the victim.

In the case of a pet being bitten, take the animal to an emergency veterinary clinic.