



# Eastern Massasauga Fact Sheet

## Why Conserve a Poisonous Snake?



Photo by Dick Dickenson

The eastern massasauga is a small venomous rattlesnake found in the northeastern United States. Populations of this snake have declined so much that it is now necessary to work to conserve it or it could go extinct in the future.

To some people, conservation of a venomous snake may seem a waste of money, stupid, and even negligent. That view is somewhat unique to our culture. Other cultures do not hold such a dark view of snakes. For example, in India, a country where thousands die from snake bite each year, they hold an annual festival to honor the snake because it eats mice and rats that eat their crops. Australian aborigines eat snakes and believe that life on earth began with the

rainbow snake. Many Native Americans thought of snakes as sacred and would ask the animal to protect them.

The eastern massasauga is a natural part of our environment that has evolved over millennia. Yes, people and animals can be hurt by massasauga, but people and animals can be hurt and killed by many things. We do not eliminate something from our world because it may cause harm or death (dogs, deer, raccoons, bees, spiders, cars, etc). Instead we recognize the value of these animals or objects and adapt our actions to minimize risk. The same is true for an animal such as the massasauga rattlesnake. However, the U.S. Fish & Wildlife Service emphasizes that human safety always comes first. If you are threatened by a massasauga you may protect yourself.

### Why conserve the massasauga?

The massasauga is an important part of its community because it's both predator and prey. It eats mainly small mammals (mice and shrews) and small snakes. It is also food for other predators in its community. Herons, hawks, eagles, and other snakes eat massasaugas.

Conserving massasaugas also means conserving the habitat where they live. These habitats are wetlands and adjacent natural habitat in uplands. Conserving these habitats results in conserving the many other wildlife and plants that are found there. Additionally, wetland conservation benefits people because wetlands store flood waters and filter sediments and other pollutants from water that people use.

Many plants and animals are directly important to humans now or may become important in the future as sources of food or medicine. By saving species from extinction we ensure that their beneficial uses will be available to us in the future. For example, rattlesnake venom has been explored for human medicinal use, including treatments for arthritis, MS, and polio. Rattlesnake venom also has anti-coagulant properties that stay localized, unlike coumadin and some other anti-coagulants that are currently used to prevent strokes and heart attacks.

## How dangerous is the massasauga?

The massasauga is a secretive, docile snake that strikes humans only when it feels threatened or cornered. A massasauga will rely on its camouflage coloration to hide or will try to escape rather than strike a person. Many people who visit parks with massasaugas never see these shy creatures and may have walked by one without noticing it.

A bite from a massasauga can be very painful and is potentially life threatening. But, because of the snake's elusive and shy behavior, people rarely are bitten by them. Ontario and Michigan, the province and state with the most massasaugas, report an average of 1 to 2 bites a year. The other states in which massasaugas live each report only a few bites a decade. A large portion of the bites that do occur are the result of someone intentionally handling or harassing a massasauga or someone stepping on one.

The venom of a massasauga is more toxic than that of most other rattlesnakes, but the amount it injects is relatively small compared to those snakes. Venom, typically used by snakes to kill their prey, is expensive for snakes to produce. Therefore, many snake bites contain little or no venom. These venom-less bites, called dry-bites, occur in about 25 percent (and possibly as high as 50 percent) of all rattlesnake bites. As a result of this and the successful use of antivenin treatment, fatalities from an eastern massasauga bite are extremely rare. There are no known fatalities in the last 40 years, although there are several verified fatalities during the first part of this century. In comparison, many more people are injured or die from dog bites or bee stings.

## How can I avoid being bitten by a massasauga?

Despite the infrequent occurrence of massasauga bites, people need to use caution when in rattlesnake habitat, just as they would with any wild animal.

- When walking in areas known to have massasauga, wear long pants and sturdy hiking boots and stay on the trails. Be alert, watch the trail in front of you and look around before you sit down or place anything on the ground.
- Massasaugas often hide under logs and rocks, therefore, do not reach under rocks or logs or step directly over them. Instead, step on them and then over them.
- The best way to avoid being bitten by a massasauga is to leave them alone. Many snake bites occur because people try to get close to them or try to kill them. If you see a massasauga, do not disturb it. Instead, stop, turn around and walk in the opposite direction.

## How do I keep massasaugas out of my yard or away from my home?

Massasaugas are secretive animals that avoid exposed places. They also generally hibernate in wetlands rather than in places occupied by people. Thus they are not likely to enter your home. However, if you live near wetlands or uplands with natural habitat, a massasauga may find its way to your yard. If you wish to maintain a relatively snake-free yard, there are a few practical steps which can be taken. The best way to keep snakes from using your yard is to eliminate their food and shelter.

- Rodents are the primary food source of snakes, so by reducing their numbers near your home, you can also reduce the number of snakes.
- Removing wood piles and debris and maintaining a well mowed, well kept lawn, will eliminate much of the snakes' shelter.
- Unfortunately, the things you will need to remove from your yard to deter snakes will deter all other wildlife as well. If you enjoy having chipmunks and song birds in your yard, you may want to keep the shrubs, fire wood piles, brush piles, and long grass on the fringes of your yard, away from your home.