

Rattlesnakes Put Parks On The Map

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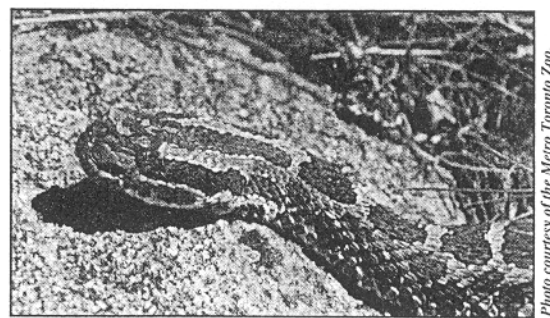


Photo courtesy of the Metro Toronto Zoo.

If you ever plan to go hiking in The Massasauga Provincial Park, near Parry Sound, make sure to watch for Vern, the park mascot. And if you are lucky enough to find him, keep a respectful distance.

Vern is an eastern massasauga rattlesnake, *Sistrurus catenatus*, who got his name and official mascot status from staff who repeatedly spotted the three-foot-plus serpent near Calhoun Lodge, a natural history site within the park.

"He's very, very large," says Assistant Park Superintendent Scott Thomas. "The majority that I see are about 18 to 24 inches, in that range. But Vern's very big; he's top-end."

Rattlers are numerous in the park, which officially opened in May 1996 and which takes its name, in part, from them. "Massasauga," an Ojibway word for "mouth of river," fits both the park - its southern limit is the mouth of the Moon River - and the snake, which inhabits shorelines and wet forest.

The possibility of coming across a rattlesnake doesn't seem to frighten off visitors.

"Some people have heard about the park and want to know, 'where can we go to see a snake?'" Thomas says. "The vast majority of people who come to the park are interested in nature and wildlife and that's a part of the camping experience. The people who've been camping here for years know all about the snakes. Other people don't even realize they're here."

People weren't always so tolerant. As little as 20 years ago, a typical encounter with a rattlesnake would end with the snake dead.

Just up the Georgian Bay coast at Killbear Provincial Park, Chris Parent, a graduate student at Carleton University, has conducted research since 1992 into the rattlers' growth patterns, habitat, and population structure. One of the purposes of his research is to find what effect human presence has on the snakes' behaviour. But the research itself, coupled with assistance in public education from Bob Johnson,

Curator of Reptiles at the Metro Toronto Zoo, has had a curious effect on the behaviour of previously snake-fearing humans.

"With a little help and education, these people become the strongest protectors of the snakes," Parent says.

"When I give a talk about the snakes to park visitors, I'll ask how many of them walked through the trail that afternoon and 10 or 15 people will put up their hands. Then I tell them, 'If you walked on the trail between two and four o'clock, you passed within a few feet of my snakes.' That really has a magical effect. People get really interested and some come back to the park specifically to see a rattlesnake."

Massasaugas are remarkable for a number of reasons, not least of which is that they are the province's only remaining species of venomous snake. (The other species, the much larger timber rattlesnake, *Crotalus horridus*, was last seen in Ontario in 1941.) More importantly, Ontario's eastern massasauga population is the largest remaining anywhere. That makes it especially worth studying and preserving.

Parent's studies have revealed that Killbear has two separate, genetically distinct populations of massasauga that occur over a broad range of habitats and that each individual snake chooses its habitat consistently and not randomly.

Development is the main threat to the massasauga's continued existence. Land in much of the snakes' range is useless for agriculture or industry, but is excellent for cottages. However, Parent believes that with informed management the snake has a bright future in Ontario.

Better research will allow park managers to improve protection for the snake. Decisions have sometimes been made based on incomplete data, but research partnerships such as this one give them necessary information at low cost. In turn, the parks provide researchers with an economical way to conduct their studies and with first-class assistance from parks and district staff.

"I have been terribly impressed and extremely pleased with the co-operation not only of the parks staff but of district staff too," says Parent, who believes the rattlesnake project is a "textbook example" of a partnership that benefits all concerned. The knowledge gained contributes to the worldwide understanding of snakes' evolution and ecology and the research on such "flagship" animals as the massasauga gives the parks a high profile with the public and the media.

Precautions for rattlesnake country

Although its venom is potentially lethal to humans, the massasauga has short fangs and small venom glands, which can mitigate the effects of a bite. Venom is saliva that has evolved to enable snakes to subdue prey and to defend themselves. Most pit viper venom, like the massasauga's, has a high concentration of blood- and tissue-destroying agents, which kills the prey animals and starts the digestion process. Massasauga venom also contains a fairly high proportion of neurotoxin, or nerve poison, which affects the respiratory system.

To limit the risk of snakebite, anyone visiting or living in rattlesnake country should observe several precautions: never go out at night without a flashlight; never overturn a rock using bare hands and never attempt to handle or otherwise disturb a rattlesnake or any other heavy-set snake that has a blotched pattern. Massasauga rattlesnakes are timid and will flee from danger if given the opportunity to do so.

Anyone struck by a rattlesnake should keep movement to a minimum and get to medical attention as soon as possible. Parry Sound General Hospital has supplies of antivenin and is close to both parks.