

TALK ABOUT ROLE REVERSAL: who would have thought that the Ministry of Transportation would be protecting rattlesnakes from humans? That's just what is happening, as part of the ministry's four-laning of Highway 69, a major arterial highway connecting northern and southern Ontario.

Highway 69 provides the only continuous north-south highway through eastern Georgian Bay, a popular recreation area that also happens to be one of four remaining native Canadian habitats for the Eastern Massasauga Rattlesnake. A 26 km stretch of new alignment to be constructed west of the existing Highway 69, bisects their previously undisturbed habitat.

The Eastern Massasauga Rattlesnake is a relatively small venomous rattlesnake that is passive and solitary. It can be identified by its grey or brown colour, with dark blotches and a rattle at the tip of its tail. Being cold blooded, the species prefers open areas close to cooler areas of cover, which aids it in temperature regulation and digestion. Females like open flat rocks while brooding.

The Eastern Massasauga has been a "threatened" species since 1991. Loss of habitat through development, draining of wetlands, and human disturbance, have depleted the indigenous rattlesnake population and restricted its range. Moreover, this species may be classified as "endangered" if factors affecting its vulnerability are not reversed.

The potential impact of Highway 69 construction on the Eastern Massasauga was first identified in 1992. The depleted snake population and its "threatened" status alerted the ministries of Transportation and Natural Resources to the need for studying the snake, its habitat, and the possible effects of highway construction activities. As part of the environmental approval process, the Ministry of Transportation committed to protecting the species during highway construction. However, no information is available on how activities such as clearing, rock blasting, quarrying and alteration of wetland/ waterways, might impact the rattlesnake and its habitat. How will the snakes react? Will they adapt to all the changes to their habitat?

This season, researchers are investigating species characteristics, population dynamics and habitat requirements, including assessing the study area to identify prime habitat and hibernation locations and monitoring snake encounters. Experts will surgically implant radio transmitters to track individual rattlesnake movements in the future construction zone.

Researchers will then identify construction activities that may impact population or habitat, in order to establish causative relationships. This is the first step towards creating a database correlating rattlesnake response to highway construction activities. Information gathered will be used to develop a construction plan to mitigate impacts to the extent possible.

The ministry is taking a proactive approach to protecting rattlesnakes and mitigating habitat loss caused by the highway's construction. For example, the ministry will relocate flat "tablerocks" to create attractive habitat for brooding females that cannot use their traditional brooding rocks since construction activities have destroyed them or no longer allow access to them.

The ministry will also train all construction workers in the prime habitat area on how to respond to snake encounters. During construction, any snakes encountered will be protected and relocated.

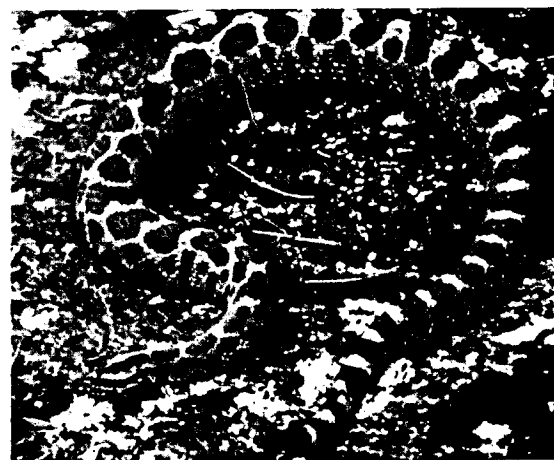
As an appropriate follow-through to the extensive efforts spent on relocation and protection of the rattlesnakes, mitigation strategies will be monitored after construction to ensure ongoing protection of the snake population. This unique monitoring component will contribute to our understanding of the impacts of habitat fragmentation and the effectiveness of all the mitigation strategies used in this project.

It is anticipated that the highway construction industry, the ministry and the public will all benefit from an increased awareness of the species. The undertaking of this habitat management strategy has been groundbreaking for MTO and is a means, unique to Ontario, of mitigating impacts from highway construction. It marks MTO as a proactive and creative partner in protection with other agencies ...and the rattlesnakes like it too! •

Rattlesnake Relocation

North not "Rattled" by Snakes

For further information on rattlesnakes, please contact Marlo Johnson, EU Supervisor at 705-497-5458



Top: The Eastern Massasauga Rattlesnake up close and personal, in its natural habitat. Photo Credit: Dr. Dave Hackett: Nipissing University.

Below: To minimize construction impacts, the ministry is relocating tablerocks used by brooding females. Photo Credit: Ron Black, Ministry of Natural Resources.

