



## Media Release **Goodness Snakes Alive**

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It's no secret. The mere sight of a snake strikes terror in the hearts of many. Research suggests that evolution may be the reason for such fear, stretching back to a time when early mammals had to survive in an environment dominated by reptiles, some of which were deadly.

Dominic Marotte, Nancy Schrade and Mark Trepanier farm in Essex County and have had their share of close encounters with the Eastern Foxsnake, an endangered, but not deadly, species in Ontario. For Marotte and Schrade, the discomfort with snakes still looms large, but they both overlook it for the sake of protecting a species they feel is an important part of our ecological heritage.

Trepanier and Schrade are cash crop farmers, who grow wheat and soybeans on 450 acres. Marotte is a retired elk farmer, who leases half his 100 acres for soybean, corn and a few acres of hay. The remainder of his land is forest. With assistance from the Ontario Ministry of Natural Resources (OMNR), these property owners are participating in a Recovery Program for Eastern Foxsnakes by creating habitat critical for Foxsnake survival.

“My first encounter with a Foxsnake was 17 years ago in leaf litter in a flowerbed next to the house,” says Schrade. Trepanier removed the unexpected visitor to a more distant location, but the occasion fuelled a continuing interest in all things natural, including snakes. They have seen Foxsnakes around their buildings and in their lawn and gardens, particularly in the last five or six years, but Trepanier notes he's never seen them in his soybean or wheat fields.

Marotte also sees Foxsnakes near his buildings on a regular basis, as well as in his hayfield at haying time. “Even though snakes make me uncomfortable, to say the least,” says Marotte. “I know they have their place, and I see creating habitat as a chance to give something back.”

The Eastern Foxsnake requires a variety of habitat suitable for hibernation, foraging, basking, nesting and travel corridors between. Queen's University researcher and PhD candidate, Jeff Row, and his supervisor, Stephen Loughheed, are studying the habitat-use patterns of Foxsnake populations in the Carolinian reaches of southwestern Ontario.

Row has found that Eastern Foxsnakes prefer marsh and natural or semi-natural open habitat, such as prairie, old fields and semi-maintained grass greater than 15 metres wide along drainage ditches, creeks, roads and railway tracks. They avoid large cultivated agricultural fields, supporting Trepanier's observations.

Populations of Eastern Foxsnake exist in pockets in Essex County, the Long Point Region and along the eastern shore of Georgian Bay. The Foxsnake is Ontario's second largest snake, up to 175 cm in length (almost 6 ft) with skin bearing bold dark blotches on a yellowish background. It is harmless, but exudes a musk scent similar to that of a fox when disturbed, hence the name. The Foxsnake will also vibrate its tail as a warning, similar to the Massasauga Rattlesnake, an action that has encouraged its persecution.

Foxsnakes hibernate from October to April. Mating occurs in late spring or early summer, with 15 to 20 eggs laid in mid-summer. The young hatch in early fall before moving to a hibernaculum, their wintering area below the frost line. Prey consists of small rodents, birds and their eggs, frogs and toads.

Eastern Foxsnake habitat has changed dramatically since pre-settlement times. The loss of wetland and forest-field patterns are thought to be a key cause of the Foxsnake's decline in southwestern Ontario.

However, as Marotte, Trepanier and Schrade have discovered, as long as there is sufficient wetland and natural cover nearby, Eastern Foxsnake are known to frequent human-modified habitat.

Nesting and hibernation sites are the most critical habitat for Eastern Foxsnakes. Natural nesting habitat includes decomposing root masses and logs, which offers a dampness that snake eggs need to stay moist. However, Foxsnakes have been found using man-made leaf, wood chip and compost piles.

With assistance from Brett Groves of OMNR's Essex County Stewardship Network (ECSN), an artificial nest site was constructed during spring 2010 next to a 4-acre bush on Schrade and Trepanier's property. A 1.2-meter high by 1.2-meter diameter circle of 5-cm by 10-cm page wire sits on the ground filled with a mixture of wood chips and straw. Groves had success with a nest site in a compost pile near Leamington producing 88 young Foxsnakes late this summer. "We'll be watching ours carefully next year to see if it's used," say Schrade and Trepanier.

Constructing hibernation sites requires more effort. Again with ECSN assistance, Marotte is in the process of creating both nesting and hibernation sites on a field edge near his woodlot. Hibernacula must extend below the frost line. Marotte will dig a 2m x 2m x 2m hole, then fill it with rocks or concrete chunks, leaving open spaces between pieces, with rocks extending above ground level. He will backfill the hole leaving 3-4 openings for snakes to access the space underground.

The hibernaculum can double as a basking site—a place on top of the rocks for snakes to sun themselves, with an easy escape from predators under the rocks below.

Habitat loss is one of the greatest threats to survival and recovery of Eastern Foxsnake populations. Farmers interested in enhancing Foxsnake habitat on their properties can access cost-share funding through the Species at Risk Farm Incentive Program (SARFIP). The program reimburses farmers for up to 50% of eligible costs for qualified Best Management Practices.

SARFIP is linked to the Canada-Ontario Environmental Farm Plan and funded by the OMNR and the Government of Canada. The Ontario Soil and Crop Improvement Association delivers the program locally. Eligibility for funding requires a Farm Business Registration Number and a deemed-appropriate Third Edition EFP.

"Nature is amazing in its adaptability," says Schrade. Where she lives the land is predominantly large cultivated fields, not the preferred habitat of Eastern Foxsnakes. However the Foxsnakes are there, taking advantage of habitat greatly altered from its traditional state. Nevertheless, Eastern Foxsnakes require a variety of habitats within their active range, an area that can encompass 30-50 hectares, as well as stability in those habitats.

Maintaining or restoring patches of natural habitat, protecting known nesting and hibernating sites and creating new ones, providing for linkages between known habitats, and respecting Eastern Foxsnakes as part of our natural biodiversity are all good stewardship practices available to Ontario's agricultural community.

Monitoring and recovery efforts benefit greatly from sightings of Eastern Foxsnake. Sightings can be reported to Ron Gould, OMNR at 519-773-4735 or [foxsnake@queensu.ca](mailto:foxsnake@queensu.ca)