Turtle Stewardship

A Landowner's Guide for Helping Ontario Turtles

LEEDS-GRENVILLE STEWARDSHIP COUNCIL

Turtles Of Leeds-Grenville

Blandings Turtle (Threatened)

- High domed shell
- Bright yellow chin and neck

Common Snapping Turtle (Special Concern)

- Large head and limbs, long tail
- Often large and serrated, mossy shell

Northern Map Turtle (Special Concern)

- Many fine yellowish lines on shell
- Striped head and limbs

Stinkpot Turtle (Threatened)

- Smaller turtle (5-11cm) with high domed shell
- Rarely leaves water, produces musk when threatened

Midland Painted Turtle (Not at Risk)

- Smooth shell with red/orange fringe
- Limbs striped with red/orange/yellow

Spotted Turtle (Endangered)

- Smooth shell with bright yellow spots
- Small, adults usually between 9-11cm
- *Extremely rare if still in Leeds-Grenville at all*

Turtles at Risk

There are 8 species of turtles that are native to Ontario and 7 of them are listed as a Species at Risk. While habitat loss, pollution, land-use change, alien/invasive species introductions and climate change are all contributing factors to turtles being at risk globally, there are localized threats specific to eastern Ontario turtles that are contributing to their losses.

Road Mortality

Why did the turtle cross the road? Well, probably because it was a female turtle looking for suitable soils (sandy, gravelly material) to lay her eggs. Sometimes turtles pass over land to find new bodies of water and habitats as well. In both cases, vehicle/turtle collisions are commonplace and many turtles die or suffer injuries.

Predators

Adult turtles can have predators such as river otters and some birds of prey but turtle eggs and hatchlings are particularly vulnerable to many predators such as racoons, skunks and fox. After the eggs are laid and buried, there is a strong nest scent that remains for several days and predators unearth them. If the eggs do last long enough to hatch (usually late summer or early fall), the hatchlings are preyed upon heavily by mammals, birds, snakes and fish.

Reproduction

Some turtles, such as the snapping turtle, do not reach sexual maturity until they are 15 – 20 years old. This late reproduction age leaves turtle populations susceptible to declines due to other hazards being met before they have the chance to reproduce. Some studies suggest that in specific areas, only 1 out of 1,500 snapping turtle eggs will make it to the age where they can reproduce.

Harvesting/ Collection

Turtles are popular and unfortunately due to their popularity as pets, they are often collected and sold to the pet industry, though most often illegally. There is also a market for turtles to be used in the food industry and medicine trade.

How Landowners Can Help!

If you are interested in turtle stewardship, there are a few options that you could consider for your property…

Habitat Improvement:

If you have an existing pond, wetland or shoreline on your property you can help by creating vegetation buffer zones between the wet environments and residential features or crop lands. 50 meter buffers of native plant species are ideal but if you don't have that kind of space, any buffer helps. Increasing native aquatic plants such as lilies can help the turtles, as well as adding floating logs so they have a safe area to bask. Ensure that the habitat you intend to improve is YOURS to improve and always use native, non-invasive plant species. Feel free to contact the Leeds-Grenville Stewardship Council if interested in planting opportunities 613-342-8526.

Nest Site Construction:

Turtles will sometimes nest in gardens or lawns where they, and their digging predators, are unwanted. Landowners can create appropriate nesting areas on their properties in locations more welcomed by people and the turtles.

- Choose a location with a south facing exposure, close to an aquatic environment and away from roads. This will ensure the most sunlight as temperature is important for successful egg incubation.
- Choose an area with good drainage that doesn't tend to flood during high water events and storms. Having lots of vegetation nearby is good for hatchling protection but significant vegetation growth on the nest site can deter turtle use.
- Scrape off the top 6" of vegetation and soil ideally in a 10' by 10' area.
- If you want to help control vegetation growth, you can apply landscape cloth on the site but ensure that it is at least at 12" depths.
- Apply substrate to the nest area. Suggested artificial turtle nest substrates: ¾" crushed gravel, sand, sandy loam (better water retention than fine sand), disturbed soil, woodchips, and replicas of gravel road margins.
- A mixture of substrates can work and whatever material is used, remember that most turtles will dig the nest to about 8-10" depths.
- THINGS TO NOTE – Most Ontario turtle eggs will hatch in between 60 and 90 days but some (usually painted turtles) will hatch and over-winter in the nest. Adult turtles do not stay around the nest site after eggs have been laid. Turtles often become committed to a particular nesting site so it can take time before they choose an artificial site. Turtles hatch underground and then dig their way to the surface so if you see many egg shells exposed on the surface, it is because a predator has destroyed the nest.

Predator Protectors:

Landowners that have known natural or artificial turtle nesting areas can help protect them from predators such as racoons in a variety of ways.

1. **Avoid Subsidized Predation** – Racoons often forage around homes because there are easy food opportunities if garbage is left outside and accessible. Once they find easy food, they often return. Allowing them this opportunity is often referred to as increasing "subsidized predation" because we are assisting them in finding food and bringing them to areas where prey such as turtle eggs could be. Try to keep racoons away from your property by keeping garbage away from them.

2. **Wire Mesh Covering** – Once the adult turtle has left the nest, place a wire mesh over the site. Mesh should be at least 2 feet by 2 feet and securely anchored on all corners. Remove the mesh after 3-4 weeks as most predation would have occurred by then. If you plan on leaving it in place until after the hatchlings emerge, the mesh spacing should be at least 6cm by 6cm. It is usually unnecessary to leave the mesh in place until hatchling emergence as predation will generally only occur in the first 14 days after eggs are laid and when there is still a scent attached to the nest.

3. **Elevated Wire Mesh Covering** - Cut untreated 2x4" lumber into 4, two foot lengths. Nail them into a square that would be 4" high. Cut a 2x2 foot square of wire mesh (2cm mesh is fine) and secure the mesh to the top of the wood square. Once the adult turtle has left the nest, place the wood and mesh square over the site and anchor it securely with weight or posts. Remove the structure after 3-4 weeks as most predation would have occurred by then. If you plan on leaving it in place until after the hatchlings emerge, you can cut "escape" routes for the young turtles in the wood frame at least 4cm high and 10cm wide. Cut at least 2 escape routes.

Some More Suggestions:

- Feel free to call Tim Wood, the Leeds-Grenville Stewardship Council's, Species at Risk Coordinator at **613-342-8528** to discuss the potential for turtle crossing signs or directional fencing being placed in your area.
- If you see a turtle crossing the road you can try to help it. Ensure your own safety at all times on roads. Don't disturb if it's nesting on the roadside (May/June). If it's crossing, always move the turtle in the direction it's going or facing. Often some encouragement (noise, feet stomping) will get it moving but if not, small turtles can be picked up by holding both sides of the shell with your thumb on top of the turtle's carapace (upper shell) and your fingers on the bottom of the turtle's plastron (belly shell). Hold the turtle's belly away from you. Frightened turtles may nip and some will "pee" (release water as a defence) when they are scared. Move snapping turtles with caution if at all. Try scooping with a shovel, paddle or car mat if you think necessary. Wash your hands after handling a turtle.
- Visit www.torontozoo.com/adoptapond/, for more information.

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