

Troubling Times for Our Turtles

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Pretty excited to find this little spotted turtle on one of the Bay's outer islands. It was July so he'd already made it through a winter. Its habitat is pretty secure- one large island owned by a willing steward, no roads.... Hopefully this little guy can reach adulthood- he certainly has a better chance than many other Ontario turtles. Today, four objectives of this presentation- for you to be able to ID the six turtle species found in Muskoka- that's right 6. Hardly an ID challenge at all compared to shorebirds or warblers. Really we have no excuse not to be experts in turtle ID. Second- to look at the habitat associated with each species, and given the title of this talk- why are 7 of our 8 Ontario turtle species listed at risk. Finally, of course is what we can do to help these turtles survive- after all- species like the snapping turtle have been stalking the swamps for millions of years so hopefully, with some changes, they can survive for millions of more years.



Let's start with the easy— how many recognize, how many had one as a pet as a kid— of course we know that would be no longer appropriate.

Painted turtles have an olive to black carapace (upper shell) with red or dark orange markings on the marginal scutes as well as red and yellow stripes on the head, neck and tail. The carapace is broad, smooth and flat, and generally reaches a length of 12 to 14 cm, but one individual has been measured at 19.5 cm.

- Often seen basking on logs
- Lays 3 to 12 oval, white, smooth-shaped eggs typically in June and the hatchlings may over winter in the nest.

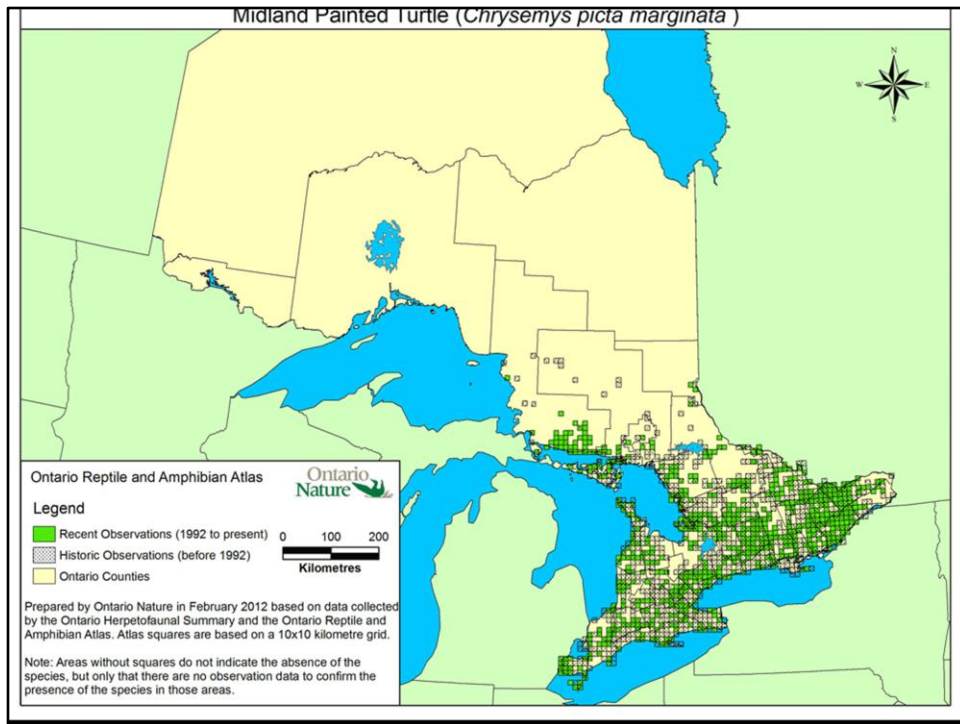


The midland painted turtle has a yellow or tan plastron (lower shell) with a darker, irregular “butterfly” marking along the midline.

Note that the small turtle was DOR- Studies from New York State show that populations of adult painted turtles located near high density roads, ie. 4-lane highways are predominately male (73%). So, if 3 out of 4 adult turtles are male then the population will certainly be impacted.



Painted 's aren't fussing regarding habitat- quiet waterbodies, such as ponds, marshes, lakes and slow-moving creeks, that have a soft bottom with lots of structure- logs or rocks to allow for basking. They are known to move long distances overland from one waterbody to another or in search of nesting sites. These turtles are opportunistic feeders and eat algae, invertebrates, fish, frogs, carrion and vegetation. Some individuals live for 30 to 40 years in the wild.



Widespread distribution in southern areas of the province however think of the road networks in these areas and the potential to skew the population.

Note that this range map is taken from the Ontario Reptile and Amphibian Atlas program. If you're interested in participating please pick up a brochure at the end of the program.



That's it for secure species in Ontario.

I'm sure most of you recognize this turtle as well. Snapping Turtles were listed as a species of special concern in 2009.

Easily recognized with their jagged stegosaurus like tail. The carapace is tan or olive to black in colour, has a coarsely serrated scutes at the rear of the shell. There are three longitudinal ridges on the carapace. Due to their highly aquatic nature, they are often covered with algae and a few leeches on their legs. The maximum length of the carapace in this species is almost $\frac{1}{2}$ m. Its aggressive reputation is due to its defensive strategy when on land, which has evolved because it has a very small plastron and cannot retreat into its shell. When in water, snapping turtles are very passive and will simply swim away if disturbed.

They are omnivorous and feed on various aquatic plants and invertebrates, as well as fish, frogs, snakes, small turtles, aquatic birds and relatively fresh carrion.

Approximately 90 percent of their diet consists of dead animal and plant matter.

In Praise of Older Turtles



Snapping turtles are late-blooming breeders who, in our northern climate, don't reach sexual maturity until they are in their late teens or even mid-twenties. Older turtles produce more eggs and generally of better quality. A mature snapping turtles can lay up to 40 ping pong ball sized eggs. She may lay eggs each year from her mid twenties until 80 or even 100 years old. Indeed there are some who are now thinking that snapping turtles, given this northern climate and the fact they hibernate for five months year, may live hundreds of years.



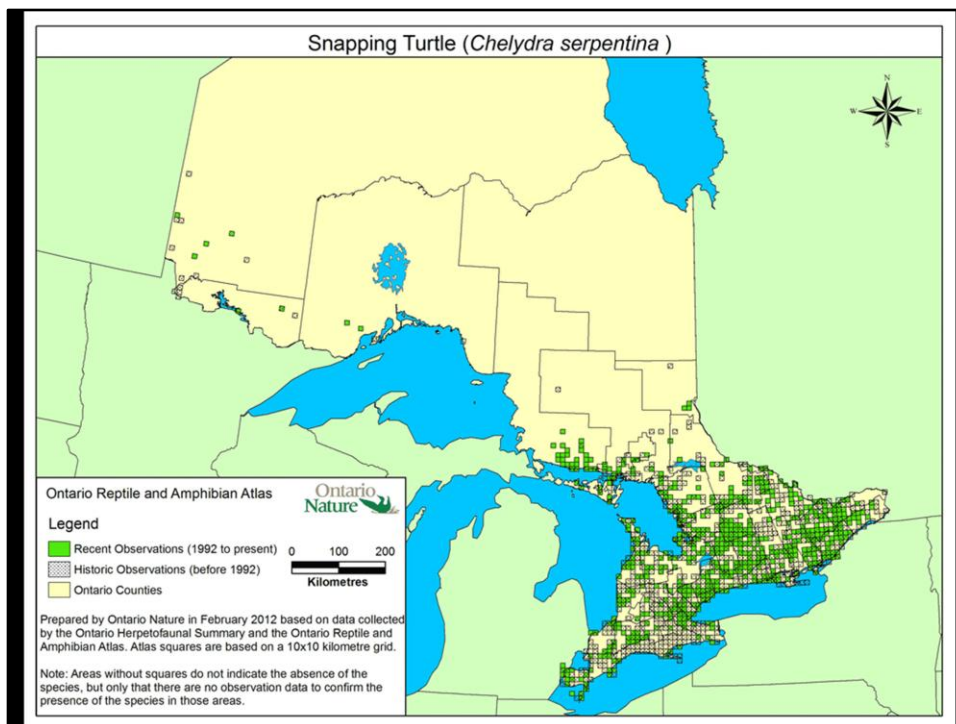
The survival probability from egg to maturity is 0.07 per cent, based on Ron Brooks' four decades of research at Algonquin Park. That means for every 10,000 eggs laid, only seven babies survive to adulthood. In other words, if a female lays eggs (35) for about 60 years, she has a chance to replace herself.

in Ontario, hunting this species is still legal in the province (the limit is two snapping turtles per day per person and they can possess five.). A recent petition was presented to the provincial government requesting that snapping turtles be protected from hunting. This has resulted in only a proposed amendment to have hunters report their kills. Comments can be received on the EBR web site until May 10.



Almost any freshwater habitat suits the snapping turtle, although it is most often found in slow-moving water with a soft mud or sand bottom and abundant vegetation. This turtle may inhabit small wetlands, ponds and ditches. It hibernates in the mud or silt on the bottom of lakes and rivers, usually not too far from the shore.

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Northern map turtles are known for their communal basking, and many individuals may be found piled up together. They also tend to be skittish and drop quickly into the water when approached.



Named for the markings on its shell, which look like the contour lines on a topographical map. The carapace is olive green with fine yellow lines and has a distinct keel along the centre and serrations along its back edge. Both the head and legs have an intricate pattern of bright yellow lines. This turtle has a yellow spot behind the eyes. Females get much larger than males and grow up to 27 cm in length, whereas males grow to only 13 cm long. Males reach maturity in only 4-5 years while females take 10-15 years. An average of 8 eggs are laid.

They have very strong jaws. The large females eat molluscs such as snails and clams, as well as crayfish, other invertebrates and some fish. Males and juveniles eat insects and crayfish.



Toothed edge of rear shell.



They inhabit large rivers and lakes. They require high-quality water that supports the female's mollusc prey. They avoid areas of heavily developed shorelines. Usually by mid to late August they move towards hibernation sites—they hibernate communally and do not bury in mud like painted or snapping. They require reasonably good oxygen levels throughout their hibernation.

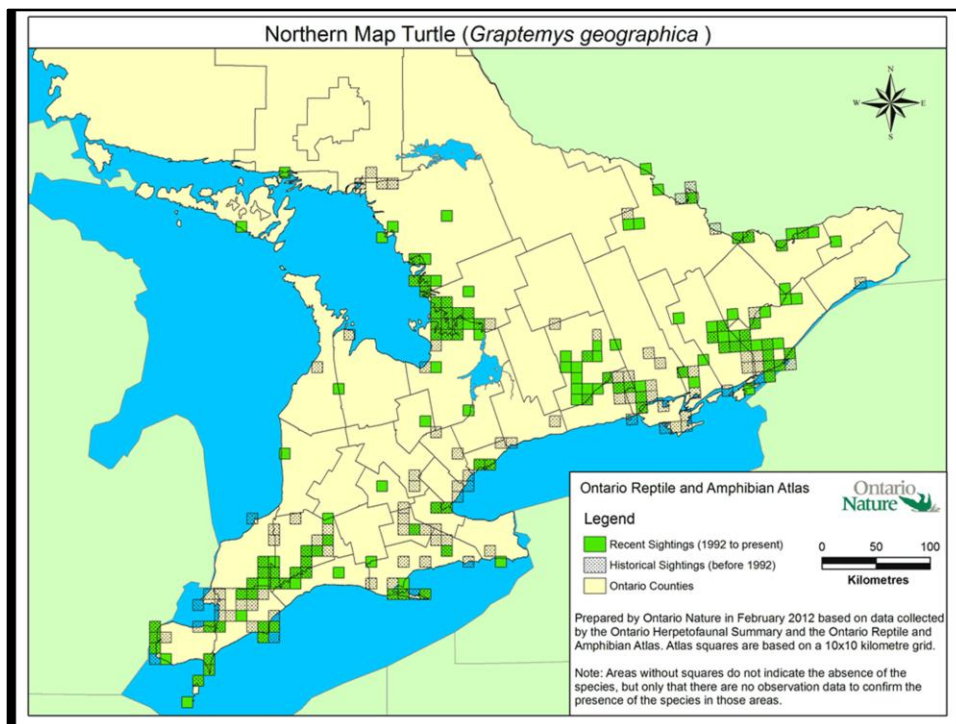


Photo Credits: A. Bennett



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Boat propellers, fishing lines, hooks and nets can take a toll on their populations. St. Lawrence Island NP finds approx 15% of adult females have injuries caused by boats. Unfortunately, females need to bask more and that puts them a greater risk of injury.





Threatened

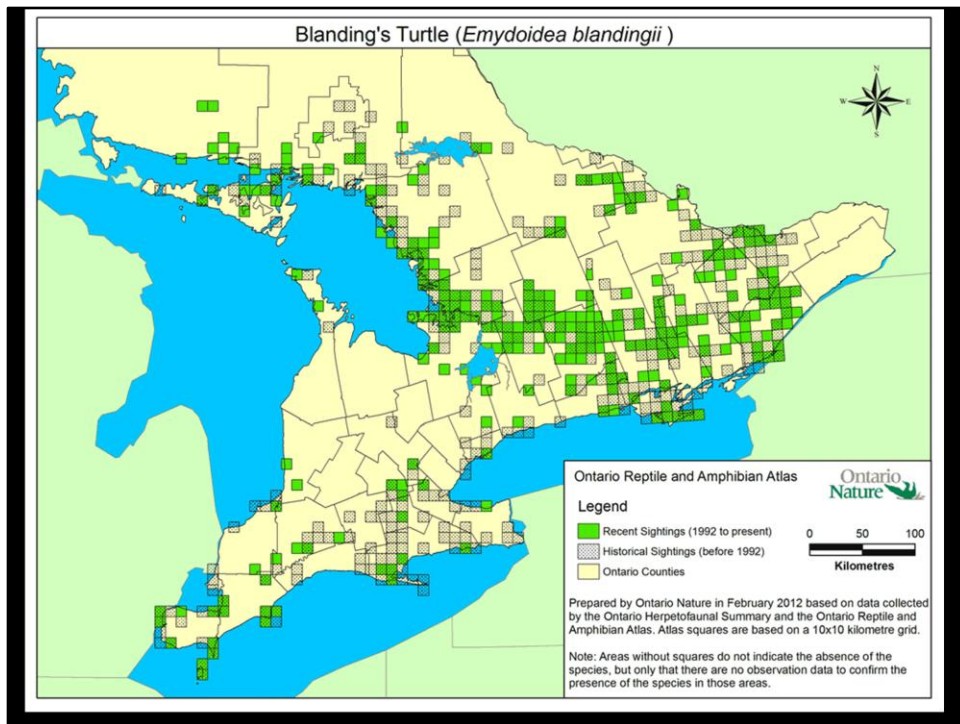
Blanding's : smiling turtle, mid-sized with high domed, smooth black shell with small, irregular tan or yellow flecking. These markings may be faded in some individuals. The bright yellow throat easily recognised. In adults, the carapace is up to 28 cm in length.



The hinged plastron is yellow with a large dark blotch in the corner of each scute, but may be almost entirely black.



Like painted and snapping turtles, they use a variety of wetlands and quiet bays. They will also go on land to feed. Both males and females will move over land to seek mating opportunities- females to find egg laying sites ~ 1 km away from wetland which makes them prone to road mortality (travel up to 7 km recorded). Females of this species do not mature until at least age 14, and individuals can live to likely 100 years old.





Stinkpot or musk-this turtle is named for the strong musky odour that it emits when threatened. The eastern musk turtle has a narrow, domed carapace that is brown with black flecking, which is often covered in mud or algae. The head and limbs are dark brown to black, and adults have a light stripe above and below the eye on each side of the head. This small turtle reaches a maximum carapace length of 13 cm



The plastron is yellowish to brown and hinged at the front, allowing the turtle to pull the front of its plastron partially closed.



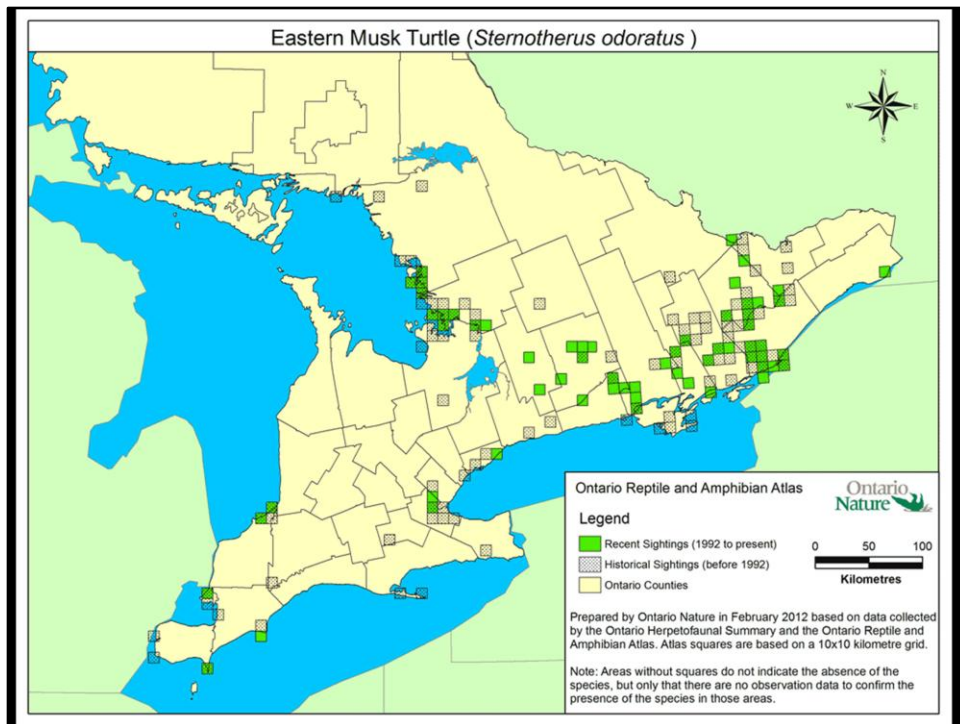
Fishing line injury



They rarely swim; instead they walk along the bottom of lakes and rivers, where they feed on small invertebrates, algae, carrion, fish eggs, minnows and tadpoles. Instead of basking on rocks or logs, this species basks under cover of floating vegetation. Surface basking makes them prone to boat strikes.



They matures in three or four years, which is much earlier than most of our turtles. It nests close to the water. A nests usually has two to five eggs and are quite shallow; sometimes the female lays her eggs on the surface.



Variety of habitats including rivers, lakes and ponds with a slow current and soft bottom, and usually inhabits shallow water.



The spotted turtle is a small black turtle (12 cm) with distinct large yellow spots on its carapace and orange-yellow markings on its head, neck and limbs. Males tend to have brown eyes and a dark chin; females have orange eyes and a yellow chin.



Female spotted turtles reach maturity at 12 to 20 years of age. Their nest is dug in sand, soft soil or mossy areas and an average clutch size is only 5 eggs. They feed only in the water, searching for snails, aquatic insects and other prey or vegetation at the edge of ponds and wetlands.





This small pond had 4-5 visible spotted turtles. Spotted turtles are typically associated with fen and bog- uses a range of wetland types- protection of even small wetlands will be important for this turtle. They tend use same breeding ponds each year. Hibernation sites include hummocks, muskrat burrows, sphagnum, fern and shrub and small rock cavities. Typically use the same general area for hibernation and may hibernate singly or in groups



That's it for our six turtles. What can you do to help spotties and other turtle species?

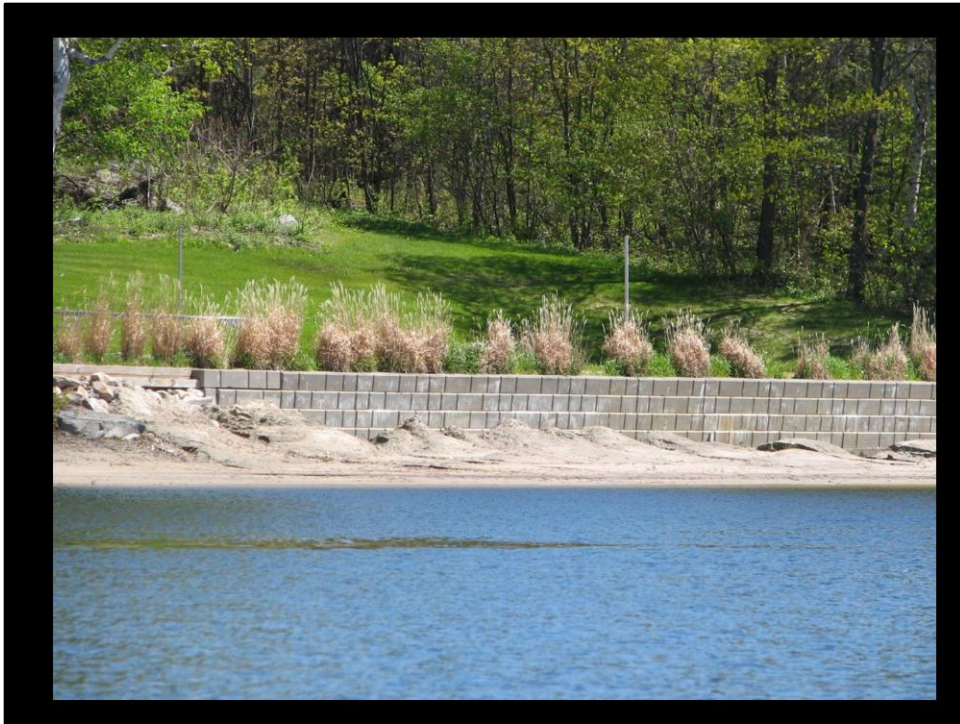
Poaching is a serious threat for this and several other species. Do report any suspicious activities.



Loss of wetland habitat is a huge issue for turtles and other wildlife in southern Ontario. We are fortunate to still have many, good quality wetlands however we need to be aware that particularly near town sites, these wetlands are often filled to accommodate development.



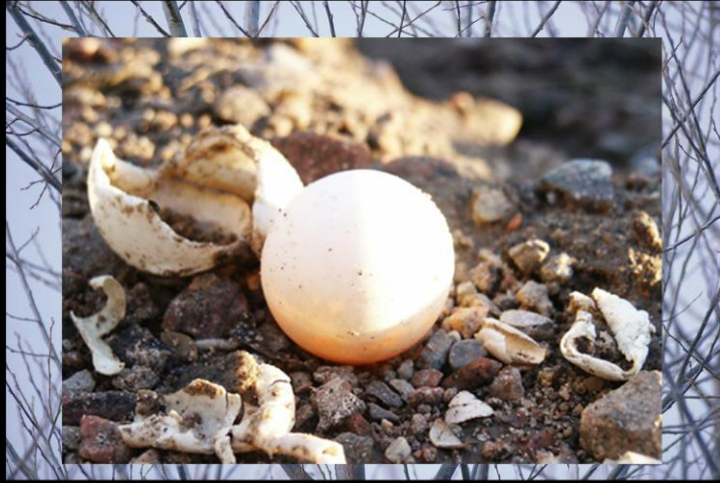
Some of our wetlands including coastal wetlands are under threat from invasive species such as Phragmites. Help share the message about the problem.



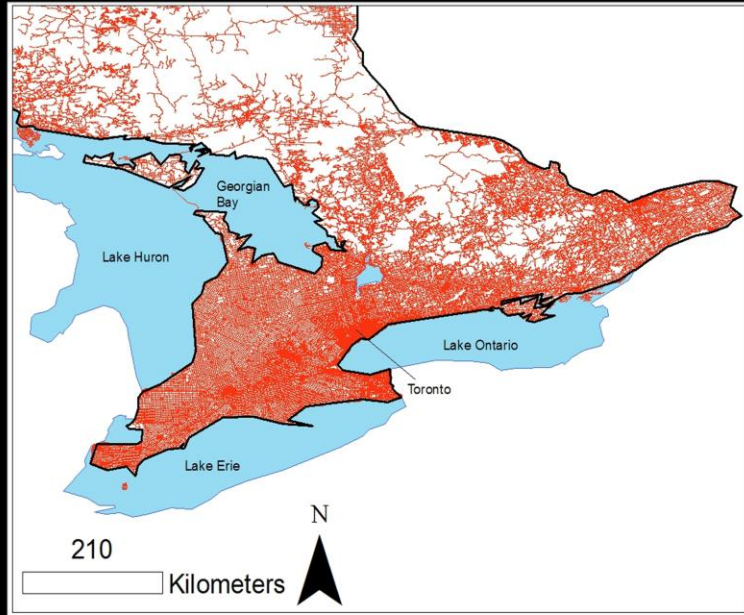
Shorelines should be kept mainly in natural condition.



Try to choose non-motorized water transportation when possible.



Raccoons, skunks, foxes, etc all do pretty well around humans. They thrive on our garbage, bird feeders and compost piles. They can have a devastating impact on turtle eggs. We need to ensure that we're not providing these critters a free lunch and "subsidizing" their populations.



A picture's worth a thousand words.....

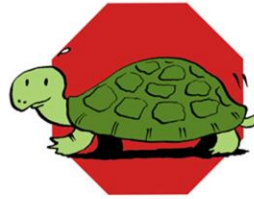


Road kill is the issue that must be addressed if we are going to see turtles in our future.

I BRAKE FOR TURTLES!

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Reduce road mortality by helping reptiles cross the road when it is safe to do so. Animals should always be moved in the direction in which they are facing, no matter what the habitat looks like. Nesting turtles should never be moved.

Moving a snapping turtle can be safely done. Never lift by the tail. This can damage the spine especially on larger turtles. It is also important to note that for all turtles always move it in the direction it was heading and do not move it more than 100 m from point of capture. Gloves can be helpful.

An uninjured snapper can be coaxed across the road using a shovel or a board, or by allowing it to bite a long stick and pulling it across the road.

If you must pick up a snapper by hand, do so by sliding fingers behind the turtle's hind legs, with the tail between your hands and gripping the shell between your fingers and thumbs. Snappers are very strong and will squirm and thrash their hind legs making it difficult to hold on. A snapping turtle can reach its midpoint so do not pick it up near its middle.



Encourage your municipality to explore and implement options to help reduce turtle mortality.



Found an Injured Turtle?

- Record the location!
- Handle the turtle as little as possible.
- If possible, place the turtle in a clean container and cover the head with a clean damp piece of cloth.
- Do not offer food or water.
- Call and make arrangements for transport. Call a local vet first to find treatment or contact the Kawartha Turtle Trauma Centre (705.741.5000) for further instructions.

Algonquin Animal Hospital, Bracebridge Animal Hospital, Centennial Animal Hospital, and Parry Sound Animal Hospital are clinics that will assist.



www.gbbr.ca
http://www.ontarionature.org/protect/species/herpetofaunal_atlas.php

Report sightings and keep learning about these species.

