**Protecting our Turtle Population**

I was driving north through The Outlet this morning with my wife (May 26) and called to her attention the six or so Map turtles basking on the rock in the bay near the boat launch. A second later one was seen on our right within the shoulder of the road laying eggs. Just up from her on the opposite side was a second female also in the process of laying eggs. It was a timely reminder for me to get going on an article for your newsletter that I had agreed to do. Last minute, but some people never change.

You may recall an article I wrote a couple of years ago introducing folks to the various turtles we have in the area with a little information on the biology of each. This time I would like to talk about some of the issues or threats that are common to all of our turtles and offer some ideas that we as co-habitants of the landscape can practice and in doing so have a positive effect on their survival.

A quick refresher first. In and around Charleston Lake there are five species of turtles. They are Common snapping, Blanding’s, Midland painted, Northern map and Eastern musk turtle. With the exception of the Midland painted turtle, all of our turtles in Ontario are considered by the Province to be at risk, ranging from endangered to special concern. The painted turtle is assessed at the federal level as special concern.

Why are all of our turtles at risk (of extinction or extirpation)? The reasons are many and varied but there are common themes or challenges faced by all of Ontario’s turtles. These issues are repeated around the globe in many cases. They range from environmental changes or degradation to direct and indirect impacts from humans. Some examples are wetland loss to development or draining, water quality declines, barriers to movement for life processes, predation of eggs by subsidized species, road mortality(accidental and intentional) and boating collisions.

Many of our turtles take a long time to mature to their reproductive age – as long as 15 to 20 years for some species. This compounds the stresses and effects of other threats as the reproductive rates and survivorship of young hatchlings for most turtles is naturally low in most cases. Adult turtles have a low mortality rate (naturally) and can reproduce throughout their entire adult life. Their survival is critical to the continuation of populations. Additional impacts caused by environmental changes or other human-caused actions therefore exacerbate the situation for these creatures and can result – have resulted in declines of turtle populations throughout Ontario.

So, what are some of the more common threats related to activities we engage in and can readily address though simple positive actions or behavioural modification? Road-kill comes to mind right away for me. So many turtles are killed on our roads every year and especially now (May-June). May 23 was World Turtle Day. Who knew, right? I must have seen about ten dead turtles this past May 23rd on local roads. Why are the turtles out there? This time of year it is most likely related to adult females travelling in search of somewhere to lay eggs, sometimes in the shoulder of the road itself. Studies have shown that losses of only 1-5% of adult turtles can cause a significant decline in a local population. What can we do? The easiest action is to be aware and vigilant. Let’s face it, turtles are not known for their speed and are relatively large and easy to spot if one is driving attentively. I often wonder why so many are hit. If a rock the size of cereal bowl or dinner plate were in the middle of the road, the vast majority of drivers would see it and be sure to avoid it. I have all too often seen drivers intentionally swerve to hit a turtle, sometimes almost putting themselves in the ditch because the turtle was located on the shoulder. Don’t be that person, please. Avoiding is easy, but still leaves the next car down the road posing a threat. The next level of positive action is to remove the turtle from the area of threat – off the road. There is a load of good information on the internet as to how to conduct this safely. It is important to keep your safety and that of other drivers in mind. This simple action can be helpful in ensuring that mature, reproductive females are spared and can continue to contribute to their local population.

Turtle eggs are a nutritious meal for many species of wildlife. Unfortunately, many are predated by what are known as subsidized species. These are animals that are typically generalists by nature and flourish in environments near human populations. We all know them – raccoons, skunks, coyotes, foxes, and even ravens now in southern Ontario. For example, ravens have adapted to recognize human travel corridors as a feature that attracts egg laying turtles. They have been observed “patrolling” roadways during turtle nesting season and then digging up freshly deposited eggs. Studies have shown that predation rates on turtle nests can approach 100% in some areas. While the loss of young hatchlings is normally high and survival of young to maturity is naturally low in the wild, this level of predation is not natural since the species predating them are at unnaturally high numbers in some areas. How can we help? Many of us have come across a turtle laying her eggs. If this occurs on your property it would help if you could allow it to continue. Better still, once she is done and leaves, providing some form of protection for her eggs from predators would be a nice touch. A simple nest protector can be built out of wood and wire mesh and placed over the nest site. This will keep predators from digging up the eggs. The design is very basic and the materials (2x4’s and wire mesh) are easily acquired or maybe already on hand at home or cottage. There are several designs on the internet but the one used locally by conservation organizations can be found at: **https://www.kingstonist.com/wp-content/uploads/2019/ 04/NestProtector.png**

If you are short of materials or skills, they can be borrowed or acquired locally through Frontenac Arch Biosphere or Thousand Islands National Park (pc.rare.pc@canada.ca). Boating is a popular recreational activity on the lake and for some a necessity. A number of studies, locally and beyond, have demonstrated that there are significant numbers of turtles injured and losses to adult turtles due to collisions with boats and their propellers. Admittedly, it can be a difficult to spot a swimming or floating map turtle in the water. But becoming familiar with the areas they frequent such as obvious basking areas and taking a wider berth around such areas and, or slowing down and looking ahead can help reduce the risk of boating over them. Slowing down can give them a better chance to dive and avoid an impact. Minimizing or avoiding the use of motorized boats in shallow and vegetated bays where many turtle species bask near the surface of warm, summer waters and forage will reduce the chances of interacting or colliding with turtles. These are great areas to observe turtles up close and get some great exercise in a turtle-friendly kayak!

Naturalized and soft shorelines allow turtles to safely exit the water to travel across land to access nesting sites, alternate habitats or mates. As we all know now, natural shorelines are beneficial to other wildlife and water quality in general. They can also provide nesting habitat for turtles.

There are other threats that turtles face, but the above are the ones most people are going to have an opportunity to address and enjoy some sense of accomplishment in helping out a neighbour in need.

