



*Photo courtesy of Terri Martin*

With another year of modified programs delivered by Central Lake Ontario Conservation Authority (CLOCA), we would like to report on the outcomes and challenges for turtle populations in our watershed. Our first call for turtle nesting activity was on June 4<sup>th</sup> and we were ready.

#### CRANBERRY MARSH BEACH

One of CLOCA's most successful turtle nesting sites is located on the beach that separates Cranberry Marsh from Lake Ontario down at the end of Halls Road. This beach is not owned by us, rather by the Ministry of Natural Resources and Forestry as is the case with most Great Lakes shoreline areas, but it is accessed by visitors to the Lynde Shores Conservation Area via two Lake Ontario Trails located east and west of Cranberry Marsh.

This has positive and negative implications on the turtle nesting activities and the population supported by the Cranberry Marsh itself.

In 2021 we located nesting structures, bricks, and signage to encourage those visiting the area to place nesting structures on nests immediately

after the female finished laying her eggs. Some challenges were experienced at this site when a no trespassing sign was posted between an existing sanctioned CLOCA trail and the beach itself.

The sign was eventually removed, however it did not prevent people from visiting the area for what appeared to be passive nature watching activities like photography and beach combing. There were 15 nesting structures placed along the beach at various locations and two nesting boxes along Halls Road. The nests on Halls Road were further marked with large orange and black pylons. Unfortunately, the road was under construction during nesting season and repaved, which could have had an impact on turtle nesting activity in general and the two nesting sites specifically. The nesting structures were removed on November 4<sup>th</sup> as no activity was observed during hatching season and the two pylons and nesting structures and their bricks had been disturbed and the pylons were found lying in the ditch.

One turtle hatchling at the Cranberry Marsh location, nesting box # 16, was reported by a

volunteer on August 23, however a site visit that day by CLOCA staff registered no hatchling turtle present, and likely someone removed the turtle and placed it in the wetland.

In August a kit and instructions for hatchling removal was set up at the site next to where the bricks and turtle nesting structures were located throughout the season. No vandalism was observed in 2021 either to the supply of nesting structures or the structures themselves.

A turtle hatchling was observed on the beach not near any nesting structure by a visitor however no efforts were used to assist it so success cannot be determined.

On October 17<sup>th</sup> a volunteer as part of the Conservation Area Trail Stewardship program took their own initiative to collect 8 of the nesting structures and bricks from the Cranberry Marsh beach site. We were somewhat disappointed as we had hoped to leave the structures in situ until spring 2022 thinking that perhaps the turtles would emerge then. The structures were returned, but not likely on the nests from which they came.

#### HEBER DOWN CONSERVATION AREA

On June 11<sup>th</sup> a nesting structure was placed on a nesting site at Heber Down Conservation Area near the bridge that crosses Lynde Creek to the trail around Devils Den Pond. Unfortunately, access was limited to this location during restoration works for the majority of the hatchling season. Three additional structures were placed at Enniskillen Conservation Area with one nest successfully hatching, but numbers not recorded. One dead turtle was found on one of the corner bricks that secure the nesting structures. It is possible that a visitor found the turtle either in the nesting structure and placed it there.

We received an email from the Ontario Turtle Conservation Centre suggesting that our nesting

structures should be modified to provide an escape hole in the structure to avoid the hatchlings possibly being trapped. Our observations over the past 15 or so years have been the hatchlings are more than capable of burrowing out of the nest on the other side of the structure. There are concerns that openings should be blocked until the 12<sup>th</sup> week of gestation, to discourage predation by minks and snakes that could eat the eggs during incubation. An opening with a hinged door or a nailed plate can be easily removed by volunteers and staff.

#### DURHAM REGION WATER SUPPLY PLANT



*Photo courtesy of Michel Yan*

As The Durham Region Water Supply Plant located at 1540 Ritson Road South continued to place nesting structures on nests created by turtles coming from the adjacent Pump House Marsh. Again, emergence of the hatchlings was limited to three in total with one turtle somewhat under developed when it hatched. The neck was extremely weak and eyes lids appeared fused. This turtle was transferred to the Ontario Turtle Conservation Centre for further observations. Emergence occurred the week of October 6, 2021.

As always phone calls/emails/texts were fielded and inventoried for future reference and some individuals have agreed to be listed via email for ongoing correspondence. Many individuals were curious about the timing of hatching and began walking Cranberry Marsh beach in mid-August and continued well into October. Unfortunately, very few reported on seeing or assisting hatchlings and it is suspected that limited hatchling activities occurred this fall.

Some thoughts as to why hatchling success was limited in 2021. In 2020 hatchlings were also limited, but primarily from nest protection structures being placed with no relationship to the actual nest and predation before the nesting protection structure was placed. This is why the nesting protection structures were stockpiled on site so as to improve the timing and accuracy. Some other thoughts on the lack of success include suggestions that the nesting protection structures themselves when they are placed on a nest, allow for people to collect the eggs as food. We are not in a position to excavate the nests without a permit and cannot say if that is likely, however the poaching of turtles and eggs has happened in our conservation areas. We also wondered if people were taking the hatchlings out of the structures and placing them in the Marsh without communicating this to anyone. While our committed volunteers continued to report limited activity, there may be others who took this upon themselves, specifically at the Cranberry Marsh beach, without communicating their activity. While all of these theories are just that, theories, it is interesting to note that the limited success of hatchlings at the Oshawa Water Supply Plant which is not accessible to the public, locked after hours and under video surveillance, had fewer than normal hatchlings and was more in line with the very publicly accessible Cranberry Marsh beach site. That being said we will see if the hatchlings emerge in the spring. If they do not, then we can assume that the egg laying in 2021 which appeared to be a normal year of activity, did not result in successful egg development. It is possible that the hot dry temperatures desiccated the eggs, and they did not develop. We will have to compare our observations with those of other turtle nesting monitoring efforts in the Greater Toronto Area for comparisons.

In summary calls were received for the following locations in our watershed, but not on our property:

- New Trail at Valleys 2000 in Bowmanville (south of Baseline Road north of 401). Two nesting protection structures installed, one by CLOCA one by a volunteer.
- West Beach Road at Waterfront Trail (Clarington) - Predated
- 1526 Wecker Drive, Oshawa Front Lawn – no hatchlings emerged
- Concession Road 3 and Mearns – reported nesting activity, but no structure placed on nest
- 801 Audley Road Storm Water Pond, Owned by Town of Ajax\*- hatchlings emerged September 2<sup>nd</sup> approximately an 11 week gestation.
- 801 Audley Road – one hatchling on September 17<sup>th</sup>, nest reported on June 12<sup>th</sup> approximately 12 week gestation. Note, this site is just west of our watershed boundary, adjacent to Warbler Woods. This was also the most



*Photo courtesy of Michael Yan*



- successful nest this year although a final number was not confirmed, a phone conversation from the public identified several hatchlings. By the time I visited the site on the same day they were assumed to have been relocated to the adjacent stormwater pond.

### **SUGGESTED FUTURE SITES FOR TURTLE NESTING PROTECTION STRUCTURES AND VOLUNTEER SUPPORT**

Second Marsh has been active for nesting activity in the past, but volunteer support is not consistent. I suspect that all of the wetlands we monitor as part of the Durham Region Coastal Wetland Monitoring Program have the potential to engage the public in turtle conservation activities.

The West Beach Road is still an opportunity to install road side barriers and improve nesting habitat for turtles within Bowmanville Marsh.

The Municipality of Clarington continues to be an interested and engaged partner. Over the last 15 years they have supported the installation of turtle crossing signage on West Beach Road. As well staff worked with Roads and Maintenance staff to maintain roadside shoulders so as not to impact nesting activity of turtles and monarch butterflies. Staff should follow up with staff for working together on road maintenance solutions.

### **SIGNAGE**

Turtle crossing signage has been installed around our watershed by the Region of Durham Roads and Traffic Department, typically at the request of residents. In some cases, there is signage that has been installed by the Town of Whitby.

Here is a link to the summary provided to the Municipality of Clarington in 2021 by CLOCA staff in partnership with Ganaraska Conservation Authority to address some turtle nesting hotspots on Clarington Roads.

[LINK to Report](#)

### **RECOMMENDATIONS**

- Consider hosting an online turtle conservation workshop in May 2022
- Consider hosting an annual turtle nesting protection structure building session with local community groups, perhaps even at Lynde Shores Conservation Area. \*\*
- Update laminated signage and provide escape holes with secure doors to accommodate the request from Ontario Turtle Conservation Centre.
- Continue to provide nesting structures and instructions to interested individuals and communicate the importance of ongoing monitoring of the structures to address predation, vandalism, hatchling safety and sharing the results of their findings.
- Consider working with the Durham Water Supply Plant to accommodate nesting turtles through improved habitat connections to Pumphouse Marsh
- There were no reports from Pumphouse Marsh community in 2021 compared to interest and activity there in 2020.
- Consider engaging local schools around Pumphouse Marsh in turtle nesting protection and monitoring.
- Second Marsh has been active for nesting activity in the past, but volunteer support is not consistent. I suspect that all of the wetlands we monitor as part of the Durham Region Coastal Wetland Monitoring Program have the potential

to engage the public in turtle conservation activities.

- The West Beach Road is still an opportunity to install road side barriers and improve nesting habitat for turtles within Bowmanville Marsh.

- Perhaps host a road works workshop, online for municipal staff across our watershed to show how they can ensure conservation efforts for turtles are part of their road construction projects.

## **TURTLE CONSERVATION PARTNERS**

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### **Municipality of Clarington – Road Maintenance and Turtle Crossing Signage**

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### **Ontario Turtle Conservation Centre – Injured turtles**

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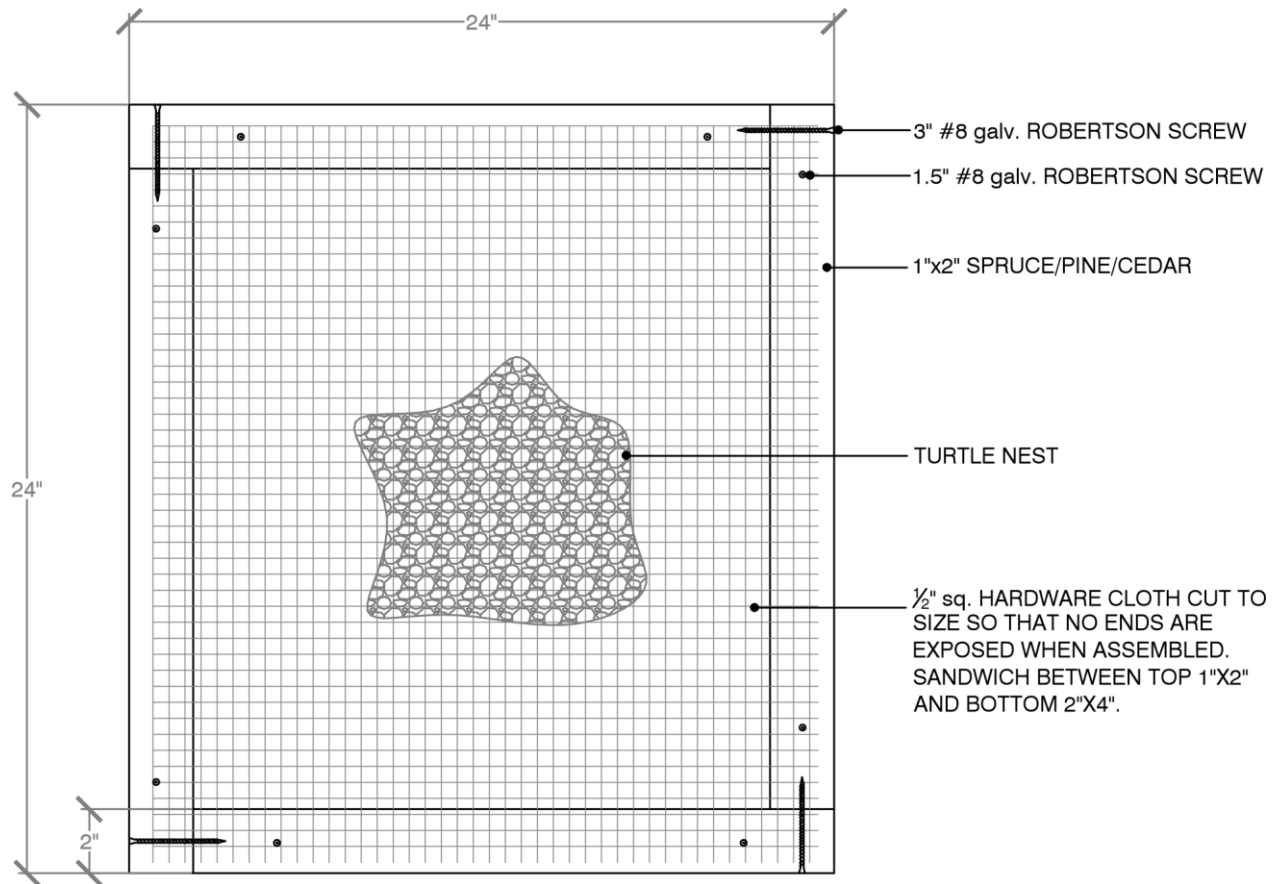
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### **Toronto Zoo – Communication Products and Citizen Science**

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## TURTLE NESTING STRUCTURE DESIGN



## PLAN VIEW

