

Ontario Wildlife Foundation: Final Report

Report Organization: *rare* Charitable Research Reserve 1679 Blair Rd., Cambridge ON

Project Coordinator: Rosalind Snyder (rare Conservation Technician)

Project Overview:

rare Turtle Project

Objective: To mitigate the human impacts on turtle populations in Waterloo Region and Wellington County by collecting vulnerable turtle nests, incubating eggs and releasing hatchlings back into their native habitat, all while engaging the local community in wildlife conservation.

Location: Waterloo Region and Wellington County Project Duration: May 30 2025 - October 15, 2025 (2025), May 30 - October 15 (2026) Funding Allocation: \$3500

Project Background:

The *rare* Turtle Project was launched in 2017 to help mitigate human impacts on turtle populations in Waterloo Region and Wellington County by collecting vulnerable turtle nests, incubating the eggs and releasing hatchlings back into their habitat. The eggs from vulnerable nests are taken to rare, where they are artificially incubated until they hatch. Hatchlings are then returned to suitable habitat close to the collection site, often within 100 metres. Incubation at rare protects the nest from issues such as compaction and helps improve the success rate of the nest once the hatchlings are returned. Additionally, nest protectors are placed on turtle nests that are identified but deemed nonvulnerable, in order to protect nests from predation and potential human disturbance. Protectors have played a critical role in enhancing the visibility of the project as well as increasing awareness of turtle nests and their challenges in the communities they are placed in.

Project Benefits:

The main purpose and benefit for this project will be for offsetting population losses and increasing the survival rate of native turtle hatchlings that could grow into reproductive adults. Most specifically for this project, these populations include the snapping turtle, midland painted turtles and Blanding's turtle populations throughout Waterloo and Wellington County. These local species are negatively impacted by local habitat loss and road mortality, and along with the species' naturally low recruitment rate, there is a need for recovery strategies to be implemented in this region. This project benefits local turtle populations by offsetting population losses and increasing the survival rate of hatchlings that could grow into reproductive adults.

Summary of 2025 project Outcomes:

A total of 3022 eggs from 108 nests across 3 different species were collected by rare this season, the highest capacity at the time for the rare Turtle Project since its establishment in 2017, receiving over 200 calls/ messages to the Turtle Hotline, indicating the community's involvement and awareness of the project.

A total of 2628 hatchlings were released, with an 88.01% hatching success rate overall, a percentage consistent with previous seasons. Turtles from every even nest hatched were measured and all turtles were weighed before being released to a safe location close to the collection site.

One of the most significant takeaways from this year's project is that our capacity is growing, having collected the most eggs this year, with incremental rises in egg collected noted in the past several years. There are some factors that could be contributing to the increasing capacity of this project such as the rising awareness of the project within the community, especially given that it has been in place since 2017, the larger rare team (includes seasonal staff, student interns and volunteers), better understanding of target nesting areas, etc. While this increasing capacity is beneficial for our ability to support the local turtle populations, the challenge faced this year was the limited capacity of our facilities.

2026 Project Outcomes:

Species	Total number of live animals	Procedure type	Number of individual procedures completed
Blanding's Turtle	15	Eggs Collected	15
		Nests Incubated	1
		Hatchling Release	15
Painted Turtle	164	Eggs Collected	164
		Nests Incubated	23
		Hatchling Release	112
Snapping Turtle	3177	Eggs Collected	3177
		Nests Incubated	97
		Hatchling Release	2843

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A total of 3356 eggs, across 3 different species were collected from a total of 121 nests, the highest capacity for the *rare* Turtle Project since its establishment in 2017 and surpassing the number collected from 2025, which was then the highest. During this season, we received receiving over 220+ calls/ messages to the Turtle Hotline, indicating the community's greater involvement and awareness of the project.

A total of 2882 hatchlings were released, with an overall hatching success rate of 82.2%, however, when adjusting for outlier nests (nests that have an impacted hatching success due to disturbance when collected, such as predated nests, compacted nests, or have unusually high infertile rates which could be attributed to environmental or biological factors), the rate is closer to 87.4%, consistent with previous years of this program. Turtles from every odd numbered nest were measured and all turtles were weighed before being released to a safe location close to the collection site.

No nests or hatchlings needed to be sent to OTCC this season, as we had enough incubator space to accommodate for our nests and no injured hatchlings were collected.

Additionally, around 30 nest protectors were placed on less vulnerable nests by the rare staff team and additional nest protectors were placed by our volunteers in Wellington County.

Notably, this season saw the new highest number of Midland Painted Turtle nests, with a total of 23 painted nests collected. Additionally, we were lucky enough to find a Blanding's nest this year, which is significant given the turtle's rarity within the permit region, difficulty in finding their nests and their "Threatened" status as a Species at Risk.

Therefore, after this season, over 18, 500+ hatchlings, majority snapper turtle but also painted and Blanding's, have been released from the efforts of this program.

Ontario Wildlife Foundation Contributions

As highlighted in the interim report, through the OWF grant, we were able to purchase an incubator for our program to expand our physical capacity to match with the growth of the program. As demonstrated in our project outcome, our program was able to expand, allowing for the increased number of nests collected this season (accommodating for the increased number of calls from the community), with all nests collected able to be incubated at our main office this season. With the fourth incubator, just over 3,300 eggs can be effectively incubated, which will help us plan for future year collections, providing us with a better understanding of the actual capacity for nests that can be incubated on site.

The remaining funds will be dedicated to purchasing necessary supplies to prepare for the upcoming season, outlined in the proposed timeline below, and for covering travel costs for staff

for our turtle project in 2026. With greater capacity, we were capable of collecting more nests and care for them more effectively.

Additionally, OWF funds allowed us to be well supported with the necessary supplies needed for each season, containers to incubate eggs, containers for hatchlings, measuring equipment, etc., ensuring that all processing needs could be met, especially given the growing capacity. Furthermore, OWF funds were used to cover driving expenses, which was specifically helped with supporting turtle basking and surveys, playing a significant role in locating the Blanding's turtle nest for the season. As part of our turtle project, 9 basking surveys (surveying turtles in the spring to observe their behaviour and see if Blanding's turtles can be observed in the area), and 23 night surveys (surveys specifically to observe Blanding's turtles nesting) were conducted. As of September 2026, all funds from the OWF grant have been used for the program.

As of September 2026, all collected eggs that are viable have hatched and all hatchlings have been released. For the remaining season, protectors will be monitored for hatching and collected once nests are hatched out. Upon the expiration of the permit for the season, all final report will be sent to the Ministry of Natural Resources.

With the support of the OWF grant, the capacity of our project was able to grow and meet the needs of the program as more in the community become familiar with our work and continue to report vulnerable nests. As a result, we were able to collect more vulnerable nests and release more hatchlings into the ecosystem, supporting the local populations of turtles and engaging the community in the importance of wildlife conservation. This season provided valuable lessons in understanding the newer capacity of the program, which will allow us to plan this program for the future as our organization grows.