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September 2, 2025

Dear Diane,

We are writing to update you on our project, *Protecting Biodiversity Through Community Engagement*. OWF supported our community science programs including Water Quality Monitoring & Benthic Workshops, Frog Monitoring, and Bat Monitoring, by helping us purchase equipment, software, collect data, analyze data, and provide training for our many dedicated volunteers. These programs were a success, despite many challenges from extreme weather and storm damages this year. It was truly an unprecedented year for field work, our volunteers, and our organization. The OWF funds helped us power through with our community science programs. We are providing a summary of our activities and some photos below.

Water Quality Monitoring: We replenished our supplies for water test kits, recruited and trained volunteers in 2024 and 2025, and our volunteers collected data at sites across our nature reserves. This year, 22 volunteers documented streams drying up, showing evidence of a drought in our region. Likely due to the increased woody debris at sites following an ice storm, we had 4 pairs of hip waders develop large holes this year. Patching supplies were purchased to repair them. Two volunteers were trained in cleaning and maintaining waders to prevent the spread of aquatic invasive species between sites. We also sent out regular newsletter updates to volunteers and will report our data to DataStream and Water Rangers when the field season concludes.

Benthic Workshops: We held a benthic macroinvertebrate workshop for our Water Quality Monitoring volunteers, that added training on using macroinvertebrates as ecological indicators of stream health, and was done at Stickleback Creek at Sweetwater Nature Reserve in Ramara Township. We purchased pipettes and hand lenses so volunteers could view and identify macroinvertebrates.



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Above left: Volunteers and our staff member Aiesha checking the stream site to take water quality measurement and conduct kick netting for macroinvertebrate sampling. *Above right:* Volunteers viewing and identifying their findings.

Frog Monitoring: We recruited and trained new volunteers for openings in our frog monitoring program. We also purchased new SONG METER MINI acoustic recording units to put out on our nature reserves to collect frog sound data. In April, Acoustic devices were set up at Eldridge Nature Reserve, Kris Starr Sanctuary, and Ling Easement. In May, devices were installed at Roehl Wetland Nature Reserve and Adams Nature Reserve. Installation was delayed for these sites due to extensive damage from an ice storm that made the sites unsafe to access earlier. Four volunteers were trained with the installation and maintenance of these devices. Two students from Fleming College also helped with setup. We paired acoustic monitoring with water temperature loggers. This fall, all of the acoustic devices will be collected and the data will be analyzed to learn what species of frogs are present, and when they are active, and what temperatures they respond to, at the nature reserves. We purchased Raven Pro software to accomplish this and we are currently training the software to recognize and count frog calls from different species. This will help us assess frog populations better in the future as ecological indicators of habitat health and seasonal shifts from climate change.



Above Left: Leland (volunteer) and Aiesha (stewardship staff member) at Eldridge Nature Reserve installing an acoustic monitor. *Above Right:* Acoustic monitoring setup with components labelled in the field (A= Water temperature logger inside of PVC pipe housing. B= Wildlife Acoustics SONG METER. C= Air temperature logger inside of PVC pipe housing.

Bat Monitoring: We recruited and trained new volunteers for bat monitoring. We put out recording devices (the SONG METER MINI units can record calls at multiple frequencies, from frogs to birds to bats so we used these) to collect bat sound data over the course of the field season. These data will help us understand more about what bat species are present and whether they are using an area for breeding, foraging, roosting, or overwintering, which helps us protect the land they need to persist. We also purchased SONOBAT software which is specialized for analysis of bat calls. We have trained volunteers to use this and they are analyzing short transect and site recordings collected by our bat monitors, before moving on to the long-term data we are currently collecting with the SONG METERS.

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Above Left: Bat Monitoring Volunteer Bill Sherwood showing information about Hoary bats to the group gathered at T.C. Agnew Nature Reserve for Passport to Nature Event. This is an example of our volunteers gaining expertise and using it to educate the public. *Above Right:* Bill and another volunteer with acoustic monitoring devices recording bats in real time at dusk.

Other Events and Communications: Aside from our community science work to protect biodiversity, we were able to run our Nature Counts event in November of 2024, and will run it again this November. In 2024, 89 volunteers enjoyed presentations highlighting the results of their volunteer efforts and their impact on protecting biodiversity. Feedback was overwhelmingly positive. Volunteers were happy to learn about our reporting partners such as the Natural Heritage Information Centre and Water Rangers, and the impact of the data they collect on land management decisions, land securement, and administration of nature reserves. We ran several Notes From the Field Articles [on our webpage](#) featuring the Benthic Macros Workshop, Bat Monitoring, and volunteering to setup our community science programs. We invite you to review and reference these pages and our social media (Instagram.com/CouchichingConservancy and Facebook.com/couchichingconservancy).

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The Couchiching Conservancy



Above left: Volunteers packed into Nature Counts viewing a community science presentation by one of our stewardship staff members. *Above right:* Our staff conservation biologist thanking volunteers for their hard work collecting data and caring for biodiversity.

We have accomplished a great deal of work protecting biodiversity through involving our dedicated and enthusiastic community. OWF funding for our project added value across our community science programs, but especially for our Bat, Frog, and Water Monitoring Programs. One unanticipated, but profoundly positive impact was that the monitoring devices and software we purchased helped us compensate for extreme weather events this year, by offering additional opportunities for learning and volunteering outside of direct field work. We accomplished more thorough acoustic monitoring for frogs and bats, but also achieved flexibility and insurance that our community science programs will go on collecting vital species at risk and environmental data when the weather does not cooperate for frequent field visits. This was essential during a year of historic ice storm, heavy extended rainfall, draught, extreme heat, unhealthy air quality, and high fire risk (including a close-call fire that forced the temporary closure of one of our community science sites). These conditions interrupted our normal volunteer visit schedule and left our community with extensive damage to mitigate. We are very grateful for this unforeseen, but crucial support.

Our project will lead to a better understanding of wildlife populations on our nature reserves and in our region, and ensure we are prepared for future uncertainty. We thank you for your support.

Sincerely,



Meghan Duell

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