



gbt.org

SUMMER 2026

LANDSCRIPT

PROTECTING **GEORGIAN BAY'S** WILDERNESS LANDS

Sphagnum moss:

The story of an ecosystem engineer

Celebrating five new
conservation properties

⋮ The social lives
⋮ of Garter Snakes

⋮ A Multi-species Action
⋮ Plan for Georgian Bay

Photo: Kylie MacEachern

What a year for conservation!

Five new protected properties

There was lots to celebrate at the Georgian Bay Land Trust as 2025 drew to a close. We're happy to welcome the following new properties to our network of protected lands, and grateful to the donors who made this possible.

Honey Harbour Nature Reserve

365 acres – Honey Harbour

Photo: Adam Grotoli



We're thrilled to announce the success of our campaign to protect the Honey Harbour Nature Reserve! Last summer, neighbours of this 365-acre property in north Honey Harbour informed us that it had been put up for sale, and we began fundraising to purchase the land and conserve it forever as a nature reserve.

The Honey Harbour Nature Reserve is an ecological cornerstone of the Honey Harbour and Cognashene communities. It contains a diverse mix of forest, Canadian

Shield, and wetland habitats, including parts of two Provincially Significant Wetlands and one of only five designated Areas of Natural and Scientific Interest in eastern Georgian Bay. These rich habitats support much of the wildlife seen in the surrounding area, including a large Great Blue Heron rookery, fish breeding grounds, and stopover sites for migratory waterfowl. The property's proximity to other conservation areas helps strengthen ecological connectivity in the region, supporting large mammals and multiple species at risk. See the Fall 2025 *LandScript* for a more detailed description of this property.

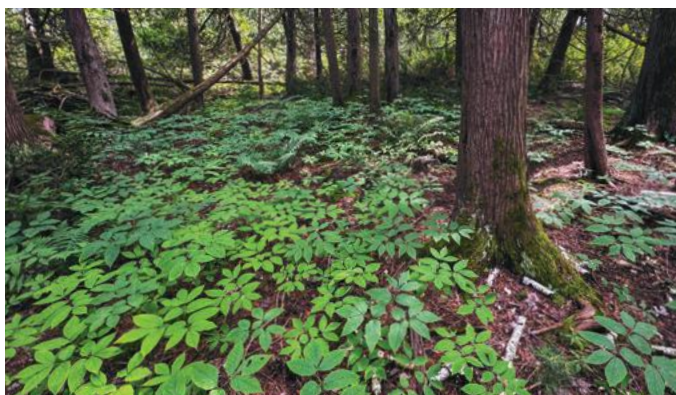
We were thrilled and delighted by how quickly the community stepped up to protect this amazing place. Donations came in from the property's neighbours in Honey Harbour, from families in Cognashene, Go Home Bay, and Tiny Township, and from government and foundation sources. Special thanks to the Government of Canada's Natural Heritage Conservation Program, the Ontario Conservation Accelerator, and several private families for substantial gifts to the project.

To the many neighbours and community members who supported this project through your donations and your guidance: thank you! You have created a long-term legacy for nature in Honey Harbour that will impact the surrounding community for generations to come.

Fairwood Nature Preserve Expansion

23 acres – Pointe au Baril

Photo: Arel Estulin



The Fairwood Nature Preserve has grown from 32 acres to over 56 acres thanks to two new conservation easement agreements with anonymous landowners.

The expansion of this preserve encompasses the eastern portion of a large island and supports an exceptional diversity

of ecosystems, with ten distinct vegetation community types identified across the property. Baseline studies and survey visits documented six species of conservation concern on the property. Of particular note are the Eastern Wood-pewee, the Midland Painted Turtle, and the Monarch, all of which are recognized as species at risk.

Shallow soils and extensive areas of exposed bedrock create ideal conditions for reptiles that depend on open, sun-exposed habitats. The island supports upland mixed forest communities and contains a unique interior pond. Fen communities were also identified within the interior of the island, supporting distinctive plant species and further enhancing the ecological significance of the site.

We are very grateful to the landowners of the Fairwood Nature Preserve for their conservation vision and for the lasting legacy they have chosen to leave for nature in Pointe au Baril. Thank you also to the Government of Canada's Natural Heritage Conservation Program - Land Trusts Conservation Fund for providing financial support to assist in this conservation initiative.

Birch Island Conservation Easement

15 acres – Wah Wah Taysee

Photo: Jenn LeMesurier



The Birch Island Conservation Easement protects nearly 15 acres of beautiful shoreline and forest habitat in Wah Wah Taysee. It has been donated anonymously by a family wishing to ensure that the land they have stewarded for 50 years will remain wild into the future.

This property is characterized by a rugged, forested interior and a gently sloping shoreline containing provincially rare wetland habitat. It provides homes to a wide range of species including several species at risk.

The donors tell us: “We have been stewards of our island on the east coast of Georgian Bay for over 50 years. We have had great joy swimming, fishing, canoeing, and watching sunsets with our children in that beautiful place. We have loved watching bass spawning in the clear water, osprey raising their young, painted turtles laying their eggs, and mink running over the rocky shore. We realized that most of our island could remain in a natural state, in perpetuity, if we granted a conservation easement to the Georgian Bay Land Trust. It was an easy decision.”

Grant Islands Nature Reserve

1 acre – Wah Wah Taysee

Photo: Jenn LeMesurier



Thanks to the generosity of Doug and Ruth Grant, five beautiful islands in Wah Wah Taysee are now protected as the Grant Islands Nature Reserve.

This small island cluster includes a central island surrounded by four smaller granite outcrops to the north and south. The outcroppings, shaped by the region’s geology and prevailing winds, are classic granite barren communities—predominantly exposed bedrock with sparse vegetation adapted to thin soils and extreme conditions. Despite their simplicity, these sites play an important ecological role by offering shelter and microhabitats for aquatic flora and fauna, and by providing warm, open basking surfaces that support a range of reptile and amphibian species. The main island features a more complex ecological structure, supporting three distinct vegetation community types, including the provincially rare Winterberry Organic Thicket Swamp ecosystem type.

Together, the island and its satellite outcrops form a small but ecologically significant refuge within Georgian Bay’s coastal archipelago. Their protection ensures the persistence of rare plant communities, specialized shoreline habitats, and the species that depend on them. This donation protects interconnected habitats that support wildlife, strengthen ecological connectivity across the Bay, and preserve the rugged beauty that defines this remarkable region for generations to come.

Payne-Meinig Nature Reserve

16 acres – Cognashene

Located within Longuissa Bay in the cottage community of Cognashene, the Payne-Meinig Nature Reserve encompasses both mainland and island habitats that contribute significantly to the ecological integrity of eastern Georgian Bay. The property forms an important link to the Cognashene Lake Conservation Reserve, enhancing connectivity among existing protected areas and supporting landscape-scale conservation objectives.

This new protected area contains a diverse assemblage of habitat types, including undeveloped shoreline with documented Common Loon nesting activity, mature upland forest, open rock barren communities, and provincially rare wetland ecosystems. Together, these habitats support a range of species at risk and regionally significant flora and fauna, underscoring the conservation value of the site.

The Payne-Meinig Nature Reserve was generously donated by Tom Payne and Elaine Meinig in memory of Harvey and Margaret Payne and Walter and Jessie Meinig. See the following page for an interview with land donor Tom Payne.

Land Donor Profile: Tom Payne

In late 2025, Tom and Elaine Payne donated a portion of their Georgian Bay property to create the Payne-Meinig Nature Reserve. Here, Tom tells us why they chose to make this gift, and what conserving this land means to them.



Photo: Tom Payne

What is your history with this land?

Elaine and I first came to Longuissa Bay in 2001, and built our cottage in 2002. It felt like I was coming home. My family was from Midland and we did a lot of boating and sailing on Georgian Bay – some of my earliest memories are boating as a family to Beausoleil Island for swims and picnics. My parents, Harvey and Margaret Payne, continued sailing and enjoying Georgian Bay right up to their passing. They spent summers sailing “up the Bay” as far as the North Channel and especially loved boating up to our dock in Longuissa Bay to visit with us and their grandchildren. Elaine’s family rented a cottage growing up, and her parents, Walter and Jessie Meinig, were often visitors to our cottage as well and fell under its spell. We feel that donating the property into conservation is what they would have wanted.

What is special about this land from your perspective?

The mixed forests of Longuissa Bay are relatively unusual for Georgian Bay, in that they come right down to the water’s edge. Most of what we think of as Georgian Bay is exposed rock and pine trees, and these forests are more like Muskoka. They have different plants and provide habitat for a pretty diverse range of animals, including bear, deer, birds, and reptiles. Longuissa Bay is a really healthy ecosystem; we hear frogs all the time, and the loons thrive in the bay. There’s a loon nest on one of the islands every year. There’s also fish breeding habitat and lots of fish as evidenced by the ready stream of anglers we see in the bay.

What inspired you to donate the land for conservation?

We had both been thinking about this for a long time. The property backs onto the Cognashene Lake Conservation Reserve, a 7,277-acre provincially protected area that stretches from Longuissa Bay to Go Home Bay. It provides a bridge from the water to the wetlands, forests, and bogs in the back country, and so we felt that the property was a key link in the ecosystem of the area.

We love our cottages, but the problem is that they cut off access from the back country to the water’s edge for animals. I think we get extra benefit if we preserve these corridors to the water so that the animals don’t have to go through cottages to get to the water if they need it.

What are your hopes for the future of this land?

If you look at pictures of Longuissa Bay from about 130 years ago, just after the lumbering days, it was clearcut. It’s hard for us to imagine what it looked like, but the whole area was denuded. Someone coming into Longuissa Bay now who had known it in those days would be amazed at how it has recovered. It’s a forest now – relatively young – but it’s recognizable as a forest and it’s filled with birds and animals. Nature has come back in those 130 years. If someone comes back to Longuissa Bay 130 years from now, I would hope that it would be recognizable as something that’s well on its way to becoming what it was 500 years ago – a mature old growth forest.

How do you feel knowing the land will be conserved forever?

We’re just happy that it all came together, and the property is in the place where it should be. It’s what my parents and Elaine’s parents would have wanted. Before we owned this property it belonged to the Northey Family, who have been great conservationists over the years. They are descended from the previous owners, the Muskoka Mill and Lumber Company. And before that of course it was Indigenous land. I’ve often thought about how ridiculous it is to claim ownership over rocks that are a billion years old. What is ownership when our lives are measured in decades, and rocks’ ages are rounded to the nearest million years? It’s really stewardship, not ownership. That’s what we’re doing here – we’re stewarding things into the future.

The Social Lives of Garter Snakes

By Joseph Kohut, Corridor Project Ecologist, Georgian Bay Land Trust

Photo: Andrew Interisano @theotterbiography



Residents of Georgian Bay know that life on its rugged landscape can be harsh. To get through the toughest days, we rely on our neighbours and communities for support and companionship. But did you know that this way of life on Georgian Bay is not exclusive to humans? Georgian Bay's Eastern Garter Snakes also have a secret social life, and spring is the best time to see it for yourself.

To avoid freezing during winter, Garter Snakes retreat underground below the frost layer to hibernate in rock crevices, animal burrows, root systems, and even beneath the foundation of your cottage. However, being thin-bodied and cold-blooded means that they quickly lose body heat to their surroundings. As we mammals know, one of the best ways to stay warm is by cuddling with your loved ones, and Garter Snakes know this too! In Georgian Bay, entire communities of Eastern Garter Snakes regularly hibernate together, often in groups of over 100 individuals at a single hibernaculum (the name for an underground place where snakes spend the winter). This social hibernation behaviour has earned Garter Snakes the distinction of forming the largest known social congregation of any reptile species on the planet.

Photo: Andrew Interisano @theotterbiography



As the snow melts and the ground begins to warm in spring, Garter Snakes emerge from their hibernacula and engage in one of the most unique reptile social behaviours. Males exit first and wait near the entrance for females to appear. When a female emerges, numerous males surround her, each competing for the chance to mate. This creates a large cluster of intertwined snakes known as a "mating ball." While the scene may appear chaotic, it plays an important role in reproductive selection, allowing only the strongest males to pass on their genetics. Females are well equipped to handle this process, as they are often nearly twice the length and weight of males.

Garter Snakes are also capable of recognizing and remembering many individuals within their local population and frequently form long-lasting social bonds similar to human friendships. These relationships are built on non-random social preferences that extend beyond mating needs and provide benefits such as improved thermoregulation, reduced stress, and increased protection from predators. While it is not yet well understood exactly how Garter Snakes recognize each other or why they might prefer certain individuals over others, it is likely related to their keen sense of smell and their different individual behaviour preferences (what humans would call personalities). Garter Snakes who spend their time in groups are more likely to have greater metrics of health, such as a higher body weight, as compared to those who have spent more time alone. For that reason, Garter Snakes will pair up with their friends after emerging in spring and stay together for the active season.

Although snakes are often mistakenly viewed as simple cold-blooded predators, the social lives of Eastern Garter Snakes challenge this perception. As it turns out, getting by with the help of your friends is not just a way of life for humans on Georgian Bay, but also for Georgian Bay snakes too!

2026 King Family Bursary Recipients

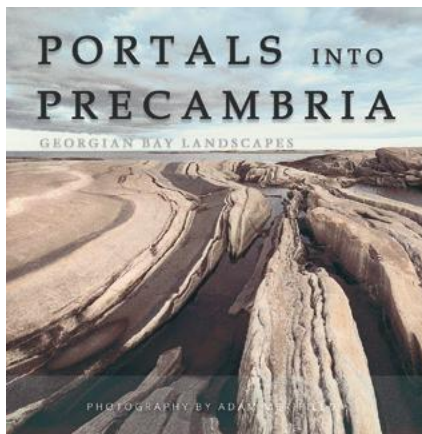
We're delighted to congratulate this year's winners of the King Family Bursary!

Founded by Wally and Marilyn King, the King Family Bursary supports projects that promote understanding and appreciation of Georgian Bay's unique environment, history, communities, and culture. This year's recipients are:

Adam Merifield



Adam Merifield is a Toronto-based landscape photographer who spends his summers at his family cottage in Pointe au Baril on Georgian Bay. For over two decades, he has explored and photographed the waters, islands, and shores of eastern and northern Georgian Bay.



Adam will use the King Family Bursary to assist in the completion of *Portals into Precambria*, a premium-quality coffee-table book that presents a full sweep of Georgian Bay's eastern and northern shores. While a significant portion of the images have already been

captured, this summer he will focus on previously unexplored areas, particularly between Sans Souci and Port Severn.

Portals into Precambria celebrates the Bay's unspoiled character amid growing development pressures while exploring our shared human longing to experience nature in its raw and timeless form.

More of Adam's work can be seen at adammerifield.com and on Instagram @adammerifield.

Kara McIntosh & Finn O'Hara



Kara McIntosh is a painter and textile artist based in Collingwood. Her practice reflects a sustained engagement with place, light, and the felt experience of a landscape. She translates the rhythms and patterns of the natural world into abstracted, layered paintings.



Finn O'Hara is an award-winning photographer based in Toronto, with a long-term practice exploring the Canadian landscape, and the beauty and complexity of our relationship with nature. He works primarily at night, using laser and LED lighting to reveal Georgian Bay's terrain after dark, creating images that sit between document and vision.

Together, McIntosh and O'Hara will explore Eastern Georgian Bay and the North Channel by boat and shoreline. They will paint and photograph the same spaces, McIntosh painting in daylight, while O'Hara photographs the landscape after dark as the Bay transforms beneath the stars. The intention is for the two bodies of work to speak to one another without repeating each other, each entirely new and distinct. Their project is built on exchange, between two distinct practices, between night and day, and between the artists and the communities whose local knowledge and relationships with the Bay help shape the land itself.

You can see Kara McIntosh's work at karamcintosh.com and on Instagram @karamcintoshstudio. You can see Finn O'Hara's work at finnohara.com and on Instagram @finnohara.



Northern Conspiracy, Finn O'Hara



Thresholds, Kara McIntosh

Introducing our Multi-species Action Plan: a new research initiative to protect wildlife

By Aaron Rusak, Conservation Director, Georgian Bay Land Trust



Emerald Boghaunter | Photo: Adam Grotoli

Georgian Bay has long been known as a unique landscape, with a dazzling array of diverse species and ecosystems. However, as Georgian Bay Land Trust staff have continued to work in the area, several discoveries have made it clear that there is still so much to learn about the eastern coast of Georgian Bay. With this in mind, the Land Trust has decided to complete a Multi-species Action Plan for the Georgian Bay coast. The plan will focus on gathering knowledge with the goal of improving conservation outcomes for all the species of conservation concern that we currently protect. (“Species of conservation concern” include officially designated species at risk, as well as species that are ranked as provincially rare, or are considered to have special significance to communities in the Georgian Bay area.)

The Multi-species Action Plan will consist of three distinct components:

1. Knowledge gathering: over the next four years, we will be conducting fieldwork and research to collect data on the population distribution and habitat needs of all identified species.
2. Conservation planning: we will use this data to target lands for protection, based on the presence of the most important habitats to support these species.
3. Public recommendations: our findings will translate into recommended actions that everyone can take to protect wildlife on their property or in their community.

Some of the first steps for the plan have already been completed, with many historic observations of species of conservation concern being documented throughout the region. This data, combined with recent observational data from the Georgian Bay Land Trust and partners, will form the foundation for the plan and allow us to establish our knowledge gaps and research priorities in the coming years.

Although we have larger data sets for some of the more well-known species, there are still many species that have been missed during field work. Species like the Ebony Boghaunter dragonfly, the Purplish Copper butterfly, and the Weak-stalked Bulrush have been studied far less because they are not formally designated as “species at risk”, despite their low populations. Part of the importance of the Land Trust’s Multi-species Action Plan is to identify the species that are at risk and not being monitored by other bodies. Our plan seeks to encapsulate all species of conservation concern on the eastern coast of Georgian Bay, including those of cultural significance to First Nations communities.

This plan will create long-lasting, positive effects for all of the identified species. Habitat suitability mapping will be completed for many of the species within the plan, which will highlight critical habitat across the EcoDistrict. Mapping data will inform management actions that can be taken by organizations and individuals to further protect species and ecosystems. It will also be used by the Georgian Bay Land Trust as part of our conservation planning process, guiding research and acquisition efforts to support permanent habitat protection across the entire Bay. This mapping, along with analysis of population changes and ecosystem requirements, will help prioritize key properties for acquisition, particularly those supporting species at increased risk or with more specific habitat needs.

We are excited to be undertaking this crucial step in the conservation planning process to increase our capacity to further protect the land and waters of Georgian Bay. To this end, we’ve hired Calder Stark as our Multi-species Action Plan Coordinator to support the completion of the plan. Over the next four years, Calder, along with myself and other Land Trust staff, will be conducting field work and research to make this plan a reality.



Weak-stalked Bulrush | Photo: Stefani Matis

Grenville Volunteer Award winners: Llewellyn Matthews and Jonathan Edwards

At the heart of the Georgian Bay Land Trust's volunteer program are our property stewards, who together help us look after the 88 properties under our care. This year, we're delighted to recognize two exceptional stewards with the Grenville Volunteer Award.

Llewellyn Matthews and Jonathan Edwards are both volunteer stewards in the Wah Wah Taysee community, and have both taken lead roles in the stewardship of American Camp Island. As our busiest public-access property, this can be a demanding job, with new challenges often requiring a quick response.

For our small staff team, having dependable and willing volunteers like Jonathan and Llewellyn to help with stewardship tasks makes an enormous difference – likely more than they know. We are so grateful to both of them and to all the Land Trust's volunteer stewards for the work they do to care for these amazing natural places.



Llewellyn Matthews

Llewellyn has served as our Lead Steward at American Camp for the past nine years, and has always been a reliable presence on the ground. He has provided valuable local support to

our Conservation Interns, and is very helpful in coordinating stewardship tasks and responding to last-minute needs.

Llewellyn's love of Georgian Bay comes from a long family history here: he is a fourth generation Georgian Bayer, who spent childhood summers at the Tadenac Club and Go Home Bay and after 1972, a family cottage in Wah Wah Taysee.

Llewellyn's passion for nature and the outdoors led him to study Wildlife Biology followed by an environmental management career. His senior year wildlife project was a proposal to reintroduce Canada Geese to the Tadenac area in the days when the only time you saw geese was migrating overhead in the fall!

Here's what Llewellyn has to say about being a Steward with the Georgian Bay Land Trust:

"One of the primary attractions of Georgian Bay is the ability to connect with nature in semi-wilderness. Wah Wah Taysee is blessed in this regard, as a lesser developed area of the southern Bay, however the development pressure is relentless. The numerous Georgian Bay Land Trust properties in the area are an essential part of preserving what we have. Volunteering as a steward is my way to participate in this effort."

One of the main benefits of being a steward is the opportunity to regularly visit the properties and meet interesting people. On the public access properties, I enjoy sharing what the Land Trust

accomplishes with other visitors. As a steward, it is a privilege to visit the restricted properties, see undisturbed habitat and participate in the monitoring effort. It is my fondest hope that future generations of my family will have wild spaces to treasure in Georgian Bay."



Jonathan Edwards

If there's one thing that characterizes Jonathan Edwards' volunteer work, it's enthusiasm. Over the past few years, he has quickly become one of our most dependable and willing helpers, always stepping up

when needed and asking what more he can do.

On top of his frequent stewardship visits to American Camp, last summer Jonathan single-handedly took on the task of installing new property signage throughout the Wah Wah Taysee and Go Home Bay communities – a huge job! This summer, he's already volunteered himself to help transport a visiting researcher around the islands.

Also a long-term cottager in Wah Wah Taysee, Jonathan is motivated by a love for Georgian Bay and a belief in our responsibility to care for the lands we enjoy.

Here are Jonathan's reflections on stewardship:

"Did you know there is a species of carnivorous plants on American Camp? One day, while out stewarding the island, a visitor pointed out Sundews to me. I have walked past that particular patch of vegetation for five decades, and not until then did I actually stop, bend down, and really look. Yes, that does look like a carnivorous plant. Does it eat mosquitoes?"

Volunteering as a Georgian Bay Land Trust steward allows me to see the bay afresh with every new visitor I meet. I enjoy hearing their stories and learning what captivates them. At the same time I get to expound on the conservation needs to protect the world's largest freshwater archipelago, and how the Land Trust (and other organizations) are working to keep it wild for generations to come.

You will find me out and about in a green kayak. Flag me down! There is not much better than hanging around talking about this amazing place."

Thank you Jonathan and Llewellyn for all the ways you've helped us look after Georgian Bay!

Welcome New Staff

We're thrilled to welcome Dania, Calder, and Lauren to the Georgian Bay Land Trust team!



Dania Matta Chidiac: **Finance and** **Operations Manager**

Dania comes to the Georgian Bay Land Trust with over 15 years of financial leadership experience with humanitarian and non-profit organizations, including the British Red Cross and the International

Federation of Red Cross & Red Crescent Societies. Her expertise spans accounting, donor reporting, and strategic financial planning. Since joining the Georgian Bay Land Trust last fall, Dania has taken responsibility for our financial management and has been busy updating many elements of our operations, IT, and organizational policy.



Calder Stark: **Multi-species Action** **Plan Coordinator**

Calder has joined the Land Trust to coordinate species surveys and data analysis for our Multi-species Action Plan initiative, aimed at improving our knowledge of the habitat needs and distribution of a

large range of species of conservation concern (see page 7). He has spent the past four years conducting similar work at Rouge National Urban Park. Calder has a Masters of Applied Science from Toronto Metropolitan University, where he researched wetland water quality and breeding amphibians. He is also a lifelong cottager in Carling.



Lauren Sideris: **Conservation Assistant**

Lauren has returned to our team after a great summer last year as one of our research students. Lauren is responsible for coordinating this summer's conservation research fieldwork, as well as assisting with procedure and policy

development for a variety of conservation work. Lauren has a Masters of Wildlife Biology from the University of Guelph, and has developed her skills in field research and wildlife education through previous positions with the Toronto Zoo, Toronto and Region Conservation Authority, and Scales Nature Park.

Station Permits: An exciting milestone **for our bird research program!**

This spring, we celebrated a major milestone for bird research on Georgian Bay: Station Permits for the Georgian Bay Land Trust.

All bird research in Canada must be conducted under appropriate permits, which are granted based on the demonstrated skills, experience, and purpose of the researchers involved. Previously, our staff obtained individual permits through other institutions. Now, the Land Trust has been recognized as its own research station, with the ability to initiate and conduct our own projects. This comes after four years of dedicated monitoring work on species including Prairie Warblers, Whip-poor-wills, and Saw-whet Owls.

We're thrilled to celebrate this milestone and what it represents for the future of our growing research work on Georgian Bay. To learn more about the Georgian Bay Land Trust's bird research program, visit gblt.org/learn.

2026 Summer Merchandise

We have new merch styles in stock for summer 2026! Show your support of the Land Trust with a new hat, shirt, sweatpants, or hoodie.

Visit gblt.org/merchandise to see the full line.





Species Spotlight:

Sphagnum Moss: an Ecosystem Engineer

By Karen Koornneef, Corridor Project Ecologist, Georgian Bay Land Trust

Photo: Kylie MacEachern



Most people know moss as that bright green plant clinging to rocks, trees, and the ground. It's soft, squishy, and spongy, often like a luxurious natural carpet. But within these beautiful, unassuming carpets, there is a special type of moss that plays an important role in the fight against climate change.

Allow me to introduce you to *Sphagnum*, one of my favourite plants. This tiny plant plays a big role within the ecosystem. It creates wetland habitats, retains water, stores carbon, improves water quality, and supports a wide range of biodiversity.

The specialized structure of *Sphagnum*

Sphagnum is a moisture-loving moss that thrives in acidic wetlands across the Northern Hemisphere. Like other mosses, *Sphagnum* has no roots and absorbs water directly through its tissues. However, unlike most mosses, only the top part of the plant is alive. *Sphagnum* is incredible in that it can hold up to 20 times its weight in water, thanks to special structures called hyaline cells. Like a sponge, *Sphagnum* absorbs rainfall and snow melt water and then releases it back out slowly, helping to prevent floods. In Ontario, there are 36 known species of *Sphagnum*, each with unique shapes, sizes, colours, and preferred growing conditions. These visible characteristics make *Sphagnum* good bioindicators, revealing information about the ecosystem that surrounds them. For example, in some species *Sphagnum* growing in the shade is green, while *Sphagnum* growing in the sun releases a pigment to protect it from UV rays that turns the plant red. Because *Sphagnum* is sensitive to changes in conditions such as pollution, temperature, moisture, and acidity, its mere presence or absence can also show whether an environment is under stress.

How is *Sphagnum* an Ecosystem Engineer?

More than just surviving in acidic environments, *Sphagnum* helps create them. Like other plants that grow in nutrient-poor places, *Sphagnum* has adapted to obtain the nutrients it requires. To maintain electrode balance, *Sphagnum* takes in nutrients such as calcium and magnesium from the environment, and exchanges them for hydrogen ions which it releases into the water. This results in water which can be as acidic as pickle juice or vinegar.

By increasing the acidity of the water and forming a structurally complex substrate, *Sphagnum* helps build bogs and fens. When the glaciers receded thousands of years ago



Pitcher plants are one of the specialized organisms that thrive in sphagnum-dominated wetlands



Sphagnum can turn red when exposed to UV rays



A close-up view of Sphagnum cells



A peat core

in the Georgian Bay area, they left behind depressions in the rocky shield which filled with water due to poor drainage. Over time, plants like sedges and reeds grew and died in these pools, leaving behind organic matter and trapped sediment. Gradually, *Sphagnum* grew, eventually forming floating mats that completely cover the surface, and acidifying the environment.

The bogs and fens that *Sphagnum* helps create are unique and important wetland environments. Other acid-tolerant vegetation grow in the upper layer of *Sphagnum*, while the lower, waterlogged layer (the catotelm) remains oxygen-poor and highly acidic. Acidity and low oxygen slow the decomposition of dead plant matter, resulting in a thick mat of partially-decayed matter called peat.

What does this have to do with climate change?

This slow decomposition is what allows peat to store large amounts of carbon. Dead plants and the carbon they contain become trapped in the peat, rather than being released through full decomposition. The formation of peat and sequestration of carbon can continue for thousands of years without releasing carbon. However, when wetlands are disturbed or water is drained, the influx of air and oxygen accelerates the decomposition process, releasing the stored carbon into the atmosphere as carbon dioxide.

Climate change not only interferes with carbon sequestration, but it can also create a climate where *Sphagnum* cannot grow. If the climate gets too hot or too dry, water will be drawn out of the wetland causing the catotelm to become less acidic. In this scenario, other plants and habitat types will compete for the newly hospitable space, causing peatlands to further shrink and decline.

Sphagnum's Neighbourhood: full of unique plants and creatures

The habitats that *Sphagnum* creates support a variety of specialized plants that only grow in acidic environments. Without *Sphagnum*, plants such as carnivorous sundews, pitcher plants, and other peatland plants would not exist.

Wildlife use *Sphagnum*-covered wetlands for food and shelter. *Sphagnum* peatlands provide habitat for many species at risk, including birds, frogs, salamanders, turtles, and snakes such as the Massasauga. Insects and thousands of tiny, microscopic plants and animals live in the water amongst *Sphagnum*, providing the foundations of the food web, and food for higher organisms.

Georgian Bay's Brita Filter

Not only do peatlands store carbon, they also help to keep pollutants out of the water supply. The complex structure of peat traps pollutants, and its pH and oxygen levels slow the movement of heavy metals. As water flows into peatlands, *Sphagnum* acts as a filter, giving sediments a chance to sink and settle into its complex structure of branches and stems. Georgian Bay's *Sphagnum* peatlands also filter out excess phosphorus and nitrogen, which, if left in the water, can lead to algal blooms.

Did you know?

- Peatlands cover 3% of the Earth's surface but store 30% of the Earth's carbon - more than all of the world's forests put together
- 25% of the world's peatlands are in Canada



Photo: Kylie MacEachern

Moss with a Memory

Sphagnum can tell time! Not in the conventional way of course, but through paleontology. Due to *Sphagnum*'s ability to create an acidic environment, plants and other organisms, such as plant pollen, are preserved in time. Core samples of peat can be used to determine the types of plants in the area at various times in history, and can give us information about environmental conditions, settlement, agriculture, and more. Peat accumulates at an average of 1mm per year, so if you stick your arm into the peat to your elbow, you could be touching something over 300 years old. Some cores have been over 8m deep – that's a lot of history in one peatland!

Uses from Battlefield to Babies

Throughout history, *Sphagnum* was valued for its medicinal properties and used as a hygienic, medicinal and practical resource. In World Wars I & II, *Sphagnum* was used for wound care due to its antiseptic properties. It has also been used as a natural super-absorbent "diaper" material in baby carrier-like "Moss bags" made by First Nations communities.

Connecting Earth, Spirit and Community

In many cultures, *Sphagnum* has spiritual value too. In the UK

it was a sacred symbol, said to have protective properties to ward off mischievous spirits. Peter McLeod, an Anishinaabek knowledge keeper, shared that *Sphagnum* can be used as bedding to give comfort and assist in connection with the Spirit realm, especially during dream time. It is used to cushion a vessel in burial as it returns to Mother Earth, and is mixed with shkitaagin and birchbark as a Firestarter for sacred and cooking fires.

Sphagnum – A Superhero

As you can see, *Sphagnum* is a unique and special moss. In fact, it's more than just a moss: it's a climate-changing, flood-mitigating, pollution-mitigating, biodiversity-boosting, spirit-connecting, amazing species. So, next time you are in one of Georgian Bay's peatlands, take a closer look at that soft carpet beneath your feet, give it a gentle pat, and say thank you!



Do you have a species you'd like to see spotlighted in an upcoming issue? Send your suggestion to info@gblt.org.

Give back to the Bay you love all year long. Join the Shoreline Circle monthly giving club.

The Shoreline Circle is a group of people who love Georgian Bay and want to make a difference in protecting its natural landscapes. Setting up a monthly gift with the Georgian Bay Land Trust allows you to play an ongoing role in protecting Georgian Bay's wild places, and the plants and animals they support, for generations to come. Gifts made through the Shoreline Circle add up to steady, reliable funding that the Land Trust can draw on to support our conservation work year-round.

Your commitment makes a difference for Georgian Bay's natural landscapes. Join now at gblt.org/shoreline-circle.

As a thank you, all Shoreline Circle members will receive an exclusive notebook, featuring original Georgian Bay cover photography by Ariel Estulin.



Summer Staff

Welcome to the 12 wonderful students joining us this summer! You'll see Conservation Interns conducting stewardship on Land Trust properties, Outreach Students representing us in public, Corridor Students conducting backcountry ecological surveys, and our Research Student collecting data on birds and wetlands.

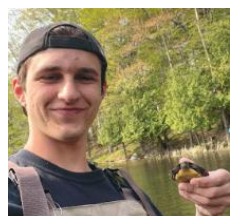
Corridor Students



Sam King has a BSc in Biology from Carleton University. He loves everything natural-history related but is especially into fish, plants and herpetofauna. He has spent many summers in Georgian Bay's ecosystems and is excited to be working with them professionally.



Nathanial Merker-Myers is an Environmental Science Graduate from Dalhousie University. Driven by a commitment to environmental stewardship, he is eager to apply his expertise to protecting the ecosystems of Georgian Bay.



Joey Trusler recently completed a major in Biology and a minor in Geography at Queen's University. He is excited to explore the unique habitats of Georgian Bay and is passionate about learning new things and connecting with the natural environment.



Kylie MacEachern holds a BSc in Wildlife Biology and Conservation from the University of Guelph, and is an avid wildlife photographer and illustrator. She is looking forward to her second season working on GBLT's corridor project.



Estelle Scott is completing a double major in International Development and Biology at McGill University. She has a family cottage in Pointe au Baril, and is passionate about community-based conservation and protecting the region's unique ecosystems.



Hannah Watson is a recent graduate from the Honours BSc Biology program at Trent University. She is passionate about insects and forest ecosystems and looks forward to helping increase protected land area with the corridor team this season!

Conservation Interns



Emily Aitken is an Environmental Engineering graduate and a current Master of Wildlife Biology student at the University of Guelph. She is excited to combine her passions for Georgian Bay ecosystems and species at risk conservation this summer.



Annie Przybyłowicz hailing from Switzerland, is a Chemistry student at Queen's University. She has a passion for learning, community, and a deep-seated love for nature inspired by her many summers in the Cognashene area.



Claire Lee-Coudouel is currently a Master of Wildlife Biology student at the University of Guelph. She has a family cottage in Georgian Bay and is passionate about conservation. She is excited to join the GBLT for the 2026 field season.

Outreach Students



Ryleigh McDade is an environmental science student at Trent University. She's a proud turtle enthusiast and passionate about nature. Usually found spotting wildlife, she's excited to spend the summer protecting local ecosystems and sharing education with the community.



Charlotte Squires is a TMU Environment and Urban Sustainability (BA Hons) grad thrilled to join GBLT this summer! A fan of foraging and a wildlife supporter, she's branching into a Master's focused on growing healthier urban forests.

Research Student



Evan Lewis is an avid birder who grew up on Georgian Bay. After eight years studying and bird banding in B.C., he's an incoming Master's student at Western University, eager to work in the region he calls home.

From the Archives: A Naturalist's reflections from Nares Inlet

The Georgian Bay Land Trust's Thomson Reserve, in Nares Inlet, was formerly a cottage property shared by three brothers: Tom, Rob, and John Thomson. The brothers were a fixture in the Nares community and the property was the site of many memorable gatherings and activities. In the 1990s, Tom was inspired to write down some of his reflections on the wildlife he had experienced throughout his 70 years in Nares Inlet. These papers were rescued from the cottage by a neighbour before it was torn down, and an excerpt is printed here:

"...I am happy to report the continued, though diminished, presence of the great blue heron. Some malignant circumstance substantially decimated the whip-poor-will population of the 1930's, and it is only in the 1990's that we are beginning to hear again their nightly clamor. Woodpeckers, in our case the flickers, have continued their destructive habits, not contenting themselves with drilling holes in walls, but on occasion indulging in early morning frenzies of noisy attacks on the metal strips covering the ridge pole of our cottage roof. Secretive partridges, a rarity on the flat rocks of our island, maintained a presence in woods and thickets. Gulls, on the other hand, thrive on the heads and guts of whitefish and lake trout cast overboard by the Oldfields' fishing boats on their way from the open lake into the Pointe. The loons we admire are an important presence in the Inlet, but cormorants and the vulture are new..."

The full text of Tom's observations is available at gblt.org/thomson-reserve. We are grateful to the Thomson brothers for their many contributions to the natural and the local community of Nares Inlet, and for choosing to leave their beloved property to the Georgian Bay Land Trust for conservation. We are pleased to continue the tradition of recording the activities and observing the changes in wildlife that so many people on Georgian Bay have begun before us.

We've moved!

The Georgian Bay Land Trust's main office is now located at the Centre for Social Innovation in Toronto. This vibrant coworking space is home to many nonprofits and socially-focused organizations, including several of our colleagues in the environmental sector. Joining this community is a wonderful way for us to collaborate and share ideas with others working toward a better future.

Please note that our address has changed. If you send us mail, kindly update your records to our new location:

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Toronto, ON M5T 2C2

TributeGIFTS

Received from October 6 2025 – May 1 2026

In Memory

Peter A. Allen	Glen Heron
Kerry Baskey	Anne Herring
Amy Beament	Laurie Hornell
Fred Beck	Donald Justason
Sean Charles Belshaw	Peter Kemerer
Meg Best	Wally King
John Catto	Julien LeBourdais
William Edward Coates	Dorothy & Bill Leonard
Donald Coppa	Roy Linden
Penny Ann Davidson	John McKellar
Kathleen Davis	Walter and Jessie Meinig
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Colin Shepherd
Gunild Spiess
Andrea Stager
Audrey Stratton
Dr. Norman Burke Taylor
Chris Vaughan
Bram Vermeulen
Elizabeth Wakabayashi

In Honour

Clair Balfour	The Ivester Family
Anita Banerjee	Jan
Kerry and Brenda Benson	Randy Johnson
Anne Brown	Paul Kennedy
Kathryn Brown	Rob Kennedy
Marc Cooper	Bill Loughheed
Sondra Cornett	Gianna Rose Plante
Lachlan Curry	Lukas
Martha Fell	Penny Martin
Amy Furness	Llewellyn Matthews
Gabby and Gully	Rob Reed
Gabriella and Logan	Frances Reinholdt
Hugh B. Hall and Betty (Joy) Hall	Nick Steffey
Antony Hillard	Beth Stewart
	The Uly Family

Georgian Bay Snapshot

Saw-Whet Owl Duo
by Sarah Koetsier



Last September, the Georgian Bay Land Trust began banding Northern Saw-Whet Owls for the first time. These tiny owls fly along the eastern Georgian Bay coast as part of their southbound migration. Our goal was to learn more about their movement and fall migration patterns.



We were amazed by how many Saw-Whets we caught in our nets – 183 in total over a two week period. Our Conservation Director Aaron Rusak, who led the banding, speculates that the eastern Georgian Bay coast may be a more significant autumn migratory flyway than previously realized, as birds coming from the northern Boreal forest divert around the Great Lakes on their way south.

Studying Saw-Whet Owls can help us make inferences about the movements of other owl species too, which tend to fluctuate annually in response to the availability of food or other environmental conditions. We plan to continue the banding project this fall and are looking forward to learning more!

Sponsors

Thanks to our generous sponsors





gbt.org

SUMMER 2026

SUMMEREVENTS

PROTECTING GEORGIAN BAY'S WILDERNESS LANDS



Property Dedication: Payne-Meinig Nature Reserve

Celebrate this new conservation property with us!

June 20, 1-3pm – Longuissa Bay, Cognashene



Ecologist Talk

The Corridor Project: Stewarding Resilient Lands for Future Generations. Learn more about Corridor Project Ecologist Karen Koornneef's work in Pointe au Baril.

July 10, 4-5pm – Ojibway Club, Pointe au Baril



Nature Walks

Join us for a naturalist's tour of Georgian Bay Land Trust properties, and learn how to identify plants and animals you've never noticed before.

June 27, 10am – Rattlesnake Island, Pointe au Baril

July 19, 10am – Umbrella Island, Sans Souci

July 25, 10am – Trails near Bayfield Marina

August 23, 10am – MacCallum Reserve, Go Home Bay



Artist and Author Talks: King Family Bursary Winners

Meet our 2024 and 2025 bursary winners, Peter Mills and Amelia Stea MacLaurin, and get inspired by their artistic and literary work on Georgian Bay.

July 14, 4-6pm – Midland Cultural Centre



Bird Banding Demonstration

Learn how our research team catches and bands birds, and watch them in action!

July 28, 9-10am – Robertson Nature Reserve, Go Home Bay



Phragmites Cut

Help us remove this invasive reed from Sandy Island.

August 16, 10am – Sandy Island



Bird Migration Walk

Join us for a hike to observe some of the birds migrating through at this time of year.

September 13, 10am – Sans Souci



For more information about any of these events, and to register, please visit gbt.org/events.



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The Georgian Bay Land Trust acts to preserve the wilderness lands of eastern Georgian Bay and the North Channel through strategic conservation planning, land securement, stewardship, conservation research, and education.



We are a registered Canadian charity (#13195 8811 RR0001)

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