GEORGIAN BAY LAND TRUST
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WINTER 2022

# LANDSCRIPT

PROTECTING the WILDERNESS of our UNIQUE ARCHIPELAGO

# *Winter* Birdwatching

Shipwrecks of Georgian Bay

Climate action at the cottage

Songbirds on the rocks

photo: David A. Mitchell

*Songbirds on the Rocks:*

# Avian Movement Ecology in Southeastern Georgian Bay

by Andrew Beauchamp, PhD Candidate, University of Western Ontario


*Members of the Western University research team disembark near the Motus station on the MacCallum Reserve, Splitrock Island. Photo by Chloe Carter.*

Picture a pristine morning in early summer. Fog rises gently across the water, gracefully veiling the soft orange hue of the summer sunrise reflecting off the mirror smooth water. It's a familiar and comforting sight that is part of the serene allure of cottage country on the edge of the Canadian Shield. Gradually, the muted drone of a boat motor rises through the early morning fog, heralding the passage of a Zodiac laden to the gunwales with equipment and researchers clad in orange float jackets and brimmed hats. A curious sight, the vessel swiftly passes, leaving behind only a rapidly dissipating wake.

The researchers (who later exchanged their orange float jackets for something less sweltering) were part of a team from the labs of Dr. Yolanda Morbey and Dr. Chris Guglielmo at the University of Western Ontario working with the Georgian Bay Land Trust. Our goal was to learn how locally nesting songbirds use the coastal islands of southeastern Georgian Bay during the time between the end of the summer nesting season into fall migration.

Songbirds are a diverse group of birds that include many of the familiar feeder and backyard-frequenting species, as well as many other species who often go unnoticed in the deep woods. They are the choir of the Canadian woodlands, with their songs and calls forming the subtle but integral soundtrack of the wilderness. In addition to their pleasant vocalisations, songbirds carry out a number of vital roles in the maintenance of the forests and other ecosystems, including the suppression of insect pests and the dispersal of seeds.

Many of the songbirds found in the forests of coastal Georgian Bay are migratory. These birds take advantage of the abundant resources and favourable conditions during the summer months to nest and raise young, flying south to warmer regions in the fall to avoid the ravages of the northern winter. During the time between the completion of nesting and before migration, adult songbirds must recover from raising young, and replace worn feathers in a process known as moulting. Juvenile songbirds, who are no longer under the care of their parents, have to continue to physically develop, learn how to fend for themselves, and may explore the local region in preparation for the next nesting season. Later in the summer, both adults and juveniles need to accumulate the energy required to start their southward migration, rapidly depositing the fat that is used to power migratory flight.

*PhD candidate Jessica Deakin and Dr. Marek Allen searching for tagged birds in the Alexander Islands using a portable radio receiver. Photo by Chloe Carter.*

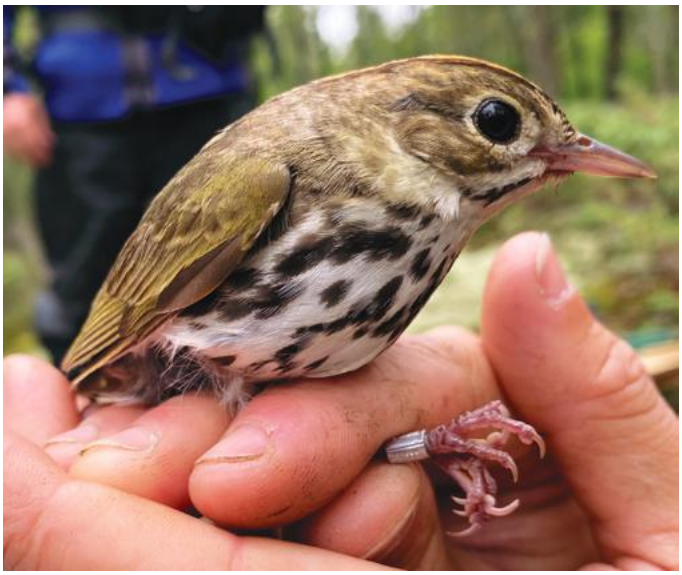
*The author, PhD candidate Andrew Beauchamp, pausing for a photo with a tagged Song Sparrow (Melospiza melodia) prior to release. Photo by Jessica Deakin.*

Our research this past summer aimed to explore how songbirds move amongst the islands and coastal habitats of the Go Home Bay area while engaged in their post-nesting season activities. We also hoped to determine if the local movement of adults and juveniles differed, and how this may relate to the challenges faced by each age group. To accomplish this, we affixed a total of 77 miniature radio-transmitters to adult and juvenile songbirds of three species that commonly nest in the area (Ovenbirds, Song Sparrows, and White-throated Sparrows). Radio signals emitted from these tags allowed us to locate tagged birds using a hand-held radio receiver, and to track their movements at the regional scale and during their fall migration using the Motus Wildlife Tracking System. This system, developed by Birds Canada, is a worldwide network of automated radio receiver stations that can detect signals emitted by tags affixed to animals (including birds, bats, and large insects) at a range of up to 20km under ideal conditions. (See *Wingtips at our Fingertips* in the Summer 2021 issue of *LandScript* or Motus.org). An additional five Motus stations were set up in the region early in the summer of 2021 to ensure that signals from tagged birds in the region would be received.

A typical day of research would begin around dawn with loading the equipment into our Zodiac, the newly christened *Western Sandpiper*, and navigating through the maze of rocks and islands to a property stewarded by the Georgian Bay Land Trust. Upon arrival, we would strike out into the woodlands, setting up nets and playing recordings of our target species' song to entice a nearby bird into the net for tagging. Later in the season, we shifted our focus towards locating tagged birds, using a portable receiver to home in on the signal by boat and on foot. By connecting the dots between where individuals were found, we will be able to show when and where a bird moved in the local area—a process that can be repeated to map their southbound migration down the continent using Motus.

This research will help to reveal the extent to which adult and juvenile songbirds use both island and mainland habitat in coastal Georgian Bay during the post-nesting period. Our hope is that this knowledge will allow for better informed decisions regarding the use and conservation of habitat in coastal Georgian Bay for the benefit of migratory birds living in this UNESCO biosphere reserve.

We would like to thank the Georgian Bay Land Trust, Mitacs, The Lake Huron Centre for Coastal Conservation, Environment and Climate Change Canada, and the Natural Sciences and Engineering Research Council of Canada for supporting this research. We are grateful to the Land Trust and the residents of Go Home Bay for the opportunity to conduct this research and are looking forward to future collaborations to learn more about the birds of southeastern Georgian Bay.



*Ovenbirds (Seiurus aurocapilla) are abundant in the forests of Coastal Georgian Bay during the spring and summer, migrating to the Caribbean, Central America, or northern South America for the winter. Photo by Jessica Deakin.*

# Philanthropy Award: Carol and Bill Prior

*"Perfect Day for a Race" by Carol Prior*

The Georgian Bay community has benefitted for years from the generosity of Bill and Carol Prior. Bill was an active volunteer and innovator in the Pointe au Baril community until his death in 2016, and together he and Carol supported numerous environmental causes. Now Carol has made a generous contribution to conservation, to honour Bill's legacy and protect the place they both loved. Here's why she supports conservation, in her own words.

***Tell us about your connection with Georgian Bay.***
Bill was four months old the first time he came to Georgian Bay. I'm not sure that he ever missed a summer. I first went up there in 1960, on a honeymoon with somebody else, and fell in love with Georgian Bay. Then I married Bill and I've been up there since 1980.

***What does Georgian Bay mean to you?***
Georgian Bay is where my heart is. I do a lot of watercolour painting, and everything I want to paint is on Georgian Bay. Sailboats racing, people playing, just plain wonderful fun. Bill has five children, and three of them have kids, and they all stay on islands within a quarter mile or less. There's quite a group of us when we get up there.

***What are your favourite things to do on the bay?***
I like to just get out and sketch or explore. I might get in the kayak and spend the whole day in it, let the kayak sit against an island and do a sketch, then paddle on.

***How have you been involved with the community?***
Bill was a person who loved everybody, and knew everything around the Georgian Bay area like the back of his hand. He was a very active person, and he could sense needs for things, and always wanted to help with whatever was needed. He was the president of the Pointe au Baril Islanders' Association at one point, and was always an innovator: he invented a hydrofoil sailboat back in the 50s. We were particularly concerned with water, being in the water business. Bill started a program to test the water quality 25 years ago or more, and he got a whole bunch of kids involved—they would take water samples using a very simple process. That was the start of water testing.

***Why is conservation important to you?***
Georgian Bay is so beautiful, and it's been such a large part of our life. It's just supremely important—the most important area of land to me in the world. And it's fragile.

***Why did you decide to donate to the Georgian Bay Land Trust?***
My goal was to get this money into the hands of people who are up there and involved. People who would know what to do with it, and apply it in the best possible way to what is needed to help the environment and the overall situation of Georgian Bay.

**Thank you, Carol, for your wonderful commitment to the Georgian Bay environment!**

## LandMark Speaker Series:

# Shipwreck Tales of Georgian Bay

*With Cris Kohl and Joan Forsberg*

Any boater on Georgian Bay is familiar with the dangers of shoals, and most probably know a story or two of a boat lost to the Bay. But how often do we think about the centuries of shipwrecks beneath the water's surface? For Cris Kohl and Joan Forsberg, the answer is nearly every day.

Cris and Joan are highly skilled divers and underwater archaeologists with decades of experience exploring Great Lakes shipwrecks. They joined us last spring to present their Georgian Bay stories to a rapt virtual audience. Here are a few highlights from their years of diving, and a few mysteries yet to be uncovered:

**Waubuno**

The wreck behind Sans Souci's Wreck Island, the Waubuno's sinking was a mystery for many years. Built in 1865, this wooden steamer enjoyed 14 years of service on Georgian Bay before vanishing in November 1879, en route from Collingwood to Parry Sound. No bodies were ever recovered, and the loss of life (24 people) made it, at the time of sinking, Georgian Bay's worst recorded maritime disaster.

In 1880, the washed-up hull of the Waubuno was discovered in a sheltered cove near what is now called Wreck Island. The hull was nearly empty—evidence that the ship must have capsized and lost almost all its contents. But what caused the wreck? The answer to that wasn't uncovered until the 1950s, when divers exploring a group of shoals 2.5 miles west of Wreck Island found anchors, a chain, and other debris belonging to the Waubuno. This must be where the ship ran into trouble and capsized, scattering her crew and contents behind.

Today, the empty hull of the Waubuno lies in shallow water, where it provides habitat for fish and an interesting dive for people. One of the anchors recovered in the 1950s has been raised and is on display in Parry Sound.

**Asia**

Just three years after the Waubuno was lost, on September 14, 1882, the sinking of the Asia surpassed it as the worst loss of life ever to occur on Georgian Bay. This 136 foot wooden passenger and cargo ship had only been in service on Georgian Bay for a few months when it foundered in a severe storm en route from Collingwood to the French River. Of the 125 people on board, only two teenage passengers survived, making a harrowing journey to Pointe au Baril in a lifeboat. The exact site of the Asia's disaster is not known and the wreck has never been found, making it one of the most mysterious of Georgian Bay's "ghost ships".

**Manasoo**

One of Cris and Joan's recent claims to fame is the discovery of the wreck of the Manasoo in 2018. This 202 foot steel ship went down in a storm in 1928, just two hours shy of its destination of Owen Sound. Only five people survived, and despite local reports at the time, the location of the wreck was unknown to modern divers. Cris and a few friends changed that, locating the Manasoo half a mile from the Griffith Island lighthouse after four long days towing a sidescan sonar unit in a grid pattern across the water.

The wreck is remarkably well-preserved, looking much as it did when it sank 90 years previously. Unusually for a shipwreck, the pilot house remains intact and attached to the ship, and is complete with steering wheel, wall clock, telegraph, and compass. Elsewhere on the ship there remains an upright 1927 Chevy Coupe, and three of the ship's four lifeboats still in their original stowed positions. All of this indicates that the ship sank quickly and did not capsize on the way down. We also know that she sank stern-first, coming to rest with her stern deeply embedded in the lake bottom, and her bow sticking up into the water. The exact cause of the disaster remains unknown.

**Griffon**

One of the Great Lakes' most enduring mysteries is that of the Griffon. Built in 1679 on the Niagara River, the Griffon was the first ship to sail on Lake Huron—and also the first wreck. Her maiden voyage was to Green Bay, where she was loaded with 12,000 pounds of furs and sent back with a six person crew to Niagara. She never made it.

The fate of the Griffon and its crew has been a mystery ever since, with numerous people claiming to have found the wreckage, but nothing ever proven. Cris and Joan believe that the most likely candidate is some wreckage found near the western side of Manitoulin Island, which the local First Nations record as having been there since at least the late 1700s. Six skeletons were found in nearby caves, matching in number the six missing crew members. Unfortunately, most of the bones and wreckage have now been lost, making the truth difficult to prove.

*To learn more about these shipwrecks and Cris and Joan's work, purchase their book "Shipwreck Tales of Georgian Bay" or visit their website: www.seawolfcommunications.com.*

# Georgian Bay **QUERY:**

## *How can Georgian Bay cottagers take action on climate change?*

*Answered by: Kerry Mueller, Transportation Climate Action Group member, ICECAP*

Coordinated by the Georgian Bay Biosphere (GBB), the Integrated Community Energy and Climate Action Plans (ICECAP) program is helping area Councils and their communities mitigate greenhouse gas emissions and build resilience by adapting to a changing climate.

The ICECAP program is a partnership between the Municipalities and First Nations located in the Georgian Bay Biosphere region for the purpose of a collaborative, more cost-effective approach to energy management and the reduction of greenhouse gas emissions. If you'd like to learn more, please visit: gbbr.ca/climate-action.

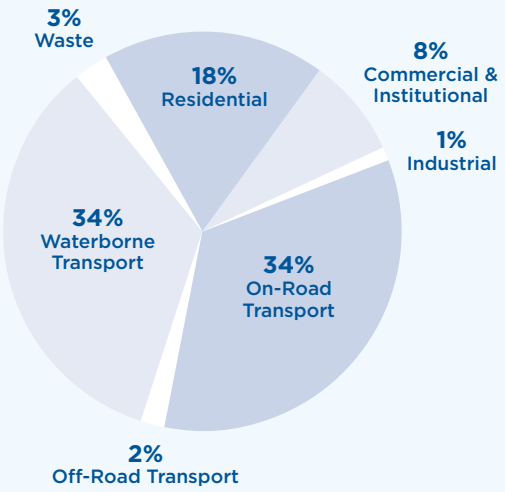
### Climate Action at the Cottage: Options, Benefits and Trends

Climate action is on the minds of many after the United Nations' recent gathering on climate change, COP 26. Kids in particular will be affected by our warming climate and although they love getting out into nature, many are also quite concerned about how the climate crisis will affect the people and the natural places they love. My two grandchildren will turn 10 in 2030 and I often wonder when they reach that age, what they will think about their futures and the actions the adults of today took to help fight climate change. Have you been wondering what more you can do? Here are some suggestions particularly suited to cottagers.

### Transportation—The Biggest Opportunity

You may be wondering: what are the biggest sources of greenhouse gases (GHG's) causing the climate crisis in the communities of the Georgian Bay area? Research by the ICECAP program determined that 70% of the GHG's come from burning fossil fuels for transportation, on road, off road, and on the water.

**Total Regional Community Emissions, 2016**
**ICECAP Members (5 Townships)**




Driving to and from a cottage, boating, snowmobiling, off roading as well as doing yard work can add up to a lot of pollution. The good news is that there are more choices than ever to electrify those activities, giving cottagers and residents alike choices to cut their emissions by 94% or more due to Ontario's mostly clean electricity.

### How fast are people switching to electric vehicles (EVs)?

We shall see, but rapid change has happened before as it did in New York between 1900 and 1913 when the car replaced the horse and buggy in less than 15 years.

*Easter morning 1900: 5th Ave. New York City. Spot the automobile.*

*Easter morning 1913: 5th Ave. New York City. Spot the horse.*

### Why does such rapid change happen?

It generally happens when people see benefits to changing. Some of the benefits of driving electric on land (and in the water) are almost no pollution going into our air and water, less vehicle maintenance cost, less cost to "fill up", instant acceleration, greater convenience of charging at home, less noise, as well as far less climate impact.

Canadians seem to be liking these benefits. In a February 2021 survey by KPMG, 70 percent of Canadians planning to buy a new vehicle in the next five years said they are likely to buy electric. Electric vehicle sales are booming in 2021 according to Car and Driver. The list of car companies worldwide switching their models to electric is growing too. According to Consumer Reports, a record number of almost 1,000 pure battery electric vehicles are planned to debut by 2024.

**Are there enough EV charging stations?**
Currently Canada has roughly 12,000 gas stations as compared to 6,000 public charging stations plus all the private charging stations installed in EV owners' dwellings. As well, more than 17,000 new charging stations will be installed with investments made so far, according to Natural Resources Canada. GM plans to install 4,000 by 2025 and to supply 10% of Canada's charging network. Check out Plugshare (www.plugshare.com) to see a map of those available now.

**Do boats, personal watercraft, side-by-sides, and snowmobiles produce a lot of GHG's?**
Yes, because they lack a sophisticated exhaust system, they pollute much more than modern gas-powered cars and trucks. However, electric choices are becoming available in these recreational markets too. Taiga Motors is a Canadian company producing electric snowmobiles and personal watercraft. Torgeedo and PureWaterCraft are producing electric boat motors. There are several electric boat manufacturers which one can follow on Plugboats (www.plugboats.com) and MotorBoats (www.mby.com). For an electric side-by-side you may want to check out these options: www.utvlifesport.com/electric-utvs.

**Can Small Equipment Produce Big Pollution?**
Yes, 2-stroke and 4-stroke engines in some equipment such as leaf blowers, lawn mowers, trimmers, chainsaws and boat motors can produce high levels of both noise and pollutants.

A 2011 study by Edmunds found that a two-stroke Echo leaf blower produced as much hydrocarbon emissions in about a half-hour of yard work as a 2011 Ford Raptor would when driven 3,887 miles (6,254 km) which is greater than the distance across Canada!

However, there is very good news about electrifying such yard equipment too, since many electric options are carried by most major retailers. Conveniently, the battery packs are often exchangeable between equipment from the same brand.

**Other Healthy and Climate Friendly Trends:**
Safe Quiet Lakes (SQL) reported in a 2021 survey that more people are using kayaks and paddleboards, and 18% more people rated paddling as "very important" than eight years ago.

The bicycle, the most efficient form of human-powered transportation, is in high demand. Shortages in bicycles are expected to continue as cycling's popularity booms in Canada.

People are seeking to lower their carbon footprint with food products harvested and made in a way that is both socially and environmentally responsible. Many young Canadians in particular are becoming vegetarian and vegan in order to reduce their consumption of meat and help fight climate change.

**In summary:**
Whether driving to and from the cottage, doing yard work, enjoying a meal or recreational activities, innovations and informed choices are allowing us to take climate action, enjoy the many benefits of doing so and help shape a better future for ourselves, our kids, grandkids, and theirs.

# Board Retirements and Appointments

## Thank you Nick Eyles

Dr. Nick Eyles has retired from the Georgian Bay Land Trust board after nine years of enthusiastic service. We are so grateful to Nick for all the ways he has enriched the Land Trust's work, both through his expertise as a geologist and his skill as a science communicator. For over a decade, Nick has captivated audiences around the Bay with his famous Rock Walks, which are often our most popular events of the summer. He has helped us all understand just how unique Georgian Bay's geology is, and how our rocks lay the foundation for the biodiversity that makes Georgian Bay so special. Nick shared this knowledge with even more people by editing *Georgian Bay: Discovering A Unique North American Ecosystem*, the collection of scientific, historical, and cultural writing on Georgian Bay that was published in 2017. Nick has been a tremendous asset to the Georgian Bay Land Trust board, and we know that he will continue to serve the Bay in new ways going forward. Thank you, Nick!

## Welcome Cathy McKeever

We are delighted to welcome Cathy McKeever to the Georgian Bay Land Trust board as our new Stewardship Chair. Cathy spent her childhood summers exploring the rocks and waters of Pointe au Baril with her siblings and cousins. For many years, her family owned and looked after a portion of Lookout Island, which they donated to the Land Trust in 2005. Cathy joined the Land Trust as a member of the volunteer stewardship team for the West Lookout Island Reserve.

Cathy has had a 30 year career as a biochemist with Sanofi Pasteur, where she is currently the Deputy Director of Flu Vaccine Manufacturing in Toronto. We are thrilled that Cathy has chosen to share her considerable scientific and managerial expertise with the Land Trust, as well as her lifelong love of Georgian Bay.

## Species Spotlight:

# Georgian Bay's Winter Birds

*By Aaron Rusak, Muskoka Conservancy*

Winter in Georgian Bay is cold, windy, and snowy, but that doesn't mean there isn't plenty of wildlife to look for. Winter is probably the best time to look for *irruptive migrants*, birds that usually come south in small numbers, but will in certain years explode southward and migrate in big flocks. There are a number of factors that will lead to an irruption, but food, or lack thereof, is usually the main driver. Birds go where the food is, and Georgian Bay offers some great potential winter food sources for a host of different birds.

## Finches

Winter finches are some of the most common irruptive migrants, so knowing how and what to look for will help you make the most of your winter hikes.

*Photo: Doug Greenberg*

### Pine Siskins

Pine Siskins are small birds, about the size of an American Goldfinch, but lack the bright yellow coloration of the latter species. The males do have a flash of yellow in the wing, but are a drabber bird overall, with dense streaking on the breast. As the name suggests, pine trees are a good place to look for this bird, but it will also feed on other tree species, like cedar, hemlock, and birch. They often associate with American Goldfinches or Black-capped Chickadees, so be sure to check out these flocks for anything that looks a bit different.

### Pine Grosbeaks

Pine Grosbeaks are also a species of finch that can be found throughout Georgian Bay because as their name suggests, they also feed on the seeds from White Pine. They have a hefty black bill that they use to process the seeds that they forage from the ground or the tops of trees. This is a larger finch, about the size of an American Robin, and the males have bright pink/red plumage. The females are a little less flashy and lack the bright colours of the male, having a gray body and orange head instead.

*Photo: Scott Heron*

*Photo: Mick Thompson*

### Red Crossbills

Red Crossbills are a unique species of finch and finding them in the winter can prove to be especially rewarding. Red Crossbills will breed at almost any time of year, so if you're lucky you may stumble across a nest even during the winter. They prefer mature coniferous forests, and Georgian Bay provides a lot of that. Identifying Crossbills is easy if you can get a good look at the beak, as the bottom and top part of the beak cross past each other. The males are a bright red colour with the females being yellow, but they both have a dark wing with no white on it.

Photo: Jim Oskam

*Barred Owl*

Photo: Toby

*Snowy Owl*

Photo: Diane

*Eastern Screech Owl*

Photo: Mick Thompson

*Great Horned Owl*

## Owls

The owls are another group of irruptive birds that should also be mentioned, but are much trickier to find than the often-flying winter finches. Georgian Bay has great habitat for them. With the combination of conifer stands and adjoining open woodlands, a good winter could potentially see five or more species in Georgian Bay. Possible species are Barred, Northern Saw-whet, Eastern Screech, Great Horned and the magnificent Snowy.

Since most owls are nocturnal, finding them during the day is difficult, but with a bit of luck and effort you may be able to spot one. Walk quietly and examine dense conifer stands, and be sure to take your time. The other way to find owls is to listen for and investigate any racket from Blue Jays or Black-capped Chickadees. If discovered during the day, other birds will mob an owl to try to drive it away, so these loud commotions can be a tip off.

Even though weather conditions and food scarcity cause many birds to leave, winter is a chance to find more rare and unusual birds. You never know what you might find when you look for birds, whether it's a finch feeding at the top of a pine, an owl hiding deep in the branches, or even something more unusual. The best thing to do is just to go outside and get looking. One of the beauties of Georgian Bay is that you're in for an amazing experience whether you find birds or not, you will always see something interesting.

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

*Aaron Rusak is a Go Home Bay cottager and an accomplished birder. Aaron is Muskoka Regional Coordinator for the current Ontario Breeding Bird Atlas, and had a record-breaking "Big Year" in 2020: 219 species identified.*

# Thank You, Brooks!


*Brooks Greer with fellow Land Trust staff Sarah Koetsier and Janet Brough. Photo by Wendy Wiegfelder.*

After twelve years as our Land Protection Program Manager, Brooks Greer has retired from the Georgian Bay Land Trust.

Anyone who has interacted with Brooks during his time at the Land Trust knows what an important role he has played in our work and community. His contributions to conservation were significant: Brooks was instrumental in the protection of 37 new conservation properties, and responsible for the ongoing care and administration of 7,500 acres of protected land. Brooks conducted species at risk surveys and property cleanups, responded to the needs and concerns of visitors, installed research equipment, and navigated the behind-the-scenes bureaucracy necessary for land protection. He also grew and coordinated a team of over 130 volunteer property stewards, built relationships with land and easement donors, liaised with partner organizations, and managed our summer conservation interns. Everyone loved working with Brooks, and he was a natural leader and friend to all the people whose efforts he helped coordinate.

Brooks' contributions to the Land Trust went far beyond his job description. He was a skilled copy editor of almost all our communications materials, assisted regularly with events and fundraising efforts, and much more. Beyond this, he added to our work in so many intangible ways. Whether for fellow staff, volunteers, or donors, Brooks provided a sympathetic ear, encouragement, and fantastic sense of humor that made any job more fun and any challenge less overwhelming. He shared his knowledge and enthusiasm freely, whether for birds, music, or stories, and everyone around him learned more through his curiosity. Brooks brought a genuine sense of integrity and kindness to the job, as well as a strong commitment to doing the right thing for the natural world. Brooks, we hope you know what an impact you've made.

We will miss Brooks very much, but we wish him well on his new adventures!

## Another successful Bayscapes

Thank you to everyone who helped make our second virtual Bayscapes an even greater success than last year! We are so happy to see that enthusiasm for the online format remained high, and grateful to our community for participating from far and wide.

Funds raised through Bayscapes help protect more land on Georgian Bay, ensuring that wildlife has a place to thrive and future generations will have spaces to connect with nature.

Thank you to our generous auction donors, helpful volunteers, and talented entertainment for making Bayscapes possible. See you next year!

## Property Spotlight:

# The Lizard, Cognashene

The Lizard came to the Georgian Bay Land Trust in 2001 as a gift from the family of Leighton and Muriel McCarthy. It has taken its place as one of the Land Trust's flagship southern properties, and over the cottage season receives a steady flow of visitors and picnickers who come to enjoy its beautiful windswept features and unimpeded views over Georgian Bay.

The Lizard has a unique long and narrow shape; it is more than a half kilometre long, but only about fifty metres wide. It has a remarkable diversity of species for a small and mostly bedrock island. The Lizard is primarily open rock barren with several depressions and rock crevices where rainwater collects to form elevated ponds where a variety of wetland plant species flourish. Consequently, despite the small size of the island, it provides a home for a wide range of species with different habitat affinities.

During heavy rainfall the Lizard's elevated ponds will occasionally fill beyond capacity, and their overflow then runs out into the lake. Over millennia the gradual erosion of the water flowing from the ponds has carved small waterfall sluices into the island's solid bedrock.

*Steward Peter Cooper:*
Having built a cottage on an adjacent island about ten years prior to the McCarthy family's donation of the Lizard Island to the Land Trust, I was truly elated when I heard about this wonderful gift. The Lizard is not only a terrific place to explore, but it also acts as a fantastic break wall for those who reside east of the island. One interesting feature is the extensive bog located in the centre of the island. In fact, some people refer to the Lizard as "Cranberry Island". The berries were so plentiful this year that in late August and early September an adventurous teenage bear decided to overnight there so that he could enjoy the huge crop. He also tossed around a great deal of moss to uncover the delicious grubs and invertebrates. Yum!

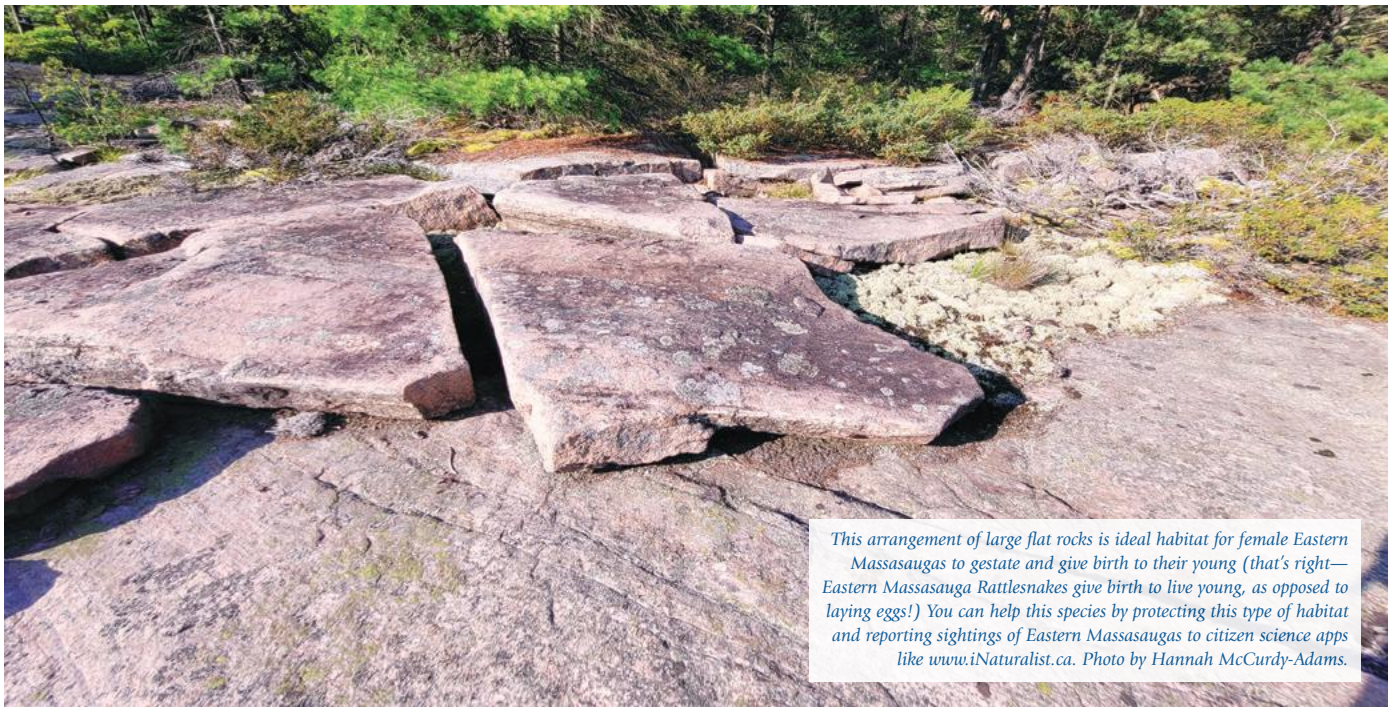
Shortly after the donation of this island, I volunteered to be a property steward and today happily continue in this role. I have a distinct advantage over most stewards, in that I can do most of my job just using a good pair of binoculars. The Lizard—what a gift!

*Memories of the Lizard from members of the extended McCarthy family:*

- Picking blueberries that then became pies, and very blue teeth upon eating them!
- Enjoying big family picnics that included watermelon or cherry spitting contests.
- Plunging into the high waves at one end of the island when the wind was right.
- I do remember that our families would all converge on the Lizard in the summers for picnic lunches and swims. We would always take a walk from one end of the island to the other after our lunches and wade through the water at the northern end to finish the tip to tip trip!
- The Lizard is an outer island, part of the Georgian Bay that the Group of Seven made famous. It has a barren landscape of multi-coloured rocks and wind-blown pines with branches that extend out just above the ground for 25 or 30 feet. Today families like to visit the island as the sun is setting.
- My memories of the Lizard are incredible. The openness, the length of the island, picnicking when extremely hot, eating under those old weather-beaten stunted pine trees, that also show up in very, very old pictures from yesteryear where the once-upon-a-time picnickers were all totally clothed in their finest outfits, from head-to-toe, no doubt roasting!
- My memory of the Lizard is picnicking with all our cousins, swimming in the waves, walking the island from end to end, and more recently flying kites with the kids, and watching the sunset at the end of the day.

# A Species Survival Plan for the Eastern Massasauga Rattlesnake

By Hannah McCurdy-Adams and Jessica Steiner (Wildlife Preservation Canada) and Donnell Gasbarrini and Rick Vos (Toronto Zoo)



*This arrangement of large flat rocks is ideal habitat for female Eastern Massasaugas to gestate and give birth to their young (that's right—Eastern Massasauga Rattlesnakes give birth to live young, as opposed to laying eggs!) You can help this species by protecting this type of habitat and reporting sightings of Eastern Massasaugas to citizen science apps like www.iNaturalist.ca. Photo by Hannah McCurdy-Adams.*

**Georgian Bay is one of the few remaining places in Ontario with a surviving Massasauga Rattlesnake population. The Georgian Bay Land Trust is delighted to contribute to the work of partner organizations who are working to conserve this species throughout its provincial range.**

A thriving environment includes large healthy populations of wildlife, but what happens when those populations are in such severe decline that the species is at imminent risk of extinction? When we risk losing a species forever, sometimes more drastic interventions are necessary. In these cases, a decision may be made to bring individuals into captivity in order to safeguard the wild population. When properly managed, these programs can help us buy time for species, while contributing directly to conservation efforts with wild populations. Zoos and aquariums are among those best-situated to take on this type of recovery work, with safe and controlled settings, and species experts on staff.

The Association of Zoos & Aquariums, representing over 240 facilities in the United States and world wide, developed a Species Survival Plan Program to cooperatively manage ex situ populations between facilities. Species Survival Plans (SSP) are designed to maintain a healthy, genetically diverse and demographically stable captive population for the long-term future, to eliminate the need to repeatedly source animals from the wild. Not all SSPs are for threatened species, however those that are have additional conservation goals such as contributing to priority conservation research, providing outreach and education capacity, and contributing animals for recovery of wild populations, such as reintroductions. Captive populations may include animals collected from the wild and/or animals that come into captivity and are considered unreleasable, such as through wildlife rehabilitation or confiscation. Appropriate care and responsible management help ensure these individuals can reproduce successfully in captivity and maintain a self-sustaining population.

Eastern Massasauga Rattlesnakes are a valuable part of our natural heritage as the only surviving venomous snake species in Ontario, and are considered threatened across their global range in Canada and the United States. Populations are facing declines due to habitat loss and fragmentation, road mortality, persecution as a result of fear (as a venomous snake), and illegal collection for the pet trade.

An Eastern Massasauga Rattlesnake Species Survival Plan (EMRSSP) was initiated in 2006 aimed at ensuring the survival of the species across its range. The captive population is held across at least 20 different institutions in the US and Canada, with the Toronto Zoo as Canada's lead EMRSSP member. The program aims to contribute to the conservation of wild populations, contribute to our knowledge of species biology through zoo-based conservation research, conduct

*Eastern Massasauga Rattlesnake basking. Photo by Hannah McCurdy-Adams.*

*An Eastern Massasauga Rattlesnake captured by biologists sits on a grid, which helps to determine the size of the snake without excessive handling. Minimizing the need to handle these snakes makes this work safer for both the biologists and the snakes, by minimizing the risk of an accidental bite, and reducing stress to the snake. Photo by Donnell Gasbarrini.*

outreach with the public and conservation agencies to increase awareness and appreciation of the species, and to address threats. The Toronto Zoo has worked to save and protect Eastern Massasauga Rattlesnakes and other Ontario snakes since 1989. Since 2006, 41 Eastern Massasauga Rattlesnakes have been born at the Toronto Zoo.

Zoos have a unique ability to connect people, wildlife, and conservation science; animals at a zoo are often the first or only time someone gets the opportunity to see them up close and learn about their conservation. Animals in human-care can also be readily accessed year round to train conservation officers, firefighters, police, and even construction workers to be ready to respond to wildlife conflicts and properly move individuals out of dangerous situations. We can gain new knowledge about animals that may be difficult to find in the wild, such as the length of time they can be gravid or pregnant and how many young they give birth to. However, the success of these ex-situ zoo-based programs depends on their integration with other existing conservation efforts. Programs such as SSP conservation breeding programs are just one recovery tool, and must complement efforts in the field with wild populations.

For the Eastern Massasauga, there is a massive amount of work happening on the ground to conserve wild populations. In Canada there are 2 distinct populations. The population spanning the Bruce Peninsula and Eastern Georgian Bay is one of the healthiest populations of Eastern Massasauga Rattlesnakes globally, but it is still considered threatened in Canada. The ongoing habitat protection and monitoring activities of the Georgian Bay Land Trust are incredibly valuable to conservation efforts in this region. The Carolinian population in southwestern Ontario contains only two small subpopulations (Ojibway Prairie and Wainfleet Bog) and is the highest priority for recovery action. Both Carolinian subpopulations are being monitored and intensely studied as they are at immediate risk of extirpation in the very near future without intervention. The Toronto Zoo, 8 Trees Inc., Scales Nature Park and Wildlife Preservation Canada lead this work with several other organizations to ensure the success of these programs.

These valuable partnerships are critical to the recovery of this species. A team of recovery experts, including those from zoos, supports field research, education and outreach programs and resources, scientific research, monitoring, development of shelter areas and ecosystem restoration across the species range in Ontario. By working together, and making best use of all available resources, we are giving this unique species a chance at survival.

*More information can be found at www.emrssp.org*

# Ontario Trillium Foundation grant supports landowner outreach

Ontario Trillium Foundation / Fondation Trillium de l'Ontario

With the support of a generous grant from the Ontario Trillium Foundation, we are making important advances towards accomplishing our conservation goals.

The purpose of this grant is to accelerate the permanent protection of ecologically significant lands, forests and wetlands. The Georgian Bay Land Trust's work is guided by our Natural Area Conservation Plan, a scientific mapping system that identifies high biodiversity/significant habitat areas and prioritizes them for conservation (over 21,000 acres). Priority lands are defined and ranked based on a series of targets including biodiversity, habitat quality and connectivity, and at-risk species. The preservation of large tracts of unfragmented forests and wetlands maintains water quality through upland filtration, provides habitats to slow or eliminate biodiversity declines and provides critical resilience to climate change. By permanently protecting these areas, we can have the greatest impact on the long-term health of the Georgian Bay environment.

Many priority areas are privately owned. With the support received from the Ontario Trillium Foundation, we have enhanced our outreach to priority landowners to inform them of the significance of their land and the conservation options available to them. This includes sending information kits by mail, hosting web seminars, and communicating our purpose more generally through radio, print, and online channels. Our mission is to accelerate the creation of new Protected Areas over the next few years through this outreach.

Thank you to the Ontario Trillium Foundation for supporting this important work!

**What conservation options are available to landowners?**
If you own ecologically significant land in the Georgian Bay area, you may be surprised by the benefits of conservation arrangements. On top of protecting land for generations onward to enjoy, you can expect a decrease or elimination of capital gains on your property and income tax credits of up to 50% for 11 years.

One option is a Conservation Easement Agreement. This is a contract between you and the Georgian Bay Land Trust that allows you to designate a portion or all of your property to be protected as undeveloped wilderness. You maintain ownership and enjoyment of your land. In return, you receive a tax receipt for this agreement.

Another option is to donate your land to the Georgian Bay Land Trust. Significant tax benefits are offered and valuable habitat is protected by our qualified staff and stewards without the burden of ownership or taxes. We do all the work and take you through the Ecological Gifts Program that generates the tax benefits through Revenue Canada.

Our committed staff, as well as an established stewardship fund, ensures that we have the resources to look after wilderness areas in perpetuity. If you own property in Georgian Bay, please consider our conservation arrangements. Our staff and expert advisors are happy to work with you/your advisors to tailor a program that meets your needs and fulfills our conservation goals to create a win-win outcome.

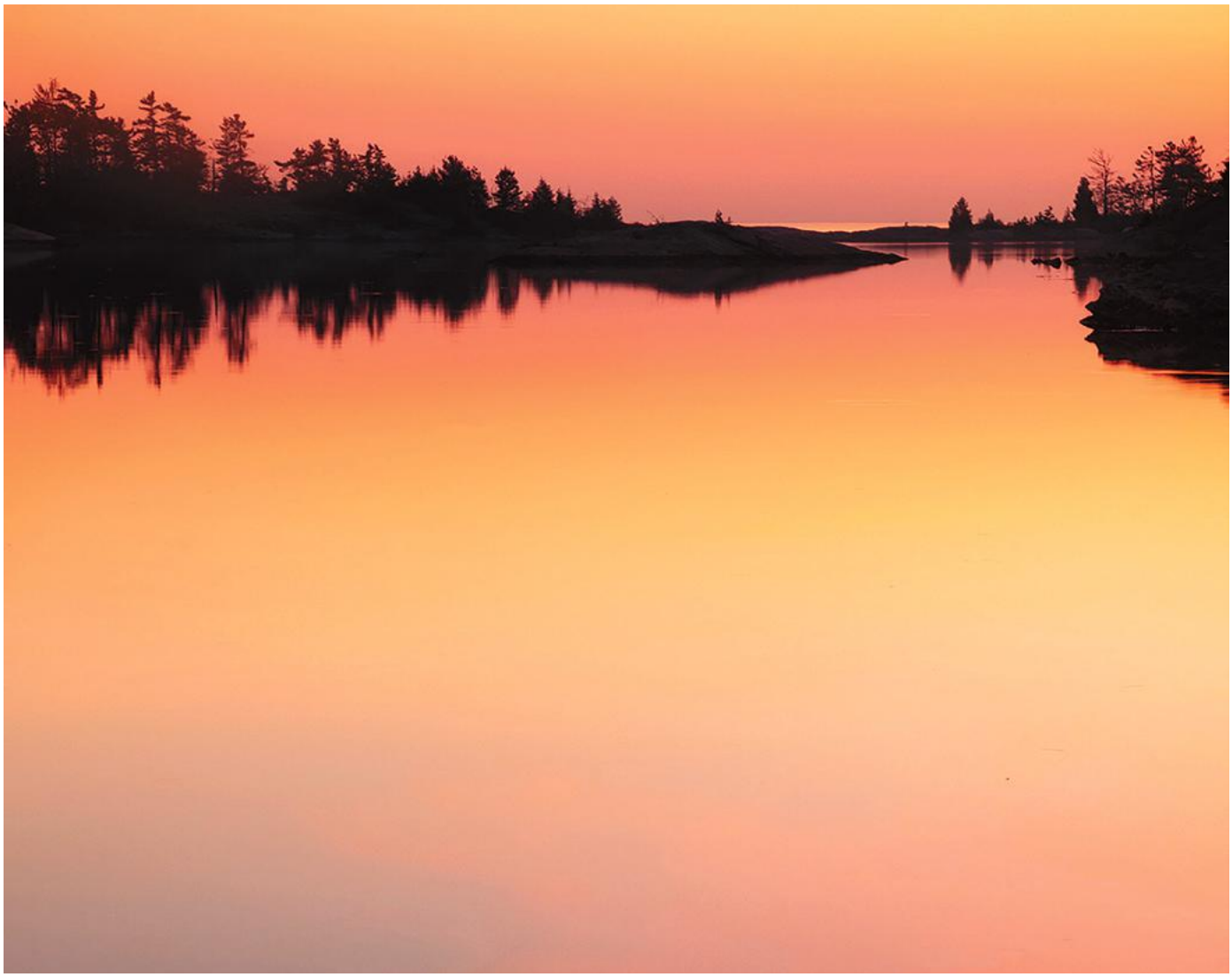
If you are interested in conserving your land or if you still have questions, please visit gblt.org/landowner or contact our Executive Director Bill Lougheed directly at (416) 440-1519 x101 or bill.lougheed@gblt.org.

## *Georgian Bay* Snapshot

"Finding Calm"
by Susan Rogers

"It's not often this still near O'Donnell Point but when it is, it's a moment worth savouring."

Find more of Susan's photographs on Instagram @justwanderin.



## TributeGIFTS

*Received from June 1st – December 10th 2021*

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120 Eglinton Ave. E., Suite 1000
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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)



LandScript Editor
Laura Sunderland, landscript@gblt.org

Executive Director
Bill Lougheed, bill.lougheed@gblt.org

Senior Development Officer
Janet Brough, janet.brough@gblt.org

Communications Director & Office Administrator
Sarah Koetsier, sarah.koetsier@gblt.org