CELEBRATING 30 YEARS

SUMMER 2021

LANDSCRIPT

PROTECTING the WILDERNESS of our UNIQUE ARCHIPELAGO

30 Years of Conservation

Wingtips at our fingertips

A father-daughter paddling journey

Species spotlight: Yellow-banded bumble bee

Photo: Bill Laughead

30 Years Conserving Land

Since acquiring our first tiny 0.3-acre islet in 1991, the Georgian Bay Land Trust has grown to protect 64 properties totalling over 7,500 acres of Georgian Bay wilderness. Every success along the way has been the result of our wonderful community coming together to care for nature. Below are a few highlights from 30 years of land protection.

1991 | Thomson Reserve | Nares Inlet

The Georgian Bay Land Trust's conservation work began with a 0.3-acre island in Nares Inlet. It was donated by the Thomson brothers, passionate naturalists whose large property and cottage served as an informal local hub for community gatherings and nature exploration. Robert Thomson followed up with further land donations in subsequent years, eventually bequeathing the cottage islands to the Land Trust and creating the now 17.2-acre Thomson Reserve.

1997 | Oldfield Lake Reserve | Blackstone Lake

The Oldfield Lake Reserve was the Land Trust's first protected property inland from the Georgian Bay coast. Our largest property until 2008, it protects 247 acres of rich forest, aquatic, and wetland habitat, providing a home to moose, reptiles, and several provincially rare plant species. It was the first Georgian Bay Land Trust property to undergo formal scientific research; in 2005 scientists from McMaster University conducted studies on its wetland quality and fish habitat.

2001 | Truax Island | Sans Souci

Stunning Truax Island was the first property protected through a Conservation Easement Agreement, ushering in a new option for landowners who prefer to conserve their land while retaining ownership. Today, the Land Trust holds 14 easements accounting for 5,822 of our 7,552 protected acres.

2007 | American Camp Island | Wah Wah Taysee

Photo: Jan Dowling

American Camp Island has been a community picnic destination for generations. We were honoured in 2007 to be entrusted with the responsibility of preserving it as a public-access wild space forever. American Camp is now the Georgian Bay Land Trust's most visited property, welcoming hundreds of guests every summer to enjoy its flat pink rocks, clear waters, and wide-open views.

2012 | Little McCoy | Pointe au Baril

Photo: Jen Kernaghan

Little McCoy is a magnificent 35-acre outer island frequented by both migrating birds and human visitors. In spite of its remote offshore location, Little McCoy is home to a surprising number of at-risk reptile and turtle species. A tremendous community fundraising drive allowed for the protection of this beloved place. It is now contributing to conservation science by hosting a Motus wildlife tracking tower which captures data on passing birds, bats, and insects for international scientific research.

2019 | Tadenac Conservation Initiative

Photo: Bill Lougheed

The Land Trust's largest protected area to date, the Tadenac Conservation Initiative is a 5,000+ acre sanctuary for over 700 plant and animal species, including at least 32 species at risk. This remarkably biodiverse area contains 70 distinct habitat types, and protects an important link in a coastal migration corridor. It is the Land Trust's only protected place that conserves lakebed as well as land and coastal wetlands.

The Next 30 Years

By Bill Lougheed, Executive Director, Georgian Bay Land Trust

As we celebrate 30 years of the Georgian Bay Land Trust's conservation work, I look forward by reflecting on the global importance of our Land Trust and our vision for the next 30 years, as enabled by your support.

Georgian Bay's freshwater archipelago is the world's largest by a tenfold margin (Africa's Lake Victoria with 3,000 islands is number two). Georgian Bay's biodiversity of reptiles and amphibians meets or surpasses the rest of Canada. We are working in a region where land meets either a stream, an inland wetland, a river, a lake, or a Great Lake. These land-water interfaces are the *ribbons of life* where 90 percent of all life on Earth lives.

The conservation decisions we make today and in the next few decades will determine whether Georgian Bay remains a place rich in wildlife. Our actions will determine whether it's a place still mostly wild, still mostly unspoilt, and still enjoyable for all of us.

Each of us is a guardian of an area where biodiversity still has a strong foothold. While looking ahead, it is useful to consider our present global situation.

- Nature is in its worst shape in human history. Of the world's 8 million species, 1 million are threatened with extinction.[1]
- Almost half of the world's land mammals and nearly a quarter of birds have already had their habitats hit hard by climate change.[1]
- Southern Ontario has lost more than 70 percent of its wetland habitats, 98 percent of its grasslands, and 85 percent of its forests. Over 200 plant and animal species are classified as at risk of becoming extinct in Ontario.[2]
- North America's migratory birds are in major decline—down by 1 billion since 1970, and populations continue to slide.[3]

So what can people do about this in the next 30 years as a community, and what can the GBLT do as a community-based land trust?

Perhaps the UN Convention on Biodiversity (2021) provides the answer. This international organization's scientific report representing the work of scientists across the globe informs us that "at least 30% of the world's land and seas will need to be protected by 2030 to prevent the continuing decline of our planet's biodiversity".

When asked to write about the next 30 years of conservation work by the Georgian Bay Land Trust, I began to consider Georgian Bay's contributions to earth's biodiversity and to its peoples in the big picture. Georgian Bay's archipelago and coastal areas are not systems just unto themselves. How well we protect our different forest ecosystems affects songbirds arriving from South America to nest and rear their young. How well we preserve our inland wetlands (our natural water purification systems) will impact water quality not just for Georgian Bay but for all of the Great Lakes downstream. How well we preserve the connectivity of our inland wetlands will be a major determinant of whether Ontario's turtle species can survive climate change induced drought.

The interior of our larger forests, if preserved, will provide cooler temperatures for species stressed by increasing global temperatures. Our 14,700 inland wetlands, including marshes, bogs, fens, and swamps, will remain as major sequestrants of carbon. In the face of rising temperatures, protected forest areas on a large lake provide moderate temperatures and higher humidity. In that regard, our coast has a natural advantage and is globally important in terms of conservation of world biodiversity.

Our post-1900 forests are still young. When protected forest areas are allowed to mature naturally, as the trees age, they will form niche old-growth forest habitats. Deadfall and woody debris, habitat biomass, and species diversity will increase in these protected areas.

My vision for the next 30 years does not differ from our Land Trust's Vision, which is "an eastern Georgian Bay and North Channel whose islands, shores, and inland watersheds are connected and strengthened by a network of protected natural lands and habitats, where native species thrive and people interact with the natural world."

I see a bright future for our watershed if the Land Trust and its many supporters continue their great work. Building on our present 7,500 acres, I envision the creation of some 20,000 further acres of connected and protected areas. These conservation lands will connect existing conservation reserves, parks, and Indigenous protected areas. If we can set aside and preserve 75 percent of our forests and wetlands and 75 percent of our water-land interface, the science tells us that 90 percent of the present wildlife on our coast will remain intact.

Our coast is part of the *ribbons of life* where land meets lake, stream, and wetland. What we do in the next 30 years to conserve a larger portion of it will demonstrate our care for this unique place in the world.

[1] UNESCO adopted Report on Biodiversity: The IPBES 2019 Global Assessment Report on Biodiversity and Ecosystem Services

[2] Ontario's Local Biodiversity Has Global Significance, Victoria Foote, Ontario Nature 2011

[3] WWF Living Planet Report 2018

Property Spotlight:

Two New Conservation Easements

The Georgian Bay Land Trust's number of Protected Areas continues to grow with properties number sixty-three and sixty-four: the Halpenny Easement in Cognashene and Roberts Island Reserve in Honey Harbour.

Both protected through Conservation Easement Agreements (CEA), at 9.9 and 30.5 acres respectively, Halpenny and Roberts Island both add species-rich conservation land to the southern reaches of eastern Georgian Bay and Ecodistrict 5E-7.

Halpenny Easement
Photo by Beth Halpenny

Roberts Island Reserve
Photo by Sarah Koetsier

Halpenny Easement, Cognashene

Halpenny provides habitat for an impressive array of Species at Risk (SAR). Property owners Beth and Tom Halpenny have themselves documented five SAR: three snake species, one turtle, and one bird. Together with the initial Baseline Study and further surveys conducted by GBLT's Summer Conservation Interns during the summer of 2020, *fourteen listed SAR* have been positively identified on the Halpenny Easement.

Halpenny protects a variety of important habitats including a high quality coastal meadow marsh, several small open rock barrens, treed rock barrens, and mixed forest communities. The "keyhole" marsh is particularly rich and productive; like the coastal marshes throughout Georgian Bay its emergent vegetation has been inhibited temporarily by the extreme high water of the past few years. The marsh provides foraging, basking, and hibernation sites for Midland Painted, Northern Map, and Common Snapping turtles, and also supports Eastern Massasauga and a further restricted species*. A beautiful Canada Warbler was spotted singing on territory in the mixed coniferous-deciduous forest adjacent to the marsh during the Baseline Study. The Halpennys have recorded the call of an Eastern Whip-poor-will, and have also captured photos of a Northern Map turtle, Massasauga, and two restricted* SAR on the property. Additionally the calls of two at risk bats, Little Brown Myotis and Eastern Small-Footed Myotis, were recorded by an acoustic monitor installed and left on the property for several weeks last August.

** "Restricted" SAR are those whose locations can't be shared, per the Natural Heritage Information Centre at the Ontario Ministry of Natural Resources and Forestry. Typically these are species vulnerable to poaching for the pet trade.*

Roberts Island Reserve, Honey Harbour

Donated by Jill Hodgins Ukrainec and Terry Ukrainec, the 30.5 acre Roberts Island Reserve is a generous-sized and diverse property that features a large Provincially Significant Wetland along its south shore. Like its huge Georgian Bay Islands National Park neighbour across the bay, Beausoleil Island, Roberts is on the transition or "contact" zone between northern Shield and southern Moraine. Its forest communities show its more southern affinities, with species mix and dominance changing as the soil deepens moving inland from the coast. There are abundant White Oak for instance, and big Red cedars (actually an upright juniper). Half of the land area is deciduous forest, with the bulk of the balance mixed forest and rock barren.

Four snake and reptile Species at Risk were identified during the Roberts Island Baseline Study and subsequent surveys, conducted again by our Summer Conservation Interns. The Ukrainecs have spotted a further three snake SAR on their property. During the Baseline Study we startled a small herd of White-tailed deer who scattered into the forest, and a Bald eagle was spotted during a survey visit by the Interns.

The Roberts Island Reserve property is of a size and location such that it will link coastal migration routes, and allow for seasonal wildlife movement.

The Land Trust would like to thank and commend the Halpenny and Ukrainec families for contributing to the protection of Georgian Bay through their kind Conservation Easement donations.

Please know that since they are CEA donations, the Halpenny and Roberts Island properties are still owned privately by the donors, and are not open to public visits.

Species Spotlight:

Yellow banded bumble bee: conserving our bumble bees

by Tiffani Harrison, Wildlife Preservation Canada

Yellow banded bumble bee by Tiffani Harrison

Did you know that "bumble bee" actually refers to a genus of bee rather than a single species? To some people's surprise, 25 species can be found in Ontario and 46 across North America! Georgian Bay's unique ecosystems are a biodiversity hot spot, housing many rare and at-risk species. One of the at-risk species whose range extends across this beautiful landscape is the yellow-banded bumble bee (*bombus terricola*).

The yellow-banded bumble bee is characterized by its gorgeous double band of yellow and fringe of orange hairs around the tip of its body. Insects often don't get the attention they deserve, but bumble bees (genus: Bombus) are important species for our ecosystems. Bumble bees are an important group of native pollinators that help pollinate many of our crops and wildflowers. Like other bumble bees, the yellow-banded bumble bee is big and very hairy, which allows them to transfer pollen very efficiently. With a long colony cycle like other bumble bees, the species can be observed from early-late April to as late as early October. The yellow-banded bumble bee's range encompasses every province and territory except Nunavut. It can be found near wooded, wetland, and meadow habitats and they typically nest below ground. The species can be found foraging on various flowers, such as dandelion and willow in the early spring and clover, vetch, and blueberry species in the summer.

The yellow-banded bumble bee was previously common throughout most of its Canadian range and northeastern America. However, there has been evidence of decline across its range since the early 1990s. The yellow-banded bumble bee is now identified as one of our 13 declining North American bumble bee species. The species was assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as Special Concern in 2015 and is currently protected under Canada's Species At Risk Act. You might wonder, why is it that some bumble bee species, such as the yellow-banded, are declining? Well, there does not seem to be one primary reason behind it. Unfortunately, there is a mix of threats that act as an overall driving force. Threats such as habitat loss, climate change, pathogens, disease, and sometimes pesticides can all play a role and affect species differently.

So, what are we doing to help our bumble bees like our Special Concern yellow-banded? Wildlife Preservation Canada (WPC) is a national non-profit which aims to save animal species at risk through direct hands-on intervention methods. In 2013, we began our Native Pollinator Initiative and Bumble Bee Recovery Program. We start our exciting fieldwork in the spring and travel to many sites across Ontario to survey bumble bee populations. From our surveys, we learn about species diversity, monitor rare and at-risk species, and gather information on what they forage on. Additionally, most years we collect yellow-banded bumble bee queens to become candidates for our captive breeding program. The breeding program is an integral component of our recovery program, with the long-term goal of raising colonies that we can use to re-introduce the species back into its historic range. We also participate in education and outreach opportunities and lead bumble bee community science programs.

It is important for us to monitor all our bumble bee species across North America, not just the yellow-banded, which is certainly a difficult task for a small team. As a result, WPC collaborated with partners in creating Bumble Bee Watch (BBW; bumblebeewatch.org) in 2014. BBW is an online community science database where participants can submit photos of bumble bees through the website or app—even from their own garden! Using an identification tool, participants are guided to identify the species, which is later verified by experts. Bumble Bee Watch can help experts locate rare and at-risk species (e.g the yellow-banded), support species assessments, policy discussion, and inform where conservation strategies should be targeted.

In addition to BBW, the public can further contribute to bumble bee conservation by 1. feeding the bees—plant native pollinator-friendly plants or allow wildflowers to grow on your property, and 2. housing the bees—provide undisturbed natural landscape for nesting. Learn more about how you can help conserve our beautiful bumbles, including the yellow-banded bumble bee, at wildlifepreservation.ca!

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

Wingtips at our Fingertips:

Understanding the Complex Lives of Migratory Animals

LandMark Speaker Series with Stu Mackenzie, Director of Migration Ecology at Birds Canada

Human beings have always looked at birds with wonder, as creatures whose flight connects them to realms beyond our understanding. For millennia little was known about the details of migration: which birds go where, along which routes, affected by which factors. Now, in a time of declining bird populations and increasing threats to long-term survival, there is a new urgency to finding the answers to these questions and using them to guide our actions.

This past March, Birds Canada's Director of Migration Ecology, Stu Mackenzie, joined our LandMark Speaker Series to discuss the scientific community's efforts to study migratory birds and advance conservation through tracking technology.

Stu believes that tracking birds offers an opportunity to move them up what he calls the "conservation pyramid". At each step of the pyramid, we gain more information about things like population linkages and migratory routes, full annual lifecycle, survival rates, and threats, which ultimately lead to informed and effective conservation action plans.

The modern era of scientific bird tracking began around the turn of the 20th century, when scientists attached numbered metal bands to birds' legs, and asked the public to report sightings to research institutions. Known as "banding" or "ringing", this method is still used around the globe to gain basic information about where birds travel and how long they live.

Technological advances have now made additional tracking tools possible. Geolocators are tiny devices that attach to birds and record the time of sunrise and sunset each day, allowing researchers to pinpoint their location within a few hundred kilometres. Scientists can also track birds retroactively by measuring the stable isotopes in their feathers, which contain a unique chemical signature corresponding to the place where the bird was born.

These methods all have their uses, but one thing they don't allow is for scientists to follow birds as they are moving. A bird fitted with a band or a geolocator must be resighted and/or recaptured in order to obtain any information from the device. Satellite GPS technology provides a way around this, but the large size of transmitters means that at this point they can only be attached to big species.

This is why Birds Canada developed the Motus Wildlife Tracking System. The Motus system uses automated radio telemetry and a worldwide network of receiving stations to track animals outfitted with tiny transmitter tags. Weighing as little as 0.2 grams, the tags can be affixed to virtually all birds, as well as bats and large insects such as Monarchs and dragonflies. Receiving stations listen continuously for tags, which send out signals every 2-10 seconds, and can detect animals moving up to 10-20 km away. Researchers never need to recapture an animal once it is tagged (although the tags will wear out eventually), and all data is recorded in a central, public database, facilitating global collaboration.

Since 2013, the Motus network has grown to over 1,000 stations across 31 countries, from southern Chile to the Arctic to Australia. Over 25,000 animals have been tagged, with data contributing to 373 projects which have so far resulted in 123 scientific publications. 950 partners and collaborators are involved in the network—a fantastic example of community science. The Georgian Bay Land Trust has been diligently working to bring the eastern Georgian Bay coast into this network, and we have now put up nine receiving stations stretching from Port Severn to Nares Inlet.

Stu gave us a few examples of what we have been able to learn with Motus:

Swainson's Thrush: These birds were tagged in their wintering grounds in Colombia, and tracked as they migrated through the Gulf of Mexico and into breeding habitat in the United States and Canada. The study compared birds who winter on coffee plantations versus those in contiguous primary forest, and found that the time of departure and rate of migration were observably different. This gives important insight into how habitat influences migration and lifecycle.

Barn Swallow: This Ontario-based project tracked juvenile Barn Swallows as they travelled around southern Ontario after leaving the nest, and then departed for migration. It found that juvenile mortality is high once they leave their parents' care, with only about 42% surviving to the point of migration. This helps to answer questions about why this species is declining, where and when mortality occurs, and how much swallows must reproduce in order to sustain the population.

Bats: We know much less about bat migration than we do about birds, and one key question was whether bats from Ontario cross Lake Erie on their journey south, or fly around it. By tagging bats on the Ontario shore and placing Motus towers along the south side of the lake, researchers were able to determine that bats do indeed make a direct nighttime crossing of Lake Erie. This finding has implications for things like offshore wind power, and could help determine responsible locations and operating times for these developments.

As humanity works to take responsibility for our impact on the world, this kind of understanding is invaluable for sound decision making and effective conservation action. Thank you Stu and Birds Canada for your work!

King Family Bursary supports father-daughter paddling documentary


Photo by Scott Parent

We are delighted to award the 2021 King Family Bursary to Scott Parent, who will create a documentary film about a paddling expedition and environmental journey with his daughter Acadia.

Scott Parent is a paddler, photographer, and filmmaker raised in Penetanguishene and Twelve Mile Bay, and now living on the Saugeen (Bruce) Peninsula. Scott has lived most of his life on Georgian Bay and worked as a commercial fisherman and paddling guide. In 2011, Scott completed the first solo unassisted stand-up paddleboard crossing of the bay from Lion's Head to the Western Islands, and on to Sans Souci. In 2015, he and a partner made the crossing in the winter, dragging their paddleboards as sleds and paddling across open stretches.

In 2019, Scott set out on a stand-up paddleboard to trace the ancestral route of the Metis Migration from Drummond Island, Michigan, to Penetanguishene. This time he carried precious cargo: his 9 year old daughter, Acadia Parent, along with enough expedition gear to last a month. Together they paddled nearly 500 km across Lake Huron's three bodies of water: the North Channel, Lake Huron, and Georgian Bay. Their journey took them across the most remote corners of the region.

"Turning 9 at our house calls for an epic of sorts. For Acadia this turned out to be this expedition, experiencing the region from one end to the other first hand, and earning it herself. Learning the navigational art of Wayfinding, learning about listening to the water. But also learning about the historic migration of the Metis people, our ancestors, and the people's history of the region. We also learned a great deal about the threat of pollution facing Lake Huron."

The pair collected water samples along the entire route for micro-plastic contamination research. They carried a deep water sampler with them and collected some of the first deep water data collected for Lake Huron. They also documented their entire journey together, for the purposes of sharing their experience and their findings.

"This was an unforgettable and transformative experience for the both of us. We hope that the documentary touches people's hearts in a good way. We have to acknowledge this beautiful region of ours is facing certain challenges, and how we relate to the water and the land can make the difference for future generations."

A Legacy for Conservation: The John Catto Conservation Fund


photo: Robert Catto

One of the Georgian Bay Land Trust's most steadfast supporters is continuing to leave a legacy after his passing last year.

John Catto was a dedicated volunteer, a passionate naturalist, and a generous contributor to environmental causes. He enriched the Georgian Bay Land Trust in so many ways during his 15 years on our Board of Directors, serving as Treasurer, Stewardship Chair, and always as a kind and generous source of wisdom. John and his wife Margaret were ardent supporters of our land protection work, and personally donated 20 acres of their Pointe au Baril property which is now the beloved and beautiful West Lookout Reserve.

Now John has left one final legacy, with a significant gift in his estate for the stewardship of conservation properties. The Georgian Bay Land Trust is delighted to establish the John Catto Conservation Fund in his name, which will be drawn on in perpetuity to care for the places John loved. Over the coming years, the fund will be used to restore habitats, develop conservation plans, monitor species, and support scientific studies. It will also help support the Georgian Bay Land Trust's daily work to keep our conservation properties clean and well cared for, and to provide environmental learning opportunities for visitors and community members.

We are so grateful to John and the Catto family for their ongoing commitment to caring for land. Just like John, this fund will work steadily, quietly, and dependably to make a long-term impact conserving Georgian Bay's natural spaces.

Georgian Bay's *Rodentia*

Rodents are mammals belonging to the order Rodentia. They are characterized by pairs of front teeth, top and bottom, that continue to grow throughout their lives. The name Rodent derives from the Latin rodere, meaning to gnaw or chew. Rodents have been described as a "very successful" group of animals, and in fact approximately 40% of the globe's mammal species are rodents. This is not an exhaustive list, but here are several rodent species native to Georgian Bay:

American Beaver

Photo: Steve Hersey

The second largest rodent in the world, and trapped almost to extinction by the mid-1800s, the semiaquatic Beaver's population in southern Ontario has rebounded spectacularly. The beaver is considered a keystone species, one whose presence and activity enables entire ecosystems to exist. As their numbers have recovered and beavers have returned to their traditional range in Ontario, so has wetland diversity courtesy of their fantastic dams and water management. Beavers prefer poplar, aspen, willow, and birch as food species. Fun fact: The beaver has secondary transparent eyelids that protect its eyes underwater.

Muskrat

Photo: Marilyn Kreisel

Our other semiaquatic rodent species, Muskrats are named for the strong odour they produce via a pair of specialized glands. The musk is thought to be used to mark territory and communicate with fellow Muskrats. The Muskrat inhabits freshwater wetlands all over North America and is one of the continent's widest-spread mammals. On top of being a preferred furbearing species for trapping, Muskrats are subject to heavy predation by wolves, minks, foxes, coyotes, black bears, and large birds of prey. They are however prolific breeders, and will produce two and sometimes three litters of six to eight pups in a season.

Porcupine

Photo: Tracey Barnes, Smithsonian's National Zoo

Yes, it's a rodent, and second in size in Canada only to the Beaver. The Porcupine's name evolved from Old French for "thorn pig". It's estimated that an adult Porcupine has 30,000 quills. Contrary to common misconception, Porcupines are unable to throw or shoot their quills, but when threatened can make them stand up via superficial muscles just under the skin. Porcupines also have a strong defensive musk to warn off would-be attackers. Cottagers will know them as prodigious and seemingly random chewers, and a menace to curious dogs. Porcupines don't hibernate but will establish and sleep in a winter den.

American Red Squirrel

Photo: Gilles Gonthier

This species is widespread over North America and is found primarily where there are coniferous trees. Highly territorial, juvenile Reds need either to establish their own individual squirrel-turf or have one bequeathed to them by their mothers. Red squirrels have been observed chewing on the bark of Maple trees and then feeding on the sap. Noisy and aggressive, the Red squirrel is well known to many cottagers as a tenacious and unwanted tenant. Like other squirrel species, Red squirrels are considered to be very intelligent, and are even thought to be able to recognize and remember individual humans.

1% FOR THE PLANET — NONPROFIT PARTNER —

We are pleased to announce the Georgian Bay Land Trust has joined 1% for the Planet as a non-profit partner! This partnership is intended to advance our impact as well as involve more businesses and individuals in the environmental movement.

The 1% for the Planet network connects businesses and non-profits to protect the planet. If you own a business, consider joining 1% for the Planet, naming the Georgian Bay Land Trust as your beneficiary.

For more information visit onepercentfortheplanet.org.

Meadow Vole

Photo: Brian Henderson

Also known as the Meadow Mouse, the Vole prefers to stay outdoors and is not often interested in nesting inside buildings. Slightly smaller in size, Voles are chunkier, rounder and darker coloured than Deer Mice, have smaller ears and don't have the mouse's distinctive white undersides. Voles are voracious eaters of plants, and true to their name prefer open fields to forested areas. They're also partial to wetland or wetland-edge habitat. Voles dig burrows where they store their food, and where the females give birth. They are active year-round, and particularly at dawn and dusk. Voles will set up "runways" in the grass under cover of snow during the winter.

Eastern Gray Squirrel

Photo: Dennis Church

The black squirrels that we usually associate with the city are also present in mixed and deciduous forests on the Shield, and are actually a melanistic phase of the Eastern Gray Squirrel. This species is credited with being North America's preeminent and ecologically important forest regenerator due to their habit of caching nuts and seeds in the ground. Like some other rodent species, the Eastern Gray Squirrel has two breeding seasons, one at the beginning of the winter and the other at the beginning of the summer.

Northern Flying Squirrel

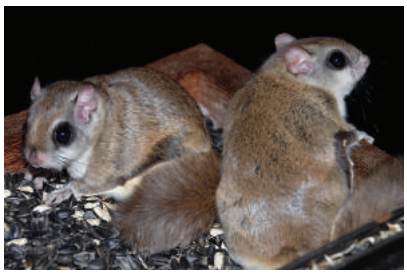

Photo: Ron Abfalter

The Flying Squirrel doesn't actively "fly" but can glide from tree to tree by means of furry membranes, known as patagia, that stretch from its wrists to its ankles. Depending on height and wind, a Flying Squirrel can glide as far as 50 metres. Flying Squirrels are almost exclusively nocturnal, which accounts for their huge, light-collecting eyes. They are omnivores and will eat nuts, seeds, berries, insects, tree buds, and sometimes even eggs or nestlings.

Eastern Chipmunk

Photo: Tom Murray

Always curious and not particularly wary of humans, Chipmunks will boldly go through open house doors to have a good look around. Chipmunks have cheek pouches for transporting food and are primarily ground-dwellers, although they are capable of climbing. Chipmunks are accomplished excavators and will dig out extensive burrows with interconnected galleries, where soil depth permits. Similar to their squirrel cousins, Chipmunks are very vocal and have three types of calls (chipping, chucking, and trilling) that denote alarm, pursuit by predator, or territorial claims.

Fun fact: it's believed that the name "Chipmunk" derives from the Ojibwe for "one who descends trees headlong".

Deer (and other) Mice

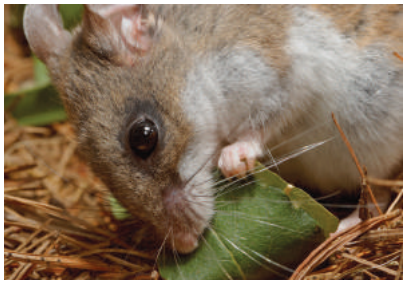

Photo: Bob Suter

The Deer Mouse and its very close relative the White-footed Mouse is the most common mouse, indeed the most common mammal, in North America, and likely the one that's scampering around in your cottage kitchen after lights out. Tawny brown on its uppers, with a white belly and light-coloured feet, large round ears—you're more likely to see a brown streak than a stationary Deer Mouse. They're fast. The House Mouse is darker and a uniform gray-brown in colour, and has smaller ears and eyes than the Deer Mouse.

Mice are notoriously prolific and can reproduce at an alarming pace. A female's gestation period is three weeks or less, and she is capable of producing ten litters of up to a dozen pups in one season. And since a mouse can reach sexual maturity in just over two months, under the right conditions exponential population growth is a possibility. Let's be glad about hungry foxes, hawks, owls, and coyotes.

Georgian Bay QUERY:

What are some of the most common invasive plant species that I might see on my Georgian Bay property? What should I do if I see them?

Answered by Brittany Hope, Nature Conservancy of Canada, and Brooks Greer, Georgian Bay Land Trust

Phragmites australis

Common reed (also known as Phragmites) is a large perennial grass that is native to Europe and Asia. It can grow up to five metres tall. It grows in wetlands and along shoreline and can also be seen growing in roadside ditches. Common reed is identified by its blue-green leaves that are about one centimetre wide and its flowers that grow in a dense cluster that appear in late summer. There is also a native species of Phragmites that grows here in Georgian Bay, so it is important to recognize the difference between the two species. The native version is much smaller in stature, has green-yellow leaves, and sparsely growing seed heads.

Invasive Phragmites' seeds are easily wind-dispersed, allowing common reed to further invade other habitats. Once invasive common reed is introduced to an area, the plant's roots spread far and wide below wetlands via a vast network of rhizomes. As it grows, it outcompetes native wetland plants and is a serious threat to biodiversity. It chokes out native plants' growth, provides poor wildlife habitat and disrupts natural wetland functions. The invasive common reed grows so tightly that animals such as turtles and snakes can no longer survive. Invasive Phragmites growing densely along the shoreline can negatively impact recreation activities such as angling, boating and swimming. It clogs beaches and shoreline spawning grounds. Control for this species is highly dependent on site conditions, and we recommend contacting the Georgian Bay Land Trust for advice on control techniques.

You can also visit the Nature Conservancy of Canada's website for more information: www.natureconservancy.ca/en/what-we-do/resource-centre/invasive-species/common-reed.html

Garlic Mustard (*Alliaria petiolata*)

Garlic mustard is native to Europe. It was first recorded in New York in 1868. It's believed that it was brought to North America as a medicinal plant. It is a biennial plant, meaning it takes two years to flower. First year plants (rosettes) can be identified by their scalloped kidney-shaped leaves. Second-year plants grow up to 1.2 metres tall, with triangular, toothed leaves and clusters of small white flowers in spring (April-May).

Garlic mustard spreads through forests and displaces native wildflowers and tree seedlings. The roots release chemicals that interfere with vital fungi growth needed for native plants to access nutrients, changing the soil composition and making it more difficult for native plants to grow. Each plant produces thousands of tiny, black seeds that are viable in soil for many years. Control of this species is relatively simple. Hand pulling in early spring (April/May) or fall (late September/October) or repeated mowing starting when the flowers set until the end of the season will ensure the plant does not go to seed. Special care should be taken to avoid disturbing the soil during control efforts to avoid exposing more of the seed bank and creating a larger issue. This process will need to be repeated for several years as the seed bank can persist for decades. Proper disposal of removed material is key to prevent further spread. Removed plant material should be put in a black plastic garbage bag or yard waste bag and disposed of with your weekly waste or at the landfill.

Visit the Nature Conservancy of Canada's website for more information: www.natureconservancy.ca/en/where-we-work/ontario/our-work/stewardship/garlic-mustard-ON.html


Andreas Rockstein

Sedum Acre
It's pretty, it's yellow, it's succulent. It's tough and resilient and drought-resistant. In Georgian Bay, it's also an introduced invasive hooligan that spreads and displaces native plants if you look at it sideways.

Scientific name *Sedum acre*, commonly known as Sedum (SEE-dum) or Biting Stonecrop, this plant was likely brought to Georgian Bay by well-intentioned cottage gardeners. Sedum appears to have channeled its evolution towards being able to spread and prosper and dominate. Sedum will take root from any broken off portion, even an individual leaf, and by seed. The tiny leaves fall off at the slightest touch - making even more of it as each piece takes root.

Eastern Georgian Bay's acidic rock barrens provide custom-made habitat for Sedum. The species is also a problem in rare alvar ecosystems and other areas underlaid by (alkaline) limestone; it has even become widespread on the limestone "pavements" of Manitoulin Island. In the Georgian Bay archipelago, Sedum seems to be particularly attracted to Sphagnum moss and can entirely displace the small beds in ridges and crags. You may have seen outer islands with frills of yellow Sedum decorating the contours of the rock barrens.

Hand-pulling of Sedum has proved effective, although labour-intensive. Sedum acre is capable of rapid, aggressive growth, but it does not always occur. Although it will regrow from fragments and from root remnants, careful pulling techniques can result in almost no Sedum regrowth. Sedum is often intertwined with moss and substrate; separation may be impractical without leaving Sedum material behind that will regenerate. Some ruthlessness may be required. Dispose of the plants in a sealed bag with household garbage, or burn. Be careful to contain and dispose of all parts of the plant.


Adrian Byrne

Chives (*Allium schoenoprasum*)
Common Chives, or Onion Chives, are a perennial flowering plant closely related to common onions, garlic, shallots, leeks, and scallions. Easily recognized by their slender stalks and pale purple flowers, what may not be as well known, and what might not be passed on to customers at the plant nursery, is how prolific and invasive they are.

Chives are a hardy species and particularly well suited to the thin acidic soil of the Georgian Bay shore, where they flourish and spread and outcompete native plant species. Chives appear to favour small rock crevices (… we do have some of those) and like *Sedum acre* will very happily establish themselves and take over moss beds.

There is some debate among gardeners about the actual "invasiveness" of *Allium schoenoprasum*. This is further complicated by confusion between this and several other *Allium* species. Certainly Chives in the Georgian Bay context are both alien and invasive, and could be considered a pest. Chives easily make the jump from cottage vegetable garden to rock barren to outer island by means of their seeds. And as weeds will do, Chives rob native plants of nutrients and will eventually smother them.

Successful manual removal of Chives can be tricky, since they can repropagate if any of their bulb roots are left behind.To remove, dig the Chives carefully out of the soil with a thin trowel, removing as much of the bulbs as possible. Dispose of the plants in a sealed bag with household garbage, or burn. Composting is not recommended. Avoid putting the removed plants on the ground, this can cause new growth in that area. Examine the area regularly for new chives sprouts; missed bulbs can sprout weeks later and even remain dormant in the soil for years.

To control Chives in a maintained garden bed, be sure to clip flowers – please *do not* allow them to go to seed.

Dr. Nick Eyles: Grenville Volunteer Award Winner 2021

by Peter Cooper, former Board Chair, Georgian Bay Land Trust

One would be hard pressed to find a better name for an award to present to this year's "Grenville" recipient. Dr. Nick Eyles has spent a vast amount of time, effort, and intellectual energy on the geological study of the Grenville Mountain Range. This range crumbled away more than two million years ago. Back then, it was located high above the current Canadian Shield on the eastern shores of Georgian Bay.

Nick will tell you that as a young student in Britain he became fascinated by geology, and what cemented his interest was a presentation given by Dr. Tuzo Wilson of Go Home Bay. Nick will also tell you that experience eventually brought him to Canada, to teach as a professor of Geology at the University of Toronto, Scarborough campus. When Nick was giving one of his marvelous "Rock Walks" on the Georgian Bay Land Trust's Southeast Wooded Pine Island property in the summer of 2016, he mentioned that it was Dr. Wilson who had influenced and inspired him early on. To everyone's amazement, Dr. Wilson's daughter was attending that event and emerged from the crowd.

How Nick came to join the Georgian Bay Land Trust was another serendipitous incident. I was watching the CBC's "Nature of Things" hosted by David Suzuki. They had produced a series called "Geologic Journey". One of the central segments featured Nick Eyles and Ed Bartram telling the fascinating story of the Canadian Shield, and they focused on coastal Georgian Bay. After watching that show, I did some research on Nick. Today we know that he has received prestigious awards, including the McNeil Medal of the Royal Society of Canada in 2013, and the E. R. Ward Neale Medal presented by the Geological Association of Canada in 2015. The books Nick had written and his emphasis on outreach and public education had me convinced that the Land Trust very much needed to connect with him. After watching the TV show, I contacted Nick and we agreed to meet at his local Tim Horton's in Uxbridge. The rest, as they say, is history.

Nick became an incredibly devoted volunteer for the Land Trust and has given many Rock Walks out on the Bay, and also at "in town" presentations. Nick has certainly earned the rather fitting moniker, "Canada's Rock Star". I recall watching him in action at one of the first Georgian Bay Rock Walks, located at the Pancake Islands. It was a treat to watch the many enthralled adults sitting and kneeling on the rocks. To see their faces and listen to their questions and their sense of awe, it felt like we were attending an 8th grade class.

One of the Georgian Bay Land Trust's crowning achievements in education is the book "Georgian Bay: Discovering a Unique North American Ecosystem". Nick and Janny Vincent spearheaded the project as co-editors, and the book has proven to be a very popular introduction to, and celebration of, Georgian Bay. Nick has been a volunteer and Board member for the Land Trust since 2010. He has provided not only wise counsel, but as an educator and scientist, he provides a much needed and unique perspective to help guide the board and organization. Congratulations Nick, you are a very worthy recipient of the Grenville Volunteer Award.

Calling all birders for the Ontario Breeding Bird Atlas

Muskoka and Parry Sound Regions still need atlassers

The Ontario Breeding Bird Atlas is an in-depth survey of Ontario's breeding bird population that takes place every 20 years. It relies on hundreds of volunteers from all over the province, who together create an invaluable record of the distribution, numbers, and changes within our 300+ breeding bird species.

Data collection for the third atlas takes place from 2021-2025, and volunteers are still being recruited. Volunteers will be assigned a patch of land near them, which they will be responsible for visiting over the course of the project and recording the birds they see and hear. Volunteers who are able to identify birds by song alone are particularly needed, but all birders are welcome. The project also provides some excellent resources to improve your bird ID skills.

Would you like to participate? Learn more about the atlas project and register by visiting www.birdsontario.org.

Farewell to our retiring Chair: David Doritty

by Bill Lougheed, Executive Director, Georgian Bay Land Trust

When David Doritty was a young man his wise father said: "get behind one charity and give it all you got". That statement says everything about what our outgoing Board Chair has done for our organization. In 2012, David was thrown directly into Chair of Fundraising simply because he is that rare breed who can actually raise money in support of a great cause! David did much more than raise funds. He brought 30 years of fund and investment acumen to the Georgian Bay Land Trust, assisting our able Investment Committee in the absolutely crucial job of safeguarding our long-term property stewardship funds.

With a talent that allowed him to put himself through school as a tennis pro, David was a fast and able learner of the land trust world and conservation practices. He rose to the position of Vice Chair in 2018, and a year later assumed the Chairmanship.

Dedication, passion, and commitment are all words that describe our Chair. But David is also a natural leader, and his wise guidance was something that all of us knew we could count on as being the best counsel we would ever find. David will remain on the Board as Past Chair and we are all very grateful that we don't have to say "we will miss David"—not yet anyway. Thank you David, for all the years of amazing effort and for all that you have done to grow the Georgian Bay Land Trust into one of the top-ranked land trusts in Canada.

Welcome To Our Incoming Chair: Ian Davis

by Bill Lougheed, Executive Director, Georgian Bay Land Trust

We are so very fortunate to have Ian as our next Chair of the Board. Ian brings past experience as President of the Cognashene Cottagers' Association, where he displayed a mastery of managing politics, people, and boards. These are not easy attributes to acquire, and no doubt a small part of these qualities were inherited from his father—Premier Bill Davis.

When joining us in 2019 as Stewardship Chair, Ian brought an extensive knowledge of the natural world. Ian's social intuition and people skills were a perfect fit in this role, enabling wise decisions in stewarding both nature and people on our Protected Areas. We are lucky to have such an able leader steering us forward. Welcome, Ian!

Welcome to our Summer Conservation Interns

Sarah Bowman completed her JD at Western University and hopes to pursue a career in animal law or environmental law. Sarah has been a cottager her entire life, recently moving from a cottage on Lake Couchiching to the beautiful Wah Wah Taysee area of Georgian Bay. Sarah is very excited to be returning as a conservation intern for the Georgian Bay Land Trust. She is eager to learn more about the region, and to work to preserve and protect the habitat of endangered species.

Heather MacRae is a graduate of the University of Guelph's Bachelor of Science in Environmental Sciences program, now pursuing a Master of Science in Geography. Having grown up spending each summer exploring the natural environment within Cognashene, Georgian Bay, Heather has an innate knowledge of the region. She has witnessed first-hand the increasing pressures of development on the islands, and understands the growing importance of land and species conservation. Heather is a passionate leader, conservationist, and educator and is looking forward to teaching others the importance of GBLT's efforts in her "favourite place on Earth".

Sofia Vermeulen graduated from University of California Santa Cruz with a Bachelor of Arts in Anthropology and is working on building a career of helping people and the environment. Sofia has spent every summer in Georgian Bay and continues to fall more and more in love with the landscape, as well as the wonderful communities in the area. Sofia is anticipating an exciting summer returning as a conservation intern for the GBLT, and hopes to provide another year of meaningful work that will help maintain a healthy balance between the environment and the communities within it.

Georgian Bay Snapshot

"The Lizard"
by Alexandra McLaughlin

"It was our first time to The Lizard Island, and it will forever be etched in our memories as one of those perfect days on Georgian Bay. Swim, explore, picnic and repeat! We look forward to enjoying many more adventures on this stunning island, and are forever grateful to be able to do so."

See more of Alexandra's pictures on Instagram @__artbyalex__

Celebrating the Georgian Bay Land Trust's 30th Anniversary

With new Summer Merchandise

Short sleeve cotton T-shirt
Sizes S-XL (white)
$30

Long sleeve cotton T-shirt
Sizes S-XL (white/sand)
$40

Cotton hoodie
Sizes S-XL (white/light blue)
$50

Baseball cap
(white/navy)
$25

Canvas tote bag
$30

Georgian Bay Map Blanket
$195

For more details, visit gblt.org/merchandise. To purchase, please contact Janet Brough at janet.brough@gblt.org or (416) 346-5398.

TributeGIFTS

Received from December 8 2020 – May 31 2021

In Honour

Christopher Baines
Clair Balfour
John & Jenn Bate
Fred Beck
Peter Cimpello
Barb & Loren Crabtree
Eleanor Daley
Wendy Hadwen
Stephen Jarvis
Tom & Alice Kazmierowski
Mary Anne Miller
LaRea Moody
L. Jackson Newell
Peter O'Neill
Lauren Patchett / The Hive
Irene S. Rogers
Nancy Rogers
Tom & Pamela Scoon
Glenn Stephenson
Krista Stephenson
Beth Stewart
Perth Swick
Sydney Swick
Trent Swick
Gill & John Woodrooffe

In Memory

Martha Bagby
Allan Baker
Joan Brautigam
Jack Broadbent
John Catto
Margaret Cross
Robert Eakin
Fred S. Eaton
Suzanne Foster
Betty (Joy) Hall & Hugh Hall Sr.
James Leo Hornell
Ernest Howard
JP Jeffrey
Jeffrey Jenks
Michael Joy
David Keenleyside
Morrey Lawrence
Dorothy Leonard
Molly Anne Macdonald
Charles L. Mackenzie
Carly Martin
Alistair Melhuish
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Diana Michener Schatz
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David Winlo

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CELEBRATING 30 YEARS

SUMMER 2021

SUMMER EVENTS

PROTECTING the **WILDERNESS** of our **UNIQUE ARCHIPELAGO**

In-person events

***Rock Walk* – July 18, 11am**, Truax Island, Sans Souci. Join "rock star" Dr. Nick Eyles for a fascinating tour of the secrets seen in the rocks beneath our feet.

***Forest Bathing* – July 19, 11am – 1pm,** Fairies Dancing, Pointe au Baril. Forest Therapy Guide Kristie Virgoe will lead us through the forest in an experience designed to heighten our senses and relationship with the natural world.

***Yoga on the Rocks* – Four dates: July 21 & 25, August 4 & 8, 10 – 11:15am**, American Camp Island, Wah Wah Taysee. Begin your day with invigorating yoga led by Angela Granziera. No experience required. $10 per participant.

***Bird Research Demonstration* – July 28, 10am**, Zimmerman Easement, Go Home Bay. Meet our resident bird scientists and learn about their work tagging and tracking migratory species.

***Cocktails on the Lizard* – August 13, 3 – 5pm**, Cognashene. Bring your afternoon cocktails to the Lizard, and spend a few hours enjoying this beloved island with friends.

***Rose Island Nature Reserve Celebration* – August 14, 12 – 3pm**, Rose Island, Carling. Join us to celebrate this newly protected place with a picnic and hike.

*Please note: All in-person events are subject to Ontario's outdoor gathering regulations. **Registration is required for all events**, and guest numbers will be capped according to current gathering limits. To register, please visit gblt.org/events. Thank you for your cooperation!*

Virtual events

Seminars: Conservation Tools for Protecting Georgian Bay

Presented by Bill Lougheed, Executive Director of the Georgian Bay Land Trust

Part 1: Conservation Easements and Succession Planning
Thursday July 15, 7–8pm

Part 2: Reducing Taxes through Conservation
Thursday August 12, 7–8pm

SAVE THE DATE!

Walking for Wilderness
Saturday, September 18, 2021
Rose Island Nature Reserve, Carling

Bayscapes
Online auction: October 22–30
Virtual celebration: October 30

*For more information about any of these events please visit **gblt.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.

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