



Since 1923

TORONTO FIELD NATURALIST

Number 658 March 2021



Northern Water Snake. Photo: Andrew Interisano

REGULARS

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PRESIDENT'S REPORT

Ashbridge's Bay on a frigid winter morning offers a microcosm of everything Toronto's parks and natural areas are experiencing these days. Ducks of all kinds are waiting out the winter near the yacht club: Common Mergansers, Buffleheads, Long-tailed Ducks and Goldeneyes. The ice forming along the shoreline shifts and rustles. A red squirrel and a cardinal feed tamely on a boulder where seed has been put out. Nature is all around and so is city life, both the usual realities and the unusual pressures of our locked-down urban reality. People – lots of people – are strolling the paths, alone, in pairs or with their dogs. Paths are heavily trodden, bare and muddy. Dogs dash along the shoreline. Some may be newly-acquired “pandemic puppies.” The pandemic has people and their pets relying on urban nature more than ever, for exercise and mental health. The impact on our overwhelmed parklands is easy to see.



Red squirrel, Ashbridge's Bay, February 2015
Photo: Ken Sproule

At Ashbridge's Bay there are indications that city managers recognize the problem. Sand dune restoration sites are under construction – small isolated patches, protected by fencing and stern signs to keep out. But citywide, how is the health of our natural areas being tracked? Who is reporting on biodiversity trends over time? The Toronto Field Naturalists spoke to this question at City Hall's Executive Committee on January 27, in a joint deputation with ProtectNatureTO. We reminded the mayor and councillors that nature is vital to the livability of our city, now more than ever. We urged them to add defensible metrics for nature and biodiversity

to a new annual Environmental, Social and Governance Performance Report. The message will need repeating once municipal leaders can see beyond the immediate COVID crisis.

Thankfully, TFN members are known to take the long view, and can see the bigger picture. And none more so than one very generous donor who has made possible a rescue mission to digitize our heritage slide collection. With some photographs dating back to the 1950s, our slide collection is a valuable record of how nature in this city has changed over time. We are enormously grateful that this historical evidence can be protected for the long term. Read more on page 3.

In closing, let me offer a warm welcome to two new board members who joined our ranks in February. In her day job, Diana Wilson manages the Albion Hills Field Centre, an environmental education centre for the Toronto and Region Conservation Authority. Donata Frank has been a stewardship volunteer with TFN for a number of years. She also has years of industry experience in pharmaceutical development, project management, database development and consulting, as well as a PhD in chemistry. Both Diana and Donata will bring valuable perspectives to our hard-working board as we set priorities for rousing our walks program and other group activities from a long-enforced hibernation.

Ellen Schwartzel
president@torontofieldnaturalists.org

TORONTO BOTANICAL GARDEN
Online (Zoom) Lecture

**Caring for the Ravine: How do we
measure ecosystem health?**

Monday, March 1, 7 pm

Public \$15 (plus fees + HST),

TBG Member or Volunteer FREE!

<https://tfngo.to/aringforravines>

WHAT'S NEW ON TFN'S WEBSITE

Visit today and discover:

- Recording of the February Lecture
- Expanded content from our 2021 Nature Images Show
- Over 50 edits and revisions to pages all across the website!
- New Junior Naturalists' blog posts

All of this and more is yours at:

<https://tfngo.to/for-members>

TFN OUTINGS

**Alert: Walks have been temporarily suspended.
See website for up-to-date information.**

Due to COVID-19 we continue our practice of offering “members only” outings posted on our website. To ensure that groups do not exceed allowed maximums and to facilitate contact tracing should the need arise, members who wish to attend a particular walk must RSVP. The RSVP facility for each walk opens on the website at a random time of day, five days before the date of the walk. Walk leaders will have a list of who RSVPed, and only people on the list will be allowed to participate. Before RSVPing, please review all guidelines on the webpage and carefully review walk descriptions for any additional guidelines specific to that walk.

As we are unable to list walks in the newsletter at present, an Archive of Past Walks is being maintained for your enjoyment: <https://tfngo.to/pastwalks>

TO ACCESS OUR
WINTER WALKS LIST

Visit the “Members Only” Section
of our Website

TFN LECTURES

The TFN Lecture Series is now being conducted through Zoom technology. On the scheduled date of each lecture, members will be welcomed into the virtual space at 2:30 pm. The host will introduce the lecture and then play the speaker's pre-recorded presentation (approximately 45 minutes) with accompanying visual materials. Following this showing the speaker will be available to answer questions from the audience through Zoom.

The presentation and follow-up question period will subsequently be posted on our website for viewing by all TFN members.

See information about the March lecture on the back page.

FOR DETAILS ON
HOW TO JOIN THE LECTURE

Visit the “Members Only” Section
of our Website

**TO ACCESS THE "MEMBERS ONLY" SECTION VISIT:
<https://tfngo.to/private>**

The password was delivered in the email notifying you that the March newsletter is available online. If you have misplaced the password you can request it by emailing membership@torontofieldnaturalists.org.

TFN'S SLIDE COLLECTION “GOING DIGITAL” THANKS TO GENEROUS DONOR

To say that Toronto's natural heritage has changed remarkably over the past 70 years would be a great understatement. The TFN Slide Collection bears witness to those changes. Founded in the early 1970s with photo donations received from our members, the collection now stands at some 12,000+ 35-mm colour slides, some dating back to the 1950s!

From 2006-2009, Helen Juhola and Pleasance Crawford sorted, compiled, archived, documented and databased these amazing assets, and arranged for a small number to be digitized. As most of these slides are now 40-70 years old and have already begun to fade and degrade, the TFN Board of Directors acknowledges the need to complete the digitization of our Slide Collection, honouring the trust members put in us to protect these assets.

Last year, the Board approved, in principle, spending \$2500 to begin the digitization process. This investment would have allowed perhaps a quarter of the collection to be scanned. More recently, a wonderfully generous anonymous donor has stepped forward, committing up to \$10,000 to complete the digitizing of TFN slides. TFN is enormously grateful for this most thoughtful vote of confidence in the work of our archival team.

Once digitized, these images offer untold benefits to TFN: enhancing our newsletter, website and social media activity and promotional efforts; supporting our 100th Anniversary celebrations in 2023; featuring them at future Nature Images shows; exploring their citizen-science data value; sharing them with partner organizations like the City and TRCA; and so much more!

Jason Ramsay-Brown

LECTURE REPORT

Nature's Pitfall Trap: Salamanders as Rich Prey for Carnivorous Plants

Feb 7, 2021 at 2:30pm

Patrick Moldowan, University of Toronto PhD candidate

Patrick, a PhD candidate in the Department of Ecology and Evolution Biology at the University of Toronto, gave a technical presentation based on his research on salamanders and the northern pitcher plant. Patrick has never outgrown his interest in everything that creeps, crawls or slithers, spending warm weather waist-deep in bogs thinking about critters. Below is a summary of Patrick's presentation.

Salamanders are fascinating for both forms and functions. There are many salamander species with different characteristics including:

- Sizes ranging from so small they could sit on your pinky finger to others so large you could give them a high five;
- The number of legs salamanders have ranges from none to two, and in some cases four;
- Salamanders can have different complements of digits on their front and rear legs;
- They come in various colour combinations;
- Some only live underwater their entire life and others live underground;
- Some salamanders can climb trees.

Ways in which salamanders contribute towards the ecosystem include:

- Burrowing activities and underground occupancy, improving nutrients within the soil;
- Controlling pests as predators of small invertebrates;
- Forming an important link in the food web, as a food source for owls, hawks, snakes and some small mammals;
- Being an exceptional indicator of ecosystem health, as their moist, permeable skin makes salamanders vulnerable to drought and toxic substances.

Although salamanders are quite small, they have a large landscape-level biomass in the forests of eastern North America. Students at the Algonquin Wildlife Research Station (AWRS) study salamanders, particularly the spotted salamander (*Ambystoma maculatum*). To collect data on the possible causes of the decline in their body condition, salamanders are captured, assessed for overall health, weighed and released. It has not yet been determined if the decline in their condition is due to climate change, but there is compelling evidence of sensitivity to elevated seasonal temperatures.

One of the surprising results of the salamander study is the capture of juvenile (metamorphic) salamanders by northern pitcher plants. This plant is a carnivorous wildflower that can survive in nutrient-poor environments, including bogs, by drawing its nutrients from alternative sources – animal prey! The leaves catch water from rain and snow melt, creating a well of fluid in their open-pit stomach to which nectar-feeding insects are attracted. Hair-like structures in the hood prevent insects from climbing out and the plant absorbs nutrients released by their decaying bodies. Species of pitcher plants from Asia (*Nepenthes* spp.) are known to have mutualistic relationships with bats (roosting habitat), frogs (breeding habitat) and tree shrews (food source), but similar relationships are not known for the North American pitcher plants. A study revealed that, in 2019, 62% of northern pitcher plants in an Algonquin bog were catching salamanders. Researchers estimated that, per annum, 5-10% of juvenile salamanders were being captured and consumed by the plants.

It has not yet been determined what attracts salamanders to the plant, but possibly it could be seen as food, or the plant may be intercepting the salamander. So far studies show that plants facing the water and those that are flush with the ground capture more salamanders. Future testing objectives include determining what causes the salamander to die once it is captured. Hypotheses include:

- the health of a salamander;
- acidic fluid in the plant might affect physiology/organ function;
- rising temperatures of bog areas heat up the pitcher fluid, stressing the salamander;
- compounds in the fluid act as an anesthetic, knocking out the salamander;
- juvenile salamanders have poor immune systems.

One of the biggest issues affecting salamanders as well as other wonderful wetland species is the loss of their natural habitat. Becoming an advocate for protection of wetlands can help preserve the amphibian population, including salamanders and plants that rely on it. By becoming a member of the non-profit Algonquin Wildlife Research Station (<https://www.algonquinwrs.ca/>), you will invest in Ontario's wildlife and the education and training of the next generation of young ecologists, environmental scientists and conservationists working to understand and protect our environment.

See Patrick's full lecture at <https://tfngo.to/feb2021lecture>

Laura Thompson

VOLUNTEER PROFILE: MADELEINE McDOWELL

If you've had the chance to join Madeleine on one of her TFN walks, you might have been amazed by the depth of her knowledge as she recounted the natural and cultural history of the area. "I put things in a long-term perspective," she says, "from a geological perspective and the perspective of the [Indigenous Peoples]." Madeleine has deep roots in the City. She says, "I've lived in the same house all my life, with some little sojourns off in other places. ... It is on the Toronto Carrying Place, so I knew by the time I was seven that Étienne Brûlé went by my door in 1615 and La Salle on his way to 'discover' the Mississippi in 1680."

Madeleine says her awareness of the local history gave her "a certain responsibility towards Mother Earth." The great outdoors was a big part of her childhood. "My parents had a canoe; when I was two, they took me out in it on the Humber Marshes." She recalls, "They put me in the middle, mother in the bow, father in the stern ... and I got to see turtles and frogs ... and I got to lift a water lily out of the water and smell it and then put it back." Madeleine smiles, "It was a wonderful afternoon, and I remember it like yesterday." She adds, "When you're down by the River, even now, you can't believe you're in the middle of a city of three million."

A true polymath, Madeleine's fascinating professional and personal career has spanned the performance arts, visual

arts, history, natural sciences, education, politics and social services. She is the recipient of numerous achievement awards for her work in preserving Toronto's natural and cultural heritage, and her accomplishments are nothing short of awe-inspiring.

Her work in natural heritage preservation has included chairing the Humber Heritage Committee, which got the Humber River designated as Canada's first urban Heritage

River; getting 150 ancient oak trees along the Carrying Place proclaimed as the "Tuhbenahneequay Ancient Grove" (for the daughter of a chief of the Mississauga); and establishing a wildflower specimen garden at the Lambton House, based entirely on Agnes Dunbar Moodie Fitzgibbon's famous watercolour illustrations in the 1868 *Canadian Wildflowers*.



Photo by Jean Trivett

"I love doing walks," Madeleine says with evident sincerity. "People who go on walks should be aware that just by being there, they're contributing. By asking questions or pointing things out, they're contributing." Two of her favourite walks are her annual Mother's Day "Aggie's Wildflower Walk"

through the Warren Park neighbourhood and her walk commemorating Hurricane Hazel. "I have a very large collection of photographs, historical ones as well as natural. ... It's nice to be able to look at an area and know its various evolutions," she says, "to talk about what an area was like, and what it is like, and what it could be like."

Agneta Szabo

VOLUNTEERS NEEDED COTTONWOOD FLATS MONITORING PROJECT

Do you have a strong sense of scale, proportion and perspective? TFN's Cottonwood Flats Monitoring Project (CFMP) could really use your help. July to October of this year (COVID permitting) we'll be updating all the vegetation community maps we use in our annual CFMP reports. Someone able to draw something more complex than a gangly stick figure would be a real asset!

This is a great opportunity to make a positive contribution to our understanding of nature in the city, learn about flora and fauna from fellow TFN members, make new friends, and do some citizen science – all with nothing more than a pencil, paper and some time spent outside!

To volunteer, please contact cfmp@torontofieldnaturalists.org

FOR READING

Saving Jemima: life and love with a hard-luck jay
by Julie Zickefoose, 2019, Houghton Mifflin Harcourt

Beautifully written and illustrated by wildlife rehabilitator Julie Zickefoose, this lovely book is a delightful blend of information about Blue Jays (a gorgeous member of the corvid family) and personal memoir of how Julie and her family cared for an 11-day hatchling until the bird's successful release. Julie's love and respect for this species are evident throughout the 247 pages. The book is replete with Julie's exquisite photographs and paintings. Even the end-papers are special; they were painted to resemble jays' eggshells.

I was astounded to learn that the hippocampal region of corvids' brains enlarges in the autumn, enabling the birds to make a detailed mental map of where they have cached food for the winter. In the spring, when insects are plentiful, the hippocampus shrinks; cache maps are forgotten; and buried acorns can grow into oaks. Thus the corvids assist the regeneration of forests.

Jemima even made it onto television! She has a 30-second spot in the PBS episode of Nature called "Sex, Lies and Butterflies" in which she eats a caterpillar.

Julie describes some of the challenges created by human interactions with birds. Putting up bird feeders provides food, but also creates a central place from which predators can easily pick off prey. Feeders can also create an easy place for diseases to spread, since the birds tend not to practise physical distancing.

I found this book very engaging and an enjoyable read.

Jennifer Smith

Unnatural Companions: Rethinking Our Love of Pets in an Age of Wildlife Extinction,
by Peter Christie, 2020

Peter Christie, who has often written for Ontario Nature and the Globe and Mail, has delivered an excellent account of the issues created for nature by how pet owners and the pet industry behave. But he is hopeful that our love of pets can be transformed into a love of wild animals too. Some dogs have been trained to use their sense of smell to aid in conservation. Others are therapy animals in hospitals and mental health practices, and still others keep wild and domestic animals apart for the safety of both.

And many of us believe that we are healthier and happier because of our pets, although studies have not established this scientifically; pet owners are wealthier so that could explain why they are healthier). But:

Axolotl salamanders, tigers, a dozen songbirds and a quarter of all parrots are more common as pets than in the wild. Trade in exotic pets spreads chytrid fungi that has wiped out many species of frog and is now doing the same with salamanders. That pet trade often kills multiple wild animals for each that arrives in a pet store, often fraudulently labelled captive-bred. Pet diseases like canine distemper and toxoplasmosis can decimate wild species as well as other pets. People release pets that they are no longer willing or able to care for into habitats to which they are not native and which they subsequently damage. Most famously, Burmese pythons let loose in the Everglades are decimating most of the native mammals there. Pet food trends toward wild fish and meat adds pressure on ocean fisheries and deforestation to raise cattle for pet food. Dogs in natural areas spread invasive species, create fear in native wildlife which interferes with reproduction, and have driven some species to extinction. Cats are better known for the extinctions they have caused, albeit generally on islands that had no native predators.

Perhaps the saddest story in the book is about feral cats, which are thought to cause a large share of the bird mortality in North America attributable to humans. Many people apparently think they are doing a good thing by feeding these poor animals (who suffer from and spread diseases and are not adapted to our climate), although that just enables their populations to grow, increasing the toll on birds and on our pet cats, and the suffering of the feral cats themselves. It is difficult for pet owners to confront the possibility that their pets are contributing to the extinction of biodiversity, so we need empathy as we promote awareness of the need for protection of nature from pets and the pet industry. Cats need to stay inside to protect themselves as well as nature. Dogs need to be leashed when outside except in dogs off-leash areas. And many rodents make great pets while putting very little pressure on the environment.

Check out a [preview of the Prologue and Chapter 1](#) in Goodreads.com.

Bob Kortright

*Let sleeping ducks lie
With heads tucked gently drifting
In this quiet cove*

Haiku by Elisabeth Gladstone

TORONTO'S IRIDACEAE AND RELATIVES: PART I

The Iridaceae (iris family) includes about 70 genera and 1800 species. A stylized iris, the *fleur-de-lys*, appeared on the former royal arms of France and currently is a symbol of the Province of Quebec. The name comes from Old French *fleur de lys*, meaning lily in flower, but irises are not lilies. The family is represented by species almost worldwide but not in northernmost regions, some deserts and, oddly, not on the Indian subcontinent. The family is of great horticultural importance including, in addition to the genus *Iris*, such well known genera as *Gladiolus*, *Crocus* and *Freesia*.

Iris versicolor (northern blue flag) is native to Toronto. The TFN's *Vascular Plants of Metropolitan Toronto* (1994, 2nd ed.) considered it locally rare but widespread from Humber Bay East to High Park, on the Toronto Islands, and in the Don and Rouge watersheds. This is a species of shorelines and other wet environments. Up to 80 cm tall, it has showy flowers 60 to 80 mm wide. It blooms in early to mid-summer. *The ROM Field Guide to Wildflowers of Ontario* (2004) reports its range across most of Ontario. Its North American range is Manitoba to Newfoundland and most of the northeast U.S., with a disjunct population in Idaho (U.S. Department of Agriculture Plants database).

Iris pseudoacorus also occurs in Toronto. This yellow-flowered species was introduced from Europe. It occurs in environments similar to those of our native iris.

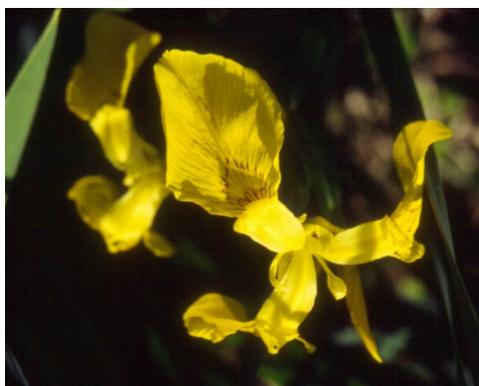
Unlike the widespread *I. versicolor*, the rare *I. lacustris* (dwarf lake iris) is confined to Great Lakes near-shoreline wet open areas, on old beach ridges or other places where high-water fluctuations have drowned trees and shrubs. It is only known in such environments in Michigan, Wisconsin and Ontario. There are good localities on the Bruce peninsula. Its flowers, about 30 mm wide, bloom on short stems from mid-May to early June.

Enjoy our local blue flag and, if visiting the Bruce, look for the beautiful and rare dwarf lake iris.



Northern blue flag (*Iris versicolor*)

Article and photos by Peter Money



L to R: Northern blue flag (*Iris versicolor*) detail, Yellow iris (*I. pseudoacorus*), Dwarf lake iris (*I. lacustris*)

SHARE YOUR ISLAND STORY

Do you have a story to tell of your nature experiences on Toronto Island?

The City has started a two-year process to develop a Master Plan for Toronto Island Park to "inform decision-making around park improvements over many years." The City's first step is collecting stories of the Island from the public. To participate, go to: <https://tfngo.to/islandstories>

For background information, go to: <https://tfngo.to/torontoislandmasterplan>

NATURE IMAGES SHOW

On Saturday, February 6, our President, Ellen Schwartzel, welcomed 100 TFN members to TFN's first Zoom Nature Images Show. It was thrilling to have a record 21 presenters this year, 11 participating for the first time. While we missed the social aspects of our in-person gathering, the online format enabled a greater variety of presentations, including PowerPoints and videos, some incorporating music. Here is a small sampling of the rich talent of our photographers and the exciting flora and fauna depicted.

Frank Miles shared beautiful photos of birds, insects and mammals seen on the East Don Trail, including this vibrant Baltimore Oriole (1). **Barry Severn** showed a video of TFN outings, the Toronto Zoo and his garden. We were delighted by the comical interactions of a young robin and a House Sparrow splashing about in his bird bath.

Norah Jancik's video, *Changing Marsh at Lynde Shores*, included rarely-seen birds such as American Bittern and Virginia Rail. **Lillian Natalizio** shared photos taken during walks in her neighbourhood during 2020, including early leaves of the sugar maple (2). **Jessica Nelson** presented a video, *Lunch in High Park*, which included a humorous segment of a frisky chipmunk.

Mac Marzolina presented striking photos of a Dekay's brown snake and this northern green frog (3) and provided interesting information about them. He also showed his red-eared slider and stressed the importance of not releasing these into the wild.

Anne Purvis's composite of recent Junior Naturalist activities impressed us with the marvellous job she and her team are doing to inspire children with a love of and interest in nature. You can view some of this in her blog at <https://tfngo.to/juniors>. **Amara**, one of our junior naturalists, presented a very professional video *My Nature Journey*, which reinforced our appreciation of how much children are benefitting from this program.

Danielle Pellat-Hall shared her experience of identifying plants in the Sault Ste Marie area, such as the intriguing ghost plant and this dainty St John's-wort (4). **Sara Shettleworth** presented a video entitled *Ode to the Spit* depicting how Tommy Thompson Park has evolved into such a natural treasure. **Andrew Interisano**, a new TFN member who got his first camera in 2018, shared stunning photos including a northern water snake in the Niagara area (see front cover).

Max Skwarna showed stunning bird photos and entertaining videos about an American Goldfinch, Blue Jays and Grackles. **Wendy Rothwell** showed a PowerPoint presentation of flora and fauna seen in High Park during 2020. **Anne Leon** contributed photos of a gypsy moth infestation and a garter snake, and videos of foxes and wrens seen near her home.



Marianne Cruttwell's artistic collage of birds seen near her home included this delightful Golden-crowned Kinglet (5). **Zunaid Khan's** video of birds and mammals seen near his home included a dramatic image of an egret in flight. **Charlotte Broome** gave a PowerPoint presentation *The fog comes in on little cat feet...in High Park* – a mystical portrayal of the park on a misty morning with haunting musical accompaniment (6).

Mitch Pencharz's PowerPoint presentation, *Portraits of Trail Plants*, included stunning macro images of flowers such as this lovely chicory (7). **Theresa Moore** showed wonderful photos of mammals and birds including this delightful shot (8) of a very determined robin! **Martin Chen's** photos included a beautiful rainbow. He stressed the benefits of getting out in nature during the current pandemic and recommended *Toronto Urban Trails*, a useful resource for finding natural areas to walk or cycle in the city. See: <https://tfngo.to/torontourbantrails>.

Finally, **David Wallace Barr** presented an exceptional video, *Black Willows in Toronto*. He provided a wealth of information about these trees from a scientific perspective. Then, modifying some of his photos artistically, he invited us to share in the excitement and enchantment he feels about them – a fitting conclusion to an afternoon in which we all celebrated the beauty and wonder of nature!

We owe a huge debt of gratitude to Lynn Miller for organizing this event, calmly meeting the challenges that computers tend to pose, and to all those who generously shared their images. More about this event, including images and videos, can be found on TFN's website. Please share your photos throughout the year by submitting them, along with their stories, for inclusion in the newsletter: newsletter@torontofieldnaturalists.org

Stay tuned for plans to organize a new TFN Photography Group.

Wendy Rothwell



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BIRDING IN MARCH

For birders, spring lists start March 1, although the first sign of spring for me is the cardinals starting to sing in February. But despite the fact that Great Horned Owls are nesting by March 1, there are few signs of bird migration in Toronto until southerly winds and temperatures approaching double digits bring crows, robins, blackbirds, grackles, cowbirds and Song Sparrows looking to claim good nesting territories, usually by mid-March. The hawk-watch at Beamer Point on the Niagara Escarpment above Grimsby opens March 1st as Rough-legged, Red-tailed and Red-shouldered Hawks and Turkey Vultures start migrating north, with raptor numbers building gradually to a peak in mid-April.

On the waterfront, warmer weather brings increasing numbers of grebes, and ducks such as Gadwall, Northern Shoveler, American Wigeon, Northern Pintail, Canvasback, Hooded Mergansers, and Green and Blue-winged Teal, most of which retreated to the US in the coldest part of winter, to join the Trumpeter and Mute Swans, Canada Geese, Mallards, scaup, Redheads, Common Goldeneye, Buffleheads, Red-breasted and Common Mergansers and Long-tailed Ducks that have stayed with us through the coldest weather. Ring-billed Gull numbers increase, making Iceland and Herring Gulls harder to find in their midst. Killdeer, American Woodcock, and Eastern Meadowlark arrive with the first Double-crested Cormorants. Tundra Swans and Snow Geese also arrive in Ontario in March, although usually west and east of Toronto respectively. By the end of the month in most years, just as the average low temperatures rise to the freezing mark, our first aerial insectivores – Eastern Phoebe and Tree Swallow – arrive, with Brown Creeper and Golden-crowned Kinglet not far behind.

I love birding in March and April, before leaves expand to obscure our views, and getting to know the songs and calls again, many of which are heard here only in spring migration. There are not so many songs to learn as there will be later, and it will be easier to pick out the new birds in May if you are already familiar with the sounds of the ones that arrived earlier.

A visit to Bluffers, Tommy Thompson, Humber Bay East or Colonel Sam Smith Parks on a warm day in late March might yield snakes emerging from their winter dens, the first frogs calling (not every chirp is a bird), Song Sparrows singing at their territorial boundaries evenly spaced alongside the path, and a chance to see the maximum diversity of waterfowl, when most migrants have arrived but before many have attempted to move further north. This is also the time before the colonial water-bird colonies on the Leslie Street Spit are closed for the nesting season on April 1, but after thousands of gulls and cormorants have arrived. Wear a hat if you venture into the nesting areas!

continued on next page



From top: Red-winged Blackbird, male Hooded Mergansers displaying, Red-breasted Merganser, Golden-crowned Kinglet.
Photos by Ken Sproule, all taken in the Toronto area in the month of March.

JUNIOR NATURALISTS: Eastern Garter Snakes

One of Ontario's most common snake species, the eastern garter snake, inhabits a wide range of habitats including meadows, wetlands, forests and urban areas.

Their scientific name, *Thamnophis sirtalis sirtalis*, means bush (*thamn*) snake (*ophis*) garter (*sirtalis*). While their colouring can vary, garter snakes are typically either green or black with three yellow stripes running down the length of their narrow bodies. They can grow to over a metre long. The females tend to be larger than the males.

Garter snakes are active during the day and will bask in the sun on warm rocks to help increase their body temperature and their metabolic rate, as they are cold-blooded (ectothermic). These snakes are considered to be feeding generalists that will eat a wide range of prey from earthworms, slugs, amphibians, fish, small mammals and occasionally eggs.



During the winter months, garter snakes brumate (a type of overwintering where the snake becomes inactive but will occasionally wake to seek out water) in a communal underground shelter called a hibernaculum. Hundreds of garter snakes will occupy these hibernacula, sometimes with other snake

species, which helps keep the spaces warmer than the surrounding ground. After they emerge in the spring, garter snakes mate, and the female will give birth to live young later in summer.

Garter snakes are harmless and, when disturbed, will first attempt to escape. If they are picked up, they might bite in self-defence or release musk (an unpleasant-smelling liquid).

Threats to garter snakes include loss of habitat or hibernacula and being killed on road crossings. One way people can help garter snakes would be to create a rock pile on their property which would provide both a hiding area and a sunning area.

Article and photo by Vanessa McMain

BIRDING IN MARCH *continued*

Because most bird species are commonest in the fall, as a result of the addition of the young of the year to the population in the summer, few of the 400 species recorded in Toronto are as common or commoner here in March as in any other month. The exceptions are Tundra Swan, Ring-billed Gull, Trumpeter Swan, Mallard, Horned Lark, Northern Shrike, Boreal Owl, Snowy Owl, Ruddy Duck, Common Merganser, Bufflehead, Long-tailed Duck, Harlequin Duck, Lesser Scaup, White-winged Scoter, Redhead, Eurasian Wigeon and Western Grebe. These species generally have wintering ranges that extend south of Toronto. Their numbers increase here in March as some or all of them migrate through Toronto.



Bob Kortright

Snowy Owl at Leslie Street Spit in March 2018.

Photo: Ken Sproule

TREE OF THE MONTH: EASTERN REDCEDAR (*Juniperus virginiana*)

With a maximum height rarely exceeding 12 m, eastern redcedar is our largest native juniper. Our other two, common juniper (*Juniperus communis*) and creeping juniper (*J. horizontalis*), are both spreading shrubs here, though common juniper has tree forms elsewhere. Eastern redcedar is a prominent invader of neglected pastures south of the border but, while it can sometimes behave in a similar manner here, it is much less prominent overall in Ontario, at the northern limits of its distribution.



Two contrasting growth forms of redcedar tree.

Photo: Ken Sproule

Its best development here is mostly on open, warm, sunny, dryish sites, like old dunes of Lakes Huron, Erie and Ontario, or on alvars (limestone pavements) inland. In these sun-drenched places, you can often find two contrasting growth forms of the tree: a compact, narrow, spire-like form (preferred, perhaps, in cultivation) and a broader, looser form with widely spreading, open

branches. Trees of more broadly conical shape are more common than narrower ones in most natural populations. Overall, the appearance of the trees is looser, sparser and much more open than we typically see in the related northern white-cedar (*Thuja occidentalis*). As part of this openness, the distinction between long and short shoots is much less obvious than in northern white-cedar, though at close range you can see the clear difference between awl-like, loose or even spreading leaves on long shoots and tightly wrapped scale leaves on short shoots.

Large individuals of both growth forms of eastern redcedar are clothed in bark that is similar to that of northern white-cedar, fibrous and peeling in thin vertical strips but with a reddish tinge. The red becomes richer and deeper in the pleasantly fragrant heartwood within, whose fine and even grain (like that of the creamy sapwood) led to its use in pencil manufacture before being replaced by other species.

Unlike most familiar conifers, eastern redcedar is dioecious, with pollen and seed cones borne on different individuals. The pollen cones are fairly unremarkable, basically similar to those of other members of the cypress family (like northern white-cedar) or even of conifers in general, though they differ in many details. The seed cones of all juniper species, in contrast, *are* remarkable, barely even recognizable as cones without a close, knowing examination. For all the world, they look and taste like (somewhat resinous) berries. A closeup look, however, perhaps aided by a hand-lens, shows definite outlines of the cone scales and a small triangular point right in the middle of each scale.

continued on next page



Left: Contrast of a long (whip-) shoot with short shoots, many with pollen cones at their tips. Centre: Twig with a berry-like seed cone with scale outlines and triangular bract tips, as well as awl-like and scale-like leaves. Right: Trunk of mature tree with reddish-tinged, freely-peeling, fibrous bark. Photos: Ron Dengler

REMEMBERING CLAUDIUS FEHR

We are saddened to learn that Claudius Fehr, a TFN member since 2009, passed away on January 22nd. Claudius was actively involved as a member of the Promotions team, volunteering at outreach events such as ‘Get the Jump on Spring’ at the Toronto Botanical Garden and the Morningside Park Salmon Festival. Those who worked with him say:

“He was always welcoming to visitors, communicating well with people of all ages and backgrounds and readily conveying his enthusiasm for nature and the TFN.”

“He was an enthusiastic helper who never said no to an opportunity to help at the TFN table and was always happy to stay all day, not just for one shift.”

A tireless advocate for conservation and the environment, Claudius also volunteered with Fatal Light Awareness Program (FLAP) and the Metropolitan Toronto Zoo. Those who got to know Claudius on TFN walks enjoyed his company a lot. He will be greatly missed.

2020 VIRTUAL YOUTH SUMMIT FOR MOTHER EARTH

Last fall TFN supported six youth (Spencer Cao, Nancy He, Julianne Ho, Jahena Orthi, Reema Poonawalla and Sidney Shaw) to participate in the 2020 Virtual Youth Summit for Mother Earth sponsored by Ontario Nature’s Youth Council, their Youth Circle for Mother Earth partners and Coordinating Circle. Ninety-two young leaders and 12 youth mentors from 50 communities across Ontario gathered virtually over a series of livestreams highlighting cross-cultural learning and knowledge sharing. They participated in discussions and youth-led sessions as well as hearing from experts and knowledge keepers on a number of topics including: Environmental policy, Treaties and Indigenous politics, The importance of water and interconnectedness, Power to effect change and Grant writing.

The youth expressed their experiences as follows:

“Despite it being completely online, it was an unforgettable experience and I am excited to take action with this newly-gained knowledge.”

“The workshops ... really opened my eyes. For instance, it gives me a more accurate understanding of how First Nations People are guarding this land they have lived upon for thousands of years; the biodiversity loss we currently face in Ontario and what we can do to improve this situation. ...”

“The speakers and mentors were very inspirational and thorough with climate danger, they taught how strong youth activism can be, and after learning that I will definitely start participating and taking initiative in my community to make environmental changes.”

Anne Powell and Nancy Dengler

TREE OF THE MONTH *continued*

This little point highlights an important difference between the cypress and pine families in the structure of their seed cones. It is the remnant of a bract that is obviously separate from the seed scale in members of the pine family (even sticking out conspicuously between the seed scales in douglas-fir, *Pseudotsuga menziesii*). In eastern redcedar and other cypress family members, the two components of the cone scale are intimately fused to one another, with only hints of their separate origin. The close evolutionary relationship between the junipers and the true cypresses (*Cupressus* spp.) shows that the berrylike cones of junipers were derived through selection for bird dispersal from a much more typical woody cone,

perhaps resembling that of one cypress commonly cultivated in Toronto, Alaska yellow-cedar (*C. nootkatensis*).

The behaviour of the birds that consume the fleshy seed cones is responsible for the commonly-seen pattern of dispersal of eastern redcedar into old-fields from their periphery. You can see the result when a pasture has progressively smaller individuals from near the fence out toward the middle. Of course, you can see exactly the same pattern in Scots pine, whose seeds are wind- rather than bird-dispersed, both reflecting fairly even annual growth, quick reproductive maturation, and surprisingly short distance movement in each generation.

James Eckenwalder

WEATHER (THIS TIME LAST YEAR)

March 2020

The mild conditions continued through most of March meaning that, of our cold season (November to March), only November had below-normal temperatures. The monthly mean temperature was 4.0° downtown and 3.2° at Pearson Airport. These values were 2.4° and 2.8° above normal respectively, but fell far short of 2012's stupendous record heat. In 2012, Ontario had a lengthy period of temperatures in the mid- to upper-twenties. This year, our warmest readings were in the high teens: 18.4° on the 29th at both Pearson and downtown. On the other hand, we didn't get any seriously cold weather, daytime temperatures always rising above freezing. The lowest reading was -14.6° at Buttonville Airport in Markham on the 1st. Downtown had a low of -7.7° on the 1st and 21st.

With the mild weather, spring came early, but not precipitously. Spring peepers and chorus frogs were calling in GTA wetlands by month's end. Snowdrops and crocuses were blooming.

Spring storminess was evident on a couple of occasions, though there was nothing extreme. High winds swept Toronto on the 13th and 20th and were accompanied by scattered thunderstorms on the 29th. Gusts reached about 80 km/hr.

Total precipitation was close to normal, with 53.8 mm at Pearson Airport and 69.9 mm downtown. We had about 6 cm of snow.

The cold-season period of November to March was about one degree above the 30-year average. It was the mildest such period since 2016-2017. Persistent (though not record-breaking) mild conditions from December onward were slightly offset by a cold November. The winter ended up being a snowy one. We had 139 cm of snow at Pearson Airport. The 30-year seasonal average is 109 cm. This was about the same amount as 2018-2019, which was a much colder winter.

Gavin Miller

ABOUT TFN

TFN is a charitable, non-profit organization.

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Address: 2 – 2449 Yonge St, Toronto M4P 2E7. The office is normally open 9:30 am to noon on Fridays.

Note: If you wish to drop by on Friday, please phone first to ensure that someone will be there.

KEEPING IN TOUCH

On January 27th, a cold, crisp, sunny morning, a couple of friends and I headed to Downsview Park where we had heard there was a resident Barred Owl. We found it! What a beautiful bird. It was so still and seemed to be happy just soaking up the winter sun making its way through the branches.

The following Sunday our little group went for a walk at Humber Bay. We spent a few minutes feeding some hungry Black-Capped Chickadees. There was a pair of cardinals nearby. The female eyed my hand as I held it out for chickadees and I wondered if there was any way she would land on my hand. She did! Alas, no one was quick enough to get a photo but it was pretty exciting, especially as she lingered for a few seconds before flying off with the seed in her mouth. I was wearing a bright red coat and I wonder if she thought I was a giant male cardinal!



Someone told us they thought they had spotted a Snow Goose among the ducks. We made our way and indeed spotted a largish white bird among a flock of Mallards. We were so excited, but when we calmed down we looked at one another and said, "That's not a Snow Goose...it's a domesticated white duck!" I've seen white ducks among Mallards before and wonder how they get there. I've heard rumours that they're either escapees from a farm or released by people who couldn't handle an adult duck. How do these ducks manage to survive the winters? Maybe with a little help from their friends!

Diana Sernick



Coyote Sightings

Several TFN members have recently seen coyotes in Toronto neighbourhoods. While this is normal in ravines and other natural areas of the city, Vivienne Denton, who doesn't live near a ravine, was surprised to be told that a coyote was seen on her front steps early one morning.

A rabbit had been hopping about her garden this fall and there may be a skunk under her verandah, so she thinks perhaps the coyote found some interesting scents near her front steps.

Vivienne drew our attention to this news release from the City: <https://tfngo.to/coyotesintoronto>



Theresa Moore photographed this three-some, part of a pack of nine coyotes, in Pine Hills Cemetery. Visitors to the cemetery should remain vigilant about personal safety.

Please share your nature experiences!

Now that we cannot report on sightings during TFN outings, we need more than ever to hear from members about what you are seeing in your own walks. Editor

Toronto Field Naturalists
2 – 2449 Yonge St.,
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TFN LECTURE

Sunday, March 7 at 2:30 pm

See page 3 for information about lectures via Zoom

**Latest Research on Cormorants and
Anthropogenic Debris They Bring to their Nests.**



Melina Damian, environmental scientist and educator, communications coordinator, Ontario Nature and professor, Centennial College, will examine the impacts of plastic pollution and other anthropogenic debris on wildlife, including double-crested cormorants in Toronto.

Upcoming lectures:

Apr 11: Making Nature and the Outdoors More Welcoming for Black People and Recent Immigrants, Jacqueline Scott and Ambika Tenneti, University of Toronto PhD students

May 2: Toronto's Water, Energy and Waste Systems: Where does it all come from? Where does it all go? Mariko Uda, PhD