



Since 1923

# TORONTO FIELD NATURALIST

Number 664 December 2021



White-tailed Fawn at Crown Lake Game Preserve near Apsley, ON. Photo: Jim Goad

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## PRESIDENT'S REPORT

“Toronto needs more nature!” That was the gist of a talk I gave the other day, and it’s a message that TFN wants to share with many Toronto audiences. Assembling the arguments and visuals got me focussed and brought me to a reflective state of mind. It spurred me to try this exercise: the end-of-year wish list of a Toronto naturalist – with tongue-in-cheek bits. Why not try compiling your own list?

Here’s hoping that:

- All Toronto school kids discover the difference between a silver maple leaf and a Norway maple leaf.
- Toronto’s Norway maples become as successful as the Toronto Maple Leafs.
- Native plant gardens become as popular as Halloween pumpkins.
- Suzanne Simard’s new book *Finding the Mother Tree* finds its way into my Christmas stocking.
- Metrolinx’s CEO finds a copy of the Pulitzer Prize-winning novel *The Overstory* under his holiday tree.
- The Metrolinx Don Valley Lay-by Project finds itself on a very high and dusty shelf.
- City-owned golf courses find they can shift from birdies and fairways, and learn to love nesting birds and fairer sharing of public lands.
- Toronto learns to love and protect its Environmentally Significant Areas.
- Piping Plovers become successful nesters at Hanlan’s Point.
- “Piping Plovers” becomes the name of a hot new Toronto indie rock band.
- The City of Toronto sets nature targets for its annual tracking report on Environmental Social and Governance (ESG) Performance.
- Our kids get safe bike lanes to carry them all over the city.
- Doug Ford gets a bike, and a bike lane, to distract him from highway-building.
- Whimbrel flocks arriving from South America make headlines next May.
- A vast cloud of monarch butterflies makes headlines for enveloping Queen’s Park.
- We can marvel at the wild lupine blooms of High Park next year.
- One day our grandkids can marvel at Karner blue butterflies’ return to High Park.
- The native prairie seeds I planted this fall will germinate next spring.
- Your good ideas and dreams for nature will sprout and flourish.

Ellen Schwartzel  
president@torontofieldnaturalists.org

### Tax Deductible Donations

TFN is dependent on membership dues and donations which enable us to help people in Toronto learn about, appreciate and seek to protect our natural heritage.

As a charitable organization we issue receipts for use as deductions on your income tax return.

Donations to the mailed newsletter fund help TFN to offer a reduced mailed newsletter surcharge.

Please make your donation today.

Visit <https://www.canadahelps.org/en/dn/14828> and choose "Mailed Newsletter Fund" or "General" from the list of fund options. Or you may send a cheque to the TFN office (see page 14).

## TFN OUTINGS

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 pre-register. This facility opens on the website, at a random time of day, five days before the date of each walk. Walk leaders will have a list of who registered, and only people on the list will be allowed to participate. Before registering, please review all guidelines on the webpage and carefully review walk descriptions for any additional guidelines specific to that walk.

### **Visit the “Members Only” section of our website to access our Walks List**

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 THE "MEMBERS ONLY" SECTION OF TFN'S WEBSITE, VISIT:**

<https://tfngo.to/private>

The password was delivered in the email notifying you that the newsletter is available online.  
If you have misplaced the password you can request it by emailing  
[membership@torontofieldnaturalists.org](mailto:membership@torontofieldnaturalists.org).

## 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 speaker. To provide an engaging and interactive experience, the 45-minute lecture with accompanying visual materials will be presented live, after which the speaker will answer questions from the audience.

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

See information about this month's lecture on the back page. To join the Zoom meeting,  
**visit the “Members Only” section of our website to access the link.**

If you prefer, you may dial in to the December lecture by phone as follows:

+1 647 558 0588 (Canada)

Meeting ID: 821 6198 7770

Passcode: 003242

## BIODIVERSITY GRADIENTS IN ONTARIO. PART 3, LIANAS AND SHRUBS

Lianas (woody vines) and shrubs join trees as the main life-forms in the spectrum of woody plants, but employ different survival strategies than those used by trees. In looking at the maps, recall that the isolines represent the percentage out of the total number of species in Ontario for that particular group.

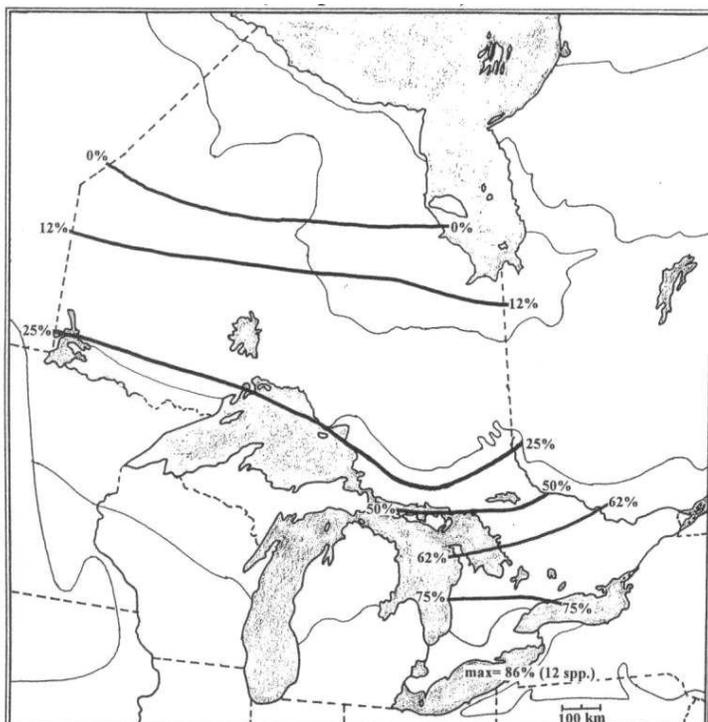
Like trees, lianas raise their crowns of foliage into the forest canopy but, unlike trees, they are not self-supporting. Their slender, flexible stems, though equivalent to a tree's trunk, depend on the trees they clamber over for support. Different liana groups use different body parts to climb their supports. Here in Ontario, we find short sticky aerial roots (poison-ivy); sucker-tipped tendrils (Virginia creepers); and twining stems (bittersweets), leaves (virgin's bowers), or tendrils (grapes).

Many of these vines have large, thin leaves with very high water transport and transpiration (evaporation) rates promoting the massive photosynthesis that fuels rapid stem elongation, which is much greater than that of their host trees. That high transpiration rate can only be achieved because their relatively flimsy stems consist mostly of water-conducting tube-like vessels, often much larger than those of most trees, accompanied by few of the supporting fibres that make up most of tree wood. Woody stems with large vessels are largely devoid of the thermal insulation that fibres, thick bark and massive heartwood also provide. The negative ecological consequence of this

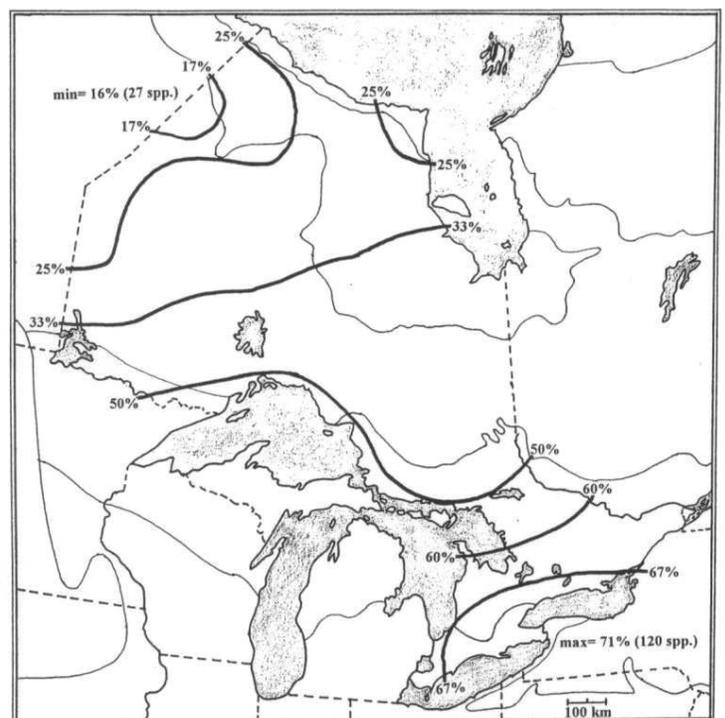
structure, optimized for water transport, is an extreme susceptibility to freezing damage. Ice crystals cause mechanical damage to cells and tissues and also disrupt the cohesion of the water column that is required for transpiration, leading to irrecoverable embolisms. Not surprisingly, then, lianas are abundant and diverse in the tropics and highly depauperate in our decidedly wintery world. At just one ninth of the number of tree species, only 14 species of lianas survive the winter to grow wild in Ontario, and none reaches the northern quarter of the province. Other than that, the diversity map shows the same smooth decline seen in the trees, albeit somewhat steeper and with a higher maximum percentage of species in the south.

Compared to both trees and lianas, shrubs, with their low stature and frequent replacement of stems from the ground level, are much more protected against winter. In addition to the obvious winter snow cover, their roots and lower portions of their stems are protected by fluffy organic matter on the soil: leaf and twig litter, and peat in bogs. Shrubs grow in a wider variety of habitats than do either trees or lianas, thriving not only in forests, woodlands, and savannas, but also in bogs, barrens and treeless tundra. This wider range of habitats supports more species, 169 growing wild in Ontario, about 40% more than the number of tree species. Shrubs too, like the trees and lianas, show a fairly smooth south to north decline in diversity in the southern half of the province, but begin to deviate increasingly from this in the northern half.

*continued on page 14*



Diversity of Lianas in Ontario (14 species total)  
Raw data from Soper & Heimburger (1982)



Diversity of Shrubs in Ontario (169 species total)  
Raw data from Soper & Heimburger (1982)

## LECTURE REPORT

## The Unique Nature of Toronto Islands

November 7, 2021

Bob Kortright. Secretary Treasurer and Past President of Toronto Field Naturalists

Lori Ellis. (Registered Landscape Architect) Project Officer, Strategic Projects, Toronto Island Park Master Plan, City of Toronto.

Janette Harvey. (Ecosystem Management Program, Fleming College) Natural Environment Specialist, City of Toronto

*The Islands support one of the highest, if not the highest, concentrations of rare plants in the City of Toronto. Of the 489 species of plants which have been identified on the Toronto Islands, 74 are considered rare or uncommon within the Toronto region. The beach, sand dune, cottonwood woodland, and wet meadow habitats located within the vicinity of the project site support a rich diversity of species.* Environmental Study Report, TRCA, 2008

**Bob Kortright**, who has a long connection to the Toronto Islands, gave us an overview of their natural history. Many parts of them are classified as Environmentally Significant Areas (ESAs) by the City of Toronto and, as Bob points out, the ESAs on these Islands are a special set because they are so close to the concentration of people downtown; 1.5 million people each year visit the beaches, dunes, and prairies that are all rare in our region.

One ESA is Hanlan's Point with its dunes and beaches. Beaches have many challenges on the Islands, including wave action, fluctuating water levels, and extreme flooding in 2017 and 2019. Dune ecology is fragile and about 15% of plant species on Toronto Island are locally rare or uncommon. One of these, marram grass, is only found in dunes and stabilizes the shifting sands with its deep taproots. Bushy cinquefoil, rare in Ontario, is also found along Island beach strands and in concrete cracks. Bob said the Island dunes are the "best remaining example of beach dunes between Presqu'île and Long Point."

So how can we help nature on Toronto Islands?

- Protect dunes from trampling by adding more bicycle racks and rental of beach umbrellas, so people can have access and shade without trampling vegetation.
- Provide seasonal quiet zones in areas birds might visit, such as the nesting area of the Piping Plover, an at-risk species.
- Use "No-go zones" to restore meadow habitats.

**Lori Ellis** introduced the Toronto Island Master Plan (<https://tfn.go.to/torontoislandmasterplan>), a long-term planning document for the park that will work on the balance between its use by visitors and its natural environment.

*For thousands of years, the Toronto Islands have been a place for healing and ceremony for the Mississaugas of the Credit First Nation and other diverse Indigenous communities. Today, it is one of Toronto's signature parks and acts as an oasis for Torontonians from many walks of life. However, in recent years, the park has faced pressures, including increased demand, aging infrastructure and flooding.*

*The Toronto Island Park Master Plan will address these issues and ensure the park can be a cherished gathering place for generations to come. It will be a long-term planning document that is being co-created with Indigenous rights holders, local communities and the public to guide change and investment in Toronto Island Park.* Toronto Island Master Plan

Lori stated that one of the principles guiding the Plan is Indigenous place-keeping where the rights and wellbeing of all living things including the land, water, flora and fauna, need to be considered first. There is a responsibility to the place now and into the future.

Why do people come to the Islands? Visitors report better mental and physical health as well as a sense of connection with nature. Environmental issues such as flooding, beach erosion and litter are important to them, but they are sometimes more concerned about the impact of these issues on their enjoyment. There is a need to educate and to increase the public's environmental awareness.

Over 100 ideas for the park have been generated by the public, including ideas relating to the natural environment and improving the visitor experience. Environmentally-focused ideas include better protection of natural areas including beaches, No-go Zones, nature interpretation and educational programming, promotion of stewardship, etc. These are balanced by the need for a vital visitor experience with improved financial and physical access to the Islands and beaches, expanded rentals, signage, camping, more diverse food and enhanced seasonal access.

One short- and long-term goal is the creation of a stewardship program to help educate and advocate for the natural wonders of the Islands. Lori feels Stewardship is a cultural shift that takes time. Engaging the community in planting and cleanup activities will promote this.

*continued on page 13*

## EXTRACTS FROM OUTINGS LEADERS' REPORTS

**High Park, Oct 1. Leader: Martin Chen.** We had a pleasant walk at this natural oasis in downtown Toronto. On the way to Grenadier Pond we saw ten species of birds, a highlight being a Red-bellied Woodpecker. On the way back we saw a dozen Wood Ducks, a Great Blue Heron and various hawks, mostly red-tails.

**Blythwood Ravine and Sherwood Park, Oct 8. Leaders: Paul Overy and Jennifer Smith.** After exploring some of the history of the Lawrence Park Estates residential area, we made our way through Lawrence Park and several connected parks to Blythwood Ravine. We described how the melting glaciers of 12,000 to 15,000 years ago carved these ravines whose steep sides make them less desirable to builders, allowing their forested slopes (now considered one of two remaining old growth forests in Toronto) to survive. In Sherwood Park, we discussed challenges our parks and ravines face from invasive plant species as well as human behaviours such as creating informal trails and allowing dogs to run in the Environmentally Sensitive Areas. We talked about the valuable role that park stewards play in removing invasive plants. The trail we followed in Sherwood Park, despite having many substantial slopes, was accessible to a member who uses a wheelchair. Our eight participants contributed many interesting comments and questions that enriched the experience for all of us.



*Polyporus versicolor* (turkey tail) and other fungi at Nordheimer Ravine. Photo: Frank Remiz

**Nordheimer Ravine, Oct 9. Leaders: Rachel Gottesman and Bob Kortright.** We started by marveling at the newly refurbished 250-million-litre reservoir below Winston Churchill Park. Passing the new, sparsely used enclosed dog park, we crossed the bridge to the restored Roycroft Wetland, for which Bob and Rachel volunteered as stewards, planting shrubs and trees and removing invasives. Bob has the wasp stings to prove it! We pointed out the now fading native asters and goldenrods, purple flowering raspberries, dogwoods, maple trees, black willow and butternut trees. We saw kinglets, Yellow-rumped Warblers, and heard Downy and Hairy Woodpeckers.

**German Mills Settlers' Park, Oct 14. Leader: Theresa Moore.** We saw small flocks of geese, goldfinches, starlings, and chickadees as well as a Hairy Woodpecker, feeding Ruby-crowned Kinglet and, in the distance, a large hawk being harassed by a smaller hawk before landing in the meadow. A late monarch was feeding on wildflowers and many grey and red

squirrels were busy foraging. Salmon had been scarce in the creek this year and could no longer be located. The most abundant wildflowers in bloom were jewelweed, goldenrods and several varieties of asters. We discussed the park's history as well as collaborative efforts to protect the meadow habitat and promote ethical wildlife viewing and photography.

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### THE BRITISH LIBRARY NEEDS YOUR HELP!

The *Unlocking Our Sounds Heritage* project at the British Library is looking for Ontario naturalists to help enrich their wildlife audio collection.

The library has received 36 cassette tapes, recorded between 2006 and 2007, that capture sounds of wildlife in places like Algonquin Provincial Park, Claireville Dam and Backus Woods. They need volunteers to transcribe the accompanying detailed field notes, preserving them for future generations and opening up access for all.

If you love reading about nature and have ever wondered how wildlife recordists capture their audio, this is a project for you! For details, see this blog on TFN's website: <https://tfngo.to/britlib>

## HOW DO SONGBIRDS SURVIVE WINTER, AND HOW CAN WE HELP?

“The robins are back! Spring is on its way!” How often have we heard this excited announcement? Yet many species of songbirds, including robins, remain in our region all year. These winter birds have a better chance of maintaining their territory year-round and they avoid the hazards of Migration. But in exchange they have to endure the cold. How do they survive through the seemingly barren winter?

Some birds change their dietary habits. We can help by planting a variety of native perennials, shrubs and trees which may provide berries, seeds, nuts, cones and insects for nuthatches, Brown Creepers, woodpeckers, Cedar Waxwings, Evening Grosbeaks and others to enjoy throughout the winter. Trees and shrubs – even snags (dead trees) – provide valuable spots for digging out cavities for shelter and finding insects to consume. A brush pile can be a safe and warm spot. Your Christmas tree can be an innovative shelter, too! (Be sure to first denude it of tinsel.)

Birds eat extra food in the autumn in order to add “insulation” (aka fat) to keep warm. When asked which birds are the toughest winter survivors, one scientist points to little ones like chickadees. For aerodynamic reasons, these small creatures can't put on too much bulk. Instead, they are experts in shivering. Unlike mammals, birds shiver by activating opposing muscle groups, creating muscle contractions. This form of shaking is better at retaining heat than the jiggling typical of human shivering. Some birds improve their insulation by growing more feathers or fluffing out their down to trap air. Chilly birds often squat low to cover their legs and feet with their breast feathers to keep warm.

With many water sources frozen over, birds have a hard time staving off dehydration during the cold months. They may access unfrozen sections of ponds or streams. They can eat snow, but this requires energy to bring the snow to body temperature. Sometimes a bird may find an icicle dripping in the sunshine and hover just below it to catch some drops.

The other day I had the pleasure of watching House Finches and American Goldfinches eat the seeds from my cosmos plants. I'm so glad I didn't pull out these “dead” plants that remain useful to these lovely little birds!

Jennifer Smith

### Sources:

Ottawa Valley Wild Bird Care Centre  
Birds & Blooms newsletter, Jan 2021  
Giving Birds access to water in winter in a Bird Stewards newsletter  
*How do birds cope with cold in winter?* National Audubon Society  
*Secret Lives of Common Birds* by Marie Read (2005)

To read about the pros and cons of bird feeders, see Bob Kortright's article in the November 2016 newsletter. <https://tfngo.to/nl2016-11>



American Robin, Crothers Woods, Feb 2011;  
Cedar Waxwing, Wilket Creek, Oct 2010;  
Hairy Woodpecker, Marie Curtis Park, Nov 2010;  
Black-capped Chickadee, Crothers Woods, Nov 2014.

Photos: Ken Sproule

## REMEMBERING CHARLES CHAFFEY

We were saddened to learn that Charles Chaffey passed away, at the age of 80, on October 15. We extend our condolences to his wife Eunice, daughters Charlotte and Anna, and his six grandchildren.

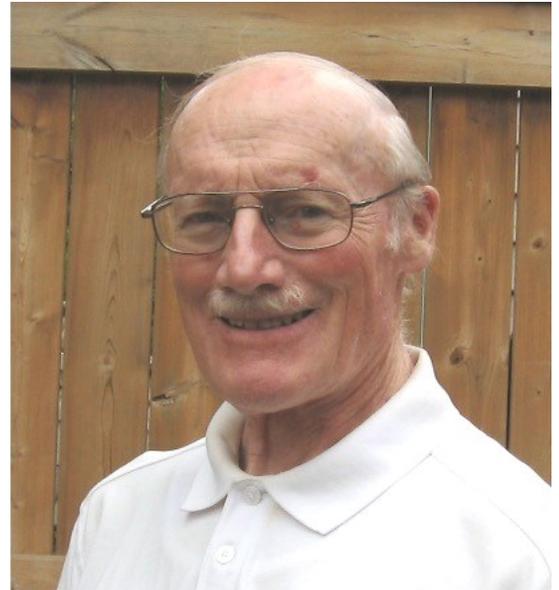
Charles first joined TFN in 1967 and served as Chair of the Outings Committee during the 1970s. He dropped out when his children were young and returned after they grew up. In recent years, Charles has led many TFN walks, often to less-visited, further-flung locations such as the Goldie Feldman Nature Reserve on the Oak Ridges Moraine, the Sixteen Mile Creek Trail in Oakville, and the Seneca College King Campus. He would pedal on his bicycle, in all weathers, to the rendezvous points for his walks and, for more distant outings, developed an encyclopedic knowledge of public transport.

His walks were always a delight. Charles was a quiet, self-effacing man, so it wasn't always easy to get him to divulge all the information he had at his fingertips. You had to coax it out of him. But with a little effort, and by asking the right questions, you were rewarded with the benefit of his considerable knowledge of botany, history and topography.

Charles also participated in work parties at the Jim Baillie Nature Reserve. He knew the reserve and its trail system well, was knowledgeable, hard-working and extremely fit, so his presence on these trips was greatly valued. He served for several years as the TFN representative on the East Don Trail Project and also volunteered at the Royal Ontario Museum, mounting plant specimens for their herbarium.

Jason Ramsay-Brown recently interviewed Charles to glean some of his early TFN memories in preparation for TFN's 100th Anniversary. You can see him reminiscing about trailing arbutus and showy lady slippers at: <https://tfngo.to/chaffeyinterview>

The last walk Charles led for TFN was to the East Don on August 3 (see report in the October newsletter). With his keenly observant eye and deep appreciation of the interconnectedness of nature, his outing reports were always a pleasure to read. He will be deeply missed. See obituary: <https://tfngo.to/chaffeyobit>



Sumac leaves. Photo: Marianne Cruttwell

### Nature Images Show

Saturday, February 5, 2022 from 1:30 to 4 pm

Come and enjoy an afternoon of photos, videos, art and stories at our annual Nature Images Show, to be held virtually over Zoom. TFN members will present images taken on outings, hikes, trips, stewardship sessions, and just about everywhere else nature flourishes!

Zoom access: <https://tfngo.to/natureimages-2022>

#### Calling all TFN photographers!

Share your photographs and videos at the Nature Images show!

If you would like to participate, contact Lynn Miller at [volunteering@torontofieldnaturalists.org](mailto:volunteering@torontofieldnaturalists.org).

Due to the nature of this event we can't handle "walk in" participants so, if you wish to participate, please email Lynn before the end of January.

## TREE OF THE MONTH: WHITE SPRUCE (*PICEA GLAUCA*)

In addition to being a signature tree of the boreal forest, white spruce is one of the big four cultivated spruce species throughout southern Ontario (along with blue, Norway and Serbian spruces), well south of its natural distribution. As a specimen tree in a front lawn, the dense foliage of dark green to bluish green needles can sweep all the way down to the ground, though it is often trimmed up for mower access. Cut branch remnants on a trimmed trunk show that growth and branching is very regular. Like other spruces, white spruce produces an annual whorl of about five horizontal branches evenly spaced around the trunk, mirroring the annual cluster of winter buds surrounding the terminal bud at the top of the tree. Additional, weaker branches may be scattered on the trunk between whorls.

When the tree is growing in dense native stands in the north, needles on lower whorls receive insufficient light to pay for their maintenance, and quickly die along with their supporting branches. The dead branches are not self-thinning but gradually decay and progressively shorten with time to leave conspicuous stubs. These persist until they are completely swallowed by the bark and wood of the expanding trunk (which is why spruce wood tends to be knotty). Until the stubs disappear into the trunk, it is possible to get a rough estimate of the tree's age by counting the number of whorls of dead branches and of living branches in the crown, a technique that also works with most pine species.

All of the branching from the whorled branches is out to the sides, parallel to the ground, because the terminal bud at the top of the tree usually exerts a powerful control (called apical dominance). It prevents branches from turning up at their tips to become extra trunks and also suppresses branching from their upper sides. Reflecting this dominance, the terminal bud at the tips of the whorl branches is flanked horizontally by a pair of winter buds, not by a whorl of buds as seen at the tip of the tree, and the branches that grow from these buds the next year are also often tipped by three buds and so on, and so on (this is called dichasial branching). As a result, until shading from above inhibits further growth near the trunk, the whorl branches tend to produce regular, compounded, three-fold expansion, otherwise found here only in true firs, such as balsam fir. This makes the young trees, at least, astonishingly conical, perfect for hanging ornaments.

*continued on page 10*



From top: Cluster of symmetrically conical young open grown trees; twig with bursting winter buds containing fully formed new shoots.

Photos: Ken Sproule

Underside of a twig showing the growth pattern and the arrangement of the needles and sterigma.

Photo: James Eckenwalder

## BIRD NEWS: Canada Jay numbers decreasing in southern Ontario

After reading in last month's newsletter about Canada Jays' practice of caching food in trees for winter, Theresa Moore drew our attention to this CBC News posting by Stephanie Dubois. <https://tfngo.to/canadajaystudy>

A study by University of Guelph researchers Alex Sutton and David Bird, published in *Global Change Biology*, suggests that the number of Canada Jays in southern Ontario is falling. Due to more frequent freeze-thaw days in the autumn months, caused by climate change, cached food defrosts and grows bacteria which can make it inedible.

The study revealed that, when their food supply was degraded with the freeze-thaw weather, these non-migratory birds produced fewer young, or hatchlings in poorer condition. If this pattern continues, the Canada Jay could be extirpated from Algonquin Provincial Park and other southern Ontario ranges.



Canada Jay in Algonquin Park. Photo: Bill Cruttwell

The study used bird population numbers from 1980 to 2018 as well as environment data recorded in Algonquin Park since 1977 to look at the effects of the fluctuations in temperatures on the bird population and their food supply. Between 1980 and 1996, when there were ten years of above-average freeze-thaw cycles, the birds' numbers dropped significantly. Although there were fewer above-average freeze-thaw cycles and more breeding success in later years, the birds' numbers did not rebound. The researchers believe the effects of climate change on the birds' food supply could eventually push the species further north.

The Canada Jay, which can be found in every Canadian province and territory, is important to many Canadians, and there is a campaign to designate it our country's national bird. See this posting from 2018: <https://tfngo.to/nationalbird> and TFN lecture report in the December 2019 newsletter: <https://tfngo.to/newsletterdec2019>.

Wendy Rothwell

### WHITE SPRUCE *continued from page 9*

The arrangement of needles, like the branches, is strongly influenced by light interception. Looking at a white spruce twig in end view (as in the photo) shows that the needles are arranged most densely above the twig where the light is strongest, less densely to the sides where there is less light, and with a narrow but obvious notch or gap beneath, where little light reaches, even though the little woody pegs (sterigmas, found in all spruces), to which the needles are attached, are arranged evenly all around the twig. The discrepancy is created by the skewed positioning of the needles with respect to their leaf bases, including the sterigmas.

The end fate of all these needles, as they are shaded or dry and die, is a clean break from the supporting sterigma, which is left intact on the needleless twig. This shedding of needles is a bane for botanists collecting herbarium specimens of spruces, and we have tried for decades (with little success) to develop pre-pressing treatments to circumvent it. It is also the great drawback of white spruce as a Christmas tree. Even if the tree is kept watered over the holidays, by the time it is hauled out to the curb, it will have left behind a vacuum-resistant scattering of needles.

James Eckenwalder



End view of twig with arrangement of needles and three horizontally placed winter buds at the tip.  
Photo: Ron Dengler

## JUNIOR NATURALISTS

### Trees, Carbon, Fungi and Salmon

More than 20 TFN Juniors and their parents gathered at Morningside Park on October 16 for our second in-person event this fall. We had a wonderful 'campsite' at the edge of a wooded area on the bank of Highland Creek. The woods were full of native trees such as sugar maple, birch and hemlock, and lots of snags and fallen logs. Some native understory plants including blue-stemmed goldenrod were also to be found.



After our Land Acknowledgement and introduction of our fungi expert, Andrew White, we played the game 'Me to Tree.' Kids worked in pairs (siblings or car-mates for COVID reasons). One person was blindfolded and their partner spun them in a circle, then led them in a circuitous path to a tree. The blindfolded person felt the tree to determine its width and the texture of its bark. They were then led back to the starting point by a different route. Once the mask was removed, the person was challenged to guess which tree they had examined. Then the partner got a chance to play. This game created an opportunity to use touch as well as sight to examine a tree.

Using the Bee Tree Pocket Tree ID (which each person got to take home), we identified our trees and measured their diameter with the ruler provided. We then used a Carbon Sequestering Estimator (compliments of Jim Purvis), to determine how much carbon this particular tree

would sequester in a year. Jim also told us the kilograms of carbon emissions from our family automobile for one year. We did the calculation and found out it would take in the range of twenty 9-inch trees to neutralize those emissions.

We turned to fungi for the second half of our program. Nature had co-operated with 48 hours of rain preceding our event. The fruiting bodies of fungi love rain! The rain let up for the duration of our event but started again as we were leaving the



park. Perfect timing! We learned to recognize the parts of various fungi (gills, teeth, pores, caps, stalks, cups and rings) using a picnic

table display provided by Andrew White. Then we hit the woods for our own 'treasure hunt.' And wow, did we find lots of cool stuff! The largest gill mushroom we found was *Lacteus deliciosus* - a mango-colored mushroom growing on the ground with orange juice inside. We found many shelf fungi on the fallen logs, including artists' conk; also sac fungi and jelly fungi.



Vanessa McMMain, who provided photos for this write-up, also sent each family home with the materials to do a spore print. Thanks, Vanessa.

Anne Purvis

### UPCOMING JUNIOR FIELD NATURALISTS PROGRAMS

Saturdays from 10 am to 12 noon

Dec 4: Birding at Ontario Place with Zunaid Khan, Andrew Interisano, Vanessa and Marina

Jan 15: Winter adventures at Tommy Thompson Park searching for animal tracks and traces, tall native grasses and winter birds

To pre-register, and to learn about COVID precautions for in-person programs, email Anne Purvis at [juniortfn@torontofieldnaturalists.org](mailto:juniortfn@torontofieldnaturalists.org)

EXTRACTS FROM OUTINGS LEADERS' REPORTS *continued from page 6***Ashbridge's Bay Park, Oct 14. Leader: Bob Kortright.**

We noted invasive non-native plants that Toronto Nature Stewards are trying to control (garlic mustard, dog-strangling vine, Japanese knotweed, European buckthorn, Norway maple, burdock and hedge parsley) and some, such as spindle-tree, that the stewards are not yet approved to control. We spotted thrushes (Veery and Swainson's), White-throated and White-crowned Sparrows, Golden-crowned and Ruby-crowned Kinglets, Winter Wren, Magnolia, Cape May, and many Yellow-rumped (Myrtle) Warblers. We saw many fungi including dead man's fingers, *Pholiota squarrosoides*, *Amanita*, *Agaricus*, *Coprinus* (Mica cap), and *Suillus americanus* (white pine/chicken fat bolete).

**Humber Heritage: 67th Anniversary of Hurricane Hazel, Oct 16. Leader: Madeleine McDowell.** We had a delightful visit with two mounted police near the Old Mill, immediately drawing a group of six-year-olds to pet the horses. The walk was demonstrably Accessible, the leader with a wheelchair and cane. The road along the west bank of the Humber between Old Mill Road and Dundas is currently closed to traffic for sewer main construction and retaining wall restoration. It was wonderful to wander in nature without "car" constantly being called. There has been talk of closing the road for snake migration periods,

since Fisher's Mill Ruins are a major hibernaculum and snakes get killed by cars, but this has not happened.

Cormorants, egrets, gulls, and a Black-crowned Night-Heron seemed happy with the fishing. The river was high and roaring, so we saw no salmon leaping, but there were many Mallards, some of the young males beautiful in full plumage chasing each other. The Manitoba maples are producing massive numbers of keys. Wild grapes are unfortunately overwhelming many of the oaks and maples. Clusters of asters were blooming and some goldenrod. The walk ended at the Wildflower Specimen Garden at Lambton House.



American Kestrel at Lynde Shores. Photo: Maritza Lupovici



At Old Mill Bridge on the Humber. Photo: Ann Heber

**Lynde Shores Conservation Area, Oct 20. Leader: Stephen Kamnitzer.** We saw 25 species of birds including Red-winged Blackbird, Blue Jay, Cedar Waxwing, Black-capped Chickadee, American Crow, Mourning Dove, American Kestrel, White-breasted Nuthatch, Common Raven, American Robin, Ruby-crowned Kinglet, Greater Yellowlegs, White-crowned and White-throated Sparrows, Downy Woodpecker, Northern Harrier, Turkey Vulture, Great Blue Heron and six species of waterfowl: Gadwall, Mallard, Green-winged Teal, American Wigeon, Trumpeter Swans and Mute Swans. We noted nodding beggar-ticks and water horehound, and spotted a large yellow underwing caterpillar.

**Milne Hollow, Charles Sauriol Conservation Area, Oct 28. Leader: Emily Heidendahl.** We learned about a long history of land use at Milne Hollow that included a woolen mill, sawmill, ski hill, and more recently large scale ecological restoration. Community Stewardship Program volunteers have successfully managed this site for over 20 years, removing invasive plants and contributing to overall ecological health and biodiversity.

## WEATHER (THIS TIME LAST YEAR)

### December 2020

The year ended with an unremarkable December, except that there was quite a bit of snow.

Temperatures fluctuated within a relatively narrow amplitude between  $-10^{\circ}$  and  $+10^{\circ}$ , and the mean monthly temperature of  $0.8^{\circ}$  downtown and  $-0.3^{\circ}$  at Pearson Airport also reflected this. These values are about one degree above the 30-year average but almost the same as in 2018 and 2019. The warmest weather occurred on the 11th and 24th, while the coldest was on the 17th-19th.

Snowfall was frequent, and notably fell on Christmas Eve as a cold front eased in, bringing a white Christmas for the pandemic-bound Toronto. Monthly snowfall totals were 34.6 cm at Pearson, about 10 cm above average. This brought the 2020-2021 snow season off to a vigorous start, the highest for up to the end of December since 2008. Total precipitation was also slightly above average, with 59.3 mm downtown and 64.0 mm at Pearson.

### Year in Review

The year 2020 was on the warm side, with near normal precipitation. Chilly weather for parts of the spring and early fall was nowhere near enough to offset the mild winter, hot mid-summer, and warm spell in November. The annual mean temperature at Pearson was  $9.7^{\circ}$  and downtown was  $10.5^{\circ}$ . At both stations, this ranks as the fourth warmest year on record. (2012, 1998, and 2016

were warmer.) Total precipitation was 822.3 mm downtown (average is 809.9 mm), and 760.8 mm at Pearson (average is 790.5 mm).

### January 2021

January was a quiet, dry month overall. It really didn't offer much of anything to grab one's notice, except that it was persistently cloudy and somewhat mild for the first two thirds of the month. A subtle pattern change brought brighter and seasonably cold weather after the 21st.

Monthly mean temperatures were about  $2^{\circ}$  above the long-term average and were slightly cooler than the previous year. The mean was  $-1.4^{\circ}$  downtown and  $-2.7^{\circ}$  at Pearson Airport. But what was more remarkable was the very low amplitude. The difference between average daily maximum and minimum temperatures was only  $4.6^{\circ}$  downtown. And the monthly range was from a high of  $5.6^{\circ}$  (both downtown and at Pearson on the 15th) and a low of  $-16.0^{\circ}$  (at the Environment Canada office near Steeles and Dufferin). So, there were no -20s to be seen.

Precipitation was light: just 32.2 mm downtown and 31.2 mm at Pearson. The latter included 20.0 cm of snow (normal is 29.0 cm). There was only one real snowfall, on the 26th, as storms mostly stayed south of the Great Lakes. Snow cover was patchy and only really evident from the 26th-31st. It was the driest January since 2010.

Gavin Miller

### LECTURE REPORT *continued from page 5*

While we celebrate and protect the park's distinctive wildlife and ecology, we will explore ways to re-naturalize that don't bar access to broader areas of the park. As Lori says, "It's about balance." The Master Plan will also provide guidance to ongoing parallel projects and align them to reflect its goals.

**Janette Harvey** manages projects that engage communities and individuals in the protection and restoration of areas in Toronto parks. Her current projects on the Island align beautifully with the Master Plan. Janette, a self-confessed dune-lover, has formalized a partnership with Fleming College's Ecosystem Management Program, working on restoration projects and beach stewardship at Hanlan's Point. She is also involved with providing sustainable access to the beaches through the ESAs and working on the Gibraltar Point Erosion Control Beach Restoration Project.

In summary, trying to strike a balance between the human use of nature in a congested city and habitats for rare flora and fauna is challenging. TFN is an active member of the Community Advisory Committee for the Master Plan and continues to provide input.

Lori announced a forum on *Belonging* on December 9, 2021, and an environmental forum will be held in the spring.

To celebrate your connection with and love for the Islands, submit your stories and photos to <https://tfngo.to/islandstories>

You can access the recorded lecture at: <https://tfngo.to/nov2021lecture>

Nicola Lawrence

Resource: Steve Varga, *Toronto Island: plant communities and noteworthy species*, TFN, 1987, available from the TFN office.

BIODIVERSITY *continued from page 4*

Two deviations especially stand out for me. At the northern border of the province, the maritime tundra zone (except for the bitterly cold and bleak land around Cape Henrietta Maria in the northeastern corner) maintains an unexpectedly large number of species. This can be attributed to a significant southward extension to the distributions of some dwarf shrubs normally characteristic of the arctic tundra in this coldest region of the province.

The other anomaly is the unexpected reduction in species numbers at the western edge of the province along its border with Manitoba. This is most pronounced in the northwest but is also evident with the dip of the 25% isoline compared to its position at James Bay. This westward decline in diversity might reflect the province-

wide east-west decrease in precipitation and soil moisture that crosscuts the more dominant temperature gradient. This moisture-related anomaly may not show up in the trees and lianas because their species numbers are already greatly reduced in this part of the province, with just 10 or fewer tree species and 3 or fewer lianas compared to a minimum of 27 species of shrubs in their least diverse grid block.

So, although trees, lianas, and shrubs are all woody plants, their differences in stature, structure, and accompanying environmental tolerances and characteristics lead to differences in the details of their diversity patterns within the broader global northward decline.

James Eckenwalder

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### NEWSLETTER

*Toronto Field Naturalist* (ISSN 0820-636X) is printed on 100% recycled paper. Printing & mailing: Digital Edge Printing & Media Services.

Views expressed in the newsletter are not necessarily those of the editor or Toronto Field Naturalists.

Members are encouraged to contribute letters, short articles and digital images. Please email to: [newsletter@torontofieldnaturalists.org](mailto:newsletter@torontofieldnaturalists.org)

**Submissions deadline for Feb issue, Jan 5**

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

## KEEPING IN TOUCH

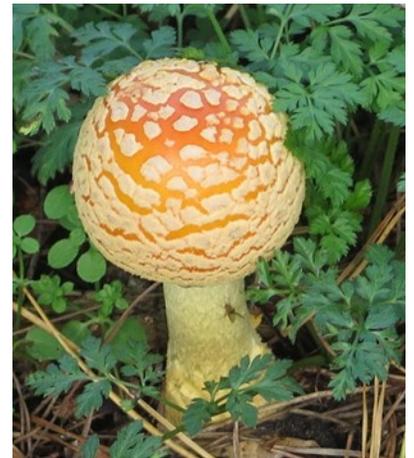
Now that bird migration is pretty much over and most butterflies have gone, it's into the woods to poke around and see what the cooler damper days have gifted us – an outstanding display of mushrooms, slime molds and other magical mysterious creations bursting forth from old logs, damp ground, tree notches and the like.

Some that have shown themselves recently in the local ravine and nearby woodlot include mazegills (my new favorite word), polypores, saddles, shelves, turkey tails, oysters, honey and velvet foot. Every one is marvellous!



I have identified a couple of them with a lot of help and effort, but most will remain mysteries, and that isn't a bad thing. I have decided that I'm happy just coming across these beautiful things, taking the photos and enjoying the 'spot of joy.'

Lynn Pady



I have been delighted by the vast array of fungi seen in High Park and environs this summer and fall – much more prevalent than in previous years. I find them whimsical and enchanting, popping up briefly in unexpected places. Like Lynn, I find it a challenge to identify them, and am content just to enjoy them.

I was particularly attracted to *Amanita muscaria*, common name "fly agaric" (right hand photo). According to Wikipedia, "The name is supposedly derived from the mushrooms' ability to attract and kill flies. ... Accounts of its fly killing success vary however; some say it just makes flies buzz around like they're drunk." Whatever the truth, I was intrigued to notice the presence of a fly in my photo.

Wendy Rothwell

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**TFN LECTURE**

Sunday, December 5 at 2:30 pm

See page 3 for information about lectures via Zoom

**All about Ontario's Piping Plovers,  
and is Hanlan's Point the place for them?**



Speaker: Andrea Gress,  
Coordinator of Birds Canada's  
Ontario Piping Plover Program.



Photo: Mark Peck