

TORONTO FIELD NATURALIST

Number 648 December 2019



Blanding's turtles. Photo Lynn Pady. (See page 15)

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PRESIDENT'S REPORT

Over the last few years, a steady stream of municipal strategy documents, coupled with a boom in grassroots stewardship, citizen science and other environmental initiatives, have heralded a growing effort to protect and enhance what remains of Toronto's wilds. The keyword here, however, is "remains." Toronto's rise has come at the expense of some 90% of its historic woodlands and an even greater relative volume of wetlands, savannas, and shrubland. At present, it is estimated that a scant 4% of this city can still be classified as ecologically significant.

Efforts to conserve our natural heritage are both commendable and absolutely essential. They are also, dare I say, wholly inadequate. As someone who has spent nearly a decade intimately involved with Toronto's stewardship community, not a second of which I would consider wasted time, I feel entitled to describe our current trajectory as ecological triage at best. We are merely trying to stanch the bleeding until the ambulance arrives. But the cuts are simply too deep for conservation alone to heal the wounds. We need to expand the borders and interconnectivity of Toronto's wilds if we are truly going to protect our natural heritage.

In an urban context, the very concept of wilderness differs from its most authentic definition. Yet even from this perspective, the need to expand nature's territory is undeniable. Several years ago the City set out to increase overall tree canopy cover to 40%. It was understood that public lands alone would be insufficient to meet this goal, so a variety of efforts have been deployed to try to recruit private lands into the fold. The City's booklet, *A Property Owner's Guide to Healthy Ravines*, is one such stimulant.

By all accounts, however, private land is no magic bullet. Provisioning the so-called green infrastructure requirements that our urbanity demands will require investments of new public lands.

Those of you who were able to attend our monthly lecture on September 8 benefitted from ecologist Chris Cormack's intimate exploration of one of the more promising initiatives to expand Toronto's wilds: The Meadoway. The successful restoration process that summoned the Scarborough Butterfly Trail into existence is a proof-of-concept that the outstanding ecological potential of places like the Gatineau Hydro Corridor may soon be unlocked. The Meadoway is expected to extend from the Don Valley to Rouge National Urban Park within the next 10 years, providing not just wildflowers and meadow habitat but an east-west bio-corridor unlike any other in the city.

As TFN enters its brief winter hibernation, the question of how to encourage creation of new natural spaces will occupy the thoughts of the Board and various committees. The answers to this question speak not only to protecting Toronto's natural heritage but quite directly to our most important mandate: connecting people with nature. Introducing Torontonians to cliff swallows and red oaks is but a facet of this imperative. Our ability to immerse ourselves in the very soul of our natural world – succession, regeneration, resilience, migration – is key to fanning the flames of passion for nature. And for TFN there can be no higher calling.

Jason Ramsay-Brown president@torontofieldnaturalists.org

WHAT'S NEW ON TFN'S WEBSITE

Discover all this and more at https://torontofieldnaturalists.org/for-members/

Ontario Place – a place for nature?

.TFN: The War Years

Plus: Notes from our latest Junior Naturalists events, opportunities to Take Action, and much more.

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

TFN events, conducted by unpaid volunteers, go rain or shine. Visitors and children accompanied by an adult are welcome. No pets please. TFN assumes no responsibility for injuries sustained by anyone participating in our activities. Please thoroughly clean your footwear before each outing to avoid spreading invasive seeds.

The Toronto Field Naturalists wish to acknowledge this land through which we walk. For thousands of years it has been the traditional land of the Wendat, the Seneca, and most recently, the Mississauga of the Credit River. Today it is still home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to be on this land.

If you are viewing online, consider printing this page for your convenience.

Tues Dec 3 10:00 am	COLONEL SAMUEL SMITH PARK – Birds Leader: Anne Powell. Meet at Lake Shore Blvd W and Kipling Ave for a 2-hr circular walk on mostly paved surfaces to view winter waterfowl. Bring binoculars. Washrooms at beginning of walk.
Sat Dec 7 10:00 am	HASTINGS CREEK AND THE DEVIL'S HOLLOW – A Lost River Leader: Linda McCaffrey. Meet at Greenwood subway station for a mostly downhill walk along the course of Hastings Creek to Maple Cottage on Laing St just south of Queen St E. About 2 hrs on mostly paved surfaces. Tales of death, ghostly mists and violence will be told. A popular myth will be debunked. Return to the subway by bus or take the Queen streetcar.
Wed Dec 11 10:00 am	GUILD INN ESTATE, SCARBOROUGH BLUFFS – Plants in Winter Leader: Miles Hearn. Meet in front of the Guild Inn, 201 Guildwood Pkwy, for a circular walk that may involve some steep but well-maintained paths. TTC bus #116 Morningside East from Kennedy subway station.
Sat Dec 14 9:00 am	WATERFRONT TRAIL – Photo Walk Leader: Zunaid Khan. Meet at the boardwalk between Queen's Quay Terminal and the lake for a walk on mostly flat paved surfaces with some stairs. This walk to Ontario Place will focus on ducks that spend the winter here. Photographers of all skill levels are welcome. I would like this to be a collaborative experience. Be sure to dress warmly and wear comfortable winter or hiking boots. Washrooms in Queens Quay Terminal and Ontario Place.
Tues Dec 17 10:00 am	HUMBER BAY PARK EAST – Birds Leader: Anne Powell. Meet at the southwest corner of Lake Shore Blvd W and Park Lawn Rd for a 2-hr circular walk to enjoy Toronto's waterfowl. Mostly unpaved trails but fairly flat even surfaces. Bring binoculars. No washrooms.
Sat Dec 21 10:00 am	ASHBRIDGES BAY – Birds, Trees and Effluvia Leader: Bob Kortright. Meet at the southwest corner of Coxwell Ave and Lake Shore Blvd E for a walk around the perimeter of Ashbridges Bay Park, past Coatsworth Cut, viewing ducks and gulls against the backdrop of Toronto's main sewage treatment plant. Mostly paved surfaces, flat with some gentle slopes, ending at Tim Hortons by the Woodbine bus loop where there are washrooms. Bring binoculars. Check the forecast for Toronto Island. It is windier along the lakeshore.
Thurs Dec 26 1:00 pm	LOWER DON VALLEY – Nature Walk Leader: Margaret McRae. Meet at the southwest corner of Broadview Ave. and Pottery Rd for a walk through Todmorden Mills Wildflower Preserve and along the Don River ending at Beechwood Dr and O'Connor Dr.
Sat Dec 28 11:15 am	TORONTO ISLANDS – Nature and Heritage Leader: Paul Overy. Meet at the Ward's Island ferry gate at the ferry terminal at the foot of Bay St in time for the 11:30 ferry to Ward's Island for a circular walk on mostly paved surfaces, flat with some gentle slopes. We will

where the best birds are. Bring binoculars and dress warmly. Washrooms at the end.

Sat

Jan 4

10:00 am

HUMBER BAY PARK – Winter Birds

explore some of the rich material and human history of Ward's and Algonquin Islands with the bonus of winter quiet and possibly snow. Bring a snack and water. There should be washrooms at the ferry terminal and along the way.

Leader: Bob Kortright. Meet at the bus loop on Marine Parade Dr, 20 metres southeast of Lake Shore Blvd W for a

circular walk on mostly paved surfaces, flat with some gentle slopes. Route will be determined by the weather and

***************************************	FOR ENJOYMENT OF WINTER OUTINGS				
	Long underwear	Warm hat	TTC Ríde Guíde		
	Layered clothing	Míttens over gloves	Snack		
	Waterproof boots	Bínoculars	Thermos for hot drink		
	Thíck socks	Icers to prevent falls	Sunglasses		

Wed ALLAN GARDENS CONSERVATORY – Botany

Jan 8
10:00 am

Leader: Nancy Dengler. Meet inside the main entrance of the conservatory (facing Sherbourne St) for a walk through the greenhouse plant collection. We will focus on plant adaptations to hot desert and moist rainforest conditions, and identify some of the tropical and sub-tropical relatives of our native Ontario plants. Washrooms available.

Sat CHORLEY PARK AND PARK DRIVE RAVINE – Plants

Jan 11
Leader: Stephen Smith. Meet at the corner of Glen Rd and Douglas Dr (near Standish Ave). Rosedale bus provides access. Walk will end at South Dr and Glen Rd. We'll look at recent projects carried out in the area and learn about plant identification in winter. If desired you can drop out at Evergreen Brick Works and take the free shuttle to TTC. Wear footwear for icy trails. Some moderate slopes.

Wed UNIVERSITY OF TORONTO PLANT GROWTH FACILITIES – Plants

Jan 15 Leaders: Bill Cole and Thomas Gludovacz. Meet at the Earth Sciences Bldg, 33 Willcocks St, and take the elevator to the 5th floor (labelled PH) for a tour of teaching plant collections and some of the research greenhouses. Dress in layers for tropical-to-temperate conditions. Washrooms available.

Sat TAYLOR CREEK PARK – Birds

Jan 18 **Leader: Glen Hamilton.** Meet at the north entrance of Victoria Park subway station for a 3-hr circular walk. Bring binoculars.

Sun ICE WALK AT EVERGREEN BRICK WORKS – Lost Rivers

Jan 19
2:00 pm

Leaders: Floyd Ruskin, John Wilson and Ed Freeman. Meet at the Watershed Wall, Evergreen Brick Works. A seasonal walk inspired by our frozen winter waterways. We will learn about the Ice Ages that shaped the geology of the Don Valley Brick Works, consider the life of the frozen creeks and ponds in the Weston Quarry Garden, and visit Evergreen's skating trail sharing warm midwinter reminiscences. A circular walk on surfaces chosen in light of the conditions we encounter. A joint outing with Toronto Green Community.

Tues LOWER DON VALLEY TRAIL (RIVERDALE TO BRICK WORKS) – Nature Walk

Jan 21
10:00 am

Leader: Vivienne Denton. Meet at Broadview subway station for a circular walk, mostly on paved, flat surfaces with stairs and some gentle slopes. We will walk up the Don River trail, from the footbridge at Riverdale Park checking out winter wildlife, possibly visit Todmorden Mills and end at the Brick Works where we can have coffee before taking the free bus back to Broadview subway station. Washrooms at Brick Works.

Sat LESLIE STREET SPIT – Nature Walk

Jan 25
Leader: Charles Bruce-Thompson. Meet at the park entrance (Leslie St and Unwin Ave) for a circular walk at least as far as the bridge (about 3 hrs). You can drop out at any point and head back along the road to the entrance.

Washrooms and parking available. Bring binoculars and lunch if you intend to stay for the entire walk. Take #83 bus from Donlands subway station to Commissioners St and Leslie St. Flat surfaces. Some narrow footpaths.

Thurs TORONTO ISLANDS – Birds

Jan 30 **Leader: Anne Powell.** Meet at Jack Layton ferry terminal at the foot of Bay St for a 2-hr circular walk on Ward's and 9:45 am Algonquin Islands viewing winter waterfowl. Mostly paved, fairly flat surfaces. Washrooms at beginning. We will take the 10 am ferry and return at 11:45 am. Buy ferry tickets online for faster service.

Snowshoeing Walk

We may hold a snowshoeing walk this winter on short notice when snow conditions are right. Please contact Margaret McRae, 416-429-7821 or marg.mcrae@gmail.com, if you would like to be contacted about the walk and also if you are interested in leading or co-leading it.

LECTURE REPORT

Canada Jay: Implications of climate change on a food-caching species

November 3, 2019

Ryan Norris, Associate Professor, Department of Integrated Biology, University of Guelph and the Weston Family Senior Scientist at the Nature Conservancy of Canada.

Ryan Norris delivered an insightful presentation about the impact of climate change on the behaviour and ecology of the Canada Jay. Since 2009 he and his graduate students

have been collaborating with Dan Strickland, former Chief Park Naturalist for Algonquin Park, on Canada Jay research in the park. Over the past two decades the Algonquin population of Canada Jays has declined more than 50%. The team has been examining hypotheses for the causes of this decline, including how long-term changes in the climate may be influencing the quality and quantity of cached food.

Canada Jays, year-round residents of the boreal forest, rely on cached food for survival during winter. From

mid-August to December, they cache small quantities of perishable food in tiny spaces under the bark of many trees scattered throughout their wide territory. They have a higher survival rate in winter than in summer, because they are free of predators then and have an abundance of cached food. Their breeding period is much earlier than that of most birds, starting in mid-February. They lay eggs from early March to late April, so females are dealing with sub-zero temperatures during incubation. Females ramp up their weight prior to egg laying, relying on cached food. By experimentally supplementing their food, the researchers determined that supplemented birds laid around nine days earlier and had larger brood sizes. A similar positive effect was observed in areas where visitors to the park were feeding the jays.

One pattern they noticed early in their research was a higher rate of population decline in areas with fewer conifers. By simulating caches in various tree species, they discovered that conifers, in particular black spruce, and white and red pine, tend to preserve food better than other trees.

To determine whether food quality is affected by warmer temperatures in the fall when it is being cached, they simulated caches in Algonquin Park, Guelph and Cochrane, and tested food over different periods for weight and caloric loss. As might be expected, Cochrane preserved food better but, surprisingly, there was little difference between Guelph and Algonquin. They then broadened their thinking to consider climate variables other than mean temperature. Based on information gleaned from food science literature, they decided to test

the impact of freeze/thaw events. Experiments revealed that the cumulative effect of freeze/thaw events was the best predictor of the proportion of mass remaining in each item.

This led to the ultimate question: Is this affecting reproductive success and survival, and ultimately the growth or decline of the Canada Jay population? Further research revealed that the frequency of freeze/thaw events did impact reproductive success, brood size and whether a pair successfully fledged young. This was more pronounced in late nesters. By putting all their findings into a single model, they

determined that fecundity (reproductive success) is the most significant factor in population growth. And fecundity is being influenced by things happening during the fall caching period, particularly temperatures and freeze/thaw events, and also by climate variables during the pre-breeding period in January and February. When they put this all together and looked at the relative contribution of these environmental drivers, it was confirmed that fall freeze/thaw events are the biggest driver of fecundity, and fecundity is the biggest driver of population growth.

Through this research, they have gained a better understanding of what happens to Canada Jays throughout their annual cycle. This is one of few studies to identify a climate-based mechanism driving population abundance.



BUTTERNUT TREE PLANTING AT JIM BAILLIE NATURE RESERVE

The butternut tree, *Juglans cinerea*, is a medium-sized native tree that can reach up to 30 m in height. It belongs to the walnut family and produces edible nuts in the fall. It is also an endangered species. Its numbers have been decimated by butternut canker, a fungal disease first noticed in the late 1960s that has already had a devastating impact on North American butternut populations. This fungus, which probably originated in Asia, can spread quickly, infecting and killing healthy butternut trees of any size or age in a few years.

So it was a pleasant surprise when TFN President Jason Ramsay-Brown noticed that butternuts were among the trees included in the Jim Baillie Nature Reserve (JBNR) species list in The Guide to the Toronto Field Naturalists' Nature Reserves. Unfortunately. the list didn't mention where they might be found or when they were last seen. We had never noticed any during our regular trips to the reserve, so Jason and I undertook a thorough search of the reserve in April. We couldn't find a single example.

Undaunted, Jason proposed reintroducing butternuts to the reserve. These had to be certified as genetically sound. Many healthy butternut trees found in Ontario and elsewhere have turned out to be hybrids with the Japanese walnut, commonly known as heartnuts, which were introduced in the late 1800s and readily hybridize with the native butternut. We found a local supplier, Paul Heydon of Grow Wild! Native Plant Nursery in Omemee, who could supply saplings with the right genetics, and we ordered a dozen for delivery to the reserve. Thanks are due to TFN member Steve Smith for recommending Paul's services.

We had previously scouted out locations on the reserve that conformed to the trees' preferred growing conditions: in deciduous forest with moist, well-drained soil in a sunny location and near the forest edge. We found areas close to the shelter that answered all these requirements. An added advantage was that we found a water source close by. We were very fortunate to have a very helpful and cooperative neighbour, Isaac Robinson, who allowed us to have the saplings, along with mulch and black earth, delivered onto his property, which shares a boundary with the west side of the reserve only a few metres from the selected planting area. This saved a significant amount of physical drudgery! On Wednesday, October 9 a party of TFN volunteers met at the reserve to plant the waiting saplings. We had them all – 13 as it turned out – planted, mulched and watered by lunchtime on a pleasantly warm

and sunny morning.

Left to right: James Young (member North Durham Field Naturalists); TFN members: Donata Frank, Pat Gerrie, Bob Bose, Cynthia David, Laura Hunter, Charles Bruce-Thompson.

Photo by Jason Ramsay-Brown

In addition to reintroducing the endangered butternut to the JBNR, there may be another benefit. The area where we planted the trees is infested with dog-strangling vine (DSV). Our hope is that the chemical juglone, produced by the roots of both black walnuts and butternuts, will eventually eradicate DSV in the area. Jason recorded the GPS coordinates of all the plantings so we'll be able to locate them when we

return to check on their progress. We are reasonably optimistic about their long-term prospects. Since there are no other butternut trees anywhere in the area, our plantings may be protected from the butternut canker by physical isolation from affected populations.

I hope that in future years we can return to chart the progress of our butternut grove and eventually gather butternuts to germinate and disseminate! Many thanks to all our willing volunteers for their time, energy and excellent company.

Charles Bruce-Thompson

Addendum: In the reserve I noticed a touching anonymous floral tribute placed by the memorial plaque on the rock pile near the shelter where Jim Baillie's ashes were scattered in 1996.

TORONTO VINES: CURARE AND GRAPE FAMILIES

The Curare or moonseed family (Menispermaceae) includes, according to Flowering Plant Families of the World (V. H. Heywood, R. K. Brummitt, A. A. Culham, and O. Seberg, 2007 ed.), about 70 genera and 420 species, predominantly lianas of tropical lowlands. The type genus, Menispermum, includes species widespread from Atlantic North America to eastern Asia. Two tropical species, of other genera, Chondrodendron tomentosum and Sciadotenia toxifera, are sources of curare, used by South American indigenous peoples as an arrow and blowpipe poison. This neurotoxin causes paralysis of motor nerves and is now used as a muscle relaxant during surgery and in treatment of some neurological conditions.

The species of the Curare family present but locally rare in Toronto is *Menispermum canadense* (Canada moonseed). The name moonseed comes from its crescent moonshaped seed. This vine, which lacks tendrils, grows to about 6 m long. Its large broad leaves are usually three-lobed but may be entire. Whitish flowers bloom in early to mid-summer. Plants have either all male or all female flowers, about 5 mm across, that grow in loose clusters from leaf axils.

The TFN's Vascular Plants of Metropolitan Toronto (1994, 2nd ed.) recorded it in parts of the Humber, Don and Rouge watersheds. I saw it, in the Rouge valley, in a thicket close to a forested area. The preferred habitat, stated in Newcomb's Wildflower Guide (1977), is rich woods and thickets. Newcomb's, although outdated, is still the most comprehensive field guide available for eastern North America for this species. The United States

Department of Agriculture (USDA) Plants Database reports that Canada moonseed's total range in Canada is from Manitoba to Quebec. It includes most of the eastern half of the U.S.

WARNING: All parts of this species are poisonous, the principal toxin being the alkaloid dauricine (USDA). Despite its toxicity, moonseed was used (very cautiously?) as a laxative and as a venereal treatment by the Cherokee. The Lenape made a salve from its roots, used for sores on the skin.

Vitis riparia (riverbank grape), a member of the Vitaceae family, is widespread in Toronto and throughout North America. Its vines, up to several metres long, have tendrils, unlike those of Canada moonseed. Its tiny green flowers have conspicuous stamens. As noted by Newcomb, its leaves are sharply three-lobed, similar enough to those of Canada moonseed that the two species could be misidentified. Its fruit (grapes), small and bluish black, is sweet after a frost. Most wines and grapes come from cultivars of the species V. vinifera, although some wines are produced from other species or hybrids.

The distinguishing features between the local grape and moonseed are the presence or absence of tendrils and, at the fruiting stage, moonseed's crescent moon-shaped seed. Look closely at your "wild grapes" before eating them; this is not recommended in any case in the GTA.

Occurrences of moonseed in Toronto should be noted and reported to the TFN.

Article and photos by Peter Money







Canada moonseed (Menispermum canadense)

Riverbank grape (Vitis riparia)

4th Annual Urban Ravine Symposium

Good news! If you were not able to attend this event at Toronto Botanical Garden on October 10th, you can view and hear the presentations at: https://torontobotanicalgarden.ca/learn/adult/symposium-2/

TREE OF THE MONTH: CUCUMBER-TREE (Magnolia acuminata)

While many magnolia trees and shrubs grace the spring landscape of Toronto, few of these are cucumber-trees, the only magnolia species native to Ontario. Unlike its showy cultivated Asiatic brethren that flower early on their naked winter branches, cucumber-tree produces flowers with the leaves. Although the flowers are large, with six externally greyish, waxy-coated (glaucous) upright tepals up to 8 cm long, their greenish-yellow colour makes them recede visually into the fresh young foliage. Because of the yellow xanthophyll pigments found in its flowers, cucumber-tree has been used in horticultural breeding programs, introducing yellow into an otherwise strictly white-, pink-, and purple-coloured clan. The stunning, yellow-flowered cultivar 'Elizabeth' is one product of these programs.

Like other magnolias, the flowers are beetle-pollinated, the fleshy tepals and stamen stalks (filaments) providing food for these chewing insects while they are held inside the flowers overnight and dusted with heavy pollen. Their strong jaws make beetles more challenging pollination partners than nectar drinking and/or pollen gathering moths, butterflies, bees and flies. But they were the only insect pollinators around in the early Cretaceous when magnolias were getting underway among the early flowering plants, and the trees appear to have largely kept their allegiance to beetles for the past 100 million years.

The fruits are large and cone-like (perhaps "cucumbers" simply because they are green to start, fat and cylindrical). Each single or pair of seeds is housed in a separate follicle (an individual ovary that splits along a single line) – the same fruit type as a peony. Up to 60 of these are stacked in a tight spiral to complete the follicetum. This is one type of aggregate fruit, a term that encompasses fruits with many separate individual ovaries in a single flower. Other examples are the samaracetum of tulip-tree (profiled in the October 2018 newsletter) with its numerous winged, one-seeded segments, and the drupicetum of a raspberry, each drupelet like a miniature cherry.

Leaves of cucumber-tree are among our largest, those of mature trees being up to 25 cm long, though leaves on vigorous sprouts can reach 40 cm. Our only native trees whose normal leaves can be (a little) larger are pawpaw (Asimina triloba), American chestnut (Castanea dentata) and bur oak (Quercus macrocarpa), though outsized sucker leaves of many other species can also exceed 25 cm. The leaves of black-gum (Nyssa sylvatica) are similar in shape to those of cucumber-tree (though thicker in texture), and also share its uncommon (for us) toothless margins, but

Continued on next page











- 1. Fuzzy flower bud and ringing stipule scar.
- 2. Greenish flowers with waxy tepal exteriors and strobiloid sex organs, and large leaves.
- 3. Young fruit with stamen and tepal scars.
- 4. Mature fruit with protruding seeds and many undeveloped carpels.

Photos by Ron Dengler.

5. Beetle pollination in sweetbay magnolia (*M. virginiana*) showing the falling stamens and discoloration by pollen.

Photo by James Eckenwalker.

VOLUNTEER PROFILE: KRISTINA JACKSON

Kristina Jackson moved to Toronto from Florida where she worked as a biologist for the state studying cypress swamps. Growing up near the Everglades, she was fascinated by the diversity of wildlife around her and always knew she would end up working in the

environmental sciences. Over time, she made a shift from technical roles into advocacy positions, such as her current work with Sierra Club Canada Foundation. "As much as I love working in the field, I feel that organizations doing advocacy work are necessary," she says. "You can't take nature for granted; it's not protected unless you have good policy in place."

After moving to Toronto, Kristina found the TFN while searching for guided walks to learn more about the species that call this city home.

"Understanding nature around me is really important to me for my sense of place." Having attended TFN events since 2010, Kristina was looking to get more involved with the organization. When the Cottonwood Flats Monitoring Project (CFMP) began in 2017, Kristina jumped at the opportunity and has been an ambassador for the program ever since.

Each year, two vegetation surveys and six site monitoring surveys are conducted as part of the CFMP to collect data on plant and animal biodiversity at the restored site. As ambassador, Kristina is on site during most of the monitoring sessions to interact with the public and inform

them about the project. "For some of the people who come through the area, this is really their backyard. They love it and they value it, and they want to talk about their park and learn more about what's going on there."



space from trampling and off-leash dogs. Kristina says, "When visitors can see the restoration vision for the area, some of them have these 'aha' moments." She has seen people put their dogs on a leash after learning about the project and that adventurous dogs can disrupt these efforts.

Kristina encourages members of the TFN to get involved with the organization: "You might think that, because you're not really great at identifying birds or plants, you don't have something to offer the TFN. But that's not true at all. There are a lot of other things TFN works on that you can help with."

Agneta Szabo

TREE OF THE MONTH continued

they are only half the length and width. As with tulip-tree (*Liriodendron tulipifera*), the leaves of cucumber-tree have quickly-falling (caducous) fused stipules that leave a thin ring-scar completely encircling the twig, a rare trait otherwise found only in plane-trees like eastern sycamore (*Platanus occidentalis*).

If you seek out cucumber-tree in mature forests near Long Point or Niagara, don't use our familiar cultivated magnolias as a search image. It is no shrubby understory inhabitant with multiple, spreading, smooth-barked trunks. Instead, the tall straight trunks, rarely up to $2\frac{1}{2}$ m in diameter and encased in narrowly ridged and furrowed bark, place the crown squarely in the forest canopy as much as 30 m overhead.

James Eckenwalder

Archivists Needed

The TFN Archives are home to decades of walk leader reports, ravine surveys, plant and bird checklists, historic pamphlets and TFN newsletters, some 12,000+ 35-mm colour slides, and a cast of other sundry treasures.

We'll soon be kicking off an ongoing project to reorganize, index, digitize and ensure the proper preservation of these wonderful artifacts.

If you've got an eye for detail and a passion for organization, we'd love to hear from you at archives@torontofieldnaturalists.org

Your help would be appreciated.

JUNIOR NATURALISTS WINTER 2019-20 PROGRAM

All children (accompanied by an adult) are invited to join TFN Junior Naturalists for a series of themed hikes, games and activities from 10 am-12 noon on the following Saturdays. Dress warmly and bring binoculars, your curiosity and your sense of adventure. Junior Naturalists will receive an email with meet-up locations a few days prior to the event. To join, please contact juniortfn@torontofieldnaturalists.org

December 14: Come and welcome our over-wintering Arctic ducks at Humber Bay Park East.

January 11: Meet at the Ferry Docks for a trip through the ice to Ward's Island. Please bring a picnic lunch and bring binoculars to see waterfowl, and maybe mammals and owls from the ferry. We will explore Ward's Island looking for mammal tracks, scat, songbirds and winter weeds. We'll then take the boardwalk to St. Andrews-by-the-Lake Anglican Church, where we can make hot chocolate and eat our picnic lunch indoors. We plan to catch the 12:45 pm return ferry.

February 8: We will visit the Toronto Wildlife Centre where each year thousands of wild animals are rescued, rehabilitated and released. We'll meet the Centre's ambassador animals and learn about the amazing work the staff does. We will also play some games in Downsview Park.

March 7: Explore the Humber Arboretum with us. Discover the trees of the Carolinian forest – the deciduous forest of southern Ontario. Winter is a season to notice the remarkable bark and unique buds and shapes of trees. It's also maple sugaring season! Let's learn how First Nations people related to this forest and how they made maple sugar.

Acorn Dissection and Seed Hike

To learn about this exciting adventure enjoyed by Junior Naturalists on October 19th, visit: https://torontofieldnaturalists.org/notes-from-junior-naturalists-event-on-oct-19th/

NATURE IMAGES SHOW

Saturday, February 1, 2020 from 1:30 to 4 pm. Auditorium, S Walter Stewart Library

170 Memorial Park Ave at Durant Ave (one block north of Mortimer or one block south of Cosburn, 1 block west of Coxwell). Coxwell bus to Mortimer or Cosburn Avenues.

Light refreshments will be served. Members may display their nature artwork on tables for us to view during the coffee break.

Volunteers needed!

We welcome donations of goodies for the refreshment table, as well as help with setup, refreshments and cleanup.

Setup begins at 1 pm.

Please let Margaret McRae know if you can help: 416-429-7821 or marg.mcrae@gmail.com

TFN photographers!

Inspire others with your images of landscapes and biodiversity!

Rules for participating:

- · Must be a TFN member.
- Bring up to 25 digital images on a USB Flash Drive or CD.
- Bring large resolution images (minimum 1024 pixels on long edge).
- Focus on Ontario with nature subjects (plants, animals, landscapes).
- Arrive at least 15 minutes early so your images can be transferred for projection.
- Be prepared to introduce your images or provide a scripted introduction that can be read by a volunteer.

JUNIOR NATURALISTS

Benefits of Leaving Dead Trees in the Forest

Living trees are not the only essential part of a forest. Dying and dead trees are also important, helping to maintain biodiversity by providing a host of functions for other species.





Hollows in trees provide essential nesting and denning sites for birds, such as woodpeckers, wood ducks and owls, and for mammals, such as raccoons, martens and porcupines. Smaller creatures like salamanders and insects also make these trees their home.

Dead branches free from leaves provide a good vantage point for hawks and other birds of prey to perch while hunting.

Trees falling across rivers become natural bridges for wildlife to make crossings, and branches that land in the water become fish hides and sunning areas for turtles.





In addition to the trees' leaves and twigs becoming duff (a layer that helps retain water in the soil), rotting trees provide food for mushrooms, bacteria and insects.

Next time you are out walking in the woods, look for dead trees and think of the many ways they are a valuable part of the ecosystem.

By Vanessa McMain

EXTRACTS FROM OUTINGS LEADERS' REPORTS

Taylor Creek Park, Sept 21. Leader: Leila Lessem. It was a warm sunny day. We noticed lots of dogwood on the dirt trail along the river, zig-zag goldenrod, different types of asters including New England, and occasional bits of colour on the trees. We saw a monarch butterfly, heard birds which were hard to spot, and noticed bat houses.

Rouge National Urban Park, Sept 28. Leader: Charles Chaffey. Not deterred by the drizzly weather, we set out through the woods on the Orchard Trail, noting calico asters, then panicled and heart-leaved asters in the more open areas. In Little Rouge Creek, a big salmon was struggling to get upstream, apparently wedged between two rocks. Detouring into a fen guarded by flat-topped white asters, we saw a solitary fringed gentian and two orchids: nodding ladies' tresses in bloom, and Loesel's twayblade with seed capsules. But the highlight there was a praying mantis well camouflaged among the leaves.

At the wetlands by Zoo Road, we compared two kinds of beggar-ticks, one with yellow ray flowers, the other without. A leopard frog was spotted nearby. Low screened enclosures built by park staff to protect baby turtles were examined with interest. The meadow south of the viewing platform had heath and New England asters together with their hybrid amethyst aster. Some plants with opposite aromatic leaves and heads of tiny white flowers which puzzled us were eventually identified, with help from Deb Metsger of the ROM, as Virginia mountain-mint, perhaps planted in a restoration project. The weather made birds less active, but we heard calls of Blue Jays and a Belted Kingfisher. As we neared the south end of the trail on lower ground, we were distressed to see how the woods and fields have been completely taken over by dogstrangling vine.

Mushrooms, Jim Baillie Nature Reserve, Sept 29. Leader: Pat Burchell. Approximately 50 species of mushrooms and other fungi were found on the walk, only some of which could be identified to species based on field observations not verified by microscopic examination, etc. We found 19 species of gilled mushrooms, three species of boletes, 10 species of bracket fungi and eight other species of fungi.

Lynde Shores Conservation area, Oct 2. Leader: Stephen Kamnitzer. This is one of the nicest areas for a nature walk in the GTA. Despite rather gloomy weather, wildlife viewing was very good. We saw two white-tailed deer, a flock of Wild Turkeys and 22 other bird species including: Black-capped Chickadee, Mourning Dove, American Crow, Song Sparrow, Chipping Sparrow, Golden-crowned Kinglet, Northern Cardinal, Red-winged Blackbird, Eastern Phoebe, Belted Kingfisher, Eastern Towhee, Swamp Sparrow, White-breasted Nuthatch, Osprey, four Great Blue Herons, Great Egret, Gray Catbird, scaup, Mallard, Mute Swan, Black-crowned

Night Heron and Blue Jay. Especially interesting were the moss and other vegetation observed in Cranberry Marsh.

Earl Bales Park, Oct 16. Leader: Peter Heinz. We had a good walk despite constant heavy rain. The fall colours were lovely, although muted, and the sound of raindrops on the tree canopy and our umbrellas was good. We saw Canada Geese, Double-crested Cormorants and squirrels.

Crothers Woods, Oct 19. Leader: Ellen Schwartzel. Crothers Woods on a sunny fall morning can put a smile on most faces. Aspen and cottonwoods trembled gold, while oaks reddened along the hillside. Crickets competed with the background drone of the Don Valley Parkway. Our group was treated to a dazzling display of seed dispersal strategies, from bright red berries of highbush cranberry to the small bristled seed of beggar-ticks and plump acorns rolling down the trails. A red squirrel foraged under a large bitternut hickory, and several banded wooly bear caterpillars dodged cyclists on the pathways. Birds were mostly elsewhere, but chickadees scolded from the hawthorns. We saw many late bloomers, including zig-zag goldenrod, fleabane, tansy and bladder campion. The group encountered several dogs off-leash. Words were exchanged with one owner of two standard (off-leash) poodles that had frightened a small girl. The dog owner became defensive and angry and stalked off.

Thickson's Woods, Oct 24. Leader: Stephen Kamnitzer. In Thickson's Woods we identified a cucumber magnolia tree. We observed 14 species of birds: starlings (many), Ring-billed Gulls (many), cormorant, Northern Harrier, goldfinch, American Crow, White-throated Sparrow, Northern Flicker, cardinal, chickadee, robin, White-breasted Nuthatch (ate seeds out of our hands), Downy Woodpecker, Red-winged Blackbird. We also saw a fox and admired the old-growth white pines.



Honey mushroom (*Armillaria mellea*), Wilket Creek Park, Oct 2010. Photo: Ken Sproule

WEATHER (THIS TIME LAST YEAR)

December, 2018

The early arrival of winter this year got stalled in December, as the cold pattern that began in October and continued through November came to an end. The weather pattern shifted to a direct flow from the west that kept cold air away all month. However, we didn't get the ridiculous subtropical warmth that came in December 2015 (or for those with a longer memory, in 1982), so this month was only moderately above normal. It was generally cloudy with temperatures a few degrees above freezing and only occasionally below.

Day-to-day variability was low, so December wasn't a particularly interesting month. The coldest it got was -9.2° at Pearson Airport on the 7th. A short accentuated warm spell on the 28th brought the highest reading: 12.4°, again at Pearson. The monthly mean temperature was 1.0° downtown (the 30-year average is -0.3°) and -0.2° at Pearson (where the 30-year average is -1.8°).

Snowfall was minimal, with only 5.4 cm recorded at Pearson Airport. (The record warm December of 2015 had only 3.2 cm.) The average for December is about 25 cm. Very light snowfalls just before Christmas were insufficient to make a white Christmas. Precipitation, most of which fell as rain, ended up being close to average. Total precipitation was 62.1 mm downtown and 52.0 mm at Pearson.

January, 2019

January began with a continuation of December's mild weather but turned to more typical winter weather after the 8th. There were a couple of severe Arctic outbreaks in the latter part of the month. Snowfall followed the same pattern: generally meagre the first half of the month with no snow on the ground most of the time, then increasing in amounts and frequency until we got blitzed on the last week.

The mild period peaked on the 8th with a high of 8.7° downtown, but that evening's cold front marked the beginning of a big change. We were seasonably cold on the weekend of the 11th-13th but missed the snow storm that hit parts of the U.S. The first severe winter weather came on the 19th-21st when we had some snow followed by 20-below conditions. Downtown had its coldest days of the month on the 20th-21st with a minimum of -21.5°. The stormy, changeable conditions brought a brief thaw and spell of rain on the 23rd. Two significant snowfalls hit in quick succession on the morning of the 27th and the evening of the 28th, with a combined total of over 40 cm. These were on the leading edge of a historically extreme cold snap that affected the U.S. Midwest. Toronto was on the eastern periphery of this polar vortex, so we didn't get the -30° readings that afflicted places such as Chicago and may have set an all-time record for the state of Illinois. Pearson Airport dropped to -22.6° on the 30th and -22.8° on the 31st. We certainly got the wind chill though, with apparent temperatures as low as -37° on the morning of the 31st. The earlier cold snap on the 20th-21st wasn't too far behind with a peak wind chill of -35°.

With its mild beginning, seasonable middle and bitterly cold end, January ended up being colder than the 30-year average with a monthly mean temperature close to 2° below normal. It averaged -5.4° downtown and -6.7° at Pearson Airport – the coldest January since 2015 and the coldest month since February of that year. Precipitation was largely snow; the late-month snowfalls were sufficient to bring total precipitation to near normal and snowfall well above. Pearson had a monthly total of 63.4 cm, the most for January since 1999, the 4th highest on record for the month, and the most for any month since February 2013.

Gavin Miller

COMING EVENTS

If you plan to attend any of these events, we recommend that you contact the organizing group beforehand to confirm time and place.

Jim Baillie Memorial Bird Walks - Toronto Ornithological Club (www.torontobirding.ca)

Aimed at the intermediate birder, but beginners also welcome. Free to the public.

• Sun Jan 12, 1:30 pm to sunset. Sunnyside/Humber Bay – gulls and waterfowl. Leaders: Bob Cumming and David Purcell. Meet in the parking lot at the foot of Windermere Ave immediately south of Lake Shore Blvd W. We will probably drive between Sunnyside and Humber Bay. Carpooling may be available.

Royal Ontario Museum (https://www.rom.on.ca/en/exhibitions-galleries/exhibitions)

- Nov 16 to Mar 22: Bloodsuckers: Legends to Leeches
- Nov 23 to Mar 29: Wildlife Photographer of the Year

ACTION COMMITTEE REPORT

Speaking up for Nature – online, at City Hall and about town

Our members expect TFN to connect them with nature through walks and lectures. Increasingly members also want TFN to advocate for nature in our city. How are we doing on that front?

Advocacy is not "one size fits all." Depending on the goals, advocacy can take the form of social media posts, coffee with politicians or city staff, speeches at City Hall, presentations at symposia and finding unlikely allies. It is often a long game, played on a big field.

As a basic service, our online Take Action and Blog pages aim to keep members and the public abreast of our advocacy, especially core concerns. For example, in late September, TFN President Jason Ramsay-Brown shared concerns about the Lower Don Master Plan. In a submission to city staff, Jason decried the plan's lack of commitments towards ecology and habitat, even as the plan proposes funneling ever more users into this already very popular natural corridor.

Our Blog pages also promote campaigns led by other groups that deserve the attention – and action – of our members. Recent blogs on Ontario Place and Global Bird Rescue fall into this category. Your engagement on these campaigns matters. By sending supportive emails, attending a consultation meeting or speaking on a phone-in program, you can amplify the voices for nature.

Several times in 2019, TFN has also spoken to committees of City Council in deputations: in February on the Ravine Strategy, and in September on the Biodiversity Strategy. As well, several of our board members sit on advisory committees, helping to keep an eye on areas such as Tommy Thompson Park. This is patient, unsung work. In October, Jason's presentation at the Ravine Symposium inspired many and may have lit a fire under others. Often, we are asked to respond to site-specific requests: a looming development proposal, a threatened heritage tree, or a pond damaged by construction. These requests are not easy to deal with. We try to offer advice if possible and empathy in any case.

Our passion may be unlimited but, as an all-volunteer group, our resources are definitely not. So we look for issues where our voice can add value. For example, in 2020, we hope to explore the potential for City-owned golf courses to contribute more – much more! – to natural habitats and to their local community needs. A planning meeting for members of the Take Action Committee is also in the cards. Stay posted and let us know what you think. Your thoughts are welcome at action@torontofieldnaturalists.org.

Ellen Schwartzel

ABOUT TFN

TFN is a charitable, non-profit organization.

BOARD OF DIRECTORS

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NEWSLETTER

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

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See email addresses for specific queries at: https://torontofieldnaturalists.org/about-tfn/contact-us/

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



American Avocets are prairie wading birds that work the mud flats and sloughs there, often in huge numbers. They have pale blue legs. They are big. And bold. And beautiful. 'Barber poles' – white black white black. They mutter. They swing their heads so fast underwater using their darning needle-sized bill like a scythe. The bill is dainty

and upturned at the tip. They rarely visit here, but when they do I head off to see them. My prairie roots thrum.

This was the second time in five years – back then, 35 at a distance, on a pier jutting in to Lake Ontario, with a rainbow behind them. On October 25th at Queensville, north of the city, a visit for a few hours with six, much closer, in quiet sewage lagoons. They moved occasionally from one pond to another. The fall foliage backdrop made everything more special. I took so many photos. And movies. I spent a long time gawking.

Wilson's Snipe flushed and then winnowed from the bush. Two Tundra Swans flew west. One pond was full of returning winter ducks. Cute Buffleheads. Handsome Northern Shovelers. Teal, talking. Poplars, all yellow leaved, rustling. Teetering wooden fence posts. Four Wild Turkeys in a field. Three Turkey Vultures drifting on the thermals. Fall is in the air. Nature is showing off in so many ways!

Lynn Pady

IN THE NEWS

Blanding's Turtle habitat threatened

On November 3, the Globe and Mail reported that one of Canada's richest refuges of the threatened Blanding's turtle is in danger of being turned into a quarry. If North Shore's municipal council approves rezoning the area for mineral extraction, it will be up to the province to say whether the quarry can go forward. This decision will be an early test of how species protection is likely to be conducted under new legislation passed by Ontario Premier Doug Ford's government last June. See Gino Donato's article at https://www.theglobeandmail.com/business/technology/science/article-northern-ontarios-turtle-tussle-pits-scientists-against-quarry/



Blanding's Turtle. Photo by Lynn Pady



Book Sale

Over the years, members have donated hundreds of interesting and illuminating books and magazines to TFN. Many of these are incorporated into our library and archives, but we're pleased to make the rest available for sale! These include field guides to animals and plants (eg Michigan Flora), beautiful coffee table books (Tom Thompson, Canada, Art and Nature, Northern Lights), guides to gardening, and a few histories and novels.

If you're interested in expanding your library, please drop by the office between 9:30 and noon any Friday in December or January. Prices range from \$1-\$5, with some special items priced individually. Proceeds help further TFN's mandate.

Toronto Field Naturalists 2 – 2449 Yonge St., Toronto, Ontario, M4P 2E7

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TFN LECTUREVISITORS WELCOME

Sunday, Dec 1, 2:30 pm (Social, 2 pm)

Blood, Bait and Bacteria: Evolution of Feeding in Leeches

Sebastien Kvist, Associate Curator of Invertebrates, Dept. of Natural History, ROM, will describe his research findings on this fascinating and little-known group of creatures.



Emmanuel College, Room 001, 75 Queen's Park Cres E. Just south of Museum subway station exit, east side of Queen's Park. Accessible entrance second door south on Queen's Park. Elevator inside to the right. Room 001 is one floor below street level. For information: call 416-593-2656 up to noon on the Friday preceding the lecture.

Share your thoughts about this lecture on social media, hashtag #TFNTalk

Winter 2020 Lecture Series					
Feb 2	Katie Thomas	Nature in the City			
Mar 1	Jeff Bowman, Trent University	Flying Squirrels			
Apr 5	Stuart Livingston, University of Toronto	Dog-Strangling Vine			
May 3	Paul Zammit, Toronto Botanical Gardens	Rethinking Beauty: Inspiring Gardeners in a Changing World			