



Since 1923

TORONTO FIELD NATURALIST

Number 635 April 2018



House finch feeding on eastern white-cedar cones, Hanlan's Point. Photo: Ron Dengler

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Mission Statement:

Toronto Field Naturalists connects people with nature in the Toronto area. We help people understand, enjoy, and protect Toronto's green spaces and the species that inhabit them.

BOARD OF DIRECTORS

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MEMBERSHIP FEES	Online newsletter	Mailed newsletter
Youth (under 26)	\$10	\$20
Senior Single (65+)	\$30	\$40
Single	\$40	\$50
Senior Family (65+)	\$40	\$50
Family	\$50	\$60

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IT'S YOUR NEWSLETTER!

We welcome contributions of original writing (between 20 and 500 words) of nature observations, especially in the Toronto area. We welcome reports, reviews, poems, sketches, paintings and digital photos. Please include "Newsletter" in the email subject line or on the envelope. Please re-name digital photos with subject and your name. In the accompanying email include location, date and any interesting information associated with the photograph. **Submissions deadline for May issue: April 2.**

NEWSLETTER COMMITTEE

Kathleen Brooks, Jenny Bull, Vivienne Denton, Karin Fawthrop, Nancy Fredenburg, Elisabeth Gladstone, Judy Marshall, Lynn Miller, Toshi Oikawa, Jennifer Smith, Wendy Rothwell (editor). Printing & mailing: Digital Edge Printing & Media Services Ltd.



TFN is on Twitter and Facebook! Got something interesting to share? We'd love to get your photos and insights on TFN activities, Toronto nature events and interesting nature news. Just email media@torontofieldnaturalists.org and be sure to include what your photo is and where it was taken.

To read posts, go to www.torontofieldnaturalists.org and click on Twitter or Facebook.

No HST. Tax receipts issued for donations.
TFN does not give out its membership list.

TFN MEETINGVISITORS WELCOME

Sunday, April 8, 2:30 pm (Social, 2 p.m.)

Moths of Thickson's Woods

*Speaker: Phill Holder of the Matt Holder Environmental Education Fund
will look at biodiversity research at Thickson's Woods, and moths, the forgotten pollinators*

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

Upcoming lecture:

May 6, Indigenous Knowledge and Ecology, Deborah McGregor, Indigenous Environmental Justice

TFN OUTINGS

- TFN events are conducted by unpaid volunteers.
- TFN assumes no responsibility for injuries sustained by anyone participating in our activities.
- Children and visitors are welcome at all TFN events. Children must be accompanied by an adult.
- If you plan to bring children in a stroller, be aware that there may be steps or other unsuitable terrain.
- Please do not bring pets.
- To get to outings on time, check TTC routes and schedules (www.ttc.ca or 416-393-4636).
- **Check for any schedule disruptions on weekends and allow extra time if necessary.**
- Outings go rain or shine: check the weather by calling 416-661-0123 so you will know what to wear.
- Wear appropriate footwear for walking on trails which may be muddy, steep or uneven.
- *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 Huron-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.

Share your favourite walk photos on social media, hashtag #TFNWalk.

- | | |
|-----------------------------|---|
| Wed
Apr 4
10:00 am | ASHBRIDGE'S BAY – Birds, insects and plants
Leader: Bob Kortright. Meet at the southeast corner of Lake Shore Blvd E and Coxwell Ave for a circular walk on mostly paved surfaces, mainly flat. Bring binoculars. No washrooms. |
| Sat
Apr 7
10:00 am | HUMBER RIVER AND MARSHES TO THE LAKE – Nature walk
Leader: Grant Leigh. Meet at Old Mill subway station for a linear walk down the west side of the Humber, a Canadian Heritage River, and through one of Toronto's few remaining river mouth marshes. |
| Thurs
Apr 12
10:00 am | FABULOUS SPADINA – Nature and Heritage
Leader: Linda McCaffrey. Meet at the southeast corner of Bloor St W and Spadina Ave for an easy walk through the city. We will admire stately trees and buildings, including the Grange, and review local history. Walk will end at Victoria Memorial Square (Portland and Bathurst). Return via the Bathurst bus to subway line 2 or check out the new car-free King Street TTC route to line 1. |
| Sat
Apr 14
10:00 am | GATES GULLY TO GUILDWOOD – Nature and art
Leader: Anne Purvis. Meet at the Bellhaven Cres entrance to Doris McCarthy Trail (off Ravine Dr). We will hike down Gates Gully to the lake, then east along the lakeshore trail to Guildwood, where we will eat our picnic lunches and view the artefacts, returning through Sylvan Park. An 8-km walk. Drivers can carpool to Guildwood, so that cars are available at the Guildwood end. We will look for the rocks of the Scarborough formation, early spring migrants, over-wintering ducks and spring ephemerals, keeping an eye out for deer, coyote and possibly red-backed salamanders. Wear hiking shoes. Bring lunch and binoculars. |
| Sun
Apr 15
2:00 pm | GARRISON CREEK WATER WALK – Lost Rivers
Leaders: Darlene King and Helen Mills. Meet at the northwest corner of Gore Vale Ave and Queen St W. Join the Rivers Rising Ambassadors to celebrate water and lost Garrison Creek a week before Earth Day. The Earth Day 2018 theme is <i>Plastic Pollution</i> , so bring your re-usable water bottle and wear blue as we embody the water cycle and carry water along the course of lost Garrison Creek to the lake. Stops along the way include the <i>Wall of Oblivion</i> , the smelter, the blood sewer, the most polluted quay at the lake, and the fish habitat restoration project at Spadina Quay. And, of course, lots of plastic stories! A 2.5 km walk, mostly on city streets with a few stairs and uneven surfaces, ending at Spadina Quay. A joint outing with Toronto Green Community. |
| Tues
Apr 17
10:00 am | WARDEN WOODS PARK – Looking for white-tailed deer
Leader: Joanne Doucette. Meet outside the Warden Ave entrance to Warden subway station for a linear walk on mostly paved surfaces, mainly flat with gentle slopes and some stairs. Tracks, scat and other signs of urban wildlife. Part of an 8-part subway series from Warden to Broadview stations. Mammal track guide supplied. Bring binoculars. Washrooms at beginning of walk. |

- Sat
Apr 21
10:00 am **TAYLOR CREEK PARK – Earth Day Cleanup & Campfire**
Leaders: Anne Purvis, Lynn Miller, Paul Abell. See details below. If you wish to go directly to a spot in need of clean-up, please contact Lynn Miller at volunteering@torontofieldnaturalists.org to be assigned a location.
- Sun
Apr 22
1:30 pm **GERMAN MILLS CREEK – Nature Walk and Litter Pick-up**
Leader: Theresa Moore. Meet at the northeast corner of Leslie St and Steeles Ave E for a 2-hr circular walk to view spring wildflowers and birds. Bags for litter will be supplied. No washrooms.
- Thurs
Apr 26
10:00 am **COLONEL SAMUEL SMITH PARK – Birds**
Leader: Doug Paton. Meet at the southwest corner of Kipling Ave and Lake Shore Blvd W for a circular walk on mainly flat surfaces. Bring binoculars. Morning only.
- Sat
Apr 28
9:30 am **G ROSS LORD PARK – Birds and checking bird boxes**
Leaders: Deirdre and Robert Bean. Meet at the parking lot in the park at Dufferin St and Martin Ross Ave (500 metres north of Finch Ave) for a 4.5-km circular walk on mostly paved surfaces with gentle slopes. We will walk north through the park on the west side trail to Steeles Ave, east on sidewalk for 400 metres and then back through the park on the east side trail. Bring binoculars and camera. Washrooms will be open. Note: Coffee Time just west of parking lot.
- Sun
Apr 29
1:30 pm **HUMBER ARBORETUM – Nature Walk**
Leaders: Lynn Short and Lisette Mallet. Meet at the arboretum entrance across from parking lot #1 where parking is free on weekends. TTC riders should walk along the ring road past the residences to the arboretum at the back of the property. Washrooms available.

Did you know?

**The digital edition of our newsletter is delivered several days before the print copy hits the post.
That's a lot of extra time to look over outings!
To get yours, make sure the TFN office has your email address.**

CELEBRATE EARTH DAY WEEKEND WITH THE TFN!

#GTAINvasion – April 21, 10am to 4pm

Join TFN and UofT Environmental Science master students for this invasive species awareness event at the UofT Scarborough Campus on the main floor of the Environmental Science Building. Guest speakers will include Colin Cassin, Sandy Smith, Daniel Simberloff and others. Booths by Ontario Invasive Plant Council, Parks Canada, TFN and more. Admission free.

Taylor Creek Park Cleanup & Campfire – April 21, 10am to 2pm

In support of the City of Toronto's Community Cleanup Days and in celebration of Earth Day, please join TFN and the Friends of Taylor Creek Park for the community's annual Ravine Cleanup & Campfire. Get your supplies at the Haldon Avenue Firepit #4 between 10am and 12 noon. Community campfire and cookout starts at noon. A 1-hr circular family-friendly hike with Margaret McRae and Anne Purvis will leave from the Firepit at 1:00 pm. (See TFN Outings above.)

Planting in Warden Woods – April 22, 10am to 12 noon

TFN members are encouraged to join this City of Toronto planting event. Come out to help beautify and enhance habitat in Warden Woods! Planting site is located at the north end of the Gus Harris Trail (south-west corner of Warden Ave & St Clair Ave E) just opposite Warden subway station. All equipment will be provided and no previous planting experience is required!

Nature Walk and Litter Pick-up – April 22, 1:30pm to 3:30pm

Theresa Moore will be leading a 2-hr circular walk along German Mills Creek to view spring wildflowers and birds. Bags will be supplied so that participants can help pick up litter along the way. Meet at the northeast corner of Leslie St and Steeles Ave E. (See TFN Outings, above.)

PRESIDENT'S REPORT

Community Consultation on the Don Mouth Naturalization and Port Lands Flood Protection Project

This consultation on February 22 was hosted by Waterfront Toronto. For those unfamiliar with this project, it is a very big deal indeed, with \$1.25 billion funding from all three levels of government already approved. The plan is to take 290 hectares, including most of Leslieville, out of the flood plain. It is slated to be completed by 2023, and work has already begun with the first shipment of core stone already being deposited in the Inner Harbour. Part of the plan includes the creation of a new river valley through the port lands, a new island, and new parks, roads and bridges. See details at <https://goo.gl/wkWLST>

Almost any change to the heavily polluted industrial wasteland at the mouth of the Don would be an improvement, but from TFN's point of view there wasn't much new here. It was really a public relations exercise to sell the project to the public. There's going to be precious little new in the way of natural space. The projected "natural areas" are mainly manicured parklands largely given over to sports, picnics, public events and so forth. Multi-use trails abound throughout and there was no mention of connectivity for wildlife through to Cherry

Beach. The one bright spot is in the floodplain areas, where nothing can be built due to the threat of periodic flooding. These riverine wetlands, as long as they aren't colonized by a phragmites monoculture (a strong possibility), show promise, particularly the Don spillway directly to the south of the river mouth.

Ravens on Snake Island

In my youth I spent many months in the highlands of Scotland where the call of the raven is ubiquitous and unmistakable: a deep, guttural, primeval "caw" that sounds like it should be floating across a Paleocene swamp. On a recent TFN outing to Toronto Island (see page 12), I heard the same "caw" coming from the direction of Snake Island and was mentally transported back to those highlands. In this hemisphere birds tend to expand their range northward, driven by climate change. Ravens are bucking this trend by making their way south and now nest in Toronto for the first time in at least 150 years. Before settlers came, cleared the land and killed them off, ravens were common in Toronto. The last pair was killed in Queen's Park in 1848 – but now they're back!

Charles Bruce-Thompson
president@torontofieldnaturalists.org

SPECIAL MEETING OF MEMBERS

Sunday, May 6, 2:30 pm, Room 001, Emmanuel College, 75 Queen's Park Cres

Members who read the President's Report in the February 2018 issue are already aware that the cost of producing the paper newsletter has virtually doubled in recent months. Understanding how important the paper edition is to many of our members, we have been absorbing the extra printing costs as we explored ways to preserve quality while reducing costs.

Our efforts have met with some success. Our new service provider has been able to offer us the most competitive price available. Changes to the newsletter's format and layout have helped, and some additional changes may appear in future issues. However, these measures will be insufficient to cover the shortfall.

In light of this, we are holding a Special Meeting of Members on May 6, prior to the lecture on Indigenous Knowledge by Deborah McGregor, to propose the following changes for the coming year:

- Mailed Newsletter Memberships will be discontinued. Members who wish to receive a printed newsletter will pay a surcharge of \$30 for the year 2018/2019 to cover the cost of printing and mailing.
- Fees for all members will be as they are now for Online memberships, except that Youth will be free.
- All members who give us their email address will continue to receive the digital edition of the newsletter.

We hope to see you on May 6th to discuss and vote on the following motion:

It is moved that TFN Annual Membership Fees be as follows:

Family - \$50, Single - \$40, Senior Family - \$40, Senior Single - \$30, Youth - \$0.

All members shall be entitled to the digital edition of our newsletter.

Members who also wish to receive mailed newsletters will pay a \$30 annual surcharge.

MONTHLY MEETING REPORT

Ethics in Wildlife Photography

March 4, 2018

Mark Peck, ROM, Dept of Natural History

Mark Peck is a well-known ornithologist and nature photographer who confesses to an addiction problem with birds. His engaging, reflective talk gave us historical and practical context around wildlife ethics, punctuated powerfully by pictures.

Nature photographs can educate, inspire and develop environmental passion with the powerful stories they tell. *National Geographic* does this particularly well with such pictures as that of a dead rhino whose horn has been poached for “medicine,” a killed gorilla being carried back to a local village for a proper burial and the Fatal Light Awareness Program (FLAP) pictures that are created annually to show how many birds are killed by flying into windows in Toronto.

Historically, ethical standards have changed. Whereas the pictures in early Peterson field guides on birds’ nests and eggs often resulted from digging out nests or cutting trees at nest openings, these practices would meet with strong opposition today. Since the 1960s, major restrictions and regulations have been imposed around such actions as sitting quietly among nesting colonies to gather observations or take pictures, easy collection of specimens for zoos and aquariums or collecting bird skins for the ROM.

Film photography limited the number of participants in nature photography because of the expense and skill involved. The introduction of digital photography has created a problem exacerbated by sharing on citizen science platforms such as iNaturalist, eBird and social media. We all love seeing nature pictures that motivate us to become advocates for nature. But tensions arise when one considers how the pictures were obtained. There are also controversies in connection with zoos and aquariums. While they are major education centres where the public can learn about and develop awareness around environmental issues, many activists abhor the existence of such institutions.



FLAP display at ROM. Photo: Mark Peck.

Staged photographs are not always easy to identify. An iconic picture of Japanese macaques in hot pools fascinated many of us; yet Mark shared a photo someone had taken of the macaques surrounded by hundreds of people and cameras. We should be asking whether a photo has been “doctored.” For example, is the picture of oriole chicks on a branch being fed grubs by a parent natural or should the chicks be in their nest? Is the amazing owl picture “natural” or a result of baiting with a mouse or other food? Ramifications of owl baiting, usually done close to roads, results in hundreds of car-related owl deaths annually. Now, eBird does not publish locations for owl sightings.

Bird song playback is used to collect observations on birds, especially owls and hawks, during scientific counts.

Yet, this can easily be abused, causing incredible stress to birds. Mark talked about a hike at Tommy Thompson Park where he led birders to see a reported (single) prairie warbler. He heard five different songs all around him, not from the bird but from people. *Mutual of Omaha’s Wild Kingdom* was criticized by *The Fifth Estate* (1982) for staging situations with animals in order to provide better viewing.

Mark put himself on the spot by sharing some of his own practices that, upon reflection, he feels were not ethical. This prompted us to reflect on our own practices. Yet, without context, impressions can be subjective. Some questions to consider:

- Is it ethical to photograph a banded bird? The few seconds this takes causes additional stress to the bird, but is it unethical if the picture contributes to citizen science data?
- When is manipulating the environment unethical? Providing food at birdfeeders draws both songbirds and Cooper’s hawks. Is it okay to take advantage of a natural situation such as a dead carcass?
- Do we do photography because we love wildlife?
- Would I photograph humans the same way as I do birds and other animals?

Where do we draw the line?

Meg O’Mahony

TORONTO WILDFLOWERS: TOOTHWORT MUSTARDS

General comments on the Brassicaceae (Cruciferae) or mustard family appeared in *Locally Rare Woodland Mustards* (TFN newsletter 2018 March). This article focuses on two species and a natural hybrid, formerly in the genus *Dentaria* but now assigned to the genus *Cardamine*. According to *The ROM Field Guide to Wildflowers of Ontario*, 2004, the former name and the common name, toothwort, are “thought to refer to the tooth-like structures on the rhizome.” Based on the “Doctrine of Signatures,” these species were considered helpful in treating tooth-related ailments because of these tooth-like structures! See further discussion of this long-held belief in *Hepaticas (Liverworts) and the “Doctrine of Signatures”* (TFN newsletter 2016 April).

The two locally common toothworts are *Cardamine diphylla* (formerly *Dentaria diphylla*) and *C. concatenata* (formerly *D. laciniata*). Common names are, respectively, broad-leaved toothwort and cut-leaved toothwort. The hybrid is now *C. x maxima* (intermediate toothwort). These species/hybrid can be up to 40 cm tall. Their flowers are up to 25 mm across and form few-flowered racemes. *The ROM Field Guide* notes that flowers could be white or pale purple but, locally, white flowers prevail. As illustrated, the leaves of the two species are their distinguishing features. The hybrid’s leaves more closely resemble those of *C. diphylla* but it has alternate leaves whereas *C. diphylla* has an opposite pair on the stem. All occur in moist woodlands, sometimes together, and bloom in May or June. Their Ontario range, according to *The ROM Field Guide*, is from the Lake Temagami ecoregion to the U.S. border. Their full ranges (U.S. Dept of Agriculture database) are Ontario to the Maritimes and the eastern half of the U.S.

To find the hybrid, look for the two species growing in close proximity. It might be of interest to find out how common the hybrid is. TFN’s *Vascular Plants of Metropolitan Toronto* (1994, 2nd ed.) reported it uncommon in Toronto; *The ROM Field Guide* reported it as common in Ontario.

Article and photos by Peter Money



From top:
Broad-leaved toothwort (*Cardamine diphylla*),
cut-leaved toothwort (*C. concatenata*),
intermediate toothwort (*C. x maxima*)

ENVIRONMENT ACTION COMMITTEE UPDATE

The committee met on February 26 to address the following issues:

- In the wake of MNR plans to close the Ontario Tree Seed Plant in Angus, the Ontario Tree Seed Coalition (OTSC) is seeking support as it negotiates with the Government to ensure that all functions of the seed plant continue. This plant has been the source of local, genetically pure seed stock for re-forestation all over Ontario.
- Stephen Smith submitted to Nicholas Trevisan (City of Toronto) and Councillor Mary Fragedakis an assessment of Hydro One’s work in Crothers Woods, suggesting easy-to-do alterations to protect a stand of mature white oaks.
- Bob Kortright will respond to TRCA’s Environmental Assessment of the Scarborough Shoreline, published last August. TFN is concerned that Grey Abbey Beach be preserved in its natural form. See <https://goo.gl/WFJ7J1>
- Our committee will respond to the Ontario Government’s request for input on the final draft of the Taylor-Massey Creek Sub-watershed Master Plan.
- Four of our committee members attended the Don Mouth Naturalization Public Event on February 22 (see President’s Report page 5). Bob Kortright will represent TFN on the Don Mouth Stakeholder Advisory Committee.
- Anne Purvis attended the Ontario Greenbelt Alliance Day at the Guelph Arboretum on February 1st. The OGA is seeking support as it asks the Province to consider additional lands for Greenbelt expansion.

See www.protectourwaters.ca

Anne Purvis

SPECIAL PROJECT REPORT

Junction Adopt-a-Street-Tree Project by Rita Bijon, Green 13

Green 13 (G13) is grateful to TFN for its support for our Junction Adopt-a-Street-Tree Project (JAAST). During the pervasive drought experienced by southern Ontario in the summer of 2016, we learned the hard way that the City does not have adequate staff to meet the watering needs of drought-stricken street trees, the most vulnerable trees of our urban forest. Concerned residents in the Junction area who attempted to water the trees realized that this was a daunting task requiring a more organized approach.

The Junction already had among the lowest percentage of tree cover in Toronto, at 6.7%. The following fall and winter, G13 determined that the best way to provide essential care of street trees was to seek the expertise of LEAF and engage with the local BIA and Junction Residents' Association. A Master of Forest Conservation student and Bachelor of Landscape Architecture student engaged by LEAF were key to establishing rigorous digital tracking of data. We determined that there were 136 street trees within the boundaries of the Junction BIA of which 25% had perished, largely due to the 2016 drought.

Close collaboration among Green 13, LEAF, the Junction BIA, and the City's Urban Forestry division created optimal conditions for dedicated volunteers to receive training, audit trees, canvass local businesses and residents, and identify water sources. Volunteers engaged adopters who committed to providing their adopted tree with 30 litres of deep watering each week and other basic

care. Each adopter received an 8-litre watering can and a window decal outlining care instructions, and each adopted tree was identified by a tree tag. It is gratifying that, as a result of our work to date, 118 trees are now adopted.

During the growing season volunteers developed watering routes for the orphan trees and tended them. This close sustained relationship with the street trees has enabled adopters and volunteers to advocate for the trees and share information. We were able to engage the community in caring for a woefully neglected landmark street tree, the Japanese Plum at the entrance to the Junction.

Another delightful result of JAAST is that a local artist and tree friend, Nicola Woods, is mounting a photo exhibition celebrating Junction trees, *The Trees Amongst Us*, at ARTiculations gallery during the Contact Photography Festival in May. She will highlight individual trees and the challenges they face, heighten awareness of the benefits street trees provide and encourage participation in JAAST.

We hope the success of JAAST will inspire collaboration among other community groups and BIAs to initiate similar projects.

A more detailed account of the project is found at:

<https://goo.gl/HjgY2U>

For more information, visit: <https://goo.gl/R2qdqi>,
<https://goo.gl/wDnhiN> and <https://goo.gl/SHoJBQ>

If you'd like to join the watering team for orphan street trees, please contact: junctiontrees@gmail.com

WEATHER (THIS TIME LAST YEAR)

April 2017

April was changeable but generally warm and wet. We had one cold snap on the 6th-7th that brought freezing temperatures and a little snow. In fact, downtown didn't quite get down to freezing as the minimum temperature was 0.1°. This was the first time since 2010 that we had our last frost of the season in March.

Otherwise, frequent weather systems passed just to our north, bringing repeated forays into the low twenties, often rain, and sometimes thunderstorms. It was more a pattern of late spring or early summer. The warmest reading of 25.7° was at Pearson Airport on the 27th. Easter Sunday (on the 16th) was almost as warm. Warm though it was, we didn't have extended or extreme spells of above-

normal temperatures (unlike the record-breaking conditions of February).

April had a mean temperature of 9.7° downtown and 9.4° at Pearson Airport. This is about 2° above normal. It was the warmest since 2010, and ranked as the fourth warmest at Pearson Airport (after 2010, 1955, and 2008). Total precipitation was 106.7 mm downtown and 110.8 mm at Pearson Airport. Normal is around 75 mm, so April was noticeably but not exceptionally wet. It was the wettest April since 2009. Further to the east, however, it was another story. Quebec experienced severe flooding from heavy rains and snow melt.

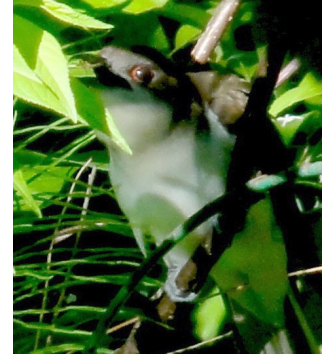
Gavin Miller

BIRDS IN A SUBURBAN GARDEN

I've been inspired by entomologist Doug Tallamy's emphasis on the importance of suburban gardens to native wildlife in a time of severe loss of natural habitats. The TFN newsletter has highlighted his talks and his book *Bringing Nature Home* in several issues. As well as planting native species, I deliberately don't "clean up" the garden in fall because leaves on the ground and the old stems of herbaceous perennials harbour many tiny organisms that sustain birds through winter and early spring, as well as providing excellent sources of fibre for nest building. The following observations were made from the porch or through the window.



As spring approaches, birds such as the eastern towhee and white-throated sparrows scratch up the leaves on the ground looking for snacks.



The garden is visited by many fledglings. This baby blue-jay is napping while its parent watches. Some birds use the garden as a short-term haven. This black-billed cuckoo stayed for 24 hours and then was gone.



Baltimore orioles strip long strong fibres off the stems of last summer's common milkweed to weave into their hanging nests, which are then lined with the soft plumes from virgin's bower seeds.



Ruby-throated hummingbirds love sipping nectar from red flowers. They visit bee-balm as well as cardinal-flowers. Ironweed too!

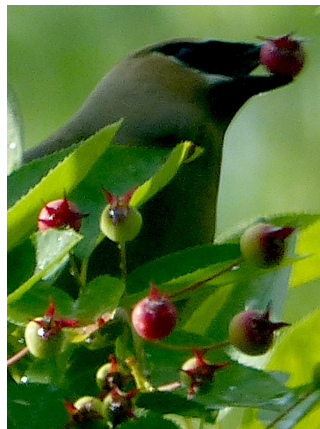


American goldfinches adore cup-plant seeds and there are often whole families ripping off the seeds.

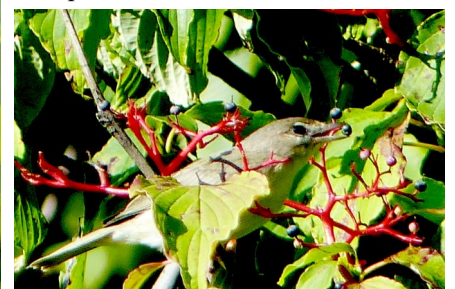


This gray catbird has collected a beakful of viburnum beetle larvae. There are still non-native plants in the garden like this 'Snowball' shrub that's almost 50 years old.

Lots of birds, especially robins, cedar waxwings and catbirds, love fleshy fruits such as serviceberry and winterberry.



A warbling vireo feasts on the few rather dry pagoda dogwood fruits left by the squirrels.



Continued on page 15

TREE OF THE MONTH: NORTHERN WHITE-CEDAR



The seemingly unprepossessing northern (or eastern) white-cedar is so ubiquitous in our landscape that most of us relegate it to unimportant background figure status. It played a key role, however, in Canadian history when the lives of Jacques Cartier's second expedition were saved during the scurvy-ridden winter of 1535-6 at Stadacona (now within Quebec City) when the son of the Iroquoian chief Donnacona taught them to make vitamin C-rich tea from its foliage. With this event, northern white-cedar became the first North American tree introduced to Europe, leading to its first common name in a European language: *arborvitae* (tree of life). Our indifference, nonetheless, is partly fueled by the fact that, in Toronto's residential scene, the tree is mostly in the background – one of the most common components of tall hedges along boundary lines and in foundation plantings. It stands out a bit more, perhaps, as a very common native tree within and beyond Toronto, usually in habitats on the moister and cooler side, such as along the lakeshore at the cottage or in dense forest stands along streams.

Northern white-cedar's presence, perhaps surprisingly, also extends to dry sandy soils and even the seasonally extremely dry environment of the cliff faces of the Niagara Escarpment. As shown by Professor Doug Larson and his cliff ecology group at the University of Guelph, the latter is where they achieve their greatest longevity. This sometimes exceeds 1,000 years, making some of them the oldest trees known in Ontario. When these twisted forms cling precariously to cliffs, their wonderfully fibrous bark is often reduced to the narrowest of strips on an otherwise baldly scoured trunk. These strips are sufficient, however, to support the sparse tufts of foliage that keep these stressed trees alive.

Besides astonishing longevity, one of the most outstanding features of northern white-cedar is the foliage, so different



in form and organization from that of our other native trees, including other conifers. The foliage, though, is shared to varying degrees with many related exotic members of the cypress family. Some of these are cultivated here and, though collectively known as cedars, are unrelated to the cedar of Lebanon and its relatives in the pine family. The individual scale leaves, depending on where they are positioned in the frond-like sprays, take on a number of mostly discrete forms, including very short, crowded upper and lower facial leaves, left- and right-handed lateral leaves, and longer and more spread out leaves of the skeletal framework of shoots.

The shoot system as a whole is largely two-dimensional, with flattened sprays almost exclusively branching in the axils of lateral leaves, feather-like on alternate sides of the branchlet as you move along it or comb-like on just one side, even though the leaf arrangement is opposite and you might expect opposite branching from both members of a leaf pair (as seen in related southern hemisphere incense-cedars). This plays out a little differently in the incompletely differentiated short- and long-shoots. The former, the main photosynthetic foliage, look like fern fronds and shed as a unit after a few years. The latter contribute to the permanent branching system of the tree. Leaf pairs in the plane of the photosynthetic foliage sprays are lateral leaves, while those facing out from the plane are facial leaves. Both kinds are pressed against the twig, the lateral leaves also folded along their midline to embrace it.

Unlike in most tree leaves, what we see facing out towards us is the underside while the upper side is hidden from us. The whole foliage spray also has an upper and lower side, the latter marked by prominent zones of stomates on the surface of both lateral and facial leaves that are facing down toward the ground.



Along the midline of many facial leaves is a small round or elliptical gland that provides some of the characteristic scent of the foliage. Both through eyes and nose, northern white-cedars are certainly worth a closer look.

James Eckenwalder

Top left: Eastern white-cedars on sand dunes, Presqu'île Provincial Park; left: bark. Photos: Ron Dengler
Above: Upper- and under-side of short-shoot foliage spray.
Photo: James Eckenwalder

For a good book about very old Escarpment cedars, see <https://www.dundurn.com/books/Last-Stand>
Available at the library.

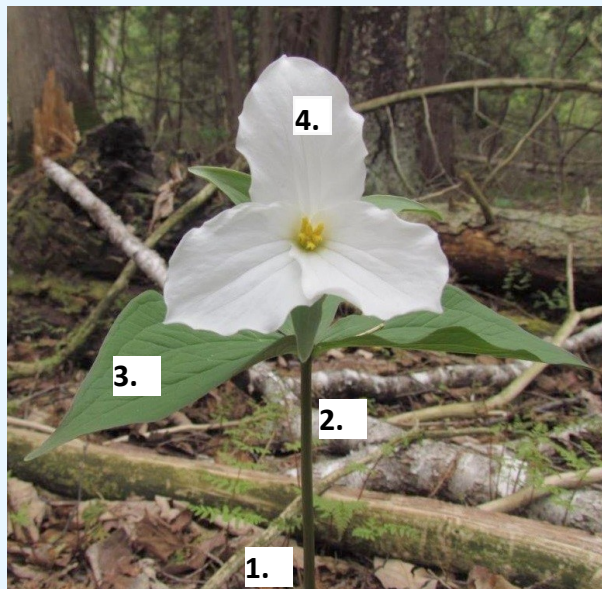
CHILDREN'S CORNER

Plant Anatomy

Plants are amazing! They help sustain life all over the earth.

Let's dive in and learn how plants work using, as our example, Ontario's provincial flower - the white trillium.

Match each number on the picture to the description below and write the name of the part.



Parts of a plant and what they do	Number	Part name
A. I am green and I collect energy from the sun to make food that helps my plant grow strong.		
B. I absorb nutrients and water from the soil to help my plant grow, but you often can't see me because I do my work underground.		
C. I come in a variety of colours and often I am what people notice first about my plant. In my middle, I have pollen that bees often like to collect.		
D. I support the plant above ground, making sure it grows straight and tall towards the sun.		

Can you find these four parts of plants around your home?

Answers on page 15.

By Julia del Monte

Photo: Wendy Rothwell

Attention Junior Naturalists! Visit TFN online (<http://www.torontofieldnaturalists.org/kids/>) to view fascinating nature videos, download brain teasers, print nature scavenger hunt sheets, and get inspired to explore nature in our city.

EXTRACTS FROM OUTINGS LEADERS' REPORTS



Common ravens on Toronto Island. Photo: Jenny Bull.

Lost Rivers – PATH-ology and Geology: Redux, Jan 21. Leaders: Ed Freeman and John Wilson.

Although most of the 2-km walk was indoors, the outdoor rendezvous at Adelaide and Yonge was an opportunity to spy on several nature-lovers with long-range cameras peering upwards among the downtown towers. A new female peregrine falcon had been consorting with one of the resident males and attracting much human attention. The tower at 18 King St E and the Sheraton Centre on Queen St W are two favoured haunts of the growing downtown peregrine population.

E.T. Seton, Serena Gundy and Sunnybrook Parks, Jan 27. Leader: Ken Sproule. There were few birds until we reached a couple of birdfeeders at the end of the walk. There we saw male and female red-bellied woodpeckers, downy and hairy woodpeckers, white-breasted nuthatches, blue jays, cardinals and chickadees. A red-tailed hawk flew overhead.

Allan Gardens Conservatory, Feb 6. Leader: Leslie Fitzgibbons (Allan Gardens Conservatory Foreperson). Of particular interest in the Tropical Houses were the orchid display including vanilla plant in flower, bromeliad flowers and "pups," pitcher plant modified leaves and flower bud, Brazilian cherry in bud and flower, and tamarind fruit. There we also saw goldfish plant and *Pachystachys* (lollipop plant) in flower, hibiscus recently pruned, ackee, *Brunfelsia* (yesterday, today and tomorrow) in flower, and cycad with flower cone. In the Cool House we saw camellia flowers, Ponderosa lemon fruit and orange jasmine buds. In the Palm House were bamboo, bananas and date palm in fruit, and tropical magnolia. The Cactus and Succulent collection included Madagascar palm, queen of the night, examples of fasciated growth on two cactus species, aloe vera in flower and agave (used for tequila), saguaro, gooseberry and jade plant.

Ward's and Algonquin Islands – Winter Waterfowl, Feb 14. Leader: Anne Powell. The bright February sunlight highlighted the beauty of the winter waterfowl in the eastern channel, especially the iridescent green heads of common goldeneye and the gleaming cinnamon-red heads of the redhead ducks. Bird count was 23 species including two common ravens.

West Highland Creek Watershed, Feb 17. Leader: Jonathan Harris. We observed mallard, downy woodpecker, northern cardinal, black-capped chickadee, evidence of beaver, and a muskrat in the creek. In the centre of McCowan Park, there are decent patches of cattail marsh and mixed forest containing large eastern hemlock and eastern white pine. In Hague/Cedar Brook Park, a hidden gem in the heart of Scarborough, we saw American robin, dark-eyed junco, northern cardinal and American goldfinch. See photo on back cover.

Edwards Gardens, Toronto Botanical Garden, Feb 24. Leader: Peter Heinz. We devoted our time to exploring a dream. Toronto Botanical Garden is four acres, whereas Edwards Garden is 30. The vision is to combine the two and create an internationally-recognized botanical garden for Toronto with improved amenities, more programming, education and activities. During the walk, we encountered the resident Wilket Creek red-tailed hawk, saw robins, chickadees and blue jays, and heard cardinals.

Prospect Cemetery, Feb 28. Leader: Pleasance Crawford. Many trees are easy to identify in winter. We saw the catkins of Turkish hazel, white and river birch and red alder. We compared the cones of three larch species – the native (tamarack), the European and the Japanese, and of several pines. We noticed the bark of the paperback maple, the fruits of the golden rain tree, the colour of the dawn redwood, and the distinctive forms of the European hornbeam, the fastigate European beech and English oak.



Eastern larch (tamarack) in Mount Pleasant Cemetery, 2015

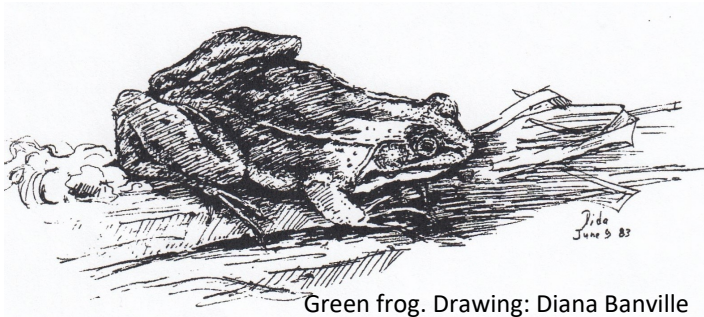
Photo: Ken Sproule

FOR READING

IN SEARCH OF LOST FROGS: The campaign to rediscover the world's rarest amphibians.

by Robin Moore
Firefly Books Ltd., 2014

Robin Moore opens *In Search of Lost Frogs* with a magical introduction of his six-year-old self as he discovers the wonders of nature in Scotland. His childhood fascination with frogs began a lifelong passion which led to a PhD in Biodiversity Conservation and journeys around the world searching out amazing species, interviewing and accompanying researchers and raising public awareness.



Green frog. Drawing: Diana Banville

The book initially traces the disturbing disappearance of amphibian species in Central America, Australia and California, and the complex unraveling of causes that include chytrid fungus, habitat loss and global warming. Then the story takes a sudden turn as survivors unexpectedly appear. In 2010 the International Union for the Conservation of Nature launched The Search for Lost Frogs, see <http://www.amphibians.org/lostfrogs/>. Around the globe, research teams scoured promising habitat, following historical records and local knowledge to seek out species that had not been recorded for decades. More rediscoveries resulted, along with species entirely new to science.

It's time for us to rethink conservation motivations and priorities. We've known for a long time that amphibians are seriously threatened, crucially in need of continuing scientific research and wider public interest. Engaging the reader through stunning photography and the power of story, Moore's book offers signs of hope and much food for thought.

I found my copy while browsing in a second-hand bookshop which, sadly and perhaps ironically, was about to go out of business. The Toronto Public Library has several circulating copies.

Marilynn Murphy

Mushrooms: A Natural and Cultural History

by Nicholas P. Money
Reaktion Books, 2017

This is an entertaining, breezy overview of the intriguing and frequently surprising world of mushrooms, and an excellent introduction to all things mushroomy. It includes a bracingly sceptical look at various medicinal claims that have been made for mushrooms over the centuries and some morbidly fascinating tales of the effects of accidental – and deliberate – mushroom poisoning.

Not far into the book it becomes apparent how little we know about mushrooms, as the author is at pains to point out. For example, there's no satisfactory explanation for why some mushrooms expend energy on striking colouration or exhibiting bioluminescence. Some mushrooms, such as death caps (*Amanita phalloides*), are virulently toxic, while those containing psilocybin are psychotropic.

The list of mushroom mysteries continues:

- As the fossil record is almost non-existent for soft-bodied mushrooms, we know nothing about their evolutionary beginning.

- The complex mechanism whereby mushrooms (the fruiting body of the fungus) develop in different locations on the mycelium is poorly understood.
- Mushroom gender and sexuality are also much of a mystery, hardly surprising given the astoundingly complicated reproduction system of some mushroom species, involving tens of thousands of different mating types.
- It is also something of a mystery why, independently across several cultures, mushrooms are frequently associated with toads, as in "toadstools."

Further research is needed, as they say, but these gaps in mushroom knowledge only add to their aura of mystery.

Charles Bruce-Thompson



Inky caps (*Coprinus*)

Drawing: D. Andrew White

IN THE NEWS

Federal government investing in biodiversity

Canada made a commitment to protect at least 17% of lands and inland waters by 2020, and the 2018 budget seems to take a step in that direction with \$1.3 billion being invested over five years to protect biodiversity and species at risk. Part of the package is a new \$1 billion Nature Fund (\$500 million from the Feds) that will be used to secure private land and support provincial and territorial species protection efforts. It should be noted that the government's National Wetland Conservation Fund was cancelled at the same time, presumably to redirect its funds towards this new initiative. The National Wetland Conservation Fund contributed nearly \$25.5 million between 2014 and 2017.

Small wetlands are also good

Researchers studying wetlands have found that small wetlands are important; yet they are the ones that typically are lost. Isolated small wetlands aren't as useful but, when grouped together, they protect species and improve water quality. For instance, the perimeters of a group of small wetlands are greater than one large wetland, providing important habitats. Unfortunately, small wetlands do not

receive the same legal protections as large ones and their value as part of a wetland complex is not taken into account when decisions are made about their future. More information: <https://goo.gl/nQXgxf>. Even more on the benefits of wetlands: <https://goo.gl/ycWJSR>

Mallards to the rescue!

Wintering mallard ducks are helping to disperse seeds among wetlands isolated by habitat fragmentation. In autumn and winter the ducks feed mostly on seeds, not all of which are digested. The ducks fly across inhospitable land to a new site where the seeds re-emerge. Research indicates that about 7% of the seeds that survive digestion are dispersed between foraging areas. This may not seem like a lot, but ducks eat a lot of seeds and mallards are one of the most plentiful ducks on earth. More information: <https://goo.gl/J8ooh9>

Tidbits:

Youth get in free at National Parks. <https://goo.gl/M62Su5>
Venus flytraps don't eat the insects that pollinate them: <https://goo.gl/n25uSn>

Lynn 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 Apr 15, 7:30 am – noon. **South Peel Hotspots – Spring migrants.** Leader: Reuven Martin. Meet at the parking lot in Marie Curtis Park, off 42nd St south of Lakeshore Rd E. We may visit Lakefront Promenade, Saddington Park, Rattray Marsh and Lakeside Park, car-pooling between locations.
- Sat Apr 21, 7:30 am to 2 pm. **Leslie Street Spit – Early spring migrants.** Leaders: Garth Riley, John Carley, Bob Cumming and Caroline Biel. Meet at the foot of Leslie St at Unwin Ave. Waterproof footwear recommended.
- Sun Apr 22, 7:30 am to early aft. **Oshawa Second Marsh – little gulls and other migrants.** Leaders: Justin Peter, Charmaine Anderson and Kai Millyard. Meet at GM Headquarters parking lot. Exit #419 (Harmony Rd) from highway 401; drive south on Farewell St, then east on Colonel Sam Drive. Park in the west parking lot close to the marsh.
- Wed Apr 25, 7:45 pm to 8:45 pm. **Leslie Street Spit – American Woodcock Appreciation display.** Leader: Justin Peter. Meet at the foot of Leslie St at Unwin Ave. Waterproof footwear recommended.
- Sun Apr 29, 7:30 am to noon. **Humber Bay Park East – Spring migrants.** Leader: Don Burton. Meet in parking lot.

LEAF – Local Enhancement & Appreciation of Trees (www.yourleaf.org)

- Wed Apr 11, 6:30 – 7:30 pm. Toronto Volunteer Orientation. Meet at Deer Park Library, 40 St Clair Ave E. An introduction to the urban forest, LEAF programs and volunteer roles. Age 18+. Free. Registration required (Erica@yourleaf.org).

Natural Environment and Community Programs, City of Toronto (<https://goo.gl/S79U1H>)

April tree planting opportunities in Toronto parks and Stewardship orientation:

Cultural Heritage Landscapes : A revisiting of 20th century landscapes through the paintings of Clara Harris

Sat Apr 7. Historic Lambton House, 4066 Old Dundas St. Doors open 12 noon. Panel Discussion 2-4 pm. Victoria Lister Carley, Landscape Architect and Pleasance Crawford, Landscape Design Historian. Free admission. Tea and coffee provided. TTC: #55 Warren Park bus from Jane subway station. Information: Madeleine McDowell at 416-767-7633.

Ian Wheal Walks

- Sun Apr 1, 11 am. Hazelburn/Taddle Creek (lost river) to Corktown. Meet at the northwest corner of Church St and Queen St E. A 4-km walk.
- Fri Apr 20, 6:30 pm. Rosehill Park (CPR Excursion Park 1885-1914). Meet at the entrance to Summerhill subway station. A 1.5-hr walk.

KEEPING IN TOUCH

There is an excellent article about spring foliage in the East York ravines by TFN member Melanie Milanich in the March issue of the *East York Chronical Newsmagazine*: <https://goo.gl/3z9osE>



Skunk cabbage. Photo: Ken Sproule

Did you know?

The digital edition of our newsletter is fully searchable! Let your computer (or Google) help you locate articles in past issues instead of hunting through all those indices.

To get yours, make sure the TFN office has your email address.

SONG LYRICS FOR ONTARIO

Years ago I had a job in Algonquin Park
Where you can see the Milky Way as soon as it gets dark.
I thought that I could find a place where men have never been;
Wilderness and forest – a Tom Thomson scene.

I had a map which showed a cliff 100 meters tall
And from the top a stream ran down. I thought “a waterfall.”
We hiked up stream past beaver ponds far from any road
Until we stood below it – a rainbow clear and cold.

Chorus

There's no heaven up above, it's right down here below: Ontario.

A path was made by bear and moose to climb up to the top.
The water had for time unknown washed through that granite rock.
We found behind the waterfall a cave where you could stand.
Never have I ever been in nature oh so grand.

Chorus

The tropics are too hot. You get sunburned on the beach.
I enjoy the wintertime when snow sticks to the trees,
The flowers in the spring and the colours in the fall.
But all my friends I sing with, I'll miss them most of all.

Chorus:

Oh, how I want to go back to Ontario. Oh, how I want to go home.

Roger Powley

Continued from page 9

In winter, activity is mostly around the bird-feeder for which the garden provides handy perches. But goldfinches also love black-eyed Susan seeds. I've seen them jump up and down on the stems and shake the seeds out onto the snow below where they show up well against the white background.



Tree sparrows like big-bluestem seeds and can be seen swaying up and down on the long flexible stems.

List of native plants mentioned

<i>Amelanchier</i> sp	serviceberry
<i>Andropogon gerardii</i>	big-bluestem
<i>Asclepias syriaca</i>	common milkweed
<i>Clematis virginiana</i>	virgin's-bower
<i>Cornus alternifolia</i>	alternate-leaved or pagoda dogwood
<i>Ilex verticillata</i>	winterberry or deciduous holly
<i>Lobelia cardinalis</i>	cardinal-flower
<i>Monarda didyma</i>	bee-balm
<i>Rudbeckia hirta</i>	black-eyed Susan
<i>Silphium perfoliatum</i>	cup-plant
<i>Vernonia altissima</i>	ironweed

There's nearly always some bird activity to see in a native plant garden! Native plant sales, such as the one at High Park, will be coming soon.

Jenny Bull

Answers from page 11

A = 3 Leaf

B = 1 Root

C = 4 Flower

D = 2 Stem

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Photo by Jonathan Harris on February 17th outing to West Highland Creek Watershed