



Since 1923

# TORONTO FIELD NATURALIST

Number 630 October 2017



Greater Yellowlegs at Ashbridge's Bay, August 2017. Photo: Lynn Pady

## REGULARS

Children's Corner	19
Coming Events	23
Extracts from Outings Reports	16
In the News	21
Keeping InTouch	20
Monthly Meetings Notice	3
Monthly Meeting Report	7
President's Report	6
TFN Outings	4
Weather – This Time Last Year	22

## FEATURES

Stranger than Fiction!	2
Tree of the Month: Silver Maple	8
Toronto's Angelica and A Water-Hemlock	9
Jim Baillie Nature Reserve Work Party	10
TFN Financial Statements	11
Flora, Fauna and the Flood	15
TFN Junior Naturalists: A Rebirth	18
A Mystery Shrub	20
Q&A: Fireflies	22

**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.

*Toronto Field Naturalist* is published by the Toronto Field Naturalists, a charitable, non-profit organization. Issued monthly September to December and February to May. Views expressed in the Newsletter are not necessarily those of the editor or Toronto Field Naturalists. The Newsletter is printed on 100% recycled paper.

ISSN 0820-636X

**IT'S YOUR NEWSLETTER!**

We welcome contributions of original writing (between 20 and 500 words) of observations on nature, especially in the Toronto area. We also welcome reports, reviews, poems, sketches, paintings and digital photographs. Please include "Newsletter" in the subject line when sending by email or on the envelope if sent by mail.

Please re-name digital photographs with the subject and your name (abbreviations ok). In the accompanying email include location, date and any interesting story or other information associated with the photograph.

**Deadline for submissions for November issue: Oct. 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 and mailing: Perkins Services Inc.

**BOARD OF DIRECTORS**

President & Outings	Charles Bruce-Thompson
Past-President	Nancy Dengler
Vice-President	Charles Crawford
Secretary-Treasurer	Bob Kortright
Environment	Elizabeth Block
Special Projects & Nature Reserves	Jane Cluver
Newsletter	Vivienne Denton
Webmaster & Newsletter	Lynn Miller
Finance	Anne Powell
Promotions	Jason Ramsay-Brown
Monthly lectures	Alex Wellington

**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

No HST. Tax receipts issued for donations. Send membership fees and address changes to the TFN office.

*Please note: TFN does not give out its membership list.*

**Toronto Field Naturalists**

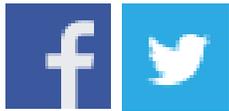
1519 – 2 Carlton St, Toronto M5B 1J3

Tel: 416-593-2656

Web: [www.torontofieldnaturalists.org](http://www.torontofieldnaturalists.org)

Email: [office@torontofieldnaturalists.org](mailto:office@torontofieldnaturalists.org)

The office is open 9:30 am to noon on Fridays



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](mailto: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](http://www.torontofieldnaturalists.org) and click on Twitter or Facebook.

**Stranger than Fiction!**

You never know what is going to appear at Tommy Thompson Park. On September 9th I was astonished to see my very first ever spiny softshell turtle – a massive pre-historic looking creature – basking in the sun. I stayed way back, took many photos with a ton of zoom, just to confirm what I was staring at, and quietly watched for ages. Eventually it heaved itself off its rock and submerged, then rose slowly with its pig-like snout leading the way as it floated but didn't really go anywhere. Oh my goodness, I was thrilled to bits as I quietly crept away. Like the Blanding's turtle, the spiny softshell is a threatened species.

Article and photo by Lynn Pady



## TFN MEETING

Sunday, Oct. 1, 2:30 pm

Polar bears and climate change: is there a tipping point?

*Martyn Obbard (Research Scientist, Ministry of Natural Resources)  
will discuss the effects of climate change on polar bears  
based on extensive field research in the Hudson Bay Lowlands of Ontario*

**VISITORS WELCOME!**

**SOCIAL: 2:00 – 2:30 pm**

**ANNUAL GENERAL MEETING: 2:30 - 2:45 PM**

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 and insights about this lecture on social media  
with the hashtag #TFNTalk.**

### 2017-2018 BOARD OF DIRECTORS SLATE PRESENTED BY THE NOMINATING COMMITTEE

The nominating committee recommends the following slate of nominees to the Board for the year 2017-2018:

**President:** Charles Bruce-Thompson

**Vice President:** Jason Ramsay-Brown

**Past President:** Nancy Dengler

**Secretary-Treasurer:** Bob Kortright

**Directors:**

Due to retire in 2018: Lynn Miller, Alex Wellington, Anne Powell

Due to retire in 2019: Vivienne Denton, Elizabeth Block, Jane Cluver

Due to retire in 2020: Anne Purvis, Ken Sproule

### UPCOMING TFN LECTURES

Nov 5 Gail Fraser (Associate Professor, Environmental Studies, York University):  
*Double-crested cormorants and Leslie St Spit's urban wilderness*

Dec 3 Peter Mills (Author and Illustrator, *Metamorphosis*):  
*Ontario's amphibians at all stages of development*

## 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](http://www.ttc.ca) or 416-393-4636).
- 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.*
- **We recommend you check with the TTC for any schedule disruptions which may occur on weekends. Allow extra time if necessary.**

Please share your favourite walk photos on social media with the hashtag #TFNWalk.

- Sun  
Oct 1  
2:30 pm     **LECTURE and AGM. Polar Bears and Climate Change**  
**Speaker: Martyn Obbard**, Research Scientist, MNR  
Emmanuel College, 75 Queens Park Cres E. See details on page 3.
- Wed  
Oct 4  
10:00 am     **HIDDEN PATHS TO TODMORDEN AND THE BRICK WORKS – Nature Walk**  
**Leader: Vivienne Denton.** Meet outside Broadview subway station for a circular walk on mostly unpaved and uneven surfaces with some steep slopes and stairs. We will walk via back streets to the hidden entrance to Todmorden Wildflower Preserve and then up hill on the remains of Old Pottery Rd to the top of the Brick Works Park hill. We will end at the Brick Works where participants can stop for lunch or take the free bus to Broadview station. In the event of bad weather we can take a gentler route. Bring lunch or a snack and wear good boots.
- Sat  
Oct 7  
1:30 pm     **G. ROSS LORD PARK FROM SOUTH TO NORTH – Nature Walk**  
**Leader: Alexander Cappell.** Meet at the northeast corner of Dufferin St and Finch Ave W for a linear walk on mostly unpaved surfaces, mainly flat with gentle slopes. We'll see an artificial lake and its mud flats, three rivers, a flood control dam, high voltage hydro lines, a meadow, two cemeteries, a grassland evolving into a woodland and finally a choice of coffee shops at Bathurst St and Steeles Ave W. Bring binoculars. Washrooms at end of walk.
- Mon  
Oct 9  
10:30 am     **E. T. SETON PARK – Nature Walk**  
**Leader: Margaret McRae.** Meet at the parking lot at the bottom of the stairs on the south side of Eglinton Ave E at Leslie St for a circular walk including the pond and pine woods behind The Science Centre. No washrooms.
- Thurs  
Oct 12  
10:00 am     **COLONEL SAMUEL SMITH PARK – Birds**  
**Leader: Doug Paton.** Meet at the southwest corner of Lake Shore Blvd W and Kipling Ave for a 2-hr circular walk. Bring binoculars.
- Sat  
Oct 14  
10:00 am     **HUMBER RIVER – Hurricane Hazel Anniversary**  
**Leader: Madeleine McDowell.** Meet at Old Mill subway station and explore the Humber between Bloor and Dundas Streets for evidence of one of Canada's worst flood disasters and its shadow on our world now. Possibly see some salmon leaping and remnants of past cultures, along with our current 21st century one as it evolves on Mother Earth under Hazel's lasting influence. Stairs down at Bloor, but they can be avoided by those who wish to make an optional detour. End at Lambton House with some tea. #55 Warren Park bus stops at the door and goes to Jane subway station. Bring snacks or lunch and binoculars.
- Sun  
Oct 15  
1:00 pm     **BLACK, BLUEBELL and LAVENDER CREEKS, PAST, PRESENT AND FUTURE – Lost Rivers**  
**Leaders: Reno King, Helen Mills, Tanya Connors and Friends.** Meet at the corner of Cliff St and Alliance Ave by the TTC bus stop. Come hear about the dreams of the Black Creek Alliance to restore life to Black Creek and reduce flooding problems in this flood-prone neighbourhood. Along the way we will discover remnants of Lost Bluebell and Lavender Creeks. Joint walk with Toronto Green Community and Black Creek Alliance.

- Wed  
Oct 18  
10:00 am **ROUGE VALLEY, FINCH MEANDER – Nature Walk**  
**Leader: Stephen Kamnitzer.** Meet at Rouge Valley Conservation Centre (Pearse House) east off Meadowvale Ave north of Sheppard Ave E opposite the zoo for a circular walk on mostly unpaved and uneven surfaces with some steep slopes. We will follow an interesting route along the Rouge River and then the old route of the Canada Northern Rail line to the Meander. About 4-5 hrs at an easy pace along some overgrown paths. A few hilly sections. Bring lunch, binoculars and a rain jacket. Washrooms at beginning of walk. Accessible by TTC bus #85A from Don Mills subway station and from the Rouge Hill GO station. From the bus stop, walk east about 5 minutes to the meeting spot.
- Sat  
Oct 21  
1:30 pm **THE WEST DON VALLEY IN EARL BALES PARK – Nature Walk**  
**Leader: Alexander Cappell.** Meet at the southwest corner of Sheppard Ave W and Senlac Rd for a linear walk on mostly paved surfaces, mainly flat with some steep slopes. We'll follow an erosion gully to its junction with Burnett Creek, to the floor of the Don West River valley, then climb up to the Sheppard Ave W bridge, from which we can see the wooded ravine slopes to the north and south with lots of sugar maples, so there may be good fall colour. Then we'll head south along the valley floor to the artificial ponds and up and out to Bathurst St to find a coffee shop. No washrooms.
- Sun  
Oct 22  
1:30 pm **RONCESVALLES AVE AND KING ST TO HUMBER BAY PARK WEST – Nature and Heritage**  
**Leader: Ed Freeman.** Meet at Beaty Blvd Parkette, 1575 King St W for a linear walk on mostly paved surfaces, mainly flat but with some stairs. We will cross the railway to a path along the lakeside crossing the Humber River and Mimico Creek, then north on Humber Bay Park Rd W to a TTC stop at Lake Shore Blvd W. Washrooms at beginning of walk. 2 1/2 to 3 hours. Bring curiosity, binoculars, camera.
- Tues  
Oct 24  
10:00 am **SPRINGMOUNT CREEK – Lost Rivers**  
**Leader: Linda McCaffrey.** Meet at the northeast corner of St Clair Ave W and EarlsCourt Ave for a linear walk on mostly paved surfaces with some steep slopes. Springmount Creek is the northwesterly branch of Garrison Creek. We will follow its course from its origin down the escarpment to Christie Pits. Walk ends at Christie subway station. The extent to which the buried creek is undermining buildings on Shaw St is one of several matters of interest. Bring water. No washrooms. A joint outing with Toronto Green Community.
- Thurs  
Oct 26  
1:30 pm **PARK LAWN CEMETERY AND KINGSWAY PARK – Nature and Heritage**  
**Leader: Pleasance Crawford.** Meet at the southeast corner of Bloor St W and Prince Edward Dr (two blocks east of the Grenview Blvd exit from Royal York subway station) for a circular walk of about 2 1/2 hrs. Entering through the pedestrian gate at this corner, we will explore this 73-acre cemetery opened in 1892. Then, heading back towards Royal York station, we will follow streets in the planned community of Kingsway Park. Bring binoculars if you wish.
- Sat  
Oct 28  
10:00 am **CHARLES SAURIOL CONSERVATION AREA (MILNE HOLLOW) – Nature Walk**  
**Leader: Ken Sproule.** Meet at the north entrance to Charles Sauriol Conservation Area on the south side of Lawrence Ave E just east of the Don Valley Parkway for a 2-hr circular walk. Take the Lawrence (#54) bus to Railside Rd. If driving, park in the lot down the hill. Mostly level ground on paved and unpaved paths. There may be some hills if weather conditions allow. No washrooms.
- Sun  
Oct 29  
1:30 pm **UPPER WILKET CREEK – Nature Walk**  
**Leader: Alexander Cappell.** Meet at the northwest corner of York Mills Rd and Bayview Ave for a linear walk, mostly unpaved but flat with some gentle slopes. We'll head north on top of buried Wilket Creek on a tree-lined lawn which was once a narrow linear golf course, detour around the executive home development which now occupies the north end of the golf course, go east to Bayview Ave, then north under the 401 and west to find two branches of Wilket Creek, not far from the coffee shops at the corner of Sheppard Ave E and Willowdale Ave. Washrooms at end of walk.



Left: Wigmore Park, East Don. 1975. Right: Rouge Valley. 1998. Photos: Robin Powell, TFN Slide Collection

## PRESIDENT'S REPORT

I am writing this shortly after spending a day at the TFN tent on Leslie Spit for the Tommy Thompson Park\* Butterfly Festival on August 19th with Bob Kortright and Rachel Gottesman. It was a perfect day for the event, mild and sunny, with a gratifyingly large number of monarch butterflies flitting around. The rumble of Lake Shore Blvd was almost drowned by the buzz of insects and the cries of ring-billed gulls. To access the Spit visitors were obliged to pass by our tent, so we had a wide and varied audience to engage with. As visitors looked at our display and literature and chatted with us about aspects of nature, both general and specific, a clear pattern emerged. For the most part children were curious, uninhibited in their questions and clearly fascinated by “bugs.” Adults too, especially those who were approaching or had achieved retirement age, lingered over the images, asked perceptive questions and showed affection for the natural world and concern for its fragility.

As the day wore on it became obvious that there was a missing demographic: the entire population that falls roughly between puberty and retirement. Younger visitors, mostly on bicycles, streamed past without a sideways glance. Parents were happy to let their children crowd around the booth as a welcome distraction but showed scant interest themselves. And there was the inevitable stream of visitors with ear-buds firmly in place and portable devices in hand, oblivious to their surroundings with ears blocked and eyes on the screen. Finding ways to attract and engage this large and influential segment of the population will be a major challenge for TFN as it nears its 100th anniversary.

This is the time of year when we process membership renewals and new memberships. Inevitably there are more than a few non-renewing members. All these have to be contacted to ascertain if they genuinely want their membership to lapse, or forgot to renew, or were

procrastinating. This is a vital job, albeit a lengthy and repetitive one, and is one of those tasks that customarily goes unnoticed and unremarked upon. So my thanks go out to Margaret McRae, who organizes the process, and to all the volunteers she recruited to cajole the stragglers.

Just as the City's Ravine Strategy is nearing completion, Parks, Forestry and Recreation is embarking on a Parkland Strategy, a “20-year plan that will guide long-term planning for new parks and expansion and improved access to existing parks.” There is still time to complete their survey (it closes October 2nd):

<https://cityoftoronto.fluidsurveys.com/s/parklandstrategy/> or contact C. Fischer, Research Analyst, City of Toronto

Parks, Forestry and Recreation Division at 416-338-8593. With beaches, playgrounds, sports fields, gardens, conservatories, ice rinks, dogs off-leash areas, etc. all struggling for attention and space, nature needs all the support she can get!

Signs of Christmas appear earlier each year, it seems. So, in that spirit I would like to remind members that it's simple to buy a TFN gift membership, either on-line or by mailed cheque, as a

Christmas present. As we are planning to re-form the Junior Field Naturalists' Club (see page 18), the gift of a TFN youth membership (a very reasonable \$10, almost a stocking-stuffer) to anyone under 26 may be enough to sow the seed that matures into a lifelong interest in nature.

Charles Bruce-Thompson  
president@torontofieldnaturalists.org



TFN promotion booth at Butterfly Festival. Photo: Charles Bruce-Thompson

\*For those confused by the inconsistent nomenclature, “Tommy Thompson Park” is the official name given to the man-made extension of Leslie Street into Lake Ontario, but (almost) everyone calls it Leslie Street Spit.

## MONTHLY MEETING REPORT

### Growing Hope: Re-Naturalizing the Landscape and Ourselves

September 10, 2017

Jason Ramsay-Brown, TFN Board Member

Jason is an articulate and passionate change-maker who shared with us his passion for re-naturalization activities in Toronto's ravine areas. His talk was also a master class in effective use of vocabulary to enhance the message.

He is a man who "walks the talk" as evidenced by anecdotes of experiences with his daughter, his involvement with multiple local organizations (Todmorden Mills Wildlife Preserve, Beechwood Wetland, Ontario Chapter for Ecological Restoration and TFN ) and authorship of *Toronto's Ravines and Urban Forests*.

We need to change our consumption practices and the idea that our species has some natural "right of way" over other species of the world. Jason introduced the concept of a "Shifting Baseline Syndrome" - how the nature that one first experiences is perceived as the way nature has always been.

Much of Jason's real message came from the anecdotes he shared

about nature experiences with his daughter, Abbey, and his reflections about their conversations on topics such as why a bloom in a vase is not as good as one in nature feeding insects, or why walking on trails saves nature. His daughter's curious questions drove Jason to find ways to allow her to express her own passion for nature. Planting activities to restore habitat also provided bonding experiences with nature for his daughter and contributed to a sense of accomplishment when results were seen. Success was demonstrated when Abbey asked to plant trees with her friends for her birthday. Her friends brought their parents...and so the ripples spread.

Jason makes the valid point that it is too late to conserve and that we have moved into an age of restoration. In order to re-naturalize landscape, we must re-naturalize ourselves. The two processes are interconnected and synergistic.



Tree planting on Abbey's 9th birthday. Photo: J. Ramsay-Brown

The last part of the lecture was a powerful, positive message about change that is happening. Todmorden Mills, one of the original hubs for settlement in Toronto, has experienced a paper-making mill, brick works dumping, a POW camp in WWII, a parking lot and dumping ground during construction of the DVP. In 1991 the Todmorden Mills Wildlife Preserve began, and due to efforts of volunteers from the community, businesses and students, tangible results can now be seen with native species outnumbering the invasive ones (originally 75% of the biomass).

Beechwood Wetland, just north of Todmorden Mills, which experienced an agricultural past, industrial activity, and DVP construction, was a haven for invasive species. In the mid-1990's, the resin plant was removed and the soil remediated. Some 35 species of native plants have

replaced the invasive ones.

Cup plants have been planted on the perimeter to provide an effective "wall" to the neighbouring Japanese knotweed. The regular meeting of a core group of stewards facilitates an appropriate ecological trajectory for the site - what nature would look like in this area if it had been left undisturbed.

These actions are world-wide. The Tigray region of Ethiopia, after years of droughts, overgrazing and unsustainable farming, changed to an agro-

ecology with no animal grazing and improved water management. The plan began with a requirement of 40 days of work per year by local people to develop water infrastructure. They moved more earth and stone than the Egyptians building the pyramids! Seeds and seedlings are from community-based nurseries and strong after-care from the local community is resulting in food security, more robust employment and bee-keeping as a growth industry!

An incredible number of volunteers were mobilized in India: 800,000 planted 49.3 million trees on 11 July 2016 and 1.5 million volunteers planted 55 million trees in 12 hours on 2 July 2017. These demonstrations of what is possible in terms of scale and speed of implementation of a plan may be of practical use to the world with the challenges presented by climate change.

Jason's closing words: "We save what we love...that's what re-naturalization is all about."

Meg O'Mahoney

## TREE OF THE MONTH: SILVER MAPLE (*Acer saccharinum*)

This article is the first in a series by James Eckenwalder, a TFN member and a plant systematist who recently retired from the U of T Department of Ecology & Evolutionary Biology. Jim is *the* authority on trees of Ontario and recently completed the manuscript for the *Field Guide to the Woody Plants of Ontario* for the ROM series. We are privileged to benefit from his expert knowledge. Ed.

If you live in a residential neighbourhood with tree-lined streets, stroll around and regard the trees as elements of the streetscape. Chances are good that the largest tree you see on your walk, at least in terms of apparent bulk of crown, will be a silver maple. (A comparably large weeping willow is more likely to be in a park or a foolish person's back yard.) You may well see a taller Norway spruce, eastern white pine or little-leaf linden, but none of these will have the overarching crown spread or massive trunk of the silver maple.

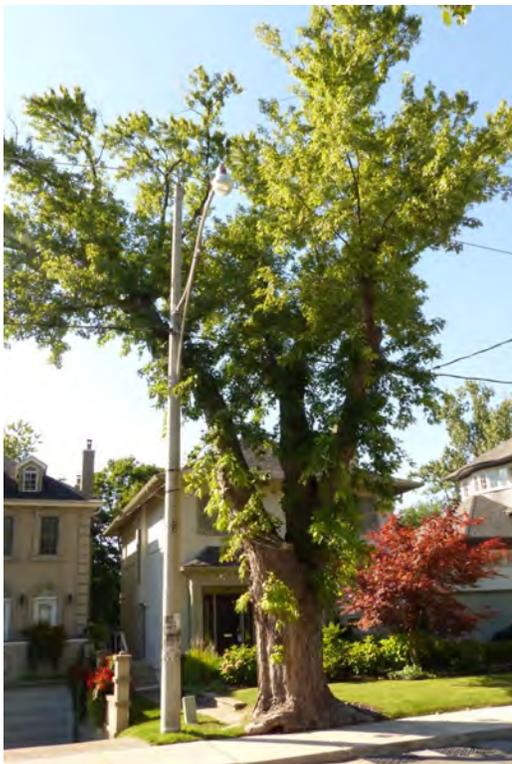
This silver maple won't be an ancient relict of forest clearing, however, and will likely be no older than many other middle-aged trees in the neighbourhood. Instead, its exalted stature is the outcome of extraordinarily fast growth, producing a stout bole along with its rapid reach for the sky and subsequent burgeoning crown spread. This exuberant growth, however, is achieved at the cost of strength and stability. Silver maples are among our large trees most likely to split or shed large limbs on cars, houses or just the ground below during a windy storm. Their wood is not as strong as that of an oak, for instance, reflecting a relationship between growth rate, rate of water use, and the balance between water conducting cells (vessel elements) and support cells (libriform fibres) in the

wood. Rapid growth depends on highly productive photosynthesis, which in turn depends on a high volume of water movement that requires a greater proportion of the cross-sectional area of the trunks and limbs devoted to water movement rather than mechanical support.

Silver maples achieve their rapid growth despite having the most highly dissected and deeply cut (lacinate) leaves among any of our native maples and, indeed, of any of our hardwood trees. Countering this is their ability to produce new leaf pairs throughout the growing season. The leaves that emerge from the buds in spring (preformed leaves, the only kind ordinarily found in oaks), are outnumbered by later produced (neofomed) ones.

Silver maples top off their rapid growth with one of the highest rates of annual seed production among our trees, providing a rich spring harvest for squirrels when few such large seeds (the meatiest among all our maples) are available. Despite their relatively large size, the fruits grow and mature rapidly following flowering, which is one of the earliest among our trees, notably precocious at almost a month before our typical May 1st leafy (vegetative) bud burst. In flower, the trees display

*continued on page 10*



Silver maple tree and leaves.  
Photos: Ron Dengler.

Silver maple inflorescences,  
male (below left), female  
(below right).  
Photos: Ken Sproule



## TORONTO'S ANGELICA AND A WATER-HEMLOCK

*Angelica atropurpurea* (purple-stemmed angelica) and *Cicuta maculata* (spotted water-hemlock) are locally occurring wetland species. Their family, the Apiaceae (carrot family), was discussed in the Nov 2015 TFN newsletter.

According to *Plants of Coastal British Columbia* (Pojar and MacKinnon, 1994), 'Angelica' is derived from *archangelia*, either because the plant was supposedly a remedy for cholera and the plague, as revealed by an archangel to Mattheus Sylvaticus, or because the European species, that bloomed around the time of the feast of the apparition of St Michael (May 8, old calendar), was believed to protect against bad spirits, witches and the cattle disease "elf shot."

*Atropurpurea*, dark purple, refers to the colour of the stems of our local *Angelica* species. According to TFN's *Vascular Plants of Metropolitan Toronto* (2nd ed, 1994), it is rare in Toronto, only reported in the Humber valley, at Wilket Creek (Don) and in the Rouge valley.

Plants are up to 1.8 m tall with about 3 mm greenish-white flowers in somewhat globular compound umbels, 10 to 20 cm across, composed of up to 45 umbelets. Plants are summer blooming. The species is edible but should not be picked here. *The ROM Field Guide to Wildflowers of Ontario* (2004) warns that wild plants of this family **should not be eaten at all** as many species are extremely poisonous and can be very difficult to distinguish from edible species.

*A. atropurpurea* occurs in Ontario from the U.S. border to the Lake Simcoe-Rideau ecoregion and as a disjunct population in the James Bay ecoregion. Its full range is Ontario to Newfoundland and most of the northeast quarter of the U.S.

*Cicuta maculata* (spotted water-hemlock) is, according to *The ROM Field Guide*, the most toxic plant in North America and the cause of several deaths every year. European hemlock (*Conium maculatum*), that Socrates used to poison himself in 399 BCE after being condemned to death for impiety, is a fairly close relative. *Cicuta maculata* is locally uncommon but has been reported from the Humber watershed to the Rouge and in High Park. Its reported Ontario range is across southern Ontario and in parts of northern Ontario. Its full range includes all of North America except Newfoundland and Nunavut. It occurs in wet areas similar to those where angelica is found. Blooming can be in July or August. Plants are up to 2.2 m tall, with green stems spotted with purple. Flowers, about 4 mm across, are described by *The ROM Field Guide* as greenish white, but are whiter than local *Angelica* flowers. They occur in compound flat-topped umbels up to 10 cm across that are composed of up to 28 umbelets.

New occurrences of *Angelica* would be a worthwhile find but you should be sure your identification is correct!

Article and photos by Peter Money

### A NATURAL PUZZLEMENT

*Angelica* and *Cicuta* species, both in the Apiaceae family, are found in wetland habitats in North America and Eurasia. All members of the former genus are edible for humans and other mammals, all members of the latter genus are highly toxic. Why should related plants occurring in similar habitats have such different effects?

As both genera include species widespread in the northern hemisphere they must be considered evolutionary successes. Both produce chemical compounds needed for their protection from insect attacks. That *Angelica* species flourish despite being edible by mammals suggests that mammals were not a problem for their ancestral species, which were well back on the evolutionary path that is also ancestral to *Cicuta* species.

Why then the highly poisonous nature of *Cicuta* species? The answer appears to lie in the different defenses developed, an alcohol (*cicutoxin*) in *Cicuta* species, a long list of terpenes, organic acids, glycosides and coumarins in *Angelica* species. *Cicuta* toxicity to mammals is, it seems, simply a byproduct of one evolutionary path followed to ward off insect attacks. *Angelicas* followed a different path.

PM



Left: *Angelica* (*Angelica atropurpurea*) and close-up of compound umbel

Right: Spotted water hemlock (*Cicuta maculata*) and close-up of umbelet

## JIM BAILLIE NATURE RESERVE WORK PARTY

On a sunny and pleasantly cool August day, a party of 12 volunteers (Judy Ayres, Bob Bose, Charles Bruce-Thompson, Charles Chaffey, Jane Cluver, Ed Freeman, Lynn Miller, George Nassas, Leila Nessum, Richard Partington, Jill Pettigny and Ken Sproule) went to the Jim Baillie Nature Reserve to conduct routine maintenance tasks.

The effects of a damp spring and summer were immediately apparent. Lush, profuse vegetation had all but obliterated parts of trails that had been clear on our visit in May. We cleared many boardwalks, not without considerable effort. We noticed that those across the wetland stretch were beginning to rot and will have to be replaced this fall. Bob Bose and George Nassas made a start on this using lumber left over from our last boardwalk-building session and were still working on this when the rest of the team departed at 3 pm. Other volunteers cleared invasives from around the shelter where there were widespread patches of dog-strangling vine and buckthorn. We pulled and bagged as much dog-strangling vine as time allowed.

After a lunch break we put into practice Kayoko Smith's suggestion to use painted can lids as trail markers.

Formerly we have painted trail marks on tree trunks but these tend to disappear depressingly fast. The bark sloughs off on some trees after a couple of seasons, taking the paint with it, and periodically some trees, especially birch and cedar, fall over. We made a start on this experiment and hope to mark the entire trail system eventually. For this project we need many can lids of all sizes. If you would like to help, please collect yours and hand them in at any TFN lecture or drop them off at the office any Friday morning.

Work at TFN reserves is never finished. There are always trails to clear and invasives to persecute. It can be gruelling work in the heat of summer and hard-going in the depths of winter. But there are compensations. A day spent at the reserve is a great opportunity for "forest bathing" and there is always the chance of seeing fascinating aspects of nature. Lynn Miller spotted and photographed this very healthy example of Ghost Plant (*Monotropa uniflora*) on the path from the shelter. To volunteer, just email [office@torontofieldnaturalists.org](mailto:office@torontofieldnaturalists.org)

Charles Bruce-Thompson



Left to right: Cleared boardwalk, bagging DSV, affixing trail marker, ghost plant. Photos by Lynn Miller.

### Tree of the Month *continued*

conspicuous fuzzy white balls of stamens or tighter bright red ones of stigmas. The balls, whether male or female, each consist of multiple flowers on branched short reproductive twigs. You may appreciate the help squirrels give you in cleaning out your eaves-troughs of their masses of flown-in maple keys.

You might also see, on the mornings following fruit-fall, little rings of a few keys angling out of the ground where night-crawler earthworms have drawn the tips down into

their burrows. Then, whether they are planted by squirrels, by earthworms or their own devices, expect to find yourself looking later at a crop of silver maple seedlings.

Although silver maple is primarily a tree of floodplain forests and swamps in the wild, it thrives under a wide variety of conditions including those of Toronto's streets. We can't leave this Toronto staple without noting that the city's current planting program partly replaces silver maple with the smaller Freeman maple, its hybrid with the closely related red maple.

James Eckenwalder

---

**Peter W. Hogg**  
Chartered Accountant

---

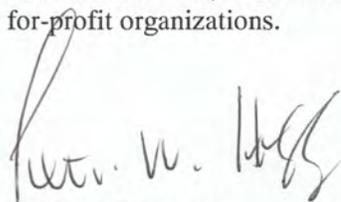
**REVIEW ENGAGEMENT REPORT**

To the Members,  
Toronto Field Naturalists  
TORONTO,  
Ontario.

I have reviewed the statement of financial position of Toronto Field Naturalists as at June 30, 2017 and the statements of general fund operations, nature reserve and projects fund and cash flows for the year then ended. My review was made in accordance with Canadian generally accepted standards for review engagements and accordingly consisted primarily of inquiry, analytical procedures and discussion related to information supplied to me by the organization.

A review does not constitute an audit and consequently I do not express an audit opinion on these financial statements.

Based on my review, nothing has come to my attention that causes me to believe that these financial statements are not, in all material respects, in accordance with Canadian accounting standards for not-for-profit organizations.



PETER W. HOGG,  
Chartered Accountant  
Licensed Public Accountant

TORONTO, Canada  
September 7, 2017

**TORONTO FIELD NATURALISTS  
STATEMENT OF FINANCIAL POSITION**

As at June 30,

2017 2016

ASSETS	2017	2016
<b>Current</b>		
Cash - Operating fund	\$ 39,780	\$ 74,257
Guaranteed investment certificates	152,000	145,000
GST/HST receivable	1,791	3,390
Publication inventory (Note 2(e))	100	1,200
Photo library (Note 6)	10	10
Prepaid expenses	3,297	3,214
	<u>196,978</u>	<u>227,071</u>
<b>Capital (Note 2(b))</b>		
Nature reserve properties	281,702	281,702
	<u>\$ 478,680</u>	<u>\$ 508,773</u>

**LIABILITIES**

<b>Current</b>	
Accounts payable and accruals	\$ 1,917
Prepaid membership fees (Note 2(c))	10,790
	<u>12,707</u>
	10,936

**FUND BALANCES**

Nature reserve and projects fund (Note 2(a))	\$ 465,973	\$ 497,837
General fund (Note 2(a))	-	-
	<u>465,973</u>	<u>497,837</u>
	<u>\$ 478,680</u>	<u>\$ 508,773</u>

Approved by the Board:

 Director

Director

See accompanying notes and review engagement report dated September 7, 2017.

**TORONTO FIELD NATURALISTS  
STATEMENT OF GENERAL FUND OPERATIONS**

For the year ended June 30,

2017 2016

<b>REVENUE</b>	\$	21,103	\$	20,810
Membership fees				461
Publications		8,866		14,762
Donations				
		<u>29,969</u>		<u>36,033</u>
<b>EXPENSES</b>				
Newsletter, printing and mailing		7,536		10,150
Lecture series		5,087		4,941
Administration and member services		2,244		2,521
Financial review fee		1,771		1,771
Outings		1,159		1,173
Telephone and internet		1,136		1,021
Publication write down		1,100		-
Office rent		<u>17,762</u>		<u>17,993</u>
		<u>37,795</u>		<u>39,570</u>
		(7,826)		(3,537)
<b>DEFICIENCY OF REVENUE OVER EXPENSES</b>				
Transfer from Nature Reserve and Projects Fund		7,826		3,537
<b>FUND BALANCE - BEGINNING OF YEAR</b>				
<b>FUND BALANCE - END OF YEAR</b>				

See accompanying notes and review engagement report dated September 7, 2017.

**TORONTO FIELD NATURALISTS  
STATEMENT OF NATURE RESERVE AND PROJECTS FUND OPERATIONS**

For the year ended June 30,

2016

2017

<b>REVENUE</b>			
Investment income	\$ 2,932	\$ 3,054	
Requests	3,900	-	
Rental income	500	500	
	<u>7,332</u>	<u>3,554</u>	
<b>EXPENSES</b>			
Property taxes and maintenance	2,879	2,496	
Promotional events and materials	491	663	
Grants - High Park Nature Centre	5,000	5,000	
Grants - Ontario Nature Youth Programs	5,000	5,000	
Grants - Bird Studies Canada	5,000	-	
Grants - Toronto Botanical Garden	4,770	4,600	
Grants - Toronto Wildlife Centre	4,230	-	
Grants - Faial Light Awareness Program	4,000	7,500	
Grants - Royal Ontario Museum	-	6,900	
Grants - Toronto Zoo	-	6,000	
Grants - Eco Sparks Environmental Organization	-	-	
	<u>31,370</u>	<u>38,159</u>	
<b>DEFICIENCY OF REVENUE OVER EXPENSES</b>	(24,038)	(34,605)	
Transfer (to) Operating Fund	(7,826)	(3,537)	
<b>FUND BALANCE - BEGINNING OF YEAR</b>	<u>497,837</u>	<u>535,979</u>	
<b>FUND BALANCE - END OF YEAR</b>	<u>465,973</u>	<u>497,837</u>	

See accompanying notes and review engagement report dated September 7, 2017.

**TORONTO FIELD NATURALISTS  
STATEMENT OF CASH FLOWS**

For the year ended June 30,

2016

2017

<b>CASH PROVIDED BY (USED FOR):</b>		
Excess (deficiency) of revenue over expenses:		
General fund operations	\$ (7,826)	\$ (3,537)
Nature reserve and projects fund operations	(24,038)	(34,605)
	<u>(31,864)</u>	<u>(38,142)</u>
Changes in non-cash working capital balances:		
GST/HST receivable	1,599	(69)
Inventory	1,100	-
Prepaid expenses	(83)	-
Accounts payable and accruals	(20)	(63)
Prepaid membership fees	1,791	169
	<u>(27,477)</u>	<u>(38,105)</u>
<b>Total Cash From Operations</b>		
	(27,477)	(38,105)
<b>NET DECREASE IN CASH</b>		
	<u>219,257</u>	<u>257,362</u>
<b>CASH - BEGINNING OF YEAR</b>		
	\$ 191,780	\$ 219,257
<b>CASH - END OF YEAR</b>		
	39,780	74,257
	<u>152,000</u>	<u>145,000</u>
	<u>\$ 191,780</u>	<u>\$ 219,257</u>

Comprised of:  
Cash  
Guaranteed Investment Certificates

See accompanying notes and review engagement report dated September 7, 2017.

**TORONTO FIELD NATURALISTS****Notes to Financial Statements, June 30, 2017****1. PURPOSE OF THE ORGANIZATION**

The Toronto Field Naturalists (the organization) is a registered charity. The purpose of the organization is to stimulate public interest in natural history and to encourage the preservation of our natural heritage. For income tax purposes the organization qualifies as a not-for-profit organization which is exempt from income taxes under the Income Tax Act.

**2. SIGNIFICANT ACCOUNTING POLICIES**

The financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations, the more significant of which are outlined below.

**a) Fund Accounting**

The organization follows the restricted fund method of accounting. Separate funds are maintained to account for and to report on the separate activities or objectives as determined by donors or by resolution of the Board. The organization currently operates a General Fund and a Nature Reserve and Projects Fund. The General Fund is for the unrestricted funds received and expended for the day-to-day operating transactions of the organization. This fund is set to zero at the beginning of each fiscal year with any excess or deficiency of income over expenses being transferred to or from the Nature Reserve and Projects Fund. The Nature Reserve and Projects Fund reflects the income and expenses relating to the nature reserves, special events or purchases outside normal operations, and grants to other organizations for purposes consistent with the organization's objectives. This is a restricted fund.

**b) Capital Assets**

Capital assets are stated at cost and consist of nature reserve properties. No annual amortization has been taken on these properties.

**c) Revenue Recognition**

Donations and bequests are recorded when received. Donations are allocated to the Operating Fund and bequests are allocated to the Nature Reserve and Projects Fund.

Membership fees are recorded in revenue of the fiscal year to which they apply.

Membership fees received in advance are included in deferred revenue. All other income is recorded when received.

**d) Use of Estimates**

The preparation of the financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. These estimates are based on management's best knowledge of the current events and actions that the organization may undertake in the future. Actual results could differ from those estimates.

**e) Inventories**

Inventories are valued at the lower of cost and net realizable value.

**f) Contributed Services**

The organization depends heavily on the use of volunteers to provide services. Contributed services are not recognized in the financial statements due to the difficulty in determining their fair value.

**3. FINANCIAL INSTRUMENTS**

The organization's financial instruments consist of cash, accounts receivable, investments, accounts payable and accrued liabilities. The organization has designated its cash as held for trading, which is measured at fair value. Accounts receivable is classified as loans and receivables and accounts payable and accrued liabilities are classified as other financial liabilities, both of which are measured at amortized cost. Unless otherwise noted, the organization is not exposed to significant credit or currency risk arising from these or other financial instruments.

**Fair Values**

The carrying values of cash, accounts receivable and accounts payable and accrued liabilities approximate their fair value due to the relatively short periods to maturity of the instruments.

**Credit Risk**

Credit risk arises from the potential that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss. The maximum credit exposure to the organization is represented by the fair value of the amounts receivable as presented in the statement of financial position.

**4. CAPITAL MANAGEMENT**

The organization's capital consists of cash and unrestricted net assets. The organization's capital structure is intended to meet or exceed internally set capital targets while addressing the need to meet a demand for cash or fund its obligations as they come due. It monitors its capital by preparing annual budgets and monitoring actual results at regularly held Board meetings and is not subject to any externally imposed capital requirements.

**5. COMMITMENTS**

The organization entered into a lease agreement for office space. Annual rent is approximately \$18,500. The lease will expire February 28, 2019.

**6. PHOTO LIBRARY**

The Photo Library consists of an estimated thirteen thousand 35-mm colour slides, focussing on Toronto valleys, watercourses, shorelines, plants and animals and on the organization's properties and activities. The collection began in the early 1970s.

# FLORA, FAUNA AND THE FLOOD



Lake Ontario's water level rose to unprecedented heights this summer. On Toronto Island, gulls moved in first, as they do after a heavy rain. Photo: 7 May



Spotted sandpipers, yellowlegs and a family of blue-winged teals found that, while Hanlan's beach was under water, a huge expanse of flooded lawn provided good habitat nearby.



Water levels rose well into June. Note the green algal high water mark on the white sandbags. Photo: 11 July.



A wood duck family found a peaceful pond that used to be a busy path to Ward's beach.



Large numbers of great egrets found that much of the island was more like it used to be: a shallow marsh full of frogs. At left, Gibraltar Point baseball field where in mid-May carp were spawning in two feet of water.



The road became a huge birdbath with the water warming up nicely!



Water receding on Olympic Island (28 June).

## EXTRACTS FROM OUTINGS LEADERS' REPORTS

**Rouge Park, June 3. Leaders: Petra and Jim Grass.** On the most beautiful day of the spring so far, we saw about 32 species of wildflowers and 42 bird species. There seemed to be considerably fewer wildflowers in bloom compared to this time last year, perhaps due to cooler temperatures and above average rainfall. The highlight birds were mourning warbler, indigo bunting and great crested flycatcher.

**Humber River, June 4. Leader: James E Eckenwalder.** Unexpectedly, this walk was taken over by the dominant ecological process in progress: herbivory and defoliation by outbreak Lepidoptera. There was a full outbreak of fall cankerworm (*Alsophila pometaria*), a generalist inchworm that's actually about an inch long and has a wide range of background colours from green to black with varying obvious stripes. They were hanging from their threads everywhere. Many Manitoba maples and white ashes were completely defoliated, and we saw the caterpillars in abundance on white elm, eastern cottonwood, trembling aspen, black walnut, sugar maple, red and bur oaks and numerous other tree species. These caterpillars were nearly mature. The somewhat less numerous gypsy moths (*Lymantria dispar*) that were also in evidence, particularly on young planted oaks, were in earlier instars (molting periods). As a group, we missed seeing another larva, a conspicuous nematid sawfly that was on some of the willows. Numerous birds were seen or heard, including northern cardinals, a common egret, chimney swifts, American robins, red-winged blackbirds, yellow warblers, a great crested flycatcher, American goldfinches, and male indigo buntings singing in the bright sunlight.

**Riverdale Park East, June 6. Leader: Vivienne Denton.** We were joined by Jessica Iraci (Parks Program Officer, Toronto Parks and Forestry) and Lise Beaupre (leader of Riverdale Park East stewardship team) who talked about the work of the stewards in the park. Before the first tree plantings were done here by the Task Force to Bring Back the Don 27 years ago, the now treed northern slope was mown lawn. The stewards concentrate mainly on the fenced wetland at the foot of the slope. Plantings include oak and maple trees to replace dying ash, ravaged by emerald ash borer, and shrubs, herbaceous plants, ferns and sedges to provide undergrowth and discourage invasives. We discovered wild geraniums in flower, and may-apples, witch hazel and choke cherries were doing well. The swamp area is expanding into the sports field as originally planned. Once the city stopped mowing the soggy ground, a healthy clump of cattails and rushes sprang up, and there are plans to move the fence to include this newly formed wetland. On the eastern slope of the park the original wet meadow has been overrun by phragmites. The stewardship team attempted to stem the spread of seeds by cutting the seed heads, but there are now plans to control the phragmites with a spading method developed by Prof. Lynn Short of Humber College. On this drizzling evening, red-

winged blackbirds were noisily present in the wetland and tree swallows were circling; otherwise there was little wildlife in this busy city park. For information about the city Stewardship Program go to:

<http://bit.ly/CommunityStewardshipProgram>

**East Don Parklands, June 13. Leader: Barbara Jackson.** We explored the northern part of the East Don Parklands in the area of the East Don River and German Mills Creek. We noted the significance of these river systems flowing from the Oak Ridges Moraine and their impact on the indigenous peoples, early settlers and peoples of today. Flooding was and continues to be an issue. In 1878, a major flood wiped out almost all of the saw and grist mills on the Don. We observed a major sewer/drainage project currently being undertaken at the entrance to Bestview Park. We walked through the woods along German Mills Creek, noting the magnificent trees (beech, silver and sugar maple, white pine) and wildflowers including a cup-plant. We were fortunate to see or hear 20 bird species including great blue heron, red-tailed hawk, white-breasted nuthatch, catbird, common yellowthroat, indigo bunting, tree swallow, red-eyed vireo, and one rabbit!

**Goldie Feldman Nature Reserve, June 17. Leader: Charles Chaffey.** Jenna Siu (Coordinator, Conservation Biology, Happy Valley Forest) of the Nature Conservancy of Canada was our guide to the Reserve, which is on the Oak Ridges Moraine, formed when the glaciers retreated some 12000 years ago and now essential for protecting regional water resources. She led us along the well-marked trail system which has sturdy boardwalks over wet places. Passing through a relatively dry beech and maple forest, we descended to an area where vernal pools are habitat for breeding salamanders. A yellow-bellied sapsucker flitted from tree to tree until it disappeared into its nest cavity in a snag; some people claimed to hear the young calling from inside. Farther along, a meadow in the process of succession to forest was home to numerous butterflies and dragonflies. At the high point of the Reserve we rested on a



Photo: Jenna Siu

bench commemorating TFN’s donation (see photo) while Jenna told us about the history of the area: native peoples, settlers and loggers, and present emphasis on preservation in face of rapid development and population growth. We returned through another forest where trees are used by birds and larger mammals such as porcupines and raccoons. After lunch we drove to the north end of Happy Valley – an older, darker forest with a variety of ferns where we saw a bright orange slime mold on a decaying log. We heard and eventually saw a rose-breasted grosbeak. When light rain started we headed to the cars, too late to avoid a heavy downpour which made us all soaking wet for the drive home.

**Wildflowers, High Park, June 22. Leader: Wendy Rothwell.** We visited several different habitats and saw about 55 wildflowers in bloom including the following natives: avens (yellow and white), Philadelphia fleabane,

white water lily, sweet flag, milkweed (common and butterfly), thimbleweed, beardtongue (foxglove and hairy), black-eyed Susan, harebell and bush honeysuckle. We were also delighted to see a female wood duck with a large brood of ducklings. Margaret McRae, a registered butterfly-raiser, collected two red admiral caterpillars from stinging nettle and a monarch caterpillar on a milkweed leaf.



Sweet flag.  
Photo: Wendy Rothwell

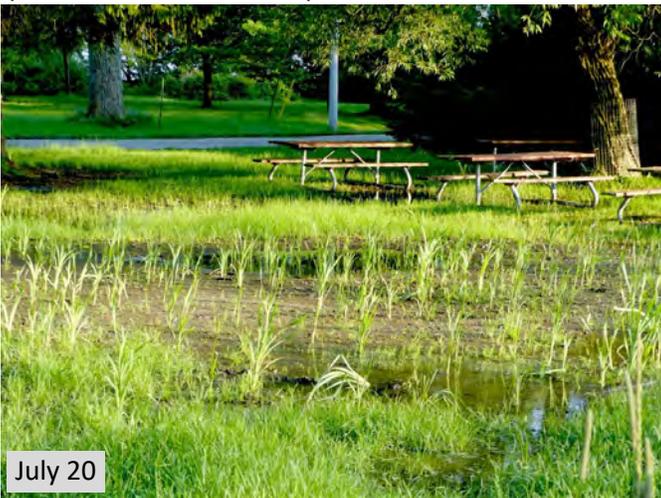
*continued on page 18*

**FLORA, FAUNA AND THE FLOOD** *continued*



June 26

Cattails germinated everywhere once the receding water reached about one inch deep, apparently the ideal depth for this aquatic species. By September, there was water-plantain flowering in the dry meadow on Ward’s! As the ground continues to dry out, these plants are mown down by Parks.



July 20



After weeks standing in water, the leaves of many trees turned brown, like this planted white pine. It remains to be seen which, if any, will leaf out next spring.



European white birches that had found the sweet spot on relatively high ground along the edges of wet meadows also succumbed to the flood, while willows (foreground) are doing fine.

Photos and text by Jenny Bull

## TFN JUNIOR NATURALISTS: A REBIRTH

In the early 1930s the TFN formed the Junior Field Naturalists' Club, a popular initiative that spent decades connecting Toronto's children with nature. Overnight trips, adventures in the halls of the ROM, lectures, nature walks and a variety of other events and gatherings brought knowledgeable naturalists and youth together to help inspire a lifetime love for our natural world. Robert Bateman, one of Canada's most well-known painters, was a member in the 1940s and later became an instructor. Of the club he once said, "It helped to form my heart and mind and soul," – an inspiring testimony to its impact.

TFN has always viewed our commitment to connect youth with nature as one of our most important missions. In the years since the Junior Field Naturalists' Club ceased operations we've continually experimented with meaningful ways to meet this mandate. Thus, it is with great pleasure that we announce the rebirth of the club, retooled for the 21st century.

Digital technology has opened up new avenues of exploration and interaction for young people. Internet access at home and school is ubiquitous. Internet-powered video services such as YouTube and Netflix have largely replaced traditional television viewing for North American youth. Tablets, cell phones, and other portable



devices are readily accessible by those with available means. With all this in mind, the new TFN Junior Naturalists Program will center around our website. Here, visitors will be able to view a growing selection of curated nature videos, download brain teasers, discover interesting apps and print scavenger hunt sheets that will inspire them to leave the screens behind and explore nature in our city. Come and see for yourself by visiting <http://torontofieldnaturalists.org/kids>

We hope this is just the beginning. As the popularity of the club increases we will continue to grow our offerings. The intent of the TFN Junior Naturalists Program is not merely to provide an interesting educational experience for youth, but to encourage them to apply this education out in our ravines and forests, and along our creeks and

rivers, far from the glow of the screen, just as those in the Junior Field Naturalists' Club did in years gone by. To this end, we invite TFN youth to email us at [office@torontofieldnaturalists.org](mailto:office@torontofieldnaturalists.org) with your ideas, suggestions, and improvements. We'd love to hear from you.

Article and photo by Jason Ramsay-Brown

---

### EXTRACTS FROM OUTINGS *continued*

**Glendon Ravine and Burke Brook, June 24. Leader: Anne Purvis.** We passed through a variety of habitats including a beach on the Don River, a marsh on the west side of the path near Burke Brook, and a meadow as we turned west. We enjoyed the rich mixed forest of butter nut, walnut, cottonwood, American elm, basswood, yellow birch and beech. There were also mature stands of eastern white cedar and eastern hemlock. We noticed black witches' butter and copper penny on rotting logs by the side of the path. The alternate-leaved dogwood and multi-flora rose were in bloom, as were many wildflowers: fleabane, dame's-rocket, yellow avens, buttercup, honewort, marsh bedstraw and tick trefoil. We sighted the eastern comma, pearl crescent, cabbage white and little wood satyr butterflies; also numerous Baltimore checkerspots around the path at the marsh. We were delighted at the clear water in the brook and to learn that

Burke Brook is one of the cleanest creeks in Toronto. We were able to scoop up water to view tadpoles and dragonfly nymphs. Perhaps a highlight for some of the birders among us was seeing a rose-breasted grosbeak singing from a willow tree in the marsh.

**Birds and Butterflies, Rouge Campground, June 27. Leader: Carol Sellers.** The walk was moved to the Rouge campground because of severe flooding at Rouge Beach. Lots of interesting birds were seen or heard: mourning warblers, rose-breasted grosbeaks, house wrens, peewees, veery and wood thrush. Butterflies seen were cabbage white, red admiral, monarch, question mark, least skipper and an interesting white admiral/ red-spotted purple mix. Dog-strangling vine was very apparent.

## CHILDREN'S CORNER

### Two Nature Mysteries in Taylor Creek

Dr Get-it-Right and his trusty assistant Half-Asleep were investigating Nature Mysteries in Taylor Creek Park in July. Get-it-Right found a giant silk moth, which was dying, and a very strange black wasp. He asked Half-Asleep to record three facts about each of these while they were on the case. Half-Asleep got two facts right, but made up the third one, because he fell asleep while Get-it-Right was talking.

Circle the facts that Half-Asleep got right and draw an X through the fact that he made up.

#### Mystery A:

Photo by: Stephen Lody



1. The moth is dying because a sparrow hawk attacked it.
2. The moth is furry all over with some clear eye spots on the wings that you can see through.
3. The moth has no mouth.

See answers on page 23

#### Mystery B

Photo by: Ironchris



1. The eggs of this wasp hatch inside beetle larvae.
2. Female wasps hibernate under loose bark for the winter.
3. The female uses its long 'tail' to sting its enemies.

By Anne Purvis

#### **Cawthra Park, July 8. Leader: Ken Sproule**

The highlight of the day was an eastern red-backed salamander, very common in Cawthra Park which is also home to the endangered Jefferson salamander. We saw fly honeysuckle (fruiting) which I have not previously seen in the GTA. Some other notable plants were moonseed, helleborine and fruiting red currant. Blue cohosh (fruiting), enchanter's nightshade (flowering), false Solomon's seal (fruiting), poison ivy (fruiting) and wild leek (flowering) were abundant. Day lily, English ivy, periwinkle, winter creeper and a garden variety of spotted dead nettle were invading the forest.

#### **Centennial Park, July 9. Leader: Claire Bergeron.**

After stopping awhile to watch a pair of goldfinches, we saw a beautiful female cardinal in the bush. We enjoyed the wonderful tropical plants in the Conservatory and, in front of it, watched turtles, tadpoles and frogs.



Red-backed salamander. Photo: Ken Sproule

## KEEPING IN TOUCH

On August 18 I went to Rosetta McClain Gardens to look for new swallowtails. I did see a giant swallowtail, our biggest butterfly, and very spectacular to boot! As I sat with my 92-year-old pal on a bench watching the non-stop butterfly action...mostly monarchs which is marvellous... in zoomed this little bundle of action – a hummingbird moth! My pal is a butterfly and bird guru and said, “The white one is the rare one - I always see the orange ones.”

I took some photos and sent off a couple to another butterfly enthusiast who got back to me quickly saying I needed to get in touch with our friend the moth expert right away. Long story short, this is a fadus sphinx moth, the first one seen in Ontario in 70 years! He ID'd it with excitement, saying he has never seen one as it is a tropical species that lives much further south.

Lynn Pady



This photo of tadpoles swimming along the road's central yellow line was taken at the access to Rouge Beach as the flooding was receding.

Anne Leon



Since retiring in 2011, I have spent my winters in Ajijic on Lake Chapala near Guadalajara in western Mexico. Located a mile above sea level, it has a sub-tropical dry climate described as the second-best in the world. Spring comes in March with the blooming of flowering trees such as the yellow primavera and purple jacaranda. I have enjoyed outings with the Lake Chapala Birders, a group of American and Canadian retirees. Most memorable was a 100-km trip to the Rio Verde last March. We observed birds around Acatic, an agricultural centre, and in the 1500-meter deep canyon of the Rio Verde – 39 species in all. Upon entering the canyon, we descended through fields of blue agave grown for the tequila industry. We enjoyed observing the flora and fauna on the floor of the canyon where we swam in one of the thermal springs that are common there. For information see <http://www.chapalabirders.org>

Peter Iveson

### A mystery shrub in Mount Pleasant Cemetery

I have been wondering about this shrub for a very long time and I could never figure out what it was despite searching my native shrub book and every book I had on ornamental bushes. Recently the new arborist actually labelled it. You can just see this in the photo. The reason I could not identify it was simple. Its range is hundreds of miles south of here.

It is the **Florida corkwood** (*Leitneria floridana*). I did see it in a book but ignored it because of its southern range, never suspecting it could grow and thrive in Ontario. It is located close to the north wall in the western section of the cemetery. There is a cherry prinsepia growing a little west of it which looks similar but has small curved thorns.

Article and photo by Roger Powley

Ed. This is the first of a series by Roger about shrubs in Mount Pleasant Cemetery.



## IN THE NEWS

### Green Ontario's Smart Thermostats

On August 30 the Province launched the Green Ontario Fund to help fight climate change. Green Ontario ([www.greenon.ca](http://www.greenon.ca)) is a not-for-profit provincial agency created to deliver programs and rebates that help reduce energy usage and costs in homes and businesses. Part of the program is having a technician come to your house to install a free **smart thermostat** and provide a personalized report on other potential energy savings in your home.

Within a week of its launch, this program is already reaching capacity (100,000 units) and households in some areas are being added to waiting lists. Smart thermostats have been proven to reduce energy consumption even more than traditional programmable thermostats. However, they also gather personal data on energy usage that are collected and stored by the device's manufacturer. It is unclear how these data may be used. Ann Cavoukian, head of Ryerson University's Privacy by Design Centre of Excellence and a former information and privacy commissioner, has expressed her concerns over the wide-scale installation of these devices by the government without addressing privacy concerns.

Launch of Green Ontario Fund: <https://goo.gl/cJ2kvk>  
Article on consumers' privacy: <https://goo.gl/GVEmqh>

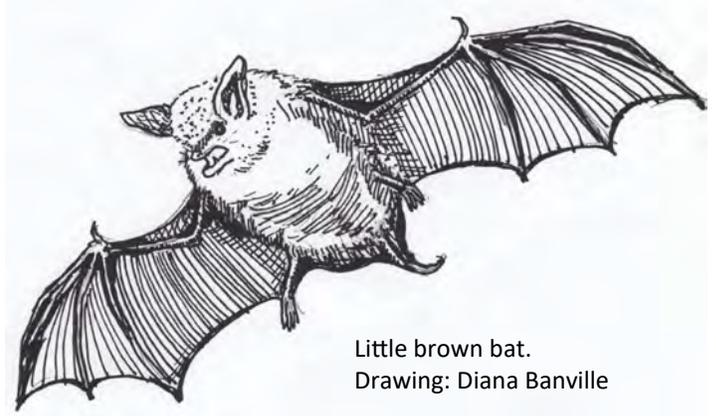
### Earthworms and Sugar Maples

A new study from Michigan Technological University points to earthworms as a possible cause for the decline and die-back of sugar maples. Earthworms are not native to Canada or north-eastern United States. They cause damage by eating the layer of leaf litter that trees, seedlings and wildflowers rely on. Sugar maples are particularly hard hit by this as 90% of their roots are in the top few inches of soil. With the protective leaf litter layer removed, the underlying soil dries out reducing the amount of water the trees have access to.

Further information here: <https://goo.gl/goxvBK>

### Protecting Monarchs in Mexico

The environmental police division of the Mexican National Gendarmerie, which started last year, has almost eradicated illegal logging in the national protected area that is the winter habitat of the monarch butterfly. The Monarch Butterfly Biosphere Reserve covers more than 56,259 ha. The core zone for wintering butterflies is a 13,552 ha forest area within the reserve. Last year this core zone had damage to 13.8 ha of trees due to strong winds, 1.35 ha from drought, but only 0.65 ha from illegal logging. That is a 94% decline in illegal logging. Due to their success, the Mexican environmental police now have a presence in more than 60 natural protected areas, up from the 16 they started with.



Little brown bat.  
Drawing: Diana Banville

### Bats Blind to Buildings

Tests of bats' use of echolocation have revealed that smooth vertical surfaces are "invisible" to them. Rough surfaces let some echoes return to the bat while smooth surfaces reflect the sound away, which fools the bat into thinking there is open space in front of it. In urban areas with bat populations, dead bats can be found at the base of buildings much as we find dead migrating birds here in Toronto. The researchers placed bats (one at a time) in a dark tunnel with felt-covered walls, except for one plate of smooth metal on the side near the end of the tunnel, then counted the number of strikes against both types of surfaces. They found the bats avoided the rough felt-covered surfaces but interpreted the smooth plate as a clear flight path. Horizontal smooth surfaces are not a problem for bats as they are interpreted as still water sources. Further information at: <https://goo.gl/mwXD3t>

### NCC Lands Turned into Parks

The Nature Conservancy of Canada (NCC) has added two of their properties to Ontario's Provincial Parks and Conservation Reserves. One will be a new park called the Brockville Long Swamp Fen Provincial Park and the other is an expansion of Charleston Lake Provincial Park, including more than 8 kms of shoreline, wetlands, bare rock ridges and mature mixed upland and lowland deciduous forests. According to the NCC, "Brockville Long Swamp Fen is an important wetland complex in the South Nation and Kemptville Creek (Rideau River) watersheds. A provincially significant Area of Natural and Scientific Interest, this biologically diverse area provides habitat for several species at risk, including a variety of reptiles and amphibians." Charleston Lake Provincial Park is open to the public. The Brockville Long Swamp Fen Provincial Park will be kept as a nature reserve.

Lynn Miller

## Q&A: FIREFLIES

**Question:** *I am curious to know more about fireflies.*

Judy Marshall

**Answer:** Fireflies or lightning bugs are in the Coleoptera (beetles) order, and are in the same superfamily (Elateroidea) as soldier beetles, click beetles and glowworms.

Some fireflies use a chemical reaction to produce light from their abdomen. This "cold light" (yellow, green or red) produces almost no heat. Light-producing fireflies are mostly active during the night (nocturnal) and rely on the frequency and duration of their flash to attract a mate. Other fireflies are non-luminescent. These are active during the day (diurnal) and rely on pheromones (emitted chemical substances) to attract a mate.

The females of some light-producing species mimic the flashing pattern of a related species and prey on the male that shows up. Some of these females rely on this strategy to feed and have evolved so that they have lost their wings and resemble the larvae.

Firefly larvae are predators, feeding on snails, slugs, worms and small insects. Some adults are also predators but others feed on nectar or pollen. Fireflies are not often preyed upon, as they produce distasteful or poisonous

compounds. The larvae and the larva-like females of some species may be referred to as glowworms, but these should not be confused with the separate glowworm family (Phengodidae).

Although all firefly larvae and eggs are luminescent, some adults emit only a weak light or none at all. The black firefly (*Lucidota atra*) and winter firefly (*Ellychnia corrusca*) in the photos below are both non-luminescent and diurnal, relying on pheromones to attract a mate. The winter firefly is often found feeding on sap from tree trunks and is likely a complex consisting of a number of closely related species.

Related to fireflies are glowworms, of which the larvae and larva-like females are usually luminescent but the adult males are not. The photo below shows the larva (or larva-like female) of a glowworm in the *Phengodes* genus. These larvae prey exclusively on millipedes. Adults are not known to feed.

Ken Sproule

### References:

*Insects: Their Natural History and Diversity*, ISBN 978-1-55297-900-6

*Beetles of Eastern North America*, ISBN 978-0-691-13304-1

Bugguide: [www.bugguide.net](http://www.bugguide.net)

Firefly: <https://en.wikipedia.org/wiki/Firefly>



L-R: Black firefly (*Lucidota atra*) about 1 cm  
Winter firefly (*Ellychnia corrusca*) about 1.5 cm  
Glowworm (*Phengodes* genus) about 3 cm  
Images: Ken Sproule, [www.toronto-wildlife.com](http://www.toronto-wildlife.com)

## WEATHER (THIS TIME LAST YEAR)

### October 2016

October was yet another warm and dry month. The mean monthly temperature of 11.9° at Pearson and 12.5° downtown was about 2° above normal. Rainfall was 40.5 mm at Pearson and 29.4 mm downtown (as opposed to the normal of 63.6 mm at both locations).

There were some shifts in the weather which prevented the month from being as warm as some other Octobers: say, 1963 or 2007. Cool conditions moved in for Thanksgiving weekend, but only for a brief period. Summer-like

conditions returned from the 12th-19th, with temperatures rising as high as 25.6° on the 18th.

A second and stronger cooling trend came from the 21st-28th. We actually had some snow on the 27th, with brief coverage north of the city. Pearson Airport had it barely measurable at 0.1 cm. The month closed with a return to warm high pressure conditions and sunshine that had prevailed for several months.

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](http://www.torontobirding.ca))

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

- Sat Oct 14, 8 am to afternoon. Durham Waterfront, Pickering-Oshawa Second Marsh. Leaders: Henrique Pachecho and Charmaine Anderson. Meet at Pickering GO Station. From 401 exit at White's Road, go south to Bayly St (first lights) then east to Pickering GO station (just east of Liverpool Rd). Drive a bit east of the main parking lot to the overflow lot on the left (north) on Sandy Beach Rd. Meet in southeast part of the lot. Fall migrants, shorebirds, waterfowl.

### High Park Walking Tours ([www.highpark.org](http://www.highpark.org))

1st and 3rd Sundays of each month from 10:30 to noon. Meet at the benches south of the Grenadier Restaurant.

- Oct 1. Passion and Poetry, Julia Bennett
- Oct 15. Autumn Splendour Photo-buff Walk, David Allen

### City of Toronto Natural Environment & Community Programs ([goo.gl/Xz61oN](http://goo.gl/Xz61oN))

For information email: [greentoronto@toronto.ca](mailto:greentoronto@toronto.ca)

- Sat Sept 30. Cedarbrook Park - Tree Planting Event
- Sat Nov 18, 10 am-1 pm. Crothers Woods - Leaf Rake

### Mycological Society of Toronto ([www.myctor.org](http://www.myctor.org))

Check their website for forays in October.

### The Market Gallery ([www.toronto.ca/marketgallery](http://www.toronto.ca/marketgallery))

Until Nov 25: Maple Leaf Forever: Toronto's Take on a National Symbol.

### Lost Rivers Walks ([www.lostrivers.ca](http://www.lostrivers.ca))

Walking tours limited to 20 participants. To ensure a spot on the tour, please email in advance to [info@labspacestudio.com](mailto:info@labspacestudio.com).

- Sun Oct 15, 10:00-11:30 am. "The Great Migratory Walk" in the Don Valley to see migrating birds and hopefully salmon migrating up the Don River. Meet by the Cafe Belong outdoor patio at Evergreen Brick Works. A joint walk by Lost Rivers, Evergreen, TRCA and Bird Studies Canada.

### Ian Wheal Walks

- Sat Oct 7, 1 pm. Parkdale to Reservoir Park (Rose Hill). CPR excursion trains (Round the Horn 1885-1914). Meet on the south side of Queen St W at Gladstone Ave (opposite the Gladstone Hotel). A 14-km walk.
- Mon Oct 9, 1:30 pm. Planning the Perimeter of High Park (1910-1919). Uncovered indigenous heritage. Meet at the northeast corner of Parkside Dr and The Queensway (below the overpass). A 10-km walk.
- Sun Oct 22, 1:30 pm. Where Eagles Dare: Trout Hill. Scarborough and vicinity ravines, streams and trails. Meet at the southwest corner of Danforth Ave and Warden Ave.

## Lower Don Trail to Open

The city is predicting that the Lower Don Trail (south of Pottery Road to Riverdale Park Bridge) will reopen September 23rd, 2017. That's over a year later than the original opening date due to numerous complications that caused delays. The revamped trail has a new rail underpass, a new pedestrian and cycling bridge over Pottery Road, a paved and traffic-separated Bayview multi-use trail, improved signage, and repaired surfaces on existing trails.

### Answers from page 19

Mystery A. This is a Polyphemus moth: #1 is wrong. The moth is dying because it is only an adult for three weeks while it finds a mate. It does not eat during this time, but lives off fat stored up when it was a caterpillar, so does not need a mouth.

Mystery B. This is a Pelecid wasp. #3 is wrong. This long 'tail' is not for stinging, but is an ovipositor. It is used to lay eggs inside beetle larvae in the ground or inside logs.

**Toronto Field Naturalists**  
1519—2 Carlton St.,  
Toronto, Ontario, M5B 1J3

**Publications Mail**  
Registration No. 40049590



Mink mother and kit frolicking on the rocks and diving into the lake at Colonel Sam Smith Park, August 2017  
Photos by Margaret Kelch