



Since 1923

TORONTO FIELD NATURALIST

Number 638 October 2018



Giant Swallowtail at Rosetta McClain Gardens, July 30, 2018. Photo: Lynn Pady

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PRESIDENT'S REPORT

At our annual meeting on Sunday, October 14th, Nancy Dengler and Anne Powell will be retiring from the Board of Directors. We will miss both of them, particularly for their exceptional energy and wide expertise. Nancy, with whom I am sure almost all of you are familiar, served as president from 2014 to 2016. With grace and quiet diplomacy she initiated and put into practice many of the positive changes and reforms that define TFN today. Happily she will continue working to arrange our brilliant roster of presenters at the monthly meetings. Anne Powell, as chair of the Finance Committee, has been a relentless force in ensuring TFN's fiscal good health. Happily she too will continue in this role. Speaking of matters fiscal, I would like to acknowledge our bookkeeper, Barry Singh, whose hard work at keeping TFN's finances in order often goes unnoticed. Still on the financial tack, Orval White, retiring from the Finance committee after six years, has been giving consistently valuable guidance and advice for which we are very appreciative. We will miss his professional acumen.

Some encouraging news for pollinators and insects in general: monarch butterflies were out in force for the August 18 Tommy Thompson Butterfly Festival where TFN had a particularly well-attended tent. Margaret McRae's collection of almost 300 monarch eggs and pupae this year is startling. One of her tagged butterflies was found at the El Rosario sanctuary in the Monarch Butterfly Biosphere Reserve last winter, and a photo of her tagging butterflies at the CNE was in the Toronto Star. On a federal level, insects may be given a helping hand by the Pest Management Regulatory Agency of Canada's proposed three-year phase-out of two of the three main

neonicotinoid pesticides currently approved for use, but the devil is undoubtedly in the details. For anyone wishing to post a comment on the Health Canada website, the address is: <https://goo.gl/fD3Pa5> citing the document "Proposed Re-evaluation Decision PRVD2018-12, Imidacloprid and its Associated End-use Products: Pollinator Re-evaluation".

With this issue of the newsletter I am reaching the end of my two-year term as TFN president. As a small



Margaret McRae tagging monarch.

Photo: John Marshall

indulgence, please allow me to sign off with a quote from Albert Einstein, which neatly sums up how I feel about nature and our relationship to it: *"A human being is a part of the whole called-by-us universe, a part limited in time and space. He experiences himself, his thoughts and feeling as something separated from the rest, a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty."*

I am very pleased that Jason Ramsay-Brown has agreed to stand for election as the next TFN president. Jason is a published author; many of you will have read his wonderful book *Toronto's Ravines and Urban Forests* which has, among other things, become an essential reference for me for planning outings. I was going to list the skills that Jason will bring to the position, but space doesn't permit; fortunately his website <http://www.jrb.to> will give an idea of the breadth of his skills, dedication and accomplishments.

Charles Bruce-Thompson
 president@torontofieldnaturalists.org

2018-2019 BOARD OF DIRECTORS SLATE PRESENTED BY THE NOMINATING COMMITTEE

The nominating committee recommends the following slate of nominees to the Board for 2018-2019:

President: Jason Ramsay-Brown

Vice President: Anne Purvis

Past President: Charles Bruce-Thompson

Secretary-Treasurer: Bob Kortright

Directors:

Due to retire in 2019: Elizabeth Block, Jane Cluver

Due to retire in 2020: Lynn Miller, Alex Wellington, Paul Abel

Due to retire in 2021: Liz Menard, Agneta Szabo, Ellen Schwartzel

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 the 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.

- Thurs
Oct 4
10:00 am
- MOUNT PLEASANT CEMETERY TO EVERGREEN BRICK WORKS – Nature and Heritage**
Leader: Ed Freeman. Meet at Davisville subway station, southwest corner of Yonge St and Chaplin Cres for a linear walk on mostly unpaved and uneven surfaces with some steep slopes and stairs. Our route will be through the cemetery and Moore Park ravine to the Brick Works. Bring lunch or take the free bus back to Broadview station. Bring curiosity.
- Sat
Oct 6
10:00 am
- E.T. SETON Park – Nature Walk**
Leader: Margaret McRae. Meet at the southeast corner of Overlea Blvd and Thorncliffe Park Dr east of the shopping mall for a circular walk to include the pond and pine forest behind the Science Centre. Bring lunch.
- Mon
Oct 8
1:30 pm
- DAVISVILLE SUBWAY TO EVERGREEN BRICK WORKS – Nature Walk**
Leader: Vivien Carli. Meet at the Davisville subway station for a walk to the Brick Works. You can take the shuttle to Broadview subway station or the bus to Davisville subway station or walk back to St Clair with the leader.
- Wed
Oct 10
10:00 am
- HUMBER RIVER SOUTH – Nature Walk**
Leader: Doug Paton. Meet at Old Mill subway station for a linear walk along the Humber south to the lakeshore.
- Sat
Oct 13
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 Sts for evidence of one of Canada's worst flood disasters and its shadow on our world now. Possibly see 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 can be avoided if you wish to make an optional detour. End with tea at Lambton House. #55 Warren Park bus stops at the door and goes to Jane subway station. Bring snacks or lunch and binoculars.
- Tues
Oct 16
10:00 am
- PINE HILLS CEMETERY – Nature Walk**
Leader: Jeff McMann. Meet at the cemetery office, 625 Birchmount Rd for a 1½ to 2-hr walk. Look out for raptors which nest on the site. Overview of trees on the property. Generally flat paved surfaces.
- Sat
Oct 20
9:00 am
- DON VALLEY – Green Terrors from Another Land**
Leader: Jason Ramsay-Brown. Meet outside the Toronto Police Dog Services building, [44 Beechwood Dr](#), a short walk downhill from the TTC stop at Beechwood Dr and O'Connor Dr. What botanical horrors lurk in our ravines, parks, and even your own backyard? Come for a 2-km walk in the Don Valley where we'll experience some of the thrills and chills of Toronto's unruly cast of invasive species. Witness the ruthless conquest of Japanese knotweed! The choking clutches of DSV! The insidious rise of Asian bittersweet! The betrayed innocence of flowers gone bad! We'll end by helping to protect sensitive wetlands by participating in phragmites removal with some of our friends from the City's Community Stewardship Program. Equipment and instruction will be provided. Bring water and ... courage.

- Sun
Oct 21
2 pm
PASS THE GLASS WATER WALK ON LOST GARRISON CREEK – Lost Rivers
Leaders: Darlene King, Reno King, Helen Mills and friends. Meet at the northwest corner of Walnut Ave and Wellington St W. A 2.4-km walk mostly on city streets with a few stairs and uneven surfaces, ending at Spadina Quay. Bring your water bottle and wear blue as we embody the water cycle and carry water along the course of Lost Garrison Creek to the lake. This walk continues our series of walks around the Core Circle, a blue-green liminal zone around the city's downtown Core as defined by Toronto City Planning. A joint outing with Toronto Green Community and Rivers Rising Ambassadors.
- Thurs
Oct 25
10:00 am
G ROSS LORD PARK – Nature Walk
Leader: Rachel Gottesmann. Meet at the corner of Bathurst St and Cedarcroft Blvd (#7 bus) for a linear walk through G Ross Lord park ending at Dufferin St and Supertest Rd.
- Sat
Oct 27
10:00 am
MORNINGSIDE PARK – Tree and Fungus ID
Leader: D Andrew White. Meet at the parking lot off Morningside Ave south of Ellesmere Rd. Bring lunch. About 2 hrs.
- Sun
Oct 28
1:30 pm
WARDEN WOODS PARK – Nature Walk
Leader: Vivienne Denton. Meet outside the Warden Ave entrance to Warden subway station for a linear walk. We will enter the park and walk through the woods, ending at Victoria Park subway. Mostly flat paved surfaces with some gentle slopes. Washrooms at beginning of walk.
- Tues
Oct 30
10:30 am
WEST HILL/HIGHLAND CREEK – Nature and Heritage
Leader: Linda McCaffrey. Meet at the corner of Kingston Rd and Old Kingston Rd for a circular walk through the Highland Creek Valley to Meadowvale Rd on mostly paved surfaces with some steep slopes and stairs. Participants can exit at Meadowvale Rd. Heritage features include a charming Presbyterian cemetery, a Wesleyan cemetery dating from the reign of George III, and the Morrish General Store.

ABOUT TFN

TFN is a charitable, non-profit organization.

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

President & Nature Reserves	Charles Bruce-Thompson
Past-President & Lectures	Nancy Dengler
Vice-President	Jason Ramsay-Brown
Secretary-Treasurer	Bob Kortright Elizabeth Block
Outings	Jane Cluver
Promotions & Outreach,	
Webmaster, Volunteer Coordinator	Lynn Miller
Finance	Anne Powell
Environment	Anne Purvis
Lectures	Alex Wellington

NEWSLETTER

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EDITORIAL COMMITTEE

Kathleen Brooks, Jenny Bull, Vivienne Denton, Karin Fawthrop, Nancy Fredenburg, Elisabeth Gladstone, Susan Grimby, Zunaid Khan, Lynn Miller, Toshi Oikawa, Jennifer Smith, Wendy Rothwell (editor).

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MEMBERSHIP FEES

Youth (under 26)	Free
Senior Single (65+)	\$30
Single	\$40
Senior Family (2 adults 65+)	\$40
Family	\$50

No HST. All members with email address receive digital newsletters. There is a surcharge of \$15 for those who prefer a printed mailed newsletter.

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

Tax receipts issued for donations.

TFN does not give out its membership list.

MONTHLY MEETING REPORT

Raccoons of the GTA:

Are we making a smarter raccoon?

September 9, 2018

Suzanne MacDonald, Professor of Psychology,
York University

Dr Suzanne MacDonald presented an entertaining lecture on research findings about on the behavior, ecology and evolution of Toronto raccoons.

She first became interested in raccoons when she was approached to do a study for the PBS documentary *Raccoon Nation* which premiered in March 2012. Suzanne's task was to track raccoons in the Beaches, Danforth and High Park areas by placing a special collar on them. Surprisingly, the study revealed that raccoons prefer living in residential areas and only go to parks at night to rummage through garbage bins for food. Each raccoon had approximately nine to eleven den sites within an area of three square blocks bounded by major roads.

Suzanne also received funding from National Geographic to study raccoons. Testing included two methods of securing food in garbage bins and comparing access success rates of urban and rural raccoons. For one method the urban raccoons had a much greater success rate in accessing the food. They attempted more tasks, tried different strategies, were more persistent and spent more time per attempt.

There are many misconceptions about raccoons. They are not evil geniuses and in fact can be easily confused. If a transparent container is used, they are unable to figure out how to access the food. They do not use tools and do not plan ahead. They are very impulsive and like to grab and touch everything. They sometimes become trapped in green bins and have no idea how to get out.

Suzanne was instrumental in testing designs for the new raccoon-resistant green bin. The only way raccoons can access the contents of a green bin is if the dial is broken and they are able to tip the bin over. It would seem logical that Toronto's raccoons should be getting lighter since, for the most part, they cannot access the contents within the new green bins. However, body mass index studies on raccoons killed by traffic, conducted before and after the new green bin rollout, revealed no significant weight difference. Raccoons are finding food elsewhere, including garbage bins where 40% of the contents is organic waste. Also the green bins are not used by condos, apartments and some restaurants.



Tonka was taken to the rehab centre this summer. He is now back living in the wild, and enjoying life.

Suzanne provided helpful advice for dealing with raccoons:

- If you see a raccoon stumbling or obviously in pain, contact Animal Services to humanely euthanize the animal, which may have contracted canine distemper.
- Do not put organic material into the garbage bin, which is not designed to deter access.
- To prevent raccoons from tipping over green bins and gaining access, do not place the green bins next to a fence.
- Do not feed raccoons.
- Do not attempt to remove a mother raccoon with babies from your property until the babies have left the den. Raccoons will bite if cornered. Once the babies have matured and left, block off the entrance.

Laura Thompson

THE CHALLENGE OF INVASIVE PLANTS

During the seasonable months, High Park Stewards send me calls for weed whacking. A hardy bunch of volunteers tackles garlic mustard, Himalayan balsam, European buckthorn and whatever else has decided to take up residence in the restoration sites. These cunning non-native plants, among others, are loose in the land and are almost invincible. For every bright blazing star or shy Jack-in-the-pulpit in the 116-hectare park, there are hundreds of invasives that call Ontario home.

On a late August TFN walk in High Park, I was watching like a red-tailed hawk for signs of invaders. Yes, there were the brown pitchfork shapes of late-season garlic mustard. The conquering pale swallow-wort or DSV had set up its characteristic wall-to-wall carpets. In the wetlands around Grenadier Pond, towers of mighty phragmites waved purple-brown flags of “inflorescences.” And European buckthorn was happily growing its glossy black berries that some call “junk food for wildlife.”

Despite our cutting, yanking and tarping, these non-native plants are marching through the park – and Toronto and Ontario. Alien escapees from gardens, coaxed along by climate change, development and human transportation, they share domineering characteristics. They pop up earlier in the growing season; they choke out native plants and, not only do they have aggressive root systems, the roots of some release toxins that change the chemical formation of soil where native plants would otherwise thrive.

How do we conquer them? With all invasives, get them early before they are established! (Though in many cases in southern Ontario we are much too late.) Garlic mustard (*Alliaria petiolata*), a biennial flowering plant, is the easiest to deal with once you spot its heart-shaped leaves and dense clusters of white flowers in spring. Dig out the root system before it gets established – around the two-year point – and never ever compost. Bag it and trash it. Note: In City parks, this work may only be done by stewardship teams supervised by Urban Forestry.

European buckthorn (*Rhamnus cathartica*) is a shrub or small tree growing in dense groves, suppressing native tree and shrub seedlings. Berries remain on branches throughout winter and are carried by birds and mice, aiding seed dispersal and colonization far afield. In High Park, it threatens open oak woodlands and savannas. The stewards spend time removing European buckthorn during October and November and would be glad of your help.

Dog-strangling vine (*Vincetoxicum rossicum*) is much, much worse. Its fall seedpods shoot out something like 28,000 seeds per square metre. You should not attempt to pull it out because, if the stem breaks off, many other shoots will sprout up. Either cut off flowers and seed pods before they have a chance to release seeds, or cut (or dig) the stem below soil level, ensuring that the cut is below the root crown (the transition from stem to root). Proper disposal is important – see page 19 of this Government of Ontario report: <https://goo.gl/Kw45P2>. Only Urban Forestry is permitted to deal with this plant in the park, and it seems like a losing battle.

The common wisdom is to replant these sites with native plants. A noble idea, but rather too gentle and slow; a finger in the dam. Dog-strangling vine has one natural enemy – *Hypena opulenta*. This pale beige and black leaf-eating moth that comes from the same home (Ukraine) has been introduced with some minor success in Ottawa and the Rouge Valley. It is hoped that the moth will spread.

What can you do to help?

- Advocate for more resources for the Community Stewardship Program and more forestry staff to work with volunteers.
- Raise the issue of protecting our natural heritage with candidates in the upcoming municipal election.
- Volunteer with the High Park Stewards (<http://www.highpark.org/programs/volunteer-stewardship-program/>).

For more information see: <https://goo.gl/1Y4DRs> and <https://goo.gl/MeChq5>

Susan Grimbly



Seed pods of garlic mustard (left) and DSV; European buckthorn berries. Photos: Wendy Rothwell

TREE OF THE MONTH: TULIP-TREE (*LIRIODENDRON TULIPIFERA*)

While some of our trees, such as many elms, lindens or willows, are notoriously hard to identify, there is no such difficulty with tulip-tree. Although often confusingly called yellow-poplar, tulip-poplar, or even just poplar because of its plain soft wood, it is actually related to magnolias, like our native cucumber-tree or the commonly planted exotic saucer magnolia. However, tulip-tree has little resemblance to these in trunk, bud, flower or fruit. In fact, it cannot be mistaken for any other living tree except Chinese tulip-tree (*L. chinensis*), the only other living species in the genus. Tulip-tree abounds in distinctive features. No other tree has leaves broadly squared off at the tip around a shallow notch at the end of the midvein, flanked on either side by one (or, much less often, two) triangular lobes. Fossilized leaves with this shape from the latest early Cretaceous Period, a little over 100 million years ago, are among the earliest that can be linked fairly closely to a particular living group of flowering plants.

As each leaf emerges and expands, its leaf stem (petiole) is flanked by a pair of large oval stipules that soon fall and leave a thin ring-like scar completely surrounding the twig just above the leaf attachment. The complete encircling of the twig by a ring scar is rare but also found in related magnolias and unrelated plane-trees (including our own eastern sycamore). The leaf scar that lies beneath the stipule scar is covered, like that of a magnolia, with many bundle scars, but differs in being oval rather than crescent-shaped. The stipules contribute another distinctive feature to the winter twigs: the bud scales of the unique, flattened, paddle-shaped buds are themselves modified stipules. A final unusual characteristic of the twigs lies within them: the white pith is solid but broken up by harder white partitions at frequent intervals, a feature that is not at all as conspicuous as the chambered pith of walnuts and hackberry.

Tulip-tree has the second largest flowers among all our trees after magnolias. The six petals are reminiscent of the tepals of tulips, though the pistils and stamens are completely different. Most of our hardwood trees, in contrast, have flower parts in fours or fives (or multiples thereof). The large flowers of tulip-tree should be showy but are surprisingly inconspicuous nestled among the leaves in the canopy, despite the bright orange blotches at the base of the greenish yellow petals of the upwardly facing cups. The fruits that follow the flowers are, again, unlike those of any other tree, a cone-like samaracetum in which dozens of separate ovaries are each tipped by a long wing, individually somewhat resembling an ash samara but collectively derived from a single flower rather than each from a different one. After the samaras are shed and dispersed by the wind, the central stalk (receptacle) to which they were attached remains at the tips of the twigs through the winter, often with a few sterile samaras circling its base.

The bark, among our most deeply ridged and furrowed on large trees, begins to develop in fairly young trees. It is one of the clearest examples of how such bark arises when older bark, formed when a tree was younger and smaller, can stretch no more and begins to split vertically as it is ruptured by the formation of newer bark underneath. This is especially conspicuous in tulip-tree since the enlarging furrows initially appear waxy white next to the greenish brown or grey of the older bark.

Toronto lies just outside the natural range of tulip-tree, which extends to Hamilton from its main area in the southeastern United States, but it is now widely used in city planting programs. Tulip-tree is potentially the tallest deciduous tree in eastern North America, surpassed only by evergreen eastern white pine, but young trees in Toronto have a long way to go before they reach the magnificence of trees along the spicebush and tulip-tree trails in Rondeau Provincial Park, which I urge all readers to visit.

James Eckenwalder



From top: Tulip tree leaf expansion, Rondeau Provincial Park. Photo: Ron Dengler.
A flower, old fruit, flower bud and leaves. Mature, green fruit and stipular ring scars.
A youngish trunk with white-marked newly forming furrows. Photos: Ken Sproule.

TFN MEETINGVISTORS WELCOME

Sunday, October 14, 2:30 pm (Social, 2 pm)

ANNUAL GENERAL MEETING: 2:30 – 2:45 pm

The 2017 Ashbridge's Bay Flood: Gulls and Shorebirds

Speaker: Jean Iron, *past president of the Ontario Field Ornithologists and noted bird expert, will describe the impact of 2017's record high water levels on the unusual birds and birders attracted to Woodbine beach.*

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:

Nov 4, Life Underground: Plants interacting with beneficial fungi. Speaker Larry Peterson.

TFN FINANCIAL STATEMENTS

In view of the increased cost of printing, the board has decided to make the financial statements for the year ending June 30, 2018 available to the membership on the TFN website rather than in the newsletter. See <https://bit.ly/2NtHG39>. For those who do not have ready access to the website, some copies will be available at the Annual General Meeting.

ENVIRONMENT COMMITTEE REPORT

Scarborough Waterfront Plan: Anne and Jim Purvis walked the Scarborough Beach from East Point Park to Morningside Ave in an attempt to understand the SWP Environmental Assessment. The beach will be hardened east from Guildwood to the east side of Grey Abbey Ravine; then a corkscrew ramp will take users to the top of the bluffs where the trail will continue eastward. This preferred alternative Scarborough Beach renovation preserves an extra 650 meters of beach, puts some private beach into public use and improves habitat. Thank you TFN members who attended hearings and fought for the preservation of the natural shoreline and habitat conservation.

ProtectNatureTO: Several TFN members attended the PNT0 planning meeting on August 9th at High Park Nature Center. A big concern is how to engage candidates in the municipal election to encourage implementation of

the City's conservation strategies – Pollinator, Ravine, Green standard, Zero waste, TransformTO, Parks and Biodiversity. TFN's Dave Barr wrote an excellent pamphlet which has been submitted to PNT0 for revisions and implementation.

Neonicotinoids: In August, various members of the Environment Committee sent letters to Health Canada's Pest Management Regulatory Agency to ask for the ban on the Neonicotinoid "Imidacloprid" to go into effect immediately.

Single-Use Plastics: In July, City Council voted to endorse a public consultation on the use of single-use plastics, to be completed by City staff by January 2019. The Environment Committee will watch for updates from TEA plastics campaigner, Emily Alfred, in order to make timely submissions.

Anne Purvis

TORONTO'S NATIVE BUTTERCUPS (CROWFOOTS)

Buttercups belong to the Ranunculaceae (buttercup or crowfoot family). This family of 50 or 60 genera and about 2500 species has representatives nearly worldwide. Members of various genera were discussed in TFN newsletters of 2010 May, 2010 December, 2016 April and 2017 September. Toronto, according to the TFN's *Vascular Plants of Metropolitan Toronto* (1994, 2nd ed.), has six native and several introduced species belonging to the genus *Ranunculus*. This genus includes about 600 species in total. Most naturalists in Toronto are familiar with the introduced *R. acris*, the tall yellow species of fields and clearings, and may decide not to look further. It took a determined search for me to find four of the native species.

The native species identified are *R. abortivus* (kidney-leaved buttercup) which is common in woodland openings; *R. recurvatus* (hooked buttercup), locally uncommon and in damper parts of woodland openings; and two uncommon wetland species, *R. hispidus* (swamp buttercup) and *R. sceleratus* (cursed crowfoot). All bloom in the spring or early summer.

R. abortivus and *R. recurvatus* are up to 80 cm tall with flowers about 6 to 10 mm wide. *R. abortivus* has distinctive kidney-shaped basal leaves. Locally it occurs from Centennial Park, Etobicoke to the Rouge. According to *The ROM Field Guide to Wildflowers of Ontario* (2004), *R. abortivus* occurs across most of Ontario. It has been recorded across all of North America except Nunavut and the southwest U.S. (USDA PLANTS database).

R. recurvatus (hooked buttercup) was reported in Lambton Woods (Humber watershed), Wilket Creek, the West Don valley, the Rouge, and on the Scarborough Bluffs. The full range for this species is from Ontario to Newfoundland, across the eastern half of the U.S., and in Washington State (USDA PLANTS database).

R. hispidus (swamp buttercup), formerly *R. septentrionalis*, has flowers about 25 mm wide on stems up to 60 cm tall. Its 3-lobed leaves distinguish it from *R. acris* which has 5-lobed leaves. The TFN recorded it in the Humber marshes, Taylor Creek and Wilket Creek (Don watershed) and the Rouge. Its full range is Manitoba to New Brunswick and Labrador, the NWT and the eastern half of the U.S.

R. sceleratus, up to 60 cm tall, has open clusters of 6 to 8 mm-wide flowers on smooth stems. It has been reported everywhere in Canada, except Nunavut, throughout the U.S. and also in Europe (TFN reported it as "also Old World").

Finding and identifying native buttercup species can be a little difficult. Take on the challenge!

Article and photos by Peter Money

From top: Kidney-leaved buttercup (*Ranunculus abortivus*);
Hooked buttercup (*R. recurvatus*);
Swamp buttercup (*R. hispidus*) and close-up;
Cursed crowfoot (*R. sceleratus*)



THE CONNECTED NATURALIST: SONG SLEUTH

Full confession: my knowledge of bird vocalizations is only slightly better than my knowledge of Middle Kingdom Egyptian hieroglyphs, which is to say extremely poor. I hear about people like Stuart L. Thompson (TFN president, 1927-1929) who it's said could not only identify hundreds of songs and calls unaided, but convincingly recreate many of them by whistling, and I am frankly awed.

So it was with some excitement that I started to experiment with Song Sleuth, a mobile app designed to recognize the songs of more than 200 North American birds. The app uses your device's microphone to capture songs real-time, and then suggests a handful of potential species the song might match. The app allows you to play back a reference recording, so you can make your own comparison to validate these matches, and offers a built-in Sibley Reference so you can learn more about your new feathered friend.

My first tests of Song Sleuth were done in the relative quiet of my home, capturing bird songs played from Cornell Lab's Macaulay Library over my computer speakers. Most went off without a hitch: song sparrow, warbling vireo, scarlet tanager and several of the more common species we see about town. Others, much to my surprise, it failed entirely: dark-eyed junco is a notable example here, which it couldn't ID even after trying over a dozen different reference recordings.

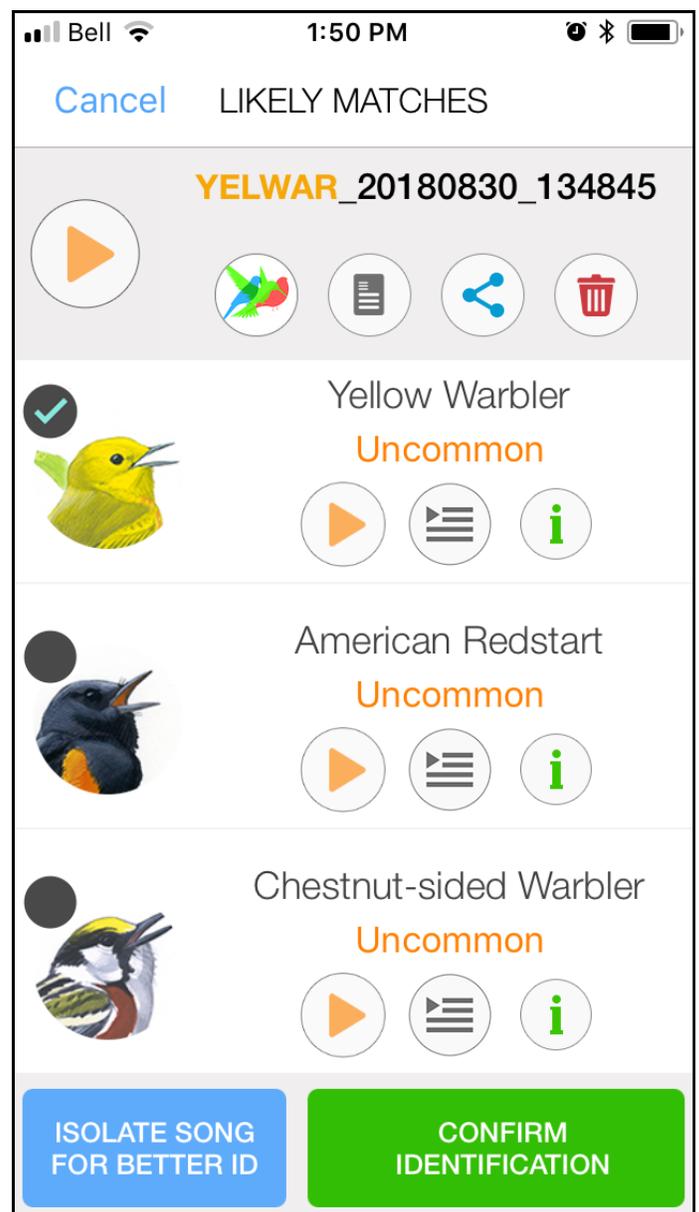
Out in the field it's a different story. The ambient noise in Toronto and the generally poor quality of most built-in microphones conspire to heavily erode accuracy. When the recording is close and clear, accuracy was close to what I experienced at home. However, recording from a distance, near roads or with competing chirps from other nearby birds, significantly impacted the app's accuracy. I'm considering picking up an external microphone in the future, as many users report significant benefit from even a small investment.

Song Sleuth provides intuitive editing tools that help you filter out unwanted sounds and isolate segments of your recording to improve accuracy. Even some modest learning about how to use these greatly improved my results. I found that leaving a little padding at the start and end of a song was the single most helpful trick. That said, after repeated use I get the firm sense that further experimentation would certainly lead to improved results. Despite its limitations, I've found the app quite useful overall. The ability to call up reference songs has been of

unexpected value, allowing me to validate my own haphazard guesses in a flash. It's also been nice to have the Sibley Reference (especially its very useful season-specific range maps) on hand wherever I go. Perhaps the best benefit, however, is that my 11-year-old finds it a blast to use, prompting many unexpected opportunities to learn together while we share quality time in the great outdoors.

Song Sleuth is developed by Wildlife Acoustics Inc. and David Sibley. Available for Android and iPhone.

Jason Ramsay-Brown



CHILDREN'S CORNER

The Life Cycle of the Monarch Butterfly

Monarch butterflies are known for their distinct orange and black wing patterns. They migrate from Canada to Mexico and back to Canada each year. This takes multiple generations of monarch butterflies to complete. Their bright colours are a sign to predators that they are poisonous to eat! Match one word from the word bank below to the corresponding stage of the monarch butterfly's life cycle.



B



A



C



D



Word Bank

1. Egg
2. Butterfly
3. Chrysalid or pupa
4. Caterpillar

Bonus: Monarch caterpillars eat only one plant, which makes it special and very important. Guess which plant this is? Fill in the blanks:

M _ LKW _ _ D

Answers on page 15.

Project by Julie del Monte.

Photos by Ken Sproule

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

Taylor Creek Park, June 2. Leaders: Margaret McRae and Charles Bruce-Thompson. The highlight was yellow lady's-slippers in the fen. Other plants in flower included forget-me-not, blue flag iris, Virginia waterleaf, may-apple, starry false Solomon's-seal, wild geranium, Canada anemone, comfrey, cleavers and beggar-ticks. We saw a painted turtle and a spring azure butterfly, and heard green frogs.

Seneca College King Campus, June 5. Leader: Charles Chaffey. On the east of Eaton Lake we were rewarded by large clumps of flowering yellow lady's-slipper and a few wild calla in bloom. After passing through a forest carpeted with invasive periwinkles, we followed the Oak Ridges and Millar trails through a hemlock wood with rosy twisted-stalk and yellow clintonia, to our lunch stop on the grounds of the Augustinian monastery, a serene site with a view over Mary Lake. Our return led us through open woods with indigo buntings and a cedar waxwing. The variety of habitats allowed us to see five *Equisetums* (common and dwarf scouring rush, field, woodland and marsh horsetails) and four buttercups (tall, kidney-leaved, hooked and cursed).

Riverdale Park East, June 12. Leader: Vivienne Denton. We toured the naturalized areas, accompanied by Jessica Iraci from Urban Forestry and Lise Beaupre, the park's stewardship leader. The City had recently removed dead and dying ash trees, which prompted discussion about the effects of the emerald ash borer on the urban forest. Visiting the east slope, which has been overrun by phragmites, generated discussion about the stewardship team's efforts to control this invasive plant. Despite difficulties confronting this busy urban park, rabbits and red-winged blackbirds have taken up residence and are doing well.



Outing at Jim Baillie Nature Reserve. Photo: Miles Hearn.
See also photos on back cover.

Cherry Beach and Beyond, June 26. Leader: Richard Partington. Del Tredici's book, *Wild Urban Plants of the Northeast*, was helpful in identifying grasses, including orchard grass, downy brome, barnyard grass, quack grass, tall fescue, red fescue and timothy. Some were in bloom, with tiny tubular blueish or yellow flowers on the quack grass and the tall fescue. A mockingbird, high atop the drive-in movie screen, delighted us with a few hops and mockeries before winging away, singing.



Cliff swallow. Photo: Ken Sproule

Leslie Street Spit, June 30. Leader: Charles Bruce-Thompson. We were happy to observe a recently established colony of cliff swallows building their mud nests around the pot lights in the exterior ceiling of the nature centre. Among the many plants in flower were bladder and white campion, white beardtongue, common mallow, Indian hemp,

and common milkweed attended by many monarch butterflies. Some of the more interesting birds were warbling vireos, great egrets, Baltimore orioles, common and Caspian terns, and a trumpeter swan with a brood of very young cygnets. Mike Donnan found the squashed remains of a baby milk snake, which was enthusiastically received by the nature centre and will take its place as part of their reptile display. We thank Lauren Wotherspoon, a Toronto video producer, for making a video of the walk to be featured on our website torontofieldnaturalists.org.

Jim Baillie Nature Reserve, July 8. Leader: Miles Hearn. We saw many plants typical of this red maple swamp habitat including fox sedge, fowl meadow grass, red maple, mountain maple, ground balsam, balsam fir, black spruce, tamarack, white cedar, black ash, dwarf raspberry, bristly black currant, red currant, Canada mayflower, starflower, bearberry, foamflower and tall meadow rue. We had a look at fern identification by the number of times that the leaves are cut. We found: once-cut: sensitive fern. Twice-cut: marginal fern, crested fern, cinnamon fern, royal fern, ostrich fern, long beech fern, marsh fern. Thrice-cut: spinulose wood fern, bulblet fern, oak fern, lady fern. Butterflies included many monarchs and some commas. Ebony jewel wings were seen. Birds heard or seen were: ruffed grouse, blue jay, song sparrow, white-throated sparrow, swamp sparrow, goldfinch, indigo bunting, red-winged blackbird, grackle, mourning dove, red-eyed vireo, ovenbird and yellowthroat. Our sincere thanks to the TFN volunteers who spend many hours each year maintaining this wonderful property.

FOR READING

NATURE RESERVE ON THE CITY'S EDGE

by James Garratt

8.5×11 paperback format. 161 pages.

Approx 24 black and white and 12 colour photos.

\$20+\$5 shipping and handling; www.jamesegarratt.ca

Also available as Kobo ebook

“No inflatable bouncy castles. Let the land speak softly as it may.”

In this, his third book, James Garratt has written a love story, a tone poem. The author and his family (wife and two now-grown sons) have lived in an old farmstead northwest of the city for over 30 years. They have spent a great deal of time watching every change on a considerable tract of land nearby, the south meadow of which abuts the Kortright Centre for Conservation. The natural life here has been recorded in a series of diaries, written at night on a kitchen table. Garratt has culled from those pages loving scenes of the 20-acre meadow, the woodlot, forests, wetlands and old orchard.

It's astonishing to think that something this relatively untouched still exists in the Anthropocene Age. But it's

not in a fairy tale book, it's in Vaughan. Grant Glassco, a businessman and gentleman farmer, bequeathed this parcel to the Ontario Heritage Trust in the sixties. The TRCA is the current steward of the trust.

The Garratts strike out down the lane every June to watch the firefly ballet in the meadow. The family builds an observatory to watch the night sky, clear of light pollution. They are equally at peace with coyotes as with bald hornets. They soldier through the 2013 ice storm, with its crushed trees and power outages, and delight to swim in Cold Creek on very hot days. This enchantment threads through the book, as steady as the lane from their home.

James Garratt, who has worked in outdoor education for nearly 40 years, writes knowledgeably and with as much sensitivity about black walnut trees as stoneflies. This book, the second in his *Natural Years Series*, takes us inside the delicious natural world and eloquently makes the case for its protection. With mild regrets, I must point out that the book lacks polish and unfortunately the photos are not well reproduced. But it is a gem despite those issues and captures a small moment (and place) in a world in alarming transition.

Susan Grimbly

WEATHER (THIS TIME LAST YEAR)

October 2017

October continued the very warm trend of late September, though it seemed less extreme overall. The first couple of days were actually rather cool, with occasional light frost in suburban areas. By the 4th, the heat ridge returned with temperatures in the mid-twenties (still well below the values of a week or two previously). The warmest reading of the month occurred on the 7th (Thanksgiving weekend) with a high of 27.5° at Pearson Airport and 24.7° downtown. There was a moderate rainfall from the remains of Hurricane Nate, and then a couple of brief cool-downs, but the warmth kept bouncing back until the 23rd with highs again in the twenties on several days. It was only on the 24th that a serious cooling occurred, extending into the southern U.S. by the 28th. Even so, Toronto temperatures were just slightly cooler than normal during the final week or so of the month and the coldest reading was 1.7° at Pearson Airport on the 26th. (Transitory observations of ground frost earlier in the month do not count since they apply only to cold surfaces, not to air temperature.)

Monthly mean temperatures were about 3° above normal. It was the 4th warmest October on record at Pearson Airport; and, perhaps more remarkably, the 5th warmest on record downtown (where the record extends back to 1840). 1963, 1947, 2007 and (downtown) 1971 were warmer: note the prominence of earlier records from the mid-20th century.

As might be expected with warm high pressure conditions so prevalent, rainfall was below normal this month, but not by much. Downtown had 49.2 mm (normal precipitation is 64.1 mm) and Pearson Airport had 57.8 mm (normal is 64.2 mm). Light to moderate rains fell on several occasions with frontal passages as well as with Hurricane Nate's remnants on October 9th.

With the strange heat this fall, there wasn't much fall colour. A few trees turned early or at the normal time, but many held on in September's heat wave and actually got partly scorched by it. These leaves, partly scorched and partly green, hung on into November and did not change colour.

Gavin Miller

COMING EVENTS

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

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

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

- Sat Oct 13, 8 am to afternoon. Durham waterfront, Pickering-Oshawa Second Marsh. Leader: Charmaine Anderson. Meet at Lynde Shores parking lot. Take Hwy 401 east to Salem Rd, go south to Bayly St (2nd lights), then east past Lakeridge. Continue past Halls Rd to Lynde Shores parking lot on the south side (parking fee required). Fall migrants, shorebirds and waterfowl.

High Park Walking Tours (www.highpark.org)

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

- Oct 7 Trees in the Fall, Terry Fahey
- Oct 21 Autumn Splendour Photo-Buff Walk, David Allen

Mycological Society of Toronto (www.myctor.org)

Check their website for forays in October.

The Market Gallery (www.toronto.ca/marketgallery)

To Nov 17, Bike City: How industry, advocacy and infrastructure shaped Toronto's cycling culture. Admission \$5 - \$8. Location: South St Lawrence Market, 2nd floor, 95 Front St E. The gallery is closed Sundays, Mondays and holidays.

Ian Wheal Walks

- Sat Oct 6, 1:30 pm. Upper Etobicoke Creek – A National Stream (Pearson Airport). Meet at the northeast corner of Rathburn Rd and Centennial Park Blvd.
- Thurs Oct 11, 1:30 pm. When the Don became a National River (1889) thanks to CPR. Meet at the entrance to Riverdale Library, Gerrard St E and Broadview Ave.
- Sat Oct 13, 1 pm. Rouge National Urban Park – When trains stopped at stations near the park. Meet at Pearse House, east off Meadowvale Ave north of Sheppard Ave E opposite the zoo. A 12-km walk.
- Mon Oct 15, 1 pm. Centenary of Canadian Mounted Police and Cavalry helping to liberate Palestine, WWI. Meet at the Long Branch TTC loop, Lake Shore Blvd W. A 7-km walk.

STEWARDSHIP OPPORTUNITIES

City of Toronto Natural Environment & Community Programs: Fall 2018 Events (<https://goo.gl/9ogmHG>)

10am to noon or until the work is done, unless otherwise specified

- Sat Oct 13 Wexford Park Tree Planting
- Sat Oct 20 Warden Woods Tree Planting
- Sat Oct 20 Crothers Woods Trail Maintenance Day (10am-1pm)
- Sat Oct 27 Sunnybrook Park Tree Planting

Email greentoronto@toronto.ca for more information including location details. Planting equipment and materials provided. Dress for the weather, wear comfortable clothing, sturdy closed-toe shoes, long pants, and bring sunscreen and drinking water. Groups of 10 or more, register in advance at greentoronto@toronto.ca.

HAYMAKER'S MUSHROOM



drawing by Eva Davis

KEEPING IN TOUCH

Sixty years with TFN!

Congratulations to Jack and Mary Gingrich – our longest-standing members. Jack became a member in 1958 and Mary joined the following year. They first met at a TFN event.

Jack led the outings committee from 1963 to 1968 and served as President from 1968 to 1970, during which time TFN acquired its first nature reserve.



Grass-of-Parnassus. Photo: Josie Ricciardi

A September weekend at Singing Sands on the Bruce Peninsula yielded clumps of grass-of-Parnassus blooms, easily spotted from the newly placed boardwalks in the park. Other wildflowers included ladies tresses and fringed gentian.

Kathleen Brooks

On August 22nd, I discovered a praying mantis sitting beside my computer. I live 21 storeys up, above a green space in the middle of Toronto. The window beside the desk was open. During the storms, did an updraft somehow lift it this high to the deck, and it came in through the window and jumped onto the desk? Mysterious indeed! I caught it in a glass to take photos for my grandsons and released it onto a climbing vine outside. A couple of days later, it was still there, sleeping a lot upside down like a sloth on the outer side of the morning glories. What a treat!

Lynn Pady



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.

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.

IT'S YOUR NEWSLETTER!

We welcome contributions of original writing (between 20 and 500 words) of nature observations, especially in the Toronto area; also 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 photo.

Submissions deadline for November issue: Oct 1

Answers from page 11.

Life cycle of a monarch butterfly answers: A.1, B.4, C.3, D.2

Bonus answer: MILKWEED

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Bearberry, marsh fern and dwarf raspberry seen at Jim Baillie Nature Reserve, July 8. Photos: Miles Hearn