



Since 1923

TORONTO FIELD NATURALIST

Number 645 September 2019



Green frog at Todmorden Wildflower Preserve, July 2019. Photo: Janet Patterson (See page 15)

REGULARS

About TFN	14
Coming Events	14
Extracts from Outings Reports	12
Junior Toronto Field Naturalists	11
Keeping In Touch	15
Lecture Notice	16
Lecture Report	5
President's Report	2
TFN Outings	3
Weather (This Time Last Year)	13

FEATURES

An Opportunity to Build Environmental Leadership	4
Tree of the Month: Sugar Maple	6
Volunteer Profile: Sandy Cappell	7
Toronto Wildflowers: <i>Eupatorium</i> and Close Relatives	8
Photography Tips: Flowers	10

PRESIDENT'S REPORT

Many thanks to all of you who renewed your memberships for the 2019/2020 year! Seeing such continued enthusiasm for TFN warrants special thanks to all of our walk leaders, lecturers, project participants, committee members and passionate volunteers. Your efforts are the soul of this organization and greatly appreciated by our community.

I'd also like to extend a very warm welcome to all of our new members! Over the last year we have experienced a heartwarming surge in membership which saw TFN grow by roughly 12%. I'm pleased to have met more than a few of you out on walks and at events this summer and have enjoyed correspondence with many others. These conversations have given me new insights into what TFN brings to the "nature scene" in Toronto, and I invite those of you I've yet to meet to reach out with your thoughts or even just to say hello.

Connecting youth with nature is a pillar of TFN's mission. So it's been very gratifying to see an impressive volume of our new memberships issued to post-secondary students, teenagers and families with little ones. No doubt our free Youth memberships have helped in this regard, as has our continued commitment to providing scholarships to Ontario Nature's annual Youth Summit for Biodiversity and Environmental Leadership. But I'd be remiss if I didn't call direct attention to the outstanding and ongoing development of our Junior Naturalists program. Since the May issue was published, our Juniors have come together

to enjoy Beewatch at the Meadoway (see page 11), a planting in G Ross Lord Park, and the Bird Festival on Leslie Street Spit. On Sept 21, they're off to Rosetta McClain Gardens for a day of monarch butterfly tagging. If you're interested in learning more, or having your kids join in the fun, please visit our website and email juniortfn@torontofieldnaturalists.org to enroll.

Last year also brought about a number of new or enhanced initiatives across the organization: Our weekly *Toronto Nature Now* segments on CJRU 1280AM, the butternut project at Jim Baillie nature reserve, a fully-revamped website, changes to our newsletter, and a variety of new and novel walks are merely a handful that immediately spring to mind. In the space afforded to me in this issue it would be impossible to thank everyone involved. I can only hope I've already personally expressed the sincere gratitude you each deserve.

Members can look forward to this year bringing many enrichments and innovations. Look no further than the pages of *Toronto Field Naturalist* for updates and announcements as things unfold. Meanwhile, my inbox is open to any and all comments and suggestions you might wish to share. TFN is your community, driven by your thoughts and efforts. I look forward to hearing from you.

Jason Ramsay-Brown
president@torontofieldnaturalists.org

WHAT'S NEW ON TFN'S WEBSITE

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

- New content for Junior Naturalists
- Tell your MPP what you think of Bill 108
- The Connected Naturalist: EDDMapS Ontario by Jason Ramsay-Brown
- A look back at the TFN Slide Collection

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

MEADOWAY PLANTING EVENT

September 22, 2019, 10 am-2 pm

Location: The Meadoway hydro corridor, off Benshire Drive and Bellechasse Street, Scarborough.

The Meadoway is bringing nature back into city living by transforming a 16-km stretch of hydro corridor into a vibrant urban greenspace, meadowlands, community space and trail system.

Take part in meadow plantings, guided hikes, bike tours, and more, all while learning about meadow plants and wildlife. (This event is weather dependent.) For more information, visit www.TheMeadoway.ca

If you are interested in being part of a TFN Planting team, please contact Anne Purvis (416-469-0729) at kannepurvis@gmail.com

TFN OUTINGS

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

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

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

- Mon
Sept 2
10:00 am **LESLIE STREET SPIT – Nature Walk**
Leader: Charles Bruce-Thompson. Meet at park entrance, Leslie St and Unwin Ave, for a circular walk looking at the abundant avian and vegetal life. Flat surfaces with some rough trails. About 3½ hours, but those wanting a shorter walk can head back at any stage. Bring binoculars, water and lunch. Outhouses available. The #83 bus from Donlands subway station will drop you at Commissioners St. Then walk 5 minutes south.
- Wed
Sept 4
10:00 am **BIRCHCLIFF QUARRY LANDS – Weed Walk Part 4**
Leader: Miles Hearn. Meet at the southeast corner of Danforth Ave and Victoria Park Ave (just south of Victoria Park subway station) for a circular walk on mostly flat terrain. We'll be looking for plants that get around on their own, struggle for light, nutrients and water (sometimes called weeds). Bring binoculars and field guide if you wish.
- Sat
Sept. 7
10:00 am **DOWNSVIEW PARK – Nature and Heritage**
Leader: Rachel Gottesman. Meet at the corner of Sheppard Ave W and Keele St for a circular walk. Bus #84A from Downsview and Sheppard West subway stations. Parking available inside the park at Canuck Ave. We'll walk through the green spaces in and near the park. Coffee shops in the area.
- Tues
Sept 10
2:00 pm **NORTH HUMBER – Nature Walk**
Leader: Margaret Meredith and Peter Iveson. Meet at the northwest corner of Weston Rd and Lawrence Ave W for a circular walk. Bus #89 from Keele subway station. There is a café with washrooms at the end of the walk.
- Sat
Sept 14
10:00 am **HIGH PARK – Birds**
Leader: Glenn Berry. Meet just inside the main Bloor St entrance to High Park for a circular walk over a slightly hilly route including the Nature Centre bird feeders, allotment gardens, duck ponds, zoo, Grenadier restaurant (public washrooms) and Hawk Hill. In addition to year-round residents in the trees and on the water there will be some early migrants. The monitoring of raptor migration will be underway on Hawk Hill.
- Sun
Sept 15
2:00 pm **BROWNFIELD GOES GREEN: GERRARD PRAIRIE – Lost Rivers**
Leader: Richard Anderson. Meet at the entrance to Victoria Park subway station for a circular walk to explore a threatened cultural prairie on a brownfield site. Nettles on some trails. Great golden digger wasp was seen last time this walk was held. Hairstreak copper butterflies were seen on this prairie in June. A joint outing with Toronto Green Community.
- Tues
Sept 17
10:00 am **LOWER DON VALLEY TRAIL – Nature Walk**
Leader: Vivienne Denton. Meet at Broadview subway station for a circular walk. We will walk up the Don River trail from the footbridge at Riverdale Park checking out various species of asters and goldenrods as well as valley wildlife, possibly visiting Todmorden Mills and ending at the Brick Works where we can stop for coffee before taking the free bus back to Broadview subway station. Bring binoculars. Flat surfaces with some gentle slopes, mostly paved. Washrooms at the end.
- Sat
Sept 21
10:00 am **TAYLOR CREEK PARK – Nature walk**
Leader: Leila Lessem. Meet at the southwest corner of Glenwood Cres and O'Connor Dr for a 2-hr circular walk along the hydro corridor in Taylor Creek Park to the elevated wetlands near the lower Don trail. Bring binoculars and water.

**Make sure we have your email address
so you can view the outings list online before receipt of your paper copy.**

- Sun
Sept 22
1:30 pm **WINDFIELDS PARK – Nature Walk**
Leader: Nancy Dengler. Meet at the southeast corner of Bayview Ave and York Mills Rd for a circular 2-hr walk along the mid-section of Wilket Creek Ravine as far south as Post Rd. We plan to see many examples of stream erosion, an oxbow lake in the making, an old dam and pond and the “big woods” on the Wilket Creek floodplain. Washroom in Second Cup at York Mills Plaza.
- Wed
Sept 25
10:00 am **EARLY FALL AT HIGH PARK – Nature Walk**
Leader: Paul Foster. Meet at the entrance to the park on the southwest corner of Bloor St and High Park Ave for a circular walk, including the black oak savannah and the eastern shore of Grenadier Pond looking for plants, trees and birds.
- Sat
Sept 28
10:30 am **ROUGE NATIONAL URBAN PARK – Nature Walk**
Leader: Charles Chaffey. Meet at Twyn River Dr and Sheppard Ave E (a 0.5-km walk east from Sheppard and Meadowvale). Take #85A (infrequent) or #85B bus from Don Mills subway station or #86A from Kennedy subway station. Drivers park in the Glen Eagles Vista lot, 7 Twyn Rivers Dr at Sheppard. We’ll look for asters and other fall plants, birds and wildlife in the Twyn Rivers area, then go to the Zoo Road area up some steep hills. Bring water and lunch to be eaten around 1 pm at Rouge Valley Conservation Centre. There you can drop out or join us for the walk back to Twyn Rivers by a different trail. Binoculars recommended. Washrooms at Twyn Rivers and Zoo Road. Questions: Charles.chaffey@sympatico.ca or 416-752-2897.
- Sun
Sept 29
1:30 pm **JIM BAILLIE NATURE RESERVE – Mushrooms**
Leader: Pat Burchell. Meet at the entrance to the JBNR, 649 Fowlers Rd, Uxbridge, for a 1:30 start. Leave Toronto by 12:15. As DVP is very slow, it might be better to take Don Mills Rd to York Mills Rd. Contact Margaret McRae at 416-429-7821 or marg.mcrac@gmail.com if you need a ride or can offer a ride.

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

AN OPPORTUNITY TO BUILD ENVIRONMENTAL LEADERSHIP

During the first week of October, 100 strictly non-partisan all-candidate debates on the environment and climate will take place in ridings across Canada.

Public polling consistently shows that support for environmental leadership has never been higher, but this kind of support doesn’t always translate into action from our elected leaders. These debates, two weeks before the federal election, will put candidates face to face with voters who want bold, urgent action on the environment.

Around the world, we are seeing dramatic shifts in technology and people’s behaviour to address environmental problems. Here in Toronto we’re playing our part by buying local food, taking public transit, retrofitting buildings for energy efficiency, implementing TransformTO and reducing GHGs, enhancing Toronto’s Home Energy Loan Program, engaging with TRCA to better understand and address flooding, mapping and undertaking to protect our natural heritage.

While individual action can make an important contribution to addressing problems like climate change, complex environmental challenges can’t be solved without government leadership. That is why GreenPAC, a non-partisan organization whose aim is to build environmental leadership in politics, saw the need for these coordinated, issue-based debates to be held on this large scale.

100 DEBATES
on the **ENVIRONMENT**

Candidates from parties represented in Parliament will receive, in advance of the debate, the same four questions, one each on climate change, water, wilderness conservation, and pollution and toxic substances. In addition, local organizing groups are preparing questions focused on environmental issues in their own ridings.

Candidates are asked to put their best policy ideas forward. By asking the same four questions at each debate, the candidates’ answers can be compared nationally. Each debate will be taped and shared online, providing accurate information for an extensive social media campaign in the lead-up to the election.

100 Debates on the Environment will encourage a race to the top on environmental policy issues in all major parties, demonstrating the strong support that exists for environmental action, and enabling the best policy ideas to come forward to compete for that support. It is a unique and powerful opportunity for each of us to shine a spotlight on the need for environmental leadership in the next Parliament.

To find out when and where your riding’s debate is taking place, visit: <https://www.100debates.ca>

Also, effective September 13, look for a posting on TFN’s website: www.torontofieldnaturalists.org

Rita Bijons

LECTURE REPORT

The Owl Foundation – A Fly-By-Night Organization?

May 5, 2019

Peter Thoem, expert birder, photographer and ambassador for owl rehabilitation

Peter Thoem is an active member of the Owl Foundation, which operates an owl rehabilitation centre located on the Niagara Peninsula. His involvement in the Foundation started on a New Year's Day when he was asked to rescue a Snowy Owl close to the QEW by Burlington's sewage treatment plant. The owl was taken to the Owl Foundation and examined by the onsite zoologist who determined that it had been at the side of the road for a few days after its wings were singed as it flew over the sewage burn-off area.



Some owls with permanent disabilities that are otherwise healthy are kept at the rehab centre and used as foster parents, raising orphaned owl chicks in naturalistic enclosures. One of Peter's assignments was to pick up a 12-day-old orphaned Great-horned Owl found at a Waterloo golf course. It was placed with 'Big Red,' an 18-year-old owl foster mom, that cared for the orphan until it was healthy enough to be released.

The Owl Foundation is the only facility in North America to both breed and foster wild owls to release status. The Foundation relies on a network of volunteers to transport

injured owls from remote areas, such as Moosonee, to the Niagara facility and return them when they have healed. Volunteers also help keep the facility running by cleaning cages and performing administrative tasks. The facility is closed to the general public. However, sponsors who donate \$50 or more are invited to attend The Owl Foundation's Annual Sponsors' Tours each fall. For more information see <http://www.theowlfoundation.ca/>.

Every 5-10 years, there are huge irruptions of owl sightings in southern Ontario. For example, in 2013 a big surge in lemmings in the Arctic led to a highly successful breeding year for Snowy Owls. But, as winter closed in, there were more owls than could survive on the available food, so many of them migrated to the shores of Lakes Ontario and Erie. An organization called *Project Snow Storm* captured and attached transmitters to 20 Snowy Owls in order to track

their movements. As they flew by cell towers, information on their flight path was downloaded. Many of them went onto ice floes in the lakes and survived by feeding on the ducks on the ice. See <https://www.projectsnowstorm.org/> for more information.

Peter provided many entertaining stories of the owls he was involved in rescuing, adorable pictures of owls and recordings of the sounds of different owl breeds. Thanks, Peter, for enlightening us with your knowledge of owls. We are a lot wiser now!

Laura Thompson

UPCOMING TFN LECTURES

Sept 8: See back cover.

Oct 6: *Southern Ontario Butterflies and their Natural History*. Jay Cossey, Nature Photojournalist and Author

Nov 3: *Canada Jay: Implications of climate change in a food-caching species*. Ryan Norris, Associate Professor, Dept of Integrative Biology, University of Guelph

Dec 1: *Blood, Bait and Bacteria: Evolution of Feeding in Leeches*. Sebastien Kvist, Associate Curator of Invertebrates, Dept. of Natural History, ROM

TREE OF THE MONTH: SUGAR MAPLE (*ACER SACCHARUM*)

While every Canadian province has at least one native maple species, sugar maple, though not found west of the Lake of the Woods region or north of about 49° N latitude, stands uniquely iconic. Stylized in our flag, the shape of an actual leaf has some interesting features lurking among its points. Five major lobes radiate via primary veins from a central point at the top of the petiole. The three upper lobes are large and complex with varying numbers of sharp-pointed side teeth, including one such tooth on each side of the lobe near its tip, giving each lobe a squared-off look. The bottom two lobes are smaller elongated triangles that jut straight out at right angles to the midrib.

A separate botanical variety of sugar maple with a rather different leaf shape was described (as a species) in 1886 and “demoted” to subspecies in 1890 and variety in 1900. This variety (also sometimes treated as a forma since 1935) was named *Acer saccharum* var. *rugelii*. It has the three upper lobes much simplified by reduced teeth, leading to loss of the squared-off look, with rounded shoulders replacing the basal lobes. Through much of the 20th century, many floras (such as *Gray’s Manual*, Gleason & Cronquist, or Scoggin’s *Flora of Canada*) included this var./subsp./fo. in their keys and descriptions of sugar maple, and many herbaria have specimens labelled with the name. The range ascribed to this variant, in those floras that recognize it, coincides with the range presented for the typical var./subsp./fo. *saccharum*. This kind of distribution, with two different varieties occupying the same range, is highly unusual and throws suspicion on the validity of var./subsp./fo. *rugelii*. Specimens with *rugelii* leaves are definitely present in collections and in nature, so what should we make of them?

The most likely interpretation of *rugelii* is revealed by comparing twigs with the two leaf forms to each other. Herbarium specimens identified as var./subsp./fo. *rugelii*, including the type specimen used to describe it in 1886, are all

twigs bearing terminal clusters of flowers or paired maple key fruits at their tips, below which are two to three pairs of three-lobed leaves. The vast majority of sugar maple specimens preserved in herbarium collections are vegetative specimens without reproductive parts. The leaves on these specimens are almost always of the five-lobed form that we associate with sugar maple. While individually variable, they are usually distinct from the leaves of most flowering shoots. Thus, the two leaf forms do not represent separate varieties; they simply represent different phases of the sugar maple life cycle. This correspondence was pointed out to me by Deborah Metsger, Assistant Curator of Biodiversity at the ROM, when she was researching hybridization between sugar maple and closely-related black maple for her M.Sc. degree under my academic supervision.

Flowers and fruits are costly for plants and their production channels resources away from associated leaves, simplifying their shape. Since inflorescences are initiated in the fall, at the same time as the leaves, this may be how they influence the leaf shape before their development is arrested and both become locked in the buds for the winter. Some simplification of leaves associated with flowering (most extremely culminating in tiny bracts scarcely recognizable as leaves) is fairly common among a wide variety of trees, so it is somewhat surprising that many botanists didn’t recognize that this developmental variation lay behind the supposed *rugelii* leaf.

Find a fruiting sugar maple near you and contemplate the implications of how leaf shape and size vary depending on whether a twig ends in a cluster of fruits or a terminal bud, and how this variation fooled some otherwise savvy botanists into mistaking it for taxonomic variation.

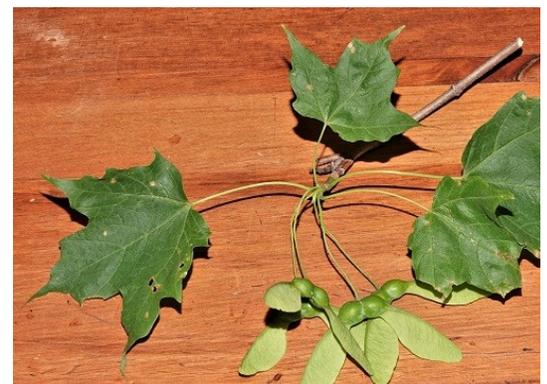
James Eckenwalder



Leaf showing five lobes and “squared-off” appearance of 3 terminal lobes



Intermediate form leaf
Photos by Ron Dengler



Reproductive shoot showing simplified 3 lobes
of *rugelii* leaves

VOLUNTEER PROFILE

Sandy Cappell, First Responder for the TFN

Friday mornings usually find Sandy Cappell at his volunteer post in the TFN office. Sandy's friendly voice is key. His cheerful, reliable presence ensures that members' phone calls and emails are answered; that they get help navigating the website; that issues about upcoming events are clarified and loose ends are tied up. Sandy brings plenty of patience and good humour to his role, traits developed by many years of walking clients through their income tax forms. "I always aim for a happy customer," he observes.

Sandy has been holding down the fort at the TFN office for over 30 years, helping out a succession of TFN presidents. He has been a TFN member even longer – since 1981, in fact. He recalls, prior to joining, being a bit unsure what these naturalists did: would they expect him to know how to rappel, for instance? "Turns out you just have to know how to walk!" he chuckles. Sandy also served on the TFN board from 1983 to 2016, and has enjoyed leading walks – though he takes things more slowly these days.



Sandy Cappell. Photo by Elizabeth Reid

Growing up near Christie Pits, Sandy has seen Toronto change and change again. He has an enduring fondness for the Garrison Creek stretch from St Clair to Fort York. He and his friends used to listen at the sewer grates in Christie Pits for the sound of the creek burbling below. As a kid, he knew the story of the creek being buried, along with a sizeable bridge that crossed the creek over Harbord Street. "And if you know what to look for, you can still see the parapet of the bridge at Harbord," he notes. Sandy used to play under the big Crawford Street bridge (later buried in the 1960s) near his grandparents' house.

Sandy has seen TFN's membership ebb and flow over the years, and is pleased that numbers are growing these days. He believes the social aspects of the TFN are more important now than ever, as a healthy antidote to the isolating computer screens that we all seem to spend our days facing. So it's no surprise that TFN's Sunday afternoon lectures remain a favourite for Sandy, and he rarely misses this opportunity to catch up with old friends and welcome new people.

Ellen Schwartzel

VOLUNTEER OPPORTUNITIES

Would you enjoy representing TFN at community events like the Butterfly Festival in Tommy Thompson Park? What about helping to organize walk leaders and guest speakers to assist schools and community groups? Might you have the skills to compose blog or social media posts?

If any of this sounds appealing to you, please join the TFN's Promotions & Outreach Committee by emailing promotions@torontofieldnaturalists.org

Your help would be appreciated!



Linda McCaffrey staffing the TFN promotion booth at the Leslieville Tree Festival. Photo by Taskin Shirazi

TORONTO WILDFLOWERS: *EUPATORIUM* AND CLOSE RELATIVES

Toronto has four species, three common and one locally rare, that until recently were included in the genus *Eupatorium* in the Asteraceae (sunflower or aster family). According to the US Dept of Agriculture PlantsDatabase (USDA) they have been assigned since 2004 to three genera and only one of them, *Eupatorium perfoliatum* (boneset), remains in that genus. Spotted Joe-Pye-weed and sweet Joe-Pye-weed are now respectively *Eutrochium maculatum* and *E. purpureum*. White snakeroot (formerly *Eupatorium rugosum*) is *Ageratina altissima*. The former names appear in *The ROM Field Guide to Wildflowers of Ontario* (ROM, 2004). You could annotate your field guides or simply use the common names which, in this case, may be the better choice.

Eutrochium maculatum's common name, spotted Joe-Pye-weed, may be a corruption of *jopi*, a First Nations word meaning typhus, or may be after Joe Pye, who was either a First Nations healer or a settler who learned from one (ROM). This species has been used in herbal remedies. Plants, up to 2 m tall, occur in moist open areas and thickets. They flower locally in August or September, in flat-topped, branching clusters, 10 to 20 cm wide. Flower heads, up to 10 mm wide, consist of up to 22 pinkish-purple disc florets. This species occurs in most of Ontario. Its full range is from BC to Newfoundland and includes most of the US except southern and southwestern states (USDA).

I have not seen the closely related and rare *E. purpureum*, only reported locally on the Toronto Islands and in the East Don watershed in *Vascular Plants of Metropolitan Toronto*, 2nd ed. (TFN, 1994).

Eupatorium perfoliatum's common name, boneset, has an interesting history (see sidebar). This species, up to 1.5 m tall, occurs in wet meadows and thickets. Its nearly flat-topped flower clusters consist of discoid heads, up to 6 cm across, formed of minute white florets. *Perfoliatum* refers to the fact that the stems appear to pierce paired joined leaves. This distinguishes it from *Ageratina altissima*, otherwise somewhat similar and occurring during the same period, July to October, in the same habitat. *E. perfoliatum* occurs across the southern half of Ontario. Its full range is Manitoba to Nova Scotia and the eastern 60% of the US (USDA).

Ageratina altissima, the very poisonous white snakeroot (see sidebar opposite page). can also be up to 1.5 m tall. Its flat-topped flower clusters are about 5 cm wide. Each is composed of 12 to 30 white florets. Its range is Ontario to Nova Scotia, a disjunct population in the Northwest Territories, and in the eastern half of the US (USDA).

The complex flowers of these species need a good hand lens to be fully appreciated. All should still be in bloom after the last mosquitoes have disappeared. Look for them in moist areas, perhaps as a bonus to fall birding.

Article and photos by Peter Money

Continued on next page



Joe Pye-weed (*Eutrochium maculatum*), and detail.

BONESET (USDA Plant Fact Sheet; Wikipedia)

The name boneset may come from the historical use of this species (*Eupatorium perfoliatum*) as an (unsuccessful) treatment for the agonizing disease dengue fever. This fever is also known as breakbone. American colonists learned from First Nations people to use boneset for "breaking fevers" by causing heavy sweating. Modern studies suggest a possible anti-inflammatory effect and activity against the malarial parasite *Plasmodium falciparum*. There is also the superstition that wrapping boneset leaves inside bandages and splints would help healing. This species should not be confused with the poisonous *Ageratina altissima* (white snakeroot).

Ed. Note: TFN warns not to self-medicate with any wild plants.



Boneset (*Eupatorium perfoliatum*), above, and detail top right.
White snakeroot (*Ageratina altissima*) at right.

MILK-SICKNESS (from Wikipedia)

The often fatal milk-sickness claimed thousands of lives among early migrants to the US Midwest in the early 19th century. One victim was Nancy Hanks Lincoln, Abraham Lincoln's mother. The fatality rate was so high that over half the people in a frontier settlement might die of it. The cause, white snakeroot (*Ageratina altissima*), was identified by an elderly Shawnee woman, name not recorded, who told pioneer physician, Dr. Anna Bixby, what the cause was. As a female physician, Dr Bixby did not receive any official credit from the medical establishment for her writing on the subject.

The disease, symptoms trembling, vomiting, severe intestinal pain, and death, is caused by a toxin, tremetol, not successfully analyzed until 1928. Adult cattle feeding on white snakeroot may show no symptoms, but the tremetol in their milk is commonly lethal to calves and people.

*Dark shapes swim slowly
Now a turtle's head appears
Above lily pads*

Haiku by Elisabeth Gladstone

PHOTOGRAPHY TIPS: FLOWERS

This month I would like to share tips on taking photos of flowers. Photographing flowers can be quite enjoyable and is very popular with a lot of photographers. I began my journey into nature photography with flowers and plants because it was such an approachable subject and a great way to learn about light and composition. I use a DSLR camera with telephoto lens along with a tripod or monopod. One of the great things about taking photos of this type is that you can use a wide variety of lens types: macro, non-macro, wide-angle or telephoto.

I prefer using natural light. The best times for this are late afternoon and early morning. A flash can come in handy if you plan to shoot at other times of day, such as under a bright midday sun. As for camera settings, most flower photographers aim for one of two looks: sharp throughout the frame or shallow focus. In order to achieve these looks you need to be able to control your depth of field.

To do this you can either shoot in Aperture Priority or Manual mode. Aperture priority mode (labeled A or Av on your camera mode dial) allows you to set the aperture, thereby setting the depth of field. The camera then automatically sets the shutter speed based on its internal light meter. Manual mode (labeled M on your camera mode dial) allows you to control the aperture but

also allows you to control the shutter speed. My preference is to use the aperture priority mode. Here is my suggested camera set up based on using this mode.



Sunflower photos.

Above, sharp focus; below shallow focus.



Make sure the Live View is disabled and use the Viewfinder. I use an 18-55 mm telephoto lens and experiment with different focal lengths based on my proximity to the subject. Let's start by setting the focal length to 18 mm. Set the Mode dial to A. Set the aperture to f/3.5. Set the ISO to 100. Set the Auto ISO Sensitivity Control to On. Set the Auto ISO Minimum Shutter Speed to 1/125. Set the Focus Mode to Auto-Focus Single Servo. Set the Auto-Focus Area Mode to Single-point AF. Set the White Balance to Auto. Set the Metering Mode to Matrix.

To get more background blur in your shot, zoom in and get closer to your subject. To take the shot aim your focus point on the flower then half-press the shutter button to lock focus, then fully press to shoot. If the auto focus fails, simply back up a little and reshoot.

Hopefully you find this helpful and enjoy trying this in your garden and/or the many beautiful green spaces in our city.

Article and photos by Zunaid Khan

UPCOMING JUNIOR TFN EVENTS

Events are held Saturday mornings from 10 am to 12 noon. To be included on the email list in order to receive location details, please email juniortfn@torontofieldnaturalists.org

- Sept 21 Join us at Rosetta McClain Gardens for a day of monarch butterfly weighing, measuring, sexing and tagging. We will also visit the hawk watchers and learn about the hawk migration. Now it's our turn to be a Hawk – we will play a game of Predator-Prey!
- Oct 19 Meet at 1100 Woodbine Ave for a Seed Hike and Acorn dissection. Why are seeds so different? What is a fruit? Meet some of the creatures that make an acorn their home, and see if you can figure out what's eating what!
- Nov 9 Hike the Doris McCarthy trail, do a fossil hunt and make your own fossil! Where did the Scarborough Bluffs come from? Marvel at the bluffs as you hike between them and beautiful Lake Ontario.
- Dec 14 Come welcome our over-wintering Arctic ducks at Humber Bay Park East. How many can you tick off on your checklist? What great stories do ducks tell? Maybe we'll try a little drama.

JUNIOR TORONTO FIELD NATURALISTS PAGE

CYCLOPS GHOST CATERPILLAR

I was out in our garden one afternoon in July clipping branches from the elderberry bush so it would be easier to hang things on the clothesline. I suddenly noticed a ghostly white caterpillar lying on the ground. He was a couple of centimeters long, with a big orange hump on his rear end. I put him on a branch of the elderberry bush, thinking I had knocked him off. When I got inside the house, I started to worry that I might have brushed him off the Virginia creeper, or the grapevine that covers the fence beside the elderberry bush. What if he didn't eat elderberry? He might never find his way back to his food!



I couldn't find a picture of him in any of my caterpillar books, so I did my own experiment to find out what he would eat. I picked leaves from the elderberry bush, the grapevine and the Virginia creeper and put them all in a tub. Then I found the caterpillar where I had put him and popped him in among the leaves.

He ate mostly at night and his favourite seemed to be Virginia creeper leaves. I really liked him and I was quite curious what he would turn into. So I kept picking Virginia creeper leaves every day and feeding him. About ten days later, I opened the tub, and there was his little white coat lying in a heap. He had turned into a magnificent black striped caterpillar, with quite fashionable black and white striped boots. The most remarkable thing though – he was staring at me! His orange hump had turned into a big open, clear, spooky eye! If I touched that eye, he swung around and tried to bite me. It turned out this was a decoy eye which looked like a snake eye to scare away predators.

Now I was able to find his picture in my caterpillar book. He was an Abbot's sphinx moth larva.

Usually when I checked on him, he was stretched out in a relaxed eating pose beside a big hole he had chewed in a leaf. One day I found him curled up on the bottom of the plastic tub. If I tried to put him on a leaf, he banged the bottom of the tub as if he was mad. I was worried about him. For a couple of days, I just kept giving him new leaves. Then I realized he was ready for another big change.



My book said sphinx moths like to crawl into the ground to make a pupa. No wonder he was frustrated with a plastic tub. Maybe he was showing me he needed something different. I found a clear glass jar and put some moistened soil in it. He disappeared almost instantly when I put him in and covered him with leaves. My book says he will spend the winter underground before turning into this lovely creature.



Anne Purvis

Top photos by Anne Purvis. Moth photo from Wikipedia.

BUMBLEBEE WATCH ON THE MEADOWAY

TRCA hosted our TFN Juniors for this event on July 13 – a lovely sunny and windy day. We saw a variety of insects including butterflies, beetles and grasshoppers, as well as bees. What a beautiful spot!

Interpreters Sumaira and Evelyn told us that the Bellechasse and Benshire Drive area of the Meadoway was planted as a pilot four years ago and is full of beautiful wildflowers – milkweed, sunflowers, coreopsis, thistles, clover, etc. They explained that the meadow must be cut every few years or it will grow into a forest. When a piece of the Meadoway is to be re-planted, it is sown in oats first. This practice keeps down invasive

species and prepares the ground for meadow plants. It will need lots of care from TRCA as well as the public. Someday it will be a 16-km pollinator pathway from the Don River to the Metro Zoo along the Gatineau hydro corridor.

Evelyn and Sumaira also taught us how to safely catch bees using a net and then cool them down so we could have a good look and identify them. Among the bees we captured were the two-spotted, red-belted bumblebees, wool carder bees, and honey bees. One of our Moms picked mulberries and cherries for us to nibble on.

Anne Purvis

EXTRACTS FROM OUTINGS LEADERS' REPORTS



Trout lily at Rattray Marsh, April 2009. Photo: Ken Sproule

German Mills Creek – Nature Walk and Clean-up, Apr 20. Leader: Theresa Moore. We looked and listened for signs of spring and discussed the history of the area as well as conservation efforts. 'Keep Dogs on Leash' signs are displayed in the meadow each year from April to September to protect ground-nesting birds such as the Eastern Meadowlark – a species at risk. Another major threat to these ground nesters is dog strangling vine. The Town of Markham hopes that Settlers' Park will be one of the first to commercially use a Ukrainian moth that feeds on this invasive plant. Birds observed included small groups of Northern Flickers and Brown Creepers, as well as European Starlings, Red-winged Blackbirds, American Robins, Canada Geese, Mallards and an American Crow performing aerial acrobatics as it tried to evade smaller birds giving chase. Bloodroot, pussy willow and coltsfoot were in bloom.

High Park, Apr 24. Leader: Ellen Schwartzel. On a cool, breezy morning we gathered on the oak-dominated tablelands and imagined times past when this open savannah landscape covered much of the Toronto region. We ambled south along Wendigo Creek to Grenadier Pond, where our sightings included Wood Ducks, a Ring-necked Duck, Bufflehead, Mute Swan and Double-crested Cormorants. We admired a muskrat lodge and some also got to see the muskrats. We noted the distinctive bark of sassafras and black cherry, the burls of willow and a patch of bloodroot. As we headed over the hill, sharp eyes noted a Pine Warbler, a Broad-tailed Hawk and a Blue-grey Gnatcatcher. We eventually wound up at the duck ponds where we saw more Wood Ducks, a Belted Kingfisher (with fish), several sunning painted turtles and a Great Egret stalking in the shallows.

Crowthers Woods and Sun Valley, May 11. Leader: Margaret McRae. Lots of spring wildflowers were in bloom – trout lily, elderberry, early meadow-rue, trillium, sarsaparilla and coltsfoot; the may-apples had large buds. We saw two red admiral butterflies, robins and Red-winged Blackbirds.

Pine Hills Cemetery and Warden Woods, May 14. Leader: Charles Chaffey. We saw marsh marigolds and a few white trilliums in flower. Numerous toadshade and yellow trilliums were coming into bloom (two species that have respectively maroon and yellow flowers that never open fully, borne directly without a flower stalk on the whorl of three mottled leaves).

The bridges over the overgrown creek made excellent vantage points for viewing warblers: Black-throated Blue, Yellow, Northern Parula and Palm. Invasive plant species were evident, including periwinkle, garlic mustard and lesser celandine, which seems more abundant than previously. Remedial work has been done at the north end of Warden Woods including the planting of native shrubs such as ninebark, purple flowering raspberry and cherries. Goldfinches were flying through and a Gray Catbird perched high on a leafless tree. The woods to the south were carpeted with trout lilies, closed because it was overcast, and one flowering toothwort was spotted.



Black-throated Blue Warbler at Rosetta McClain Gardens, May 20014. Photo: Ken Sproule

Leslie Street Spit, May 18. Leaders: Charles Bruce-Thompson and Ray Berzins (of the Bruce Trail Club) On an unseasonably cold and breezy morning, few migrating birds were visible apart from Song Sparrows, Red-winged Blackbirds, Eastern Kingbirds and Yellow

continued on next page

WEATHER (THIS TIME LAST YEAR)

September 2018

For the fourth year in a row, September was notably warmer than normal. The monthly mean temperature was 19.4° downtown (1.5° above normal) and 19.0° at Pearson Airport (2.1° above normal). Because of the preponderance of warm late summer conditions in recent years, it was far from being record warm. Hot and humid conditions prevailed from the 1st-5th, 14th-16th and 21st. The hottest reading was 34.2° at Pearson on September 5th, and it attained 32.2° on the 21st. Only on the 8th-

10th and 27th-30th was there cooler weather, and it was just marginally below normal.

The period from the 8th-10th was characterized by rains from ex-tropical storm Gordon. Gordon contributed to a fairly average rainfall for the month, which was otherwise rather quiet, calm, and sultry. The total downtown was 63.5 mm (normal 69.8 mm) and at Pearson 50.0 mm (normal 67.0 mm).

Gavin Miller

Warblers. We dropped into the bird-banding station, which many of the party had never visited, and watched a Common Yellowthroat being assessed and banded. Only a few participants elected to complete the circuit after lunch. During this second stage we saw more interesting birds including a luminous Scarlet Tanager, a Green Heron, Canvasbacks, nesting Black-crowned Night Herons and a pair of plovers, tentatively identified as Semi-palmated.

High Park – Spring Wildflowers, May 23. Leader: Wendy Rothwell.

Due to the cool spring, most plants were blooming a week or two later than last year. There was an exceptional display of trilliums. Marsh marigolds, two-leaved toothwort and early meadow-rue were still in bloom, whereas starry false Solomon's-seal and wild sarsaparilla were just beginning. Other sightings were woolly blue, yellow and sweet white violets, wood anemone, Jack-in-the-pulpit, mitrewort, foamflower, strawberry (woodland and barren) and pussy toes. We had a delightful encounter with a friendly Downy Woodpecker, and were excited to see a couple of Great-crested Flycatchers.

Jim Baillie Nature Reserve, May 26. Leader: Miles Hearn. A big thank you to the many volunteers who maintain the trails in difficult conditions. There was plenty of mud to navigate but we were rewarded with close to 30 bird species, a good look at a pair of Great-crested Flycatchers and frequent songs from White-throated Sparrow and Black-throated Green Warbler. Miles gave a short talk on the life of former TFN president, museum technician and 40-year newspaper columnist Jim Baillie. We walked on all three trails and took rests at the benches constructed beside Uxbridge

Creek and at the shelter. There were many emerging ferns including long beech, lady, marginal, ostrich, oak, marsh, crested and wood. Goldthread, Jack-in-the-pulpit, foamflower, mitrewort and dwarf raspberry were in flower. Other plants included red, silver and mountain maple, tamarack, balsam fir, American yew, skunk cabbage, fringed loosestrife, Canada fly honeysuckle, Canada mayflower, starflower, swamp red currant, partridgeberry, red and white trillium, prickly gooseberry, cursed crowfoot and field horsetail.



Green Heron.

Drawing : Diana Banville

Riverdale Park East, Evening

Ramble, May 28. Leader: Vivienne Denton.

We looked at the work of the City stewardship team in the wetlands at the north end of the park including planting in the newly enlarged area around the swamp with its strong growth of cattails. Understory plantings are beginning to take hold – may-apple, wild geranium and wild blue phlox were in flower, and ferns, zig-zag goldenrod, white snakeroot and wild ginger could be seen. In the gardens at Bridgepoint hospital we noted native plantings including grey dogwood, Saskatoon berry and sumac, and there are also native plantings on the steep slope

above the Don Valley Parkway – spruce, oak, red cedar and dogwoods.

We stopped to view a patch of invasive phragmites and discussed what is being done to eradicate it. Here plantings of wetland shrubs – elderberry, dogwoods, nannyberry and meadowsweet – were doing well; among them spreading dogbane, cocklebur and blue vervain could be seen sprouting, and we admired a cluster of hawthorn in flower. Though this busy urban park was filled with active sports teams, in both wetland areas Red-winged Blackbirds were noisily defending their territories.

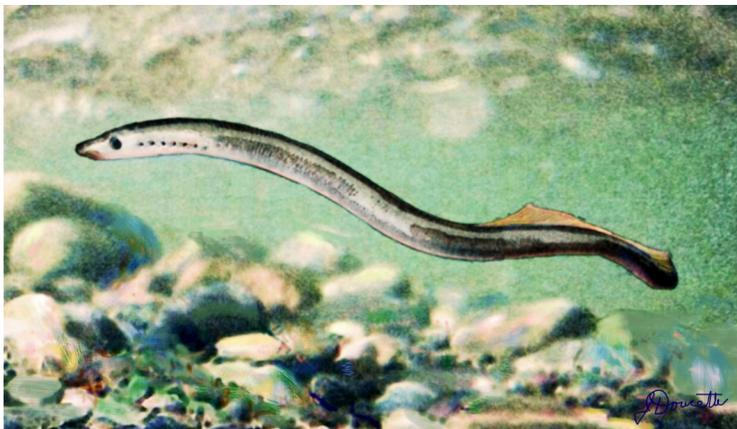
KEEPING IN TOUCH

I always enjoy the walks led by such generous, knowledgeable and enthusiastic members who share my appreciation for our natural world. On July 23, Vivienne Denton led a walk to the Evergreen Brick Works via Todmorden Wildflower Preserve. I learned about buttonbush. <http://ontariotrees.com/main/species.php?id=2025>. This magnificent specimen was alive with bees and butterflies.



We also observed a nice green frog in a pond on the Preserve [see front cover] and a snapping turtle swimming at the Brick Works.

Janet Patterson



American brook lamprey (*Lethenteron appendix*)

One of the joys of being a naturalist is learning things about the environment and species within it. Knowledge lights up those dark corners in the psyche where vampires and other phantoms lurk.

As a young child I was very frightened of this small (about 6" long) fish that spawned in the spring (April, May) just as the smelt run was underway. Confusing it with the non-native parasitic sea lamprey (*Petromyzon marinus*), the fear was that it would clamp onto my legs. Then it would suck my blood.

The American brook lampreys did, in fact, clamp on to my rubber boots as I stood in the clear cold water of Duffin's Creek. But these spawning adults have no functioning digestive tract. Only the young of this native fish eat, and they eat algae, so I was completely safe.

Story and painting by Joanne Doucette

High Park Nature Centre's OURSpace

In our December 2015 Newsletter, we reported High Park Nature Centre's plan to convert a half acre of mown grass adjoining the Forest School into an outdoor classroom and restoration site. It has been fascinating for me to watch this project develop over the past four years.

One morning this July, as I was out looking for newly blooming wildflowers, I happened to arrive at OURSpace. What a transformation! The place was ablaze with butterfly and purple milkweeds, black-eyed Susan, pale-leaved sunflower, hairy beard-tongue, wild bergamot, blue vervain, New Jersey tea, Canadian tick-trefoil, early goldenrod, daisy fleabane and more. It was also alive with the happy chatter of young children participating in one of High Park Nature Centre's summer camps. Some were involved in planting, others in weeding; some sitting on logs receiving instruction and others eagerly looking for interesting wildlife. A young lad offered to show me the pupa of a monarch; another pointed out a monarch caterpillar and yet another, a monarch butterfly. Other children were spotting spiders, bees and even a snake. I was impressed by their knowledge and enthusiasm.

As Programs Director Jon Hayes said to me, they are raising up the next generation of naturalists. It is gratifying to realize that TFN has contributed to this through our financial support of High Park Nature Centre.

Wendy Rothwell



Monarch caterpillar, pupa and butterfly at OURSpace. Photos: Wendy Rothwell

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TFN LECTUREVISITORS WELCOME

Sunday, September 8, 2:30 pm (Social, 2 pm)



Meadow Restoration in the Meadoway

Katie Turnbull, Project Manager, TRCA, will describe the successful restoration process that has converted 3.5 km of the Gatineau Hydro Corridor into wildlife habitat that will eventually extend 20 km from the Don Valley to Rouge National Park.

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 lectures: see page 5