Since 1923

TORONTO FIELD NATURALIST

Number 639 November 2018

Fringed gentian, Ward's Island. Photo: Jenny Bull

REGULARS

FEATURES

PRESIDENT'S REPORT

In writing this, my first President's Report, I spent some time reading similar submissions by our past presidents. Charles Bruce-Thompson, Nancy Dengler, Margaret McRae, Bob Kortright and Wendy Rothwell have each brought their own unique contributions to our community in a continuum spanning the last decade. It was, I'm not embarrassed to say, a humbling experience. As long-time TFN members know well, the nature of our organization is one of constant and subtle metamorphosis, strongly influenced by the personalities of board members, volunteers and the world around us. To see these transformations articulated with such clarity was both motivating and a little daunting.

Outgoing and Incoming Presidents
Charles Bruce-Thompson and Jason Ramsay- Brown

Bruce gave TFN a model presidency under countless novel circumstances. It would be easy to celebrate his leadership and good grace here, but I hope you'll instead allow me the indulgence of talking not of Bruce the TFN president, but about Bruce, my friend. We met about seven years ago on my first day as a volunteer on the Todmorden Mills Wildflower Preserve Stewardship Team. While team leader, Paula Davies, would certainly have inspired me to continue returning as often as I have, Bruce in no small way helped seal the deal that day. He is a gentleman of unique character, exuding a wonder and reverence for our natural world that touches all who meet him. His kindness and gratitude are inspiring. His quick wit keeps a smile on the faces of those that surround him, particularly on those long drives to Jim Baillie. His utter contempt for buckthorn is the stuff of legend. I'm blessed to call him a friend, and grateful to inherit from his presidency. Thank you, Bruce, for everything.

While Bruce already thanked our retiring board members Anne Powell and Nancy Dengler in last month's newsletter, I feel it necessary to extend my own thanks as well. Their clear judgment, firm resolve, steadfast oversight and great compassion for people and nature alike will be sorely, sorely missed. I'm grateful that we will all continue to benefit from their contributions to TFN in other ways. Thanks again, Anne and Nancy, from all of us.

It is with balancing pleasure that I get to welcome new faces to the board! Ellen Schwartzel brings us an incredible depth of experience in environmental policy, having been with the Environmental Commissioner of Ontario for over 20 years, serving as Deputy Commissioner (2014-2018) and as Acting Environmental Commissioner for part of 2015. Liz Menard's success and passion as a visual artist and educator add a new dimension to the board's makeup. And Agneta Szabo brings the learned perspective of a botanist and analyst for organizations like Indigenous and Northern Affairs Canada, Ministry of Natural Resources and Cole Engineering. On behalf of the whole of TFN, many thanks to each of you for joining the board.

All my recent reflections have made me more aware than ever of what I'll assert as the most precious hallmark of TFN: the great generosity of our community. Our dedicated volunteers summon into existence everything from our annual program of 140+ walks to deputations at City Council. Our donors have empowered the acquisition and maintenance of our nature reserves, offset the costs of our mailed newsletter and allowed us to "pay it forward" to initiatives that fulfil our mandate where we haven't had the ability to directly engage ourselves. Month after month, members contribute fascinating articles and beautiful photographs to our newsletter, website and archives. This list hardly scratches the surface. To say that TFN couldn't exist without these remarkable contributions would be an understatement of epic magnitude. TFN is what it is because of each of you. For that, we all owe a deep debt of gratitude.

It's a responsibility of the president to open the office to members on Friday mornings, and I hope that you'll stop by sometime soon. I'd love to better understand what TFN means to you, and to hear your ideas for how TFN can best deliver upon our mandate. Most importantly, I'd like to thank you personally for your contributions to our community and for the generosity that makes TFN a reality.

Jason Ramsay-Brown
president@torontofieldnaturalists.org

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.

Sat
Nov 3
10:00 am

GATES GULLY AND SCARBOROUGH WATERFRONT – Nature Walk
Leader: Jonathan Harris. Meet at the trailhead off Ravine Dr at Bellhaven Cres just south of Kingston Rd for a circular walk. TTC stop ID 4258 (Kingston Rd at Ravine Dr) or ID 4204 (Kingston Rd at Bellamy Rd S). Street parking on Bellhaven Cres. We will focus on local history, fall vegetation, waterfowl and late migratory birds. Morning only. No washrooms.

Wed
Nov 7
10:00 am

HUMBER BAY PARK EAST – Birds
Leader: Doug Paton. Meet at the southwest corner of Lake Shore Blvd W and Park Lawn Rd for a circular walk. Morning only.

Sat
Nov 10
10:00 am

ROSETTA McCLAIN GARDENS AND LAKESHORE – Birds, Insects and Plants
Leader: Bob Kortright. Meet at the park entrance on Glen Everest Rd just east of Kingston Rd for a 2-3 hr circular walk on mostly unpaved and uneven surfaces, flat with some steep slopes. We will walk down to the lakeshore just east of Rosetta McClain, east to near Bluffers Park, and back up to Rosetta McClain Gardens. If there is a northwest wind, hawk migration should be present. Bring binoculars.

Thurs
Nov 15
10:00 am

LOWER DON TRAIL – Nature Walk
Leader: Vivienne Denton. Meet at Broadview subway station. We will walk up the Don River trail from the footbridge at Riverdale Park, possibly visiting Todmorden Mills, and end at the Brick Works where we can stop for coffee before taking the free bus back to Broadview station. A circular walk, mostly flat paved surfaces with gentle slopes and stairs. Washrooms at end of walk.

Sat
Nov 17
1:30 pm

ECHO VALLEY – Nature Walk and Trees
Leader: James Eckenwalder. Meet at the park entrance at the northwest corner of KipIing Ave and Wingrove Hill (a long block north of Burnhamthorpe Rd) for a circular walk. No washrooms.

Sun
Nov 18
2 pm

WONSCOTONACH – Lost Rivers
Leaders: John Wilson and friends. Meet at the corner of Mill St and Bayview Ave, a short distance east of the Distillery District streetcar loop. We will explore the changes – hydrological, biotic, mechanical and artistic – shaping this well-traveled part of downtown's liminal Core Circle and examine opportunities to expand Wonscotonach Parklands, a name for the Don that settlers assumed from the Mississaugas. This linear 2.5 km walk includes some uneven ground.

Wed
Nov 21
10:30 am

CENTENNIAL PARK CONSERVATORY AND ETOBICOKE CREEK – Nature Walk
Leader: Nancy Dengler. Meet inside the conservatory at 151 Elmcrest Rd, a 3-minute walk from TTC bus stop on Rathburn Rd (#48 bus from Royal York subway station) for a two-part circular walk on flat surfaces. We will view tropical plants including traveller's palm, tree ferns, gingers, sour-sop and flamingo flower, with an emphasis on tropical relatives of Ontario's native plants. We'll finish with a walk through nearby Etobicoke Woods. Dress in layers for tropical and outdoor conditions. Washrooms available in conservatory.

Sat
Nov 24
10:00 am

LOWER DON RIVER VALLEY – Nature Walk
Leader: Margaret McRae. Meet at the northeast corner of O'Connor Dr and Beechwood Dr for a circular walk including Crothers Woods, Sun Valley, Cottonwood Flats and Beechwood Wetlands. Some steep hills and narrow dirt trails. No washrooms.

Wed
Nov 28
10:00 am

CHERRY STREET TO CLARKE BEACH – Nature Walk
Leader: Charles Bruce-Thompson. Meet at the southeast corner of Commissioners St and Cherry St (#72 bus from Pape subway station). We will walk on trails along Cherry St to Clarke Beach, Lake Shore Blvd E and Leslie St ending at Queen St E. We will observe the plants, birds and animals along the way and explore the sites of the Don Mouth Naturalization and the extension of the Martin Goodman Trail through Tommy Thompson Park. Linear, gentle slopes and no stairs. About 5 km, 2 hrs. Bring binoculars.

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.

CONTACT INFORMATION:
Telephone: 416-593-2656
Website: www.torontofieldnaturalists.org
Email: office@torontofieldnaturalists.org
Address: 2 – 2449 Yonge St, Toronto M4P 2E7.
The office is open 9:30 am to noon on Fridays.

NEWSLETTER

Toronto Field Naturalist is published by TFN monthly, September to December and February to May. Views expressed in the Newsletter are not necessarily those of the editor or Toronto Field Naturalists. The Newsletter is printed on 100% recycled paper. ISSN 0820-636X

Printing & mailing: Digital Edge Printing & Media Services

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.

Tax receipts issued for donations.
TFN does not give out its membership list.

MONTHLY MEETING REPORT

The 2017 Ashbridge's Bay Flood: Gulls and Shorebirds

October 14, 2018

Jean Iron, past president of Ontario Field Ornithologists

Jean Iron provided valuable insight into the 2017 flood. Jean is a retired school principal and was President of the Ontario Field Ornithologists for nine years. She is particularly interested in shorebirds and gulls, and is the author of *Shorebirds of Southern Ontario*.

Jean presented newspaper stories on the 2017 flooding detailing the associated devastation and costs. Ashbridges Bay experienced the worst flooding in over 50 years. Industrial pumps were used in a failed attempt to drain the water from the beach. Many other areas were also affected by record level rainfalls, which caused massive flooding, including the Toronto Islands, Ottawa, Montreal and along the St Lawrence River.

Meanwhile birders had a totally different outlook on this 'disaster.' The flood at Woodbine Beach created the perfect habitat for migrating birds. Species never previously seen at Ashbridges Bay stopped at the beach during migration. Gulls and shorebirds landed in the hundreds, some traveling as far as the Canadian Arctic and Greenland to breed. People came from far away just to see the birds. The days when it was especially rainy and windy proved to be the optimum time for spotting birds. Jean showed us many beautiful pictures of the assortment of birds at different stages of maturity captured by herself and fellow birders. Birders will always remember the glorious summer of 2017.

Laura Thompson

Rare adult Laughing Gull. Photo: Allison Zhang

11 species of bay gulls were seen at Ashbridge's Bay during the 2017 flood including:

Ring-billed Gull
Herring Gull
Bonaparte's Gull
Franklin's Gull
Laughing Gull
Little Gull
Black-legged Kittiwake
Iceland Gull including 3 subspecies (Thayer's, Kumlien's and glaucoides)
Great Black-backed Gull
Lesser Black-backed Gull
Glaucous Gull

26 species of shorebirds were seen at Ashbridge's Bay during the 2017 flood including:

Black-bellied Plover	Red Knot
Semipalmated Plover	Stilt Sandpiper
Piping Plover	Baird's Sandpiper
Killdeer	Sandering
Spotted Sandpiper	Dunlin
Solitary Sandpiper	Least Sandpiper
Greater Yellowlegs	White-rumped Sandpiper
Willet	Buff-breasted Sandpiper
Lesser Yellowlegs	Semipalmated Sandpiper
Whimbrel	Short-billed Dowitcher
Hudsonian Godwit	Wilson's Snipe
Ruddy Turnstone	American Woodcock
Pectoral Sandpiper	Wilson's Phalarope

Adult Ruddy Turnstone migrating north to breed in the Canadian Arctic. Photo: Jean Iron

Q&A: GOLDENROD GALLS AND THE INSECTS THAT CAUSE THEM

From top: Spherical gall, elliptical stem gall and bunch gall.

Right: gall fly larva in spherical gall.

Far right: hole in spherical gall caused by downy woodpecker extracting larva.

Photos: Ken Sproule

Question: Could you please tell me about the different types of goldenrod galls and the insects that cause them? Wendy Rothwell

Answer: The three most noticeable types of goldenrod galls are spherical and elliptical stem galls, and bunch galls (also called rosette or pineapple galls) at the top of the stem, but there are also leaf-cluster, pedicel, blister, leaf and flower galls. See https://bugguide.net/node/view/324012. About 50 species of gall "makers" have been reported for goldenrods alone, two thirds of which are cecidomyiid midges. Most members of this gall midge family cause galls in various types of plants.

The most common spherical gall is caused by *Eurosta solidaginis*, a fly in the Tephritidae, also known as peacock flies or small fruit flies. As with other galls, the plant is induced to produce the gall by chemicals secreted by the larva that hatches from an egg laid in the plant. The chemicals are often hormones that induce the plant to grow extra or larger cells. Since the plant makes the gall, the insect causing the plant to make the gall is not really a gall maker.

There are at least two types of elliptical stem galls made by *Gnorimoschema gallaesolidaginis* and *Epiblema scudderiana*, moths from two different families.

Different types of bunch galls are made by various gall midges and by moths which lay their eggs in leaf buds. The presence of the hatched grub prevents the stem from growing while the plant continues to produce leaves, resulting in a tight, flower-like cluster of foliage.

The five other types of goldenrod galls have all been traced to midges in the C*ecidomyiinae* subfamily. Galls do not significantly harm the plant.

Should you cut open a gall and find a larva, you have not necessarily found the gall maker since about half of goldenrod galls are parasitized, most commonly by wasps but also by a tumbling flower beetle.

And this is just goldenrods! Galls on other plants are also induced by thousands of kinds of wasps, thrips, beetles, bugs and mites, as well as flies and moths.

Bob Kortright

TREE OF THE MONTH: NORTHERN HACKBERRY (*CELTIS OCCIDENTALIS*)

The leaves of northern hackberry are usually obviously asymmetrically offset or diagonal at the base, more or less egg-shaped (ovate), with fine teeth along both sides, and gradually tapering to a long, narrow tip that often curves slightly to one side. In Toronto, at least, many leaves carry conspicuous spherical hackberry nipple galls, induced by *Pachypsylla celtidimamma*, a jumping plant louse belonging to the same group of true bugs as whiteflies, aphids and scale insects. The leaves are a regular larval food plant of three common brushfoot butterflies: mourning cloak, question mark and eastern comma. They are also the primary food plant for three southerly brushfoots: American snout, tawny emperor and hackberry butterfly (the latter recorded for the first time in Toronto in 2017). Although rare in Toronto, you can see these three specialists flying among the abundant hackberries of Point Pelee.

While flowers, fruits, foliage and twigs of northern hackberry are all distinctive, its outstanding feature is undoubtedly its bark, at least until it becomes larger than any hackberry found now in Toronto. Sadly, unlike for flowers, fruits and leaves, we lack an adequate vocabulary for clearly describing bark, so be sure to examine the accompanying photographs carefully. In contrast to the thin or thick bark of most other tree species, that of northern hackberry is a bit of both. Until the tree becomes quite old, the bark over most of the trunk's surface is thin, smooth and light grey. Rising above this fairly featureless plane are free-standing warts and narrow vertical ridges, both prominently displaying the corky growth layers that make them up.

Thickening of trunks and their bark in all trees is the result of growth by two lateral meristems composed of stem cells: the vascular and cork cambiums. While the growth layers of wood and phloem are both produced by a permanent meristematic cylinder known as the vascular cambium that continues to grow through the whole life of the tree, the cork cambium that thickens the bark by producing two cork tissues (phellem towards the outside and phelloderm on the inside) is impermanent. This meristem is formed anew every year among the older phloem cells, putting pressure on the older bark outside that was produced by a previous cork cambium with a smaller circumference. The different arrangement of cork cambium in different trees is an important contributor to their dramatically different bark patterns. For northern hackberry there is a low background level of cork cambium activity across the whole surface and enhanced activity beneath the ridges and warts. As the trunk becomes larger the distance between ridges increases and, at some point, new areas of greater cambial growth begin to build new ridges between the old ones, keeping the distance between ridges fairly constant. The whole effect of this characteristic bark of young trees through middle age reminds me of a three-dimensional topographic map made up of cutout cardboard contours defining mountain ranges above a plain or islands in a sea. With greater age, cork cambial activity increases overall and the whole surface becomes rough and scaly, reflecting a pattern of cambium formation referred to as lenticular periderm, a bit like that found in eastern sycamore or in spruce species but much more rugged.

The fruits are long-stalked, large-stoned drupes about 1 cm in diameter, somewhat resembling a pin cherry but solitary in the leaf axils and reddish brown to purplish black at different stages of maturity. The stones have been found in great abundance in late Tertiary deposits in the Great Plains states and Prairie provinces at a time when they were becoming drier and prairies were replacing forests. The drupes are very attractive to birds, and, since northern hackberry is currently much in vogue in Toronto city planting, seedlings are popping up in great numbers here every spring and could become as abundant along property lines as Manitoba maple, Siberian elm and white mulberry. Ordinarily the fruits are produced in abundance every year but this year, to my eyes, there appears to have been an almost total crop failure. Perhaps late frosts killed the flowers or the heavy spring rains prevented pollination. Any thoughts?

James Eckenwalder




From left: Hackberry leaves; corky growth layers in bark ridge; bark showing ridges, all on Centre Island; hackberry nipple galls on underside of leaf, Chatsworth Ravine.
Photos: Ron Dengler

EXTRACTS FROM OUTINGS LEADERS' REPORTS

West Deane Park, July 29. Leader: James E. Eckenwalder. Shrubs seen included European spindle tree, multiflora rose, red raspberry, choke cherry and river grape. Herbaceous plants in flower included agrimony, bird's-foot trefoil, crown vetch, Queen Anne's lace, anise root, hedge bindweed, daisy fleabane, giant ragweed, Canada goldenrod, common burdock, Canada thistle and cutleaf coneflower. We noted numerous striped garden snails (*Cepaea nemoralis*), an introduced species conspicuous among the land snails for its large size, colourful banding and tree-climbing proclivity. We saw a few butterflies – monarch, eastern comma, cabbage white and an unidentified sulphur. Other insects included a buffalo treehopper and many soldier beetles.

Junior Naturalists Nature Walk, Taylor Creek Park, Aug 5. Leaders: Anne Purvis and Jason Ramsay-Brown. A groundhog poked its head out of a hole beside the bridge. The newly planted shrubs and trees are native with a view to helping local pollinators and butterflies. We looked for evidence of insects using the native bushes and saw solitary wasp drillings in elderberry and sumac. We also saw narrow-leaved meadowsweet, Joe-pye-weed and buttonbush in bloom. We identified cow parsnip with seeds and giant ragweed. At the pond two dragonflies were zooming about – the common whitetail and the twelve-spotted skimmer. Pond snails had laid eggs on a broom we had left there on a pre-hike. We caught and identified a backswimmer and a crawling water beetle. A turtle slipped into the pond before we could clearly identify it. We sighted cardinals, mourning doves, American goldfinches, kingbirds and robins.


Butterflies on buddleia at Earl Bales Park. Photo: Maureen Rice

Scarborough Shore, Aug 9. Leader: Bob Kortright. Butterfly diversity was markedly lower than for the butterfly count on July 1, with only nine species: numbers of cabbage white, common and orange sulphur, monarch, and viceroy, a couple each of black swallowtail and azure, and one each of harvester and silver-spotted skipper. Most of the dragonflies were black saddlebags, not yet migrating, but a wandering glider and green darner were also seen. The bank swallows had departed but a number of juvenile red-tailed hawks hung in the south breeze deflected upwards by the bluffs.

Chatsworth Ravine, Aug 15. Leader: Nancy Dengler. Chatsworth Ravine, centred over the midsection of Burke Brook west of Yonge Street, was the subject of TFN's first ravine study, published in 1973. Although Chatsworth is a short scruffy ravine, much impacted by infill, it was selected as one of Toronto's Environmentally Significant Areas in 2015, partly because it is home to several large butternut trees. We saw these old trees, now succumbing to butternut canker disease, but also new plantings of healthy one meter-high butternut saplings, presumably grown from nuts of trees more resistant to the disease. We enjoyed watching a ruby-throated hummingbird visiting spotted touch-me-not, and families of American goldfinch feeding on the fruits of chicory plants. We had good views of two giant swallowtail butterflies.

Joint nature walk with Friends of the Guild, The Guild, Aug 26. Leader: Bob Kortright. Most of our time was spent pointing out plant species, including shagbark hickory, musclewood, ash saplings and treated mature trees. (This park lost a significant part of its canopy to emerald ash borer a few years ago.) A couple of recently installed boardwalks kept our feet dry and will prevent trampling of trailside vegetation. We saw a pair of young (spotted) white-tailed deer, American redstarts, black-and-white warbler, warbling vireo, gnatcatchers, downy woodpecker, and many monarch and cabbage white butterflies, black saddlebags and a few green darner dragonflies. Attendees included a couple from Washington DC who found TFN in a DK tourist guide.

Earl Bales Park, Aug 28. Leader: Charles Chaffey. On a hot day under hazy sun a planting of buddleia (butterfly bush) lived up to its name by attracting numerous butterfly visitors. On the pond we saw mallards, cormorants and two great blue herons. In the cool shade of the majestic oaks and maples along the ridge, blue-stemmed and zig-zag goldenrods were just coming into bloom. We compared the hanging purple berries of Solomon's-seal with the clustered red berries of false Solomon's-seal. Returning through the developed part of the park, past English oaks with their characteristic long-stemmed acorns, we reached the less frequented southern trails. Toads were abundant on the path next to a ravine; we counted five.

Continued on page 12

TWO DISC-FLOWERED GENERA OF THE ASTER FAMILY

The Asteraceae (sunflower family) includes about 1600 genera and 25,000 species. Flowers of some genera consist of both ray and disc florets (see *Rudbeckia*, TFN newsletter, 2017 December). Other genera, discussed in 2011 September and 2011 November newsletters, have various combinations of types of florets.

Anaphalis margaritacea (pearly everlasting) and *Antennaria neglecta* (field pussytoes) have only disc florets. The former, on casual glance, appears to have ray florets surrounding a disc of tiny yellow florets. These disc florets, although small, are easily discernable through a hand lens. The shiny white "ray florets" are not florets at all but are rows of phyllaries (sepal-like bracts). Flower heads in this species are up to 10 mm across arranged in clusters up to 15 cm across. They occur on stems up to 90 cm tall. *The ROM Field Guide to Wildflowers of Ontario,* 2004, noted that *margaritacea* ("pearly") refers to the shiny phyllaries. As these phyllaries persist, this species is ideal for use as dried flowers. The TFN's *Vascular Plants of Metropolitan Toronto*, 1994, 2nd ed., records it as uncommon and found at Wilket Creek (Don watershed), East Point, Leslie Street Spit, and in the Rouge Valley. It occurs in meadows, open thickets and forest openings and blooms from July to September. It is recorded throughout most of Ontario except for northern and west-central ecoregions. Its full range is all of Canada except Nunavut and almost all of the US except for several southeastern states.

Antennaria neglecta, up to 40 cm tall, has flower clusters up to 13 mm wide, with white discoid heads that collectively look like a furry cat's paw. It is common in Toronto fields and open forests, blooming from April to July. This species is recorded across most of Ontario. Its full range is all of Canada except Yukon, Nunavut, New Brunswick and Newfoundland, and the central and eastern 60% of the US.

Antennaria rosea (pink pussytoes) and *A. monocephala* (single-headed pussytoes), close relatives of the local species, are northwestern species photographed in Alaska. Pink pussytoes is distinguished by its pink-tipped bracts. The illustration shows more than 12 flower heads, tightly grouped, a surfeit of pussytoes! The name "single-headed pussytoes" for the other Alaskan species denotes a "pussytoes" that lacks pussytoes. These species illustrate the problem with taking a common name based on one species and extending it to even closely-related species where it is not appropriate.

Pearly everlasting is well worth looking at with a good hand lens. Our local field pussytoes, although common, can be inconspicuous. This is one of those species that once you have found one plant you are likely to spot many.

Article and photos by Peter Money

From top:
Pearly everlasting (*Anaphalis margaritacea*),
Field pussytoes (*Antennaria neglecta*),
Pink pussytoes (*Antennaria rosea*),
Single-headed pussytoes (*Antennaria monocephala*)

TORONTO FIELD NATURALISTS JUNIOR NATURALISTS PROGRAM DECEMBER 2018 – MARCH 2019

All children, accompanied by adults, are invited to join the Toronto Junior Field Naturalists this winter for a series of themed hikes, games and activities especially for kids!

This program will take place on the second Saturday of every month from 10:00 am to 12:00 noon.
A different location has been chosen for each event to enable us to experience first-hand the amazing creatures that visit or live with us here in Toronto.

This program is free with membership.

Contact: Anne Purvis (juniortfn@torontofieldnaturalists.org) to get on the email list to receive detailed information.

- December 8: Humber Bay Park to welcome Arctic over-wintering ducks. Meet at the Humber Bay East parking lot.
- January 12: Come search for brave over-wintering insects and the tracks and traces of other creatures surviving in Crothers Woods in the dead of winter. We will meet at the Thomas Hauser Memorial Trailhead behind the Loblaw's parking lot off Millwood. Accessible by TTC. Take the Leaside 56 and get off at Millwood at Redway Rd S.
- February 9: The Scientists in School BONE ZONE workshop will help improve your ID skills for those bones you find in the wild! Join us at the Church of the Resurrection, 1100 Woodbine Ave. We will study mammal skulls and dissect owl pellets.
- March 9: Do you think trees all look the same in winter? Join us for a hike at G Ross Lord Park https://goo.gl/maps/5kea6cDZoiu for a morning of winter tree identification. Find out how unique and beautiful tree buds, twigs and leaf scars are as they await the return of spring! We will also help to get bird boxes ready for spring. Details of where to meet to be announced.

Photo: Vanessa McMain

JUNIOR NATURALISTS BUTTERFLY EVENT

The TFN Junior Naturalists Saturday Morning Program kicked off on Sept 8th with a visit to Scadding Cabin. There were 11 children aged 6-12 in attendance, along with their parents. We met with TFN Butterfly Whisperer, Margaret McRae, and observed her many specimens of monarch eggs, caterpillars and pupae. She told us the story of one of the butterflies she raised and tagged being recovered in Mexico and showed us pictures of her visit there.

Another TFN member, Kayoko Smith, opened the cabin for us to view. She is responsible for the herb garden at Scadding Cabin, which is gradually being improved for butterflies and pollinators. We learned about some plant characteristics by doing Body Sculptures. The kids worked in pairs or small groups to locate some pollinator/butterfly friendly plants and plot them on a map of the garden.

We also walked the perimeter of the old French fur fort that stood beside Scadding Cabin from 1750-59. We finished with a 'Choose your own Adventure' time with several activities offered. Some children used butterfly field guides to identify pinned specimens, others picked apples and others planted some goldenrod, black cohosh, and Canada anemone in the garden.

For further information contact: juniortfn@torontofieldnaturalists.org

Anne Purvis

CHILDREN'S CORNER

Fall is Spider Season!!

We brought a tropical plant called 'Crown of Thorns' into our house for the winter. Lo and behold, a Cross Orb Weaver spider was hidden in the foliage. She built a beautiful orb web between the plant and our window. Sometimes she sat in the middle of the web. Sometimes she hid in the foliage. We have been feeding her houseflies and an occasional centipede. Please watch the video we made of her preparing her meal and circle what you observe. https://youtu.be/ulDXGSEjfVg

1	What does the fly do when the spider moves in on it?	lies still	moves to try to free itself
2	Which strands of the web does the spider touch with her feet?	the spokes	the radial connecting fibres
3	Which strands does the fly seem to be sticking to?	the spokes	the radial connecting fibres
4	What does the spider do after she sticks silk to the fly to wrap around it?	turns the fly	climbs around the fly

While the spider was preparing the fly for dinner, the web got messed up. The next day we noticed that she had repaired it.

Answers on page 15

Project and photo by Anne Purvis

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.

The exhibit *Spiders: Fear and Fascination* is at the ROM until January 6, 2019.

EXTRACTS *continued from page 8*

Tommy Thompson Park, Sept 1. Leader: Charles Bruce-Thompson. We saw many types of caterpillars and butterflies, bees, locusts and dragonflies, all in relatively large numbers, which augurs well for the (mostly endangered) insectivores that call the Spit home or a way station. We saw volunteers banding a gray catbird, a magnolia warbler and a bay-breasted warbler. Birds seen included American goldfinch, robin, belted kingfisher, cedar waxwing, common tern, double-crested cormorant, great blue heron, herring gull, a flock of nine killdeer, mallard, northern flicker, ring-billed gull, rock dove, spotted sandpiper, tree swallow, trumpeter swan and yellow-rumped warbler. A botany highlight was showy tick trefoil (*Desmodium canadense*) in full flower.

Magnolia warbler at Leslie Street Spit banding station, September 2016. Photo: Ken Sproule

Todmorden Mills and the Lower Don, Sept 8. Leader: Vivienne Denton. Fall flowers were at their best: blazes of Canada goldenrod mixed with white snakeroot and New England asters; zig-zag goldenrod and large-leaved aster in the woods, and Joe-pye-weed, boneset, jewelweed and swamp aster in the wetlands. At Todmorden we admired the fruits of buttonbush, bladdernut, Gray's sedge and hog-peanut, and watched the American goldfinches feasting on cup plant seeds. We identified masses of wild cucumber in flower covering vegetation beside the Don trail and found several patches of wild hops. A surprise highlight was the sight of a beaver swimming in a pond just north of Chester Springs Marsh.

Wards Island, 15 Sept. Leader: Jenny Bull. We checked out cattails that invaded a meadow during last year's flood and have managed to send up a few short, fruiting stems this year. The flood had devastated the September-flowering wildflowers normally found in this ESA and this year we still couldn't find any ladies-tresses orchids (*Spiranthes spp*). While we didn't see masses of fringed gentians (*Gentianopsis crinita*), the plants we found looked robust. (Ed. See photo front cover.) There was a lot of gerardia (*Agalinis purpurea* and *A. tenuifolia*), mostly fruiting with only a few pink flowers left. We found a fairly large patch of marsh bellflower (*Campanula aparinoides*) and felt its downward pointing hairs that help it sprawl over other plants. There were a few stems of obedient plant (*Physostegia virginiana*) still flowering. We checked out the basal rosettes of two biennials, evening primrose (*Oenothera biennis*) and wormwood (*Artemisia campestris ssp caudata*). We compared the growth form of the provincially-rare bushy cinquefoil (*Potentilla supina ssp paradoxa*) with its pinnate leaves to that of silverweed *(P. anserina*). Of various asters and goldenrods, we noted heath aster (*Symphiotrichum ericoides*) just coming into flower, the nodding plumes of grey goldenrod (*Solidago nemoralis*) and the flat-topped grass-leaved goldenrod (*Euthamia graminifolia*).

Gerardia is partially parasitic by attaching itself onto the roots of other plants. Photo: Jenny Bull.

We looked at several grasses. In dry areas, switch grass (*Panicum virgatum*) formed a tall and expansive meadow; drop seed (*Sporobolus cryptandrus*) showed seed developing within a rolled-up leaf following self-fertilization (a strategy to conserve moisture); Canada wild-rye (*Elymus canadensis*) was easy to spot with its nodding spikes with long curly awns; and marram grass (*Ammophila breviligulata*), which normally grows on dunes, was relegated to a small area away from the beach where there is less trampling. In wet areas we saw Canada blue-joint (*Calamagrostis canadensis*), a major component of "beaver hay" used by settlers for cattle in areas too wet to plough. Unfortunately, phragmites is invading wet meadows and the cattail wetland.

We saw cottonwoods re-sprouting into shrubby plants after being coppiced multiple times by beaver; rows of European birch that had died in the flood being replaced by tiny cottonwood trees; and the two most common shrub willows, sand-bar willow (with silvery hairs to reflect sunlight on plants growing in open sun) and wooly-headed willow (with its characteristic pine-cone galls). Wild grape was sprawling with good bunches of grapes evident.

Animal sightings included an American toad, a green frog, a couple of crayfish, a praying mantis, monarchs and clouded sulphur butterflies, as well as phoebe, flicker, blue jay, cormorant, cardinal, catbird and hairy woodpecker.

TFN MEETING …..VISTORS WELCOME

Sunday, November 4, 2:30 pm (Social, 2 pm)

Life underground: Plants interacting with beneficial fungi

Speaker: Larry Peterson, *professor emeritus of botany, University of Guelph, will explore the underground world of mychorrhizal fungi and their symbiotic relationships with diverse plants.*

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.

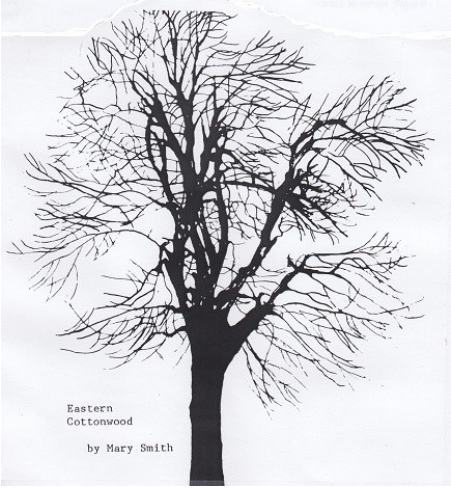
Share your thoughts about this lecture on social media, hashtag #TFNTalk

Upcoming lecture:
Dec. 2: Lake Iroquois Plain: Legacy of a lost lake. Mark Stabb, Nature Conservancy of Canada.

IN THE NEWS

Trees are crucial to growing a healthy city — and Toronto has some impressive specimens.

On Sunday, October 14, Toronto Star published an article "Ten of Toronto's most breathtaking trees – our ravine queens and urban legends" including dramatic photographs. See https://goo.gl/vqjsY2



WEATHER (THIS TIME LAST YEAR)

November 2017

November marked something of a reversal from the trend of the previous months, with cold early in the month and some return to warmth later.

The cold snap of November 10-11 was remarkable given the previous warmth this fall. The 10th had a couple of notable records. The maximum of –3.5° downtown was the earliest sub-zero high temperature since November 8 1976. Pearson's minimum of –10.1° was a daily record minimum.

Thereafter conditions settled down with seasonably cool late fall weather and no more cold snaps. In fact, it got rather warm again on a few occasions late in the month as the polar vortex retreated towards Siberia, and North America was flooded by Pacific mildness. The warmest temperature this November was 17.1° at Pearson Airport on the 28th. The mild late month didn't quite balance out the early cold spell. Monthly mean temperatures were about half a degree below the 30-year normal: 4.7° downtown and 3.7° at Pearson Airport.

Snowfall was negligible as there was only largely spent lake-effect off Georgian Bay during the cold spell. Amounts ranged from a trace to a centimeter or two. Rainfall was slightly below normal. Total precipitation was 53.0 mm downtown and 59.8 mm at Pearson Airport. Normal is around 65-70 mm. The most soaking rain came on the 18th to 19th.

Fall 2017 was the third warmest on record. If it weren't for the hard freeze on November 9th to 11th, it would easily have been the warmest fall on record. Only 2016 and 2015 were warmer. Downtown, the three-month average was 12.7°, 1.7° above normal, and tied with 1971 for third place. Pearson Airport's three-month average was 11.9°.

Gavin Miller

Autumn's last dry leaves
Swept up in November's gale
Swirl through the chill air

Haiku by Elisabeth Gladstone

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 (http://www.torontobirding.ca/**)**
Aimed at the intermediate birder, but beginners also welcome. Free to the public.
Sun Nov 25, 9 am to afternoon. West Toronto lakeshore and beyond. Leader: Garth Riley. Waterfowl and winter birding.

High Park Walking Tours (http://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.

- Nov 4. Geological Wonders and Origins. Frank Remiz
- Nov 18. Art of the Park. Grace Petrucci

Toronto Botanical Garden (https://torontobotanicalgarden.ca/learn/adult/symposium/)
Fri Nov 2, 9:30 am to 4:30 pm. TBG's Urban Ravine Symposium: Explore, Restore and Celebrate. Through talks, displays, tours and networking, this event will contribute greatly to the growing enthusiasm and expertise for urban ravine restoration. 777 Lawrence Ave E. Fee for non-TBG members: $130 (students $80)

LEAF (Local Enhancement and Appreciation of Forests) (https://www.yourleaf.org/events)
Sat Nov 24, 1-4 pm. Drawing Leaves with Alan Li. Meet at the Assembly Room C, Waterfront Neighbourhood Centre, 627 Queens Quay W. Participants will create original Silverpoint leaf drawings sketched onto specially prepared paper that will gradually take on warm brown tones as it ages. Beginners welcome. Cost: $50+tax, includes all art materials.

The Market Gallery (http://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. Gallery closed Sundays, Mondays and holidays.

Ian Wheal Walks

- Sat Nov 3, 1 pm. When Toronto was Horse Capital of the World (1914-19). Meet at the southwest corner of Keele St and St Clair Ave W. A 6-km walk.
- Sun Nov 4, 11 am. War Horse Breakout Routes to Freedom. Meet at the southwest corner of Keele St and St Clair Ave W. An 8-km walk.
- Sat Nov 17, 1 pm. Whiskey A-Go-Go – Centenary of Good Roads (Lakeshore highway from Toronto to Hamilton). Meet at Queen St W and Roncesvalles Ave (south side above Gardiner Expressway). A 5-km walk.

Losing Life on Earth: How can we stop the loss of wildlife?

Wednesday, November 14, 7 pm

Swansea Town Hall, 95 Lavinia Ave, Rousseau Room

Speaker: Dr Pete Ewins, WWF Canada lead specialist in species conservation

Anchored by the shocking results from the latest WWF and Canadian 'Living Planet Reports' (the best barometer of wildlife trends and index of human footprint), this presentation will focus on what these findings mean for us now, the consequences for this and future human generations, and what exactly we must do NOW to reverse the decline of wildlife, starting in our own Toronto neighbourhoods. Free admission.

PLEASE KEEP IN TOUCH!

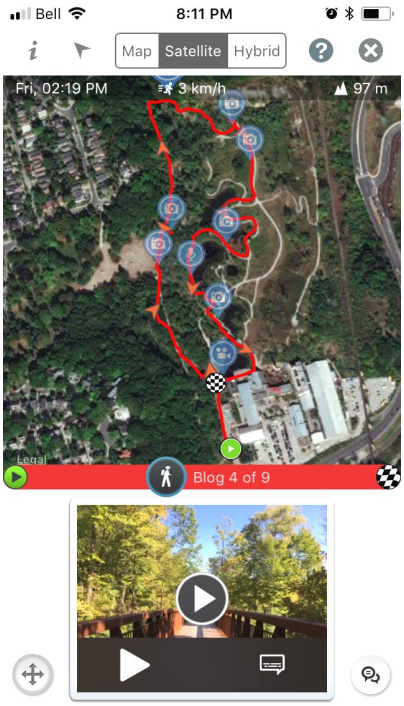
Although some members may be communicating with each other through social media, please don't forget to share your nature experiences through the newsletter.

We would love to receive short accounts of exciting sightings or interesting observations and/or nature photos taken in the Toronto area.

Check "It's Your Newsletter" which appears consistently on the inside back cover for details about how to submit these, and the deadline for the next issue.

THE CONNECTED NATURALIST: LIVETREKKER

I learned something interesting while preparing for this installment of The Connected Naturalist: If apps are any indication, the word "hiking" is far more synonymous with "exercise" than "nature" in the minds of most people. I set myself the seemingly simple task of finding an app that would record my routes through Toronto's ravines, impose them over a map, and make them sharable with other people. Easy, right? Wrong. Apparently, unless I also wanted to improve my personal best in training for a triathlon while simultaneously triggering ketosis on an all-paleo diet, I had far more hunting to do than I had originally anticipated.



After multiple installs, tests, and uninstalls, I was finally victorious with the discovery of a great little app called LiveTrekker. Just press a button and it uses your device's GPS functionality to track the route you're walking, displaying it on a map or satellite view of the area you're in, and recording the distance and time it took to complete. Each journey can be saved and added to your inventory of hikes, accessible in the future at the push of a finger.

LiveTrekker offers much richer functionality than this, however. During your walk you can easily take pictures, record video and audio and add notes, each being represented by an icon along the route. Later on, these bits of media can be replayed, creating a digital story of what you saw and where you saw it. Fantastic for noting the location of an impressive butternut or a particularly lovely meadow, or just recalling some of the things you saw on an evening ramble months ago.

Your recorded hikes can easily be shared via email, text or on social media. The app creates a link that brings folks to a web page displaying the map and route and any bits of media you may have recorded along the way. No more "turn right at that old bur oak that kind of looks like Bill the Cat, then head along the tiny intermittent watercourse until you see …". Instead, just share your route with them and they'll know precisely what is where and how to get there. If they're a LiveTrekker user themselves, the share goes directly to their app and enables a variety of convenient in-app options.

LiveTrekker could really prove useful for TFN walk leaders. Easily discover exact distances and how long it takes to cross them. Take multimedia notes to remind yourself of points of interest, rest stops and exciting natural features. Perhaps even document the walk to share with participants afterwards, creating a kind of digital takeaway or keepsake. Get imaginative!

My only real complaint about the app is that it can really chew up battery life and cellular data unless you tweak the app options a bit. This isn't obvious until you've used it for a while so my advice is to spend a few minutes reading the online documentation before you start.

LiveTrekker is created by Trekea Mobile, Inc. Available for Android and iPhone.

Jason Ramsay-Brown

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. For photos, include title, location and date, and any interesting story associated with the picture.

Submissions deadline for December issue: Nov 1

Answers from page 11.

1. fly moves 2. the spokes 3. the radial connecting fibres 4. turns the fly

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

Publications Mail
Registration No. 40049590

Funnel cloud seen from Eastern Ave and Coxwell Ave, moving quite quickly from east to west on September 9, 2018. Photo: Julie Patterson