Since 1923

TORONTO FIELD NATURALIST

Number 647 November 2019

Ohio buckeye leaves in fall at Hanlan's Point. Photo: Ron Dengler

REGULARS

FEATURES

PRESIDENT'S REPORT

A year ago, as I sat staring at a blank screen, attempting to craft my first ever President's Report, the task seemed daunting and the words difficult to muster. A year later, not much has changed. Today, however, it is not a lack of familiarity that provokes my paralysis, but rather a deeper and more bittersweet understanding of what this time of year really means.

Following our AGM on October 6th, my first duty is to deliver our heartfelt thanks to our retiring board members, Jane Cluver and Elizabeth Block. Thanks to Jane (and her remarkable partnership with Margaret McRae), our walks and outings program has thrived these last few years and enjoys a very bright and promising future. Jane, your astute observations and wonderful ideas have been greatly treasured by the entire board! Elizabeth, during her service, was a spark that helped to rekindle our Action Committee and our efforts in advocating on behalf of nature and the environment. She's been an advocate within our organization as well – singing, quite literally, the praise of TFN's ongoing evolution and the social ties that bind our community together. Both, through their charm and contributions to the board, have brought us all great joy and much success.

In happy news, however, I now have the honour of welcoming our newest board members:

James Eckenwalder, associate professor emeritus of plant systematics at the Dept of Ecology and Evolutionary Biology, University of Toronto. While some may know him best as author of the indispensable *Conifers of the World: The Complete Reference*, TFN members are probably most familiar with his outstanding "Tree of the Month" column in our newsletter – a must-read in any issue.

Kayoko Smith, whose bright smile and insightful questions have graced seemingly every walk I've been on in the last few years, will be joining us as well. I recently mused that if we ever scheduled walks in two places at the same time, Kayoko would find a way to bend space-time to be at both. Assuming, of course, she wasn't already leading a walk of her own.

Zunaid Khan put aside a career in technology to focus on nature photography, a change this whole city has benefitted from. Delight in his work at https://zunaidkhan.myportfolio.com/
I have no doubt his contributions to the board will be many and varied, as they already have been as a walk leader, lecture summarizer, article writer and more.

We are all very fortunate that these folks have been willing to so generously share their valuable time, expertise and enthusiasm with TFN.

So, as the leaves fall and winter approaches, TFN has its own internal spring, a time of renewal and growth. As always, we look to you to encourage our trajectory. Drop me a line at president@torontofieldnaturalists.org with any thoughts you might have as to how to make TFN stronger and more vibrant in the coming months.

Jason Ramsay-Brown
president@torontofieldnaturalists.org

WHAT'S NEW ON TFN'S WEBSITE

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

- This Place: The Don River, collage art by Dalton Shipway
- Butternut Planting at JBNR
- Notes from the TBG Ravines Symposium
- The Connected Naturalist: Global Bird Collision Mapper

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

REDUCE SINGLE-USE AND TAKEAWAY ITEMS

The City of Toronto is embarking on Phase 2 of a plan to reduce single-use and takeaway items.

Citizens are asked to participate in a survey focusing on specific items and proposed approaches.

Feedback will be accepted only until November 4th.

Please take advantage of this opportunity.

The survey is found at: www.cotsurvey

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.

Sat
Nov 2
2:00 pm

ONTARIO PLACE – Nature and Heritage
Leader: Max Matchim. Meet at the Princes Gates at the CNE grounds. Nearly a decade after Ontario PIace closed, the lakeshore theme park has become an unlikely refuge for wintering ducks. Reflect on the ways in which nature has reclaimed this Toronto landmark and the uncertain future which the site now faces. Easy access, public washrooms. Bring binoculars, scopes and field guides if you have them.

Thurs
Nov 7
1:30 pm

OLD MILL TO RONCESVALLES – Nature Walk
Leader: Ed Freeman. Meet at Old Mill subway station for a walk along the river and lakeshore to see and hear of past events and observe what nature provides.

Sat
Nov 9
10:00 am

SMALL'S CREEK – A Lost River
Leader: Linda McCaffrey. Meet at Woodbine subway station (Woodbine exit) for a linear walk through attractive residential streets. Small's Creek still sees daylight in two surviving ravines along our route. Mostly downhill with some stairs to climb; mostly paved but some earthen paths. Learn about a sensational Victorian novel, local history and a duel. Less than 3 km (2 hrs) ending at Orchard Park where there is a bus to the subway. No washrooms.

Tues
Nov 12
10:00 am

PINE HILLS CEMETERY – Trees
Leader: Jeff McMann. Meet at the cemetery office, 625 Birchmount Rd for a 1½ to 2-hr circular walk. General overview of the trees, also looking out for raptors. Generally flat paved surfaces.

Sat
Nov 16
1:00 pm

BELT LINE – Nature and Heritage
Leader: Greg Miller. Meet on the footbridge that spans Yonge St south of Davisville Ave for a linear walk ending at the Allan Expressway, a 5-minute walk from Eglinton West subway station. We will discuss the fascinating history of the line and its stations, also looking at flora along the route.

Sun
Nov 17
2:00 pm

HUMBER RIVER WATERSHED – Lost Rivers Walk
Leader: Brian MacLean. Meet on Scarlett Rd at the Hill Garden Rd bus stop. (Take #79 bus from Runnymede subway station or take Lawrence #53 bus, exit at Scarlett Rd and walk two blocks south.) Stories of two "100 year" floods, the Humber Carrying Trail, mills, the Humber Creek and the Chapman Valley "Environmentally Sensitive Area." Mostly paved surfaces with some semi-steep inclines. Joint outing with Toronto Green Community.

Tues
Nov 19
10:00 am

HUMBER BAY PARK EAST – Birds
Leader: Anne Powell. Meet at the southwest corner of Lake Shore Blvd W and Park Lawn Rd for a 2-hr circular walk to enjoy Toronto's waterfowl. Mostly unpaved fairly flat trails. Bring binoculars. No washrooms.

Sat
Nov 23
10:00 am

TREES AND BUILDINGS IN DOWNTOWN TORONTO – Nature Walk
Leader: Paul Foster. Meet outside Museum subway station on Queen's Park Crescent W for a 2½- hr circular hike to enjoy the beauty of trees and architecture around the ROM, Philosopher's Walk, Hart House, Queen's Park and Victoria College. Casual walking pace. No washrooms.

Wed
Nov 27
1:30 pm

TODMORDEN TO ONTARIO SCIENCE CENTRE – History and Nature
Leader: Ed Freeman. Meet at the entrance to Todmorden Mills Heritage Centre, 67 Pottery Rd, for a walk up the Don River to Ontario Science Centre. Washrooms at start and end.

Sat
Nov 30
10:00 am

LESLIE STREET SPIT – Nature Walk
Leader: Bob Kortright. Meet at the park entrance (south end of parking lot) for a 5-hr circular walk on mostly unpaved but even surfaces. Expect wintering waterfowl and some late fall flowers. Bring lunch and binoculars. Washrooms at beginning. Check weather forecast for Toronto Islands. The spit is usually windier than the city.

PHOTOGRAPHY TIPS – TAKING PICTURES IN COLD WEATHER

The first tip is basic and may seem like common sense, but it is a good reminder: make sure the battery for your camera is fully charged before you head out and carry back-up batteries with you. Keep them in your coat close to your body. When buying batteries, stick to the ones recommended by the manufacturer of your camera.

Another basic but quite important tip: protect your camera and lens. If it is raining or snowing, use rain gear. There are commercially available, ready-made camera covers but you can use something as simple as a plastic bag with a rubber band to hold it in place over the camera while leaving an opening for the lens. Carry a terrycloth towel in your camera bag. If your gear gets rained on, it soaks up moisture extremely well.

When changing batteries or flash cords out in the open, make sure your camera is shielded. Try to avoid changing lenses because, if you get moisture inside the camera body, it can freeze and damage the camera.

As far as comfort in cold weather is concerned, make sure you are well aware of the weather conditions in the area where you intend to take photographs. It's most important to keep your hands and feet warm. I am pretty resistant to the cold so, for temperatures down to -10° to -15°, I wear polyester/spandex glove liners with polyester/polyurethane gloves. For colder temperatures I wear a thicker pair of Thinsulate-lined gloves which I remove when I am ready to take a shot. If you are unsure of what type of gloves or mittens would work best for you, it's a good idea to take your camera with you when you go to buy gloves. For the rest of my clothing, I use a combination of cotton clothing with synthetic thermal base layers to keep warm.

For my feet, I wear Thinsulate-lined and waterproof hiking boots – a variety of pairs for different weather conditions. Ice spikes can also come in quite handy.

When shooting is done, or you're taking a break indoors, don't bring your camera into a warm place too quickly. It will fog up and will take a while to dry so that you can shoot again. Place your camera in your backpack or camera bag while you are still outside. Zip up the bag or pack and take it indoors. Keep the camera in the bag for 45-60 minutes before removing it. That way it will gradually warm up inside the cold bag.

Bundle up, grab your camera and head outside.

Zunaid Khan

FOR READING

The Secret Wisdom of Nature: Trees, Animals, and the Extraordinary Balance of All Living Things

by Peter Wohlleben
translated by Jane Billinghurst
Greystone Books, 2017

I recently borrowed this book from the library. As indicated by its sub-title, it describes the extraordinary balance that exists among living things and fascinating interactions among plants and animals. It also brings to our attention the effects, both detrimental and positive, that human behaviour can have. The author, who runs a forest academy and an environmentally friendly woodland in Germany, writes from the perspective of Europe, but many of the topics he addresses have relevance for us in North America.

This is the third book in his trilogy including *The Hidden Life of Trees* and *The Inner Life of Animals*. Wohlleben has been justly criticized for his tendency to anthropomorphize, implying that plants and animals have the ability to make conscious decisions about their behaviours. However, one does not have to agree with this to marvel at the amazing ways plants and animals have evolved to interact with one another.

Natural Words – A Dictionary for Naturalists

by Kelby and Amy Ouchley

This new publication, recently brought to our attention by the authors, sounds like something of interest to TFN members. They describe it as follows:

"As biologists and environmental educators, we recognize the terminology of our trade is often foreign to those who seek to learn more about the natural world. This small book contains those unique words that one might hear in a ranger's campfire talk, or read in a conservation magazine or scientific article. They express the physical description, behaviour, classification and life history of living organisms. They illustrate the environment in which the organisms are found. Simply put, this small dictionary is geared toward all nature lovers with an interest in learning the terminology used to relate to the natural world."

The book is available from Amazon for under $10. If you decide to buy it, please let us know if you find it useful and accurate.

Wendy Rothwell

LECTURE REPORT

Southern Ontario Butterflies and their Natural History

Oct 6, 2019

Jay Cossey, Nature Photojournalist & Graphic Designer

Jay's love of nature began as a child. His dad, Eric, collected and reared butterflies and moths, so there were always caterpillars, chrysalises and cocoons in the Cossey house. In his teens, Jay began taking pictures of butterflies and moths to capture their grace and beauty. From that moment he knew what he wanted to do for the rest of his life.

One of his most exciting adventures occurred when the University of Guelph purchased a 30-foot recreational vehicle 'BIObus' and hired Jay to travel across North America, along with a crew of grad students and post-docs, to collect and photograph invertebrates for DNA barcoding. The bus was very visible with large butterfly images and the words 'Discover Nature Through DNA.' The crew travelled to Canadian national parks and state parks in the United States with stays of at least four nights in each location. Moth sheets and traps to capture bugs were set up to collect samples at each park. Within the bus, specimens were sorted, processed and entered into a database to take back to the university for DNA extraction. When the crew wasn't out on the road, they were booked to set up displays at regional fairs and botanic gardens where they shared their knowledge with the public, most importantly children.

During Jay's presentation, he shared many beautiful pictures along with interesting information on butterflies, other insects and birds. The life cycle of the butterfly was portrayed, including egg, caterpillar, chrysalis and adult.

Jay's favourite butterflies include the Harvester and the Tawny Emperor. The Harvester (*Feniseca tarquinius*), North America's only carnivorous butterfly caterpillar, eats woolly aphids. The Tawny Emperor (*Asterocampa clyton*) meticulously lays tiny eggs in a pattern of three or four layers in a pyramid shape. If all goes well, a week later the eggs hatch into tiny caterpillars. However, within minutes of the Tawny Emperor laying her eggs, a parasitic wasp (about 1 mm in length) may lay her own eggs inside the butterfly eggs, allowing the wasp larvae to eat them. In a weird twist, a second type of wasp, a hyperparasite, may lay her eggs on the *first* parasitic wasp eggs. Isn't nature extraordinary!

Many people only know how to identify the monarch. Jay wrote *Southern Ontario Butterflies and their Natural History* to provide an introduction to other species. Approximately 30 of the most common southern Ontario butterflies are described in detail along with life cycle photos. Information includes plants eaten by caterpillars and butterfly food sources so the reader will know what to plant in their garden to attract them. There is also a section identifying common moths. This book can be purchased by emailing Jay at photographsfromnature@gmail.com ($25 each including shipping).

Jay's current project is a book featuring more than 100 uncommon portraits of common insects. Check out his website: PhotographsFromNature.com

Laura Thompson

From top:
Harvester, wings half open
Tawny Emperor laying eggs
Tawny Emperor eggs with parasitic wasp
Tawny Emperor butterfly, wings open

AFTER THE FLOODS – ASHBRIDGE'S BAY AND TORONTO ISLANDS

As described in Jean Iron's lecture to TFN in October 2018, the disastrous flood in 2017 resulted in a bird bonanza on the beach at Ashbridge's Bay. [See November 2018 newsletter.]

Fast forward to 2019. Lake Ontario hit record levels and again the beach was flooded. This time the City was on a mission to get rid of the water so the volleyball courts and all the sand could be for people. A huge pump ran nonstop for months and drainage trenches were dug. In the end there was virtually no water left on the beach for shorebirds migrating in August and September. However, we did experience the second sighting ever in Toronto of a Red-necked Phalarope that stayed for a number of days in a large puddle with several hundred people going to take a look. Education happens at a time like this. Passers-by ask questions about what is going on and, one by one, an interest in nature is sparked.

An interesting result of the 2017 flooding is a huge green patch left on the sand at the west end of the beach. It is a haven for dragonflies, including rarities such as variegated meadowhawks that appeared this year. And for plant lovers, all sorts of native species are showing up in the wet boggy area that has developed between the trenches. Since early August I have seen broad-leaved arrowhead aka wapato (such a lovely name!), square-stemmed monkey flower, common water-plantain, water speedwell, water smartweed, cockleburs … and now bright yellow nodding bur marigold (aka nodding beggar-ticks) has appeared.

Ashbridge's Bay was a marsh long ago, before the park was created. I wonder if these native wildflowers have been lying dormant for decades waiting for an opportunity to re-bloom and bring back some of the beauty of a bygone era.

Article and photos by Lynn Pady

Broad-leaved arrowhead (*Sagittaria latifolia*)

Nodding bur marigold (*Bidens cernua*)

Square-stemmed monkey flower (*Mimulus ringens*)

Toronto Islands and Ashbridge's Bay were originally at either end of "the Peninsula" which sheltered a massive marsh behind it, so it's not surprising that a similar suite of plants would emerge from the seed bank when more marsh-like conditions prevail in the two places. On the island, the 2019 flood helped produce lots more nodding bur marigold and broad-leaved arrowhead than usual. Cattails with common water-plantain scattered amongst them grew all over "dry" meadows in the ESAs and across the (usually) mown parkland grass. Monkey flowers bloomed near the lighthouse. I haven't seen this plant on the island for *decades*. There were flowering stems with opposite leaves as well as fruiting stems with whorled leaves.

In addition, along the airport fence at Hanlan's Point, a depression in the mown lawn had a lovely area of sedges and rushes that took on beautiful fall colours in September but now has been mostly mown down. In the 2017 flood, a temporary pond adjacent to this area provided habitat for shorebirds and a family of Blue-winged Teals. Across the whole island, the partial return to marsh land yields lots of frogs and toads, and therefore Great Egrets and Great Blue Herons stalking across the inundated lawns!

continued on next page

TORONTO WILDFLOWERS: WETLAND MUSTARDS

The mustard family, the Brassicaceae, formerly Cruciferae, includes about 46 species in Toronto according to the TFN's *Vascular Plants of Metropolitan Toronto* (2nd ed., 1994). Previous TFN newsletter articles covered family members of woodlands (2018 March and 2018 April) and sandy beaches (2013 February). Many species found in fields or similar habitats are introduced, not native. There is only one (or perhaps two) native wetland species, with ample room for confusion about nomenclature and questions about native status.

Nasturtium microphyllum, closely related to watercress (*Nasturtium officinale*), has uncertain native status. Known as one-row yellowcress or small-leaved watercress, it was listed as a "race" of *N. officinale* in TFN's *Vascular Plants* with the taxon reported at sites from the Humber to the Rouge. It occurs in cold streams, ditches, and seepage areas. Its weak stems are up to 60 cm long, with summer-blooming white flowers, about 5 mm wide, that form racemes.

TFN reported two native subspecies of marsh yellowcress, *Rorippa palustris*. Rated as rare by the TFN, Fernald's yellowcress (*Rorippa palustris* ssp *fernaldiana*) was reported on the Leslie Street Spit while the uncommon hispid yellowcress (*R. palustris* ssp *hispida*) was reported at Marie Curtis Park (Etobicoke creek), Toronto Islands and the Leslie Street Spit, and in the Rouge valley. They are both widespread across North America (USDA Plants Database). They can be up to 1.3 m tall, with about 1 to 5 mm-wide flowers forming many tight racemes, each about 10 to 12 mm across, and bloom from spring until fall.

The wide gap in the known local distribution of *R. palustris* may not be real. Keep a look out for it in the Humber and Don watersheds and, if found, record it and report it to the TFN. Annotating field guides would also seem to be in order!

Article and photos by Peter Money

Top: Small-leafed watercress *(Nasturtium microphyllum*)
Above: Marsh yellowcress (*Rorippa palustris)* and detail

Common bladderwort (*Utricularia vulgaris*)

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Most interesting of all the wetland plants the flood brought this year, because I've never seen it before in Toronto, was common bladderwort scattered amongst the Nelson's horsetail alongside the large dune panne on Hanlan's beach. Bladderworts are carnivorous, catching tiny organisms like water fleas in bladders on their "stems/roots," either in water or wet mud. Very exciting. Steve Varga's 1979 species inventory of Toronto Islands says common bladderwort, *Utricularia vulgaris*, is "infrequent in the wettest part of wet meadows." TFN's *Vascular Plants* (1994) gives locations for this species only on the island and in the Rouge Valley.

Article and photos by Jenny Bull

VOLUNTEER PROFILE
Wendy Rothwell

Our TFN volunteers have an impressive range of skills, but Wendy Rothwell, who over the years has capably served as TFN newsletter editor, book-keeper, walk leader, recording secretary and president, may be in a special league.

Wendy joined TFN in 2002. Her interest in birds had been sparked by a trip to Grand Manan, NB and she was keen to learn more. She soon offered her typing skills to the newsletter and has been part of the newsletter team ever since – as co-editor with Jenny Bull for a decade and, since 2016, as editor. Wendy credits mentors such as Jenny, Pinky Franklin and Barry Mitchell for helping her grow into new roles and especially for supporting her as incoming president in 2008. Wendy sees wisdom in TFN's ongoing practice of cycling new faces and skill sets through the Board of Directors. She notes: "I've always appreciated the range of interests people bring to TFN. It makes for a well-rounded organization."

Wendy has seen the newsletter evolve over the past 15 years: making the leap to computerized production back in 2005, adding colour, and introducing themes such as "bird of the month", "wildflower of the month" and more recently "tree of the month." Wendy points to the Junior Naturalists page as a great way to reach younger readers. Her fondest ties to the newsletter, though, are the friendly, multi-talented people who serve on the editing team or submit articles and images.

Volunteer commitments aside, Wendy continues to grow her skills and knowledge as a naturalist and photographer. She explains, "Over time, I've shifted my focus from birds to wildflowers. Birds can so quickly disappear from view, but plants graciously stay around for their close-up." In recent years she has discovered a whole new world of wildflowers in High Park and was inspired to create an on-line guide "Wildflowers of Toronto's High Park" (http://www.highparkwildflowers.ca). Blending her hobby of photography and her love of wildflowers, Wendy's website is a wonderfully helpful primer on High Park flora. And you can always find Wendy in High Park when the lupines bloom.

Ellen Schwartzel

RED OAK EVENT

Several TFN members attended Heritage Toronto's Celebration Day for the Heritage Red Oak Tree on Saturday September 14, 2019. The event included a plaque unveiling and presentation by Edith George, a long-time local champion for heritage trees.

In February 2018, Edith gave an interesting TFN lecture entitled "What Makes a Heritage Tree?" in which she provided the case for protection of this 250+ year old tree using the Ontario Urban Forest Council heritage tree toolkit. She is hoping that the plaque will help support the City of Toronto in seeking designation under the Ontario Heritage Act which would protect the tree from being cut down.

TFNers present were Sandy Cappell, Paula Davies, Steve Smith, Madeleine McDowell and myself.

Elizabeth Reid

Elizabeth Reid, Sandy Cappell, Paula Davies, and Elder Garry Sault
Photo by Steve Smith

TREE OF THE MONTH: OHIO BUCKEYE (*Aesculus glabra*)

Ohio buckeye, our native counterpart to horse-chestnut (*A. hippocastanum*), is a fairly widespread tree of the midwestern United States that occurs naturally in Canada only on Walpole Island near Windsor. It is, however, increasingly, if still much less commonly than horse-chestnut, cultivated in and around Toronto, primarily in parks and institutional campuses rather than in home gardens. Ohio buckeye has smaller and less showy stature, leaves, flowers and fruits than its introduced Eurasian relative. Both trees (and the dozen other *Aesculus* species) have palmately compound leaves, our only trees with this characteristic. While more common in the tropics, this is a rare trait in our flora, found most familiarly also in herbaceous lupines and ginsengs, viny Virginia creepers, shrubby five-leaf aralia and the houseplant schefflera. The large terminal panicles of showy flowers in spring (a little less impressive in Ohio buckeye than in horse-chestnut) also stand out among our trees. Only catalpas, princess-tree and golden-rain tree match their display.

Most interesting, perhaps, is the toxicity of all buckeye and horse-chestnut species, with varying amounts of the chemicals aesculin (the main poison), aescin, tannins and possibly alkaloids, all belonging to different chemical classes. These poisons are found in all parts of the plants and even in some extracellular secretions. In a classic case, the march of Xenophon's ancient Greek army in Anatolia was halted for a few days while his soldiers endured a wild hallucinogenic intoxication after consuming honey made by bees that had nectared at horse-chestnut flowers. The aesculin and other toxins are also present in the large, mealy seeds – the buckeyes or horse-chestnuts themselves. Previously, in my articles on red oak and black walnut, I alluded to the somewhat antagonistic and paradoxical relationships between nut trees and some of their most important dispersers: tree squirrels and chipmunks. Ohio buckeye, horse-chestnut and other *Aesculus* species add a further wrinkle to this fraught relationship. We often see grey squirrels carrying around horse-chestnuts to stash away for the winter, and the numerous horse-chestnut seedlings that sprout in garden beds and hedges and along property boundaries have essentially all come from squirrel caches. Why would squirrels bury toxic nuts in their winter seed stores? While squirrels may have some resistance to aesculin and the other buckeye seed toxins, these chemicals are largely water soluble, meaning that they will gradually leach away over the winter as water washes through them underground. Various peoples around the world have also taken advantage of the solubility of these poisons, leaching the seeds or a meal made from them in the flowing cold water of streams or with several changes of heated water in order to turn the irresistibly large seeds into nutritious food.

Two other tree-sized species of *Aesculus* may be seen around Toronto. Red horse-chestnut (*A.* x *carnea*), a hybrid between horse-chestnut and shrubby North American native red buckeye (*A. pavia*), is recognizable by its red or pink horse-chestnut-like flowers and is replacing horse-chestnut in city street-tree plantings. Appalachian native yellow buckeye (*A. flava* a.k.a. *A. octandra*) is the least common tree-sized *Aesculus* here, differing from the other three in its completely smooth fruit husks. Although generally hard to find around Toronto, there is a splendid yellow buckeye in Black Creek Pioneer Village along Mill Street near the Printing Office.

James Eckenwalder

Above: Ohio buckeye showing palmately compound leaves and flower cluster

Far left: Fruit splitting into three valves showing shiny brown buckeyes

Left: Open fruits and seed

Photos: Ron Dengler

IN THE NEWS

The State of Canada's Birds 2019

Evening Grosbeak
Photo: Ken Sproule

The North American Bird Conservation Initiative (NABCI, nabci.net) has released the 2019 report on The State of Canada's Birds which documents changes in population numbers of Canada's birds.

In summary, "Populations of shorebirds, grassland birds, and aerial insectivores have rapidly declined, while waterfowl and birds of prey populations have recovered from historical lows. These results represent both a call for conservation action and a testament to what we can achieve when we work together. Each of us can make the transformative changes outlined in this report to ensure a healthier Canada for both birds and people."

Read this interesting report at http://nabci.net/resources/state-of-canadas-birds-2019/

Toronto adopts strategy to preserve its biodiversity

The Toronto Star reported that, on Thursday October 3, Toronto City Council adopted a plan to make Toronto wilder. "It describes a vision of the city as a rich urban ecosystem that supports a huge diversity of plants and animals. The Biodiversity Strategy, the city's first, acknowledges that a greener, wilder city makes for healthier human residents, and that boosting biodiversity will be key to withstanding the pressures of climate change."

See Kate Allen's article at:
https://www.thestar.com/news/gta/2019/10/06/rabbits-plovers-bees-and-a-bear-toronto-adopts-strategy-to-preserve-its-biodiversity.html

See a draft of Toronto's Biodiversity Strategy, at :
https://www.toronto.ca/legdocs/mmis/2018/pe/bgrd/backgroundfile-116043.pdf

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JUNIOR OUTING AT ROSETTA MCCLAIN GARDENS

Thanks to everyone who made it out on September 22nd to the TFN Juniors butterfly and hawk event at Rosetta McClain Gardens. We were blessed with perfect weather for enjoying the still very beautiful garden.

In our opening activities, we had a chance to handle three types of hawk wings, and learn how Ontario butterflies, other than monarchs, over-winter. Betty McCulloch showed us the sexing, weighing, assessing, and tagging that they do throughout the season at Rosetta McClain. She told us monarchs fly up to two kilometers high and roughly 100 kilometers a day. That's why they are fueling up in Rosetta McClain Gardens! It takes them about 30 days of flying to make it to Mexico.

Margaret McRae explained how the monarchs leaving Ontario fly straight to Mexico, but it takes three generations for the return trip. We tagged and released a butterfly Margaret had raised. She also brought a swallowtail pupa for us to examine.

Hugh Reid taught us about hawk migration and we studied bird bones to learn about the adaptations of a bird's body for flight. Vanessa McMain and Monica Radovski led us in a game of Predator-Prey. In our rambling about the gardens before closing, some did an Ontario wildflower treasure hunt while others sketched. We found two kinds of woolly bears. Hummingbirds were zipping about!

Anne Purvis

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

Nov 9	Hike the Doris McCarthy trail, hunt for fossils 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

Dragonfly and Damselfly Nosedives

My granddaughter, Evie, and I were sitting on a dock on Oxtongue Lake. We looked down and there was a dragonfly stretched out on the surface of the water. She was alive, but she couldn't move. We were so surprised. How could a dragonfly fall into the water? Dragonflies are amazing fliers. As my book says, "Dragonflies can fly straight up and straight down, turn on a dime, or move forward or upward slowly almost at stalling speed, while they search for food" (*Dragonflies and Damselflies of the East*, Dennis Paulson, pg 13).

Evie instantly fished the dragonfly out and held it on her finger until its wings dried and it was able to fly again. The dragonfly kept running her legs through her mouth and we guessed this was her way of drying her legs as we do with a towel after swimming.

It turned out our dragonfly was a female common baskettail. After a baskettail's eggs are fertilized, she carries them around in a big ball at the end of her abdomen. That is probably where the name baskettail comes from. She flies low over water, looking for a good place to lay her eggs. Then she drags her abdomen over the water and drapes a long string, stuffed full of eggs, over many plant stems. This string can be two feet long and an inch wide. Maybe our poor baskettail Mom who ended up in the water was busy laying her eggs when a wave came and knocked her into the water. Or maybe she was exhausted after carrying around that long string of eggs and came down for a rest in the wrong spot. Maybe another dragonfly Mom using the same egg-laying spot gave her trouble. We didn't know the answer.

Later in the summer, I found a damselfly stretched out on the water, unable to get airborne. What was going on? Again I was surprised. Damselflies are agile fliers too. I fished this one out and held him on my finger till he dried. I put him on a water-willow plant that was sticking out of the water. He had a brilliant turquoise mouth and turquoise stripes on his thorax. He was a stream bluet.

After stream bluets mate, the male and the female fly around together. The Dad is in front, hanging on to the Mom's head with his cerci-pincers at his rear end. Sometimes they will stay like this while the Mom lays her eggs, *underwater, for 15-30 minutes!* Oh….so maybe our stream bluet Dad had gone underwater with Mom while she was laying her eggs, and hadn't quite managed to climb out. We were so glad to get a perfect view of these creatures while they dried off, but we were even happier that we had rescued them after some kind of nosedive into the water. Even the high-flying water-skiers at the CNE Water Show sometimes end up in the water and need a motorboat to pull them out!

Article and photos by Anne Purvis

EXTRACTS FROM OUTINGS LEADERS' REPORTS

Springmount Creek, Aug 1. Leader: Linda McCaffrey. On a warm sunny day we traced the westerly reach of Garrison Creek, locally known as Springmount Creek. Although sewered in all reaches by 1920, its course can be traced through swales and along streets in a lovely valley where, prior to the last glaciation, it cut through the escarpment to tumble into Lake Iroquois. By 1793, when Lord Simcoe was dispatched to settle Upper Canada, Garrison Creek had cut its way through the lowlands below the escarpment to enter Lake Ontario at Fort York, supplying the garrison with water.

Doris McCarthy Trail to Guildwood Park, Aug 3. Leader: Charles Bruce-Thompson. Most birds had retreated from the heat of the day by the time we started, but we saw all the usual suspects plus Caspian Terns, Turkey Vultures, juvenile Red-tailed Hawks and both nuthatches. There were numerous monarchs, silver spotted skippers and other butterflies along the waterfront.

Black swallowtail, Leslie St. Spit, 2008. Photo: Ken Sproule

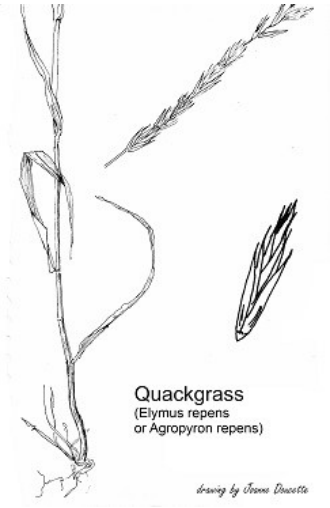
Warden Woods, Aug 4. Leader: Vivienne Denton. Seasonal flowers were in bloom and butterflies and bees were busy – monarchs, a couple of black swallowtails, cabbage whites, yellow sulphurs, summer azures, and others which did not stick around long enough to be identified. We stopped to watch the activity at a large hornets' nest hanging from a tree.

The Deep Story of Castle Frank, Aug 5. Leader: Paul Overy. To mark Simcoe Day, we explored the setting of Castle Frank, John Graves Simcoe's summer home. We focused on the deep shifts in relationship with the waters and the land between the time of First Nations' communal stewardship of the land and the subsequent approach to land ownership, farming and industrial practices established by the British.

Lesser yellowlegs, Leslie St Spit, 2015. Photo: Ken Sproule

Woodbine Park and Beach, Aug 7. Leader: Bob Kortright. We noted that most of trees planted in the 20-year-old park were native (e.g. black walnut, sugar, Freeman, and silver maples, red, bur, and swamp white oak) or nearly so (tulip tree, pin oak, buckeye). There were also lots of non-native fir, Colorado spruce, Amur maple, dawn redwood and, inexplicably, ash (native but known even 20 years ago to be susceptible to emerald ash borer). We looked for shorebirds on the still flooded part of Woodbine Beach and found two Lesser Yellowlegs.

Grasses on the Lost Glen Stewart Golf Course, Aug 8. Leader: Joanne Doucette. This is a good place for a grass identification walk, as there is a large diversity of grasses, ornamental, ruderal or "sidewalk" plants, and some native species in the ravine. Grass also fits neatly into the story of the former Glen Stewart Golf Course. We visited the location of the third fairway and the large artificial lake known as "The Duck Pond," now the playground north of Williamson Road School. Some of



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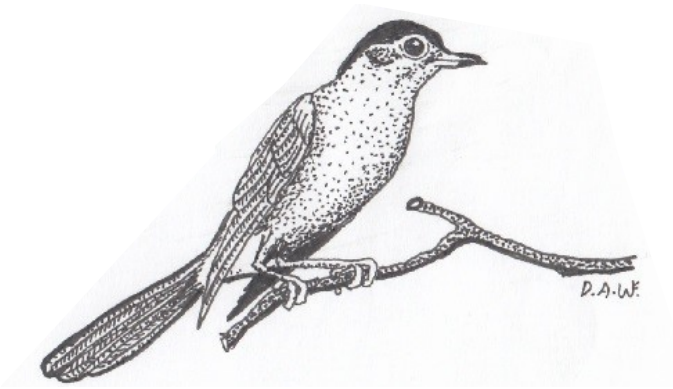
the grasses identified and discussed were giant Chinese silver grass (*Miscanthus giganteus*), green foxtail, Indian grass (ornamental cultivar), Kentucky bluegrass, large crab grass, orchard grass, quack grass, red fescue, ribbon grass (*Phalaris arundinacea*) both the variegated and green form, smooth crab grass and tall redtop.

Burke Brook project at Havergal College, Aug 14. Leaders: Lisa Massie and Nancy Dengler. Lisa Massie, Director of Facilities at Havergal College and an enthusiastic gardener, gave us a tour of the Lisa Hardie Woodland Trail, a stewardship project that has restored Carolinian forest to a section of the Havergal Stream ravine. Since 2008, over 300 trees of 29 native species have been added to the pre-existing eastern cottonwoods and crack willows. We noted butternut, mountain maple and American hop-hornbeam in fruit, as well as understory plants such as ostrich fern, may-apple and wood poppy. Participant Elizabeth Reid reflected that TFN members Sandy Cappell and Helen Juhola had advised Havergal staff and volunteers on ravine restoration at the start of the project, so it was especially appropriate for us to visit the site 11 years later.

We continued downstream to Yonge Street, crossing the ravine section that has been filled in for Glenview School playing fields and the section designated as a City of Toronto Environmentally Significant Area (Chatsworth Ravine). Sadly, the butternut trees protected by this ESA are succumbing to canker disease, but canker-resistant saplings planted by TRCA three years ago are thriving. We compared the currently well-vegetated ravine slopes with photos of the site taken by TFN member Robin Powell in 1986 showing mown grassy slopes.

High Park, Aug 15. Leader: Wendy Rothwell. We explored the oak savannah, a couple of restoration areas including OURSpace, and the table lands. Native wildflowers in bloom included showy tick-trefoil, early and flat-topped goldenrods, harebell, black-eyed Susan, pale-leaved and woodland sunflowers, round-headed bush clover, blue vervain, common, purple and butterfly milkweeds, cup plant, upland white aster, gray-headed coneflower, dense blazing star and, perhaps the highlight of the evening, the beautiful and rare cylindrical blazing star.

Leslie Street Spit, Sept 2. Leader: Charles Bruce-Thompson. The most notable aspect of the walk was the huge number of monarch butterflies that seemed to be drifting off in a vaguely southwestern direction, presumably starting their migration down Mexico way. Among the many bird species seen, the most notable were a Long-billed Dowitcher in Cell 2, a Pied-billed Grebe and a Northern Harrier. At the banding station we were shown a Northern Waterthrush, a Yellow-rumped Warbler, a Magnolia Warbler and a Red-eyed Vireo. Due to the plentiful summer rain, many of the seldom-used trails were almost completely overgrown with lush vegetation. We observed hardly any of the once abundant dog-strangling vine, thanks to the sustained control program carried out by TRCA. Other good news: it appeared that last year's measures to control the phragmites in Cell 1 had been very effective.



Gray Catbird. Drawing by D. Andrew White.

Birchcliff Quarrylands – Weeds Part 4, Sept 4. Leader: Miles Hearn. The Quarrylands were brimming with plants, both weeds and lovely wildflowers. We found two species of burdock, two of sow-thistle, lots of ragweed and lamb's quarters, much Canada goldenrod in the fields and late goldenrod and flat-topped goldenrod elsewhere, heath, New England, arrow-leaved and large-leaved aster, fall panicum grass, tufted lovegrass, orchard grass, barnyard grass, brome grass, reed canary grass and phragmites, plus glorious Jerusalem artichoke. In the woods there was plenty of hazel, witch-hazel, maple-leaved viburnum, pale-leaved sunflower, red oak, white oak and more. Goldfinches, a Grackle and a Warbling Vireo were also seen.

Lower Don Valley trail, Sept 17. Leader: Vivienne Denton. We saw a variety of wildflowers in bloom or in seed, including both varieties of wild cucumber, seven kinds of asters, and four species of goldenrod. A Great Blue Heron flew up from the Don River and settled high in a willow tree. We saw a Black-crowned Night Heron fishing from a rock on the bank of the river and a Gray Catbird sitting on a branch above the pond at Todmorden.

At the water's edge
A heron silently stands
Among the cattails

Haiku by Elisabeth Gladstone

WEATHER (THIS TIME LAST YEAR)

November was rather unpleasant, with below normal temperatures, above normal precipitation, and generally cloudy conditions.

Most of the month featured temperatures a few degrees above freezing with light rain, occasionally mixed with wet snow. We had a break on the 6th when temperatures rose to their highest for the month: 16.4° downtown.

We had a very sharp cold snap on the 21st-23rd which cleared out the clouds but brought temperatures as low as -13.3° on the 22nd at Pearson Airport – the lowest November reading since an identical one in 2005 and a record for the day.

The monthly mean temperature was 1.6° at Pearson Airport and 2.6° downtown. This was the coldest November since 1996 and about 2.5° below the 30-year average. Rainfall and snowfall were both well above average. Pearson Airport had 15.6 cm of snow, about double the normal. Total precipitation was 105.2 mm at Pearson Airport and 111.6 mm downtown. This is about 30-40 mm above normal. It was the wettest November since 2003.

Fall 2018 was cooler and wetter than normal. A warm September and early October were more than offset by cold weather starting a third of the way through October. The September to November period was the coolest since 2014 downtown with a mean of 10.5° (normal is 11.4°) and at Pearson Airport (mean of 9.8°; normal 10.3°).

Gavin Miller

COMING EVENTS

Jim Baillie Memorial Bird Walks – Toronto Ornithological Club (www.torontobirding.ca**)**
Aimed at the intermediate birder, but beginners also welcome. Free to the public.

- Sat. Nov 30, 9 am to afternoon. West Toronto Lakeshore and beyond – waterfowl and winter birding. Leader: Garth Riley. Meet at the most southerly parking lot at Colonel Samuel Smith Park.

ABOUT TFN

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NEWSLETTER

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Note: If you wish to drop by on Friday, please phone first to ensure that someone will be there.

IN THE NEWS *continued from page 10*

Toronto's Official Bee "a mascot for the City's biodiversity strategy"

A recent article in the Toronto Star drew attention to the fact that, back in April 2018 when City Council adopted Toronto's pollinator protection strategy, the bicoloured agapostemon (*Agapostemon virescens)* was designated Toronto's official bee. The reporter, Kate Allen, observed that this decision "generated almost no buzz" at the time. Certainly it passed unnoticed by the TFN newsletter. So it's time to rectify this oversight.

The City's website https://www.toronto.ca/services-payments/water-environment/live-green-toronto/torontos-official-bee/ explains why this metallic green sweat bee was considered an ideal choice.

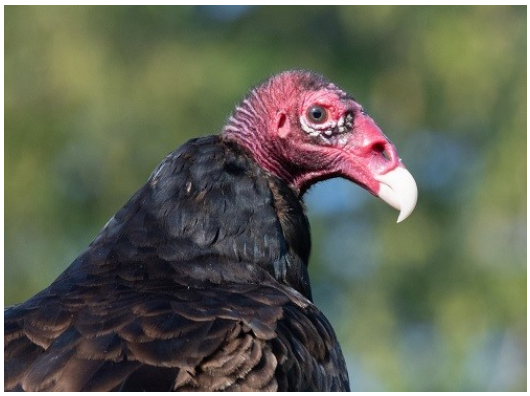
- It is easy to identify, being distinct from other local insects. Its head and thorax are brilliant green; the abdomen is black in females, striped black and yellow in males.
- It is a common bee. The females can easily be found in early summer mornings foraging on thistles and other flowers and the males can be observed flying slowly around flowers looking for females.
- It is welcoming. Females form communal nests in the ground, similar to a condominium. The entrance is shared by all occupants, but each individual has its own separate unit. The entrance is guarded but, whereas most bees defend their nests against others of their own species, bicoloured agapostemon allow strangers of their own species into their nests. This welcoming of newcomers makes it a particularly appropriate choice for Toronto's official bee.

Bicoloured agapostemon. Photo by Ken Sproule

To read the article, which includes steps you can take to help pollinators, the benefits of and threats to Toronto's ravine system, and explains why the proposed biodiversity strategy is so important, see https://www.thestar.com/news/gta/2019/09/17/toronto-now-has-an-official-bee-heres-why-that-matters.html

To read more about local native bees, see the City of Toronto's booklet Bees of Toronto, available online at https://www.toronto.ca/wp-content/uploads/2017/08/8eb7-Biodiversity-BeesBook-Division-Planning-And-Development.pdf

KEEPING IN TOUCH



One day last summer, near Carden Plain, I happened to see a turkey vulture on a low hanging wire. I shot this photo from the car, which can be a great blind. The bird was close enough that I ended up with a portrait of it, although a long lens helped.

All I can say is "The face only a mother can love!"

Frank Miles

A Bee Encounter

I was sitting in my east end garden on a hot summer day, my young granddaughter on my lap, and my left arm sprawled out along the Muskoka chair's armrest. My arm was positioned elbow-side down, somewhat as we do when a technician prepares to take blood samples. As we lounged there, enjoying the warmth, a visitor appeared – a bee which made a beeline directly to us and landed on my arm, right in the spot at the elbow joint.

My granddaughter gasped, fearing I would get stung, and tried to shoo the bee away. I stopped her and waited to see what would happen, staying very still. Then I felt two tiny things like suction cups attach themselves to me. Slurp, and the sweat that had gathered on my arm was inside the bee. It flew off. My granddaughter had had a lesson in being still and not being afraid. And after I searched for information on bees, I realized we had made friends with a sweat bee, now our city's bright green mascot.

Kathleen Brooks

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TFN LECTURE …..VISITORS WELCOME

Sunday, November 3, 2:30 pm (Social, 2 pm)

Canada Jay: Implications of climate change in a food-caching species.

Ryan Norris, associate professor, department of integrative biology, University of Guelph, will present his research on the impacts of climate change on the behaviour and ecology of our national bird.

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