



TORONTO FIELD NATURALIST

Number 684 April 2024



Bloodroot. Photo: Edward O'Connor

REGULARS

About TFN	15
Extracts from Outings Reports	5
Junior Naturalists	9
Lecture Notice	16
Lecture Report	4
President's Report	2
TFN Outings Information	3
Weather (This Time Last Year)	13

FEATURES

Being an Ethical Birder	2
Mosses	6
Spring into Stewardship with TFN!	8
Tree of the Month – Russian Olive (<i>Elaeagnus angustifolia</i>)	10
Clear Skies, Safe Flights: Let's Give Birds a Collision-free Tomorrow!	11
Toronto Nature Now – Pussy Willow	12
In the News: Bald Eagles	13
Alike but not exactly: Red Pine and Black Pine	14
Focus on Nature – Trees	16

PRESIDENT'S REPORT

Thank you to everyone who attended the Walk Leaders' Workshop and Social on March 21st. Special thanks to our outing coordinator, Kathy Chung, for organizing the event and to outings committee members Charles Bruce-Thompson and Kayoko Smith for planning and hosting it.

We will be participating in two events this month:

- *Scarborough Seedy Saturday* on April 6th at the Centre for Immigrant and Community Services, located at 2330 Midland Avenue, from 10 am to 2:30 pm.
- The *Earth Day* event at the Brick Works on April 20th from 10 am to 3 pm where we will be displaying a scaled down version of our 100th anniversary *Then & Now* photography project. Come by and say Hi!

In the fall of 2022 we established the Wildlife Protection group in order to address concerns about increased wildlife disturbance events in our green spaces. The group developed a plan to create educational material which we would use to engage the public on this issue. This has resulted in infographics that we share on Instagram (<https://tfngo.to/instagramtfn>) and Facebook (<https://tfngo.to/facebooktfn>) encouraging people not to feed wildlife, to stay on designated trails, keep their distance from wildlife, and other best practices to ensure a more respectful relationship with nature. I am happy to say that our engagement with the public on this issue has been very positive and well received. It takes time to change

behaviour, especially when people don't realize the impact of their actions. Engagement and education are key to changing behaviour and core to our mandate.

Digital engagement is just part of our strategy. The other key component is outreach talks and walks. The group created presentations and handout materials which I, as president, have been using to do talks and walks for stewardship, photography and nature groups, and other community organizations. Members interested in what this type of presentation entails can check out the recording of a presentation on ethical nature viewing here: <https://youtu.be/BmThluP9ybl>. If you know of any groups, clubs, and/or organizations that would be interested in a talk or walk on wildlife disturbance and ethical behaviour in nature, please let us know at promotions@torontofieldnaturalists.org.

I would like to thank all the volunteers who have helped with this group's efforts, past and present, including Lynn Miller, Theresa Moore, Vera Bigall, Augusta Lipscombe, Michele Macartney-Filgate and Stacey Pinto. If you are interested in helping this group with their work, please contact volunteering@torontofieldnaturalists.org.

Get outside, enjoy nature, and remember to speak up for nature when the opportunity arises so that we can preserve its beauty for all to enjoy.

Zunaid Khan

BEING AN ETHICAL BIRDER

Don't use recordings, or pishing, to attract birds!

Mimicking bird calls through the use of recordings, bird whistles, or pishing is more harmful than you may realize. Attracting a bird closer to you means drawing it away from its current focus, whether that be feeding, resting, or finding a mate. Luring parents away from their nests exposes their eggs or young to predators and luring any bird into the open exposes them to predators.

Pre-recorded playback is particularly problematic when perceived as a territory threat, as this has been shown to disrupt normal mating and social status, upset hormone levels, and cause birds to waste valuable energy searching for the "intruder" in their territory.

Playback of the calls of predatory birds stresses prey species, which you may not know are nearby. This use of playback has been shown to significantly reduce the weight of offspring due to playback-induced fear.

View wild birds where they are; don't try to attract them to you!



Ovenbird, 2005
Siobhan Montague
TFN Nature Arts Archive

TFN OUTINGS INFORMATION

A list of walks available to members is posted at the beginning of each month on the walks page of our *Members Only* website (<https://tfngo.to/memberswalks>) and can be downloaded or printed. You are welcome to bring one non-member guest. Listed below are two April outings you might like to consider.

Evergreen Brick Works – 100th Anniversary Walk

Leader: Zunaid Khan

Tuesday, April 9, 10 am

Meeting Point: In front of the main Evergreen Brick Works building.

Walk Details: A 2-hr 4 km circular walk over mostly unpaved, even surfaces with some steep slopes and stairs.

Walk Description: We will follow a looping route through the ravine and trails that make up the Brick Works enjoying what nature has to offer as we discuss TFN's connection to this area.

TTC: From Davisville subway station, take #28 Bayview south bus to the Brick Works. Or take the (free) Evergreen

shuttle bus from Broadview subway station <https://tfngo.to/brickworksshuttle>

Parking (paid) is available in the Brick Works lot.

Washrooms:
Available.

What to bring:
Snacks, beverages, binoculars and/or camera

Walk

Leader's Cell Number:
416-716-6464

Evergreen Brick Works
Photo: Wendy Rothwell



German Mills Earth Day Litter Clean Up and Public Nature Walk.

Leader: Theresa Moore

Saturday: April 20, 10 am

Meeting Point: The northeast corner of Leslie St and Steeles Ave. **Note:** The group will likely not reach the park entrance until about 10:30. Kindly allow enough time to park and join the group at Leslie and Steeles at 10.

Walk Details: A 2.5-hour, 5 km circular walk on mostly paved, flat surfaces with a few gentle slopes. No stairs.

Walk Description: We'll look for signs of spring, especially early wildflowers and returning birds, and talk about local history and environmental issues as we collect litter along our route. After meeting on the northeast corner of Leslie and Steeles, we will walk north on Leslie (where most of the litter is) to the German Mills Settlers' Park entrance. We'll then proceed along the paved path on the east side of the creek up to John St before crossing over to the German Mills Meadow and Natural Habitat and making our way south.

TTC: The #53B Steeles East (not the 53E Express!) that runs from Finch subway station to Scarborough has a stop at Leslie. The #51 Leslie bus is another option but has less frequent service.

Parking: Free parking is available on weekends on Equestrian Court, a very short block south of Steeles on the west side.

There is also free street parking on Leslie St north of Steeles. (Beware of the soft shoulder on the west side of Leslie.)

Washrooms:
At Tim Hortons, 1567 Steeles Ave E.

What to bring:
Binoculars. A reacher if you have one. Bags and gloves will be provided by the Town of Markham.

Walk Leader's Cell Number: 416-493-3201



German Mills Cleanup, 2019
Photo: Theresa Moore

LECTURE REPORT

Toronto's Ravine Strategy – What's New?

March 3, 2024

Wendy Strickland, Project Manager, City of Toronto's Ravine Strategy

Toronto's ravines are home to much of our remaining biodiversity. It's no surprise, then, that ravines are also focal points of passionate debate about stewardship priorities. Most decisions about ravines are influenced by Toronto's Ravine Strategy. Our local nature community welcomed an update on the Strategy, seven years after its adoption by Toronto City Council in 2017. Wendy Strickland offered a front-line view as our guest speaker, sharing challenges, accomplishments, priorities and also germinal stages of management plans for Environmentally Significant Areas (ESAs), most of which are in ravines.

The sheer expanse of ravine land is both an advantage and a management headache. Ravines cover roughly 11,000 hectares – about 17% of the city's land. About one third of Torontonians live within a 10-minute walk of a ravine. Even a distant ravine can be reached by public transit and brisk walking. Ravines harbour not just birds and butterflies, but also a huge amount of critical grey infrastructure, including bridges, roads, sewers, pipelines, power transmission lines and transit, all needing ongoing maintenance and repair, usually by heavy machinery. About 40% of ravine lands are privately owned. In effect, roughly 30,000 private owners, from home owners to hospitals and colleges, share responsibility for the health of ravines, along with City departments and a host of volunteer groups.

Spending: Each year, ravines deliver a multitude of ecosystem services: cleaning and cooling our air, capturing carbon, buffering floodwaters, absorbing traffic noise and contributing to public health and quality of life. A modest estimate by the TRCA and the City has pegged delivered benefits at about \$800 million annually. With so much at stake, we clearly need to invest back into ravines. Indeed, "invest" is one of five overarching themes of the Strategy, along with "protect", "connect", "partner" and "celebrate".

City staff estimate ravines need about \$105 million investment long-term, especially in 10 prioritized investment areas – sites characterised by high existing uses, fast population growth and planned infrastructure construction. So far, thanks to champions on Council like Deputy Mayor Jennifer McKelvie, the City has secured about \$26 million in ravine funding support from other

levels of government, with the lion's share (94%) coming from federal coffers. Stated top goals are to enhance access to ravines, to protect and restore ecological features, and to increase resiliency of ravines in the face of intense urban growth and a changing climate.

Where rehab of sewers or other infrastructure is planned, city managers hope to improve coordination among agencies such as Toronto Water, TRCA and Transportation Services, ideally not only to stretch budgets but also to better serve ravine users and protect habitats. When ravines are dug up, how can ongoing trail access be accommodated? How can eventual restoration be optimized? There are no pat recipes for such collaboration, but goodwill is a prerequisite.

Sharing: Outreach, a key focus of the Ravine Strategy, will be supported by about \$1 million in spending for better wayfinding. Micro-grants and training are also deployed to connect new communities with ravines via a multi-year City partnership with the non-profit Park People. The City also funds youth ravine outreach via two student internship programs. The Young Ravine Leaders program, hosted by the non-profit LEAF, connects about 20 youth per year with relevant job opportunities. TRCA also hosts about eight paid summer interns annually, with in-the-field ravine work experiences. Informally, TFN volunteers have helped several of these ravine outreach projects.

Caring: Invasive plants, a problem everywhere, are getting attention in ravines. The City now spends approximately \$4 million annually on natural area management, including invasive plant control, and has managed 2,100 ha of the ravine system (~20% of total ravine lands) for invasive species since 2020. Toronto handily outperforms other cities on controlling invasive plants, Wendy observed. Litter, another chronic problem, is addressed by a dedicated ravine litter crew, established in 2020. The crew has bagged 400 tonnes of garbage over four years, from 500 ha of ravine lands. Hundreds of volunteer groups complement City staff efforts on managing invasive plants and litter, with plenty of work for all.

To improve quality of native plantings, the City has a Tree Seed Diversity Program, in partnership with Forests Ontario and relying on certified seed collectors and local nursery partners. Trees and shrubs from local seed sources are now being planted.

continued on next page

EXTRACTS FROM OUTINGS REPORTS

Grenadier Pond to Humber River, Jan 31. Leader: Lillian Natalizio. Ice covered both Grenadier and Catfish Ponds, and we saw a coyote making use of the relatively solid surface for an easy crossing. A pair of Trumpeter Swans passed overhead as we discussed phragmites, cattails and turtles. The water was calm and fully open in Humber Bay and the River and, while the winter ducks were mostly farther out in the lake, we had relatively close views of Red-breasted Mergansers, Buffleheads, Common Goldeneyes and Long-tailed Ducks. We viewed the settling pond in place of the long-gone marsh #1 at the mouth of the river, and the extensive cattail marsh #2 upstream of The Queensway. In South Humber Park, the trails were clear, there was no sign of snow, and robins, goldfinches, House Finches, juncos, Blue Jays, and a Brown Creeper were active.

Winter plant identification – Todmorden Mills Park, Feb 3.

Leader: Stephen Smith. We had a good turnout on a pleasant fall-like day. We discussed herbs that can be identified in winter, to species or just to genus, such as goldenrods, asters, milkweeds and some of the planted prairie grasses like little bluestem, switchgrass and Indian grass. We then focused on common woody species, like white pine, white elm, staghorn sumacs (male and female), grey dogwood, eastern cottonwood, white cedar, ironwood, blue beech, black

walnut, red pine, silver maple, hybrid willow, white and red ash (noting their differences), bur oak, black locust, butternut, chokecherry, apples, hawthorns, white spruce, red osier dogwood, alternate dogwood, basswood, sugar maple, black cherry, witch hazel, sycamore, bladdernut and redbud. We discussed stewardship work being done by the Todmorden Mills Wildflower Preserve Committee members, several of whom were on the walk. They shared the choices they make to assist or remove certain plant species, and some of the challenges they experience maintaining natural habitats in an urban area.



Pileated Woodpecker at Highland Creek. Photo: Bill Cruttwell



Black locust seed pods, Todmorden Mills. Photo: Kathy Chung

Highland Creek West, Feb 13.

Leader: Charles Bruce-Thompson.

The snow tailed off after about half an hour, but it made parts of the trail somewhat tricky. We walked as far as Lawrence Ave before heading back by a different path. We observed the extensive work done over the last three years to mitigate bank erosion. It's looking most impressive now with wide, gently-sloping banks that have been extensively planted. The forest on either side of the floodplain is mostly sugar maple, but there's a wide variety of other trees, including river bank birch well north of its native growing zone – perhaps a sign of things to come. Birds of interest

included a pair of Red-breasted Mergansers, a kingfisher and a very vocal Pileated Woodpecker.

continued on page 12

LECTURE *continued*

Toronto has mapped its best remaining nature patches as ESAs; almost 100 ESAs are now formalized under the City's Official Plan, with most in ravine lands. So far, 20 ESAs have written management plans, but these plans are not public and lack consistent formats.

As a next step, \$200,000 has been allocated to design consistent templates for future ESA management plans: to prioritize which ESAs to work on first and to estimate

roll-out costs. ESAs at Taylor Creek and Wilket Creek are pilot sites. Public updates and engagement on ESAs are planned for later in 2024.

Lively discussion with many Q&As rounded out this lecture. The recorded talk can be viewed [at this link](#).

Ellen Schwartzel

MOSSES

Fire moss begins to grow in early March, sending up bright reddish stalks from the mounded green mats that spread out over bare soil and adjacent pavement, providing one of the first signs of spring in Toronto. At other times of the year, when the stalks and capsules borne at their tips aren't so conspicuous, it's easy to overlook fire moss and other mosses as we walk Toronto's parks and ravines. Their size scale is so small, usually only a few millimeters to a few centimeters, and they almost always require magnification through a hand lens to see their minute details.

There's a good reason for that frustratingly small size; however, mosses completely lack roots and have no specialized cells that can move water and nutrients around the plant. Mosses depend on the process of capillary action, where the stickiness of water molecules (to other water molecules and to surfaces) allows liquid water to be held in the very small spaces between moss leaves. Every bit of water that actually enters the leaves must move directly from the external environment into a living cell. As a result of this limitation, moss leaves have a large surface area for their volume. They are only one cell thick, shortening the distance that water has to travel from the outside to the inside.

The ability to absorb water readily is a double-edged sword for mosses, as it means that they also lose water quickly when the environment is dry. Another characteristic of all mosses is that they lack a thick waxy cuticle on their leaves and stems, a feature that allows other kinds of terrestrial plants (ferns, conifers and flowering plants) to resist desiccation. Instead, mosses have to be able to tolerate drying out. Some mosses are so desiccation tolerant that they can revive and start to grow, even after being dried as herbarium specimens for more than 20 years.

In addition to small size, and lack of roots, specialized transport cells and cuticle, a unique and unifying feature of all mosses is that they have two very different growth phases, one nutritionally dependent on the other. The green leafy phase carries out photosynthesis, using the sun's energy to convert carbon dioxide from the air into sugars. This phase also produces the gametes (eggs and sperm).



Haircap moss sporophytes.
Photo: Ron Dengler

Fertilization occurs at the tips of the leafy stems and requires a surface film of water so that sperm can swim to the egg cells. The term for this growth phase is gametophyte (gamete + plant).

The second growth phase is usually brownish, non-leafy and consists of a stalk bearing a rounded capsule at its tip. This phase develops from the zygote, the single cell produced by fertilization of the eggs by sperm. Little or no photosynthesis occurs during the development of this growth phase, so it must draw most nutrients from the green gametophyte. Spores are formed within the capsule; thus, this phase is termed the sporophyte (spore + plant). When the spores are mature, protective cap tissues fall away from the capsule which then acts like a tiny salt-shaker, releasing spores into the air currents. If the spores fall into a suitable environment, they germinate and develop as a new green, leafy gametophyte plant.



Fire moss (*Ceratodon purpureus*) growing on Leslie St. Spit roadside. Photo: Ken Sproule



Fire moss leaves. Photo: Ken Sproule



Haircap moss (*Polytrichum* sp.) gametophytes with attached sporophytes.
Photo: Ron Dengler

MOSSES *continued*

Mosses play several important ecological roles in terrestrial ecosystems. Among these is their ability to colonize eroded soil, rocks, tree bark and other bare surfaces. The absence of roots means that mosses don't have to penetrate the substrate to get established. Their leafy green stems bear tiny hair-like cells (rhizoids) that are sticky and help them adhere to a bare surface. Many colonizing mosses form "pin cushions", mounds of green leafy gametophytes with tightly packed vertical stems. These closely spaced stems and leaves capture and store rainwater through capillary action. In addition, many pin cushion mosses have sharply pointed leaf tips that act as a focus for condensation of water from the atmosphere, forming dew drops that are distributed to the rest of the plant by capillary action. The ability of all mosses to capture and store water and then to release it slowly means that they are important for maintaining soil water availability and for reducing soil erosion from stormwater runoff.

Mosses are key for formation of new soils on bare surfaces, partly because of their colonizing ability and also because they manufacture numerous chemical compounds that prevent decomposition by bacteria and fungi. Therefore, mosses tend to retain their dead organic matter, and the combination of living and dead moss material attracts a whole miniaturized food web. Mites, springtails, and microscopic rotifers don't browse on the moss itself, but use its small-scale physical environment for playing

out their own lives. The remains of these tiny creatures add nutrients to the moss-derived organic material and provide the important first steps in paving the way for colonization of new soils by other, larger plants.



Pin cushion moss (*Leucobryum glaucum*).
Photo: Ken Sproule



Peat moss (*Sphagnum* sp.) gametophyte and three sporophyte capsules.
Photo: Ron Dengler

Some mosses, such as peat moss (the genus *Sphagnum*), are especially good at preventing decomposition of dead material. Not only do they produce antibiotic chemicals that suppress the growth of fungi and bacteria, but they also acidify the environment, further preventing microbial growth. Peat moss leaves also have specialized water-storage cells interspersed among the green photosynthetic cells, making peat particularly good at holding and storing water. The water-logged conditions in a peat bog exclude oxygen, reducing microbial decomposition even more. Thus, peat builds up over hundreds of years, forming thick organic layers which serve as carbon sinks. The living peat moss takes carbon dioxide out of the atmosphere through photosynthesis and, because there is so little decomposition, that carbon remains captured in the non-living peat layers. In fact, it's estimated that, worldwide, 20% of the total carbon stored on land in natural habitats is in the form of dead *Sphagnum* moss.

So, both because of the ecological importance of peat and other mosses and because they are intriguing little plants in their own right, I'm going to be paying more attention to mosses this spring – and to be carrying my hand lens with me at all times.

Nancy Dengler

For further reading:

Bell, Neil. 2023. *The Hidden World of Mosses*. Royal Botanical Garden Edinburgh.

Kimmerer, Robin Wall. 2003. *Gathering Moss*. Oregon State University Press.

McKnight, Karl B., Joseph R. Rohrer, Kirsten McKnight Ward, and Warren J. Perdrizet. 2013. *Common Mosses of the Northeast and Appalachians*. Princeton University Press.

Muma, Robert. 1985. *Graphic Guide to Ontario Mosses*. Toronto Field Naturalists. <https://tfngo.to/mosses>

SPRING INTO STEWARDSHIP WITH TFN!

Looking to make a meaningful difference to nature in Toronto? TFN's volunteer stewards and citizen scientists help to protect and expand vital habitat through planting and seeding native species, managing invasives, monitoring flora and fauna, and so much more!

Learn more and sign up to volunteer at
<https://tfngo.to/stewardship>

Over the last century, TFN volunteers have made a profound impact on nature in the city. Thousands of trees we've planted stand all across Toronto. Our studies of the Glendon Ravine wetland were inspirational to the adoption of the ESA designation in Toronto. Our Cottonwood Flats Monitoring Project has helped inform City and TRCA efforts, and inspired the creation of the Community Stewardship Program team that we now lead there. TFN's nature reserves protect provincially endangered and at-risk species, including the critically endangered butternut which TFN is actively planting at our Jim Baillie Nature Reserve.

None of this would have been possible without volunteers just like you! Whether you are an enthusiast or professional, botanist or birder, carpenter or photographer, we need people just like you for our efforts to succeed. All that's required is a willingness to get your hands a little bit dirty helping nature!



UPCOMING JUNIOR NATURALISTS' EVENTS

Please join us for the TFN Juniors program with children/grandchildren aged 6-14 yrs. We meet one Saturday each month from 10 am to 12 noon. An adult must remain with their children for the duration of the program. Once registered, you will receive invitations to our monthly events with detailed instructions on the location and activities. Register here: juniortfn@torontofieldnaturalists.org

Upcoming Events include:

April 13 Ontario Snakes and Turtles with Jenny Pearce

May 11 Join the Spring Bird Festival at Tommy Thompson Park to kick off the songbird migration

JUNIOR NATURALISTS

EASTERN HOGNOSE SNAKE

Sixteen species of snakes live in Ontario, from the common garter snake to the very rare blue racer, but none has a flair for the dramatic quite like the eastern hognose snake.

One of the easiest ways to identify this snake is by its distinctive upturned snout for which it is named. No other snake in Ontario has a nose quite like it, which is helpful, as its colouring is quite variable, from browns and greys to black, oranges and reds, and it can either have patterned blotches down its sides, or not.

Hognose snakes' preferred food is toads, although they will eat other amphibians.

They have evolved an immunity to the toxins produced in the toad's skin. Their venom is amphibian-specific, not harmful to people, and is delivered by two large teeth at the back of their mouths.

The other distinctive characteristic of this snake is its threat display when it is startled or is trying to deter a predator (such as a fox, skunk or opossum). First the snake will raise its head and spread out its neck, similar to a cobra, hissing loudly and striking out towards the threat.

If this doesn't deter the predator, the snake will then play dead, rolling over

onto its back, opening its mouth wide, tongue lolling out of its mouth, emitting an unpleasant odour, and will occasionally either poop or regurgitate its last meal as an additional display. The snake hopes to signal to potential predators that ingesting it will be distasteful and might make them sick.

The hognose snake prefers sandy soils and open meadows near water sources. It



Eastern hognose snake. Photo: Wikimedia Commons

uses its distinctive nose to shovel sandy soil, both to dig its nest where it will lay up to 35 eggs and to dig its overwintering burrow down below the frost line. A study in Ontario found that the home range for these snakes is about 40

hectares, so they can be found in a wide range of habitats, and they travel quite a bit.

Due to their wide-ranging behaviour and where they prefer to nest, hognose snakes are at risk due to habitat loss — from agriculture, housing developments and people's beach use — as well as from collisions during road crossings.

Unfortunately, this species' current status in the province is listed as threatened.

Vanessa McMain

TREE OF THE MONTH: RUSSIAN OLIVE (*ELAEAGNUS ANGUSTIFOLIA*)

Though a few local trees give flashes of silver or white in the sunlight, no other is quite as silvery overall in the landscape as is Russian olive, easily accounting for its less frequent common name, silver tree. This appearance arises because all of its surfaces (twigs, buds, thorns, leaves, flowers, and fruits) are covered with pale scales and hairs when young, producing a silvery sheen from reflected light. As the handsome, willow-like leaves expand during maturation, the undersides remain densely hairy and silvery, while the upper sides turn rich dark green, enlivened by bright flashes as scales and hairs become more widely separated. With all this flashiness, you might expect Russian olive to make a fine specimen tree. One feature that militates against more widespread use as an ornamental is its arsenal. Most individuals are armed with numerous sharp axillary thorns, specialized short side branches that are often initially clothed with reduced leaves. These thorns are mostly two to seven centimetres long and rigid, making any necessary pruning awkward and painful. Individuals differ in their degree of thorniness, however, and a few cultivars with a much less ferocious demeanor have been selected, like one from California named *Velvet Touch*.

The fruit of Russian olive, as the name suggests, resembles a conventional olive in general appearance, though sparkling with silvery specks. The two trees are completely unrelated, however. This taxonomic separation is evident in the makeup of their fruits. A true olive (from *Olea europaea*, in the olive family Oleaceae) is a drupe, pretty much like a cherry, with a single seed encased in a hard stone derived from the inner wall of the ovary which, in turn, is embedded in the fleshy outer ovary wall. The “olive” produced by Russian olive is structurally more like a rose hip, though with only a single ovary and seed inside, rather than a multitude. In this pseudo-drupe, the seed is, as in true olive, enclosed in hardened ovary tissue, but the rather mealy flesh surrounding the stone is not also part of the ovary. Instead, like the fleshy part of the rose hip, it arises from swelling of the floral cup, separately



Russian olive tree. Photo: Ken Sproule

derived within the flower from, and not attached to, the ovary. This floral cup or hypanthium (“below flower”) is obvious in the flower long before it enlarges with fruit maturation. Unlike the rich culinary diversity of true olives, Russian olive fruits are nothing to write home about, though there has been some selection for increased palatability, particularly in Central Asia, and a few such cultivars have reached North America. While we may not appreciate their delights, consumption of the “olives” by fruit-eating birds and mammals is instrumental in dispersal of the seeds.

The highly fragrant flowers that precede the “olives” are quite conspicuous when they open in late May and June, silvery on the outside and rich yellow within. There are no petals present and the four spreading, triangular lobes that look like they are actually sepals, attached evenly around the rim of the goblet-like floral cup. The whole upper portion of the floral cup falls away after flowering and only the smaller swelling that tightly encloses the ovary beneath the open part of the goblet persists, enlarges, and contributes to the fruit.

continued on next page



Thorns. Photo: Ron Dengler



Fruits and foliage. Photo: Ken Sproule



Flowers. Photo: Ken Sproule

CLEAR SKIES, SAFE FLIGHTS: LET'S GIVE BIRDS A COLLISION-FREE TOMORROW!

Annually, a staggering 25 million birds lose their lives in Canada due to unnecessary collisions with buildings, predominantly during daylight hours when birds mistakenly perceive glass as a continuation of their surroundings. This preventable tragedy can be mitigated by applying visual treatments to windows. While some municipalities already mandate these changes, a longer-term goal is a comprehensive amendment to the Ontario Building Code.

The Fatal Light Awareness Program (FLAP), originating in Toronto in 1993, pioneered awareness about the hazards posed to birds by lights. An opportunity now exists to modernize the Ontario building code by urging our politicians to enact and enforce bird-friendly standards.

You can help by signing the pledge (<https://tfngo.to/flapbuildingcode>) to safeguard our feathered friends and create a safer environment for birds.

Exploring innovative ways to protect birds in your backyard opens up a realm of possibilities. While some

products on the market may fall short of expectations, you can adopt effective measures by following simple guidelines:



Female Yellow Warbler. Photo: Theresa Moore

- Apply window markings densely, with no gaps exceeding 5 cm by 5 cm (2 inches by 2 inches).
- Apply markings to the outer surface of the glass.
- Ensure markings have high contrast to stand out effectively.
- Each marking should be at least 6 mm (1/4 inch) in diameter.
- Cover the entire glass surface with markings.

Additionally, consider relocating bird feeders and baths as close to the window as possible, ideally within half a metre. This strategic positioning minimizes the risk of birds building up enough momentum to cause serious injury if they accidentally collide with the window after leaving the feeder. For more valuable insights and suggestions, explore the resources provided by FLAP (<https://tfngo.to/flap>).

Peter Smith (TFN Advocacy Team Member)

TREE *continued*

Russian olive is the only tree among our five Ontario species in the oleaster family (*Elaeagnaceae*), definitively tree-like in form but small in stature, usually under eight metres tall, though exceptionally reaching 20 metres. Oleaster is another alternate common name for Russian olive, among many. Besides Russian olive, we have one shrubby native species belonging to *Elaeagnus*, silverberry (*E. commutata*), but it is confined to the boreal forest region. A thicket-forming shrubby *Elaeagnus* down here is the introduced and sometimes naturalized autumn-olive (*E. umbellata*). We also have one shrubby species of each of the other two genera in the family, native buffalo berry (*Shepherdia canadensis*) and introduced sea-buckthorn (*Hippophae rhamnoides*).

Native from southern Europe across to Central Asia, Russian olive is cultivated and has become naturalized northwards through Europe, from whence it was introduced to North America, primarily as an ornamental,

though it also has medicinal and culinary uses. Seriously invasive on seasonally wet sites in many drier-climate parts of western North America, Russian olive is not as much of a problem here, naturalizing primarily in vacant lots, wastelands, and other disturbed sites whose soils are often poor in structure and depleted in nutrients, especially nitrogen. Its ability to establish itself and thrive on such sites is partly due to its possession of nitrogen-fixing root nodules inhabited by symbiotic *Frankia* bacteria. It shares this trait (as do almost all members of the family, including our four other species) with alders, like European black alder (*Alnus glutinosa*), which I recently profiled in these pages, though based on different symbiont species. Because of its potential to become invasive, many North American jurisdictions have banned its production and sale and, as a consequence, there has been little cultivar development here.

James Eckenwalder

PUSSY WILLOWS: EPISODE #24 OF TORONTO NATURE NOW

One well-kept TFN secret is our terrific weekly radio show, *Toronto Nature Now*, created in partnership with CJRU Radio of Toronto Metropolitan University, and launched pre-pandemic. A secret no longer! Over the coming months, this space will showcase past gems of *Toronto Nature Now*, with links to the full treasure-house of 180-plus [audio episodes](#), to savour at your leisure. Each episode invites a guest speaker to mix nature facts, insights and whimsy in a short, accessible format, usually less than 15 minutes.

This month, we learn the secrets of pussy willows, a universal symbol of spring. Our pussy willow guide in episode #24 is Dr Nancy Dengler, a botanist, a U of T botany professor emerita, and a former president of TFN.

Pussy willows, native to Ontario, grow to the size of large shrubs or small trees, especially along shorelines. Since they like to have their feet wet and have long taproots, they are great for stabilizing banks of creeks and rivers. Pussy willows are among the earliest-blooming plants in our landscape, and each plant bears either all male or all female flowers.

As Dr Dengler clarifies, the pussy willow catkins we know so well in flower arrangements are actually male flowers, covered with the classic grey, fuzzy insulating fur. Upon blooming in early April, each male catkin becomes covered in yellow pollen, a rich source of protein for pollinators. Dr Dengler's

description leaves no doubt how important protein is, early in the season, for a wide range of bee species.

The female pussy willow plant also bears catkins attractive to pollinators, but they look very different and offer a very different kind of attractant. Since bees need to access both male and female pussy willows for a balanced diet, Dr Dengler encourages us to plant both sexes in native gardens.



Pussy Willow. Photo: Ken Sproule

As if we needed further convincing of the value of pussy willows, Dr Dengler also touches on another remarkable attribute of this plant, well known to Indigenous peoples and also documented in writings from the deep antiquity of ancient Greece. For the big reveal and the whole nine-minute episode, go to [Pussy Willows Episode #24, *Toronto Nature Now*](#).

Ellen Schwartzel

Next time in this space, watch for World Turtle Day: Episode #173 of *Toronto Nature Now*

EXTRACTS *continued from page 5*

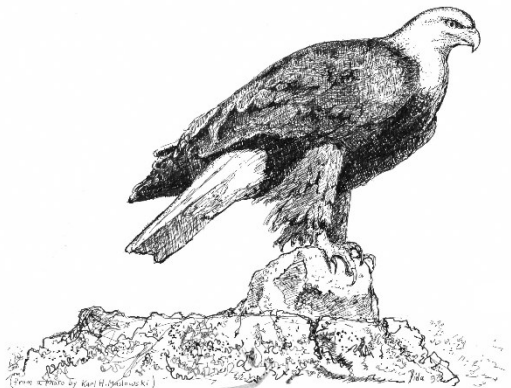
Trees, Centennial Park, Feb 19. Leader: Lillian Natalizio. Sticking to the southwest quadrant of the park, we spent two hours exploring all things trees: how to distinguish between closely related species of sycamore, willow, horse-chestnut, spruce, maple, ash, cherry, birch, basswood, and beech; the beauty of bark, buds, and spring blooms; the importance of certain tree species and their locations to wildlife in the park; and the importance of the regenerating woodlands surrounding the mature sugar maple-beech forest. We made a short foray into the mature woodland to discuss a couple of species of concern and recent under-plantings.

Wilket Creek, Toronto Botanical Garden, Feb 24. Leader: Ellen Schwartzel. Recent mild weather left us a brown, snow-free valley and pathway, with trees and

spring ephemerals still dormant. Despite cold temperatures, the bright sun and sheltered valley combined to give us a very pleasant walk cheered by the fact that, at this time of year, we gain almost three minutes of daylight each day. Sprouts of skunk cabbage were easy to spot along the wetland slopes. A red squirrel scolded us in the ornamental gardens. Nuthatches explored tree trunks for dormant insects, and cardinals favoured areas with bird feeders. We reflected on the many downsides of bird feeders in public parks, including the heightened risks of spreading avian flu. A Red-tailed Hawk flew over at one point. Signs of beaver activity were evident along the creek, and we observed how some tree species (e.g. aspen and willows) sprout back abundantly after being gnawed down by beavers.

IN THE NEWS: BALD EAGLES

For the first time in recorded history, a pair of Bald Eagles is nesting in Toronto! This is especially significant as they were removed from the species at risk list in Ontario only last year.



Bald Eagle. Sketch by Diana Banville from a photo by Karl H. Maslowski.

Michael Drescher, an environmental planning and conservation expert at the University of Waterloo, stated that, in the 1960s, only a few hundred nesting pairs of Bald Eagles remained in North America and they were on the brink of extinction. There are now reported to be tens of thousands, and Dr. Drescher attributes their resurgence in large measure to the prohibition of certain contaminants such as DDT.

Bald Eagles are culturally significant to Indigenous peoples. Duke Redbird, an elder from the Saugeen Ojibway Nation and well-known poet and literary figure, says, "Our community has always loved the Bald Eagle for its strength and its capacity to represent truth and goodwill." He believes the return of these birds to Ontario's shorelines is a good omen, as Bald Eagles are sacred to Indigenous communities, representing honour, honesty, charity and life.

WARNING: Toronto and Region Conservation (TRCA) is warning residents not to look for or disturb the nest, as this may cause the eagles to abandon it and the eggs. Afiya Jilani, TRCA's communications specialist, explains that Bald Eagles are sensitive creatures, particularly during their nesting period.

For this reason, the location of the nest is being kept secret. If you happen to discover where it is, do not share this information or go anywhere near the nest. We would like to be able to report, in due time, that the young safely hatch and fledge.

Wendy Rothwell

As TFN members, we adhere to our naturalist code of ethics and best practices for viewing and photographing nature. See <https://tfngo.to/codeofethics>

Source: A report by Patrick Swadden, CBC News, March 07, 2024
<https://www.cbc.ca/news/canada/toronto/bald-eagle-nest-toronto-1.7135876>

WEATHER (THIS TIME LAST YEAR)

April 2023

Most of April continued the dull, wet conditions of the preceding months with seasonable temperatures. This, however, was interrupted by an early-season heat wave, the most intense early spring warm spell in 11 years. It was, though, somewhat less anomalous than the unprecedented March 2012 heat wave because it came two to three weeks later. It resembled similar spells in April of 1976 and 2002.

The hot spell peaked on the 12th-13th. A few locations in southern Ontario attained 30°, but the warmest in the GTA was 29.7° at Buttonville on the 13th. Downtown was slightly affected by the cold waters of Lake Ontario and its hottest reading was 27.4° on the 12th, while Pearson hit 29.4° on the 13th. Several daily record highs were broken in the GTA.

The rest of the month was near or slightly below normal, but the overall average was the warmest since 2017. Downtown had a mean monthly temperature of 9.5° (30-year average is 7.8°), while Pearson's mean was 9.0° (matching the 30-year average).

Cloud and rain were abundant both before and after the hot spell, with 105.5 mm downtown and 101.4 mm at Pearson Airport.

Snow was almost absent but again, similar to 1976 and 2002, it fell a few days after the hot spell – 0.4 cm on the 24th-25th.

Despite the overall mild winter and fairly early end to the snow season (April often has significant snows but not this year), the seasonal snowfall for 2022-2023 was above normal again, with 145.1 cm recorded at Pearson. This is 30 cm above normal.

Gavin Miller

ALIKE BUT NOT EXACTLY: RED PINE AND BLACK PINE

Red pine and black pine (formerly known as Austrian pine) are closely related and look very much alike. They both have long needles in bundles of two and, at first glance, can easily be mistaken. I have prepared this table to help people tell them apart.

Joanne Doucette

	Red Pine (<i>Pinus resinosa</i>)	Black Pine (<i>Pinus nigra</i>)
Origins	Native.	Europe, northwest Africa, Asia Minor.
Uses	Rarely used in landscaping, not common in Toronto.	Widely used in landscaping, widely seen in Toronto, in parks, around buildings, etc.
Bark	Red-brown or pink to grey.	Dark brown to black.
Needles	Brittle, tend to snap when bent.	Flexible, bend when bent.
Winter buds	Reddish-brown.	Grey.
Smaller branches	Orange-brown.	Brown to greyish-brown.
Seed cones	Cones have no prickles. When they fall, they leave some scales on the branch.	Cone scales with prickles. When they fall, all the scales are intact. None are left behind.



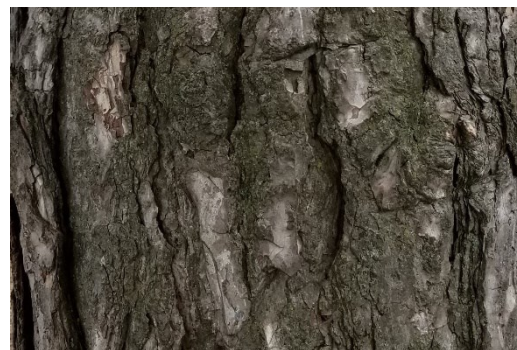
Botanical illustration, red pine by J. White.
A description of the genus *Pinus* 1824.
Public Domain



Botanical Illustration, black pine by Franz Eugen
Köhler, Köhler's Medizinal-Pflanzen 1897.
Public Domain



Red pine bark by Joshua Mayer. CC BY-SA 4.0
Deed | Attribution-ShareAlike 4.0 International



Black pine bark by Joanne Doucette, 2024

ABOUT TFN

TFN is a volunteer-run non-profit nature conservation organization. We connect people with nature in the Toronto area, helping them to understand, enjoy, and protect Toronto's green spaces and the species that inhabit them.

BOARD OF DIRECTORS

President, Walks and Promotions & Outreach:

Zunaid Khan

Past President, Lectures, Take Action:

Ellen Schwartzel

Secretary-Treasurer: Fatima Abrar

Vice-President, Volunteers Lynn Miller

Stewardship Lillian Natalizio

At large: Donata Frank, Jessica Iraci, Philip Jessup,
Lynn Short, Lam Tran, Diana Wilson

NEWSLETTER

Toronto Field Naturalist (ISSN 0820-636X) is printed on 100% recycled paper. Printing: Digital Edge Printing & Media Services.

Views expressed in the newsletter are not necessarily those of the editor or Toronto Field Naturalists.

Members are encouraged to contribute letters, short articles and digital images. Please email to: newsletter@torontofieldnaturalists.org

Submissions deadline for May: April 1

CONTACT US:

Telephone: 416-593-2656

Email: office@torontofieldnaturalists.org Website: <http://www.torontofieldnaturalists.org>

See email addresses for specific queries at: <https://torontofieldnaturalists.org/about-tfn/contact-us/>

Address: 2 St. Clair Avenue West, 18th Floor, Toronto, ON M4V 1L5

TFN LECTURES

Each year TFN offers eight free talks by noted experts, exploring everything from nature in the city to global environmental issues. Talks are presented Sunday afternoons at 2:30 pm, from September to May. They are usually 45 minutes in length followed by discussion. Visitors are always welcome. TFN Members have access to recordings of past lectures via our *Members Only* website.

Learn about this month's lecture on the back page.

You may join the April lecture via Zoom. The link will be posted on the Lectures page of TFN's *Members Only* and public websites. If you prefer, you can dial in to the lecture by phone:

Dial in: 1 647 374 4685 Meeting ID: 852 7289 8993 Passcode 638203

Wildlife Photographer of the Year 2023

Exhibit at the ROM until May 26, 2024

Each year, aspiring photographers of all ages and skill levels submit tens of thousands of images in the annual international *Wildlife Photographer of the Year* competition organized by the Natural History Museum in London, UK. One hundred remarkable images from this year's competition – the best of the best – are currently on view at the Royal Ontario Museum.

FOCUS ON NATURE – TREES

The February challenge for TFN's Photography Group was Trees. This image was submitted by June D'Souza.

In late February one of my photographer friends and I decided to drive up to Nobleton to look for snow. We came across this beautiful cobalt blue sky and layers of different trees.

The scene reminded me of the Group of Seven paintings, so we pulled over to the side of the road and took several compositions at this location. The sky was stunning and reminiscent of a watercolour.

June D'Souza



If you would like to join the Photography Group, email photography@torontofieldnaturalists.org.

TFN LECTURE

Sunday, April 7 at 2:30 pm

Via Zoom. See page 15 for information

The Impacts of a Changing Climate on Toronto's Nature



Yuestas David



David Macleod

Yuestas David, TRCA, and David Macleod, City of Toronto, will address how climate change is affecting Toronto region's natural areas, including increasing heat, extreme weather and watershed flooding, and will explore strategies for increasing the region's resilience.

Upcoming Lecture:

May 5 (Zoom only) **The Biodiversity Value of Small Natural Spaces in Cities**

Dr. Lenore Fahrig, Chancellor's Professor of Biology and Gray Merriam Chair in Landscape Ecology at Carleton University, Ottawa