TORONTO FIELD NATURALIST

Number 685 May 2024

Scarlet Tanager 2022. Photo: Bill Cruttwell

REGULARS: See index on page 2

FEATURES

PRESIDENT'S REPORT

This year TFN has been part of the curriculum for a third year community-engaged learning course at the University of Toronto's Innis College, building on a relationship that our past president Ellen Schwartzel developed with Andrea L. Williams, Director, Writing & Rhetoric Program Associate Professor, Teaching Stream. This community partner project involves two groups of four students creating a blog series (two or three posts) and conducting a related social media mini campaign on the topics of *Engaging Young People with Nature* and *Equity of Access to Green Space*. At the beginning of the semester, I presented to the class about TFN, my own experience with nature in the city, and the topics we would like them to focus on.

I have met with the student groups over the last few months to answer questions and provide feedback on the concepts and content they have created. I am very happy that we chose to be part of this project. The work these students have produced is amazing, and their insights into how we can engage young people fill me with hope for the future. Once the course is complete we'll put their posts on our blog and use their social media campaigns to promote their blog posts. Please keep an eye out for these.

For more than a year now, in order to be compliant with changes to the Ontario Not-For-Profit Corporations Act (ONCA), our board has been working with lawyers to update our Corporate Objects, which outline how we operate as not-for-profit in line with our stated mandate, and our by-laws. We have completed the first stage in this process, which was to obtain the Canada Revenue Agency's approval of our updated Corporate Objects, confirming they are in line with their regulations required to maintain our not-for-profit status. We are now finalizing proposed changes to our by-laws. We will present these proposed changes to the membership for approval at our AGM on October 6th, 2024, following our October lecture on the Don River Mouth Restoration Project presented by Ken Dion from Waterfront Toronto. Stay tuned for more information in the September newsletter and posts on the *Members Only* website.

Finally, as this is the last newsletter issue before the summer break, please be sure to get out and experience the great outings arranged for the summer months by our walk leaders and outings committee. You can find each month's outings list on the *Members Only* website here: https://tfngo.to/memberswalks. We are always on the lookout for new walk leaders and shepherds. If you would like to learn more, please email the outings committee at walkscomm@torontofieldnaturalists.org.

The outings committee also needs new members, and a new chair to take over when I step down from that role in the fall. To learn more, email 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

REGULARS INDEX

MORE BUTTERNUTS TO BE PLANTED IN HONOUR OF TFN'S 100TH

To close our centennial celebrations, TFN's Stewardship Committee has acquired seven butternuts (certified and local to seed zone 37) that will be planted in our Jim Baillie Nature Reserve (JBNR) on Monday, May 6th, 2024! These trees will add to JBNR's overall population of endangered butternuts, a planting project that began on October 10, 2019

If you're interested in becoming a JBNR steward, please reach out to stewardship@torontofieldnaturalists.org or sign up for TFN Stewardship Announcements at https://tfngo.to/stewardship.

TFN LECTURE, MAY 5
YES, EVEN SMALL PATCHES OF NATURE MATTER!

Debates about protecting urban nature often follow frustrating patterns. First, nature advocates band together to protect or restore a wee bit of urban green. But officials then warn them there's little habitat value in small patches, so there's no point in protecting isolated bits. When nature groups then refocus to ask for large expanses and corridors of green to be protected, officials shake their heads sadly: the city can't possibly afford the cost; the land is needed for infrastructure or housing. Catch-22.

Luckily, thanks to Dr. Lenore Fahrig of Carleton University, we can now invoke compelling research to cut through those frustrating arguments. Her ground-breaking findings on the value of urban habitat patches garnered her Canada's top science prize in 2022 – the Herzberg Gold Medal and a front-page article in the Globe and Mail.

We are doubly lucky and honoured that Dr. Fahrig will be TFN's guest speaker in early May. So please mark your calendars now for Sunday afternoon, May 5, when Dr. Fahrig will give our culminating Zoom lecture of the spring 2024 season. The Zoom link for our May 5 lecture can be found on our lectures web page. This Zoom event will be free to all, so be sure to share it with your nature networks.

Ellen Schwartzel

BEING A RESPONSIBLE PET OWNER
Pets and wildlife don't mix!

It is estimated that cats kill 100-350 million birds every year in Canada. Even well-fed cats have an instinct to hunt and both cats and dogs chase, injure, orphan, or kill many species of wild animals. It is up to humans to ensure the safety of wildlife from pets.

Young animals are particularly vulnerable as they are less able to flee or defend themselves.

Most wild animals do not survive conflicts with pets and ultimately succumb to infection, puncture of vital organs, head trauma, or other painful injuries that may not be evident to the pet owner. Contact your local wildlife centre immediately for advice if an animal has been injured, caught, or orphaned by a pet.

Cat Birdwatching
Jean McGill
TFN Nature Arts Archive

Free roaming also exposes pets to many hazards including animal attacks, diseases, pests, parasites and vehicle collisions.

Keep pets leashed or enclosed in 'catios' or designated dog parks.

This is part of a series by TFN's Wildlife Protection Committee

LECTURE REPORT

Impacts of a Changing Climate on Toronto's Nature

April 7, 2024

Yuestas David, a Senior Research Scientist, TRCA and David Macleod, a senior environmental specialist with the City of Toronto

Bringing climate change impacts up close and local was the goal of TFN's expert panel for this lecture. Our moderator, Philip Jessup, deserves thanks for spearheading and organizing the event.

Yuestas David reminded us of the remarkable global warming observed over recent decades. For the time span 1880 to 2012, a global warming trend of about one degree Celsius has been observed. Since the 1980s, each decade has been warmer than the last. There is also concern that the average global temperature rise may be accelerating. Current trends suggest average global warming could reach four degrees Celsius by the end of this century.

Climate modellers are able to down-scale global climate models to reflect local geographies, including watersheds of Toronto and surrounding regions. Toronto's average temperature under "middle of the road" climate scenarios will see four degrees of warming by the end of the century. Toronto's annual total precipitation will increase too, since warmer air can hold more moisture. We also have the potential for more intense storms. Yuestas illustrated Toronto's temperature and rainfall trends using a visual graphic approach called "climate stripes." Flooding events are the inevitable outcomes when a mostly paved-over urban landscape receives more rainfall and more intense rain events. Toronto has already experienced recent floods with eye-watering insurable damage costs: the Don Valley flood of 2013, for example, cost $850 million in insurable damage.

Low impact development (LID) techniques that promote onsite precipitation absorption can alleviate the burden on downstream storm sewer infrastructure designed to handle stormwater runoff. Traditionally, stormwater systems, including culverts, have been sized based on historical rainfall data. However, changing rainfall patterns are challenging the capacity of these systems, often leading to road overflows and localized upstream flooding. There are ongoing efforts at TRCA and partner municipalities to evaluate these systems, identifying culverts that are particularly vulnerable to future flooding events. This critical information supports municipal planning and flood mitigation strategies.

David MacLeod focuses his work on strengthening resilience of city systems to extreme weather. He noted that nature-based actions are often key in combating climate change, with potential to not only cut greenhouse gases but also increase climate resilience. Increasing a city's tree canopy, for example, or growing a city's healthy green spaces are tactics to meet both goals. David stressed that a city has many different types of interdependent infrastructure systems. A single flood event can take out multiple kinds of critical infrastructure. For example, because of an undersized culvert, the Finch Avenue wash-out of 2005 exposed water mains, telecom and Toronto Hydro cables, and nearly severed two high pressure gas mains. The damage took 14 months to repair. David urged us to dial 311 to report any blocked culverts we observe, but never to try unblocking them ourselves.

Heat impacts are expected to grow for Toronto. By the 2030s, Toronto could see approximately 29 days per year of temperatures above 30 degrees Celsius. About half of Torontonians live in high-rises, and many buildings are older, without air conditioning. After a severe storm with power outages, air conditioning won't work in any case. For older people, heat can be particularly deadly. David asks us pointedly: "WHO is in your emergency kit? How are you connected with friends, neighbours and family? Have you discussed how you will check up on each other?" He urged us to be prepared when severe weather is forecast, including charging our mobile devices and making sure our car is topped up with fuel or power.

David rounded out his talk with examples of green infrastructure that the city is promoting, including rain barrels and rain gardens at the home-owner scale, and soil cells for healthier, more resilient street trees. He also highlighted the brand new re-naturalizing of the mouth of the Don River – a massive project that TFN will feature in our October 6 lecture.

To absorb the deeply practical take-aways for you and your household in case of flooding emergencies, please watch a recording of this fascinating panel at this link.

Ellen Schwartzel

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 May outings you might like to consider.

Col Samuel Smith Park, Spring Migrants, Walk 1 of 2

Leader: David Creelman
Thursday, May 2, 10 am
(Walk #2 in the series, May 27)

Meeting Point: Southeast corner of Lake Shore Blvd W and Kipling Ave (3145 Lake Shore Blvd W)

Walk Details: A 2.5 to 3-hr, 2 km walk over mostly unpaved, even surfaces with a few gentle slopes. While somewhat linear, we'll end up no more than a couple of hundred metres from an easy exit. The TTC is always nearby if you need to leave early.

Walk Description: A casual, but observant, walk through the park including areas adjoining Humber College. Spring migrants will be around, and we'll search for them.

TTC: #501 streetcar (or bus) along Lake Shore Blvd or the Kipling #44 and express #944 buses from Kipling subway station.

Parking: There are paid and unpaid parking lots around Col Sam Smith Park and Humber College campus. The numbered side streets also provide free parking.

Washrooms: Available along the way.

What to bring: Binoculars, water, snacks/lunch, layered clothing, appropriate footwear, and camera if desired. Even on a warm day, winds off the lake may make it colder near the water.

Walk Leader's Cell Number: 647-772-1953

Yellow Warbler. Photo: Bill Cruttwell

Aggie's Wildflowers 24th Annual Mother's Day Walk – Public

Leader: Madeleine McDowell
Sunday May 12 1:00 pm

Meeting Point: Lambton House, 4066 Old Dundas St.

Walk Details: A 2-hr circular walk of approximately 3 km over sidewalks and woodland paths. One gentle slope and six steps up to a road crossing.

Walk Description: Starting and ending at the Wildflower Specimen Garden based upon 1867/68 wildflower illustrations by Agnes Moodie Fitzgibbon. We will visit some of these wildflowers that remain in the yards, ravine and woods, and along the Humber River.

TTC: #55 Warren Park bus from Jane subway station stops at the door.

Parking: Limited street parking only.

Washrooms: At Lambton House

What to bring: Water, snacks, camera.

Phone number at Lambton House: 416-767-5472

Trout lilies photographed during 2022 Aggie's walk.
Photo: Jean Trivett

EXTRACTS FROM OUTINGS REPORTS

Betty Sutherland Trail Park, March 2. Leader: Zunaid Khan. We visited remnants of an old pump house, built in 1936, that was used to take water from the Don River to the Graydon Hall Manor estate. Then, following Betty Sutherland Trail along the river, we discussed the native, non-native and invasive plants and trees observed. We saw significant evidence of beaver activity. As we neared the 401 we discussed flood mitigation activities by the City as well as ongoing work by the Province along the collector lanes of the highway and its impact on nature in the area. Bird sightings included a Red-tailed Hawk, Mallards and Black-capped Chickadees.

Beaver activity in Betty Sutherland Trail Park. Photo: Leslie Padorr

Leslieville, March 16. Leader: Joanne Doucette. We talked about tree species in Lesliegrove Park, including silver maple, Scotch elm, English elm, pin oak and northern red oak. I lent participants magnifying glasses so they could examine the buds – an excellent icebreaker that was greeted with enthusiasm. We went to Maple Cottage and Maple Leaf Forever Park where we saw young trees that are the "children" of the *Maple Leaf Forever* tree that inspired Alexander Muir to write the song by that name. We stopped at George Leslie's post office and general store where Muir had first shared the poem and song with a group of friends around a pot-bellied stove, enjoying crackers, cheese and Scotch. In the Ashbridge's Estate we looked at more trees and I told about the archaeological dig there and some of the early history of the site. I shared stories including the Seneca story of the *Little Lost Crayfish*, the Anishnaabe story of the discovery of maple syrup, and stories of Leslie, Hastings and Ashbridge's Creeks that we crossed as well as different types of Indigenous trails. One surprise was an encounter with a white rabbit (a pet enjoying a romp in its front yard with its person).

Red-bellied Woodpecker. Photo: Cynthia Miller

High Park, March 17. Leaders: Ellen Schwartzel, shepherd Kathy Chung. St Patrick's Day treated us to classic Irish weather, with temperatures about 5 degrees, blustery and rapidly shifting from expanses of blue sky to intervals of driving snow, followed again by sun, blue skies and scudding clouds. A few Wood Ducks and Mallards displayed breeding season finery at Grenadier Pond where a Northern Shoveler also paddled about. A Red-bellied Woodpecker excavated a hole by the pathway, and a Great Blue Heron hunched stoically in the snow squall. Red-winged Blackbirds asserted their territories and cardinals were out in numbers. Careful shepherding by Kathy was appreciated, especially since the group split up during the snow squall. A sapsucker foraging on the ground was noted by several. The park thrummed in anticipation of spring, and we felt rejuvenated too. We did not see the super-rare Bullock's Oriole that had been sighted in recent days – a west coast bird blown far from home.

Nature arts – Royal Ontario Museum, March 19. Leader: Joanne Doucette. The ROM's free night is a madhouse, packed with people and incredibly noisy with long lineups for everything. That being said, the group had a great time and expressed a strong wish for more Nature Arts drawing groups, which I plan to offer. There were many interesting exhibits to draw on and from. I did a brief overview of exercises to help people draw, including gesture drawings and blind contour drawings, and we discussed some helpful books such as *Drawing on the Right Side of the Brain* by Betty Edwards. At the end we met in the cafe and reviewed our work – a warm and friendly group.

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MEET TFN'S NEWEST LIFETIME MEMBERS

The highest honour that TFN can bestow – a lifetime membership – is occasionally presented to recognize extraordinary contributions to the mission of our organization. This year, TFN extends this honour to two very special individuals: Bob Kortright and Wendy Rothwell. Bob and Wendy, each in distinct ways, have selflessly volunteered their talents, creativity and time over decades to help people connect with nature in the Toronto area.

Wendy Rothwell has capably led the editing of TFN's newsletter since 2016, and was co-editor with Jenny Bull for a prior decade. Our newsletter is among the most treasured benefits of TFN membership, with eight issues a year delivering species spotlights, environmental news, book reviews, photography, art and news about upcoming walks, lectures and other TFN events. In that critical sense, Wendy and her newsletter team have functioned as TFN's central nervous system, keeping us connected and engaged. Wendy's board contributions include serving as TFN president 2008-2010. Learn more about Wendy in the November 2019 issue of the newsletter, p. 8.

Most TFNers will already know Bob Kortright excels as a walk leader. He observes what many of us miss, drawing on a deep and encompassing knowledge of natural history. Bob has been leading TFN walks for almost 20 years. Bob also served many years on TFN's board, including a stint as president 2010-2012. Bob later served a 6-year tour of board duty as TFN's secretary-treasurer. Learn more about Bob's contributions in the September 2020 issue of the newsletter, p. 10.

TFN does not have a formal ceremony to induct its lifetime members, though perhaps we might invent one for our centennial year – something involving sassafras leaves, perhaps, or acorns…? In any case, we are all warmly encouraged to personally congratulate Bob Kortright and Wendy Rothwell, and thank them for so generously sharing their passion for nature.

Ellen Schwartzel

EXTRACTS *continued*

Humber Arboretum, March 24. Leader: Lillian Natalizio. The recent snow fall may have made it appear like winter, but some trees had already flowered or opened their pollen cones, including silver maple, cornelian-cherry, pussy willows, alders, and dawn redwood; and a few choke cherry leaf buds were greening. There was a thin skin of ice over the ponds, but Song Sparrows and Red-winged Blackbirds were singing. White-throated Sparrows had returned in numbers to the meadow, while a Red-bellied Woodpecker was busy in the woods. Other bird sightings included many juncos and robins, a Northern Mockingbird, two Red-tailed Hawks, dozens of Mallards and a few Canada Geese. A mink was seen moving along the far edge of one of the ponds.

Wilket Creek Trail and E. T. Seton Park, March 30. Leader: Zunaid Khan. We observed signs of spring including skunk cabbage. We discussed improvements to the ravine and trail done after Toronto Water worked on the sewer system, and erosion mitigation work the City and TRCA are doing in E. T. Seton Park. We observed work being done by Metrolinx for the Ontario Line, including cutting down a significant number of trees near the Ontario Science Centre. Sightings included 10 painted turtles sunning themselves on fallen trees in a pond, Red-tailed Hawks, American Crows, Turkey Vulture, American Goldfinches, White-breasted Nuthatch, Northern Cardinals, American Robins, Eastern Phoebe, Song Sparrow, Canada Geese, Golden-crowned Kinglets and Mallards.

WORLD TURTLE DAY; EPISODE #173 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 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.

May is a perfect time to reflect on World Turtle Day, featured in episode #173, with Rachel Fortier of the Toronto Zoo guiding us.

Rachel introduces turtles by sharing the tough stuff: of the roughly 300 species of turtles worldwide, over half are considered threatened. Almost all the threats relate to human impacts. Turtles mostly live in marshes, wetlands and swamps, and all those habitats are under pressure globally. In the Greater Toronto Area, over 90% of historical wetland habitats have been lost.

Blanding's turtle. Photo: Myrna Markovich

Nevertheless, Ontario remains home to eight species of turtles. In fact, every turtle species found across Canada can still be found within our province. On the bright side, therefore, Ontario retains a good diversity of the habitats needed by turtles. Unfortunately, every one of Ontario's turtle species is listed as "at risk" by the federal government's ranking system under its *Species at Risk Act* (SARA).

Rachel does not mince words about challenges for turtles. Road traffic is a key culprit, killing innumerable turtles each year as they leave their wetlands to find mates. What's more, Ontario's turtles typically need at least 10 years to reach sexual maturity. That's the minimum age for females to even begin laying eggs. The ancient patterns of their life history dictate that female turtles must survive to a great age (up to 100 years for some species) and must lay a batch of eggs yearly to have a reasonable chance of two offspring surviving to maturity. Road fatalities play havoc with that reproductive pattern.

Rachel's narrative then takes a hopeful turn, outlining the Blanding's Turtle Headstart Program hosted by the Toronto Zoo. The details of this program are fascinating and the long-term goal is pragmatic. They aim to produce between 100 and 150 breeding adults of Blanding's turtles by 2040 and release them into the Rouge National Park. Please listen to the full World Turtle Day Episode #173 here. (18 minutes)

Consider helping the Toronto Zoo's Turtle Program in some way. **May 23 is World Turtle Day.** Why not share TFN's turtle episode #173 with your social media contacts on that day to broaden awareness?

Ellen Schwartzel

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:

May 11	Join the Toronto Bird Celebration at Tommy Thompson Park to kick off the songbird migration.
June 8	Early butterflies and nesting songbirds in the Cottonwood Flats

JUNIOR NATURALISTS

STINGING NETTLE, BUTTERFLIES AND STEWARDSHIP

Last summer I participated in the Central Toronto Butterfly count. We had a wonderful time walking the paths of the Brick Works where the meadow was in full bloom. It was particularly fun to have folks point out the very small eastern tailed blue and common blue butterflies that are easily overlooked.

We biked up to Todmorden Mills and crossed Pottery Road into Sun Valley, the old Leaside garbage dump that has been transformed into a lovely mixed hardwood forest interspersed with meadow areas. As we approached one of these, we saw more and more red admiral butterflies. They were everywhere! The problem with a 'count' is that you are actually expected to count. How could we count so many?

Above: Red admiral butterfly.
Below: Question mark on stinging nettle.

It turned out the red admirals were coming from a meadow that is virtually a monoculture of stinging nettle. No wonder we saw so many! Stinging nettle is the host plant for red admiral caterpillars. They tie up the ends of stinging nettle leaves to make a nest, and feed in there. They go through several 'instars' and stinging nettle nests before reaching maturity. The remarkable thing is that the red admiral adults had found this field of nettle. Most years they do not overwinter in Ontario. They arrive every spring from the south and breed here, laying eggs on nettle plants. It was amazing that they could find such a perfect spot for their eggs.

Stinging nettle is in fact the larval host for three other spectacular brushfoot butterflies – eastern comma, Milbert's tortoiseshell and the question mark. Who knows how many moth caterpillars use it?

Stinging nettle is an unremarkable plant but has a pivotal ecosystem role. It has a green flower that is barely recognizable. If you brush against the leaves, you will suffer a sting that can last for quite a while and be very unpleasant. It is a long stringy plant that tends to flop over. This is not a plant you would choose for your pollinator garden, and it is one you might be tempted to rip out of a natural area you are stewarding. If it doesn't look like anything and hurts people, can it really be useful in the ecosystem?

This question can only be answered by careful observation and a deeper understanding of the life of any given plant. In the case of stinging nettle, the answer is a resounding "Yes, it does an astonishing amount of good!"

Many of us are involved in stewardship and planting native gardens. Our goal is to restore original ecosystems and support insect life. We expect insects will, in turn, provide food for other creatures like birds and mammals higher up the food chain. We have to listen and watch to find out what is actually going on to make sure we know how we can best help as gardeners and stewards.

You might want to join a nearby stewardship team this summer. It's lots of fun and can work for your whole family if you find the right location. There may be one right in your neighbourhood. Check out:

https://tfngo.to/httpstorontofieldnaturalistsorgstewardship-citizen-science
https://tfngo.to/volunteer-rouge
https://tfngo.to/volunteer-trca

Article and photos by Anne Purvis

HIGH PARK CATERPILLAR SURVEY

What began with two individuals in the summer of 2020 has since grown to roughly a dozen participants, all of whom enjoy the challenge of searching for caterpillars, both large and small, in High Park. To date, the survey has found 120 species of caterpillars (plus dozens more that we haven't been able to identify).

Given that over 1100 species of moths and butterflies have been recorded for High Park in recent years, there is lots of potential for adding species to the caterpillar survey tally. In several instances, a caterpillar seen during the survey was the first High Park record for a particular moth species.

The High Park Caterpillar Survey welcomes keen new participants – no experience necessary. The season runs from late May to early October, with sessions taking place after sundown using UV (ultraviolet) flashlights that are available for volunteers to borrow.

Some reasons to be part of the survey:

- Learn to identify dozens of caterpillar species and their host (food) plants.
- Marvel at the diversity of caterpillar sizes, shapes, colours, markings and behaviours.
- Hone your observational skills, as many caterpillars are camouflaged or well hidden.
- Discover a variety of other organisms that also fluoresce under UV light.
- Enjoy the quiet and stillness of the park at night.
- Regular attendees receive an 11x17-inch poster showcasing many of the species that have been found on the survey.

Silver-Spotted Skipper
(*Epargyreus clarus*) – butterfly

The striking orange "headlights" of this charismatic species are not eyes, but rather markings called eyespots. It is speculated that caterpillar species sporting eyespots might be snake mimics, intended to dissuade birds and other predators from attacking.

Waved Sphinx
(*Ceratomia undulosa*) – moth

This caterpillar can reach a substantial length – up to 8.5 cm. The adult moth is rarely attracted to lights and was never recorded by the High Park Moth Study (2016-2020). It is one of several species that the High Park Caterpillar Survey has been able to add to the moth list for High Park.

Article and photos by Richard Aaron

For further details, including how to volunteer and a photo gallery, go to
https://tfngo.to/highpark-caterpillar-survey

For additional photos of caterpillars found during the survey, visit
https://tfngo.to/highpark-caterpillars

Q&A: WHEN BIRDS LEAVE HOME

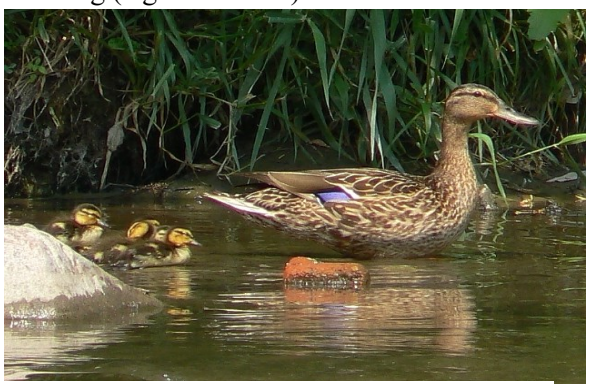
Questions: I'd like to know if, when birds learn to fly and leave the nest, they immediately fly far away or stay near their parents, forming a family group. And do siblings stay near each other? How does the family group mesh with the larger flock hierarchy?

Leslie Padorr

The short answer to all of these questions is, it depends on the kind of bird. And in many cases the answer is not known (at least not to me). More specifically:

1. When birds learn to fly, do they immediately fly away or stay near their parents forming a family group?

Most birds don't fly until they are fully grown, even though some species leave the nest within a day of hatching (e.g. waterfowl).



Female Mallard with newly hatched ducklings. Photo: Ken Sproule

Galliforms such as grouse, pheasants, quail and turkeys are exceptional in being able to fly well before they are fully grown. Some birds (ratites and many island species) are flightless. And some (nest parasites such as cowbirds, and megapodes of Australasia) never see their parents. Cowbirds are raised by other species in whose nest the cowbird laid the egg, and megapode eggs are incubated in mounds of decaying vegetation.

Female Yellow Warbler feeding young Brown-headed Cowbird. Photo: Ken Sproule

Female Ruby-throated Hummingbird. Photo: Ken Sproule.

Many young birds are raised only by the mother (e.g. hummingbirds) or father (e.g. Spotted Sandpiper, phalaropes) so do not see the other parent.

Spotted Sandpiper. Photo: Ken Sproule

Some join creches of juvenile birds (e.g. flamingos, eiders, ostriches) or gangs of adolescent birds (e.g. ravens), and may finish maturation away from adults. Adults of many arctic-breeding shorebird species migrate south before their young are ready to do so. In some cases the males leave before the young hatch (e.g. Pectoral Sandpipers); in other cases, such as Semi-palmated Sandpipers and phalaropes, males raise the young while the females migrate south.

So do any birds stay with their parents after they grow up?

Most do not – they are generally on their own when fully grown, which might be less than 10 days after hatching (e.g. warblers) or many months (albatrosses). At the opposite extreme some (Canada and scrub jays) stay with the family and help raise their parents' brood of the next year. Some stay with the family over the winter (e.g. chickadees) but are on their own when breeding season arrives. Many kinds of large birds spend at least a year maturing before attempting to breed.

continued on next page

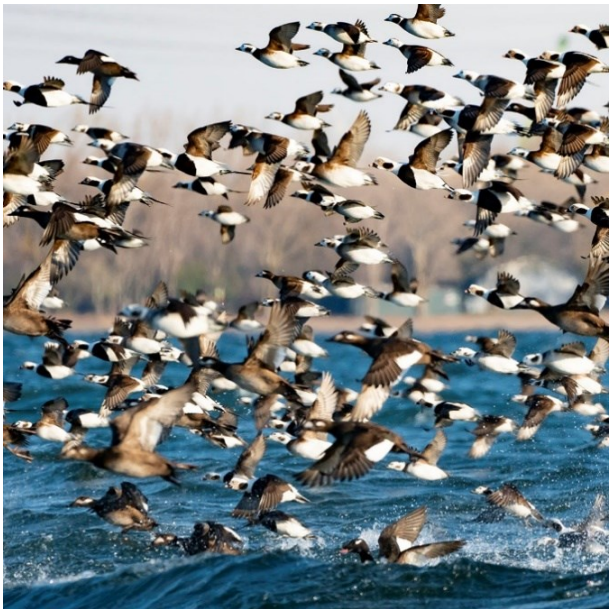
Q&A *continued*

2. Do siblings stay near each other (after they mature)?

In species that migrate in flocks, siblings might well migrate in the same flock. Some members of the flock might stay together through the winter. However, flocks often disperse when wintering territory is reached. Because inbreeding would be selected against, it seems likely that siblings would not normally nest near each other the following breeding season, even if they wintered together. In resident species, siblings wintering together might be common, but I have not seen studies on this.

3. How does the family group mesh with the larger flock hierarchy?

Flocking is a common behaviour, but is far from universal, and a hierarchy within the flock is also not universal. There may be pairs or families within a flock, or not. A flock is a gathering of birds that travel or forage together. Local examples include swallows gathering in hundreds or thousands in August in Tommy Thompson Park before migrating; and flocks of hundreds of Long-tailed Ducks that arrive on the Toronto waterfront from the Arctic in October to spend the winter, some of which associate freely with other species of waterfowl.



Flock of Long-tailed Ducks. Photo: Chris Sasaki

Dabbling ducks such as mallards, black ducks and gadwall pair up before December, and forage together throughout the winter, on their own or within a flock.

Pair of Mallards. Photo: Margaret Hall

Diving ducks (e.g. scaup, redheads, long-tailed ducks, bufflehead, goldeneye) pair up later, but generally before spring migration. Ruddy ducks pair up on the breeding grounds just before mating in spring.

Pair of Common Goldeneye. Photo: Ken Sproule

Flocks provide protection from predators (safety in numbers, more eyes to spot predators and give warning, etc,), and can enable greater success in foraging, as one bird alerts others to a concentration of food. On the other hand, dominant members of a flock may assert primary access to food to the detriment of lower ranking members. Many warblers in migration associate with local chickadees to benefit from their knowledge of both food sources and predation risks. Through the winter, chickadees, nuthatches and woodpeckers often forage together in mixed species flocks.

Bob Kortright

To find out more,

Google: *The Birder's Handbook, A field guide to the natural history of North American Birds*

All About Birds (https://www.allaboutbirds.org/news/)

Stokes guides to Bird Behaviour (3 volumes)

Ten Thousand Birds: Ornithology since Darwin

TREE OF THE MONTH: PAWPAW (*ASIMINA TRILOBA*)

Pawpaw is a rare tree in Ontario by dint of its strict confinement to the deciduous forest zone occupying the southernmost part of the province. It is also a member of a fairly exclusive ecological and evolutionary club here: a temperate outlier within a largely tropical family. In fact, the 2,100 species and 123 genera of the custard-apple family (Annonaceae) to which it belongs are overwhelmingly tropical, most being evergreen and completely intolerant of any touch of frost. While the north shore of Lake Erie may be the "banana belt" of Ontario, it is hardly frost free (at least for now), but deciduous pawpaw is perfectly hardy even here in Toronto, a little north of its natural range. This is despite the fact that, like most tropical trees, the bark is thin and smooth (except for numerous small pits, warts and shallow cracks) without the thick, corky ridges that insulate the trunks of most of our temperate and boreal origin trees. Continuing its apparent lack of commitment to a temperate climate, the winter twigs are tipped with naked buds without the tight protective embrace of the specialized bud scales found in most temperate trees, though the few, closely packed, partially developed leaves that make up the bud are densely clothed with an insulating layer of silky hairs.

From top: Pawpaw flowers, leafy shoot, fruit.
Photos: Ron Dengler

When the leaves grow out in the spring, dark green and glossy above, with numerous closely spaced side veins, they just look like leaves of a tropical tree. They are among our largest simple leaves, up to 30 cm long, and with the smooth (entire) margin that we associate with tropical trees, unlike the toothed, lobed, or compound leaves of more than 90% of our native and naturalized tree species. The shoots also continue to grow through much of the growing season, adding more and more leaves, unlike the majority of local trees which stop elongation and leaf production either right after expansion of the leaves that overwintered in the bud or after a few additional ones. With the regularly spaced leaves slightly drooping from their weight, the outstretched shoots of pawpaw give the tree a locally unique appearance.

Reproductive features of pawpaw are equally distinctive. It is the only local tree with carrion fly pollination. This trait is much more common in the tropics (though not overly common among trees) and culminates in two spectacular Indonesian herbaceous plants, the parasitic corpse flower (*Rafflesia arnoldii*), the world's largest flower, and the titan arum (*Amorphophallus titanium*), a gigantic relative of our jack-in-the-pulpit (*Arisaema triphyllum*), that draws worldwide news coverage on the rare occasions when it flowers in a botanical garden conservatory, usually pictured surrounded by people holding their noses from the stench. Pawpaw is much more weakly malodorous than this, but its smell of rotten meat is reinforced by the mottled purplish red coloration of the petals. Both the petals and sepals are in whorls of three, a trait shared only with sassafras, magnolia species and tulip tree among Ontario trees.

Given all the other distinctive features of pawpaw, it will come as no surprise that its fruits are unlike those of any other Ontario tree. They consist of a cluster of one to five berries produced from a single flower, individually the largest of any berries here, each some 5 to 15 cm long. As they mature to greenish yellow or brown, they have the kind of perfumy or resinous scent and taste that we associate with many tropical fruits but that is generally absent in our familiar temperate ones, most of which belong to the rose family. Since they are not generally self-fertilizing, isolated trees typically do not produce fruits.

continued on next page

HISTORICAL PROFILE: R. B. THOMSON

When Mr. Gregory and Dr. Jackes decided to float the idea for the Toronto Field Naturalists Club (TFNC) back in early June 1923, their first stop was Prof. Robert Boyd Thomson of the Department of Botany at the University of Toronto. Thomson was in his early 50s at the time, a tenured professor well on his way to becoming head of his department and well-connected within the greater community of both academic and amateur nature-lovers. In short, an excellent choice of advisor.

It was R. B. Thomson who was largely responsible for the prominent and talented assemblage of characters who showed up for the first official meeting of the TFNC a mere two weeks later. A week after that (June 19, 1923) Thomson agreed to serve as our very first President. If Gregory and Jackes were the spark of this organization, Thomson was its bellows.

In its early days, our organization was built around various special interest groups: birds, mammals, geology, etc. In 1926, Thomson is noted as chairman of the *Flower Group* which I must confess gave me a bit of a chuckle. Certainly, as a charter member of the Rose Society of Ontario (now the Canadian Rose Society) it would be fair to say Thomson enjoyed a pretty bloom as much as anyone, but by group name alone you'd think him a florist rather than a stalwart researcher who had worked for decades to solve botanical riddles both great and small.

Arthur Edward Cleeve Horne,
Portrait of Robert Boyd Thomson, FRSC,
oil on canvas.
University of Toronto Collection.

"The research of the late Professor ROBERT BOYD THOMSON and his resulting contributions to the field of morphology, anatomy, and embryology has presented a challenge to the botanical world. His work has presented new principles and encourages reconsideration of certain old orthodox views. So fundamental are his contributions and so vast is the list of data that has arisen out of his work that modern taxonomy cannot ignore them."

Norman W. Radforth, Robert Boyd Thomson's Morphological and Phylogenetical Studies Bearing on Gymnosperm Taxonomy, *Botanical Gazette*, Vol. 110, No. 1 (Sept. 1948).

continued on next page

TREE *continued*

While tolerant of drier soils in cultivation, pawpaw typically grows in low wet ground in the deciduous forest zone, often near streams and swamps. It is a small, understorey tree usually under 10 m tall and 20 cm in diameter, often appearing shrubby in habit. Despite its small stature, the large and abundant leaves of pawpaw allow it to weather the voracious appetites of the large caterpillars of the zebra swallowtail (*Eurytides* or *Neographium marcellus*), an annual immigrant butterfly from the eastern United States. The other 40 or so species of *Eurytides* are overwhelmingly from tropical America and their caterpillars almost all feed on foliage of other trees and shrubs in the Annonaceae. This again emphasizes how much the whole structure and biology of this tree reflects it tropical heritage.

James Eckenwalder

Pawpaw tree. Photo: Ron Dengler

HISTORIC PROFILE *continued*

In 1926, the chairman of our flower group assumed the Presidency of Section V (Biological Sciences) of the Royal Society of Canada. During his first presidential address he delivered his notes on *The Evolution of the Seed Habit in Plants*, some twenty years in the making, which provided insights and evidence into the origins of seed-bearing plants that is still referenced today. In subsequent years, his exploration of the occurrence and distribution of resin canals in conifers would influence our understanding of everything from the vestigial structures of spruce trees to taxonomic relationships within the whole of Coniferae. In the years just prior to his death in 1947, his research into the association between ovular food supply and variations in cone structures disrupted a century of anatomical understanding and helped earn him the 1945 Flavelle Medal. Certainly doesn't read like the CV of a florist.

Perhaps the most interesting biographical tidbit about R. B. Thomson, however, rests not in his accolades and accomplishments but, rather, in something he didn't do. He didn't manage to establish a Botanical Garden in Toronto – a real shocker given that he spent some three decades trying to do just that.

The idea of establishing a botanical garden at U of T was present from its very foundation. When the university issued its 999-year lease of Queen's Park to the City in 1859, the terms included a reservation of five acres in the northeast of the park for use as a botanical garden. When, in 1877, the rerouting of nearby roads encroached on this reserve, the U of T protected its right to revoke the lease should it ever want to build the garden (which it can still do, even today!). Soon after the university's golf course along Taddle Creek ravine was closed in 1903, then U of T President, James Loudon, proposed building the garden there, essentially in what we now call *Philosopher's Walk*. Obviously, this never came to fruition, but it did result in the Botany Department being given a small greenhouse, glassed-in lean-to and a tiny outdoor lot, right around #11 Queen's Park, for whatever purposes they might deem useful.

By 1909/1910, the duty of light bearer for a botanical garden had officially fallen to Thomson. Loudon's dream of building it in Taddle Creek ravine perished with the opening of the Royal Ontario Museum on March 19, 1914. The Great Depression prevented even entertaining alternative proposals until 1920 when the university, on paper, launched a botanical gardens project in cooperation with the City and Province. Again, nothing, although some modest greenhouses would be built at #5 and #11 Queen's Park in the ‘30s. Even interest from Toronto's philanthropic Wood family, a partnership which by the late 1930s seemed on track to establish a botanical garden where Glendon Campus now stands, failed to materialize during his lifetime. Edwards Gardens, the nucleus of today's Toronto Botanical Garden, opened in 1956, nearly a decade after Thomson's death.

Jason Ramsay-Brown

NATIVE PLANT SALES 2024

Evergreen Brick Works Garden Market. The garden centre is fully stocked with Toronto’s widest selection of Ontario native flowers, plants and trees. Daily 10 am to 5 pm https://tfngo.to/brickworksgardenmarket

LEAF has many garden kits including native plants, shrubs and trees available for sale. Order early as they run out quickly. https://tfngo.to/leafnativeplants

North American Native Plant Society, at Toronto Botanical Garden, May 18, 2024, 9:30 am to 2:30 pm. https://tfngo.to/nanpsplantsale

Parkdale Horticultural Society, Plant Fair, May 25, 2024, 10 am to 12 noon at Roncesvalles United Church, 240 Roncesvalles Ave.

Toronto Botanical Garden, May 11 and 12, 2024, 10 am to 4 pm. https://tfngo.to/tbgplantsale

REPORT OF THE NOMINATING COMMITTEE

The nominating committee recommends this slate of nominees to the Board for the year 2024-2025, with the AGM to be scheduled for October 6, 2024.

President: Lynn Miller **Vice President:** TBD
Past President: Zunaid Khan **Secretary-Treasurer:** Fatima Abrar

Directors:

Due to retire in 2025: Donata Frank, Jessica Iraci, Lynn Short, Lillian Natalizio, Diana Wilson
Due to retire in 2026: Philip Jessup, Zunaid Khan, Lam Tran

TFN by-law No. 1, Section 5(g) provides that "any three members may submit, in writing, to the Secretary-Treasurer by July 15 the name of a candidate accompanied by the written consent of the nominee. Such nominations shall be published in the September issue of the newsletter and the names of such nominees shall be added to the list of candidates submitted by the Nominating Committee."

Nominations should be sent to the TFN mailing address: Toronto Field Naturalists, 2 St. Clair Avenue West, 18th Floor, Toronto, Ontario, M4V 1L5

According to TFN by-law No.1, Section 5(b), "If an election is required it shall be by ballot mailed to all members. Ballots may be mailed to the auditor or deposited at the Annual General Meeting prior to the commencement of the meeting. The ballots will be tabulated by the auditor who shall announce the results.

MEMBERSHIP RENEWALS

As announced in the May 2023 newsletter, your TFN membership comes up for renewal a year from the date you joined or last renewed. As your renewal date approaches, you will receive a reminder by email. If you have questions or concerns, go to the *Need Help* section of the *Members Only* website: https://members.torontofieldnaturalists.org/help/

If you still have questions, please reach out to membership@torontofieldnaturalists.org for assistance.

WANTED! TFN PUBLICATIONS FROM THE PAST

Over the years, TFN Archives volunteers have digitized all of the back issues of our newsletter (https://tfngo.to/nlbrowse), our historic ravine surveys (https://tfngo.to/studies), and an assortment of other TFN publications. We're hungry for more!

Right now, we're most interested in obtaining copies of *The Ontario Field Biologist* and *The Intermediate Naturalist* newsletters, but if you have any old TFN publications you're willing to part with, please let us know! You can reach us at archives@torontofieldnaturalists.org.

WEATHER (THIS TIME LAST YEAR)

May 2023

May was a strange month featuring a largely stationary high-pressure system that brought abundant sunshine but variable temperatures. Rainfall was below normal but not drastically so. The high pressure brought heat to northern Ontario, eventually reaching Toronto, and a topsy-turvy contrast well to the south, where there was persistent cool rainy weather in the Carolinas. Meanwhile, forest fire smoke from Alberta was visible in the sky for much of the middle of the month.

The first part of May continued the unsettled weather of April, with occasional showers and fairly cool weather. An intrusion of warm air followed, with temperatures rising into the high twenties on May 12th (Oakville reached 31˚). This air mass came from out west and brought with it forest fire smoke in the upper atmosphere. The smoke blocked some of the sunlight and actually cooled things down a bit. A weather system brought cold weather on the 17th-18th with some freezing temperatures and slight vegetation damage in outlying areas. Some rain arrived on the 19th-20th (over the Victoria Day weekend), followed by cooling again as the big high-pressure system arrived. This brought day-to-day warming, attaining the highest temperatures of the month on the 31st even while cool, unsettled weather persisted over the southern USA.

Smoke haze over the Toronto skyline from the Don Valley on June 30, 2023. Photo: Charlotte Broome

Monthly average temperatures were just 0.2˚ below the 30-year average both downtown and at Pearson Airport (14.3˚ and 13.5˚ respectively). Persistent clear skies and dry air most of the time meant that daytime highs were slightly above normal and nighttime lows slightly below normal. The highest reading was 32.5˚ in Oakville on the 31st (Pearson reached 30.5˚ and downtown 30.2˚). The lowest reading was -1.3˚ at King City on the 18th (downtown dropped to 2.8˚ and Pearson to 0.9˚ on the 17th).

Rainfall was 47.9 mm downtown and 58.8 mm at Pearson. The thirty-year averages are 73.1 and 74.1 mm respectively.

Spring 2023 as a whole was slightly wetter (by about 50 mm) and warmer than average (by about 0.5˚) even though May was drier and marginally cooler than average.

June 2023

June featured near-normal temperatures and began to trend wet after the first week. The monthly mean temperatures were exactly equal to the 30-year average (19.8˚ downtown and 19.4˚ at Pearson). There was some hot weather, mostly early in the month. On June 2, downtown attained 32.8˚ and Pearson 32.3˚. Monthly minimums generally stayed above 10˚ except in rural outlying areas, with 11.7˚ downtown on the 13th and 10.6˚ at Pearson on the 9th.

Total rainfall was 103.2 mm downtown and 108.0 mm at Pearson, about 20-30 mm above normal. Some areas had heavy rain in the 30-50 mm range on the 12th and 26th.

In fact, these statistics are deceptive because June was a very strange month indeed. The big story was wildfire smoke. Canada experienced its worst forest fire season on record in terms of area; this was already clear by the end of June. Forest fires occurred in British Columbia, northern Quebec and Nova Scotia. Rains were largely restricted to southern Ontario. The huge fires in the boreal forest of Quebec sent plumes of smoke south across eastern North America, affecting not only Toronto but also New York City and eventually Europe. Air quality in Toronto was severely affected on June 5th-6th, on the 16th, and again on the 28th. (I recall occasional days of elevated hazy smoke in the past but never serious air quality impacts.) It was particularly odd when rain would be followed by smoke and cool temperatures as happened mid-month.

continued on next page

WEATHER *continued*

July 2023

July was a humid month with seasonable temperatures and frequent rains. The extreme heat or flooding that affected many parts of the world largely spared Toronto, although we had 17 days with measurable rainfall. Between the rains, there were still episodes of forest fire smoke, though less intense than in June.

The monthly mean temperature was almost exactly normal, with 22.7˚ downtown and 22.1˚ at Pearson. However, dew point temperatures (an accurate measure of humidity), were consistently in the high teens, which meant it was usually muggy. Highs barely attained the low thirties on 5-6 days: the 4th-6th, 11th, and 26th-28th. The highest reading was 34.0˚ at Oakville on the 4th, although the rest of the GTA was in the 31˚to 32˚ range. The lowest readings at Pearson were 12.5˚ on July 12th and 12.6˚ on July 30th.

As had been the case with June, rainfall was about 20-30 mm above normal: 98.2 mm downtown (normal is 72.8 mm), and 103.8 mm at Pearson (normal is 73.9 mm). It appeared to be slightly heavier in northern sections of the city, but was well distributed through the month.

August 2023

Toronto escaped this summer's global climate trends in August. It was cooler and drier than normal: an overall pleasant month. The upper-level wind patterns also tended to keep wildfire smoke away.

Hot weather stayed mostly to our south and west, and we never attained 30˚ the entire month (this temperature was attained barely in Oakville). At Pearson, this was the first time for August since 2008. In addition, the first significant cold front of the season came August 17th-18th, and the latter part of the month featured a few days that barely reached 20˚. The overnight minimum on the 31st went below 10˚ in most parts of the GTA; it dropped to 9.5˚ at Pearson, the lowest August temperature there since 2004.

The monthly mean temperature downtown was 20.7˚, while it was 20.1˚ at Pearson: in both cases 1.3˚ below the 30-year running average. It was the coolest August since 2004 downtown and since 2017 at Pearson.

Rainfall was evenly distributed through the month, but light, consisting mostly of rapidly moving thunderstorms that did not dump torrential amounts. We had 45.9 mm of rain downtown and 59.2 mm at Pearson – about 15-20 mm below normal. This helped to dry out some fields that were excessively wet earlier in the summer.

Summary

The summer as a whole was characterized by moderate temperatures and slightly above normal precipitation (heavier rains in June and July were partially offset by August's drier conditions). Pearson's June to August average was 20.5˚, about 0.5˚ below the 30-year average. Precipitation was 271.0 mm, with the 30-year average being 217.1 mm. This made it the wettest summer since 2013, but far from the record wettest by a long shot.

Gavin Miller

Thank you to new TFN member Mary Rykov for sharing this poem:

falling

I am falling, I think,
in love with you, but
on reflection reason
I'm just falling
for morning birdsong
and wild spring flowers
in the wadi beyond your gate

some conditions apply, Inanna Publications 2020, p. 48. Puerto Rican Canadian María Helena Auerbach Rykov lives and writes in Tkaronto.

MESSAGE FROM THE EDITOR

Thank you to all who have generously contributed articles, poems, images, reports, book reviews and nature stories to our newsletter this year. And thank you, members of the newsletter committee, for your dedication in ensuring an accurate and attractive publication.

As you are out enjoying nature during the summer, please remember to share your experiences with fellow members. Submit your stories and photos to: newsletter@torontofieldnaturalists.org

Wendy Rothwell

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.

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 September: Aug 1

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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 can access recordings of past lectures via our *Members Only* website.

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

You may join the May 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: 860 4226 4336 Passcode 415972

BRODIE CLUB LECTURE

Tuesday, May 28 at 7:30 pm
Ramsay-Wright Laboratories, 25 Harbord Street, Room 432

Guests are invited to attend this lecture by David Agro, Architect and Conservationist

Breeding bird survey results at a 16-year restoration site in Norfolk County

The Brodie Club, an institution at University of Toronto for 100 years, consists of academics, naturalists, government biologists and some students.

FOCUS ON NATURE – LINES AND CURVES

The March challenge for TFN's Photography Group was Lines and Curves. This stunning image entitled *Beach Find* was submitted by Lillian Natalizio.

The key to this photo was getting to the beach at Marie Curtis Park early in the morning while the sand was still relatively undisturbed. This feather was one of a few that had been freshly dropped, and also caught the sunlight with a clean background.

I got low and used a macro lens at f/11. In post processing I applied a high contrast blue filter for the black and white conversion, and made other minor exposure adjustments to increase the contrast.

Lillian Natalizio

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

TFN LECTURE

Sunday, May 5 at 2:30 pm

Via Zoom. See page 19 for information

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 and celebrated researcher will share her ground-breaking findings on the value of urban habitat patches.

See article on page 3.

Upcoming Lectures:

Sept 8: (tentative): Climate Action: What We Can Do at Home

Oct 6: Renaturalizing the Don Mouth lands; Ken Dion, Waterfront Toronto