TORONTO FIELD NATURALIST

Number 693 May 2025

Giant Swallowtail, 2018. Photo: Lynn Pady

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PRESIDENT'S REPORT

I want to thank everyone who replied to our survey. We now have a wealth of information to sift through. Board members and program leaders are going to meet for a day-long planning workshop to process the information and make decisions on our future.

I can immediately address two frequent comments from the survey:

Afternoon walks – We are encouraging walk leaders to offer more of these. Of course, during the summer it will be difficult as it is too hot in the afternoon.

In-person events – We have a new group of people looking into ways to increase this type of social interaction for members. More to come on this.

I am happy to announce that there is a new page on our website where you can search our back catalogue of *Toronto Nature Now* radio/podcast episodes. With 193 episodes on subjects such as birds, citizen science, ecosystems, health, places, plants, restoration, stewardship, water, and more, you are bound to find something of interest. Each episode is around 15-20 minutes long. Link: https://tfngo.to/torontonaturenow

In this newsletter, you can read about the ending of James Eckenwalder's *Tree of the Month* newsletter series after 60 articles! Many thanks to James for this outstanding series and for keeping it going since 2017. That's quite the achievement!

TFN members, particularly new members, may want to attend the ravine talk that Past President Ellen Schwartzel presents at libraries throughout the city. Toronto's ravine landscapes are not just a sanctuary for wildlife; they also protect the city against flooding and allow us to enjoy nature at our doorsteps. The presentation by the Toronto Field Naturalists shares how the ravines are changing over time, how they are responding to numerous pressures, and how you can explore and help protect them.

Upcoming talks are:

June 3, 2:00 – 3:00 pm: Yorkville Library
June 12, 1:30 – 2:30 pm: S Walter Stewart Library
June 26, 6:30 – 7:30 pm: Deer Park Library

I hope you enjoy your spring and summer. See you on the trails!

Lynn Miller
president@torontofieldnaturalists.org

HELP WANTED

Here is your chance to meet some fellow nature lovers while representing the TFN!

Volunteer to help staff our outreach table and display at these spring events. Shifts are two hours long, which leaves plenty of time for you to enjoy the festivals yourself. And with at least two volunteers per shift, you won't get lonely during down times.

Col Sam Smith Park Butterfly Festival, 2014.
Photo: Ron Dengler

Eco Fair @ Beach United Church,
Saturday, May 3, 10am – 2pm

Tommy Thompson Park Spring Bird Festival,
Saturday, May 10, 10am – 2pm

Colonel Samuel Smith Spring Bird Festival,
Saturday, May 24, 10am – 2pm

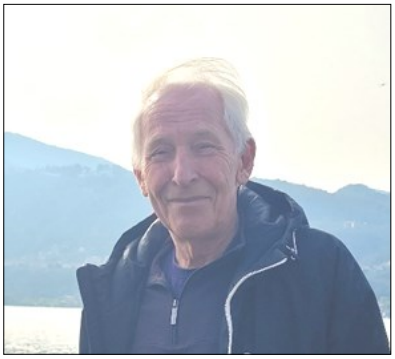
Contact volunteering@torontofieldnaturalists.org for more information.

2025 TFN LIFETIME AWARD

The Nomination Committee and the Board are happy to announce that Nancy Dengler and Charles Bruce-Thompson are this year's recipients of the TFN Lifetime Award. This award recognizes volunteers who have made significant and sustained contributions to TFN and its mandate for at least 10 years. Recipients of this award become lifetime members of TFN. Thanks to both Nancy and Bruce for everything they have done and continue to do in support of TFN.

Nancy joined TFN after retiring from a busy academic career as a botany professor at the University of Toronto. She respected TFN's advocacy work and breadth of interests in the natural world, but was a bit reluctant to jump in. She began by leading walks in the Glendon Forest and, in short order, Pinky Franklin recruited her for the Board. Nancy served as President from 2014-2016, all the while continuing to lead walks.

Nancy also managed the Sunday lecture series for a decade and has enriched our newsletter with fascinating articles on botanical subjects.



Bruce discovered the Toronto Field Naturalists through a simple online search. TFN opened his eyes to the city's extensive network of natural ravines. His entry into volunteering was coordinating TFN walks for east Toronto, which helped him get to know the TFN community. Soon, he found himself leading walks too, initially as a way to fill walk slots. Bruce's willingness to stretch into new roles led him onto the TFN Board and then to take on the responsibility of President from 2016-2018. Bruce has been a long standing and enthusiastic member of our Stewardship team, volunteering at Cottonwood Flats and our nature reserves.

Zunaid Khan
Chair, Nomination Committee

LECTURES COMMITTEE MEMBER WANTED

We are looking for a detail-oriented person to join our Lecture Committee to help keep track of the deadlines and specifics of our line-up of guest speakers. You will need to be able to edit Word and Excel files and communicate by email.

Contact volunteering@torontofieldnaturalists.org for more information.

MESSAGE FROM THE EDITOR

Thank you to all who have contributed articles, images, reports and book reviews during the past year. This is **your** newsletter, a place where members can ask questions, express concerns, and share nature experiences in our *Keeping in Touch* column. Please email your submissions to newsletter@torontofieldnaturalists.org

Thank you also to the members of the newsletter committee for your dedication and attention to detail, helping us to produce an accurate and attractive publication.

Wendy Rothwell

LECTURE REPORT

Advances in Forest Therapy and Human Health

April 6, 2025

Dr. Guangyu Wang, University of British Columbia and certified forest therapist, and Beth Foster, a certified forest therapist with a Master's in Education

In this lecture Dr. Guangyu Wang explored the growing field of forest therapy and its benefits to human health.

Forest bathing, also known as *shinrin-yoku*, originated in Japan in 1982. It involves immersing yourself in a forest environment in a way that fully engages all your senses. Scientific research has shown that forest bathing can lower blood pressure, reduce the risk of cardiovascular disease, and increase the activity of natural killer (NK) cells, which help fight viruses and cancer.

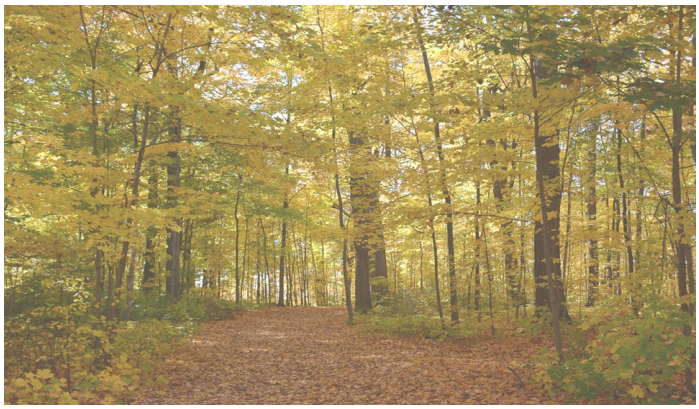
Indigenous and ancient cultures have long recognized the significance of forests in mythology, spirituality and traditional medicine. Today, with one in every eight people worldwide experiencing a mental health disorder – and over 50% of the population living in urban environments – the need for nature-based healing is more relevant than ever. Urban living and workplace stress continue to significantly impact mental well-being.

The science of forest therapy is multidisciplinary, bridging life sciences, environmental science, and physiology. Numerous studies have shown that spending time in forests significantly reduces cortisol (a primary stress hormone), along with lowering heart rate and blood pressure. Certain trees even emit natural compounds known as phytoncides which help stimulate the human immune system.

Psychologically, forest therapy has been linked to reduced anxiety and depression with effects that can last for days or even weeks. Activities often include meditation, mindful walking, breathing exercises, sharing circles, and sensory engagement practices, all designed to encourage mindfulness and presence.

Forest therapy is now practised around the globe, including in Germany, Japan, South Korea, China, and Spain. The Akasawa Forest in Japan, considered the birthplace of forest therapy, has been successfully reforested and now welcomes approximately 140,000 visitors each year. Visitors typically pay around $500 for a one-day, two-night retreat, supported by a robust forest therapy tourism initiative.

In British Columbia, doctors can even prescribe two hours of nature per week to patients struggling with mental health issues.



Leafy Path. Photo: Marianne Cruttwell

Forest Bathing with Beth Foster

Beth Foster's approach to forest bathing goes beyond simply being in nature. It's about forming a meaningful connection with the natural world and with like-minded individuals. A typical forest bathing walk with Beth lasts 2.5 to 3 hours and includes a series of guided invitations to help participants slow down and engage their senses.

As part of the *Pleasures of Presence* experience, Beth guided attendees through a virtual forest walk. To begin, participants were asked to find a quiet, comfortable space where they wouldn't be disturbed. They were invited to choose a natural item, such as a rock, leaf or flower, or to simply sit by a window with a view of the outdoors.

The exercise began with closing the eyes and turning inward, focusing on sensory awareness: What do you feel, hear, smell, or sense? Participants were encouraged to stay in this quiet observation for about 15 minutes.

At the end of the session, Beth posed the only question asked during a forest bathing walk: **"What are you noticing?"**

This moment of reflection is just a small glimpse into the depth and beauty of forest bathing.

Peter Smith

Members may view the lecture at TFN April 2025 lecture. Forest Therapy

Explore forest bathing opportunities in your area:

Beth Foster offers forest bathing walks in the Barrie area, many of which are free.

Visit forestbathingwithbeth.com for more information.

Three self-guided forest therapy walks are provided by the municipality of Markham

City of Markham Forest Therapy Info

Toronto's High Park offers guided forest bathing walks.

High Park Forest Bathing Eventbrite

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 can download a calendar file (.ics) that will add all walks for a month into your calendar.

You are welcome to bring one non-member guest. Listed below are several May and June outings you might like to consider. **Please refer to the website for meeting locations and other details.**

Going Green at U of T's St George Campus
Leaders: Ellen Schwartzel and Paul Overy
Thursday, May 1, 10 am

Walk Description: New TFN members are especially welcome to join this tour focusing on the natural setting of St George Campus. In 2024, a UK-based ranking entity designated U of T the "world's most sustainable university". During the walk, staff of the university's Sustainability Office will update us on highlights of their work including bird-safe window retrofits, a large geo-exchange system under King's College Circle and Project LEAP, designed to reduce campus greenhouse gas emissions by half.

We'll discuss U of T's development and its roles in scientific endeavours. We'll also see splendid trees, spring blossoms and extensive new native landscape plantings around King's College Circle.

Afterwards, participants are welcome to share coffee and conversation with other TFN members at the Koerner Hall café.

Walk Details: A 2 hr, 1.5-km linear walk on mostly paved surfaces, fairly flat, with some stairs and curbs.

G Ross Lord Park – Native Cavity-nesting Birds
Leaders: Kayoko Smith, Deirdre and Robert Bean
Saturday, May 31, 9 am

Walk Description: We will observe native birds in tree cavities and nest boxes. There will be a demonstration using a long snake camera on mock-up bird boxes and sample nest box types and placements. We will hunt for spring migrants in the park and also identify shrubs and other plants that attract birds. Toronto Ornithological Club will join us for this walk, and we will talk about ethical bird watching.

Walk Details: A 4 hr, 6.5-km circular walk on mostly unpaved but even surfaces, flat with some gentle slopes including a muddy uneven narrow path.

Guild Inn and Gardens – Wildflowers
Leaders: Jim and Jane Goad
Sunday, May 25, 2:30 pm

Walk Description: We'll begin walking in a wooded area bordering the bluffs above Lake Ontario. In a natural woodland setting there are many woodpeckers and other birds. If we are lucky, resident deer may be seen. These woods are spotted with many trilliums and other spring wildflowers. One low-lying area hosts copious quantities of marsh marigolds that we hope will be in bloom. On the property there is a small art gallery and formal gardens with a variety of sculptures and remnants of historic Canadian buildings.

Walk Details: A 1 to 1.5 hr, 2.5-km circular walk on mostly flat but unmaintained paths with a couple of low short hills.

High Park – Caterpillar Count, Citizen Science
Leaders: Richard Aaron and Sourav Ghosh
Tuesday, June 10, 9:15 pm

Walk Description: An opportunity to experience the High Park Caterpillar Survey (a nighttime citizen science project with five years under its belt and 164 species so far) with the possibility of getting involved.

Using ultraviolet flashlights, we hope to see a dozen or more species of caterpillars plus many other things that fluoresce under UV light. To learn more about this walk, see article in the April issue of the TFN newsletter.

Walk Details: A 2.75 hr, 3-km circular walk on mostly unpaved but even surfaces with gentle slopes and no stairs. Walk is limited to 12 participants age 18+. Pre-registration is required (see details on TFN *Members Only* website). At end of walk, leaders will offer to escort participants to High Park subway station.

TORONTO: A BIRD-FRIENDLY CITY?

Cities: Our space, their space

Human cities are not built for birds. They are built to optimize the human activities of accessing food, housing, working and raising children. All our subdivisions, roads, parking lots and other infrastructure are about meeting human needs.

Shorelines and deltas, river valleys and wetlands are great places for humans to source food and water, dispose of waste, and reach more distant places to exchange goods. That's why humans have historically chosen waterfront locations to settle down and build cities. As it happens, birds find these areas convenient for their lifestyle too. They are trying to carry out the same activities as humans are, in the same spaces – searching for food, building homes, raising young and connecting to more distant places.

We usually want birds in our space. We love their calls, connect with their lives, and are stunned by their brilliant colours and mesmerized by their unique abilities. But we are also in competition with them. We use up their space and threaten them. Birds collide with our windows, are prey for our outdoor cats and get killed by our rodenticides. Our plastic garbage ends up in their stomachs and nests. Their habitat is decimated. There is a massive shortage of food and housing for birds in our cities.

Cities around the world

Cities around the world have tried different and highly interesting ways to integrate birds into the built environment. Wellington, New Zealand, created a gigantic exclosure called Zealandia (https://tfngo.to/zealandia) on the edge of the city with a 9-km fence designed to keep out predators of birds. It is intended that birds populating this exclosure will spread into the city.

Yellow Warbler. Photo: Marianne Cruttwell

In Singapore most folks are housed in vertical towers. These towers are required to have at least one green wall for birds, serving as corridors between habitats. San Francisco has experimented with bird-safe windows and architecture, and proved that bird-friendly does not equal boring. (*The Bird-Friendly City*, Timothy Beatley, 2020)

Golden-crowned Kinglet. Photo: Margaret Hall

So, what has Toronto done? Is Toronto bird-friendly? Early Gains and Progress.

Window Collisions: Window strikes kill 25 million birds a year across Canada. Toronto got off to an early start preventing window strikes. The *Fatal Lights Awareness Program* (FLAP), a Toronto, grassroots organization founded in 1993, does on-the-ground bird rescue, data collection, advocacy and education. Since they started collecting data, they have documented 99,000 bird deaths in Toronto through window strikes. It is largely due to FLAP that Toronto was one of the first North American cities to have a mandatory Green standard for new-builds that included bird-safe windows. The Toronto Green Standard (TGS) became part of Toronto's building code in 2010, but has gone through many iterations. What we have today is TGS-V4, a law that requires all new buildings needing a Site Plan (but not existing buildings and not houses), to install 85% bird-friendly glass on the 'first (most exterior) surface', up to a height of 16 m. This is finally a law that delivers effective deterrence, although FLAP is advocating for 90% coverage to reduce the risk of ground floor windows being excluded. It also advocates a requirement that existing buildings be retrofitted with bird-friendly glass.

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BIRD-FRIENDLY CITY *continued*

Habitat Creation: Over several decades, Toronto and Region Conservation Authority (TRCA) has organized some remarkable ecological restoration projects creating bird habitat – at Tommy Thompson Park, the Meadoway, and Don Mouth Naturalization.

Habitat Restoration: Efforts have also been necessary to save native forests, mostly found in Toronto's ravines. TFN has played a big role in ravine restoration through the City's Community Stewardship Program. In the last five years, an initiative by Daniels Forestry (UofT) and Toronto Nature Stewards (TNS) has created opportunities for citizens to be involved in stewardship. Volunteer Lead Stewards are trained and permitted to lead a team of up to ten people to remove a growing list of invasive plants on 47 approved sites around the city. Lead Stewards are able to work independently, having taken a city-approved training course. However, they are not allowed to work in areas designated Environmentally Sensitive (ESAs), which abut many sites that they steward. Steps are being taken to get Management Plans for ESAs, as they are deeply degraded, and this may open doors. Also, TNS Lead Stewards are allowed to plant only native herbaceous plants, not woody stems.

Walter Klem, a renowned bird-friendly landscape architect from Pennsylvania, is quoted as saying about the Toronto ravines, *"*One of the missing pieces in the puzzle isn't really the trees so much as it is the second story shrubs, or more accurately the lack of them. As soon as you establish the shrubs, my gosh, the spring migration of warblers and thrushes and ovenbirds is unbelievable.*" (The Bird-friendly City,* pg. 157*)* Anyone who has stewarded Toronto ravines would agree that the forest understory is ravaged by erosion, invasives, trampling and garbage.

Black and White Warbler. Photo: Ken Sproule

American Redstart. Photo: Bill Cruttwell

Cat Predation: There has also been progress in this area of concern. Toronto Animal Services recommends prominently on the City website that outdoor cats be kept in a catio (cat patio). They also run a Trap-Neuter-Release program aimed to keep the feral cat population under control. In 2022, a No-Roam Cat Bylaw was proposed in Toronto, deputations being given by a number of organizations, but it was opposed by then-Mayor John Tory and by all but one of the city councillors.

Then what? Nature Canada's Bird-Friendly Certification Program

In 2021, Nature Canada introduced a bird-friendly certification program (https://tfngo.to/bird-friendly-certification) to encourage Canadian cities to opt for a more comprehensive formal bird-friendly status. It has the potential to gather significant information about all initiatives being taken on in a city, potentially stimulating more actions to be taken. This status is based on a set of criteria, for which points are awarded. Anything 'bird-friendly' being done in the city by government or by private groups can earn points based on which a city may be awarded Entry, Intermediate or High status in the program. Hopefully the status becomes part of a city's self-identity, something to strive for and protect.

Nature Canada has set six mandatory criteria including, for example, that the city must have some public programing around World Migratory Bird Day in May and must post the city's bird-friendly status prominently on its website. The remaining non-mandatory criteria, which will always be a work-in-progress, fall into three large categories:

1) **Hazard Reduction**. Points in this category are awarded for actions to reduce window collisions by birds, avoid cat predation, eliminate pesticide use, and engage in climate action.

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BIRD-FRIENDLY CITY *continued*

2) **Habitat Conservation and Restoration**. Points are awarded here for everything from large restoration projects, to managing the tree canopy, to retaining snags, and pollinator gardening.

3) **Outreach and Education**. This category focuses on communications channels to get birds on the radar of the average citizen, such as school and extra-curricular programs, billboards, local birding organizations, birding opportunities in parks and ravines, and citizen science projects.

Is Toronto Bird-Friendly by Nature Canada's BFCP standards?

Toronto, with its long history of bird-friendly actions and policy, formed a Bird Team comprised of members from most organizations involved in bird conservation in the city. It submitted its first application in March 2021. Toronto fulfilled many criteria, based on the initiatives outlined above, along with others in the areas of climate action, plastic garbage reduction and public events to promote birds. Toronto was awarded a High status.

Toronto Demoted

By the time the second application was submitted in August 2023, lack of progress in certain areas had taken its toll. Nature Canada had changed the criteria for High status, weighting cat predation more heavily as it is one of the biggest killers of birds. Toronto's lack of a No-Roam Cat Bylaw cost significant points in the Hazard Reduction category.

Also, the City had decided it was a poor use of resources to pursue the process of designating a City Bird, which would have required polling large numbers of people. Although this was minor in terms of points, it was unfortunate that we lost the opportunity to promote the program.

Toronto lost its High status.

So what does the Bird-Friendly City Toronto (BFCT) team do?

Bird conservation organizations in Toronto (Toronto Wildlife Centre, Toronto Zoo, FLAP, TFN, TRCA, the Toronto Ornithological Club, TNS, High Park Nature Centre and Birds Canada) continue to work energetically in all areas of interest to the Nature Canada program. A relatively new organization, BirdSafeUofT, has successfully advocated for bird-safe windows at the University of Toronto.

BFCT's role is to bring together significant players who share the common goal of helping birds, considering what next steps for birds need to happen. BFCT encouraged the City to re-launch its *Lights Out Toronto* program, which it did in spring 2024. BFCT appealed to the Ontario Government to incorporate bird-friendly building standards into the Ontario building code. BFCT appealed to TRCA to create a billboard at the entrance to Tommy Thompson Park advertising the park's unique importance for birds. BFCT members have attended public events to advertise the importance of homeowners treating windows that pose a risk to birds and keeping cats indoors. BFCT members have supported FLAP in requesting that the windows of municipal buildings be treated. BFCT will be presenting at the Toronto Public Library to engage the public with bird safety issues.

How an ordinary citizen can advance the cause

Citizens can visit https://tfngo.to/bird-friendly-toronto to learn more about bird conservation and safety. They can treat their windows to prevent bird collisions and keep cats indoors. A person living in an apartment building can approach the manager about reducing rodenticide use to save hawks' and owls' lives.

Anne Purvis

UPCOMING JUNIOR NATURALISTS' EVENTS

We're looking forward to more exciting programs for Toronto Field Naturalist Juniors (aged 6-14 yrs). We hope many of you can join us on Saturday mornings, most often from 10 am until noon. An adult must remain with their children for the duration of the program. Once registered, you will receive invitations to our events with detailed instructions on the locations and activities. Register at: juniortfn@torontofieldnaturalists.org

May 17: At Guildwood we will look for migratory songbirds and learn about hazards they face during migration

June 7: Don Scallen will join us to explore nesting birds at the Humber Arboretum

JUNIOR NATURALISTS

ONTARIO SALAMANDERS

If you happen to pass through Richmond Hill or Burlington during the spring, you might see road closures. These aren't due to spring flooding, but to allow for an annual migration of salamanders across roads in order to access ponds in which to reproduce. That might be the only time most people hear of salamanders, but Ontario is actually home to eight different species of salamander, five of which occur in the Toronto area!

Spotted Salamander: Distinctive yellow and orange spots cover the back of this salamander, which can grow up to 20 cm long. It spends its juvenile gilled stage in temporary ponds before developing lungs, allowing it to move onto land. Hiding in deciduous (leafy tree) forests, it spends its time in moist areas underground, which is why this species is also called mole salamander.

Eastern Red-backed Salamander: This small salamander (growing up to 12.5 cm), found throughout Ontario, doesn't have lungs. Instead it breathes through its skin, which it needs to keep moist. Unlike other amphibians, these salamanders don't have an aquatic phase. Instead, their eggs are laid on damp areas underground and hatch into smaller versions of their adult forms (a process called direct development). Since they don't use ponds for a larval stage, these salamanders don't migrate, staying in the same area throughout their lives.

Mudpuppy: Toronto is also home to the largest salamander in Ontario, typically growing up to 30 cm long. Unlike the eastern red-backed salamander, it stays in its aquatic larval phase for its entire life, never losing its gills to venture onto land. While active all year long, mudpuppies are rarely seen as they prefer to stay in deeper waters.

Red Spotted Newt: These members of the salamander family are found in permanent ponds and rivers in Ontario. Juvenile red spotted newts are aquatic, most developing into an aquatic adult form. However, a certain number of juveniles develop into a terrestrial form called a red eft, which has a distinctive bright red colour with spots down its sides. An eft will spend between two and seven years on land until it matures and returns to the water. Adult newts lack gills but can breathe through their skin.

Blue Spotted Salamander: This is the smallest of the mole salamanders, having distinctive blue spots and growing up to 12 cm long. Similar to the spotted salamander, it migrates to ephemeral ponds to breed in the spring. This species has a tendency to interbreed with neighbouring species of Jefferson salamanders, producing a female hybrid that is capable of parthenogenesis (not requiring males to reproduce).

If you are lucky enough to see a salamander during your hikes in the ravines and wetlands of Toronto, remember to look rather than touch. Salamanders' skin is highly sensitive to drying and will readily absorb substances like hand creams and sunscreens from your hands which can harm their health.

Vanessa McMain

Photos from Wiki Commons

SNOWBALL EARTH AND ITS REMARKABLE TFN CONNECTION

Kids benefit greatly from time spent in nature. That has been a core tenet for TFN from our start. Strong early experiences with the natural world encourage an abiding curiosity about our planet's mysteries; we're confident there's a cause-and-effect relationship. But we're only rarely allowed a glimpse of the continuing thread over a full lifetime, showing how childhood time spent in nature plus good mentoring can spark passions, influence career choices and sometimes even unfold in paradigm-shifting discoveries.

TFN was recently granted one of those rare glimpses, thanks to Dr. Paul Hoffman. He is a celebrated Harvard geologist, key theorist of the "snowball Earth" hypothesis, an officer of the Order of Canada and heaped with awards, most recently receiving a coveted Kyoto Prize in Basic Science in 2024. Interviewed last November for the front page of the *Globe and Mail*, Dr. Hoffman mentioned his childhood field trips back in the 1950s with – you guessed it – the Toronto Field Naturalists, where he mingled with mineral collectors. Of course, TFN followed up to inquire about this formative time!

A word or two about "snowball Earth": this hypothesis proposes that, in the deep past, the Earth's surface was almost entirely frozen, even at the equator. This theory integrates evidence from multiple disciplines, including that glaciers previously existed at sea level in what are now the warmest parts of the world. In fact, there is evidence for two separate "snowball" periods between 720 million to 630 million years ago, profoundly influencing the early evolution of plants, animals and fungi.

The "snowball Earth" theory was very controversial in the 1980s and 1990s. Dr. Hoffman told the *Globe and Mail*: "There was a very long period of time when I would ask myself every day, many times a day, if this could possibly be true." But the evidence accumulated, including that assembled during his 30 years of field geology in Namibia and Arctic Canada. These days, most Earth science books and conferences incorporate discussions of snowball Earth.

Interviewed for TFN, Dr. Hoffman enthusiastically shifted focus from the deep past to his own childhood, 70+ years ago. He recalled delivering his first talk to TFN, at age nine, about the Monarch butterfly. There are, sadly, no records of this event. Later, there were teenage field trips with the Junior Walker Mineralogical Club (a TFN affiliate). The 1950s outings headed to spots like the Niagara Escarpment and Bancroft. He retains visual memories of their first field trip to the Don Valley – the quarry feeding the Brick Works. Back then, working quarries were not yet off-limits to curious naturalists with kids in tow. The outings were led by generous volunteers (men and women) often highly qualified in their fields of study and frequently affiliated with the Royal Ontario Museum. Dr. Walter Tovell, for example, was a ROM geologist in 1954 when he led TFN outings to places like the Scarborough Bluffs. Dr. Tovell became Director of the ROM in later years, but remained a lifelong educator. His obituary described him as "passionate and funny in his lectures and his tours…there are many who will always remember his generosity and loud laughter".

Dr. Hoffman likened these early outings with illustrious mentors to apprenticing, immersing young people in both the undiluted challenges and exhilaration of field research. And he stressed that he was by no means the only "apprentice" in his group. Several of his teenage companions also caught the geology bug through TFN outings and became leading researchers in their fields. His contemporaries included future conodont paleontologist Peter von Bitter, marine geologist Ellen Edwards, cosmochemist Lawrence Grossman and ore mineralogist Terry M. Seward. This was a remarkable cohort. Google searches reveal that asteroids and minerals have been named after some of these researchers.

Reflecting back on his halcyon days at TFN, Dr. Hoffman urged us to embrace geology in our interests, especially in light of our climate crisis. He noted that, in order to understand where our climate is going, we need to grasp what has happened to our climate in the past. He also stressed the importance of connecting kids with nature in middle school while they are still receptive to wonder. High school is too late, in his view. Finally, he observed that we can never know exactly when we are reaching someone at a special "teachable moment". A momentary experience out in the field can spark a life-long passion. This advice, from a gifted researcher and educator, speaks to the heart.

Ellen Schwartzel

Further reading suggested by Dr. Hoffman:

A Brief History of Earth by Andrew H. Knoll, Custom House, NY, 2021

Little Book of Exoplanets by Joshua Winn, Princeton U. Press, Princeton, NJ, 2023

30 YEARS OF BUTTERFLY COUNTS IN TORONTO – OBSERVATIONS AND TRENDS

Butterfly counts are simply a one-day snapshot of what is seen in a count circle on one day of the year. However, multiply this by the hundreds of counts taking place in the summer months around North America and the picture of the butterfly season on this continent becomes clear. Then, couple that yearly information with over 30 years of counts, and population trends become obvious. The long-term aspect weeds out individual years' discrepancies of weather, volunteer skill and participation.

As James Kamstra wrote in *Ontario Lepidoptera 2022 & 2023*, "Butterfly counts generally follow the protocols of the North American Butterfly Association (NABA) where groups make their best efforts to cover and record all the butterflies in a 15 mile (24 km) diameter circle area in one day. In reality, a count circle is so huge that only a small fraction of the area is counted even if there are many parties. … Well over 300 counts are recorded to NABA each year across Canada and the U.S."

Black Swallowtail, July 13, 2024. Leslie Street Spit Baselands

A butterfly count is also the finest, most unassailable excuse to abandon all other responsibilities and just go out in the field, observing and counting singularly beautiful creatures. A quest in the truest sense. Proof that Citizen Science can be fun!

When I proposed this Toronto count, I was very unsure of what we'd find. I had a sneaking suspicion that Toronto, with its ravines and green areas, might prove to be a fruitful count, and I even harboured hopes of relict populations of species still hanging on through urbanization. I chose the intersection of Bloor Street West and Dundas Street West as the centre of our 24 km diameter circle so as to encompass as much varied urban habitat as possible and not conflict with the Toronto Entomologists Association's count circle in eastern Toronto. Our circle also had to include the entire Leslie Street Spit, as that is my favourite city place. Politically, as co-chair of *Friends of the Spit*, I knew that if we could document butterfly species at The Spit, we would continue a stewardship role (having published the first bird checklist in 1988) that had proven very advantageous for us in our advocacy.

The inaugural Toronto Centre Butterfly Count in 1995 saw a total of 14 observers who counted 41 species with 1826 total butterflies recorded. The 30th Annual Toronto Centre Butterfly Count took place on Saturday, July 13th, 2024, again under the auspices of the NABA.

As well as giving an account of this specific day's results, it seems appropriate to reflect on trends through those 30 years, remembering that a single day's results are but a one-day snapshot with many variables, both natural and human, tempering the results. However, over a number of years, patterns and trends in Toronto have become apparent.

Last year, 31 observers (the 6th highest total), in 11 parties on nine routes, counted butterflies in the count circle. The party-hours total was 53.5; the total kilometres on foot were 77. The areas surveyed included the Leslie Street Spit, the Toronto Islands and waterfront, midtown ravines, High Park, the Humber River from the lakeshore to past Eglinton Avenue, Lambton Prairie, Downsview, and other parklands, ravines, and so-called wastelands in the city. Our count is one of the few (if not the only) NABA counts that is entirely within a major metropolis.

On this count day, the weather cooperated; temperatures ranged from 23ºC at 9:00 am at the lakeshore to a high of 29ºC inland, with sunny skies and light breezes.

In all, 37 species were tallied in 2024 by the 31 counters. This total is well below the median, tying for fifth-lowest. The highest species count is 44, recorded in four years including 2021. Many participants attributed 2024's lower species total to the early spring and very warm weather, which had advanced the life cycle of many species. Also, the count date, the second Saturday of July, was its second latest.

Our total numeric count was 3,267, the 10th highest total in the 30 years. The highest was 6,069 in our second year. Our species total still stands at an amazing 68 species, as no new species were added in 2024. However, the single Spicebush Swallowtail, seen on the High Park

continued on next page

BUTTERFLY COUNT *continued*

route, was only our second sighting ever; the first sighting was way back in 1997 (year 3).

While the numeric count looks positive, it is skewed by one species, the Common Blue *Polyommatus icarus,* which accounted for almost a third of the numeric total. Since six were first tallied in 2020 (the first ever on a NABA count), numbers have increased to this year's 1,027. Common Blues were recorded on every route, the first time they'd achieved representation throughout the count circle! This was our only new high count.

The second most numerous species was Cabbage White at 442, followed by Summer Azure (390), Wild Indigo Duskywing (330), and Red Admiral (252). Six species were seen on all routes: Black Swallowtail, Cabbage White, Common Blue, Question Mark, Red Admiral and Monarch. Conversely, singles were tallied of 9 species: Spicebush Swallowtail, Striped Hairstreak, American Snout, Great Spangled Fritillary, Eastern Comma, White Admiral, Common Ringlet, Tawny-edged Skipper, and Little Glassywing.

Silver-spotted Skipper, July 13, 2024, Leslie Street Spit Baselands

American Snout, July 13, 2024. Regatta Rd & Unwin Ave

The 84 Monarchs counted were in line with the last two years' tallies of 93 and 90, but were well shy of 2021's record high count of 409.

Notable misses in 2024 were Northern Crescent (just the third time not tallied) and Baltimore Checkerspot, which had been seen consistently at one site since 2006. This miss was attributed to its loss of habitat due to an invasion of dog-strangling vine (black swallow-wort). Viceroy was missed, previously seen in low numbers on 70% of counts. Least Skipper, seen on 27 of the last 29 counts, was not tallied, nor were Peck's Skipper and Long Dash, both of which had a roughly 60% tally rate.

While the individual count results are interesting on their own, when fed into the overall 30 years of counts they bring us a more significant look at the Toronto Centre butterfly experience on the second Saturday of every July since 1995.

From the participation side, since the first count started off with 14 counters, cumulatively well over 100 individuals have taken part. No one has completed all 30 counts, but two individuals have participated in 29. Many thanks indeed to all these dedicated butterfly enthusiasts and experts!

The 68 cumulative species' total is a tremendous tally for a count circle situated totally in a megalopolis like Toronto, and is a tribute to the park spaces and leftover lands which, in many cases, have kept relict populations alive and allowed others to prosper.

Interestingly, 14 species have been recorded on all 30 counts: Black Swallowtail, Cabbage White, Clouded Sulphur, Acadian Hairstreak, Eastern Tailed Blue, Mourning Cloak, Red Admiral, Little Wood-Satyr, Common Wood-Nymph, Monarch, Silver-spotted Skipper, European Skipper, Northern Broken-dash and Dun Skipper. Another six species have been seen on 29 of 30 counts. Banded Hairstreak, Question Mark, Northern Cloudywing and Crossline Skipper were all missed in 2007 (a low year); Eastern Comma was missed in 2002, and Summer Azure was missed in 1997.

Conversely, seven species have only been tallied on a single count. They are Eastern Giant Swallowtail (2012), Canadian Tiger Swallowtail (2010), Checkered White (2008), Gray Hairstreak (1999), Marine Blue (2008), Hackberry Emperor (2017), and Appalachian Brown (2021). Another six species have only been tallied on two counts: Spicebush Swallowtail, Little Yellow, Bronze Copper, Silvery Blue, Meadow Fritillary, and Fiery Skipper.

The Marine Blue sighting in 2008 was undoubtedly the rarest. However, other rarities for the count may be due to big years for southern migrants, such as Little Yellow and Fiery Skipper; or may be rare for our count simply because of the count date timing versus the brood cycles of the butterfly – for example, Silvery Blue and Common Ringlet. The Silvery Blue flight period precedes our count date, while ringlets, not necessarily common in Toronto,

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FOR READING

Our Green Heart (2024)
by Diana Beresford-Kroeger

This book is a thoughtful and inspiring look at the natural world. Drawing from her background as a scientist in biochemistry and botany along with the ancient Druidic traditions she grew up with in rural Ireland, she offers a perspective that feels both unique and relevant to today's environmental challenges.

The short chapters blend science with personal stories, each wrapping up with a powerful lesson or a heartfelt call to action. From the benefits of forest bathing to saving rare tree species at her Merrickville Ontario arboretum, Beresford-Kroeger shows how vital trees are to the planet and to our survival. She leaves readers with a simple yet profound message: “Plant a tree for every year you have left”. *Our Green Heart* is a moving reminder of our deep connection to nature and our responsibility to protect it.

The Golden Spruce (2005)
by John Vaillant

At the heart of this story is Kiidk’yaas, a rare golden Sitka spruce on Haida Gwaii (Queen Charlotte Islands, BC), considered a sacred natural wonder with deep mythological ties to the local Indigenous culture. In 1997, a former logger, disillusioned with the industry, felled the tree in protest, leaving behind a manifesto condemning humanity's exploitation of nature before disappearing without a trace.

In *The Golden Spruce*, John Vaillant weaves together investigative journalism and gripping storytelling to explore the cultural, ecological and historical importance of this tragedy. From the history of logging in the Pacific Northwest to the Haida people’s ongoing fight to protect their lands and waters, Vaillant examines humanity’s complicated relationship with nature, urging readers to think about the impact of our constant drive for progress.

Katrina McGuire

BUTTERFLY COUNT *continued*

are generally between broods by our count date. On our counts, ringlets have been seen at waterfront locations where presumably the colder waters of Lake Ontario have delayed the first brood cycle.

American Snout deserve a mention, and not simply for their distinctive appearance. First recorded in 2010, then again in 2012, they were then absent for six years, but have been counted in five of the last six years.

In reviewing the 30 years, two trends are obvious. First, a Wild Indigo Duskywing was recorded on the 1999 count, which required the lead observer (Garth Riley) to write a rare butterfly report. Then ten were seen in 2005 and, since 2010, it has been consistently common, being seen every year, often in numbers high enough to be NABA continent-high totals.

More recently, the Common Blue, originating presumably from the Mirabel population discovered in 2005, was first found on our count in 2020 and has this year comprised almost one third of our numeric total. Its prolific spread is now being documented by other GTA counts.

Over the years, NABA continent-high totals have also been achieved for Cabbage White, Acadian Hairstreak, Edwards’ Hairstreak, Eastern Tailed Blue, Summer Azure (NABA “lumps” Northern and Summer Azures), Common Blue, Compton Tortoiseshell, Mourning Cloak, Red Admiral, Monarch, Northern Cloudywing, and Crossline Skipper, all buttressing the thesis that our count circle is butterfly-rich!

On the downside, Silvery Checkerspot, seen intermittently until 2008, has not been recorded since. Coral Hairstreak was once a “given” on the count, but has become very intermittent since 2011. Similarly, Edwards’ Hairstreak (a continent-high of 93 in 1996) was seen on every count up to 2006, then recorded in 2008, and not seen since.

Butterfly counts are also social endeavours, and the Toronto Centre count, with the exception of the COVID years, has always held a round-up gathering, not only to tally species, but also to renew friendships made through the passion of butterflying.

The 2025 count date is set for Saturday, July 12th (the second Saturday of July). Those with reasonable ID skills and some field experience who are interested in participating in the Thirty-first Annual Toronto Centre Butterfly Count should contact the writer at (416) 930-6987 or johnrcarley@gmail.com .

Article and photos by John Carley

TREE OF THE MONTH SERIES COMES TO A CLOSE

More than 270 species of trees may be found in the wild or in cultivation in Ontario, almost all of which can be seen somewhere within Toronto or vicinity. In 60 articles published in this newsletter since the first one in October 2017, I have given brief profiles of about that number of species, with passing references to a smattering of others. Species to profile were chosen for a variety of reasons, including prominence and familiarity in the landscape, distinctiveness (whether in appearance or taxonomically), interesting aspects of biology, availability of photographs, or just because I wanted to write about them.

I used each species or group of species profiled to illustrate particular themes, like leaf variation within and between species, flowering and fruiting rhythms, bark formation, growth patterns, interactions with herbivores and other ecological considerations, etc. plus, of course, a bit of human interest. In a few cases, because of the range of topics they could illuminate, I extended the profile of a species or a small group of species over two or three articles. Because I am a plant taxonomist with a specialization in trees, a lot of my emphasis has been on how differences in tree structures reflect differences in current lifestyles and evolutionary history. Among the more than 200 local species not yet profiled, there are many prominent ones, including many of my favourites, and innumerable additional interesting topics that might be raised. However, while there is so much more that could be written about our trees, it is time to bring the series to a close after eight magazine volumes of monthly articles.

Black Gum tree in Mount Pleasant Cemetery.
Photo: Ron Dengler

I hope that I have encouraged all readers, including those who might be more interested in birds, mammals, insects, or wildflowers, to take a closer look at the trees that provide the ecological framework for all the rest of our biota. They are not just UBFs (unimportant background figures), but are the foundation and context for everything else, and also interesting in their own right with lots of astonishing features to engage our attention.

Clearly, I have just barely scratched the surface of the biological, ecological, and social features that could be illuminated by our trees, even without considering all the new things remaining to be discovered about them. I hope that some of you (and me too!) will uncover and clarify some of these as yet unrevealed features, but even more, just appreciate and enjoy these wonderful, magnificent, and dominating presences. Among the many places to do that, and to test and expand your knowledge of trees in a city brim-full of them, Mount Pleasant Cemetery (where many of the photos accompanying these profiles were taken) is outstanding, with roughly 250 species ready to be hunted down via the Cemetery's arboretum guide (out of date but still helpful).

This series would not have existed without a nudge from Nancy Dengler, during and shortly after her term as president of our organization. Over the years of reading all the articles before publication, she has also gently turned me away from some of my more speculative interpretations of the relationship between tree structure and function. The series was also ably shepherded through publication by our newsletter editor, Wendy Rothwell, who was always encouraging and thankfully tolerant of slight delays in submission and overruns of expected word counts. Many illustrations came from Ken Sproule's rich and rewarding Toronto Wildlife website, which he freely shares with TFN. Most, however, were taken especially for the series by Ron Dengler who, accompanied by his field assistant Nancy, sought out and beautifully captured the very images I requested. Their efforts and expertise, making my vision of the topics covered concrete and enlivening my articles, were much appreciated.

Finally, Susan Eckenwalder, former editor of *Ontario Craft Magazine,* also read all the articles and deftly exterminated my extra commas, pulling me in from many full flights of enthusiasm for obscure botanical marginalia, and getting me back to the mainstream of broader interest. Thanks to all of them and to you, the readers.

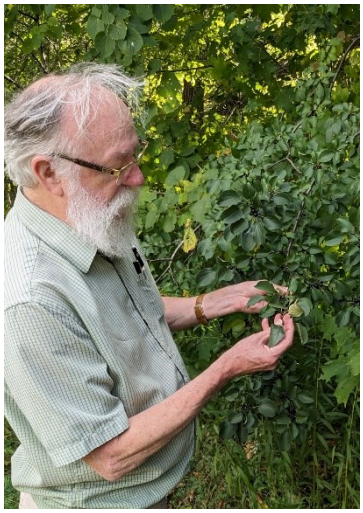
James Eckenwalder*

*Author also of *Conifers of the World* (2009) and lead author of the ROM's *A Field Guide to Trees of Ontario* (2023).

continued on next page

TREE *continued*

For handy reference, Jim has compiled an index of the species included in his articles. You may access this on the Newsletter page of TFN's website: https://tfngo.to/newsletter and then browse for the appropriate issue.



Jim Eckenwalder

Nancy and Ron Dengler

From the Editor:

I wish to thank Jim for sharing his encyclopedic knowledge of and effervescent enthusiasm for trees. We owe him a debt of gratitude for his dedication to this undertaking over the past eight years. I'm sure Nancy and Ron Dengler speak for many of us when they say, "This series has been informative and inspirational for members who would like to know more about trees."

I also thank Ron Dengler and Ken Sproule for their photos that have illustrated so well what Jim has described.

While this series has come to an end, we hope Jim will continue to share his botanical knowledge by contributing occasional articles to the newsletter.

Wendy Rothwell

BEING AN ETHICAL NATURE LOVER

Don't feed the birds!

People who feed wild birds often do so because of their concern for the welfare of the animals, but paradoxically, feeding can cause more harm than good.

One issue is that inappropriate food is often provided, leading to malnutrition or impaired growth. For instance, bread should never be given to water birds as it provides no nutrition. Most of the food offered to birds is the equivalent of junk food for humans. This wouldn't be a problem if it was only eaten occasionally, but some birds are fed frequently by people and this junk food becomes a major part of their diet.

Another health concern is the crowding that often occurs in places where birds are fed. This unnatural congregation can cause aggression leading to injuries and also increase the spread of diseases and parasites.

Let birds eat food that is naturally found in their diets.

Canada Geese, 1979
Diana Banville
TFN Nature Arts Archive

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

EXTRACTS FROM OUTINGS LEADERS' REPORTS

Humber Arboretum – Spring Awakenings, Sap Running, March 13. Leader: Lynn Short. Some of the trails were icy but most were clear and most of the snow had melted. We saw a Cooper's Hawk in the forest and two Red-tailed Hawks soaring overhead. We saw coyote scat on the trail in two locations and evidence of a vole trail under the snow. There were three buckets on sugar maple. We sampled the sweetwater (sap) which is clear and colourless. It is only with the boiling of the sap to concentrate the sugar that the colour and flavour change to what we know as maple syrup.

Cooper's Hawk. Photo: Ken Sproule

St Michael's Cemetery – Nature and Heritage, March 17. Leader: Linda McCaffrey. This was a very interactive walk. The Crean sisters, granddaughters of the last Sexton, spoke to us about their family and brought photos for circulation. Two Red-tailed Hawks circled the cemetery in homage to St Patrick. Paul Overy identified the lost river at the western portion of the cemetery. Richard Longley brought Irish whiskey for a toast to St Patrick and continued the walk along Avenue Road. Kathy Chung stepped forward as an emergency shepherd but lost count of participants after 45. Many others offered pertinent information. Sincere thanks to everyone.

High Park on World Water Day – Nature and Heritage, March 22. Leader: Ellen Schwartzel. Shepherd: Lynn Short. An avid group of glacier enthusiasts met in High Park to mark World Water Day with its highlighted theme of receding glaciers across the planet. Cold, blustery weather set the stage. Our first stop was Ridout Pond, the site where workers some years ago accidentally drilled into the ancient Laurentian Channel. The resulting geyser of sediment-laden water revealed

Red-winged Blackbird. Photo: Theresa Moore

groundwater confined in deep drainage channels carved by long-ago ice ages. We also reflected on the most recent ice age, which buried the northern half of the continent under a massive sheet of ice. Today's glaciers are remnants of that ice age, and still hold 70% of the planet's fresh water.

On our route towards Grenadier Pond, we observed greenish stems of invasive winged euonymus monopolizing the forest understory. Stopping by abundant stands of phragmites, we discussed how insightful volunteers have learned to control this invasive reed, applying sharp spades and persistence over multiple years. At Grenadier Pond and the Duck Ponds, the group observed numbers of Red-winged Blackbirds and Mallards. We also saw Wood Ducks, Northern Shoveler, Bufflehead, Common Merganser, Canada Goose and Mute Swan.

Northern Shoveler. Photo: Lillian Natalizio

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WEATHER (THIS TIME LAST YEAR)

May 2024
May was another warm but not extreme month, as the pattern that had held for about a year continued. It was the 7th warmest May on record downtown and the 4th warmest (after 1998, 2018, and 2012) at Pearson Airport. The monthly mean downtown was 16.9˚ (2.3˚ above normal) and 16.4˚ at Pearson (2.5˚ above normal). We approached, but narrowly failed to reach, 30˚ on the 21st-22nd. Downtown hit 29.8˚ on the 21st, and Pearson 29.7˚ on the 21st and 22nd. It was the first May since 2019 that we did not reach the 30˚ mark. Cool spells were weak, with the lowest monthly readings on the 1st, 15th and 30th-31st, all in the 6-8˚ range.

We had a bit of a let-up in the rain department, a welcome break after April. Rainfall was close to average or just below, with 62.0 mm downtown and 76.8 mm at Pearson. It was mostly dry until the 27th, though conditions were fairly cloudy.

Spring 2024 was the third (Pearson) or fourth (downtown) warmest on record, with 2012 remaining unchallenged.

June 2024
June continued the trend of recent months, being for the most part warmer and wetter than normal. The mean temperature downtown was 20.4˚ (0.5˚ above the average of the last 30 years) while at Pearson the mean temperature was 20.1˚ (0.6˚ above normal).

We had warm but not extreme weather during the first week, then the 7th-16th were quite cool, especially in contrast to preceding weeks. The 10th in particular brought almost raw conditions, with overcast skies and brisk winds. Temperatures were mostly in the teens. A heat wave hit from the 17th-20th. This peaked on the 19th, when downtown reached 33.1˚, Pearson 34.5˚, and North York 35.0˚. These conditions were oppressive but not unprecedented. This spell was again partly offset by a cool-down during the last three days of the month, in time for Canada Day.

The heat hit other sections of eastern and even subarctic northeastern Canada that are less accustomed to this weather than Toronto. While we were only slightly above normal during the first week of the month, Kuujjarapik (on the Hudson Bay shore in northern Quebec) reached 35.3˚ on June 6th – higher than Toronto's monthly maximum. The heat wave on the 17th-20th brought similar conditions to a larger area extending into the Maritimes and Newfoundland.

June was mostly dry until the 20th, when tropical-style downpours along a cold front brought rainfall of 25 to 50+ mm. The monthly total downtown was 79.9 mm, almost exactly normal. Pearson had 114.1 mm.

July 2024
Seasonable temperatures, high humidity and heavy rain characterized July. The monthly mean temperature was 22.9˚ downtown and 22.5˚ at Pearson. These values are 0.2˚ to 0.3˚ above the 30-year average (1995-2024) but about a degree warmer than would have been normal in the 1980s. While July 2024 was a very hot month globally, the heat in North America was concentrated on the margins of the continent, with low pressure, cloud and rain keeping things closer to or even below normal in parts of the interior. Pearson had just three days with 30˚ readings, and downtown only one. The highest reading in Toronto occurred downtown on the 31st, with a maximum of 32.3˚. High humidity made it moderately uncomfortable at times. On the other hand, we did have brief periods of downright cool weather; on the 1st it dipped to 11.8˚ downtown, 11.0˚ at Pearson, 9.5˚ in North York, and 8.8˚ in King City.

The big story, however, was the rain. Downtown had its second wettest July on record with 199.0 mm, exceeded only by 1841, which had 207.0 mm. Pearson (at 215.4 mm) had not only its wettest July on record, but wettest of any month. This beat the previous record of 213.9 mm in October 1954: the month of Hurricane Hazel. (The previous wettest July was 193.2 mm in 2008.)

Speaking of hurricanes, Beryl contributed a certain amount to the monthly total, arriving on the 10th after having hit Jamaica, Mexico, and Texas. It brought 44.7 mm downtown and 46.1 mm to Pearson. However, the heaviest rain came on the 16th with repeated thunderstorm cells that also had a tropical moisture feed. Downtown had 83.6 mm and Pearson 97.8 mm. This fell on ground that had been saturated, not only by Beryl but by more regular storms just the previous day. The result was the worst flooding since 2013, closing the Don Valley Parkway and Lakeshore Blvd and causing many power outages. Another set of storms, shorter and less intense, contributed to some flooding on the 24th and clinched July 2024 as a record-setter.

August 2024
The record-breaking rains of July continued unabated into August in parts of the Toronto area but they were more local in distribution. Pearson had a record 181.8 mm of rain, but downtown had just 66.1 mm, which is 0.7 mm below the 30-year average. Meanwhile, Toronto Island had only 31.6 mm. Most of this was due to the big storm on August 17th, which affected western and northern sectors of Toronto while leaving the southeast dry.

continued on next page

WEATHER *continued*

This storm brought 128.3 mm to Pearson and renewed flooding, especially to Mississauga and North York. The system had also brought a tornado to southwest Ontario about an hour earlier.

August was a bit cool, with a distinct cool spell following the August 17th storm. Temperatures for August 19th-23rd were well below normal. On the 19th, the daily maximum was only 17.9˚ at Pearson. Overnight temperatures dropped to 10.7˚ on the 22nd, with readings as low as 8.6˚ at King City and 8.0˚ at Georgetown. The monthly mean was 21.7˚ downtown (30-year average is 22.1˚) and 20.9˚ at Pearson (30-year average is 21.4˚). We had three days attaining 30˚ or higher downtown and two such days at Pearson. The hottest day was the 27th with a maximum of 32.4˚ downtown. These were isolated occurrences with no extended heat waves.

Summary

Overall, the summer (June to August) was easily the wettest on record in most of the Toronto area. Pearson had a stupendous 511.3 mm, breaking the previous record of 396.2 mm in 2008. Downtown was less anomalous, with 345.0 mm for the June to August period. The normal is around 220 mm. But Pearson's record stands out in that downtown Toronto's wettest summer, in 1841, had 403.4 mm. Thus, Pearson exceeded downtown's 183-year record by over 100 mm.

Torrential rains are a likely feature of climate change. Although comparable amounts have been recorded occasionally in Toronto right back to the beginning of weather records (e.g. 1841 and Hurricane Hazel in 1954, which still remains our worst flooding disaster), these events may be becoming more frequent. We have had similar months in 1986, 1996, 2005, and 2013. Certainly the record-warm Atlantic Ocean and Gulf of Mexico can impart more moisture to the atmosphere.

Gavin Miller

EXTRACTS *continued*

Subway Series: Donlands to Pape, Leslie Creek – Nature and Heritage, April 5. Leader: Joanne Doucette. Shepherd: Paul Overy. This walk was fascinating. I pre-walked the route and was surprised to see at least a hundred migrating Red-breasted Nuthatches and Brown Creepers feeding in Kempton Howard Park and the nearby cemetery. Goel Tzedec Cemetery was established in 1919 and continues to welcome burials, primarily for descendants of those already buried there. The Goel Tzedec congregation merged with others to become he Beth Tzedec Congregation on Bathurst Street.

Brown Creeper. Photo: Theresa Moore

The top of the park at Strathcona Avenue is an excellent, but little known, east end birding spot. The steep hill, created by the long-gone brickyard, and the tall buildings of the low-income housing project create updrafts, and we were not surprised to see a raptor soaring, probably a Red-tailed Hawk.

The group saw the nuthatches and creepers that had arrived over Lake Ontario the previous night and were refueling for their onward journey. I advised everyone to keep a good distance to avoid disturbing them. Robins were abundant, pulling worms in the rain.

White-breasted Nuthatch. Drawing: Joanne Doucette

The migrants added interest to our walk, which focused on tree identification, three creeks (Hastings, Leslie and Holly), and the area's history, including the murders of Isaac Sewell (1856) and Kempton Howard (2023).

We discussed the First Nations presence along our route, highlighting the murals in the laneway north of Ravina Crescent, near Kapapamahchakwew – Wandering Spirit School.

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 Sept: 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 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 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: 833 7768 7082 Passcode: 882078

FOCUS ON NATURE – ICE AND SNOW

The March challenge for TFN's Photography Group was *Ice and Snow*. This image titled *American Black Duck in Ice Channel* was created by Marlene Duhig.

On a cold day in March, during a break between two sessions of a Winter Bird Educational Workshop I was attending at Tommy Thompson Park, I took time to check out some of the ducks on the break-up of ice in the harbour. This American Black Duck had found a path of open water away from the crowded sections a little further along. The contrast between the beautiful blue of the water and the white ice and snow caught my eye, and the duck was a true bonus. It always amazes me how these waterfowl can survive the cold winter temperatures and find food.

This photo was taken with a 600mm lens so as not to disturb the bird.

Marlene Duhig

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

TFN LECTURE

Sunday, May 4 at 2:30 pm via Zoom. See page 19 for information.

Toronto's Prescribed Grazing Project

In 2024, the City of Toronto (Urban Forestry) became the first municipality in Ontario to introduce urban goat grazing as a management tool to address invasive species and enhance habitat diversity. This pilot project was a significant success story, bringing over 60 goats to graze 3000 square metres of meadow habitat at Don Valley Brick Works Park. The City engaged TFN on a volunteer monitoring protocol to help provide good quality data to the project over time.

In this lecture, Cheryl Post, Natural Environment Specialist, Urban Forestry, Natural Environment Infrastructure, Environment, Climate & Forestry, City of Toronto, will provide an overview of the project and summarize recent results.

Please mark your calendars for upcoming fall lectures:

Sept. 7, Sunday afternoon	Aquatic Life at the Mouth of the Don
Oct. 7, Tuesday evening	Friends of the Spit – 40+ Years of Advocacy
Nov. 2, Sunday afternoon	Glaciers and Sea Ice – Trends for Canada's North
Dec. 7, Sunday afternoon	Beavers – Landscape Shapers