



Since 1923

TORONTO FIELD NATURALIST

Number 629 September 2017



Monarch on butterfly milkweed at Tommy Thompson Park, July 2017.
Photo: Lynn Pady. See page 2.

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Mission Statement:

Toronto Field Naturalists connects people with nature in the Toronto area. We help people understand, enjoy and protect Toronto's green spaces and the species that inhabit them.

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IT'S YOUR NEWSLETTER!

We welcome contributions of original writing (between 20 and 500 words) of observations on nature, especially in the Toronto area. We also welcome reports, reviews, poems, sketches, paintings and digital photographs. Please include "Newsletter" in the subject line when sending by email or on the envelope if sent by mail.

Please re-name digital photographs with the subject and your name (abbreviations ok). In the accompanying email include location, date and any interesting story or other information associated with the photograph.

Deadline for submissions for the October issue: Sept. 1

NEWSLETTER COMMITTEE

Kathleen Brooks, Jenny Bull, Vivienne Denton, Karin Fawthrop, Nancy Fredenburg, Elisabeth Gladstone, Judy Marshall, Lynn Miller, Toshi Oikawa, Jennifer Smith, Wendy Rothwell (editor).

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Please note: TFN does not give out its membership list.

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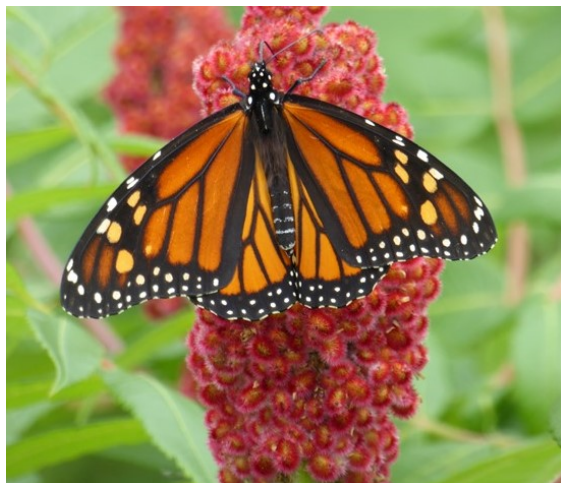
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The office is open 9:30 am to noon on Fridays



TFN is on Twitter and Facebook! Got something interesting to share? We'd love to get your photos and insights on TFN activities, Toronto nature events and interesting nature news. Just email media@torontofieldnaturalists.org and be sure to include what your photo is and where it was taken.

To read posts, go to www.torontofieldnaturalists.org and click on Twitter or Facebook.



Monarch on sumac. Photo: Lynn Pady

From Lynn Pady re Monarch Photos:

It's a banner year for these glorious big butterflies!

Isn't it marvellous that something so small can bring so much joy and wonder to everyone! I saw 20+ in a few hours yesterday (July 26th), mostly very fresh ones. I don't think I saw that many in total last year. Milkweed everywhere now, and it is thriving with the cool rainy weather.

Fingers crossed that all goes well and the wintering grounds in Mexico are jam-packed later this year.

TFN MEETING

Sunday, September 10, 2:30 pm

Growing hope: Renaturalizing the landscape and ourselves

Jason Ramsay-Brown, author of Toronto's Ravines and Urban Forest, will explore the potential for a mutually beneficial connection between people and Toronto's urban nature.



Rouge Valley near Twyn Rivers Rd. 1984.
Photo: Robin Powell (TFN slide collection)

VISITORS WELCOME! SOCIAL: 2:00 – 2:30 pm

Emmanuel College, Room 001, 75 Queen's Park Cres E

Just south of Museum subway station exit, east side of Queen's Park. Accessible entrance: second door south on Queen's Park. Elevator inside to the right. Room 001 is one floor below street level.

For information: call 416-593-2656 up to noon on the Friday preceding the lecture.

Share your thoughts and insights about this lecture on social media with the hashtag #TFNTalk.

UPCOMING TFN LECTURES

- | | |
|-------|--|
| Oct 1 | Martyn Obbard (Research Scientist, Ministry of Natural Resources):
<i>Polar bears and climate change: is there a tipping point?</i> |
| Nov 5 | Gail Fraser (Associate Professor, Environmental Studies, York University):
<i>Double-crested cormorants and Leslie St Spit's urban wilderness</i> |
| Dec 3 | Peter Mills (Author and Illustrator, <i>Metamorphosis</i>):
<i>Ontario's amphibians at all stages of development</i> |

TFN OUTINGS

- TFN events are conducted by unpaid volunteers.
- TFN assumes no responsibility for injuries sustained by anyone participating in our activities.
- Children and visitors are welcome at all TFN events. Children must be accompanied by an adult.
- If you plan to bring children in a stroller, be aware that there may be steps or other unsuitable terrain.
- Please do not bring pets.
- To get to outings on time, check TTC routes and schedules (www.ttc.ca or 416-393-4636).
- Outings go rain or shine: check the weather by calling 416-661-0123 so you will know what to wear.
- Wear appropriate footwear for walking on trails which may be muddy, steep or uneven.
- *Please thoroughly clean your footwear before each outing to avoid spreading invasive seeds.*
- **We recommend you check with the TTC for any schedule disruptions which may occur on weekends. Allow extra time if necessary.**

Please share your favourite walk photos on social media with the hashtag #TFNWalk.

- Sat
Sept 2
10:00 am **SHERWOOD PARK – Nature Walk**
Leader: Rachel Gottesmann. Meet at the park entrance at the east end of Sherwood Ave, east of Mount Pleasant Rd, for a 2-hr circular walk through the woods. Some hills and stairs.
- Mon
Sept 4
10:00 am **MARIE CURTIS PARK – Nature Walk**
Leader: Ken Sproule. Meet in the parking lot at the east side of Marie Curtis Park for a 2-hr circular walk. Take the #501 Lake Shore streetcar or the GO train to Long Branch. Walk down 42nd St to the parking lot. Level ground on paved and unpaved paths.
- Thurs
Sept 7
10:00 am **EAST DON AND CHARLES SAURIOL RESERVE – Nature Walk**
Leader: Charles Chaffey. Meet at the northwest corner of Coxwell Ave and O'Connor Dr for a circular walk on mostly unpaved and uneven surfaces with some steep slopes. We will walk north to Cullen Bryant Park, down stairs to Taylor Creek, west and across the East Don on the old Don Mills bridge, north on informal paths to observe how vegetation grows with little management on hills and in ponds. Return by Old Don Mills Rd past the monument to Charles Sauriol. Drivers may join the group about 10:15 am at the north end of the west parking lot of Taylor Creek Park off Don Mills Rd. No washrooms. Binoculars optional.
- Sat
Sept 9
10 am **TAYLOR MASSEY CREEK – Nature Walk**
Leader: Margaret McRae. Meet outside Victoria Park subway station for a circular walk. Bring lunch if you wish.
- Sun
Sept 10
2:30 pm **LECTURE: Growing hope: Renaturalizing the landscape and ourselves**
Speaker: Jason Ramsay-Brown, author of *Toronto's Ravines and Urban Forest.*
Emmanuel College, 75 Queen's Park Cres E. (See details on page 3)
- Tues
Sept 12
10:00 am **YORK CEMETERY – Trees**
Leader: Jeff McMann. Meet at the reception centre west of Beecroft Rd for a circular walk. Morning only. Washroom available.
- Sat
Sept 16
10:00 am **EARL BALES PARK – Nature Walk**
Leader: Rachel Gottesmann. Meet at Raoul Wallenberg Rd and Bathurst St opposite Bainbridge Ave for a 2-hr linear walk ending at Bathurst north of Sheppard near a bus stop. One steep hill. Washrooms available.
- Sun
Sept 17
2:00 pm **TREES, URBAN ECOLOGY, CASTLE FRANK BROOK – Lost Rivers**
Leaders: Helen Mills, Ambika Tenneti, Reno King and friends. Meet at the northwest corner of Parliament St and Wellesley St E for a circular walk. Join Evergreen's Don River Valley Park Team, the Rivers Rising Ambassadors and friends on a journey from the concrete jungle into the world of nearby trees and lost Castle Frank Brook. At the end, we'll take a secret pathway along lost Lamb's Creek and return to Parliament St. Some ravine pathways and steep stairs. No washrooms till the end of the walk. Approx 2.75 km.
- Tues
Sept 19
10:00 am **MOUNT PLEASANT CEMETERY – Trees**
Leader: Jeff McMann. Meet at the front gates at 1643 Yonge St for a 2-hr circular walk on mostly paved surfaces, mainly flat with gentle slopes. Washrooms at beginning of walk.

- Sat **MUD CREEK TO BRICK WORKS – Nature Walk**
 Sept 23 **Leader: Charles Bruce-Thompson.** Take the #88 bus to the northern trailhead on Moore Ave (opposite Mount Pleasant Cemetery) for a linear walk on mostly unpaved and uneven surfaces with gentle and some steep slopes and stairs. We will follow the course of Mud Creek as it emerges from under the cemetery down Moore Park Ravine to the Brick Works, noting recent major restoration. At the Brick Works there is the option to continue to Todmorden Mills and on to Broadview Ave via Pottery Road. Bring binoculars and water. Lunch available at the Brick Works.
 10:00 am
- Sun **TERRAVIEW- WILLOWFIELD – Nature Walk**
 Sept 24 **Leader: Jason Ramsay-Brown.** Meet by the bus stop on the southeast corner of Victoria Park Ave and Terraview Blvd for a 2-km circular walk on level, paved surfaces. Once described as little more than “pesticide-laden grass bisected by an open concrete storm sewer,” Terraview-Willowfield has since been the subject of extensive re-naturalization efforts. Now the headwaters of Taylor-Massey Creek flow through a series of vibrant wetlands and habitat pools surrounded by native vegetation. No washrooms.
 1:00 pm
- Thurs **HUMBER BAY PARK EAST – Birds**
 Sept 28 **Leader: Doug Paton.** Meet at the southwest corner of Lake Shore Blvd W and Park Lawn Rd for a circular walk on fairly flat, mainly paved surfaces. Morning only. No washrooms. Bring binoculars.
 10:00 am
- Sat **LESLIE STREET SPIT – Birds, Trees and Plants**
 Sept 30 **Leader: Stephen Kamnitzer.** Meet at the gate to the park at the foot of Leslie St for a circular leisurely exploration of the Spit. Hopefully we will get as far as the tip of the seldom-visited southeast peninsula. You will be able to drop out anytime by walking back along the road. Bring lunch, binoculars and a rain jacket. Mostly paved surfaces, mainly flat with gentle slopes, no stairs. Washrooms at beginning of walk. TTC access: Take the #83 Jones bus south from Donlands subway station to Commissioners St and walk south, or take the #501 Queen streetcar to Leslie St (a longer walk south).

2017-18 SPECIAL PROJECT FUNDING

Thanks to substantial bequests generously entrusted to us over the years, the TFN is pleased to support member-driven initiatives to further our mission to help people understand, enjoy and protect nature in the city. These projects are not funded by membership fees or general donations, but are only made possible by bequests and specifically designated donations. Funding has been awarded to five projects which were either initiated, sponsored or are being carried out by TFN members.

High Park Moth Study (Richard Aaron) \$2,770 to document the abundance, diversity and flight periods of moths in High Park.

Junction Tree Project (Rita Bijons) \$3,000 to heighten public awareness of tree care and maintenance, evaluate current state of trees in the Junction area and train volunteers who will conduct tree maintenance there.

ProtectNatureTO (Sharon Lovett) \$2,000 to design logo and website to inform public of PNTTO's vision for protection of Toronto's natural areas and vulnerable flora and fauna.

Todmorden Mills Wildflower Preserve Slope Enhancement Project (Paula Davies) \$1,200 for the purchase of native trees and shrubs for planting by volunteers on the slope of the Don Valley Parkway at the entrance to Todmorden Mills Wildflower Preserve.

Youth Summit Scholarships (Anne Powell) \$3,500 to sponsor ten Toronto youth to attend the September ON Nature Youth Summit for Biodiversity and Environmental Leadership.

Since 2010, TFN has provided financial support enabling young people to attend Ontario Nature's Youth Summits and participate in their Youth Council. Recently, Ethan Elliott, a Grade 10 student who is a member of ON's Youth Council, was instrumental in having Stratford designated Ontario's second Bee City. The designation signifies an increased commitment from the city for pollinator protection and awareness efforts.

This news highlights the value of TFN's support of ON's nature programs for youth.

PRESIDENT'S REPORT

To all who renewed their TFN membership for 2017-18, thank you, and welcome to all our new members. Space does not allow us to acknowledge each new member, but we hope to become acquainted over the year when we meet on outings, at lectures, or at any of our volunteer opportunities. As well as gaining new members, we inevitably lose a few – something we would naturally rather avoid. To this end, our Promotions and Outreach Committee, chaired by Lynn Miller, has been hard at work finding inventive and effective ways to attract and retain TFN members, by harnessing the power of social media. The committee has also organized and formalized many TFN procedures and has other initiatives in the works.

Although there's an apparent lull in TFN activity over the summer months, with no newsletters or lectures, behind the scenes the work continues. I would like to acknowledge and thank some of the volunteers who have been keeping TFN running smoothly in quiet anonymity at 2 Carlton Street. Nancy Fredenburg, Corinne McDonald and Jan McDonald have been processing new and renewed memberships and updating the membership database, a huge and essential task. Sandy Cappell has been an almost permanent fixture at the office where he looks after TFN communications, attending to the many emails and phone calls that arrive daily. And I frequently run into Barry Singh in the office as he patiently and efficiently tends to TFN bookkeeping, which he has been doing since last fall. Thank you all for your hard work.

In an era of unpredictable weather patterns, this summer has been exceptional. We have seen record rainfall and subsequent record lake levels. Toronto Islands have been inaccessible, an inconvenience for those wishing to visit, and having more serious implications for Island residents and businesses. Many waterfront trails and shorelines have suffered major erosion, resulting in the temporary closures of many favourite trails. Ashbridge's Bay was for a time reverting to its original wetland state. Nesting shorebirds must have suffered significant losses. Dog-strangling vine has come back stronger than ever after last year's drought. But in every crisis there's an opportunity. I have noticed insectivorous birds, notably swallows and chimney swifts, taking advantage of a booming insect population, and the recent "plague" of spring cankerworms must have been a boon to birds feeding their nestlings.

The City's Ravine Strategy goes before City Council Executive Committee on September 8, barring a further delay. The Strategy is full of fine words and laudable aims, and is based on five guiding principles: to "protect, invest,

connect, partner and celebrate." Note that the first-mentioned, and presumably the most important, is to protect. Or, as stated, "All actions related to ravines should be guided by the overarching goal of protecting these spaces by maintaining and improving their ecological health." But good intentions have a habit of being superseded by political considerations. Greater public access, wider trails, off-leash dog parks, improved connectivity and "art" installations are all probably more immediately attractive to voters than ecological restoration. Jason Ramsay-Brown will represent TFN in making a deputation to the Executive Committee to press the case for giving primacy to the protection of natural spaces. I can't think of a better or more articulate ambassador.

As a lifelong cyclist, I should be delighted by the City's unfolding Bike Plan, or more specifically the 77 km expansion described in the 2012 Bikeway Trails Implementation Plan. The full impact and implications of this expansion are only now being realized. Multi-use trails seem to be getting broader. The default width for a primary trail, according to city guidelines, is 7.6 metres, including verges. For high-capacity trails this rises to 8.1 metres. Putting aside the disturbance caused by construction, a swathe this wide will inevitably encroach on natural space, especially where no trail existed previously, such as the proposed East Don Trail from the Forks of the Don to Lawrence Avenue East.

The success of Tommy Thompson Park as a wildlife refuge minutes from downtown Toronto is due in no small way to the "no pets" policy, limited access by motorized vehicles and restricted hours for public access. This may not last. If all goes to plan, the Spit will be open to the public seven days a week in 2018. In addition to the impact of greater public access, both the City and TRCA are being lobbied to allow private vehicular access during open hours, presumably to accommodate members of the Aquatic Park Sailing Club. This is currently prohibited by the Revised Master Plan and Environmental Assessment for Tommy Thompson Park, Section 5.6 available at goo.gl/FQuDRc. Another cause for concern is a newly-paved wide trail leading from the weigh station to Marine Road, giving the public and, sadly, their pets, an alternative, unsupervised entry to the Spit. I hope I'm being unduly alarmist.

Charles Bruce-Thompson
president@torontofieldnaturalists.org

MONTHLY MEETING REPORT

Grow Wild: Gardening with Native Plants

May 7, 2017

Lorraine Johnson, Author,
Faculty of Environmental Studies, York University

Lorraine Johnson is well known as a champion of native plants and author of several books that have inspired gardeners to search out, plant and care for them. Her first native plant garden was in a tiny 10' by 12' plot near Honest Ed's at a time when native plants were synonymous with "weeds" and local councils considered them an untidy blot on the landscape. But this minute plot in the heart of the city attracted hummingbirds in its first year.

The traditional garden, populated with introduced, non-native plants, has little appeal for pollinators, other insects, mammals or birds. The most common garden plant in North America is (non-native) lawn grass – a virtual monoculture. A tidy, manicured garden deprives insects of their favoured nesting spots. Popular non-native trees, like ginkgo, attract virtually no insects. Red oak would be a far better choice. As the author Douglas Tallamy points out in his book *Bringing Nature Home*, no other North American tree attracts quite so many Lepidoptera, on whose larval stage (better known as caterpillars) so many song birds rely to raise their young.

On the other hand, gardening with native plants provides food and nesting habitat for insects, which in turn serve as valuable food for birds. Maintenance is minimal: no pesticides or fertilizers are required and, owing to their greater root depth, the need for watering is reduced if not eliminated. Leaf-clearing in the fall is not only unnecessary but actively discouraged, so that soil is stabilized and carbon sequestered. Also, accidental escapes of horticultural varieties like periwinkle into natural spaces are avoided.

There are a few factors to consider when selecting native plants, the first being geographical location: in our case the intersection of Carolinian and Great Lakes-St Lawrence forest regions.



Ironweed, an excellent addition to a pollinator garden and host plant for the American painted lady butterfly. Photo: Ken Sproule

Next, local conditions: Is your garden characteristic of woodland, prairie, meadow or wetland? Is it dry, wet, shady or sunny? Is the soil rich with plenty of humus or nutrient-poor? Each plant is suited to its own particular terroir. Matching the plant to local conditions will ensure that it flourishes, though Lorraine admitted she had bought, planted and subsequently "lost" a few plants.

For all garden conditions there is a wide selection of possible native plants – so many, in fact, that it is surprising it has taken so long for native plants to be commonly adopted by Toronto gardeners and councils. These plants have evolved here and are thus ideally suited to the area as well as to the wildlife that depends on them for survival.

Native plants can be grown from seed. However, beware of packets of "native plant mixes." Since these are distributed country-wide, they are unlikely to be native to a specific location, and there's no guarantee they are native even to North America. Commercial nurseries are now giving space to native plants, but always check to ensure that they are indeed native and have been ethically sourced, not foraged from the wild.

Native plant gardening is not restricted to the domestic garden. Planting and caring for a native plant garden on school grounds

provide excellent educational opportunities for children. Dry, sunny green roofs will happily accommodate native plants, as demonstrated by the University of Toronto's Green Roof Innovation Testing (GRIT) Lab. Local councils, once the persecutors of native plant gardens, are starting to come around to the native plant philosophy. Even landfills can be adapted. Christina Kingsbury, a visual artist based in Guelph, is turning the decommissioned Eastview landfill site into a pollinator garden using paper quilts embedded with native seeds collected from local wild and restored places. The paper dissolves and the pollinating plants emerge.

A native plant garden can be its own reward. Many native plant gardeners have spent hours in meditative contemplation, lulled by the peaceful sights, sounds and smells of their gardens. So much better than the mechanical cacophony of lawnmowers and leaf blowers!

Charles Bruce-Thompson

TFN GRANT REPORT: HIGH PARK NATURE CENTRE

Reintroducing Nature

By Jon Hayes
High Park Nature Centre

“Welcome to High Park!” marks the beginning of any given Family Nature Walk. For so many of the families who attend, it is their first time visiting High Park. It is an honour to ensure their first impression of this place is steeped in nature. For the experienced naturalists attending a Family Nature Walk, it is an opportunity to deepen their knowledge and perhaps observe something new. Family Nature Walks are for everyone – young children, seniors and everyone in between. Thanks to the support of Toronto Field Naturalists in 2016/17, High Park Nature Centre has led 24 uniquely themed Family Nature Walks over the past year. 685 people have been introduced (or reintroduced) to the wondrous ecosystems, flora and fauna sheltered within High Park.

In late April, we witnessed vast congregations of common plasterer bees (*Colletes inaequalis*) which nest in the sandy areas of lawn and savannah. These solitary ground nesters don't sting, they don't make honey, they are non-social and they nest in cellophane-lined nests underground. Meeting these fascinating “tickle bees” reshapes people's understanding of bees beyond the honeybee.

Summer Family Nature Walks included a public Moth Night in 2016 co-led by the Toronto Entomologists Association. An interpretive walk through the black oak savannah helps illustrate moth lifecycles and the importance of host plants in sustaining these varied creatures. Moths' role in the food web is an important one and it becomes even more impactful when bats begin to swoop above our heads for a mothy breakfast. Moth night finishes at the lights where we see a mind-bogglingly rich diversity of species, sizes, shapes, patterns and colours collected at the sheets. Entomologists help with the identification and listing.

Fall is a time to investigate how plants make babies and how those babies move. We search the fields and forests

of High Park for seeds and determine if they are “tummy travelers” (e.g., buckthorn seeds), hitch-hikers (e.g., burrs), buried treasure (e.g., acorns), flyers (e.g., maple keys) or (our favourite!) the exploders (e.g., jewelweed).

One might assume that winter Family Nature Walks are quieter, but they were our most popular walks. Winter is a time to hone our naturalist skill of close observation. Finding the tiny clues that help identify trees in winter is something kids are quite adept at. Searching the snowy forest floor for owl pellets, coyote scat or tracks left by raccoons, mice or squirrels sparks the imagination as to how these incredibly adapted animals endure our coldest, hungriest season.

Each season one of the Family Nature Walks was delivered by a dedicated group of young naturalists. With the mentorship of our experienced naturalists, these youth-led hikes were carefully researched, developed, practised, revised and finally led. The “High Park Rangers” and the “Eagles” homeschool program are strong role models to younger youth and a great reminder to adults that youth take to stewardship and can teach us all something new.

Thank you to the Toronto Field Naturalists for making our Family Nature Walk program possible and allowing us to introduce or reintroduce people to the amazing nature within High Park.



Moth Night, August 2013. Photo: Andrew Yee

TORONTO VINES: CLEMATIS AND HOG-PEANUT

Clematis is a genus belonging to the Ranunculaceae (buttercup/crowfoot family) which includes about 50 to 60 genera and 2500 species. Previous articles about family members were published in TFN newsletters of 2010 May, 2010 December, and 2016 April.

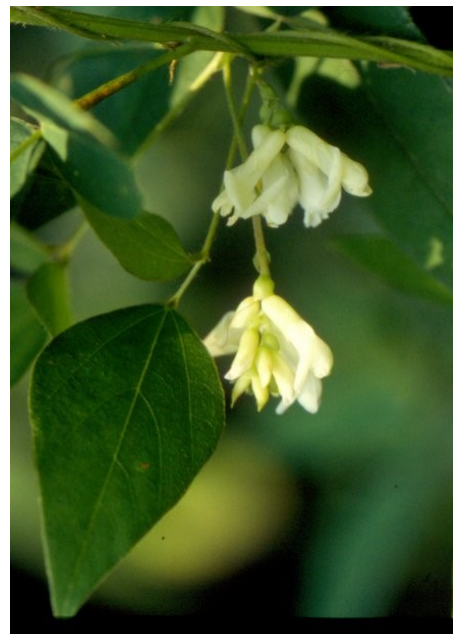
There are about 200 species in the *Clematis* genus. The species native to Toronto is *Clematis virginiana*, known by many common names, including virgin's bower and old man's beard (TFN's *Vascular Plants of Metropolitan Toronto*, 1994, 2nd ed.) and devil's darning needles (U.S. Dept of Agriculture [USDA] PLANTS Database). *Clematis* comes from the Greek *clema* (tendrils). Like many vines, this woody climbing vine, up to about 6 m long, twines itself around other plants for support. Despite the derivation of the name it does not have tendrils but twines with its leaf stalks. Its flowers, about 25 mm wide, grow in panicles from leaf axils. Their blooming period is July to September.

Although listed by the TFN as uncommon, it was recorded in every large valley in Toronto from Etobicoke Creek to the Rouge. Its habitat is various wet areas, from thickets to swamps. *The ROM Field Guide to Wildflowers of Ontario* (2004) shows its Ontario range from the Lake Abitibi ecoregion to the U.S. border and, to the west, immediately north of Lake Superior. The USDA gives a range from Manitoba to Nova Scotia and



the eastern half of the U.S.

Amphicarpaea bracteata (hog-peanut) belongs to the Fabaceae (pea or bean family), as do several previously described species (see 2013 October). This is the third largest plant family (about 730 genera and 19000 to 19700 species). Hog-peanut's generic name comes from the



Greek *amphi* (of both kinds) and *carpos* (fruit) in reference to its producing both aerial flowers and petal-less self-pollinating flowers near the base of the plant. The aerial flowers, 10 to 20 mm wide, occur in leaf axils. It has hairy twining stems up to 1.2 m long. It blooms in August or September. In Toronto it is common in moist woods. According to *The ROM Field Guide*, it occurs from the Georgian Bay ecoregion to the U.S. border and also north and west of Lake Superior. Its full range is from Manitoba to Nova Scotia and most of the eastern 70% of the U.S. (USDA PLANTS Database).

These are species to look for in early fall walks when they can be enjoyed after the mosquitoes leave the scene. If you are looking for birds and the birds are not cooperative, consider these as good alternate targets.

Article and photos by Peter Money

Left: *Clematis virginiana* (virgin's bower)
Above: *Amphicarpaea bracteata* (hog-peanut)

Words of encouragement and appreciation from renewing members

As always, my thanks to all who make TFN work so well! I am getting to know more and more about the respect this organization has, and am proud to be a member.

Anne Leon

With many thanks to all the volunteers at TFN, especially the newsletter committee, outings leaders and the board.

Pinky Franklin

Q&A: SEED DISPERSAL

Question: *I would be interested to know how various plants have evolved to disperse their seeds in different ways.*

Wendy Rothwell

Answer: Seedling establishment is the most precarious time in the life of a plant. For a seedling to survive and thrive, a seed must germinate in a place where water, mineral nutrients and exposure to sunlight are available. Chances for survival are increased if the seed is dispersed away from its already-established parent or vigorous siblings who compete for these essential ingredients. Seed dispersal also moves the seed away from pathogens on the parent plant and from seed predators such as squirrels and birds that might concentrate at the parent, seeking food.

During plant evolution, the reproductive parts of the plant – fruits, other flower parts, seeds, seed appendages and bracts associated with the flower – have been highly modified to aid seed dispersal. These modifications provide some of the best examples of adaptations that allow plants to exploit their physical and biological environment.

Some plants can disperse their seeds without the help of wind, water or animals (autochory). In touch-me-not, green capsules spontaneously split into five sections when fully ripe. Each section has a two-ply structure that causes abrupt inward curvature as it dries, ejecting the seeds up to two meters. High speed videography shows that the process occurs in less than 4 milliseconds! Witch-hazel also uses a ballistic mechanism for seed dispersal. The woody capsules open explosively, ejecting two shiny black seeds and shooting them up to 10 meters. Reputedly this is accompanied by an audible snapping sound, inspiring an alternative name, “snapping hazel nut.”

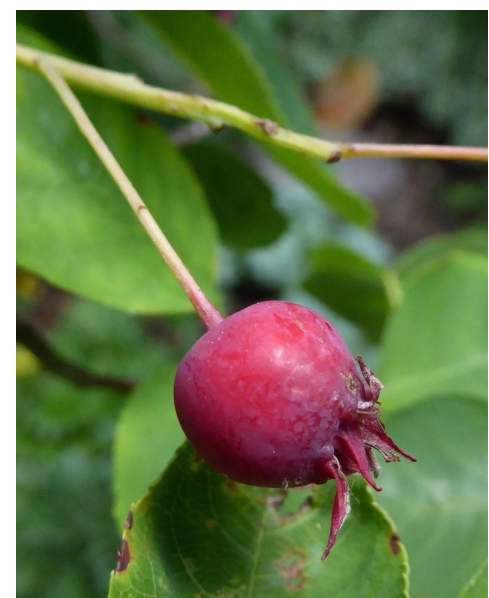
Many plants depend on wind to disperse their seeds (anemochory). In maples, the fruit wall is modified to form the familiar helicopter-like structure that twirls as it falls, providing lift and carrying seeds hundreds of meters from the parent tree. In milkweeds, the protective seed coat develops a plume of silky white hairs that act like a parachute. Some other plants, such as orchids and Indian pipe, produce millions of microscopic dust-like seeds that can float long distances in air currents.

Aquatic plants are often adapted for dispersal by water (hydrochory). The outer covering of water lily seeds contains air pockets. The seeds float, but eventually become waterlogged and sink to the bottom of the pond or watercourse.

Other plants exploit animals by developing sticky hairs, barbs and hooked bristles (epizoochory). Seeds can “hitch-hike” for long distances before being groomed or falling off. Many common names of plants reflect this adaptation: in tick-trefoil, the leguminous pods are covered with hooked bristles; in beggar’s ticks, the outer floral parts (pappus) form 2 – 4 barbed bristles on each fruit; in burdock, each bract surrounding the flower cluster ends in a hooked bristle, forming the bur.

From top:

Milkweed seeds with a parachute of white hairs
Burdock bur, with hooked bristles on the flower cluster
Serviceberry fruit at dispersal stage



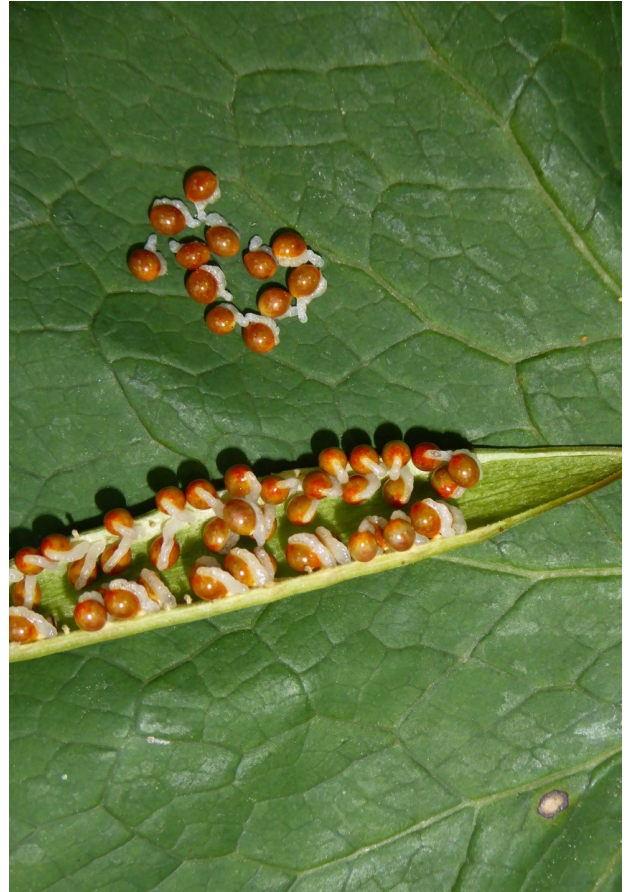
Photos by Ron Dengler

Seed dispersal on the inside of a bird or mammal (endozoochory) is a good example of co-evolution between a plant and its dispersers. Many of our native woody plants, including serviceberry, dogwoods, hawthorns, cherries, plums, blueberries and elderberries, form large, fleshy, nutritious and brightly coloured fruits. During the period that the seeds are developing, the flesh is green, hard and bitter. As the seeds ripen, the fruit's flesh becomes soft and palatable, carbohydrates accumulate, and pigments colour the fruit. Birds such as thrushes, catbirds, and waxwings depend on these fruits, especially during fall migration. Seeds of these plants have a resistant seed coat that can survive travelling in the bird's gut before being regurgitated or defecated. Mammals are mostly seed predators, but some behaviours such as nut-caching and messy eating by squirrels result in at least some seeds surviving to make a new seedling.

Ants can be important dispersers of plant seeds (myrmecochory). The primary adaptation found in all ant-dispersed plants is the elaiosome, a lipid-rich seed appendage. Elaiosomes function to attract ants, which carry the seed to their nests. In the nest, the ants chew off the elaiosome, feed it to their larvae, and then deposit the intact seed in one of their underground garbage piles. Elaiosomes provide a reward for the ants, and the plants benefit by having the seed carried away from the plant and buried out of sight of most seed predators. Plus, the ant's refuse pile provides the compost and fertilizer that will help the seedling get established.

Wildflowers that depend on ants for seed dispersal include bloodroot, wild ginger, spring beauty, hepatica, twinleaf, yellow bellwort and violets. In fact, field studies indicate that more than 30% of the herbaceous plants of the deciduous forests of eastern North America employ ants as their dispersal agents. On a global scale, it's estimated that this mutually beneficial association between ants and plants has arisen over 100 times during the evolution of the flowering plants. The occurrence of ant dispersal in so many unrelated plants may reflect the value of an evolutionary adaptation that is "cheap" (making a tiny elaiosome) in contrast to one that is expensive such as making a large fleshy fruit.

Nancy Dengler



Bloodroot seeds and pod showing glistening white elaiosome food bodies

Photo by Ron Dengler

Seed dispersal terms

Autochory – seed dispersal without aid of an external agent (Gk. self + dispersal)

Anemochory – seed dispersal by wind (Gk. wind + dispersal)

Elaiosome – fleshy edible appendage of seed (Gk. oil + body)

Endozoochory – seed dispersal inside an animal (Gk. within + animal + dispersal)

Epizoochory – seed dispersal on the outside of an animal (Gk. upon + animal + dispersal)

Hydrochory – seed dispersal by water (Gk. water + dispersal)

Myrmecochory – seed dispersal by ants (Gk. ant + dispersal)

TRCA SCARBOROUGH WATERFRONT PROJECT UPDATE

On May 2, TFN members met with TRCA staff to discuss updates on planning for the Scarborough Waterfront Project. A week previously, a TFN party had walked the eastern section from Beechgrove Drive to the Guild Inn to reconnoitre the sensitive East Point area. Bitterly cold, windy weather and near record lake levels rather curtailed our intended itinerary.



Trek to East Point. Photo: Charles Bruce-Thompson

We were hosted by Anne Leon, who has served as the TFN representative on the project's stakeholder committee, and were treated to expansive views of the Highland Creek ravine forest bursting into leaf as well as a hyperactive red squirrel at Anne's feeders.

Karen McDonald, a Senior Project Manager at TRCA (and a TFN member), provided the update on planning for the project, with an emphasis on access points and connections between the top of the bluffs and the shoreline trail. Currently there are four access points: Brimley Road

at Bluffer's Park, Doris McCarthy Trail, Guildwood Park and Beechgrove Drive. Changes to these access points will be minimal in order to avoid impacting the natural habitats that line the slopes of these small gullies. Roads down to Bluffer's Park (Brimley) and Guildwood will be widened to allow pedestrian and wheelchair lanes, with rest areas along the way.

Planning for the eastern segment of the Scarborough Waterfront calls for protection of the landscape and natural habitats of East Point Park. The waterfront trail will be placed at the top of the bluffs, leaving the beach and bluff face in a natural state. The informal trails that criss-cross the site will be decommissioned. There was even a hint that East Point might become dog-free like the Spit! TRCA will be lobbying Parks, Forestry & Recreation to give development of the Management Plan for East Point Park high priority.

TFN members raised concerns about the location of the proposed connection between the shoreline and tableland at the west end of East Point Park. Extending the shoreline trail from Guildwood to this point would destroy the natural sand beach in the Grey Abbey section and replace it with a headland-beach landscape. Karen explained some of the trade-offs in selecting this option which she felt provided the best waterfront experience. TRCA concerns included engineering of a bridge over Grey Abbey Gully and the narrow corridor left between the Rohn & Haas chemical factory and the Metrolinx corridor.

The Draft Environmental Assessment should be ready for review by the stakeholder committee by fall of this year.

Nancy Dengler

ONTARIO NATURE ANNUAL GATHERING

Ontario Nature (ON), of which TFN is a member, held its 86th Annual Gathering in June at Kempenfelt Conference Center on Lake Simcoe. My husband and I had the privilege of attending and were encouraged by meeting the competent and enthusiastic ON staff who work so hard to make things better for nature in Ontario. We learned about some of their programs including Greenway, Alternative Land Use Strategy, the Nature Reserve network and the Nature Guardian and Youth Summit, and became aware of their positions and strategies with respect to issues like threats to pollinators and the Endangered Species Act. The program included two keynote talks about caribou and the boreal forest and the effects of climate change on polar bears in Canada's Arctic.

Five workshops were offered focusing on vernal ponds, mussels, mosses, reptiles and amphibians, and how to deal with invasive plants. The awards ceremony highlighted marvellous accomplishments of individuals and groups which have resulted in substantial improvements for nature: growing the population of trumpeter swans in Ontario, arranging for the purchase of the Sydenham Nature Reserve, developing and running a nature program for kids and youth, and permanently protecting 900 acres on the banks of the Grand River.

We highly recommend that other TFN members take advantage of this wonderful weekend in future years. See www.ontarionature.org.

Anne Purvis

CHILDREN'S CORNER

Oh, Sweet Bee!

Pick words from the word bank to fill in the blanks.

Word Bank:

fruits six buzzing yellow compound
pollinators black bee garden insect

I am an _____.

With _____ legs and two antennae,

I see the world around me using my _____ eyes.

I have three body parts and two strong wings.

I look for sweet smelling flowers as I fly.

What am I? A _____!

I can be found wearing _____ and _____

But I also wear white, orange and green.

I make a _____ sound, as I fly by.

Watch me go, and don't forget to say Hi!

Though we may not all make honey,

By visiting flowers to get pollen and sweet nectar,

We help grow new _____ and vegetables each year.

With this special ability, we are called _____.

Have fun and create your own native pollinator

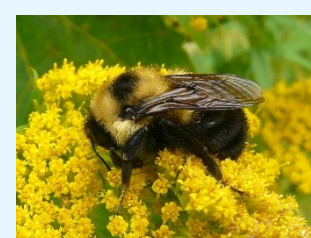
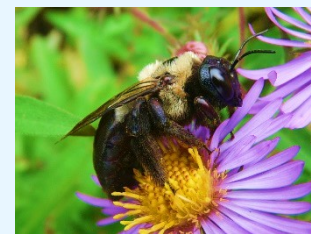
_____.

With lots of flowers bearing nectar and pollen.

We are sure to thrive!

So next time you're outside when it is hot and sunny,

Take a moment and see which of us you can identify!



From top:

common carpenter bee
mining bee
pure green augochlora bee
long-horned bee
bumble bee

Photos by Ken Sproule

Puzzle by Julia del Monte

For answers, see page 17.

EXTRACTS FROM OUTINGS LEADERS' REPORTS

Overwintering Pond Creatures, Trees and Shrubs, Taylor Creek and Cullen Bryant Parks, Apr 8.

Leader: Anne Purvis. We found a water boatman and a damselfly larva which over-wintered in the pond and also saw a rather sluggish green frog. A red-tailed hawk soared overhead. It was lovely to see the white cedar, white spruce and red osier dogwood that had been planted around the ponds. Lots of cattails were shedding last year's fluff. We saw a red-winged blackbird female being chased by a couple of males. The buds of maples and aspens were swelling. We particularly noticed the swollen male alder catkins, and the tiny red female cones lagging behind, probably a strategy to avoid self-pollination. The pussy willows had budded out. There were many winter birds still around – nuthatches, juncos and chickadees eating sumac berries; also many downy woodpeckers and a hairy. Cardinals were calling and flying into view, robins were everywhere, and we had a splendid sight of an American goldfinch. Up on the hydro cut we saw male and female grackles and a yellow-bellied sapsucker. Further west we had an excellent view of a phoebe. We had several good looks at the head markings of the golden-crowned kinglet and song sparrows were singing everywhere.

Spring Frolic – Lost River Urban Ecology, Taylor-Massey Creek, Apr 16. Leader: John Wilson. It was a lovely day to celebrate spring and the unabated, yet ephemeral, resurgence of life on the forest floor. John recited the Prologue to Geoffrey Chaucer's *Canterbury Tales* (c. 1390 CE), setting a scene of rekindled natural life-force calling together April walkers: "Thanne longen folk to goon on pilgrimages..." A foraging groundhog across the creek got everyone's attention. The constructed wetland near Victoria Park was an attraction. We saw patches of bloodroot, trout lily and horsetail. Snowdrops were abundant, introduced near the Goulding Estate/Children's Peace Theatre, while butterbur was re-emerging along lost Donora Stream beside the Goulding building despite efforts to eradicate it.

Woodbine Beach, Apr 20. Leader: Joanne Doucette. It was raining heavily, about 5°C, with strong winds from the east. We walked for only about an hour before stopping by mutual consent. Interesting birds though: a hermit thrush and, spotted by Bob Kortright, a couple of Icelandic gulls (see photo). There was a lot of flooding on Woodbine Beach and strong wave action along the shore. Goodbye volleyball courts!

Mount Pleasant Cemetery to Evergreen Brick Works, Apr 23. Leaders: Kayoko Smith and Roger Powley.

Birds seen included cardinal, flicker, blue jay, red-tailed hawk, grackle, robin, red-winged blackbird, downy woodpecker and song sparrow. We also saw snapping, painted and Blanding's turtles. There was dogwood in bloom, and notable trees seen were seventh son (from China) and Ponderosa pine.

Along the Shore of Lake Ontario, Apr 26. Leader: Edward Freeman. We observed the VIA train coach painted up for Canada 150. After reminiscing about Sunnyside Beach and checking out Palais Royale and the Boulevard Club, we looked at the site of the 1814 American invasion. Ontario Place was looking rather desolate but with some construction activity. After pausing to view a magnificent American elm, we walked through Coronation Park and looked at the royal oak commemorating the coronation of King George VI (see goo.gl/wPdZGH). After lunch we examined the art deco Tip Top Taylor condominium conversion, looked at sculptures in memory of Irish immigration and then entered the Music Garden coloured by many flowers in bloom. The walk ended at Queen's Quay where there were a few historical photos of the waterfront.

G Ross Lord Park, Apr 29. Leaders: Robert and Deirdre Bean. Eleven bird boxes and two bird houses made from shoes were observed and checked, with nesting activity in five (still a little early for nesting). Birds noted included: red-tailed hawk on nest, kinglet, great egret, great blue heron, goldfinch, barn swallow, robin, red-winged blackbird, double-crested cormorant, chipping sparrow, house sparrow, downy woodpecker, cardinal, black-capped chickadees, ring-billed gull, starling, and mallards. There were lots of trees budding, and multiple beautiful blooming forsythias. We saw raccoons sleeping in two trees.

Moore Park Ravine & Brick Works Park, Apr 30. Leader: Jason Ramsay-Brown. Most of the hike was spent exploring how Moore Park Ravine has served as a literary setting and what this use reveals about Torontonians' relationship with the ravine. Readings included passages from: Margaret Atwood's *Cat's Eye*;



The Icelandic gull (*Larus glaucooides*), which is rarely seen in Toronto, attracted many birdwatchers to the Beach in April. This photo was taken by Lynn Pady at Ashbridge's Bay on April 19.

Anne Michaels' *Fugitive Pieces*; Kim Moritsugu's *The Glenwood Treasure* and Maggie Helwig's *Girls Fall Down*. Interestingly, one of the TFN members present was Maggie Helwig's childhood babysitter! Mud Creek showed evidence of intense erosion, far more than remembered from previous years. Recent construction work along the trail has led to great soil disturbance and ushered in a bloom of invasives, most notably garlic mustard and Japanese knotweed.

Birds and Plants, Jim Baillie Nature Reserve, Uxbridge, May 3. Leader: Miles Hearn. Spring migration comes a bit later to Uxbridge than to the more southerly GTA, but we still saw, or more often heard, ruffed grouse, a red-bellied woodpecker, a red-breasted nuthatch, winter wrens, a brown thrasher, a ruby-crowned kinglet, a Nashville warbler, a black-throated green warbler, a northern water-thrush, an eastern meadowlark, purple finches, white-throated sparrows and a swamp sparrow, among other more familiar birds. The sound of the male ruffed grouse's drumming could be heard almost continuously, lending a wonderful bass note to the day. The botanic highlights were shinleaf (*Pyrola elliptica*), Canada fly honeysuckle (*Lonicera canadensis*), eastern prickly gooseberry (*Ribes cynosbati*) and dwarf red raspberry (*Rubus pubescens*). The abundant red maples were in full bloom and the red trilliums were on the brink of blooming. Just south of the shelter we found a pile of fresh bear scat, something we had never seen at the reserve before.

German Mills Creek, May 3. Leader: Theresa Moore. It was heartening to see that, after years of collaboration with local residents and Town of Markham officials, there is excellent signage in the now protected meadow habitat on the west side of the creek. This includes brand new supplementary signs reminding people to stay on trails during the bird breeding season. Plans are in place for a trial butterfly garden in the meadow. Highlights of the walk

included sightings of a kingfisher, kinglets, yellow warbler, northern rough-winged swallows and three meadowlarks. Wildflowers in bloom included trout lily, wild ginger, violets, coltsfoot, false Solomon's-seal and may-apple.

Spring Flowers, Crothers Woods, Sunshine Valley and Cottonwood Flats, May 13. Leader: Margaret McRae.

About 12 students from Lorraine Johnson's ecology class at York University came on the walk. We saw may-apples with buds, sarsaparilla, white trilliums, wild geraniums, lily of the valley, jack-in-the-pulpit and starry false Solomon's-seal flowering. Trees seen were black cherry, sugar maple, oaks, beech and white pine. We noted the black knot on the chokecherry. We also saw invasive garlic mustard, dog-strangling vine, burdock, Japanese knotweed and stinging nettle. We saw cabbage whites and a mourning cloak butterfly.

Birds, Insects & Plants, Leslie St Spit, May 20. Leader: Bob Kortright. At the banding station we admired mostly Baltimore orioles, five swallows feeding and more than 100 swifts overhead. One of the volunteers kindly showed us a kingbird after banding. Other highlights were a male scarlet tanager on the banding station road, a pair of ring-necked ducks on Triangle Pond (possibly nesting), great looks at the black-crowned night-herons, great egret and double-crested cormorants and, in cell 2, 20 whimbrel, numerous dunlin and both least and spotted sandpipers. About 25 of the 60 participants completed the approximately 12-km walk.

Birds and Butterflies, James Gardens/Lambton Woods, May 25. Leader: Carol Sellers. It was a cold, windy, rainy day but several birds were singing and some popped into view. We saw or heard song sparrow, yellow warbler, warbling vireo, oriole, grey catbird, white-breasted nuthatch and downy woodpecker. Wild geraniums were in bloom. Water was flowing over the paths in several places.



Todmorden Mills Wildflower Preserve, May 27. Leader Paula Davies. Left: redbud in bloom; right: geranium providing sustenance for insect life. Photos: Lloyd Mayeda

KEEPING IN TOUCH

Extracts from Lynn Pady's pictorial diary of an exciting windy day at Carden Alvar in early June:

Fields full of prairie smoke, almost ready to bloom in all its luscious flowing pinkness. White field chickweed is out, and a few bits of paintbrush in hot orange. I've never seen columbine in such profusion.



Ah yes, the birds! Wilson's snipe were putting on a show and I was thrilled to be a witness (photo opposite). The liquid call of the meadowlark and, every so often, the tinkling of the bobolinks came thru the wind. The thrill of the day happened when a wee flash burst out of a low scrubby bush along the fence line at Cameron Ranch. I stopped. It stopped on a wire, tucked just in behind some leaves. I urged it to stay still. It did. I took a one inch step to the left and brought up my bins. Tiny, no forehead, pale, bit of an eye ring and, magically, the sun caught the brilliant yellow of the lores. Grasshopper sparrow – one of my hoped-for targets of the day!

The aerial display that went on for about 10 minutes began far, far off in the distance – something pale and big cruising low over the field. It was an adult male harrier, often called a “Grey Ghost.” I had only seen one before and now I had my very own Discovery Channel happening and not a soul to share it with.

And then, bluebirds. What can you say about these dazzlers? At one point I was standing on a road, with meadowlark and bobolink music, a snipe ten feet away, a fabulous upland sandpiper (knobby kneed pole percher) emerging from the grass, a chipping sparrow on a wire hanging on in the gale, and a few pairs of bluebirds gathering grubs to take back to their young. The sun was bright, the sky was forever, the wind blew itself out for a few minutes, and I just stood in utter amazement and wonder. Everything you hope to see was right there surrounding me. Joy. Peace. Gratitude.



Backyard Habitat Certification

As part of Canada's 150th, this spring the East York Garden Club issued a challenge: that 50 members' gardens qualify for certification by the Canadian Wildlife Federation as suitable backyard habitats for wildlife. I accepted this challenge and am proud to say that my backyard has been certified.

The CWF's website (goo.gl/5Tuzte) is very helpful. You can print off the two-page application form or complete it on-line. You will need to describe how your backyard provides water, shelter and food and then, more specifically, types of shelter (e.g., shrubs, snags, logs); types of plants (e.g., native, flowering, seed-bearing perennials) and how your garden is both safe for wildlife and Earth-friendly. Five photographs showing various habitat areas of your yard are requested, as is a map of the general lay-out. The website shows 6 maps of varying sophistication, so if your map-making skills are as rudimentary as mine, don't worry! I am glad to have learned how my garden is already helping wildlife and how I can improve it even further.



Jennifer's photo of a great golden digger wasp on milkweed in her garden.

Jennifer Smith

WEATHER (THIS TIME LAST YEAR)

September 2016

September was another hot month. With a mean of 19.5° at Pearson Airport and 19.9° downtown, it was about 2.5° above normal and just fractionally cooler than the previous year. This was because of slightly lower minimum temperatures than in 2015, which may in turn be due to the drought conditions of this summer.

For the second year in a row, the Labour Day period was very hot. In fact, it hit 35.0° at Pearson and 34.1° downtown on the 7th (the first day of school). This was the hottest September day since 1959 at Pearson and 1983 downtown.

After the 7th, the generally very warm, sunny pattern continued, although with a couple of cool-downs and rainy spells, especially on the 8th. It rose to within a hair's breadth of 30° on the 22nd, but finally dropped below 10° a couple of days later. The occasional rains brought monthly precipitation totals to within a few millimeters of

normal (i.e. around 65 mm versus 70 mm). This was enough to keep vegetation from going brown prematurely for the fall but there was still a significant drought. It was the driest growing season since 2007 and, in some measures, since before that. (The May-August total of 167.2 mm was the lowest since 1959 and the second lowest on record.)

The summer of 2016 was one of Toronto's hottest on record overall and, in some measures, came first. The May to September average of 20.4° at Pearson Airport was the highest on record, beating 20.0° from 2005. Normal is 18.4°. Most other stats (i.e. downtown, or the combination of June to August or September) placed 2016 second after 2005 and/or 1955. In terms of number of very hot days, 2016 was not at the top. There were 38 days with a maximum temperature of 30° or more at Pearson Airport. This is in fifth place. First place belongs to 1959 with a whopping 43 such days.

Gavin Miller

KEEPING IN TOUCH *continued*

Mother Nature – Song lyrics by Roger Powley

*If mother nature wrote those sacred holy books
We'd have new **ethics**, take a look*

*Mother nature has her laws; we must comply
Commandment 1 is don't multiply
Commandment 2 is don't make any life extinct
On this planet every life is linked
Commandment 3 is we must keep the earth pristine
We all need air to breathe and water that is clean*

*If mother nature wrote those sacred holy books
We'd have new **sins**, take a look*

*Recycle plastics, that is number 4
They never will degrade they're here forever more
Number 5 is don't cut down all the trees
Six, don't dump poisons in our seas
Global warming you know it's not a lie
If we don't change our ways the oceans they will rise*

*If mother nature wrote those sacred holy books
We'd have new **morals**, take a look*

Tweet with photo from Karen McDonald, June 18:

Today I have two snapping turtles nesting in my yard!
That steep south-facing sandy hill does have its redeeming features.



Answers from page 13

I am an **insect**.
With **six** legs and two antennae,
I see the world around me using my **compound** eyes.
I have three body parts and two strong wings.
I look for sweet smelling flowers as I fly.
What am I? A **bee!**

I can be found wearing **black** and **yellow**
But I also wear white, orange and green.
I make a **buzzing** sound, as I fly by.
Watch me go, and don't forget to say Hi!

Though we may not all make honey,
By visiting flowers to get pollen and sweet nectar,
We help grow new **fruits** and vegetables each year.
With this special ability, we are called **pollinators**.

Have fun and create your own native pollinator **garden**,
With lots of flowers bearing nectar and pollen.
We are sure to thrive!

IN THE NEWS

Creating a better bird collar?

Domestic cats are responsible for about 196 million bird deaths every year. Campaigns aimed at cat owners in an attempt to convince them to keep their cats indoors have only been moderately successful, so there is a market for products that let cats roam around but prevent kills (e.g. ultrasonic devices). Simply putting a bell on a cat's collar causes cats to return with 41% fewer birds than cats with a plain collar.



Photo courtesy of Birdsbesafe

with birds. The collar's colours are specifically designed to be highly visible to bird vision and the product's aesthetic is designed to be acceptable by cat owners. The latter is important as products like CatBib, though effective, are bulky and unappealing to owners. Still, the best way to protect birds from pet cats is to keep them indoors.

Birdsbesafe collar: <https://www.birdsbesafe.com>

CatBib collar: <https://catgoods.com>

Global Ecology and Conservation study: <https://goo.gl/PJakkM>

Wetland Conservation Strategy for Ontario

The Ontario government has released their new *Wetland Conservation Strategy for Ontario*. The document recognizes the importance of wetlands for flood control, climate change mitigation and providing clean water. It also recognizes the significant threats to these sensitive ecosystems and the need for protection if we want them to survive. The strategy includes the prohibition of development on Provincially Significant Wetlands (PSWs) and provincially significant Great Lakes coastal wetlands. Non-provincially significant areas are still under threat of development, though it has to be demonstrated that the development will have no negative impacts.

The province has committed to three main actions:

1. Improving Ontario's Wetland Inventory and Mapping
2. Creating No Net Loss Policy for Ontario's Wetlands
3. Improving for the Evaluation of Significant Wetlands

Two targets have been set to measure the success of the strategy:

- By 2025, the net loss of wetland area and function is halted where wetland loss has been the greatest.
- By 2030, a net gain in wetland area and function is achieved where wetland loss has been the greatest.

The *Wetland Conservation Strategy for Ontario* document contains much more information for those interested. A pdf version can be found at <https://goo.gl/UUjPpz>.

There's an inchworm on your back

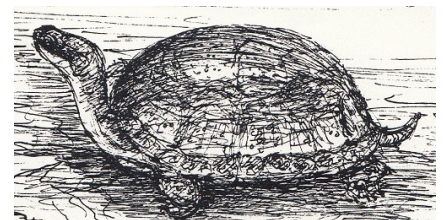
For the first time in 17 years Toronto has an inchworm infestation. Also called cankerworms, the tiny pests ravished tree foliage in the early summer. Unlike gypsy moths, cankerworms are native and part of a natural cycle. Gypsy moths are more destructive since their larvae feed on leaves for 7-8 weeks while cankerworms only feed for 2 weeks. Cankerworms prefer hardwood tree leaves like oak, maple, cherry and apple. Trees can normally survive an infestation and regrow their leaves fairly quickly once the cankerworms have moved on in their life cycle.

So why do we find ourselves bedecked with tiny inchworms on our clothes around mid-summer? It's part of their life cycle. The caterpillars drop from the trees to pupate in the soil. We just get in the way. In the fall they will emerge as moths. The males have wings but the females are wingless. So one way of protecting your trees is to wrap a sticky band around the base, as the females need to climb the tree to mate.

More Blanding's turtles released in Rouge Park

Blanding's turtles have inhabited the Rouge Valley for thousands of years, but came close to extirpation when only about six turtles remained in 2013. Toronto Zoo, Parks Canada and Toronto and Region Conservation are working to rebuild the population and have been releasing baby turtles into Rouge park since 2014. Eggs are collected from a stable population of turtles and raised in a controlled environment at the Toronto Zoo. Once the baby turtles are two years old they are released. Since Blanding's turtles have a life span of up to 80 years, and don't start reproducing until they are in their teens, two years old is still very young, but old enough that their shell has hardened sufficiently to provide protection.

This year 49 baby Blanding's turtles were released compared to 36 in 2016, 21 in 2015 and 10 in 2014, the first year of the program. The turtles are released into an artificial wetland that is isolated from the busy roads that take a toll on all turtle species. Each turtle is also tagged with a radio-tracker so researchers can study the success of the program.



Lynn Miller

Blanding's turtle.

Drawing: Diana Banville

COMING EVENTS

If you plan to attend any of these events, we recommend that you contact the organizing group beforehand to confirm time and place.

Jim Baillie Memorial Bird Walks – Toronto Ornithological Club (www.torontobirding.ca)

Aimed at the intermediate birder, but beginners also welcome. Free to the public.

- Sun Sept 3, 8 am to afternoon. High Park. Leader: Leslie Kinrys. Meet at the parking lot inside the Bloor St entrance at High Park Ave. Fall migrants, raptors.
- Sat Sept 9, 8 am to afternoon. Leslie Street Spit. Leaders: Justin Peter and apprentice Caroline Biel. Meet at the entrance to Tommy Thompson Park, Unwin Ave and Leslie St (south of Lake Shore Blvd E). Fall migrants, including warblers and other songbirds, raptors, shorebirds and more.
- Sun Sept 17, 8 am to noon. Lambton Woods. Leader: Don Burton. Meet at James Gardens parking lot (access from Edenbridge Dr east of Royal York Rd, north of Dundas St W). Fall migrants.
- Sat Sept 23, 7:30 am to afternoon. Toronto Islands. Leader: Adam Capparelli. Meet at the ferry docks at the foot of Bay St off Queen's Quay to catch the 8:15am ferry to Hanlan's Point (fare required). Bring lunch. Late migrants, raptors and more.

High Park Walking Tours (www.highpark.org)

1st and 3rd Sundays of each month from 10:30 to noon. Meet at the benches south of the Grenadier Restaurant.

- Sept 10 Fall Plants and Flowers, Ron Luft
- Sept 17 Myths and Legends, Colborne Lodge Staff

The Gem & Mineral Club of Scarborough (www.scarbgemclub.ca)

Sat Sept 23, 10 am - 6 pm; Sun Sept 24, 11 am - 5 pm. Wonders of the Earth Gem & Mineral Show and Sale. Don Montgomery Community Centre, 2467 Eglinton Ave E (near Kennedy subway station). Adults \$5. Children \$1.

Mycological Society of Toronto (www.mycotor.org)

Check their website for forays in September.

The Market Gallery (www.toronto.ca/marketgallery)

Until Nov 25: Maple Leaf Forever: Toronto's Take on a National Symbol.

LEAF (www.yourleaf.org/node/1682)

- Sat Sept 23, 1-4 pm. Drawing Trees with Alan Li. High Park. \$50+HST. Registration required.

Lost Rivers Walks (www.lostrivers.ca)

Walking tours limited to 20 participants. To ensure a spot on the tour, please email in advance to info@labspacestudio.com.

Ian Wheal Walks

- Fri Sept 1, 6:45 pm. Latino Horses: Legion of Frontiersmen (WWI). Meet at the northwest corner of Keele St and St Clair Ave W. A 7-km walk.
- Tues Sept 5, 1:30 pm. Strawberry Walk (cultivation sites and sales). CN Rail Trains, Parkdale to Liberty Village. Meet at the south side of King St W at Roncesvalles Ave.
- Sat Sept 16, 1:30 pm. The Green Line: Earlscourt to Don River (Riverdale Park). Meet at the southwest corner of Caledonia Rd and St Clair Ave W.

Thickson's Woods Nature Reserve

16th Annual Birds, Beavers and Butterflies Nature Festival

September 16, 9 am - 3:30 pm. Adults \$5, Kids \$2, Families \$10 (cash only)

Bird Banding	Speaking of Wildlife (10 am and 2 pm)
Geology	Magic Show (11 am)
Guided nature walks	Creepy critters (noon)
Build your own nature box	Nature art and gifts
Bugs and Botany	And more!

From Hwy 401 in Whitby, take Thickson Road south to the Waterfront Trail. Follow the signs.
Info: 905-433-7875 or www.thicksonswoods.com Email: nature@thicksonswoods.com

Note: No dogs allowed in nature reserve.

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Very hungry barn swallows at
Leslie Street Spit, June 25th.

Photo: Miriam Garfinkle