

The Orchid

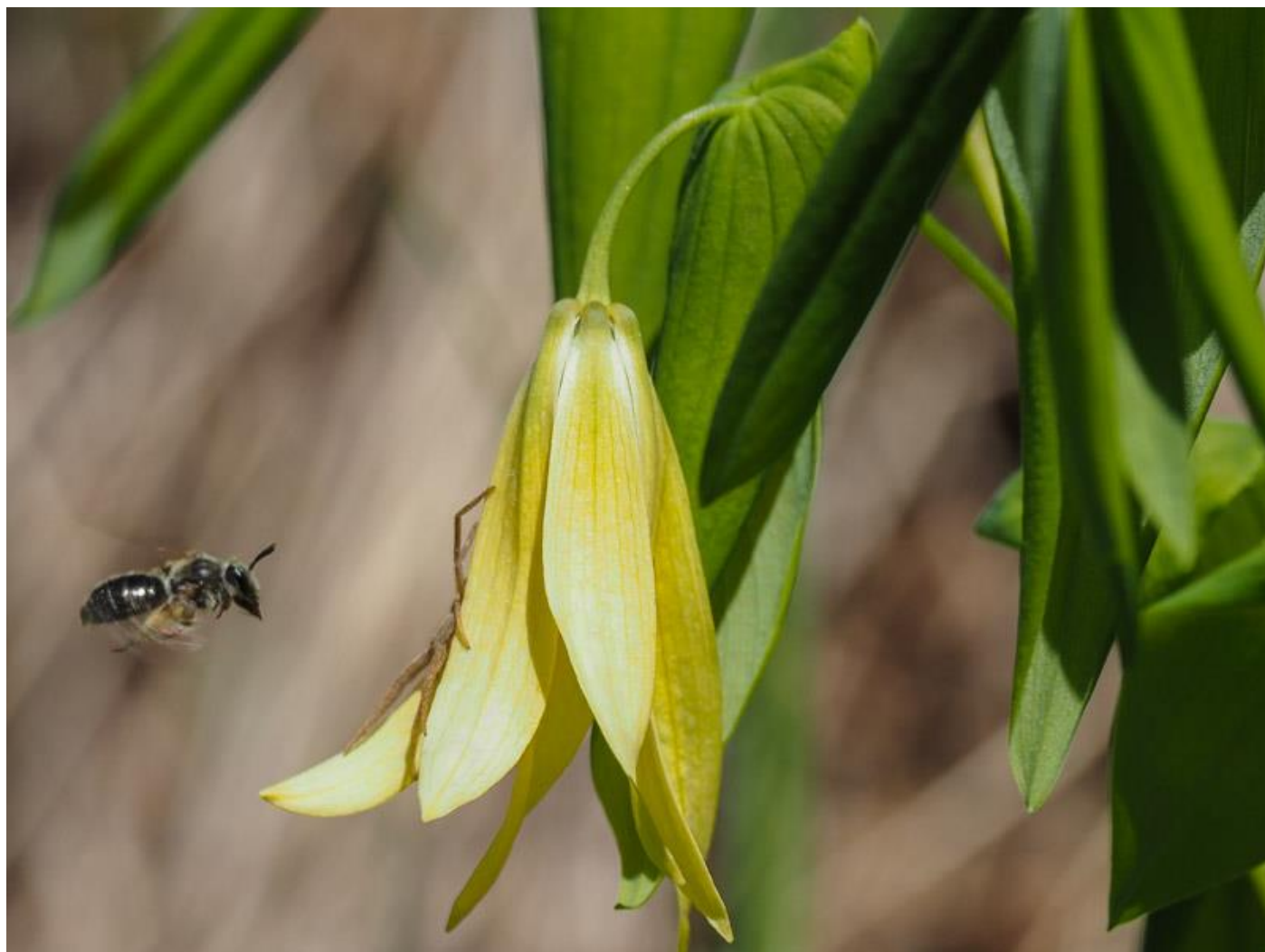


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Know • Appreciate • Conserve Nature in All Its Forms



A Bee Visiting a Large-flowered Bellwort, and a Spider. Photo: Ken Morrison

Inside: Nature Almanac for June
A House Finch Family in the Making – Part 2
Northern Saw-whet Owl Banding Report
Poem: Lament for the Wildlife Sanctuary

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Welcome new PFN members!

- Karl Moher
- Tony Barrett

Native Spring Flowers.

Clockwise from top: Lady's Slipper Orchid (Kathryn Sheridan), Bloodroot (Sue Paradisis), Spring Beauty (Sue Paradisis), and Red Trillium with Assassin Bug nymph (Heidi St. Thomas)

PFN Coming Events

At this time, outings continue to be on hold. Should that change over the summer, details will be posted on the PFN website at peterboroughnature.org

<p>Thursday, June 10 7:30 p.m. Virtual meeting on Zoom Invitations e-mailed to members</p>	<p>PFN Meeting: Shifting Distributions of Canada Lynx and Bobcat</p> <p>Dr. Jeff Bowman is a Senior Research Scientist with the Wildlife Research and Monitoring Section of the Ontario Ministry of Natural Resources and Forestry, and also an Adjunct Professor in the Environmental and Life sciences Graduate Program at Trent University.</p> <p>Jeff will present the findings of recent research on the shifting distributions of Canada lynx and bobcat in Ontario, including a description of a live-trapping and collaring study on the North Shore of Lake Huron.</p>
<p>Thursday, July 8</p>	<p>PFN meeting cancelled. The date of September's meeting will be announced in the next Orchid at the end of August as well as on the PFN website.</p>

Other Events of Interest

<p>Saturday, Jun. 12 9 a.m. to noon Zoom video conference</p>	<p>Ontario Nature's 90th Annual Gathering Celebration</p> <p>"Our members are the heart and soul of Ontario Nature and we invite you to join our virtual Annual Gathering. Join us for the opportunity to connect with fellow nature lovers and old friends." For more information, visit: https://ontarionature.org/events/annual-gathering/</p>
<p>Tuesday, Jun. 29 7 p.m. Zoom video conference</p>	<p>The Wonderful World of Insects</p> <p>Robert DiFruscia will "Zoom in" on insects with this non-technical presentation for the casually interested person. Robert's talk will cover the diversity of insects found in the area, with extra attention given to his interest in moths. Register for the Zoom link at secretarykuc@nexicom.net.</p>

Volunteer Zoomologist Needed

Calling all Zoom experts! Do you have experience running meetings using Zoom? Are you interested in showcasing your moderation skills? Do you enjoy our monthly members' meetings and attend them on a regular basis? If yes, then we have an opportunity with your name on it!



The PFN Board of Directors is seeking the support of a PFN member who is interested and willing to run our monthly members' meetings starting this fall. Our current "Zoomologist" will show you the ropes and continue to provide support as needed. This is a great opportunity to support the continuity of our monthly meetings (while online) and to get to know our speakers a bit more closely. Time commitment is approximately 2 hours per month, including attending the members' meeting. If interested (or to learn more), contact Reem Ali: reemest@hotmail.com.

Orchid submissions are encouraged!

The submission deadline for the next issue is Friday, August 20.

Send submissions to Kathryn Sheridan via email: orchid@peterboroughnature.org

or post mail to: PFN, PO Box 1532, Peterborough ON K9J 7H7

**PFN Undergraduate Research Grant**

Each year, the Peterborough Field Naturalists awards grants to undergraduate students at Trent University to assist in the completion of their fourth-year thesis projects in biology. Funding for these grants come from the annual income from the PFN Legacy Fund, an endowment fund administered for the PFN by the Community Foundation of Greater Peterborough. The following article is by Peter Andreas, one of the recent grant recipients. It details the result of his research.

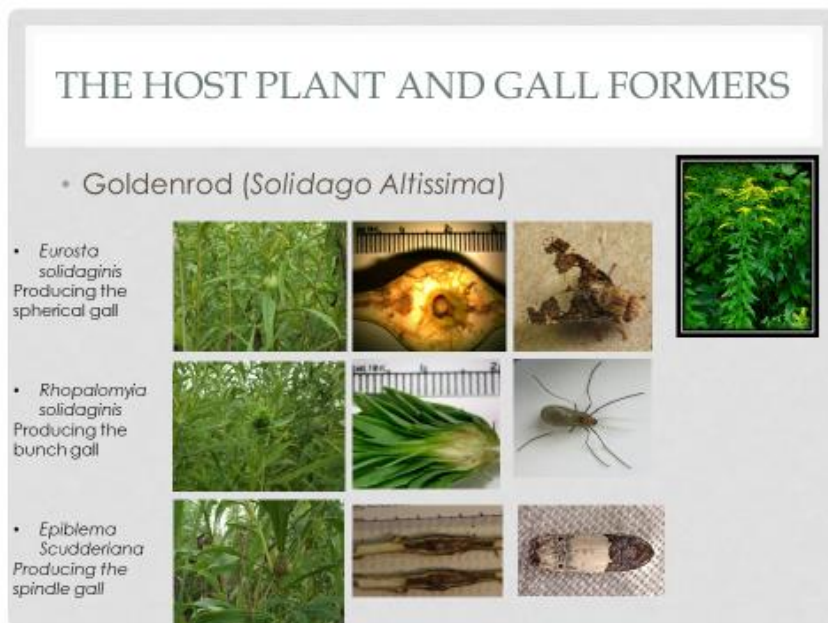
Summary of Research on Gall-Forming Insects**Submitted by Peter Andreas, Fourth-Year Trent University Student**

Cytokinins (CKs) are a class of phytohormones that control plant growth and development. Curiously, these molecules are also found in insects. A group of insects known as gall formers appear to use CKs to manipulate their host plant into producing a tumor-like growth to facilitate the insect's life cycle.

Furthermore, our research analyzed CK profiles involved in common goldenrod (*Solidago altissima*) gall systems including the host plant and three unique insects which form different gall types on *S. altissima* stems and leaves: (*Gnorimoschema gallaesolidaginis*) producing the spindle gall, (*Eurosta solidaginis*) producing the spherical gall, and (*Rhopalomyia solidaginis*) producing the bunch gall.

The CK hormone profiles measured in the gall-forming insect larvae, the plant gall tissue, and ungalled plant control tissue showed unique hormone profile signatures. The two large galls, including the ball gall and the bunch gall systems, showed that gall-forming insect larvae contained between 155 and 71 times more CKs when compared to the plant gall tissue and ungalled control. The smaller spindle gall-forming insect larvae contained around 8 to 1.5 times more CKs when compared to the ungalled plant control tissue and plant gall tissue. Further analysis conducted on ball gall larvae at different developmental stages showed a clear diminishing concentration trend over the developmental time points [instars 1 to 3]. From 1st to 2nd instar there was more than a 2.7-fold decrease in total CK concentration and 320-fold decrease from 2nd to 3rd instar.

These findings indicate that gall-forming insect are likely producing unique plant hormones signatures to stimulate the growth of the galls that sustain them. Further, larger galls require more hormones to develop these macrohabitats to allow insects to develop through their life stages. Lastly, insects produce these plant hormones in large amounts early in development of the gall, and the hormones are transferred into the plant and are used up to grow the galls.



PFN Contribution Appreciated

The following press release acknowledges the donation by Peterborough Field Naturalists towards the purchase of the Cedarhurst Alvar property within the Carden Alvar. This donation was made possible through support that the PFN receives from its members.

Carden Alvar Conservation Area Expanded

Over 500 hectares (over 1,000 acres) conserved in the heart of Carden Alvar

Orillia, ON (April 27, 2021) – The Nature Conservancy of Canada (NCC) and the Couchiching Conservancy announced today the successful completion of efforts to purchase a key piece of the globally important Carden Alvar. The 551-hectare (1,362-acre) Cedarhurst Alvar property in the heart of the larger Carden Alvar, located 35 kilometres northeast of Orillia, is now protected for the long term.

The Cedarhurst Alvar property contains some of the most significant natural habitat in the province. Alvars, naturally open habitats with either a thin covering of soil, or no soil, over a base of limestone or dolostone bedrock, are extremely rare. They exist only in a handful of locations across the globe, including the eastern European Baltic region, the United Kingdom and Ireland. In North America, almost 75 per cent of alvars are in Ontario.

This important local land purchase was made possible thanks to the generosity of many area residents and organizations, especially the Couchiching Conservancy, Jane Bonsteel, Carden Field Naturalists, John and Margaret Catto, The Connor, Clark and Lunn Foundation, Ian Cook and Carol Phillips, The Gosling Foundation, Dr. Nancy Ironside, Jean O'Grady, Dr. Ken Ockenden, Ontario Field Ornithologists, Peterborough Field Naturalists, Pilkington-Henniger Charitable Trust, Judy and Lou Probst, Linda Read, Joan and John Rosebush, the late John Speakman, Bill and Sue Swinimer Family, Bruce and Heather Whitehouse, Toronto Ornithological Club, Zita and Mark Bernstein Family Foundation, and many private donors. The project was funded in part by the Government of Canada's Natural Heritage Conservation Program, part of Canada's Nature Fund, as well as by funding provided by the Ontario government, through the Greenlands Conservation Partnership.

This new privately protected area provides Ontarians with \$10 million in ecosystem goods and services annually, including carbon storage, the removal of air pollution and flood water storage. The property's diverse habitats, including forests, wetlands and grasslands, act as sponges during spring run-off and major storms. By storing carbon and buffering local communities from the impacts of increasingly severe weather events, the property is an excellent example of the nature-based solutions needed to help combat climate change.

Home to many grassland birds listed under Canada's Species at Risk Act, including grasshopper sparrow (special concern), bobolink (threatened) and eastern meadowlark (threatened), the Cedarhurst Alvar property adds to an existing network of conservation lands.

Its addition helps form a conservation corridor between Carden Alvar Provincial Park to the south and NCC- and partner-conserved lands extending north to Queen Elizabeth II Wildlands Provincial Park.



PFN Becomes a Sponsor of the 2021 Monarch Ultra Run

Submitted by Ted Vale

Many of you are familiar with Monarch Ultra, a local organization dedicated to raising public awareness of the plight of the Monarch Butterfly and encouraging public action to protect them.

This fall, Monarch Ultra is organizing a 21-day relay run throughout southern Ontario to support its objectives and raise funds for the cause. The run will take place from September 19 to October 9 which is approximately the time of the Monarch butterfly's migration to Mexico. Because of COVID-19 travel restrictions, this year's relay will not cross international boundaries.



Monarch photo by Basil Conlin

The PFN has decided to become a sponsor of the Relay at the "Caterpillar" level in the amount of \$250. Our donation will go towards defraying the costs of organizing the relay. In return for supporting the cause of the Monarch Butterfly, the PFN will receive recognition, including our logo on all promotional materials for the relay.

You can learn more about Monarch Ultra and how to contribute to their activities at www.themonarchultra.com.

2021 NABA Butterflies Counts

Submitted by Martin Parker

Butterfly counts across North America are a citizen-science initiative of the North American Butterfly Association (NABA). They are based on the same protocol as Christmas Bird Counts. Each count covers an area contained within a circle with a radius of 7 ½ miles. The circle is then divided into smaller areas and each area is covered by a small group of participants. Each group will look for butterflies. They will identify them to the species level and record the number of individuals per species.

There are two NABA butterfly counts in this region. The longest running count is the Petroglyphs Count, now in its 22nd year. This count is traditionally held on the third Saturday in July, being July 17. The count compiler is Jerry Ball. If you wish to participate, please submit an e-mail to mparker19@cogeco.ca which will then be provided to Jerry.



Compton's Tortoiseshell butterflies on April 5. Photo: Heidi St. Thomas

The other count is the Fenelon Falls Count, now in its 6th year. This count was founded by Dan Bone. Last year, the compiling was passed to Martin Parker. This year's count will be held on Thursday, July 22. The Fenelon Falls Count is centered in the Fenelon Falls area and is a joint project with the Kawartha Field Naturalists. If you wish to participate, please contact Martin Parker at mparker19@cogeco.ca. The Petroglyphs Count traditionally has the most species of any count in the province and has the continental high for Dun Skippers.

Both of these counts will be operated in accordance with the COVID-19 health regulations in effect on the day of the count.

Nature Almanac for June, July and August

By Drew Monkman

June – Endless Days and the Urgency of Life

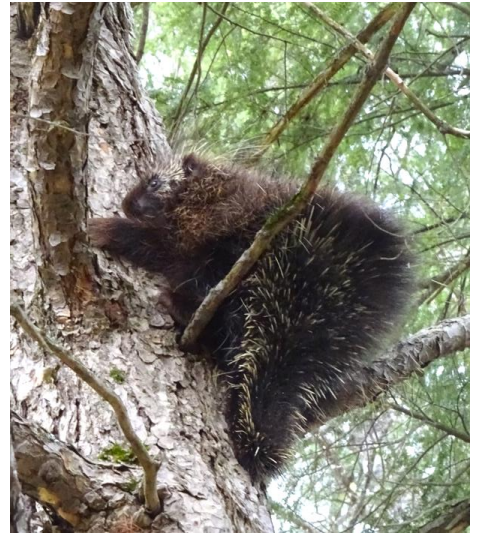
“Generous June is a wonderful time to be alive and know this sweet land.” – Hal Borland

After the hectic days of May, June ushers in a time of relative calm for those who enjoy observing the natural world. There is still much to be seen, but the pace of change has slowed. It's a little easier now to keep up with all that is new. The frenzy of spring bird migration has finally ended and most of our trees have already flowered and come into full leaf. We can now turn our attention to gentler pursuits such as dazzling moths and butterflies and breathtaking orchids

The June sun arches higher overhead than at any other time of year giving more than 15 hours of daylight and conveying a sense of unending time. Hal Borland, the former New York Times nature columnist, spoke of the month as “long, sweet days we bought and paid for with long, cold nights and short, bitter days at the dark turn of the year in December.” This is a month to be savoured.

Although many of June's events can be observed in your own backyard or neighbourhood, a few may require a short drive or some special searching.

1. The annual roadside flower parade begins with mustards and buttercups blooming first.
2. In downtown Peterborough and Lakefield, chimney swifts are putting on quite a show. Pairs can be seen in courtship flight as they raise their wings and glide in a V position. Swifts nest in colonies inside the walls of old chimneys. Like their swallow cousins, they are in serious decline.
3. Common carp are spawning. They can be seen thrashing at the surface of shallow rivers, bays and backwaters. The fish sometimes jump right out of the water.
4. Dragonflies become quite common. Sometimes, thousands of individuals of the same species will emerge on the same day and fill the air around cottages and along country roads.
5. Mother chipmunks force their young to leave the den and to find their own territories. This dispersal is accompanied by a constant barrage of “chuck-chuck” sounds.
6. Birdsong is at its most diverse. Make a point of getting up and listening to the “dawn chorus,” the fervent birdsong that takes place each morning before the sun comes up. Robins usually lead off the show – at least in the city – but a myriad of other species soon joins in.
7. At just about any time this month, adult mayflies emerge from lakes and streams and form large mating swarms. They are most often seen in the evening or early morning.
8. Small-mouth, large-mouth, and rock bass, along with pumpkinseeds and bluegills, are spawning and can be seen guarding their shallow-water nests.
9. Painted turtles and snapping turtles are often seen along roadsides and other sandy locations laying their eggs. Please slow down in turtle-crossing zones and, if safe, help the reptile across the road.



Porcupine photo by Joanne Sutherland

10. On warm, still nights, giant silk moths are sometimes attracted to white lights. They may be seen flying around the light or sitting on the pole or ground. Watch especially for the Cecropia.
11. Serviceberries (Juneberries) are the first shrubs to boast ripe fruit. Silver maple keys ripen about now, too, and fall to the ground in huge quantities.
12. The gray treefrog chorus of melodious, two-second bursts of bird-like trills reaches its peak.
13. Ox-eye daisies and dame's-rocket bloom in fields and along roadsides.
14. Male hummingbirds can be seen doing their pendulum courtship flight, almost as if suspended from a string. They fly in wide arcs above and to both sides of the female.
15. Black cherries and black locusts come into flower. Locust flowers are extremely aromatic.
16. The green frog's banjo-like "poink" is a widespread sound in wetlands both day and night.
17. The male cones of white and red pines release their pollen. Decks, picnic tables and shorelines look like they've been powdered with a yellow dust.
18. The first monarch butterflies of the new year are usually seen sometime during the first half of June. These are usually the "grandchildren" of the monarchs that flew to Mexico last fall.
19. June through early July is a critical time for loons. The birds are very vulnerable to disturbance by humans as they attempt to nest and care for their chicks.
20. When the weather is dry enough, usually thanks to drying north winds, the first cut of hay takes place. Unfortunately, this often kills the babies of field-nesting birds such as bobolinks.
21. The summer solstice occurs on June 20, 21, or 22, depending on the year. The sun will rise and set farther north than on any other day of the year. At about 1 p.m., it is at its highest point in the sky of the entire year and casts shorter shadows than at any other time.
22. More than 20 species of orchids bloom this month. Among them is the spectacular showy lady's slipper.
23. The summer stars have arrived. The three stars of the Summer Triangle, Vega, Deneb and Altair, can be seen low in the eastern sky soon after dark.
24. Black bears can sometimes be found in hay fields, grazing on clover and alfalfa.
25. Warm, late June nights are wonderful for firefly watching. The magical flashes of light from the male serve to attract a female. She will respond with her own luminous signal.
26. Crows and red-winged blackbirds have now finished nesting and reform flocks.
27. Butterfly-watching is usually at its most productive in early summer since the greatest number of species is aflight at this time. Tiger swallowtails, white admirals, and European skippers are particularly noticeable.
28. Baby loons usually hatch in the last week of June or the first week of July.
29. Look high overhead for Arcturus, the star that heralded the arrival of spring. It is now the brightest star in the sky.
30. Common elderberries, along with cattails, bloom along wetland edges.



Midland Painted Turtle. Photo: Ken Morrison

July – Summer at Its Height

July, the seventh month of the year in the Gregorian calendar, represents summer at its height. It is our warmest month with hot, humid and often thundery weather. Roadside flowers are at their most colourful and diverse. The scent of milkweed and basswood flowers fills the air as cicadas buzz in the background. Many bird voices, however, fall silent this month and won't be heard again until next spring. Blackbirds and swallows flock up and, as a cruel reminder of time's relentless march forward, the first southward-bound shorebirds start to pass through.

August – Summer Becoming Fall

Henry David Thoreau, the great American naturalist and philosopher, once observed "how early in the year it begins to be late." How true this is. Despite weather which is often hot and sultry, August delivers each year the first real signs of fall. The frantic plant growth and animal activity of spring and early summer have now been replaced by an almost lazy feeling of calm. The avian and amphibian choruses of only a few weeks ago have mostly fallen silent and given way to a more gentle orchestra of cicadas, grasshoppers and crickets. Bird migration is already under way, the first leaves are beginning to change colour and roadsides will soon be transformed by a yellow cloak of goldenrod.

Despite the premonitions of summer's end, August is still very much a month to be savoured. Among the month's delights are the delicious taste of fresh corn and tomatoes, the calming sight of misty dawns, the often clear, cool nights illuminated by the Milky Way and the sound of snowy tree crickets calling in perfect unison as we fall asleep.

With late August comes the anticipation of bright, cool September weekends and the riot of leaf colour that is just around the corner. In a cultural sense, August is much more the end of the year than is December. With Labour Day, our lives begin anew as school reconvenes and countless community activities begin again.

Editor's Note: Readers are encouraged to visit Drew's website (drewmonkman.com) or pick up Drew's book entitled "Nature's Year" to read more about what happens in nature in July and August.



Double-crested Cormorants. Photo: Heidi St. Thomas



Fledgling birds of 2021: Northern Cardinal (left) and American Robin (right). Photos: Cathy Douglas

Lament for the Wildlife Sanctuary
(with apologies to Dr. Seuss)

Do you like this canine poo?

Do you like this doggie do?

I do not like this doggie do

It ruins things for me and you.

I do not like it here, or there

I do not like it anywhere.

I do not like this excrement

It's not good for my temperament!

Do you like it in a bag?

(Even though I hate to nag...)

I do not like it in a bag

On a branch it makes me gag.

I do not like it by a bin

Especially when beside, not in!

I do not like this dog latrine

A nature path should be pristine.

Do you like it on your boots?

(Dog owners don't give two hoots.)

I do not like it on my boots

It's foul and smelly and pollutes.

I do not like it underfoot--

Not where droppings should be put.

Smeared upon a toddler's hand -

This is not the promised land!

This sea of crap has got to go.

It's humans who have made it so.

It's harmful to the birds and bees

And feces carry much disease.

These woods were meant for nature walks,

Cross country skis, and quiet talks.

Instead, we find ourselves among

An endless trail of steaming dung.

The naturalists leave in haste.

(They know if woods are full of waste,

With dogs off leash the livelong day

That birds and critters stay away.)

You folks who won't control your pets

Or pick up mess, it's time for threats:

Let's gather up the piles of poop

And dump the lot on YOUR front stoop!

Anonymous
March 19, 2021



A Pair of Finches in a Christmas Wreath – Part 2

Submitted by Don McLeod and Colleen Lynch

Orchid readers will remember Part 1 to the story about a pair of House Finches that set up 'home' in a Christmas wreath (*The Orchid* May 2021). Fortunately, the story continued without any nest raiding and there are plenty of interesting developments to report.

Egg laying had commenced with a House Finch egg on April 20. There were two House Finch eggs and one Brown-headed Cowbird egg by April 22, when Part 1 of the story had to be submitted. Egg laying continued with one more Cowbird egg and three more Finch eggs for a grand total of seven by April 25! The female House Finch began sitting on the nest in earnest on April 21. The male House Finch fed the female during this time.

On occasion, the female would leave the nest when nature called. During these times there was a brief opportunity to get a photograph without disturbing the adults, and the eggs were blissfully unaware. Regular daily photos revealed a most interesting trend. The eggs moved! The female was clearly responsible for the movement which is part of proper egg incubation. Eggs need to be periodically moved or rolled over for proper development.

Continuous egg incubation by the female took place from April 21 until the first egg hatched on May 6, which happened



First hatchlings on May 6 and 7. The House Finch hatchling shows more down filaments than the Brown-headed Cowbird. Photo: Don McLeod



Five House Finch eggs & two Brown-headed Cowbird eggs on April 26 and May 5. Photos show egg movement during incubation. Photos: Don McLeod

to be a Brown-headed Cowbird. On May 7, a House Finch egg hatched. The next eggs to hatch were also House Finches. For the first few days of hatching, the adult female brooded on the nest to continue incubation and keep the hatchlings warm. But after these first few days, she left the nest for long periods of time, joining the male in an endless search for food to feed the nestlings.

The nest scene became more difficult to assess during the following week. As more eggs hatched, the nestlings formed a ball which made it difficult to identify the two species and to count the nestlings. Most of the eggs hatched in three to four days. One House Finch egg was still clearly visible on May 15. After that, the nestlings covered anything that may still have been laying in the nest bottom.

After a few days, the nestlings grew larger and tended to keep their mouths pointed up ready to feed. It became clear there were four nestlings left and since they all looked very similar, had to be House Finches. It would appear that the Brown-headed Cowbirds did not survive on the plant-based diet provided by the adult Finches. Out of five House Finch eggs laid, one did not hatch and the other four survived to fledge.

An interesting observation was made about the behaviour of the House Finches relative to activity inside or outside the house. The House Finch adults seemed oblivious to human activity inside the house even while



Four House Finch nestlings almost at the fledgling stage, barely fitting in the nest, and adorned with a ring of droppings. Photo: Don McLeod

only a meter away. Photos taken from inside the house were impeded by window glare and window blind slats. But the birds acted naturally and afforded photos of adults feeding nestlings. If you even showed an ear lobe while approaching the nest from the outside, the adults flew off immediately.

Whereas some birds like Common Grackle and European Starlings carry away fecal sacs to keep the nest clean, the House Finch strategy is for the nestlings to deposit their droppings at the nest edge. The inside of the nest cup looked clean.



Female House Finch feeding her nestling. Photo: Don McLeod

Seen from above there is a dramatic looking ring of poop around the nestlings. Don's earlier concern for the wreath was borne out but Colleen's encouragement to leave the wreath up certainly paid off with an incredible nature-viewing opportunity. We can always buy another wreath, but would never have been able to buy a House Finch nest. Priceless!

Ontario Nature Lake Ontario North Regional Meeting

Submitted by Fiona McKay

At the Ontario Nature Lake Ontario North regional meeting, which was held virtually on April 28, member organization representatives were treated to an interesting and informative presentation by Sarah Rang of the Invasive Species Centre, located in Sault Ste. Marie. The presentation covered the Centre's purpose, history, projects/studies/research they undertake, services they offer, and products available online, amongst other things. More information on the centre can be found in the next article.



MEMBER HIGHLIGHTS:

As with the PFN, naturalist clubs across the region are dealing with the impacts of the COVID-19 pandemic, and in many similar ways. All clubs reported a decrease in activities, many cancelling organized outings for the foreseeable future. As a consequence, most have upped their virtual presence, holding meetings and presentations via some shared meeting platform. North Durham Nature has even created a YouTube channel where anyone can view their series of past presentations. Most groups reported an increase in meeting attendance *and* membership, and are hearing that members would like a continued virtual option post-pandemic.

Many have started online group activities, such as Nature Notes posted by members (Kawartha Field Naturalists), a photography group with emphasis on ethics (Toronto Field Naturalists), a spring photo contest (North Durham Nature) and an online moth atlas with over 200 species so far (Toronto Entomologists).

Groups also reported an increase in use of trails but, along with that, an increase in trash and vandalism. Consequently, some groups are putting additional effort into signage awareness and adding information via virtual media.

ONTARIO NATURE UPDATES

Ontario Nature announced the addition of 40 ha to their Sydenham River Nature Reserve, and they were able to conduct a bioblitz on their Gananoque Nature Reserve.

They have also experienced an increased interest in their webinar series and, due to that popularity, have had to up their Zoom room allocation to 1000 participants!

They continue to promote Citizen Science (such as the wrap-up of the Reptile and Amphibian Atlas) and their Nature Guardians Youth Programs (Youth Circle for Mother Earth; Youth Council).

They continue to advocate for nature. Recent campaigns included opposition to Minister's Zoning Orders (MZO); providing input into Grow the Greenbelt, a consultation process on next steps for increasing the size of the Greenbelt; and bringing awareness to the changes to the Conservation Authorities Act brought about through Schedule 6, which was passed in December 2020 and which reduced the role of CAs in protection of source water and environmentally important areas in the development process. They continue to advocate for "Protecting the Places We Love", following the report *Unfinished Business: Candidate Protected Areas in Ontario*, co-authored with Birds Canada, and now have an online interactive 'experience' where you can virtually explore a number of the identified candidate sites. Check it out at:

<https://storymaps.arcgis.com/stories/d7c44e27e6724a1a83444c1d135973fd>

Lastly, Ontario Nature announced that they are moving to a new location in Toronto. While the new home was not announced, their website will be kept up-to-date.

ONTARIO NATURE ANNUAL GENERAL MEETING

This year's AGM will be held on Saturday June 12 from 9 a.m. to noon. For more information, check their website <https://ontarionature.org/events/annual-gathering/>.

Ontario's Invasive Species Centre

Submitted by Fiona McKay

Recently, Sarah Rang, Executive Director of Ontario's Invasive Species Centre (ISC), located in Sault Ste. Marie, gave a virtual presentation on the centre and its work to the Ontario Nature Network Lake Ontario North Regional Meeting. It was an excellent and informative session and, for anyone interested in invasive species, worth checking out. The following is a series of excerpts from that presentation.

The ISC is a not-for profit organization that connects stakeholders, knowledge and technology to prevent the introduction and spread of invasive species that harm Canada's environment, economy and society. It focuses on catalyzing action (progress on priority species and pathways), sharing knowledge (partnerships, networks, webinar series, fact sheets, etc.) and building the case for investments (quantifying the cost and impacts of invasives). Their website contains downloadable and/or accessible information on best management practices, species profiles, video resources, newsletters and blog content, and more.

Invasive species are species in an ecosystem that are outside their native range *and* have the potential impacts on ecology, economy and society in that introduced range. They tend to be fast growing and reproducing, lack natural predators and target native species lacking defence mechanisms.



In Ontario, the effects of some invasive species are well documented. The total impact of Zebra Mussels is estimated at 75 to 91 million dollars per year and responsible for endangering/threatening eight freshwater mussel species in Ontario.

Emerald Ash Borer is responsible for killing millions of trees in Ontario and over 90,000 ash trees in the city of Toronto alone, costing the municipality about \$30 million. The Canadian Food Inspection Agency has spent over \$30 million and cut over 130,000 trees.

Garlic mustard is the most invasive forest woodland species. Competition from it threatens plant 'species at risk' including American Ginseng, Drooping Trillium, False Rue-anemone, Hoary Mountain Mint, White Wood Aster, Wild Hyacinth and Wood Poppy.

Ontario has more invasive species than any other province with around 440 species documented in southern Ontario alone. It is estimated that municipalities and conservation authorities spend \$50.8 million per year, on average. Currently, the most money is spent on Emerald Ash Borer (EAB) with Zebra Mussel, Gypsy Moth and Quagga Mussels tying for second spending almost equal amounts; a total just over 50% of that as spent on EAB.

Emerging invasive species threats include: Oak Wilt Disease (not here yet but present in the US); Hemlock Woolly Adelgid, an insect that attacks Hemlock trees (present in Niagara region); Asian Carp, still held at bay from the Great Lakes; aquatic plants such as Parrotfeather, Eurasian Milfoil, Water Chestnut, Water Soldier and Phragmites. Information on all these species can be found on the Invasive Species Centre website.

Current invasive species challenges include: Emerald Ash Borer, Zebra and Quagga Mussels, Gypsy Moth, Common Reed, Phragmites, Wild Parsnip, Japanese Knotweed, Giant Hogweed (including a significant health risk), European Buckthorn, Dutch Elm Disease, Dog-Strangling Vine, Garlic Mustard, and Asian Longhorned Beetle.

What can people do? Reduce pathways of spread! Don't dump bait; clean boots and outdoor gear between outings; buy and burn local firewood; choose native species when planting. Land managers can consider developing an invasive species management plan for their area: map invasive species, set priorities, plan short and long-term management. Seek help from the ISC!

The Invasive Species Centre has a number of training and communication opportunities: The Early Detection & Rapid Response (EDRR) Network aims to train and equip volunteers with the skills and resources needed to better detect and reduce invasive species in Ontario. The new Forest Health Tree Check Campaign, in collaboration with the Canadian Food & Inspection Agency, aims to help people survey and identify healthy and/or diseased trees/stands. They offer a monthly ISC Webinar Series on a host of topics. Those can be viewed at this link: <https://invasivespeciescentre.ca/learn/webinar-series/>. As well, they provide a wealth of resource materials: A Best Management Practices database, a great resource for those undertaking any invasive species management project; downloadable fact sheets on numerous species; technical bulletins; quarterly bulletins, bi-weekly media, research and events scans; and event and webinar invitations. And much more. Go to <https://invasivespeciescentre.ca> to get started.

Lastly, the ISC, celebrating its 10th anniversary in 2021, is commemorating its progress by offering Microgrants, a \$1000 award for a one-time, small size education and/or community action project that focuses on prevention and/or management of invasive species. Round one applications are closed but a second round of grants is planned for the fall. Folks can stay up-to-date on this initiative by following this link: <https://www.invasivespeciescentre.ca/isc-10/isc-microgrants/>.

Northern Saw-whet Owl Banding at the Oliver Property in 2020

Submitted by Chris Risley

Owl banding took place in October and November of 2020 at the James McLean Oliver Ecological Centre near Nogie's Creek on Pigeon Lake. The project, led by Prof. Erica Nol of Trent University, resulted in the banding of 232 Northern Saw-whet Owls and the capture of three saw-whet owls that had been originally banded at another station. The total banded (232) was much higher than our long-term average of 105, suggesting that this year (2020) was an excellent year for the owl population.

High years for the owl population are believed to result from a high number of Hatch Year (HY) birds hatched in the breeding season of 2020, and then subsequently captured at the station. A study based on data from this project found support for the hypothesis that good years of owl reproduction are preceded by mast years in northern forests, as mast trees provide seeds for small mammals that then serve as prey for young owls (Henry et al. 2015). This was the case this year when 72.8% of owls banded were Hatch Year birds (see Table 1).

This percent is much higher than last year when only 35% of the owls caught were Hatch Year. The next most common aged birds were After Second Year (13.4%) and Second Year (12.5%).



Northern Saw-whet Owls at the banding station at the James McLean Oliver Ecological Centre. Photo: Natalie Pulman

Table 1: Ages of Northern Saw-whet Owls banded in 2020 at the Oliver property.

	Hatch Year	Second Year	After Second Year	After Hatch Year	After Third Year	Unknown	Total Banded
Count	169	29	31	1	1	1	232
Percent	72.9%	12.5%	13.4%	0.4%	0.4%	0.4%	100%

Saw-whet Owls are aged by a formula using weight and wing chord measurements. Female owls are larger than males but there is a degree of overlap between the two, resulting in some unknown sexed birds. This year, females constituted 75.4% of all owls banded while males and unknowns were 6.0% and 18.5% respectively (see Table 2). This result is typical of our results from other years. It is not known why so few males are captured. They may not migrate or do not come to the audiolures that we employ for attracting owls to the nets for banding.

Table 2: The sex of Northern Saw-whet Owls banded in 2020 at the Oliver property.

	Females	Males	Unknown	Total Banded
Count	175	14	43	232
Percent	75.5%	6.0%	18.5%	100%

Owls were banded between October 3 (1 owl) and November 10 (3 owls). The peak of banding was quite broad this year. Twenty-one owls were captured on both October 7 and on October 21. The next highest peaks of banding were 15 owls caught on October 16 and 14 owls caught on October 20. Typically, the peak of banding occurs around mid-October.

Three owls were captured that had already been banded but not at the Oliver Property (i.e., foreign recaptures). Two of these owls were originally banded at the Hilliardton Marsh banding station near

Englehart in northern Ontario, and one was originally captured at a banding station near Barrie, Ontario. One bird banded at Hilliardton was originally captured as a HY bird in 2015 so this year it would have been 5.5 years of age, a relatively old age for a Northern Saw-whet Owl. One saw-whet banded at the Oliver property in 2017 was recaptured on October 24, 2020 in Danielsville, PA.

A Barred Owl was seen on at least one night during the banding period. Barred Owls can prey on Northern Saw-whet Owls. As is our procedure when this larger owl is encountered, the audiolure was turned off for 30 minutes and observers made sure the larger owl was not around before the audiolure was turned on and banding was restarted. No predation on saw-whets was observed. No deaths or injuries were reported among the saw-whets captured.

This year, the number of volunteers allowed to attend and help with banding was reduced due to COVID-19. Only three people including the bander were allowed in the cabin. We wish to thank the nine volunteer banders (Jenn Baici, Sarah Bonnet, David Copplestone, Sarah Hagey, Gillian Holmes, Erica Nol, Natalie Pulham, Chris Risley and Carrie Sadowski) who operated the station. Thanks also to Eric Sager, manager of the James McLean Oliver Ecological Centre of Trent University for allowing us to use the cabin and band owls at the property. The Peterborough Field Naturalists have donated funds to this project in past years.

Literature Cited:

Henry, S., E. Nol and W. Wehtje. 2015. Influence of bottom-up trophic dynamics on Northern Saw-whet Owl irruptions revealed by small scale banding data. Ontario Birds 33(3): 122-133.

Former PFN Board Member Receives Trent Community Leadership Award

2021 Community Leadership Award Notes Submitted by Julie Davis



The Trent Community Leadership Award is awarded to one faculty member and one staff member:

- Who demonstrates strong and consistent contributions of leadership, time and talent to organizations, agencies, events, teams or causes in the greater Peterborough or Durham regions,
- Who seeks opportunities to bring the community and Trent together,
- Who serves an exceptional representative of Trent, and
- Who leads by example

Each winner receives a framed certificate, a \$250 award, and \$250 to donate to a cause or organization of their choice.

I'm pleased to announce the faculty award winner is **Dr. Paul Elliott, Professor, Trent School of Education**

Paul has been actively involved in our community with a number of organizations supporting the environment and community members. Some highlights include:

He has been a board member and volunteer with Peterborough Field Naturalists, organizing more than 300 field outings and workshops for members and guests .

He has shared his vast knowledge of bats as a presenter with Emily Provincial Park and local wildlife groups in Prince Edward County, Durham Region and Bancroft, among others.

Paul is a founding member of Pathways to Stewardship and Kinship, a locally-developed project that brings the community together to ensure young people growing up in Peterborough receive the opportunities and experiences needed to become stewards of the environment.

He has served as a board member with Camp Kawartha in various working groups.

Paul has served as a member of the organizing committee for Peterborough VegFest, and as an event volunteer with the New Canadians Centre.

He has also volunteered to judge the Peterborough Regional Science Fair.

Paul has also given his time to the University, participating in Trent Talks High School Edition, giving lessons on bats and conservation to local grade 6 students.

Paul was nominated by colleagues in the School of Education with support from Camp Kawartha and the Peterborough Field Naturalists.

One of his nominators describes Paul as “both a passionate advocate for environmental education as well as an inspiring teacher. He has a way of making nature and the environment interesting and engaging for a wide variety of audiences including Trent students and community members. Dr. Elliott works tirelessly in our community, helping to create a greener more sustainable future.”

Steve's Swan Sightings

Submitted by Steve Paul

On April 26, several reports came in of a pair of Trumpeter Swans on the Television Rd pond. I was able to capture photos and found that one of them was tagged "X66". Through further research, I found that X66 is a pen (female) named Sadie. She was born in 2019, and was tagged and banded at LaSalle Park in Burlington in Dec 2019. J89 & H80 are her parents. She spent summer 2020 on Sturgeon Lake, and there were sightings over the winter including December 2020 in Bobcaygeon, and early March 2021 near Trent University. I have no information on her untagged, unbanded (UTUB) partner. Hopefully he is a cob (male), and they are now mates.



Trumpeter Swans: X66 and partner. Photo: Steve Paul

They were seen on the Television Road pond for only one day, but shortly after they were discovered in the waters off of Thompson Bay. I personally made trips out to visit them on May 1 and May 8, and managed to get a lot of great pics of them. Many others reported them as well for at least two weeks. There was hope that they may choose to nest there, but it was not meant to be. They have since moved on – it wouldn't surprise me to see them show up on either Sturgeon Lake or Pigeon Lake this summer.

As I mention each month, please consider reporting *all* sightings of Trumpeter Swans you see, either to me thru email (stevepaul70@gmail.com) or through the other resources published in the May 2021 Orchid. This information is very important for tracking them and learning about their breeding habits. Now is perfect timing to get involved with the Ontario Breeding Bird Atlas 3 launching as well!

If you have any additional questions, or would like to get more involved with monitoring Trumpeter Swan activity, please reach out to me. I'm happy to share what I know, or connect you to the experts if needed.



Eastern Bluebirds photo by Marilyn Hubley



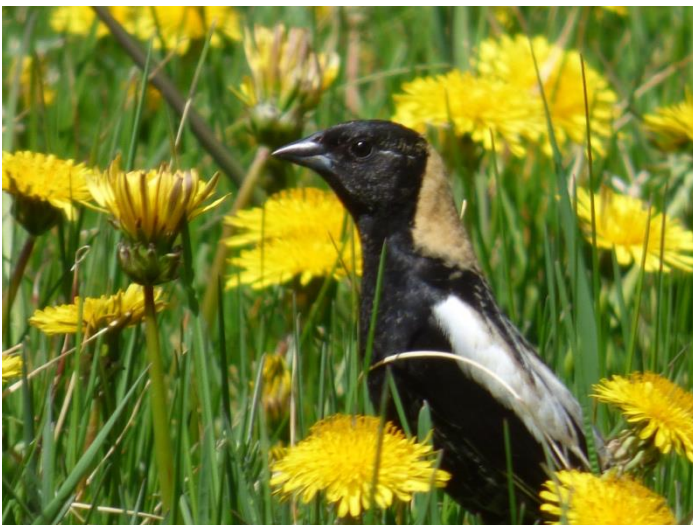
Red-headed Woodpecker photo by Cathy Douglas



Solitary Sandpiper photo by Dave Milsom



American Bittern photo by Joanne Sutherland



Bobolink photo by Cathy Douglas



Canada Geese photo by Enid Mallory



The Orchid Diary



A summary of noteworthy observations by PFN members and others in the Peterborough region.

Please submit your interesting observations to Martin Parker
at mparker19@cogeco.ca or phone 705-745-4750

The COVID-19 pandemic eliminated many outings and all in-person meetings, reducing the sharing of information on our natural heritage.	
Apr.16	An early Cliff Swallow was found near Bensfort Bridge by Donald Sutherland.
Apr.17	Bill Snowden reported that Eastern Meadowlarks have arrived in the Ennismore area. Andrew Brown & Olivia Maillet had a Broad-winged Hawk over the Trent U. Nature area. Peter Simons reported a singing Carolina Wren from the Christie Bentham Wetland Reserve near Burleigh Falls.
Apr.19	Many reports of Sora from around the region by multiple observers on this day with many reports on eBird for the days following. Tyler Hoar had an early Black-and-White Warbler northeast of Apsley.
Apr.20	Drew Monkman had a singing Carolina Wren in the vicinity of Brookdale Plaza.
Apr.22	Iain Rayner had a late departing Redhead at west end of Gifford Causeway and a late departing Rough-legged Hawk along the Centre Line of Smith Twp. Another Carolina Wren was heard calling at the Otonabee Gravel Pits Conservation Area by Patrick Kramer - heard at same location on April 24 by Sarah McGuire.
Apr.23	Late departing Northern Pintail was reported from flooded field on Blezard Line by Marilyn Hubley and Luke Berg. Dave Milsom found a flock of 60 Redheads on Pigeon Lake off Kerry Line
Apr.24	Dave Milsom had a Northern Pintail on Buckley Lake
Apr.25	Mitchell Gardiner located 4 Redheads on the Lakefield Lagoon. They remained at this location through to the end of the reporting period and were seen by many observers -- 4 birds (2 males and 2 females most days) with a few reports of 6 individuals. A Rough-legged Hawk was at the Peterborough Airport by Erica Nol, Andrew Brown & Olivia Maillet. Matthew Gavin had a late Bohemian Waxwing in Meadowvale Park.
Apr.26	Bill Snowden reported that in warm sunny areas Trout Lilies are in bloom - both the yellow & white forms (<i>Erythronium americanum</i> & <i>E. albidum</i>) along with both Red & White Trilliums . In rich woodlands Spring Beauty will be in bloom. Luke Berg heard a Snow Bunting calling as it flew over in the area of Parkhill & George.
Apr.27	Betty Morrison reported a male Scarlet Tanager along Woodland Trail near Trent U.
Apr.28	Iain Rayner had an Iceland Gull in a flock of Herring Gulls at the Johnston Drive Ponds. Donald Sutherland had a Golden Eagle along Heritage Line, Keene area. Andrew Brown & Olivia Maillet had a Rough-legged Hawk along Elmhurst Rd, Keene area.
Apr.29	Bill Snowden reported that from Upper Buckhorn Lake, a male Yellow-bellied Sapsucker was drumming on a fence post and a pair of Purple Finch were at his feeder. Ten Northern Pintails were seen on the flooded field along 2 nd Line east of Bailieboro by Donald Sutherland. Dave Milsom had a Red-headed Woodpecker near Sandy Point, northern Pigeon Lake. Gill Holms had two Fox Sparrows along Rotary Greenway Trail. Scott Gibson reported Orange-crowned Warbler in Meadowvale Park. D. Orbeil had a female Baltimore Oriole in the yard in Lakefield.
Apr.30	Bill Snowden reported both Canada Plum and Wild Plum are starting to flower. He notes one should look for them along road allowances as small trees or shrubs with white flowers.

May 1	A Carolina Wren was calling in yard in Lakefield by Iain Rayner.
May 2	Early arrivals include Swainson's Thrush by Iain Rayner in yard near Lakefield, Orange-crowned Warbler in Meadowvale Park by Andrew Brown & Olivia Maillet, and Northern Parula in Beavermead Park by Carol Horner.
May 3	Donald Sutherland had 3 Pectoral Sandpipers in the flooded field on 2 nd Line east of Bailieboro. A Northern Mockingbird was spotted in downtown Peterborough by Gill Holmes. Lynn Smith had a very late departing Common Redpoll in her yard near Cavan. FOY American Redstart was spotted in Meadowvale Park initially by Matthew Given and later by multiple birders. Iain Rayner had an early Cape May Warbler in his yard near Lakefield. Dave Milsom located a singing Prairie Warbler in Thompson Bay area -- observed by 16 other birders later that day with another 23 sightings on May 4 and 12 on May 6. This was a very cooperative individual.
May 4	Bill Snowden reported that there were many swallows flying at the James Gifford Causeway -- the majority were Barn Swallows . He also reported that Pussy-toes are in bloom. Lynn Smith spotted a Great Egret along Hogsback Road, Bethany. Another late-departing Common Redpoll - 2 in the yard of Travis Cameron in Lakefield, still present until May 7. Golden-winged Warblers returned with 1 near Millbrook by Jeff Stewart, & 1 in Trent Nature Area by Luke Berg.
May 5	Bill Snowden reported the native Serviceberries are in bloom. There are a number of species in our area. Carol Horner had 20 Common Redpolls in Oakwood Park. She noted they were concentrated around a feeder and felt the estimate was conservative.
May 6	Jerry Ball FOY butterflies were an Olympia Marble on Devil's 4-mile Road & both Brown and Hoary Elfin s on Sandy Lake Road, north of Havelock.
May 7	Matthew Garvin had a Red-headed Woodpecker in the Trent Nature Area. Cathy Douglas had a Clay-coloured Sparrow in the area of the Lakefield Water Tower -- present daily since. Other reports from traditional nesting areas in region after this date. Travis Cameron had a late-departing American Tree Sparrow in his yard in Lakefield - still present until May 9. While listening for American Woodcock courtship flights along Hooton Drive, Antje and Rene Gareau were shown an American Woodcock nest (the eggs had hatched).
May 8	A Pectoral Sandpiper was found in a wetland along Bensfort Road by Alice Hodges. Common Redpoll reports: 1 along Base Line by Tricia Toof (she noted the wintering birds left a couple of weeks ago and now one has returned), and 6 in Oakwood Park by Carol Horner. Jerry Ball & Martin Parker had 4 Semipalmated Sandpipers in wet area on 2 nd Line east of Bailieboro - still present on May 14. A Blue-gray Gnatcatcher was found in Meadowvale Park by Kim Bennett, Brody Crosby & Connor Thompson. Jerry Ball & Martin Parker found 1 Mustard White with 3 Cabbage White on Lang-Hastings Trail. An Otter was present in a pond along the trail.
May 9	Michael Gillespie saw 15 Northern Pintail in flooded field on 2 nd Line, Bailieboro.
May 11	Michael Gillespie reported that a Red-headed Woodpecker has returned to a site on Duncan Line -- seen in days following by several other observers.
May 12	Jerry Ball & Martin Parker on the Lang-Hastings Trail (Cameron to Cty Rd 38) had FOY Juvenal's Duskywing and Northern (Spring) Azure (butterflies).
May 13	Two Pectoral Sandpipers were found in wet area along Blezard Line by Dave Milsom, then seen by several other observers. A late Fox Sparrow was seen in yard in Lakefield by D. Orbell.

May 14	Kathryn Sheridan & Sue Paradisis had a Blue-gray Gnatcatcher in the Warsaw Caves Conservation Area. Donald Sutherland found an Orchard Oriole at Pengelly Point. Bill Snowden reported that in the last week Sugar Maple and Pin Cherry are in full bloom. The various Ashes (Red, White, Green, & Black) will be adding pollen to the air. He noted Jack-in-the-Pulpits are in bloom in moist woods and all parts of this plant are poisonous.
May 15	Bill Snowden noted that as the temperature rises, our indigenous oaks (Red, White & Bur) will be coming into flower. He also noted nurseries sell oaks which are not native to our area. Michael Gillespie forwarded a photo taken by Pam Martin of a Turkey Vulture tending an egg in his barn off David Fife Line. A pair of Lesser Scaup were at the Lakefield lagoon by Matthew Gavin and others - remained until end of period. A Red-headed Woodpecker was in the Ennismore area by Andrew Brown & Olivia Maillet with another on an island in Rice Lake near Keene by Torr & Malcolm Buchanan. Orchard Orioles were found in yard on 8 th of Douro by Mike Burrell and 2 nd Line Bailieboro by Luke Berg, near Hastings by Sarah McGuire.
May 16	Bill Snowden reports there is much pollen in the air from oak and pine trees. Along Sandy Lake Road, Jerry Ball had FOY Chryxus Arctic (butterfly).
May 17	Patrick Kramer heard a calling Hooded Warbler at the Otonabee Gravel Pits CA. Dave Milsom located a Wilson's Phalarope in a meltwater pond at Trent U along with 1 Dunlin , 1 Solitary Sandpiper , 1 Least Sandpiper along with resident Killdeer & Spotted Sandpipers . After posting, over 26 local birders saw this spring highlight. Iain Rayner heard a call of a bird flying over which he felt was a Lapland Longspur . Donald Sutherland had a Blue-gray Gnatcatcher along Mervin Line.
May 18	On the Lang-Hastings Trail (David Fife to Settlers), Jerry Ball had FOY Red Admiral & Clouded Sulphur (butterflies) .

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Peterborough Field Naturalists, P.O. Box 1532, Peterborough, Ontario, K9J 7H7					

Membership Application Form

Memberships may be
obtained by mailing this
completed form to:

Peterborough Field Naturalists
PO Box 1532
Peterborough Ontario K9J 7H7



PETERBOROUGH FIELD NATURALISTS

Contact Information:

Name(s):

Phone(s):

Address:

Email(s):

I would like to receive The Orchid by (pick one): ☐ Mail Delivery ☐ Email ☐ Both

Membership type and fee schedule:

Notice: Membership fees provide only a small part of the funds required to operate the Peterborough Field Naturalists. Donations from members like you help us offer a diverse range of programming for everyone. Please consider including a donation with your membership so that we can continue to serve you and the Peterborough community. **Please make cheques payable to Peterborough Field Naturalists.**

I have included a donation with my membership fees:

☐ Yes or ☐ No

If yes, amount: \$ _____

1. Single Adult \$30 ☐

2. Single Student or Youth \$15 ☐

3. Family \$40* ☐

*** Please give the names and ages of children wishing to enroll in the Junior Field Naturalists:**

Name	Age

Name	Age

◀◀◀ New Member Information ▶▶▶

Main interests:

☐ Natural Environment

☐ Reptiles and Amphibians

☐ Botany

☐ Birds

☐ Aquatic Life

☐ Geology

☐ Insects

☐ Astronomy

☐ Mammals

Other: _____

How do you hope to participate?

☐ Outings

☐ Citizen Science

☐ Meetings

☐ Junior Naturalists

Volunteers are always needed. Are you interested in any of these activities?

☐ Join the PFN Board

☐ Sit on research or conservation committees

☐ Lead an outing

☐ Assist with meetings

☐ Work on field projects

☐ Help with the Orchid publication

☐ Help the junior naturalists

☐ Give a presentation

Liability Waiver (New and Returning Members):

In consideration of the Peterborough Field Naturalists (PFN) accepting this application, I hereby for myself, my heirs, executors, administrators and assigns forever release and discharge the PFN, their officers, directors, servants and agents from any liability whatsoever arising from my participation in PFN activities, whether by reason of negligence of the PFN or its representatives, or otherwise. I affirm that I am in good health, capable of performing the exercise required for field trips or other activities in which I participate and accept as my personal risk the hazards of such participation. As a member of the PFN and/or as a parent / guardian of a member under 18 years of age, I have read and understood the above, and accept its term on behalf of all my underage children.

Signature: _____

Date: _____