

The Orchid



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Know • Appreciate • Conserve Nature in All Its Forms



Male Clouded Sulphur Butterflies Puddling for Moisture and Minerals. Photo: Ken Morrison

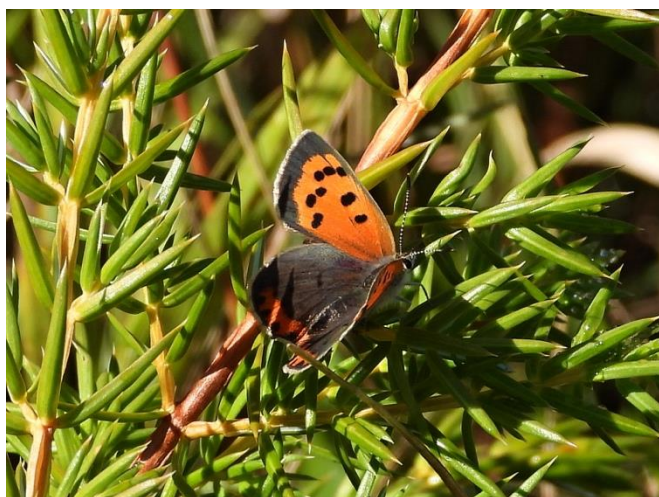
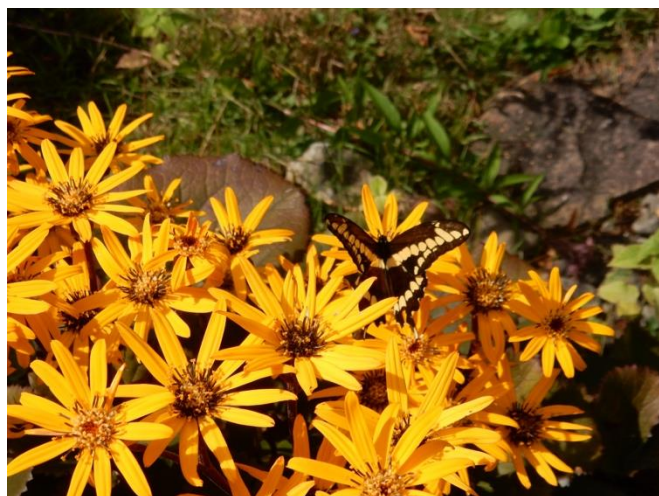
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Welcome new PFN members!


- Shanna Howson & Andy MacEachern
- Gary & Bridget Heuvel
- Daniel Riley





Clockwise from top: Young Marsh Wren at Lakefield Sewage Lagoons in early September (Cathy Douglas), Young House Wren on September 19 at Ballyduff Trails (Don McLeod), American copper at Ballyduff Trails on September 19 (Don McLeod), and giant swallowtail butterfly (Ken McKeen).

PFN Coming Events	
Friday, Sept. 29 1:30 to 3:30 pm Riverview Park & Zoo	<p>Coming Event for the <u>Junior Field Naturalists</u> - POLLINATOR POWER!</p> <p>September 29 is a PA day in Peterborough, making it a perfect opportunity to join the Peterborough Junior Naturalists for a POLLINATOR POWER Workshop! Otonabee Conservation staff will lead the group with activities, games & a nature hike to identify & learn about pollinators. Register early to save your spot!</p> <p>This event is FREE for members and is suitable for ages 5 to 12 (plus younger or older siblings). Children must be accompanied by a parent or guardian. Numbers are limited, so please register soon!</p> <p>Register by contacting juniors@peterboroughnature.org. Detailed directions will be sent to participants who have registered. This is a family event, so feel free to bring along your siblings & friends!</p> 
Sunday, Oct. 1 10 a.m. to noon 15 participants	<p>Fabulous Fungi</p> <p>For those who couldn't attend the fungi outing in September, we are offering another opportunity. Fungi come in an incredible variety of different sizes, shapes, and colours and Mark S. Burnham Provincial Park is a great place to find them. Rachel Baehr is back again to share her mushroom knowledge with us. Bring your binoculars, camera, and dress for the weather of the day. Members wishing to participate should register with Sue Paradisis at sueparadisis@hotmail.com and more details will be provided.</p> <p>Accessibility: moderate. There is a large hill to climb</p> 
Saturday, Oct. 7 9 to 11 a.m. 12 participants	<p>Miller Creek – A Treasured Wetland</p> <p>Miller Creek was managed for many years by the PFN. Members built a viewing platform overlooking the marsh, built trails and installed signs. It is now managed by the Otonabee Region Conservation Authority. This large wetland is home to numerous marsh birds during the summer and provides a resting spot for migrants. The chickadees along the trail will take seed from your hand! Chris Risley, an avid and knowledgeable birder is your leader. To register contact Chris at risleych@gmail.com. Dress for the weather of the day and be sure to bring your binoculars and/or camera. Accessibility: Easy</p>
Thursday, Oct. 12 Doors open 7 p.m. Meeting starts 7:30 p.m. Hybrid meeting: Zoom + in-person at	<p>Monthly Meeting: Reflections on Seven Years as an Ornithologist in Mexico's Yucatan Peninsula presented by Richard Feldman</p> <p>Richard Feldman is currently a Wildlife Landscape Ecologist with the Ontario Ministry of Natural Resources and Forestry. After graduating from Queen's in Biology, he completed a Master's in Forest Science at the University of British Columbia, a PhD at McGill, and post-docs at Trent and the University of Massachusetts Amherst. His main research interest is</p> 


PFN Coming Events

<p>Camp Kawartha Environment Centre 2505 Pioneer Road</p> <p>Maximum 45 attendees</p>	<p>understanding how the response of species to fine-scale environmental variation depends on broader spatial and temporal gradients, such as latitude and seasons.</p> <p>In his talk, Richard will discuss the research he conducted during the pandemic years of 2020 and 2021, when he had the good fortune to be able to conduct weekly bird surveys in a local tropical forest fragment in Merida, Yucatan, Mexico. While most of the urban bird assemblage changed little through the year, every visit still brought surprises as non-urban birds still sometimes wandered into the middle of the city. While birding, Richard could reflect on the research he and his students had conducted in the Yucatan, attempting to understand how communities change across the Peninsula and across seasons. For example, they found that, during migration, migratory bird species richness is decoupled from local habitat productivity, and individual habitat use is unrelated to local resource availability. However, during winter, species redistribute themselves to match productivity gradients. For this talk, Richard hopes you can explore with him how ecological patterns in a region shaped by spatial and temporal variation in precipitation differ from regions shaped by temperature and get to know a place where some Ontario birds spend the winter.</p>
<p>Saturday, Oct. 21</p> <p>8:45 to 11:00 a.m.</p> <p>16 participants</p>	<p>Birding a Hotspot</p> <p>Join Drew Monkman for a birding outing to the Lakefield Sewage Lagoons. The lagoons are the number one birding spot in all of Peterborough County. More than 12 species of ducks are possible in October. Shorebirds, too, are a good possibility. We also hope to see a wide variety of sparrows along with numerous other species like kinglets, pipits, woodpeckers, hawks, and late warblers. We will be walking one to two kilometres along the gravel road that goes around the perimeter of the lagoons. Bring binoculars and a spotting scope if you have one. You might want to brush up on your ducks, too! Because parking at this location is limited, we will meet at 8:45 am at the Riverview Zoo parking lot on Water Street and arrange carpooling. Contact Drew after October 6 at dmonkman1@cogeco.ca to register or if you have questions. If you are comfortable carpooling, please indicate if you can take others in your vehicle (how many?) or if you'd prefer being a passenger with someone else.</p> <p>Accessibility: Easy walking</p>
<p>Saturday, Oct. 21</p> <p>2 to 3 p.m.</p> <p>Max. 10 participants</p>	<p>Attention <u>Junior Naturalists</u>! Join us for "Turtle Encounters: Up Close & Personal"</p> <p>Meet the education ambassador turtles at the Ontario Turtle Conservation Centre. We'll have the opportunity to see them up-close and hear their stories. We'll also learn about the 8 different species of turtles in Ontario, why we are losing them, and how we can help protect them.</p> <p>Children must be accompanied by an adult. Only 10 people can be accommodated in the turtle centre so register early by contacting Shelley King at juniors@peterboroughnature.org. We will keep a waiting list if necessary. More information to follow for those who register.</p> 

PFN Coming Events	
<p>Sunday, Oct. 29 9:00 a.m. to noon</p>	<p>A “Mystery” Outing</p> <p>An outing is being planned for this date but details weren’t ready at the Orchid deadline. When there is more to share, it will be posted on our website and announced at the October members’ meeting.</p>
<p>Saturday, Nov. 4 Rain day Nov. 5 12:30 a.m. to 4 p.m. 15 participants</p>	<p>The Miniature World of Lichens</p> <p>Usually overlooked, lichens are fascinating and beautiful organisms. As our leader, Lou Smyrlis wrote in his June 2023 Orchid article, lichens are not simple plants or even individual organisms. They’re closer to small ecosystems, consisting of a fungus, an alga and/or a cyanobacterium living together as one. The trail at the Kawartha Highlands Signature Park has many interesting examples of lichens growing on the trees, rocks, and ground. This walk by the Mississauga River is very scenic both on a large and small scale. Be sure to bring your phone or camera, a hand lens if you have one and binoculars. Dress according to the forecast for the day and wear sturdy footwear as we will be walking over bare rock most of the time. Register after October 6 by contacting sueparadisis@hotmail.com after which more details and resources will be provided. Accessibility: moderate</p> 
<p>Thursday, Nov. 9 Doors open 7 p.m. Meeting starts 7:30 p.m. Hybrid meeting: Zoom + in-person at Camp Kawartha Environment Centre 2505 Pioneer Road</p>	<p>Monthly Meeting: Monitoring Natural and Anthropogenic Drivers of Boreal Forest Ecosystem Dynamics</p> <p>Francis Quinby is a fourth-year PhD student in Dr. Dennis Murray’s lab at Trent University where he is pursuing a long-held desire to use quantitative skills to study environmental issues and further the body of knowledge on how climate change is impacting the Earth’s ecosystems.</p> <p>Francis will be discussing his research into drivers of boreal forest ecosystems dynamics at the Kluane Lake Research Station in the Yukon. His research involves working with two vastly different organisms: snowshoe hares and soil microbes.</p> 
<p>Thursday, Dec. 14 Hybrid meeting: Zoom + in-person at Camp Kawartha</p>	<p>Monthly Meeting: Tentatively Scheduled as Members’ Slide Show Night</p> <p>In the past, the slideshow night has been a highly anticipated annual PFN tradition in which members share their photos of a recent trip or great nature moments or wildlife encounters that they have recently experienced. If there is enough interest this year, we will proceed with organizing this event. <i>Please register your interest as soon as possible by e-mailing Phil Shaw at pshaw78@hotmail.com</i></p> 
<p>Note: Most recordings of past PFN Zoom meetings can be viewed on PFN’s YouTube channel at https://www.youtube.com/channel/UCAgbbqgr4ujZ16qba23LTQQ under the playlist menu.</p>	

Other Events of Interest

<p>Saturday, Sept. 30 9 to 11 a.m. South Drumlin Trail at Thompson Bay</p>	<p>Fall into Nature</p> <p>Join 4RG for a local nature experience. Learn more about the benefits of greenspaces through a guided walk from 4RG naturalists and experience our local forests as the season changes. Learn more about the impacts of climate change on our local natural spaces and their inhabitants. Enjoy the opportunity to slow down and experience the powerful impact of the mindful nature connection practises. To register, go to: https://forourgrandchildren.ca/event/fall-into-nature/</p> <div style="text-align: right;">  </div>
<p>Saturday, Oct. 14 10 a.m. to 2 p.m. KLT's Ballyduff Trails, Pontypool</p>	<p>Tallgrass Prairie Seed Harvesting</p> <p>You can help gather tallgrass and wildflower seeds from an endangered ecosystem for future replanting in the native tallgrass prairie! Join Kawartha Land Trust (KLT) at their Ballyduff Trails property in Kawartha Lakes for a fun fall day of collecting seeds in a truly scenic location (be sure to bring your camera!).</p> <p>Open and accessible to any age, you can explore the tallgrass prairie, the trails, and take an active role in restoring this critical habitat with KLT. The tallgrass prairie is an approximate 750 meter walk from the parking area on a trail that goes down a hill. This is a slow-paced activity. To register, go to: https://kawarthalandtrust.org/event/tallgrass-prairie-seed-harvesting/</p> <div style="text-align: right;">  </div>
<p>Sunday, Oct. 15 Millennium Park</p>	<p>Monarch Butterfly Festival and Race</p> <p>The Monarch Ultra is back for 2023! After our initial 4,300 km relay from Canada to Mexico in 2019, our 1,800 km relay within Ontario in 2021, we now embark on a series of runs in Canada, the US and Mexico. This year, we have created the Monarch Butterfly Festival and Race which combines conservation, education and activity into one amazing event. More information can be found at https://www.themonarchultra.com/peterborough.html</p> <div style="text-align: right;">  </div>
<p>Saturday, Oct. 28 9:30 a.m. to 2 p.m. Lake Vista Community Centre, Oshawa</p>	<p>Ontario Nature Lake Ontario North Autumn Regional Meeting</p> <p>The fall Lake Ontario Regional Nature Network Meeting will be hosted by The Friends of Second Marsh. The exact location and agenda have yet to be released. The meeting is open to club members. It's a great opportunity to meet people from other clubs, share stories, exchange knowledge and participate in group activities. If you are interested in attending, contact the Nature Network Coordinator, Barbara MacKenzie-Wynia (barbaraw@ontarionature.org) to reserve your spot. Reservations are required.</p> <p>There will be four presentations:</p> <ul style="list-style-type: none"> * De-Phrag the Marsh project – Wioletta Walancik, FSM staff * Friends of Second Marsh, Plant Stewardship - Susan Ellis, FSM Board Member <div style="text-align: right;">  </div>

Other Events of Interest	
	<p>* Dr. Anne Bell, Ontario Nature's Protected Places Campaign</p> <p>* Nature Network Highlights by Barbara MacKenzie-Wynia</p> <p>The meeting will be followed by a field trip to Second Marsh.</p>
<p>Sunday, Oct. 29 10 a.m. to 1 p.m. KLT's Jeffery-Cowan Forest Preserve, Woodview</p>	<p>Immersive Nature Outing: Transformation</p> <p>Enjoy wandering on a Kawartha Land Trust (KLT) protected property while learning mindfulness-based techniques for deepening your connection with nature. You will learn how to sharpen your observational skills, strengthen your sense of connection to other beings and their habitats, and experience the ordinary magic of sense perceptions.</p> <p>Feel the shift into winter's quietude and look for signs of recovery in a forest that was heavily impacted by the May 2022 derecho (intense windstorm). The session is three hours in length, with the option for you to stay on the property longer to explore and enjoy the land.</p> <p>To register, go to: https://kawarthalandtrust.org/event/immersive-nature-outing-transformation/</p> 

Volunteer Corner

Volunteers are essential to the PFN. Over the 83 years since its beginning, volunteers have accomplished a great deal. They built a boardwalk in the nature sanctuary at Trent and a viewing tower at Miller Creek, and they installed osprey platforms and numerous bluebird and wood duck boxes throughout the area. They have served on city committees, fought for wetland protection, led hundreds of outings, organized educational meetings, and kept things moving by sitting on the Board. Many of the volunteers have been serving the PFN for years and have given countless hours. Some would like to pass the torch.



Since the start of the pandemic, we have welcomed many new members to the PFN. Some have started to take on roles in the organization and I'm sure there are some of you who would like to lend a hand if they saw a task of interest. ***Please have a look at some of the many ways you can get involved.***

Board members: The Board of Directors is responsible for making all the good things happen that you enjoy as a PFN member. We organize meetings, outings, and programs and we advocate to protect our natural environment in the face of pressures from development and climate change. We are developing a strategic plan and we are continuing our transition to the world of digital communications. We are involving more young people in PFN objectives and activities. Are you interested in helping to manage the PFN as it faces the challenges of the next year? If so, the Board is looking for new members to join our group of volunteers committed to the PFN. We currently have two vacancies and would like to bring the Board up to full complement. Generally, your initiation is gradual and you take on jobs that appeal to you. If you are interested, please contact Anda Rungis, the Chair of the Nominating Committee at secretary@peterboroughnature.org

Refreshment table: Anne Elliott has taken over the organisation of the refreshment table at our monthly meetings. A few people have volunteered to help but a few more would be welcome. This is a great way to meet members. Contact Anne at elliottanne@msn.com

Zoom/tech support for Hybrid Meetings: As we continue to offer our monthly meetings through a hybrid model, we are looking for another volunteer to fill in at the Camp Kawartha Environment Centre meetings should the regular tech support person be unable to attend. This is a perfect opportunity for anyone who wants to volunteer a little bit of their time with the PFN and who regularly attends our monthly meetings. Tasks include getting the speaker and their presentation set up on the laptop that's available and ready to go at the Environment Centre and starting and monitoring the Zoom portion of the meeting using the same laptop. A document with detailed directions will be included. If interested or to learn more, contact Shelley at shelleyfletcherking@gmail.com

Advocacy Committee: For many years the PFN has worked to protect natural spaces in the area and province. The advocacy committee periodically lobbies to prevent environmental destruction and influence decision makers. When development, road or bridge changes threaten wetlands or forests, the committee looks at potential harm and responds. Generally, it does not demand a lot of volunteer time. Contact Sue at sueparadisis@hotmail.com

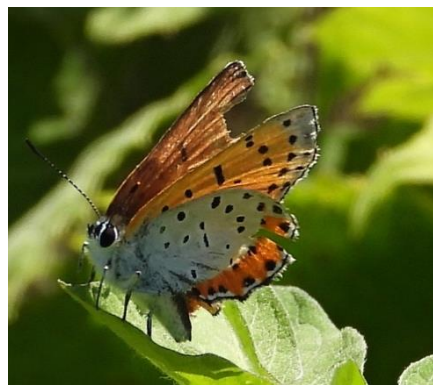
City Nature Challenge: The PFN is partnering with the City of Peterborough for the second annual City Nature Challenge. Citizens are encouraged to pay attention to the biodiversity in their community and log what they find on iNaturalist. A committee is being formed to plan events throughout the year to engage citizens at displays and to promote the global challenge in April. Volunteers are needed to help plan and/or man the displays. Contact Sue at sueparadisis@hotmail.com

Outing leaders: Outings have always been popular with members. Focusing on different aspects of nature and held at different times throughout the year, members learn while meeting others with similar interests. In the last few years, several of our long-time leaders have stepped down leaving a void. If you have some knowledge about an aspect of nature or would like to share a walk on your property, please let me know. Training is provided until you feel comfortable on your own and even one outing a year would be appreciated. Contact Sue at sueparadisis@hotmail.com

Outing Report: Presqu'ile Shorebirds and Butterflies

Submitted by Don McLeod

In recognition of World Shorebird Day on September 6, nine members of the Peterborough Field Naturalists (PFN) met at Presqu'ile Provincial Park. Led by Don McLeod and Colleen Lynch, the group started out south of Beach 2 and were fortunate to find some shorebirds: Semipalmated Plover (15), Sanderling (2) and Baird's Sandpiper (2) for a total of 19 birds. During a previous scouting trip, shorebird numbers had been higher on September 1 with a tally of 48.



Bronze copper photo by Don McLeod



Baird's Sandpiper photo by Don McLeod

Other birds of note observed while the group was at the Beach included Merlin, Great Black-backed Gull and Caspian Tern. In behind the beach, the butterfly meadow offered Monarch, Viceroy, Cabbage White, Clouded Sulphur and Least Skipper. A hike to Owen Point provided a view of various birds on or near Gull Island with large numbers of Double-crested Cormorant, Gulls and Mute Swans. The spotting scope was handy in both locations. The Owen Point trail provided visual



Group photo by Don McLeod

observations of 30+ Northern Leopard Frogs and one Spring Peeper. There was also a good view of the common green darner dragonfly. After a nice picnic lunch in the shade, very hot weather conditions prompted a few to swim in Lake Ontario for a refreshing conclusion.

Outing Report: Fabulous Fungi

Submitted by Tamara Brown

On September 17, eighteen PFN members had the joy of joining the fungi walk in Mark S Burnham Provincial Park. It was a warm, late summer day with sun and clouds.

Leader Sue Paradisis gave an introduction to the park, including the history of PFN's connection, noting that the old growth forest is a great place for mushroom hunting as the mycelium will have had more time to get established. As we walked, she pointed out the features of old growth forests, including trees with buttresses at their base, and pit and mound topography. The old maples, birches and hemlocks were a real treat, though many trees were taken out by the storm last spring. The many open spaces in the canopy were pointed out throughout the forest.



Rachel Baehr showing group a large chicken of the woods fungus on a tree. Photo: Linda Sunderland



Dead Moll's fingers. Photo: Martha Lawrence

Leader Rachel Baehr shared her enthusiasm and passion for mushrooms with the group as we explored the forest. Starting with the blushing rosette fungus in the parking lot, we saw dozens of diverse mushrooms including wolf's milk slime, tinder polypore, shelving tooth, grey coral, purple toothed polypore, late fall polypore, turkey tail, golden coral, a jelly fungus called wood ear, oyster mushrooms, a giant chicken of the woods up high in a tree, tiger tail, worm coral, dead man's fingers, eyelash cup, pear shaped puffballs, dead moll's fingers and more! While the walk leaders noted fewer mushrooms than usual were present due to the lack of rain, there still seemed to be fungi

everywhere we looked: on the forest floor, on logs, and growing on trees.

The late summer asters were out in full bloom, with many broadleaved goldenrods showing their bright yellow flowers throughout the forest. The birds, though, were quiet with the exception of a few raucous blue jays. Notable insects included a number of moth caterpillars and a few pesky biting mosquitoes.

Thank you to Rachel and Sue for leading a wonderful and informative walk!



Golden coral. Photo: Martha Lawrence



PFN Strategic Plan: Strength, Stability and Succession

Submitted by Anda Rungis

The Peterborough Field Naturalists (PFN) have initiated the preparation of a strategic plan, thanks to support from the Government of Canada's Community Services Recovery Fund* (CSRF).

On August 22, 2023, the Community Foundation of Greater Peterborough announced that the Peterborough Field Naturalists were successful in their application to the CSRF and will be receiving \$15,700 to develop a five-year strategic plan. The strategic plan will support the PFN in moving ahead with a clearer vision, it will signal stability to its stakeholders, and it will ensure succession of the club for future naturalists. Key components of the strategic plan will include a communications strategy, governance training, and diversity, equity and inclusion (DEI) education.

The PFN Board of Directors prepared the application to the CSRF in February, 2023. A project team consisting of PFN directors Sue Paradisis, Anda Rungis, Fiona McKay, Ted Vale, Rene Gareau, and Shelley King have been carrying out the preliminary work. PFN member, Alan Sippel, will join the project team and work through the planning process with Arising Collective Strategic Consulting Services to complete the project by May, 2024.

PFN member input is essential to developing a strategic plan! The engagement process will include an online survey for PFN members, volunteers and donors and interviews with key informants. Engagement with PFN members and partner organizations will ensure the plan is informed by those who interact with the PFN the most.

Details of how PFN members can participate will be announced in *The Orchid*, on the PFN website (peterboroughnature.org) and through direct e-mail. Please watch for further communication and take the opportunity to provide your input on the preparation of the PFN Strategic Plan.

Funded by the
Government of Canada's
Community Services Recovery Fund

Canada



Community
Foundation
of Greater Peterborough



* The Community Services Recovery Fund (CSR) is a one-time \$400 million investment from the Government of Canada to help community service organizations, including charities, non-profits, and Indigenous governing bodies adapt, modernize and be better equipped to improve the efficacy, accessibility, and sustainability of the community services they provide through the pandemic recovery and beyond.

Fall Colours: Understanding the Growing Season's Grand Finale

Submitted by Jason and Lou Smyrlis

As we head into October, deciduous tree leaves will be switching from their familiar subdued shades of green to burst into brilliant yellows, oranges, and reds. It's as if nature has been saving up all year for a grand finale. So mesmerized can we become by the "what" of this spectacle that it's easy to neglect the "how" and "why". How do these brilliant colours suddenly appear and how do trees know when it's time to unveil them? And why - after this vibrant show of colour - do trees discard their leaves to fall to the ground?

Most of the vibrant autumn leaf colours that take the breath away have been there all along. The trees were just not ready to reveal them. The colours had been masked by the dominant green from chlorophyll, the

photosynthetic pigment that trees use to absorb sunlight and convert carbon dioxide and water into glucose, a type of sugar that serves as the main food for trees.

Chlorophyll is critical to tree growth but requires constant replacement. It breaks down with exposure to sunlight, similarly to how coloured paper fades in the sun over time. Tree leaves must manufacture new chlorophyll throughout the growing season, involving a considerable expense of energy. Come autumn, diminishing sunlight, and dropping temperatures bring the chlorophyll-powered food-making process to a standstill and trees begin to rely on stored sugars to last them through the winter. No longer requiring chlorophyll, trees slow down and then stop its production. The chlorophyll left in the leaves breaks down and disappears completely, revealing the vibrant colours of the pigments left behind.

YELLOW: The yellow colour seen in the leaves of trees such as aspens, beeches, and ashes comes from xanthophyll, a commonly found pigment in nature. It's the same pigment found in corn and squash.

ORANGE: The brilliant orange seen on sugar maples comes from carotene, the same pigment responsible for giving carrots their unique colour.

RED: The reds of sumacs and red maples is due to anthocyanin. Unlike carotene and xanthophyll, which are always present in tree leaves, anthocyanin is only produced once chlorophyll has broken down and the green colour has faded away. It's manufactured from the sugars still left in the leaf.

The length and intensity of the fall colours depend on sunlight and temperature. Once trees have stopped producing chlorophyll, abundant sunlight and low temperatures cause the chlorophyll remaining in the leaves to deteriorate faster, revealing the pigments hidden behind it sooner. Cool but not freezing night temperatures combined with sunny autumn days promote the generation of anthocyanins, which makes for brighter reds.

Like chlorophyll, the other pigments revealed eventually break down too. The only pigments that remain in the leaves are tannins, which are brown. It's a seemingly sad ending to nature's final display of the growing season's vibrancy, until you consider that leaves spend their last days infused in brilliant light and colour.



Most of the vibrant autumn leaf colours have been there all along. The trees were just not ready to reveal them.

Photo by Lou Smyrlis

October Nature at a Glance

From the Book *Nature's Year in the Kawarthas* by Drew Monkman

Sparrow and waterfowl migration takes centre stage this month. Diving ducks start arriving on our larger lakes. Flocks of gulls, robins, blackbirds, crows and local geese are widespread. The variety of birds at feeders is greater than at any other time of the year. Beautiful thrush-like Fox Sparrows sometimes even turn up in our yards.

Groundhogs and jumping mice start their long period of hibernation. Chipmunks retreat to their dens. Porcupines begin their mating season. Buck White-tailed Deer make digs in preparation for the upcoming rut.

Turtles begin their annual period of hibernation. Spring Peepers call sporadically during the day. Frogs and toads are attracted to warm pavement on damp, mild nights.



Spring Peeper at Presqu'ile Provincial Park on September 6.
Photo: Don McLeod

Muskies feed heavily and provide excellent fishing opportunities. Lake Trout spawn, followed shortly after by Brook Trout.

Sulphur butterflies, Sympetrum dragonflies and various midges are just a few of the insects commonly seen this month. Snowy Tree Crickets can still be heard for much of October. Killing frosts, however, eventually bring the insect chorus to an end and terminate most insect activity.

The fall colours reach their zenith but after the peak colour of the first week, many trees quickly shed their leaves. The last of the asters bring the year's wildflower parade to a conclusion. At month's end, Tamaracks glow with a golden yellow. Most non-native trees and shrubs, however, are still green and full-leaved.

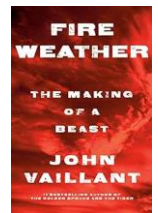
This is the month of the first killing frosts and, usually, a period of Indian Summer. Average daily temperatures reach a maximum of 13 °C and a minimum of 2 °C. In mid-October, the sun rises at about 7:30 a.m. and sets at about 6:30 p.m.

The Great Square of Pegasus dominates the night sky. The Big Dipper is low in the north. Orion looms low in the south as we head for work in the early morning darkness. The Hunter's Moon bathes the early evenings in moonlight.

Book Review: *Fire Weather, The Making of a Beast* by John Vaillant

Submitted by Marilyn Freeman

Wild fires are common in Canada's forests. But what causes an ordinary forest fire to become a fire beast, a monster that defies normal behaviour? *Fire Weather, The Making of a Beast* by John Vaillant, longlisted for the 2023 UK Baillie Gifford Prize for non-fiction, is a book that explains what brings a fire monster into being at the same time as spinning a narrative that reads like the script of a horror movie. *Fire Weather* is centred on the 2016 fire at Fort McMurray, Alberta.



Fort Mac, a petrocity of 88,000 people, is right in the middle of the boreal forest. There is a firefighting acronym, WUI (rhymes with phooey) that stands for Wildland-Urban Interface. It refers to urban areas built into forests with no buffer zones. While there have been legendary fires in the boreal before (after all, black spruce is basically a fire torch full of resin which firefighters call "gas on a stick"), Vaillant makes a strong case for why this fire was different.

The boreal forest normally has its own controls. To counteract black spruce, there are aspen and poplar trees, known as "asbestos trees". Their moisture laden leaves and pulpy, water-retaining wood can act like a brake on forest fires. Indigenous communities encourage aspen groves around popular hunting and fishing camps.

In 2016, weather had changed and was typified by persistent high temperatures, extremely low humidity, strong winds and dry fuel. This came together to create "crossover" which is a super intense fire. This looks like fire jumping from the forest floor to the canopy causing trees to not just ignite but to explode sending flaming embers huge distances. Once the fire hit the suburbs, the heat was so intense that the houses vaporized. This was both shocking and not surprising as houses are basically petroleum products: asphalt shingles, vinyl siding, lots of plastic and laminates. "We don't have a forest fire problem; we have a home ignition problem. As soon as you come to that realization, it changes your view on wildfire," says Ray Rasker, cofounder of Community Planning Assistance for Wildfire.

We are beyond the scope of normal fire. These fires don't just burn, they vaporize – just like lasers, atom bombs and the sun. They create firenadoes. They suck in water and turn it to vapour. Steel melts, glass liquifies. What looks like smoke is really a combination of soot, combustive gases, toxic chemicals and

steam. At Fort Mac, hundreds of thousands of gallons of water vapour were carried skyward to thirty thousand feet above the fire where it condensed and froze. Hurricane force downdrafts hurled shrapnel of black hail back to earth. This black hail was carbon-infused ice pellets; all that remained of the trees and the houses. The details of the Fort Mac fire sound like stories from the Old Testament or Greek mythology!

Fire Weather also has a human face. Vaillant interviewed first responders, people evacuating, and firefighters who were overcome by a situation for which they were never trained. Aside from ongoing physical effects of breathing in all the toxicity, there is also a lot of post-traumatic stress syndrome – including in children who were in vehicles leaving the city on only two ways out with fire on both sides burning the paint off the cars.

The final section of *Fire Weather* is called “Reckoning.” Vaillant muses on the dissonance between the auto industry’s preoccupation with “safety” and how comfortable we all are travelling with “powerful, poisonous bombs positioned directly behind our children’s car seats.” If the exhaust fumes from a Silverado’s tail pipe were directed back into the cab, the driver and all her passengers would be dead in minutes. If the fumes were directed into her living room, all would be dead in an hour. “But somehow, when we run our cars ‘outside’, in our shared environment, all the soot and toxic gases magically disappear,” writes the author.

The all-powerful petro companies fit the description of “a state in the guise of a merchant.” Jack Blum, a Washington energy lawyer and former Senate investigator, put this in twentieth century terms: “There is no wad of cash like this anywhere on earth. This is a wad of cash to break banks, even governments.” It’s no surprise that companies like Exxon direct climate policy on a global scale.

But...there are encouraging developments. The insurance industry, seeing the writing on the wall, is tracking the costs of climate disasters. Mines, drilling rigs, refineries and pipelines cannot operate without insurance, and the insurance companies are not happy. Legal challenges, especially those mounted by young people, are starting to gain traction and wins, much like what happened with the tobacco industry. Divestment from fossil fuel industries is picking up speed. In January of 2020, JPMorgan Chase, the world’s largest financier to the fossil fuel industry wrote, “Although precise predictions are not possible, it is clear that planet Earth is on an unsustainable trajectory. Something will have to change at some point *if the human race is going to survive.*” (Italics are Vaillant’s)

There is a section of colour photos from Fort McMurray in the centre of this book. The images are arresting. One stands out. In the midst of monochrome grey, everything reduced to or covered with ash, bright tulips rise out of the destruction. Nature wants to live.

Piping Plover Summary for 2023

Submitted by Martin Parker from E-mail from Monica Fromberger, Assistant Ecologist - Piping Plover Biologist | Southeast Zone - Ontario Parks

This plover season has been an *interesting* one to say the least! I wanted to provide a final 2023 plover season update and say thank you to all those who helped out this year or for just following along.

Overall in Ontario we had 3 nests make it to hatch this season – producing 5 fledglings in total. Three of these fledglings came from a nest around Presqu’ile Provincial Park. Chewie and Saga nested in a restricted area so we kept their nest quiet while they incubated. Once the nest hatched on June 19th the 3 chicks headed out on to Presqu’ile’s main beach in their first couple of days. Chewie and Saga did a great job of protecting the chicks and all of them made it to



Piping Plover chick. Photo: Jax Nasimok

fledge (July 12th – 23 days old) and migrate this season! The last of the fledglings left last Friday (August 11) overnight. It is awesome to know there are another 3 Presqu'ile Piping Plovers in the world! Thank you to all who came out to see them this season!!

In addition to Chewie and Saga, we had multiple other plovers stop in at both Darlington and Presqu'ile including Chewie's mom - Arwen, a 2022 captive-reared male from Pennsylvania, one of our Presqu'ile fledglings from last year!, and a couple others. The first year captive-reared male and our first year



Piping Plover fledgling.
Photo: Jax Nasimok

Presqu'ile female showed breeding behaviours for close to two-weeks but couldn't quite get it figured out in the end and eventually left the beach around the beginning of June. Hopefully they return next year (maybe at Darlington?!) and are able to nest.

Next year, my hope is that we have a bit more "normal" plover season to be able to engage new volunteers and interested plover lovers. I'll check in again next spring when our plovers start returning (end of April). For now, have a lovely fall and winter season! And if you don't already follow Birds Canada's Ontario Piping Plover social media pages, I highly suggest you do, to keep up with the latest plover news 😊

The Way of The Osprey

I'm mostly dark brown above and bright white below,
Black beak and talons, long legs, M-shaped wings to go.
The bands of dark feathers over my eyes reduce glare -
(Fish moving or resting near the surface, beware).
I live on what's handiest to catch, often bottom feeders;
The fish who eat other fish, wow, what agile speeders!
I'm searching the weedy shallows of Lake Chemong
(I'm not as big as my hen, but still plenty strong),
To dive from perhaps a hundred feet at an angle steep,
My eyes guiding my feet thrust some three feet deep.
Grasping the fish with two toes in front, two in rear
And foot pads soled with barbs, I quickly reappear
At the roiled surface to flap and shake the water free
From dense, buoyant feathers I keep clean and oily.
In two hundredths of a second my talons snap shut;
The tough small-mouthed bass is now anything but.
I hold him in my long talons in places fore and aft
(Eagles, hawks and such never learned this craft!).
My outer front toes can reverse to secure better grip;
Hardly ever does a big squirmer not make the trip.
An osprey can often take fish in seven out of ten tries
(Most birds of prey must work harder for their prize).
I wing it home to my mate on our lofty nest of sticks
Where she waits to feed our three fast-growing chicks.

Murray Arthur Palmer, 2015



Osprey on Lang-Hastings Trail near Baseline on May 9. Photo: Sandy Garvey

Orchid submissions are encouraged!

The submission deadline for the next issue is Wednesday, October 25.

Please send submissions to Kathryn Sheridan at orchid@peterboroughnature.org

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

Submissions can be articles, photos, anecdotes, nature book reviews, poems, outing reports, nature news, recommendations, interesting things you've learned or observed about nature etc.






PFN OFFICERS AND BOARD OF DIRECTORS

President	Sue Paradisis	sueparadisis@hotmail.com	705-559-2061
Past-President	Rene Gareau	rene.gareau@sympatico.ca	705-741-4560
Vice-President	Fiona McKay	fcmckay@peterboroughnature.org	705-875-2317
Secretary	Anda Rungis	secretary@peterboroughnature.org	613-298-9062
Treasurer	Ted Vale	treasurer@peterboroughnature.org	705-741-3641
Directors	Shelley King	shelleyfletcherking@gmail.com	705-957-9030
	Sandy Garvey	sandy.l.t.garvey@gmail.com	705-768-0904
	Cathy Douglas	cddouglas77@gmail.com	905-751-5292
	Steve Paul	stevepaul70@gmail.com	705-930-8370
	Philip Shaw	pshaw78@hotmail.com	705-874-1688

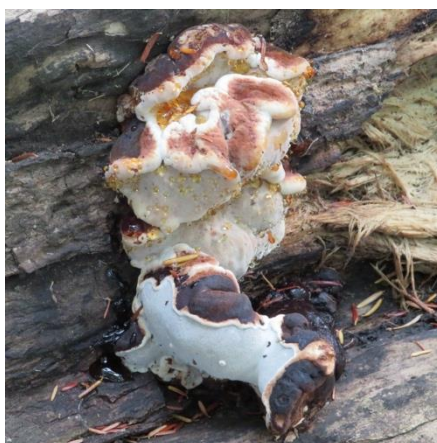
KEY CONTACTS

Membership	Jim Young and Cathy Douglas	705-760-9397
Outings Coordinator	Sue Paradisis and Steve Paul	sueparadisis@hotmail.com
Ontario Nature Rep	Fiona McKay	fcmckay@peterboroughnature.org
PFN Juniors	Shelley King	juniors@peterboroughnature.org
Social Media	Marilyn Hubley	media@peterboroughnature.org
The Orchid	Kathryn Sheridan	orchid@peterboroughnature.org
Orchid Diary	Pamela Martin and Marilyn Hubley	orchiddiary@peterboroughnature.org

PFN on Social Media:

 Instagram	@PtboNature	 YouTube	peterboroughnature
 Twitter	@PtboNature	 TikTok	peterboroughnature
		 Facebook	Peterborough Field Naturalists

Peterborough Field Naturalists, P.O. Box 1532, Peterborough, Ontario, K9J 7H7
 General e-mail: info@peterboroughnature.org Newsletter e-mail: orchid@peterboroughnature.org
 Website: www.peterboroughnature.org



More photos from the fungi outing on September 18. From left: Comb tooth coral, late fall polypore, and wood ear. Photos: Martha Lawrence



The Orchid Diary



A summary of noteworthy observations by PFN members and others in Peterborough County. Information compiled from eBird's rare bird sightings, Drew Monkman's Sightings website, PTBO Sightings and individual submissions. Please submit your interesting observations to orchiddiary@peterboroughnature.org

Aug. 1	<p>Luke Berg spotted an early migrant Bay-breasted Warbler along the Lang Hastings Trail near Cameron Line.</p> <p>Dave Milsom saw two juvenile Lincoln's Sparrows in the Jack Lake Road Bog, Apsley, suggesting breeding success of a territorial bird detected there by Don Sutherland in June.</p>
Aug. 2	A Least Bittern was seen in Bailey's Bay of Chemong Lake by Don McLeod.
Aug. 3	While paddling on the Indian River near Warsaw Caves, Gary Heuvel watched in surprise as a small flock of Canada Geese , attempting to land on the small pond there, miscalculated and flapped straight into the trees, falling down into the water. Ungraceful but apparently unhurt!
Aug. 4	<p>A juvenile Red-headed Woodpecker was seen by David Beaucage Johnson at Curve Lake, no doubt associated with earlier sightings of adults seen in this area.</p> <p>An adult Northern Bush-katydid was seen by Peter Currier at his cottage on Lake Catchacoma.</p>
Great Egret	A post-breeding influx of Great Egrets began in late July as reported earlier, continuing through September. On August 6, two birds were seen initially by Kristen Palfrey in Curve Lake on Buckhorn. Later reports by Chris Risley and Erica Nol over the next few days confirmed a single bird. On September 15, an anonymous birder saw an egret at Sandy Creek Bay, just across from the Curve Lake bird. Another individual was spotted by Marilyn Hubley in a pond along Best Road, Cavan, which continued to be seen throughout August and well into September by many individuals. Jeff Stewart observed a bird at the Darling Wildlife Area on August 16; Hilary Dickson spotted one just upstream of Little Lake on August 26 and another one at Nephton along County Road 6 on September 11. One was seen flying over County Road 28 near Fraserville by Matt Tobey on September 9. Donald Sutherland noted an individual at Beloprine Marsh north of Havelock on September 18.
Aug. 5	Cindy Whitelaw was visited by a Peregrine Falcon in her backyard in Millbrook.
Aug. 6	<p>Chris Risley spotted another Least Bittern at the Lakefield Sewage Lagoons.</p> <p>A Tennessee Warbler was seen by Luke Berg on the Lang Hastings Trail near Settlers Line and a Cape May Warbler was seen by Dave Milsom at Thompson Bay.</p> <p>A Yellow Garden Spider was observed on its gigantic web by Wayne Stovell in his flower garden in Cavan.</p>
Aug. 7	<p>Luke Berg noted that a Northern Mockingbird seen along the Lang Hastings Trail near Drummond was in a similar spot as last year.</p> <p>Bay-breasted Warblers were also observed by Luke as well as by Iain Rayner at the Sewage Lagoons, and on August 9 in Iain's yard in Lakefield.</p>
Aug. 8	An Ovenbird flew into Stephanie Armstrong's window in Warsaw. Fortunately, after a few hours of recovery in a dark box, it was able to fly away. This provides another reminder to put Feather Friendly dots on any windows that don't have the screen on the outside. This is particularly important during the migration period when birds are not familiar with your yard.
Aug. 10	A Great Black-backed Gull was seen by Bob Highcock and Jean Hampson out on Rice Lake from Gores Landing.

Aug. 11	Iain Rayner continued to see a Bay-breasted Warbler around his yard in Lakefield.
Aug. 14	A Philadelphia Vireo was seen clearly by Dave Milsom at Thompson Bay.
Aug. 17	Andrew Brown reported that the Red-headed Woodpecker family that he observed all summer was continuing to come to his birdfeeder in Ennismore.
Aug. 19	Cathy and Kait Dueck saw a Black-crowned Night-Heron at Douro Park. Two Philadelphia Vireos were spotted by Dave Milsom at the Trent Nature Area.
Aug. 20	Red-headed Woodpeckers were seen by Leo Weiskittel in Asphodel and by Dave Milsom on Duncan's Line. These may well be birds from the family observed earlier this summer. Donald Sutherland observed a Philadelphia Vireo at Harper Park. A juvenile Double-crested Cormorant was seen on the Indian River near Warsaw by Stephanie Armstrong.
Aug. 23	A Northern Goshawk was seen by Donald Sutherland at Belopordine Marsh, north of Havelock.
Aug. 24	A juvenile Northern Goshawk was seen on the Lang Hastings Trail near Drummond Line by Dave Milsom, who also saw a Lincoln's Sparrow .
Aug. 26	Shelley King reported having seen 5 Common Nighthawks aerially foraging silently over the canal near Parkhill Road and McLaren.
Aug. 27	An adult Black-crowned Night-Heron was seen flying over the Rotary Park Walkway by Dave Milsom and Cathy Douglas. This bird continued to be seen by many others in the area into September.
Aug. 31	Several Palm Warblers were seen by Jake Nafziger on Technology Drive and the Lakefield Sewage Lagoons and another was seen by Cathy Douglas on Preston Road.
Sept. 1 (approx)	Sue Paradisis noticed 12 Monarch caterpillars living on the swamp milkweed plants for sale at Griffin Greenhouse. The plants were protected and the caterpillars quickly went into the chrysalis stage. Happily, all 12 have successfully emerged as butterflies. Enid Mallory reported having heard and seen an American Woodcock and heard a Black-billed Cuckoo throughout her summer at the cottage on Big Cedar Lake. Over the course of the summer, Henri Selles observed a pair of Common Ravens start a nest on a tall lamp standard, then relocate to a large tree where they successfully raised a brood in the Engleburn Avenue neighbourhood in Peterborough.
Sept. 4	Donald Sutherland noted a young Least Bittern at the Lakefield Sewage Lagoons. Several American Pipits were seen by John Bick at the Lakefield Sewage Lagoons.
Sept. 5/6	Late Eastern Kingbirds were seen by Andrew Brown and Olivia Maillet along the Trent Rotary Trail near Trent, by Tony Barrett at Whitfield Landing and by Dan Chronowic at Rogers Cove. The birds near Trent were juveniles being fed by an adult.
Sept. 7	A Red-headed Woodpecker was heard by Dave Milsom at Gannons Narrows. A Yellow-throated Vireo was heard then seen by Don Sutherland at the Lakefield Sewage Lagoons. Patrick Kramer reported that a pair of Mourning Doves nested 5 times through the season, most recently fledging 9 chicks from 10 eggs! I wonder if they are done for the season 😊 Today was also a big day for Snapping Turtles to hatch, a little late after a fairly chilly August. Patrick Kramer noted hatchlings at Trent and Pam Martin came across a brood skuttling in all

	directions at the cross roads of Lang Village. Other hatching nests were also noted at Hope Mill, which had unfortunately been noticed, and 'helped' out of their shells, by the raccoons...
Sept. 8	A Yellow-throated Vireo was spotted by Sue Paradisis at Beavermead Park with a flock of chickadees.
Sept. 9	Dave Milsom saw 2 adult and 1 juvenile Red-headed woodpecker at Sandy Point, Pigeon Lake. A Barn Swallow was observed foraging over the Lakefield Sewage Lagoons by Donald Sutherland. Iain Raynor noted a Rusty Blackbird flying and calling overhead in Lakefield.
Sept. 10	A Yellow-bellied Flycatcher was reported by Ben Taylor at Edgewater Blvd with a group of migrant songbirds. Luke Berg heard an Alder Flycatcher and a Canada Warbler on the Lang Hastings Trail near Drummond Line.
Sept. 11	Sue Paradisis spotted a Northern Mockingbird feeding on grapes along the Trent Rotary Trail south of Lakefield. Kale Worman observed a Northern Waterthrush along the Trent Rotary Trail near Trent.
Sept. 12	Another Northern Waterthrush was observed at Meadowvale Park by Leo Weiskittel. Andrew Brown observed 3 Eastern Kingbirds at Riverview Park and Zoo. Another Yellow-throated Vireo was spotted by Dave Milsom along the Rotary Greenway Trail north of Center Road.
Sept. 13	Mark Williamson reported seeing an Olive-sided Flycatcher on the Pigeon Lake Road. Sandy Garvey saw a Sandhill Crane and a Green Heron at the Otonabee Gravel Pits. Jax Nasimok noted 2 Yellow-bellied Flycatchers in the Trent South Drumlin Nature Area. An Eastern Kingbird was spotted by Kale Worman on the Trent Rotary Trail near Trent U. Sue Paradisis and Marilyn Hubley heard a Northern Waterthrush in the Cavan Swamp. Cathy Douglas saw an Orange-crowned Warbler on South Bay Road, Stoney Lake today and a Yellow-throated Vireo on September 14. A juvenile Black-crowned Night-heron was spotted along the Rotary Park and Walkway by Pam Martin and Matt Garvin.
Sept. 15	Andrew Brown and Olivia Maillet saw a juvenile White-crowned sparrow with a flock of mixed songbirds along the Trent Rotary Trail near Trent.
Sept. 16	A Great-crested Flycatcher and a Bobolink were heard by Jake Nafziger on the Lang Hastings Trail near Drummond Line. Another two Great-crested Flycatchers were heard, then seen by Iain Rayner in his Lakefield backyard.
Sept. 15 to 20	Baltimore Orioles were seen by Don Sutherland at the Lakefield Sewage Lagoons, Laurie Healey on Keene Road and heard chattering by Andy Nguyen along the Nephton Ridge. Late migrating Yellow Warblers were reported by Carol Horner, Craig Ham and Iain Rayner at the Lakefield Sewage Lagoons, by Britt Petersen near Jackson Park, Cathy Douglas at Petroglyphs Provincial Park and by Jax Nasimok at Trent University. A Yellow-bellied Flycatcher was noted in the sumacs at the Lakefield Sewage Lagoons by Dave Milsom and another was seen by Cathy Douglas on South Bay Road, Stoney Lake.
Sept. 19	Tim Haan spotted an Orange-crowned Warbler on Corrigan Hill. A Yellow-throated Vireo was seen by Laurie Healey in her Keene Road yard.



JUNIOR NATURALIST NEWS

peterboroughnature.org

email: juniors@peterboroughnature.org

October 2023

Did you know?

- Turtles date back to the time of the dinosaurs, over 200 million years ago.
- Just like your bones, a turtle's shell is actually part of its skeleton. It's made up of over 50 bones which include the turtle's rib cage and spine.
- Turtles are 'amniotes' – they breathe air and lay their eggs on land, although many species live in or around water.
- The oldest turtle ever recorded passed away at the grand old age of 188!

These turt-ally awesome facts are brought to you by National Geographic Kids!

COMING EVENT

TURTLE ENCOUNTERS: UP CLOSE & PERSONAL

Meet the education ambassador turtles at the Ontario Turtle Conservation Centre. We'll have the opportunity to see them up-close and hear their stories. We'll also learn about the 8 different species of turtles in Ontario, why we are losing them, and how we can help protect them.

Only 10 spots are available, so register early!

Date: Saturday, October 21st, 2023 **Time:** 2 to 3pm

Location: Ontario Turtle Conservation Centre, Selwyn. Detailed directions will be sent to participants who have registered.

Registration: Register by contacting juniors@peterboroughnature.org.



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.** For E-Transfer go to <https://peterboroughnature.org/membership/join-online/>

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: _____