Halton/North Peel Naturalist Club

The Esquesing

Jan - Feb 2018 Newsletter
Volume 52, Number 3

Talks and Walks

Indoor: Meetings begin at 7:30 p.m. on the second Tuesday of the month, September to June at St. Alban the Martyr Anglican Church, 537 Main Street, Glen Williams, unless stated otherwise.

Tuesday January 9, 2018, 7:30 pm
Wild Ontario: A New Life, A New Purpose - Using Non-releasable Birds to Effect Change
Kyle Horner of Wild Ontario based at the University of Guelph. Kyle provided this background information for his talk: Wild Ontario is an environmental education program with a special set of tools - a team of non-releasable birds-of-prey. These once-wild animals have been permanently injured as a result of encounters with people, and can no longer survive in nature. Wild Ontario provides a permanent home for these birds, and an important job too: teaching about nature, and how humans affect it. This presentation will cover Wild Ontario's unique history, current mission, and the philosophy behind their educational programming. Their feathered friends will be on-hand too, so don't forget to bring your camera!

Tuesday February 13, 2018, 7:30 pm
Charles Darwin
Darryl Gwynne, club member and biology professor at the University of Toronto at Mississauga, will speak to us about one of his heroes and perhaps *the* most seminal figure in science, Charles Darwin. Darwin was born on February 12, 1809 a date that aligns with Darryl's talk. No word yet on whether Darryl will offer us a cake with 209 candles on it.

Tuesday March 13, 2018, 7:30pm
Members night
A show and tell for adults. You are invited to share anything you do that connects with the natural world. This could include art, crafts, photography (prints), collections, poetry, writing, etc. Ann Fraser will kick off this meeting with a slide show of some of her superb nature photography. Then we will circulate with mugs of tea or hot chocolate to celebrate the nature pursuits of our fellow club members.
Special Note: this plan could be pre-empted by the speaker tentatively scheduled for May 8. (See the May meeting synopsis below.) If March is a better date for this speaker we'll have the members night in May. We should be able to clarify this early in the new year.

Tuesday April 10, 2018, 7:30pm
Ontario Badgers
Josh Sayers of Ontario Badgers will tell us about a mammal that most Ontarian's don't realize exists in the province. Ontario Badgers is involved in advocacy work, conservation and research to protect and better understand the ecology of badgers in the province. To learn more, visit their site http://www.ontariobadgers.org/index.html

Tuesday May 8, 2018, 7:30 pm
Native Bees
Professor Laurence Packer of York University is one of Canada's foremost experts on wild bees. He'll speak to us about the ecology and conservation of these important insects.
This talk could take place in March. See the special note under the March synopsis.

Tuesday June 12, 2018, 7:30 pm
Our traditional walk in a local natural area prior to our summer break. Details TBA later.

Outdoor

Sunday January 14, 2018, 10 am
Animal tracks and signs at Terra Cotta Conservation Area
Meet in the TCCA parking lot. (Parking fee in effect) Join Don Scallen to search for animal tracks to identify and follow. Difficulty rating: moderate. Animal tracks may lead us over uneven terrain. This is a snow dependent activity. If there isn't sufficient snow (such a prospect looks unlikely at this time) an email will be sent out to cancel the event.

Other outings: There will be other walks and activities happening in the near future. Watch your inbox for email blasts and visit our website http://hnpnc.com/site/ for updates.

Winter Wonderland - Joseph T. Renaldi

There are strange and mysterious sounds
When the winds of winter blow,
The long nights are crystal clear and cold,
And the fields and meadows are covered with snow.
The stars are frosty against the sky,
And the wind's whistle is shrill,
As the snow blows against the house
And drifts against the hill.
Yet, I like to see during the winter
A white carpet on the ground,
To plod aimlessly in the deep snow,
where deer tracks abound.
I like to feel the stillness
Of a crisp winter's night,
Watching a full moon rise over the horizon,
Exposing a winter wonderland beautiful and bright.

President's Message

The beginning of another year, for naturalists, is full of the promise of new discoveries and the prospect of spending many pleasurable days in the natural world. We naturalists are a fortunate lot. We know that a world of wonder awaits just outside our doors, a precious gift that costs nothing (beyond the purchase price of a pair of binoculars perhaps!) provides healthful exercise, and is a welcome respite from often stressful lives. We find joy and inspiration in the outdoors, in the birds, the wildflowers, the insects and the trees – our fellow participants in the beautiful pageantry of life.

The Halton North Peel Naturalist Club convenes, of course, on the second Tuesday of the month – September through June – to reconnect with friends who share a love for the natural world and listen to speakers who inspire and educate; who shed light on fascinating animals and plants, and explore the complexities of ecosystems and issues affecting the environment. In 2018 you'll have the opportunity to get up close and personal with live raptors, find out about one of Ontario's rarest mammals – the American badger, learn more about Charles Darwin – arguably the most influential naturalist who ever lived, and better understand our native bees with Professor Laurence Packer of York University.

Though small, our club looks for opportunities to help others connect with nature and, where possible, to effect positive environmental change. It was great to see ten club members come out on a weekday to help manage woody vegetation encroaching on meadow habitat at Forks of the Credit Provincial Park. The grasshopper sparrows will thank you come spring! And speaking of Forks of the Credit Provincial Park, the ten bird boxes we erected there last April were all claimed, primarily by tree swallows and house wrens. Obviously, there is a demand for avian housing at the Forks, and we're helping to satisfy it.

Lately I've heard some positive feedback about patients at Georgetown hospital who have found some joy and solace in watching the birds come to feeders paid for by our club with help from Wild Birds Unlimited in Guelph. A big thank you to club members who have contributed dollars to send a high school student to Ontario Nature's annual Youth Nature Summit. Special thanks to Kim and Ramona Dobson, Gary Helmer and Mike Cornish who were especially generous in supporting this cause. We now have the $350 necessary to sponsor one teen. It would be wonderful if we could raise a further $350 by June to sponsor another. At a recent executive meeting your club voted to donate money to the Halton Hills EcoFilm Fest to support the showing of "*An Inconvenient Sequel",* Al Gore's follow up to "*An Inconvenient Truth"* We also donated money to support the important work of Fatal Light Awareness Program to help songbirds.

Finally, thank you to everyone who made our annual Pot Luck dinner a success with your tasty edibles and your slides. The photos were a diverse sampling of the natural phenomenon that excites us. I enjoyed all the presentations, despite my largely futile attempts to identify Gary Hall's bird calls!

In closing, I wish everyone a happy new year and hope you can spend plenty of time outdoors. Let's gather again next December to enjoy some good food and share our 2018 discoveries.

Don Scallen

Bill McIlveen wins the W.W.H. Gunn Conservation Award

Congratulations to our club's most venerable naturalist! As many of you know, Bill McIlveen was presented with the **W.W.H. Gunn Conservation Award** last June by Ontario Nature.

The criteria for this prestigious award: *Nominees acting either independently or as a group leader must demonstrate outstanding personal service and a strong commitment to nature conservation over a number of years with exceptional results.*

Specifically, Bill was recognized by Ontario Nature "For his dedication to surveying and writing about Ontario's wildlife and plants." First presented in 1966, Bill joins the many outstanding naturalists who have received this award including Larry and Kay McKeever founders of the Owl Foundation in Vineland, Fred and Norah Urquhart, who discovered the overwintering sites of monarch butterflies in Mexico and Michael Cadman who spearheaded both of Ontario's breeding bird atlases.

Bill is one of Ontario's most eminent naturalists. We are proud to have him in our club!

Amazing Trees

If you love trees check out this webpage that club member Tom Wenzel found.
https://www.mnn.com/earth-matters/wilderness-resources/blogs/facts-about-trees

Club members hug a tree at Esquesing Conservation Area

Results of the 2017 Halton Hills Christmas Bird Count

For 2017, the 27th annual Christmas Bird Count for Halton Hills was conducted on December 27th. The weather that day was decidedly frosty with temperatures ranging from a low of -18.5° early in the day and reaching -12° C. The day started out in bright sunshine but this changed suddenly to snow in the early afternoon. The falling snow was dense enough to create fog-like conditions but this gave way to variable clouds.

The results of the tally for Count Day and Count Week are summarized in the attached table. The number of species reported was 60 which is a new high number. The previous high was 57 species. The total number of birds tallied was 7038 which is considerably lower than the long-term average of 9539. This tally is notable in that there was no northern finch irruption into Southern Ontario at the end of 2017. As well, the very low temperatures of the previous few weeks had caused all standing water in lakes and ponds to freeze. Two new species were seen during the 2017 Count giving the grand total of species (excluding undetermined types) seen during the 27 years of counts at 104.

Two species (Great Horned Owl and Yellow-bellied Sapsucker) were found within the Count Week but were not tallied on Count Day. Two species, Tundra Swan and Yellow-bellied Sapsucker appeared on the Count list for the first time. Four species were present in new high numbers. These included Red-bellied Woodpecker (21) Common Raven (10), Horned Lark (81) and Cedar Waxwing (346). The Woodpeckers and Ravens are known to be in the midst of a significant range expansion into Southern Ontario. Wild Turkey, another species known to be increasing, did not match the high of 195 recorded in 2016 but the new count of 68 was nearly double the average. Surprisingly, no Herring Gulls were reported and Ring-billed Gull numbers (24) were only about 20% of the long-term average let alone the peak count of 2010 birds. Several species generally known to be reliable and numerous were present in numbers notably below their respective average counts. This list includes Canada Goose, Mallard, Rock Pigeon, American Crow, Black-capped Chickadee, European Starling, House Finch and House Sparrow. It is presumed that the lower numbers were related to the cold weather on Count Day as well as to the general lack of open water.

Cedar Waxwings enjoying the heavy crop of winterberries on 22nd Sideroad east of Hwy 25. Photo credits in this article: Fiona Reid

Only one Ruffed Grouse was recorded on count day.

The contributions of the 26 participants in the 2017 Count are recognized: Richard Baxter, Ray Blower, Kelly Bowen, Dilys Bowman, Alexis Buset, Mimi Chan, Pam Forsythe, Alexander Grout, Ian Jarvie, Andrew Kellman, Laura Krajewski, Bill McIlveen, Jacky Miller, Mike Norton, Rob Palin, Fiona Reid, Dawn Renfrew, Don Scallen, Adhara Scholten, Yves Scholten, Dan Schuurman, Rick Stroud, Shirley Stroud, Janice Sukhiana, Patrick Tuck, and Laura Weihs.

Many thanks once more to Larry May for arranging access to the Maple Lodge Farms property and to Bill Elgie and Dan Richer for facilitating the team visit to the Upper Canada College property. A *special thank you* to Alexis Buset and Yves Scholten for hosting the wrap-up session.

Results of the 2017 Christmas Bird Count at Halton Hills

Species	Total	Avg.	Low	High
Canada Goose	1299	2298.5	229	4577
Tundra Swan	13			
American Black Duck	8	21.5	2	67
Mallard	124	528.4	26	1636
Common Goldeneye	8	7.0	1	26
Hooded Merganser	5	6.0	2	10
Common Merganser	11	12.9	1	66
Ruffed Grouse	1	3.3	0	8
Wild Turkey	68	37.3	0	195
Great Blue Heron	1	1.3	0	4
Bald Eagle	1	1.7	0	3
Northern Harrier	1	3.1	0	3
Sharp-shinned Hawk	4	3.9	1	11
Cooper's Hawk	6	3.0	0	10
Red-shouldered Hawk	1	1.3	1	2
Red-tailed Hawk	49	59.5	35	117
Rough-legged Hawk	2	6.7	1	45
American Kestrel	1	9.2	0	16
Ring-billed Gull	24	144.7	1	2010
Rock Pigeon	290	561.4	210	1455
Mourning Dove	521	628.8	191	1385
Eastern Screech Owl	1	1.8	0	6
Great Horned Owl	CW	2.3	0	5
Snowy Owl	1	0.5	0	1
Belted Kingfisher	2	2.8	1	7
Red-bellied Woodpecker	21	6.4	0	20
Yellow-bellied Sapsucker	CW			
Downy Woodpecker	64	51.3	21	91
Hairy Woodpecker	16	18.4	2	33
Pileated Woodpecker	2	3.2	0	12
Northern Shrike	3	3.7	0	19
Blue Jay	192	144.2	60	333

Species	Total	Avg.	Low	High
American Crow	212	349.2	55	692
Common Raven	10	3.0	0	8
Horned Lark	81	31.3	1	65
Black-capped Chickadee	392	606.6	243	1211
Red-breasted Nuthatch	9	8.4	1	22
White-breasted Nuthatch	44	43.2	19	82
Brown Creeper	4	2.8	0	8
Golden-crowned Kinglet	4	6.2	0	30
Eastern Bluebird	6	3.0	0	8
American Robin	262	52.1	1	266
Northern Mockingbird	1	1.9	0	5
European Starling	1050	1866.2	485	3490
Cedar Waxwing	346	78.7	3	240
American Tree Sparrow	297	295.9	55	837
Song Sparrow	4	5.2	1	22
White-throated Sparrow	8	2.1	1	10
White-crowned Sparrow	1	5.8	1	21
Slate-colored Junco	672	287.4	91	693
Snow Bunting	20	215.9	0	1118
Northern Cardinal	89	59.2	22	101
Red-winged Blackbird	1	3.2	1	12
Common Grackle	1	1.0	1	1
Brown-headed Cowbird	1	8.6	0	36
Purple Finch	4	11.1	1	52
House Finch	62	190.2	23	456
Pine Siskin	9	19.1	1	63
American Goldfinch	330	217.8	37	499
House Sparrow	378	576.5	196	1316

Species	Total	Avg.	Low	High
Total Birds	7038	9539	3131	15507
No. Species	60	50.7	41	57

Report byW.D. McIlveen
Photos by Fiona Reid

The Monarchs are back!

At our September 12th meeting, I was happy to hear in the conversation that monarch butterflies were enjoying a good year.

My two granddaughters Lily 13 and Hannah Rose 11 and I are Butterfly enthusiasts. We've been actively involved in Monarch conservation for a number of years. In 2015 we raised three Monarch butterflies to adulthood and then participated in a release party on September 26th of that year in Hamilton. We were assisted by Carol Paternak, author of "How to Raise Monarch Butterflies." It was a very windy day and our three fledglings were quickly swept into their journey.

We visit the Cambridge Butterfly Conservatory in all seasons. The Naturalist there, Andalyne Tofflemire, told us recently that this has been a better year than last. On Sept. 9 & 10, 2017, they tagged and released 60 butterflies versus about 20 in 2016.

Last year, on September 11, 2016, at the Conservatory, we participated in the Monarch Tagging Weekend. Caterpillars were found naturally on milkweed around the Conservatory and raised there. We sponsored a migratory Monarch and named her HOPE. We took her photo. We tried tracking but lost her along the way.

Then in January 18, 2017, we entered the David Suzuki Foundation contest to win a trip: Ten days in Mexico— February 16 to 25, 2017, to witness millions of butterflies in flight at the El Rosario and Sierra Chincua sanctuaries, part of the Monarch Butterfly Biosphere Reserve, a UNESCO World Heritage Site.

Of course, we hoped to win. We wrote a 250-word essay about our interest and projects, signed a pledge to take care of the Monarchs, and we received a thank you letter.

We were delighted that see on the news that Honourable Catherine McKenna, Minister of the Environment and Climate Change took her family of three kids in early January of 2017, to hike the mountains of central Mexico with Omar Vidal, CEO of the World Wildlife Fund in Mexico, to see the famous Monarch butterflies. Catherine McKenna wrote an op-ed in the Toronto Star and spoke of the ongoing efforts by scientists, governments, and concerned citizens to bring hope. (https://www.thestar.com/opinion/commentary/2017/02/09/committed-to-protecting-the-magnificent-monarch-butterfly-mckenna.html) The film "Flight of the Butterflies" tells the amazing story of the courageous journey taken by Monarchs to Mexico. http://www.flightofthebutterflies.com/home/

Daisy Radigan

A Common True Katydid outpost in Georgetown Ontario

In late September I received an email from Lorysa Cornish, our membership director, who had a puzzle to solve. Lorysa was at the Christian Reformed Church in Georgetown for a choir practice. After practice she heard the voices of an entirely different type of choir singing from the trees and shrubs surrounding the church. She wondered if these natural choristers could be frogs.

I listened to the audio clip that accompanied her email and identified the voices as those of Common True Katydids, *Pterophylla camellifolia*. The sounds the male katydids make with their forewings are truly loud. Even a single katydid demands attention. Last year one common true katydid sang in maple tree two doors down from my house on Windsor Road in Georgetown. It would begin singing at dusk and call without cease until well into the night. An exasperated neighbour bemoaned the "tree frog" that just wouldn't shut up.

Common True Katydid (*Pterophylla camelliflolia*)
Photo credit: Don Scallen

South of here, common true katydids call en masse from woodlands and treed suburbs, creating tremendous clamour. I've heard such choruses in Massachusetts, Tennessee and, closer to home on Pelee Island. Notable in Tennessee was the chorus that started up the moment the August 2017 solar eclipse achieved totality. It was like flipping a switch. The katydids sang earnestly through the two and half minutes of totality and then promptly stopped when the sun peeked out from behind the moon.

In this part of Ontario, common true katydids aren't common at all, though they can occasionally be found at least as far north as Ottawa. I enjoyed (fleeting) fame in 2008 when I spoke to Rita Celli of CBC's Ontario Today about strange nighttime sounds heard in an Ottawa neighbourhood. Residents were truly perplexed and some genuinely concerned, believing that they were hearing some sort of electrical short that might indicate a dangerous situation. Oblivious to this concern were the real noise makers: common true katydids.

Rita Celli asked me how these southern insects may have ended up in Ottawa and could only repeat a theory that I found on the internet. Common true katydids are poor flyers, so that method of dispersal far north of their usual range could be ruled out. A possibility

though would be hitchhiking on nursery stock. Female common true katydids use long abdominal appendages called ovipositors to inject their eggs into tree bark. It is easy to imagine the eggs and larvae then riding trucks with stock bound for distant nurseries. The Georgetown katydids may have arrived in this fashion but I'm not going to discount the possibility that they did it on their own. We're much closer than Ottawa to the Carolinian zone, where these katydids have long enjoyed residency.

Lorysa has posted her common true katydid find on *I Naturalist* and as I write this her observation stands as one of the most northerly in North America. (An observation in Vermont may be slightly further north.) Pretty impressive.
I'll be back at the Christian Reformed Church next summer in the hopes of hearing the common true katydid choir once again. If this colony expands in future years I expect that puzzled Georgetownians will offer their own theories to explain the nocturnal noise. Tree frogs will undoubtedly be implicated. But I look forward to more exotic guesses – an alien invasion perhaps. Or maybe a nefarious high-tech government surveillance system gone awry!

Listen to common true katydid calls and learn more about these fascinating insects at http://songsofinsects.com/katydids/common-true-katydid

Don Scallen

Illustrations by Irene McIlveen

Top Left: *Papilio polyxenes*, Black Swallowtail

Top Right: *Suillus spraguei* is now known as *Suillus pictus* Painted Suillus

Bottom Left: *Draeculacephala zeae*, Sharp-shooter Leafhopper

Bottom Right: plants left to right: Three-parted Beggarticks (*Bidens tripartita*), Cardinalflower (*Lobelia cardinalis*) and Great Blue Lobelia (*Lobelia siphilitica*)

Winter Quiz

Answers on last page

Report on Evening Walks for 2017 – South Peel Naturalists and Halton/North Peel Naturalists

Since1992 and before, (the original date is unclear) the South Peel Naturalists have hosted evening walks for the members. Some years later, the walks were combined to include the Halton/North Peel Naturalists Club. The program continued during the summer of 2017 when a total of 15 evening walks were held between May 15 and August 21. As usual, all walks were done in various areas of Halton and Peel Regions as indicated in the following table. The names of the leaders and the numbers of participants on each walk are indicated. As in previous years, an attempt was made to alternate sites in the south and the north part of the area. Overall, there were seven different leaders (Ray Blower, Kirsten Burling, Emily Dobson, W. McIlveen, Fiona Reid, Dawn Renfrew, and Don Scallen).

Date	Destination	Leader	Attendance
15-May	Shanahan Tract	Dawn Renfrew	7 people
22-May	Sixteen Valley Creek	Bill McIlveen	9 people
29-May	Scotch Block	Fiona Reid	9 people
5-Jun	Acton Swift Watch	Emily Dobson	14 people
12-Jun	Scotsdale Bird Box	Bill McIlveen	4 people
19-Jun	Riverview Park Streetsville	Bill McIlveen	10 people
26-Jun	Forks-of-Credit Park	Don Scallen	10 people
3-Jul	Credit River Streetsville	Bill McIlveen	9 people
10-Jul	Hardy & Crozier Tracts	Ray Blower	8 people
17-Jul	Marco Muzzo Memorial Park	Bill McIlveen	11 people
24-Jul	Conley Tract	Bill McIlveen	2 people
31-Jul	Hungry Hollow Georgetown	Bill McIlveen	5 people
7-Aug	Swift Night Out	Emily Dobson	11 people
14-Aug	Speyside Area	Fiona Reid	7 people
21-Aug	Rattray	Kirsten Burling	11 people

The event on July 24 had a forecast of impending rain so only two people arrived. Otherwise, attendance was good with an overall average of 8.5 people per event. This is close to the long-term average attendance.

As in the two previous years, two of the walks were timed to allow people to participate in two Chimney Swift watches. Participants for those were 14 and 11 people at Acton and the former Oakville Trafalgar High School respectively. The Swift tally was 48 birds at Acton and 103

Baxter chimney used by Chimney Swifts in Acton June 5, 2017.

birds at Oakville. This was nearly identical with the count in 2016 (105 birds). In addition, 10 Swifts were observed entering chimneys at nearby apartment buildings.

Overall, the participants appeared to enjoy their time on the walks. They had opportunities to see various plant species, fungi, mammals, insects, birds, and amphibians. Examples of the sightings included such things as a cooperative Beaver at Fairy Lake in Acton, a Half-free Morel (Mitrophora sem-libra)) at the Shanahan Tract, and Virginia Bluebells (*Mertensia virginica*) at Sixteen Mile Valley.

Half-free Morel (*Mitrophora semi-libra*) at Shanahan Tract, May 15, 2017 and beaver at Fairy Lake in Acton, June 5, 2017.

The most exciting discovery made by Fiona Reid was a small colony of Plains Pricklypear Cactus (*Opuntia polyacantha*) south of Scotch Block Reservoir. This is the first record of that species in Ontario. While it is obviously an introduction, the nature of its occurrence at that location remains a mystery. Owing to the success of the walks again in 2017, we are currently developing a similar set of outings in 2018.

Pictured to the left are naturalist club members at Forks of Credit, June 26, 2017.

Pictured to the right are club members at Speyside beaver pond, Aug. 14, 2017.

All photos were taken by the author.
W.D. McIlveen

I couldn't resist sharing this joyful little fellow – he is sure to make you smile!
Laura Weihs

2017 Comedy Wildlife Photography Awards winner of the 'Alex Walker's Serian On the Land' category is 'The Laughing Dormouse.' (Photo: Andrea Zampatti/2017 Comedy Wildlife Photography Awards) The webpage was: https://www.mnn.com/earth-matters/animals/blogs/comedy-wildlife-photography-awards-finalists-will-make-you-laugh

Book Review: Monarchs and Milkweed by Anurag Agrawal, Princeton University Press, 2017

In Monarchs and Milkweed Anurag Agrawal reveals that monarch butterflies and their coevolutionary relationship with milkweed is one of astonishing complexity. One example is the elaborate procedure of leg dragging, foot tapping and antennae touching, performed by monarch females to assess whether a particular milkweed plant is suitable for egg-laying. This tells the female the level of poisonous cardenolides stored within that milkweed plant – of crucial importance because it is those cardenolides that, ingested by the caterpillar, will confer some protection from predators. This leaf-analysis also appears to let females know whether another female has already laid an egg on that plant – also important information, since monarch caterpillars cannibalize monarch eggs.

Agrawal's book is a feast for naturalists who seek deep science-based understanding of the animals and plants they love. It recalls the writing of scientist and prolific author Bernd Heinrich. Heinrich opens doors leading to the fascinating the ecology of the animals and plants he studies and, bless his heart, challenges prevailing hypotheses and often arrives at fresh interpretations of natural phenomena. Agrawal does this too, questioning the perceived wisdom that the loss of milkweed is a factor limiting monarch populations. Agrawal finds an abundance of milkweed in the landscape of Eastern North America, most of it not being fed on by monarch caterpillars. This moves him to search for other causes of monarch decline.

Agrawal also pours cold water on the romantic notion that milkweed and monarchs are bosom pals, harmoniously helping each other survive – the notion that milkweed feeds monarch caterpillars and then, in adulthood, the monarch adults reciprocate by pollinating the milkweed. Agrawal tells his readers that the relationship between milkweed and monarchs is more like an arms race. For thousands of years milkweed has been attempting to kill monarch caterpillars by smothering them in latex, and the monarchs, for their part, have been doing their best to circumvent this defense.

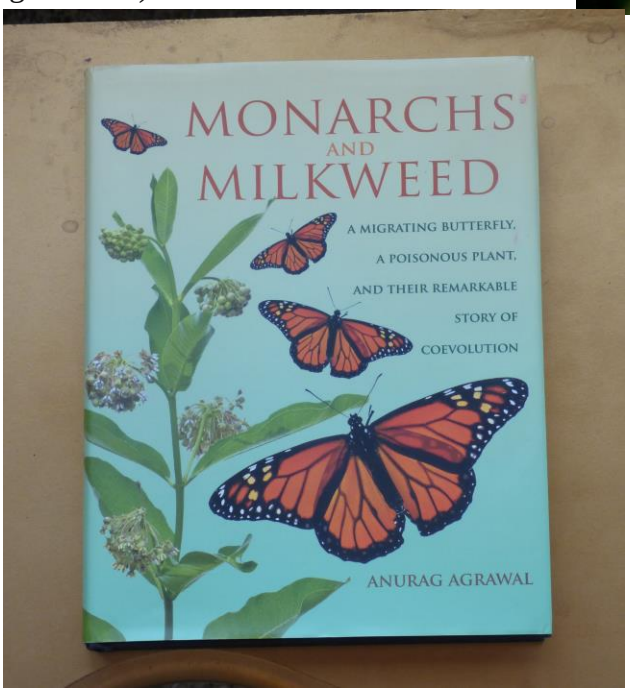
As for pollination, Agrawal dismisses the suggestion that monarch butterflies are very effective pollinators of anything. He notes that with their long legs and tongues, monarchs collect little pollen as they travel from flower to flower. This hasn't stopped people from drafting monarch butterflies into the pollinator decline paradigm of course. In fact, Agrawal notes that Barack Obama in a 2014 presidential memorandum "Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators" mentions only two important pollinators – honey bees of course, and monarch butterflies.

That monarch butterflies are poor pollinators doesn't devalue them of course. Monarch butterflies have tremendous intrinsic value as beautiful iconic insects that inspire our imaginations. Their improbable and wondrous migration unites three countries. Their life

cycle, easily witnessed in homes and classrooms, nurtures a love of nature in our children. We don't need them to be good pollinators to advocate for their survival.

I do wish that Agrawal was able to offer some firm hypotheses as to why monarch butterfly populations have declined in recent decades. If the amount of milkweed isn't a limiting factor, then what is? As a cautious scientist, Agrawal wants more data before he makes up his mind. He does cite some good possibilities: the continued logging of overwintering habitat in Mexico and the effects of extreme weather events due to climate change. And he mentions the diverse range of other possible causes of monarch decline: insecticides, the introduction of parasites to control gypsy moths (which also readily parasitize monarch caterpillars and other lepidoptera), the spread of dog-strangling vine and other invasive plants that monarch butterflies lay eggs on but which the caterpillars can't eat, and the road mortality which kills millions of monarchs every year.

Agrawal may be closing in on some answers. Intriguingly his research seems to indicate "that the decline [in monarch populations in a given year] is due to a shortfall that happens during the autumn migration or soon after. Based on the data, the problem occurs after monarchs are reared on milkweed." The reasons for this late-season decline are yet unclear but the factors responsible must be different from those encountered on the northward migrations in spring and summer. Agrawal suggests that one possibility may be insufficient autumn nectar plants (mainly Asteraceae like asters and goldenrod).



So, what can we do? We can continue to plant milkweed, if only to bring these magnificent insects into our yards, but we can also plant asters and goldenrods to fuel the monarchs' southward migration.

Monarch butterflies have long fired our imaginations. After reading Agrawal's book our imaginations can soar even higher, fueled by the stunning intricacies of their lives that he has revealed. But Monarchs and Milkweed tells us that we need to continue to investigate the monarchs' world to better understand their decline and ultimately take the steps necessary to reverse that decline. I eagerly await Agrawal's future discoveries.

Don Scallen

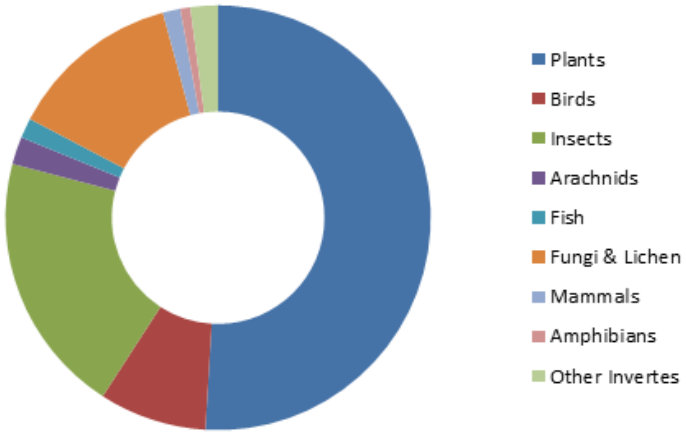
Hello BioBlitz participants,

Thank you all for coming out and participating in the Blitz on October 1st! Whether you participated in the independent blitz, led a guided session, or attended guided sessions as a citizen scientist, you all importantly contributed to a very successful day.

The event brought over 185 people together, with participants travelling from all over Ontario to help inventory the Norval property. Together we were able to identify 526 species, with over 33 observers using the iNaturalist app.

We are thrilled that we have been able to partner with Upper Canada College, the Canadian Wildlife Federation, the Government of Canada, and all of you to contribute to Canada's nature selfie in this milestone year.

For a breakdown of what was found at the event, please see below. We found mainly plants, insects, and fungi, including a deadly mushroom species!



Thank you all again for your enthusiasm and for helping this event be so successful. Next year, we will be participating in City Nature Challenge, where multiple urban areas will attempt to observe the most species over multiple days. If you are interested in participating in this event, keep an eye on the ***rare*** website in the New Year or subscribe to our mailing list here if you haven't already.

Many thanks for your love of nature and discovery, and for your support!
Allie

rare
Charitable Research Reserve

Halton/North Peel Naturalist Club, Box 115, Georgetown, Ontario L7G 4T1
Charity Registration number 869778761RR0001

Executive

President: Don Scallen	(905) 876-6180
Past President: Fiona Reid	(905) 693-9719
Vice President: Ian Jarvie	(905) 877-1441
Secretary: Ann Fraser	
Treasurer: Janice Sukhiani	(647) 408-9515

Appointments

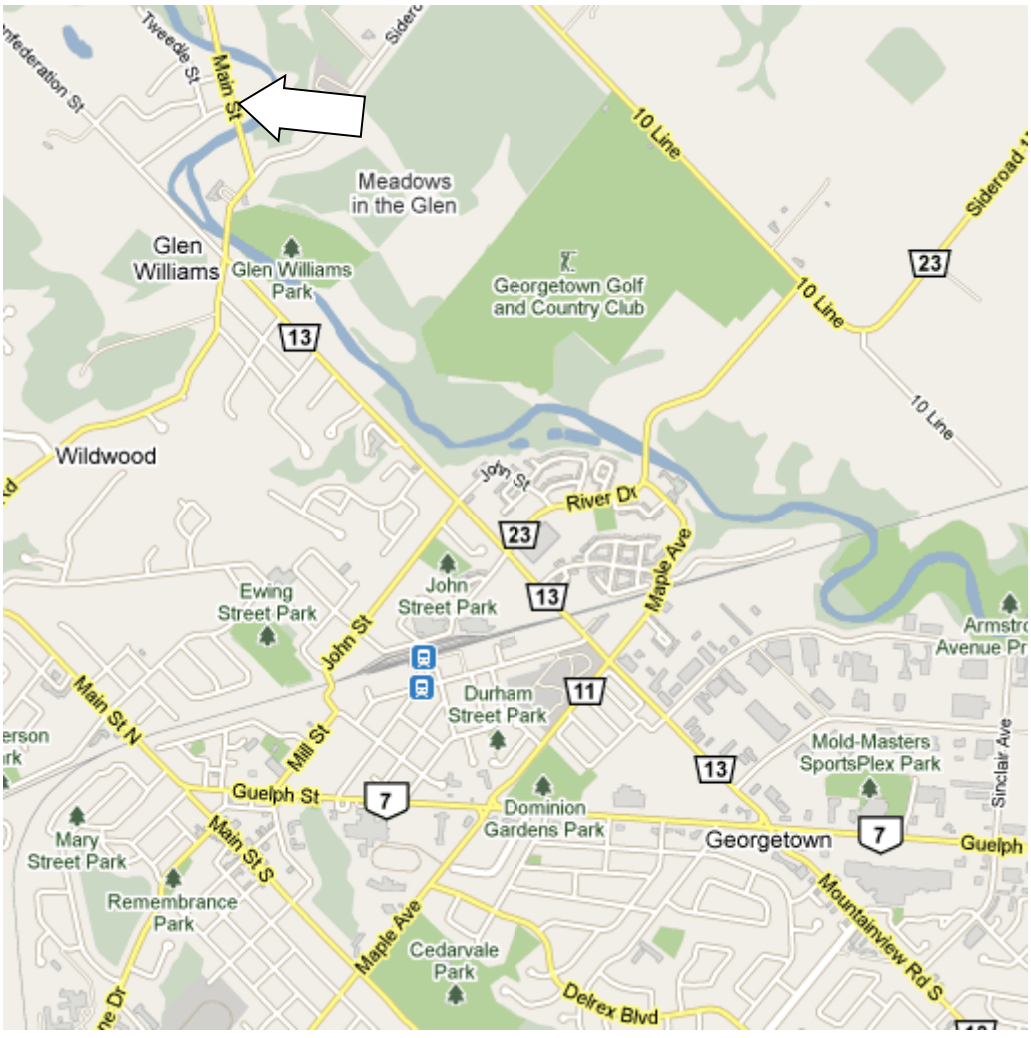
Membership:	Lorysa Cornish
Newsletter:	Laura Weihs
Ontario Nature Representative:	Don Scallen
Webmaster:	John Beaudette
Crozier Property Steward	
Hardy Property Steward	Ray Blower

Membership for one year: $30 Single; $40 Family
The Halton/North Peel Naturalist Club is an affiliated member of Ontario Nature.

www.hnpnc.com

Halton/North Peel Naturalist Club

Meetings are at St Alban's Church in Glen Williams starting at 7:30 p.m.



Halton/North Peel Naturalist Club Membership Form

_____ Renewal or _____ New Member(s) Date_____

Name(s): _____

Address: _____

Postal Code: _____ Telephone: _____

E-mail: _____

New membership fee for the period:

from September through to August	_____ Single ($30.00)	_____ Family ($40.00)
from December through to August	_____ Single ($22.50)	_____ Family ($30.00) from
March through to August	_____ Single ($15.00)	_____ Family ($20.00)
from June through to August	_____ Single ($ 7.50)	_____ Family ($10.00)

Would you like to make a donation to help send a youth to the **Ontario Nature Youth Summit for Biodiversity and Environmental Leadership**? If yes, amount of donation: _____

Do you have any suggestions for programs or field trips?

_____

_____

_____

****

WAIVER OF LIABILITY

(must be signed by anyone planning to attend field trips or other outdoor activities)

In making this application, I affirm that I am in good health, capable of performing the exercise required to participate, and that I accept as my personal risk the hazards of such participation and will not hold the Halton/North Peel Naturalist Club or its representatives responsible.

In consideration of the Halton/North Peel Naturalist Club accepting my application, I hereby and forever release and discharge the Halton/North Peel Naturalist Club and its officers, directors, servants and agents from any liability whatsoever arising as a result of my participation in these trips and declare that this is binding upon me, my heirs, executors, administrators and assigned.

Signature(s): _____ Date: _____

_____ Date: _____

****

Please fill out this form and bring it in to next indoor meeting or mail with payment to:

Halton/North Peel Naturalist Club
P.O. Box 115,
Georgetown, Ontario
L7G 4T1

Answers to Winter Quiz on page 13.

1. **hepatica (sharp-lobed hepatica, *Hepatica acutiloba*)**

2. **winterberry (*Ilex verticillata*)**

3. deer tracks

4. shagbark hickory

5. Pine Siskin

6. cecropia moth cocoon

7. Pileated Woodpecker excavations (in white pine)

8. bird wing impressions

9. turkey tail fungi

10. goldenrod gall showing downy woodpecker excavation (to extract the larva of a goldenrod gall fly)

11. Red-bellied Woodpecker (female)

12. The most challenging image to solve! A mink made this tunnel in the snow.

An invitation to members:

If you'd like to submit a visual quiz for the newsletter just let Don Scallen or newsletter editor Laura Weihs know. Laura's e-mail is biker_chic@sympatico.ca

Our next newsletter will be published in early March. Spring things could be the theme, but other nature related themes would be fine as well.