



THE WOODLAND OBSERVER
OCTOBER 2018

NIPISSING NATURALISTS CLUB

From the editor: Fall, frogs and foraging



Renee Levesque

October marks the fourth year I have been editing *The Woodland Observer* and by now, some must notice that I tend to tie the cover into the month and season of each issue. This can get a bit tricky after four years. Take October, for example. Every year so far, I have used a fairly typical autumnal photo, and this year is no exception. But I tried to vary it a bit this year by showing leaves that aren't a brilliant red or orange, but almost past their sell-by date, yet still pleasing to the eye.

This month begins with Paul Smylie's informative article on frogs, written as only Paul can write, in a wry and often humorous manner.

Another often humorous writer is Gary Sturge who writes about the late August barbecue at his and Connie's property near Trout Creek with guests Jeremy St. Onge and Delphanie Colyer who plan to eat only wild food for a year. Gary's article is preceded by the foraged and hunted foods Jeremy and Delphanie have stored so far in preparation for their wild eating year, followed by three recipes. If any member tries any of these recipes, please let me know the results.



This past August marked a successful fifth annual Louise de Kiriline Lawrence Nature Festival. In this issue, you will find a photo collage of some of the Nipissing Naturalists Club participants and members of the public who attended, taking part in a myriad of nature events, including the opportunity to hold a tarantula in their hands. Everyone worked especially hard to make this event a success, but kudos really have to go to Louise Simpson, Director, who not only billeted the exotic insect gang from Sault Ste. Marie for the weekend, but also drove after dark from North Bay to Nairn Centre, west of Sudbury, to rescue them when their van broke down, although by the time she got there, their van was working fine. And if that wasn't enough, she drove them from the festival site to Tim Horton's for breaks and ordered and picked up pizza for their lunch. Not often you see someone walk the Laurier Woods' trails with stacks of pizza boxes in her arms! (See collage.)

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The book review this month is by Chris Connors and the book is *The Ends of the World*. Author Peter Brannen examines the Big Five mass extinctions and looks at a possible sixth, already in process. But as Chris says in his review, it is not all doom and gloom. Although chilling, the book is nevertheless witty, touching and uplifting.

Laurier Woods guided walks continue on the first Saturday of the month through to December. October's walk should prove quite interesting. Marianne Haist will lead participants on an astronomy walk from 8:00 to 10:00 in the evening. Read about what Marianne will be focusing on inside this issue, complete with details on astronomy app downloads. And in November, Larry Dyke will once again lead a geology walk.

October's Nipissing Naturalists Club's outing to a fire site north of River Valley with leader Andrée Morneault will take place on **Saturday, October 27**. Should be quite a fascinating outing. Be sure to read details inside for important information.

We have had booths in many places this year, including recent ones this past September at the Chippewa Creek and Cranberry Day Festivals. We will have another one at the second annual Science Festival to be held on **Saturday, November 17**. Lots to see and do at this interactive family festival. Details inside.

Nipissing Naturalists Club will have two special speakers at October's meeting – Matt Rideout, originally from England, and Katlynd Treiber-Vajda, originally from Niagara Falls, now living on the tiny island of Carriacou, Grenada. They will talk about Caribbean Reef Buddy and its conservation efforts with respect to reefs, corals and containing invasive Lionfish.

With speakers like Jeremy St. Onge who spoke to us in September and Matt and Katlynd in October, you might want to seriously consider purchasing a two-year membership. Not only will you not have to bother paying fees for two years, but you will also save yourself some money. A two-year single membership is \$35.00 as opposed to the normal \$40.00, and a family membership, \$50.00, as opposed to the normal \$60.00. **Not to sound like a car salesperson, but hurry because this deal is good only until December's meeting.** And speaking of hurrying, if you want to enter our annual photo contest, you must submit your photos to Allison Bannister, Director, by November 30. Details inside.

Renee Levesque, editor
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Renee Levesque

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A frog he would a-wooing go

By Paul Smylie

It's cold and it's dark and you're surrounded by mud. Breathing is next to impossible and gets more and more difficult as you while away the days in your tomb of lifeless silence, hoping that one day soon that impenetrable barrier that has you suspended in interminable dormancy will soon be breached. For those slippery, slimy, innocuous amphibians that seem to hold a special fascination for young children for their cute bulging eyes and friendly smile, this is winter in a Northern Ontario marsh.

As the carefree days of summer disappear and the leaves change colour and temperatures begin to drop, frogs everywhere in our Northern Country have to start thinking about making plans for how they will spend the upcoming months of frigid temperatures and lack of food.

So far, frogs have not been known to fly very well, possibly due to a lack of those feathery appendages called wings with which their dinosaur cousins were blessed. Therefore, flying to greener marshes to spend the winter is not an option for them. And although they hop really well, it's a long hop to get to the sunny south. Because they are cold-blooded, this presents a dilemma to our squishy little friends. They can't generate their own heat like warm-blooded animals and instead are prone to the whims and ways of their external world. In short, if it's freezing outside, frogs are freezing inside.

Variety is the spice of life and frogs have capitalized on this little nugget. Call them lazy if you like, but these little fellows have figured out how to tough it out in the cold and avoid making the long hop to warmer climes. Through millions of years of natural selection, frogs and many other species know how to hunker down and get through the tough winter months instead of spending all that energy that birds do to fly south.

Being cold-blooded (not in the same way as a murderer), frogs are adapted to tolerate very cold temperatures. If our body temperature was to drop or increase even just a few degrees, we are in big physiological trouble. Not so for the poikilothermic frog. They can cool right down, sometimes even freeze and then thaw out, and just hop on their merry way. But how? They do this by slowing down their entire metabolism. Their heart rate slows, their respiration rate slows and they probably have less brain activity. Another cool thing about frogs - they can breathe through their skin!

These very specific adaptations allow the aquatic frogs, such as Mink, Green, Leopard and American Bullfrog to head for the bottom of a body of water – pond, lake or marsh - once the snow starts to fly and just hang out there. Although we may think of them as buried in the mud



Green Frog, Renee Levesque



American Bullfrog, Renee Levesque

during this period of hibernation, they don't actually burrow into the mud as this would make it difficult to take in oxygen through their skin. And as luck would have it, one of the unique aspects of water is that it can hold more oxygen as it gets colder. This is good for frogs because even though their metabolic rates are slowed down to a crawl, or at least a slow hop, they still need oxygen to get through the winter months.

When the sun starts getting higher in the sky and the ice starts to go the way of the Dodo, the water slowly starts to warm, signaling that it is time for the frogs to come towards the light and finally take that long-awaited big breath of air – frogs do have lungs too. Soon after the ice retreats from our ponds and marshes, the crisp spring air is filled with the cacophony of singing frogs, happy to once again go about their froggy business of feeding and finding mates so they can make more little frogs.

Although the aquatic frogs are able to bide their time at the bottom of a pond where the ice-man cometh not, there are a number of more terrestrial frogs that are actually able to partially freeze. Frogs such as the Wood Frog, the Gray Treefrog and that harbinger of new life, the Spring Peeper, are able to withstand temperatures of -5 to -6 °C by increasing the amount of the sugar, glucose, in their cells. Glucose acts as an anti-freeze and prevents the cells from forming damaging ice-crystals. Sugar can be a good thing! As a result of this adaptation, these frogs have no need to hit the pool, but can play out the winter under leaf litter, under or in woody debris,



Gray Treefrog, Renee Levesque

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or in cracks and crevices on land. The advantage of this is that because they are able to withstand below-freezing temperatures, they can get a jump on the crowd and can get to the breeding pools to practice their singing skills before their froggy competitors.

Most of us are familiar with the friendly sound of Spring Peepers on the first warm nights of spring in our area. Like the American Robin of the avian world, the Spring Peeper is a sure sign that winter is over and warm temperatures will soon allow us to doff our winter wear. But just why do frogs sing, or more realistically, vocalize? It can't be just because they are happy that it's spring.

Each frog species makes a call unique to that species so that it is recognizable to its own as well as other species. It is believed that frogs call for a number of reasons, and it is mostly males that call. Primarily it is about finding a mate, but it is also to defend territory. Individual frogs will produce slight variations in their calls so that females can judge their readiness to mate, but also so that other males will know that a territory is already occupied. The wonderful thing about the different calls that frogs make is that not only do other frogs know who's who amongst the reeds in a darkened swamp, but also it makes for great fun for us human folk. With only 13 species of frogs in Ontario, and only nine in our locality, it is relatively easy to determine who is calling.

The first frogs to call in spring are the freeze-tolerant Wood Frogs and the well-known Spring Peepers. Wood Frogs have a short window of opportunity to find a mate and will call while there is still snow on the ground and ice in the pools. If you happen to find yourself thinking that you are hearing chickens clucking in the woods on an early spring night, no need to fret that you may be losing your marbles, it is only Wood Frogs doing their *cluck, cluck, clucking*.

With their unmistakable long-drawn-out high-pitched *peeps*, Spring Peepers will start to call shortly after the Wood Frogs. A chorus of hundreds of these frogs all calling together on a warm spring evening can be almost deafening.

As the days warm and life returns to the marsh, Northern Leopard Frogs and Green Frogs will start to call. The thick resonating *twang* of a plucked banjo string is the signature sound of Green Frogs. Although I'm sure frogs would play banjos if they could, they have to improvise by forcing air from their lungs to the air sac below their mouth which resonates as it inflates and deflates to make their unique sound.



Wood Frog, Jason King, courtesy of Ontario Nature

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American Bullfrogs, North America's largest frogs, will breed starting in late spring and may persist throughout mid-summer. These big fellas make a low, deep resonating, growly sound that can be heard half a kilometer away. It has been said to sound as though they are saying *Jug-o-Rum*, although I think of it more as a deep, slow *Whoooooommmppphhh* as though they're trying to talk with a big mouthful of cotton candy.



Mink Frog, John Urquhart, courtesy of Ontario Nature

probably the one that wins the award for coming closest to making that typical *ribit, rib-bit* sound we have come to associate with these slippery croakers are Northern Leopard Frogs. With spots reminiscent of an African Leopard, this is where the similarities stop. No fangs, claws or interest in ambushing Gazelle, Northern Leopard Frogs are well-adapted to hiding in the grass with their plentiful dark spots against a grass-green background. Mid to late spring is the best time to hear Northern Leopard Frogs in ponds and marshes as they attempt to fulfill their froggy duties by trying to best emulate the *ribit, rib-bit* sound. If you can remember *rubit, rub-it* instead, this may be a better moniker because their call is more like someone rubbing a wet thumb across a dry balloon.

When I was a child, I had a pet Raccoon named Boo-boo. Although not a pet that I would recommend anyone to have for the ethics and legal aspects of keeping wild animals as pets, he did provide me the opportunity to learn about these fascinating and sometimes much-maligned opportunists. Boo-boo would vocalize by making a cute little trill. Why do I tell you this? Well, while spending time in the bush at our farm in Callander, I would often hear this loud trill at the edge of the forest that I was always sure was a Raccoon calling. It wasn't until years later that I found out that what I was hearing was the Gray Treefrog which makes a loud *flutey trill*

One afternoon while paddling Depencier or Mud Lake at the end of Seymour Street in North Bay, I heard what I was sure was the persistent tapping of someone shingling or hammering on a tin roof. It was then that I recalled learning in my herpetology class at the University of Guelph that Mink Frogs when calling can sound as if they are hammering on a roof. I quickly realized that what I was hearing was not someone hurriedly putting on a new roof, but Mink Frogs calling.

One of the most notable frogs of our area, and



Northern Leopard Frog, Renee Levesque

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quite similar to the soft chortle of a Raccoon. Gray Treefrogs call from trees and shrubs near a pond during the day and once they have located a mate, only then do their sticky little feet take them to the pond to do their business. Typically these frogs can be heard in late spring and early summer.

For more information, and to hear the various calls that frogs make, visit the following website: <https://www.naturewatch.ca/frogwatch/ontario/>.

As many of you are probably aware, amphibian populations have been declining worldwide since the 1980s. Unfortunately, there is no single identifiable cause of these declines that can provide a focus to help reverse the decline. Potential causes range from climate change and increased UV-b light from a reduced ozone layer, to pollution, habitat destruction and even changes in noise levels that disrupt the ability of frogs to find mates. A deadly fungus called *Batrachochytrium dendrobatidis*, causing a disease called chytridiomycosis, is responsible for recent amphibian extinctions in Australia and the Golden Toad, last seen in 1989 in the Costa Rican cloud forest. Other potential culprits are introduced predators and artificial light that can attract insect food sources away from amphibian areas.



Golden Toad, Charles H. Smith, Wikipedia

Once it became clear to scientists that amphibians were truly declining worldwide and it wasn't just natural variation in population cycles, something needed to be done about it. The most informative studies are founded on large data sets, but acquiring such takes a lot of time and money. Luckily, many of us good folks are nature lovers and are willing to volunteer a little time to ensure that there are frogs for the next generation of children with which to amuse themselves. Enter the Citizen Scientist. By having a large number of concerned citizens willing to go out and listen to frogs, or birds, or count butterflies, we can amass large data sets that over time will give us some idea of just what is really happening to our amphibian populations. It's not so much about absolute numbers, but more about trends in the data over time.

For a truly enlightening experience and insight into the behavior of our amphibian and reptile friends and for a glimpse of a young Sam Elliot, watch the movie *Frogs*: <https://www.youtube.com/watch?v=TcNGZ84bCTQ>.

Editor's Note: If you wish to hear the song *A Frog He Would A-Wooing Go* accompanied by wonderful illustrations, see: <https://www.youtube.com/watch?v=crKVBlfAGIU>.

In September's issue, Paul wrote about the Great Lakes Marsh Monitoring Program, a citizen science program focusing on amphibians and marsh birds. He also provided a link to this program should anyone wish to volunteer come spring at an available marshy area: <https://www.birdscanada.org/volunteer/programmap/index.jsp?lang=EN>.

Interesting finds

By Renee Levesque

Lark Sparrow: A very rare bird for our area, the Lark Sparrow (*Chondestes grammacus*), was seen by Dick Tafel and me on September 3 near Warren Lagoon. We were just leaving Warren Lagoon where we happened upon two Wilson's Phalaropes, and came to the intersection of Rutland Avenue and Laurier Lane when we happened to see a flock of Chipping Sparrows, a Song Sparrow or two and a Savannah Sparrow or two by the roadside. Also in the same area were a couple of Common Grackles, a juvenile American Robin and a few European Starlings. All common birds, but as birders one just never knows, and so naturally we stopped, binoculars at the ready, wondering what all the fuss was about. But never did we suspect that we would happen upon a rare bird for our area and a lifer for me! (Dick had seen one at Pelee some years back and after a minute or two, he identified it as a Lark Sparrow.)

Not wanting to get out of the car in case I scared off the bird, I took a photo through the car window. It is not a very good photo, but at least it is an identification photo – always a good thing so that one's sighting can be more readily confirmed, especially when it is a rare bird. (Photo at right.)



Renee Levesque

From an eBird search, the only other sighting of a Lark Sparrow spotted near us, although outside our 50-mile radius, was one found in the Port Loring area in May 2009. (There wasn't a photo attached with this eBird sighting.)

I sent our sighting to Ontbirds and Ron Pittaway contacted me to tell me that according to a report in Speirs (1985), there was a sighting in Sudbury in 1973: "A. Badiuk et al observed nesting at Sudbury (2 sterile eggs and 2 fledged young) from July 5-21, 1973." And also in Speirs (1985), John Nicholson saw one in Blezard Valley near Sudbury on May 29, 1974. Both these observations, however, are well outside our 50-mile radius.

Most years there are Lark Sparrow sightings in Southern Ontario, but because the Lark Sparrow is a western bird and quite commonly found in Manitoba, it may have arrived in Warren from Manitoba, or from somewhere in the west. It is found in grasslands, roadsides, farmlands,

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pastures and open country with scattered trees and shrubs. It is a common sparrow in the West and the Great Plains. Those that do migrate in the winter travel to the southern United States, Mexico and Guatemala.

It is quite a striking bird with its bold harlequin facial pattern – chestnut crown and cheek patch, strong mustache stripe and wide pale stripe over its eye. It has a long body and a thin neck; a long tail with outer feathers dipped in white; a thick bill; and a black spot in the centre of its chest, a black spot we didn't see because it never turned around to face us. (A better photo of this striking sparrow is at right.)



Wikimedia Commons

It is a sparrow with a unique courtship ritual. The male puts on a dance that lasts up to five minutes. With his bill pointed upwards, he hops, spreads his tail and droops his wings almost to the ground.

Because it is common in the West, the Lark Sparrow is a species of low conservation concern, although its population declined by 32% between 1970 and 2014.

Eastern Hognose Snake: An Eastern Hognose Snake (*Heterolon platirhinos*) was found by Marc Buchanan in his beachfront yard in early September. (It has many other common names and you may know it as an Adder or Puff Adder.)



This is a shy snake that grows up to about 76 cm (30 inches) in length and is endemic to North America. It is called a Hognose because of its upturned snout, effective for digging in sandy soils in which it lays its eggs. People often mistake it for a venomous snake because of its tendency to imitate a Cobra to trick its predators. (See photo at left with its head flattened like a Cobra.) In fact, it is non-venomous despite its enlarged teeth at the rear of its upper jaw. Instead of swallowing its prey whole right off the bat as do other snakes, it uses these teeth to grab and stab its prey first before eating it. Its prey consists of amphibians, particularly toads, although it will also eat frogs and salamanders.

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The Hognose, which lives for about 12 years, likes sandy, well-drained soil and obviously likes to live in an area in which toads are abundant. It does not hibernate in groups like most other snakes, but hibernates alone in an existing burrow or one that it has dug.

Colour and pattern vary considerably depending on locality. The Eastern Hognose can be red, green, orange, brown, gray or black or any combination of these colours. They can be blotched, checkered or patternless. These variations help them adapt to multi-coloured surroundings. Marc's snake was greenish-black. He did not take a picture of it, so intent were he and his neighbour watching it, so I will use the photo below in hopes it was similar to the one they saw.

Mating occurs in April and May and eggs are laid in June or early July, with eggs hatching after 60 days in late July to September. The Hognose does not take care of the eggs or the young. The young mature after 2 to 3 years or after 4 or 5 years at the northern edge of their range.

In Ontario, the Eastern Hognose is found in two areas – The Carolinian Region and the Great Lakes-St. Lawrence Region. It is listed in Ontario as Threatened due to habitat loss, road kill, environment degradation and intentional killing. Its population fluctuates with changes in the toad population.

Sources: All About Birds, Cornell Lab of Ornithology; Animal Spot; Ontario.ca; and Wikipedia.



M. Aurelius, Own Work, Wikimedia Commons

To view a map of where these snakes have been found in Ontario, visit Ontario Nature at: <https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/eastern-hognosed-snake/>

Join us annually every 3rd Saturday in August for the

Louise de Kiriline Lawrence Nature Festival

in the heart of the city at
Laurier Woods Conservation Area

Hosted By:



Photos by Renee Levesque



Not your run-of-the-mill insects

By Michael Odom, Entomica, and Renee Levesque

This past August, with the help of Nipissing Naturalists Club, Friends of Laurier Woods Inc. and North Bay-Mattawa Conservation Authority, Entomica attended the Louise de Kiriline Lawrence Nature Festival where we put on display many exotic insects from as far away as Chile, Malaysia and Indonesia. Some of those attending the Nature Festival took advantage of holding one of the exotic insects in their hands, perhaps the only time they will ever do so.



Asian Black Forest Scorpion, Renee Levesque



Orchid (Praying) Mantis, Renee Levesque

Entomica Inc. was established in 2014 as Northern Ontario's first insect-focused science centre (Insectarium), using exotic and native insects in their many fantastic and diverse forms to promote science. Entomica is the only member of the Canadian Association of Science Centres (CASC) certified to let visitors interact with exotic insects.

Do these insects bite those who hold them? For different reasons, the insects do not bite. Some, like the beetles, do not have teeth and, therefore, are incapable of biting. Others are herbivores that lack the hardware for piercing our epidermis. Others, like the mantids, are capable of biting, but are kept so well fed that they have no interest whatsoever in biting people. Instead, they have a strong preference for prey they can catch and hold onto.

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Insects shown at the Nature Festival were:

Chilean Rose Tarantula, Rosie, from Chile

Giant Katydid, Katie, from Malaysia

Atlas Rhinoceros Beetle, Homer, from Indonesia

Various stick insects, from the Caribbean, Thailand and Madagascar

Giant Malaysian Dead Leaf Mantis, Desert Storm, from Malaysia

Orchid Mantis, Flora, from Malaysia and much of southern Asia

Asian Black Forest Scorpion, Alberto, throughout Malaysia and much of southern Asia

Malaysian Jungle Nymphs, Zelda and Link, from Malaysia



Chilean Rose Tarantula, Fred Pinto

In May's issue of *The Woodland Observer*, Fred Pinto did a book review on *The Annotated Malay*

Archipelago, by Alfred Russel Wallace, edited by John van Wyhe. Fred ended the review with a couple of his observations while he was in Malaysia. "Once a large green Katydid landed with a splat in front of me and as I snapped a quick photo, a male Red-bearded Bee-eater swooped down and made off with the insect, much to the amazement of all the students." During the Nature festival, Fred could do more than just snap a photo. He got to hold Katie, the Giant Katydid. (Photo below.)



Giant Katydid, Renee Levesque

Book Review

The Ends of the World: Volcanic Apocalypses, Lethal Oceans, and Our Quest to Understand Earth's Past Mass Extinctions

By Peter Brannen

HarperCollins

336 pages

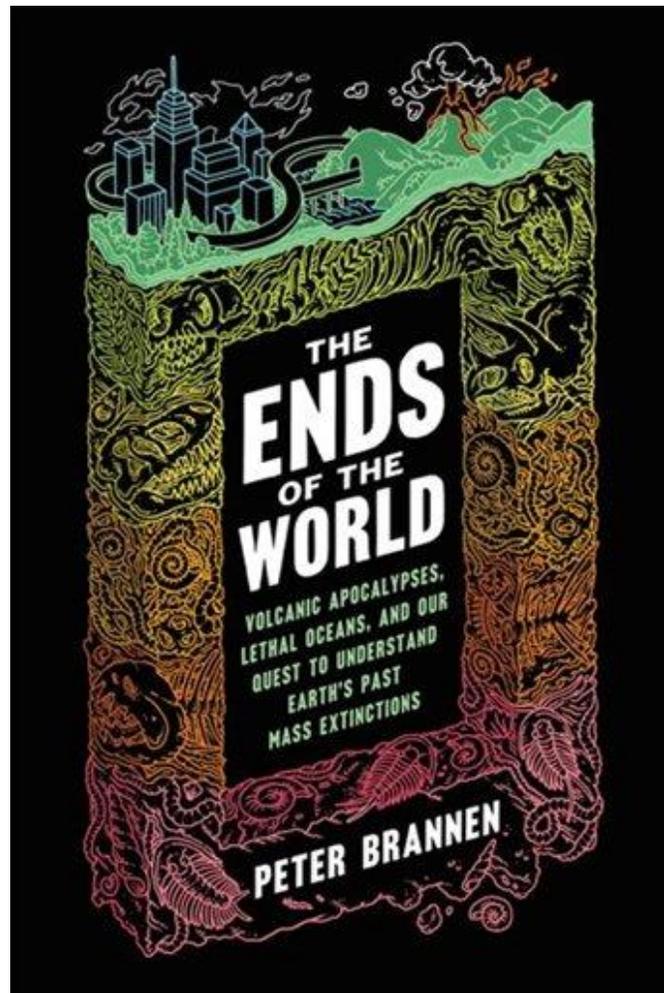
By Chris Connors

Nine years ago, I read *When Life Nearly Died*, by Michael Benton, a book about the Permian Mass Extinction which wiped out 90-99% of life. It became one of my top five favourite books. Peter Brannen's book, *The Ends of the World*, also examines the Permian Extinction, as well as four of the other Big Five mass extinctions, and a possible sixth extinction in process. Like Benton's book, Brannen's leaped straight into my top five favourites. Fascinating, witty, well-researched, well-written, gripping, chilling, touching, poignant and uplifting are just some of the many adjectives that leap to mind.

The book is a detective story—a who/what-done-it story—that gives a glimpse into the meticulous research and extraordinary cleverness that have allowed generations of scientists to gradually tease out answers to long-held questions while raising new questions. It is a lively, sometimes humorous romp through time, filled with stories about Earth's past and stories about the scientists who have worked to understand the past. Each chapter is devoted to a specific mass extinction, explaining how Earth arose, what was there and how it probably met its demise.

Most people are aware of at least one mass extinction, the one that brought down the dinosaurs. The destruction of the charismatic non-bird dinosaurs by a probable asteroid 66 million years ago tends to overshadow the other extinctions. That's a shame because the story behind these other extinctions is even more mind-boggling.

The sheer scale of the literal world-shaking events is difficult to grasp. For example, across the Hudson River by Manhattan are the Palisades, gigantic columns of basalt that once covered the planet from Nova Scotia to Brazil. The carbon dioxide released from this lava raised the Earth's temperature to "roast" and acidified the oceans for thousands of years. At times, there were interludes when volcanic smog blocked sunlight and temperatures plummeted to ice-age levels,



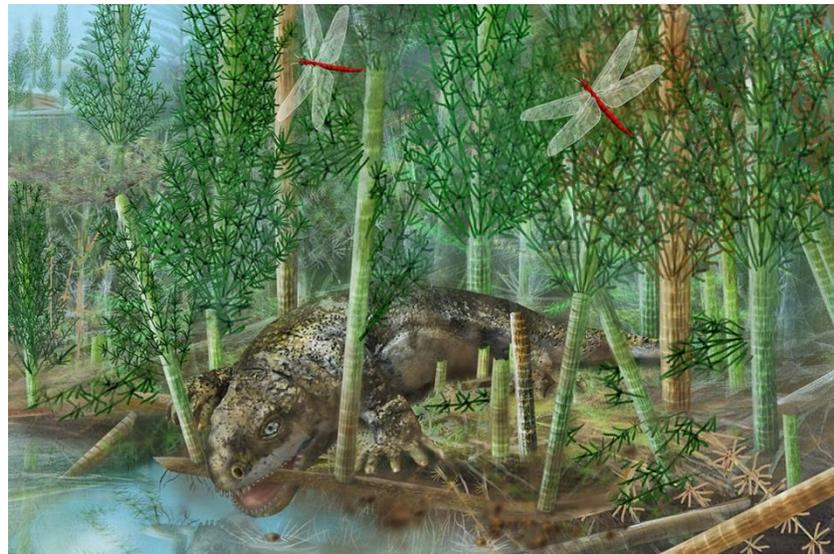


Hudson River Palisades, Beyond My Ken, Own Work, Wikimedia Commons

only to have the super-greenhouse effect cook the planet once again when the smog settled. Four million square miles of the planet were covered and more than 75% of animal life perished, and yet this was neither the biggest volcanic event nor the biggest extinction event. Three of the Big Five extinctions are all associated with continental scale floods of lava that turned land masses inside out.

The book takes you on a tour through deep time and space. We learn that humans aren't the only life forms to change the earth. Filter-feeding organisms in the Cambrian era cleared the ocean's particulate matter, reorganized the planet's chemistry and set off some drastic changes that forever altered the planet. We jump back hundreds of millions of years, bounce around the world to different continents, including Antarctica, and even to continents that no longer exist. We learn about the clues from the past in some of the rocks that can be seen in rock cuts.

We learn about past Earths that seem like different planets altogether - horsetails growing as tall as modern trees, dragonflies with six-foot wing spans, millipedes eight feet long and creatures that have no modern equivalent outside of Hollywood alien movies. We hear about pink oceans that kill everything in it and emit gases to kill everything on land. We also learn how the scientists worked out some of the details, how we know what we know rather than just being told this is what we know. This type of storytelling is a winning combination for anyone who has read Bill Bryson's bestselling book, *A Short History of Nearly Everything*.



Mary Parrish, Smithsonian, National Museum of Natural History

As Brannen interviews the geologists, geochronologists, biologists, hosts of paleo-type scientists and many others, a unifying theme behind the extinctions becomes clear: Rising carbon dioxide

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levels all coincided with mass extinctions especially when those levels rose rapidly. As End-Permian mass extinction expert, Peter Ward, says of CO₂, “*Here is the driver of extinction*”. As our society emits carbon dioxide into the atmosphere at rates not seen for tens or even hundreds of millions of years, it becomes clear we are running a giant experiment with the planet. The scientists involved in the past extinction research aren’t just interested in answering the questions about the planet’s near-death experiences, they want to learn from it. By studying the past, they can learn about the possible futures.

However, despite the mass extinction topic, this book isn’t doom and gloom. Even the last chapter in which Brannen considers our possible future from increasing carbon dioxide gases to levels not seen in millions of years isn’t a “we’re all screwed” chapter. It’s a sobering, but realistic, view that points out that a sixth mass extinction is a worst-case scenario, but that we still have time to stop it.

While Brannen was writing the book, he felt quite gloomy about humanity’s prospects. Adding to his despair at the time was his mother’s death. The book’s dedication is simply but powerfully “To Mom”. In her last days, she quoted Julian of Norwich, an English medieval mystic, “*All shall be well, and all shall be well, and all manner of thing shall be well.*”

Brannen didn’t initially buy this. But after his mother’s death and after interviewing some scientists, he drove down to the ocean by Santa Cruz and stood on a Pliocene seafloor ledge. There he contemplated the four-million-year-old fossils in the rock, the live birds and sea



California coast, Renee Levesque

lions in the ocean, and watched the setting sun. He wrote, “*I sat there, at the end of the world, for a long time. The pink sky dissolved, revealing starlight that’s raced across the void for eons. The reddening stars tell us that the heavens are flying apart and will someday go dark for an eternity. In the moonshine, between the silvery tumbling of sea lions, I made out surfers perched on their boards, bobbing up and down on the waves, searching the horizon. The waves came in and went out, as they always have. I don’t know why, but I believed my mom: all shall be well.*”

A wonderful book.

A year of eating wild food

By Renee Levesque, Jeremy St. Onge and Delphanie Colyer

You read Jeremy St. Onge's article in the June issue of *The Woodland Observer* and you heard him give an excellent presentation at September's meeting. So let's recap a bit and then look at a list of what Jeremy and his partner, Delphanie Colyer, have stored so far in preparation for their year of eating only wild food, followed by three recipes Jeremy shared with us at the meeting.



Delphanie Colyer

Jeremy and Delphanie “decided to tackle a full year of wild food eating. No grocery stores. No processed foods. Not even salt. How will we accomplish such a feat? Well, we all know that at some point our ancestors did it. And even though they were accessing resources in a greater abundance than can be found today, we think it can still be done by carefully accessing certain resources at peak availability and abundance.”



Nettle cordage, Delphanie Colyer

Vinegar made from wild apples will be used to make pickles. Wild foods will be matched with wild spices. A dinner, for example, could be “brined venison braised in bear fat and served with spicy cranberry chutney, washed down with chokecherry wine! And for desert, a blueberry pie with an acorn and sedge-flour crust.”

Jeremy and Delphanie will use their freezer to store some foods, but will also use other methods of preservation, such as fermentation, pickling, drying, smoking and salting. They will access salt – and garlic – by bartering handmade wild-crafted items. These are made by Delphanie from found feathers, hunted hides, roadkill quills, even bony spines from

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catfish that get polished to put in hatbands. Delphanie has also made a leather sheath for a knife crafted from a tanned hide; buttons drilled from shells; string made from nettle, dogbane, and milkweed; a leather bag; a birch bark and quill box; and moccasins decorated with quills.

Jeremy will be documenting their progress through weekly video blogs, and Delphanie through photographs on her Instagram account. They will feature favourite recipes, connect with wild food chefs and collaborate with other YouTube videographers and Instagram foodies. Jeremy may even write a book –something he should seriously consider.

At September's meeting, there was much interest sparked about Jeremy's and Delphanie's adventure. Perhaps they will provide Nipissing Naturalists Club with an update now and then throughout their year, but I suspect they will be very busy and so probably best to follow them on YouTube and Instagram.

Jeremy's YouTube channel is *One Wildcrafter*:
<https://www.youtube.com/channel/UCy7HUXYD7Ua6zPR384d1ETg>.

Delphanie's Instagram account is:
<https://www.instagram.com/delphaniecolyer/?hl=en>.

What has been stored so far



Jeremy St. Onge

Kingdom Plantae – dandelion greens, leek bulbs and leaves, false Solomon's seal shoots, fiddleheads, nettle leaves, milkweed pods/flowers/shoots, trout lily greens and flowers, Carolina spring beauty leaves and corms, daylily bulbs and tubers, sumac berries, chamomile, rose petals, purslane, wild amaranth leaves, lamb's quarters leaves and seeds, plantain seeds, sheep sorrel seeds, apples, wild grapes, Nodding sedge seeds (and



Jeremy St. Onge

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other sedge seeds), goldenrod leaves, yarrow leaves, evening primrose seeds, clover flowers, hop flowers, blueberries, raspberries, strawberries, blackberries, chokecherries, chokeberries, elder flowers and berries, acorns, dock seeds, shepherds purse seeds, poor-man's-pepper seeds, apple mint, wild mint, maple sugar/syrup/keys, cattail pollen, pine pollen, large bog cranberries, white birch syrup, juniper berries, asparagus,

Kingdom Fungi – boletes, slippery jacks, golden chanterelles, black chanterelles, puffballs, painted boletes, yellowfoot chanterelles, leccinums, oysters, pheasant's back, fairy ring, lobster mushroom, jelly hedgehogs, hedgehogs, chaga, reishi,

Kingdom Animalia – black bear, whitetail deer, walleye, channel catfish, acorn grubs

Minerals – sea salt

Slow Cooker Catfish

One catfish – skin on

1 cup of sautéed leeks

1 cup of sumac (We used the whole fruit.)

1 tbsp. of spruce tip salt (Fresh spruce tips were added to sea salt and left in a cool dry place and turned occasionally for a month before using.)

2 tbsp. of maple syrup

Put all ingredients in a slow cooker on low for a few hours.



Jeremy St. Onge



Delphanie Colyer

Nettle Pesto

This pesto will add flavour and nutrients to pasta or crackers.

5 cups of stinging nettles dropped into boiling water for 1 minute, strained and chopped

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2 cloves of garlic

2 tbsp. of sumac decoction (The citrus flavour of this concentrated “tea” replaces lemon juice in our recipes.)

½ cup of hazelnuts or black walnuts

2 tbsp. of walnut oil

Mix all ingredients, refrigerate for 2 hours and serve. Freezes well.

Acorn and Sedge Seed Flour Pancakes

Use basic pancake ratio of wet and dry ingredients.

Acorn flour

Sedge seed flour

Sweet flavours – apple puree, raspberry puree, dried and crushed petals

Savoury – dried spice mix – garlic mustard, leek, plantain seed, dried pulverized mushroom of choice

Mix to a batter consistency and pour small amount onto a heated stone or non-stick surface, flip once and serve.



Acorns are not palatable before treatment. First they must be dried, then shelled, and then have their tannins leached out. The two main methods of leaching are the cold leach and the hot leach. Cold leaching involves running cold water through the acorn flour repeatedly or continually until the tannins can no longer be detected by taste. Hot leaching involves boiling the nut meats repeatedly in new changes of hot water until the tannin taste is eliminated. Each method results in a different acorn "product" which is used differently and has different nutrition.

Jumbo hot dog with a side order of cricket

By Gary Sturge

Despite August 25th being overcast, with a morning shower and then rain in the afternoon, approximately 20 Nipissing Naturalists Club members gathered at our property near Trout Creek with Jeremy St. Onge and Delphanie Colyer to investigate the availability of wild foods. As you are no doubt aware by now, Jeremy and Delphanie plan to eat only wild foods for a year, beginning in January 2019.



Jeremy also showed us how to tie knots to set up a cooking tripod from which to hang a large pot. He was also going to show us how to build a proper fire using a traditional method. However, although the rain precluded having a fire, it stayed away long enough to allow us to walk the trails where we found and learned about numerous mushrooms, leaves for salads and teas, roots, nuts (acorn and beech) and insects that could be eaten, cooked or preserved for future consumption.

I slipped away to prepare a non-wild food feast consisting of jumbo hotdogs and corn-on-the-cob to go with the delicious salads – none made with dandelion greens – that members had brought. They also brought a cornucopia of sweet treats – none made with acorn and sedge flour. On the group's return from their foraging adventure, they hungrily gathered to partake of the feast, although strangely enough none had interest in the grasshopper and cricket samples.





Photos courtesy of Caribbean Reef Buddy

October speakers on marine conservation

Meetings are held the **second Tuesday of every month**, from September to December and from February to June, **starting at 7:00 p.m., at 176 Lakeshore Drive**, the northeast corner of Lakeshore and Gertrude in the former Tweedsmuir Elementary Public School.

On October 9, we will have two speakers, **Matt Rideout and Katlynd Treiber-Vajda of Caribbean Reef Buddy, a non-profit marine conservation located on the tiny island of Carriacou, Grenada.** “Our mission is to work with and in support of local communities to assist in the protection and preservation of a healthy, diverse and sustainable marine ecosystem.”

Matt and Katlynd will talk about Caribbean Reef Buddy’s three conservation efforts – invasive Lionfish containment, reef monitoring and coral nurseries, as well as research projects, field courses and, in partnership with Deeper Diving, 2, 4 and 8-week volunteer programs.

Matt studied Marine Biology at the University of Liverpool, after which he served in the British army. He eventually resigned his commission as a Lieutenant colonel, and in 2014, he and the team at Deeper Diving established Caribbean Reef

Buddy, largely in response to a need to help preserve and protect the reefs surrounding Carriacou.

Katlynd is a wildlife biologist who originally came to Carriacou for a 6-month stint to monitor nesting sea turtles. While there, she began participating in dive courses with Deeper Diving and stayed on as a PADI Open Water Scuba Instructor and



Katlynd



Matt

equipment technician. And at Caribbean Reef Buddy, she hunts invasive Lionfish, develops and maintains the Elkhorn Coral Nursery and leads marine conservation volunteers through the science-based aspects of their programs.

To learn more, visit <http://www.caribbeanreefbuddy.org>, and for latest news, you can check out Caribbean Reef Buddy on [Facebook](#) and/or [Twitter](#).

Club field outing to forest fire site

On Saturday, October 27, from 9:00 a.m. to 4:00 p.m., members of Nipissing Naturalists Club, with leader Andrée Morneault, MNRF, will head 20 km north of River Valley on a gravel road to visit a fire site. In this summer of fires, this particular fire, known as NOR062, covering 2500 hectares, started on July 9 and was declared out on August 18.

Some of the many things members will see and learn about are:

- various forest types burned in the wildfire.
- how fire intensity changed across the landscape and what factors affected it
- vegetation, fungi and lichen recovery after the fire
- beetle infestation in dead trees and how that affects wood quality
- ponds, swales, seeps and riparian zones and how they were affected by the fire
- forest regeneration after the fire
- effects of salvage operation
- sites that will be planted to assist in conifer regeneration



And, if they are still around, we may see birds, amphibians and mammals using the burned area. It should be good for spotting Black-backed and possibly American Three-toed Woodpeckers.



Meet at 9:00 a.m. in the parking lot of the former Sears at the east end of Northgate Mall for carpooling. (It takes about 1.5 hours to get to the burn site.) Bring your lunch, binoculars, clothing appropriate for weather and hiking boots with good ankle support.

The level of difficulty for the full tour: difficult. Some sites are right off the road and can be accessed easily, so someone with mobility issues can see the burn from the road. However, there will also be hiking into some of the less accessible areas that require a higher level of fitness/ability.

The stars will be out in Laurier Woods

Wikipedia

Guided walks in Laurier Woods continue on the first Saturday of the month from October through to and including December. Meet at the parking lot of the Brule Street entrance.

On October 6: An evening astronomy walk from 8 to 10 p.m. with Marianne Haist (below) who has a great interest in astronomy. During this guided walk, Marianne will discuss:

The New Moon on October 8. In that sense, the evening of the walk should be nice and dark for optimum viewing of the night sky.

The Draconids meteor shower from October 6-10, peaking on the 8th. Viewing might be fine as long as it is a clear night. It is a minor shower, but participants may see a few meteors.

The Orionids meteor may be a bit more spectacular, but this shower doesn't take place until October 21-22. Marianne will give participants the heads-up about this shower.

Planets that are visible - Venus, Mars, Jupiter, etc...

If it is cloudy, there can still be a discussion about the night sky. Marianne will bring her phone and iPad with stargazing apps on them to see where things are.



Courtesy of Marianne Haist

If interested and in advance of the astronomy walk, you can:

- Download the **SkyView Free** or **Night Sky** apps or
- Download and print the October sky map at <http://skymaps.com/downloads.html> (Scroll down the home page and in the middle of the page, you will find downloadable maps for free, including October's evening sky map.)

Please bring a flashlight for safe navigation to viewing spots – or you can use your cell phone.

On November 3, Larry Dyke (left) will once again lead a geology walk from 10:00 a.m. to noon.



Renee Levesque

Return of the photo contest



Photo of Kaye Edmonds by Renee Levesque

The photo contest is on again this year!

As in the past, there are four categories: **flora, fauna, landscape and people enjoying nature.**

The rules are as follows:

Members can submit up to **2 photos per category.** You must **clearly indicate** with your submissions **to which category the photo applies.**

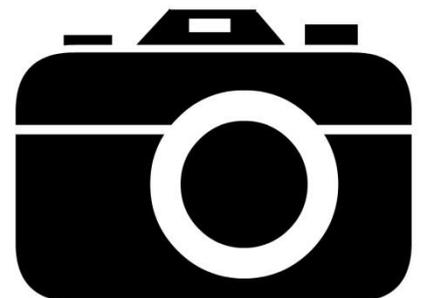
Photos must be taken **within 50 miles or 80 km of North Bay** or on a sanctioned **Nipissing Naturalists Club outing.**

Photos must be submitted by **November 30, 2018.**

Photos must be taken within the 12 months of the deadline, **from November 30, 2017 to November 30, 2018.**

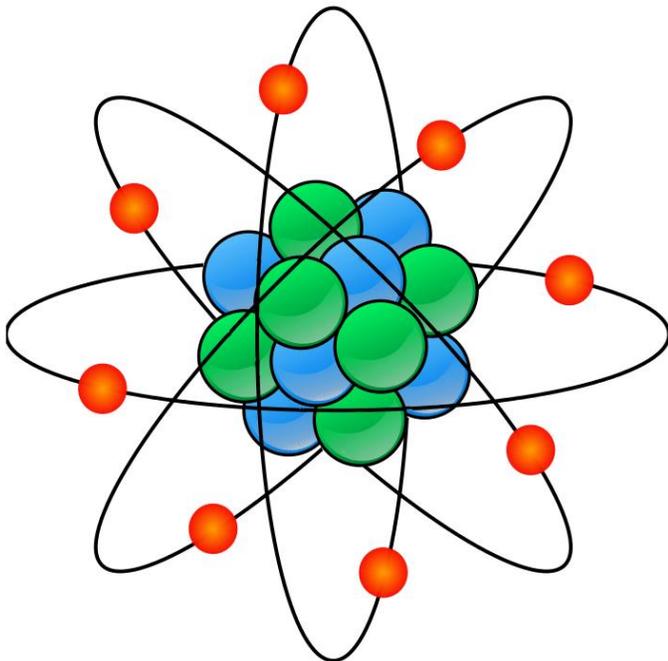
Time is running out, so get clicking and submitting! Submit your photos to Allison Bannister at nipnatsphotos@gmail.com.

Members will vote on their favourite photo in each category at the December 2018 meeting.



Science Festival Family Carnival

North Bay's second annual Science Festival Family Carnival takes place on **Saturday, November 17, from 11:00 a.m. to 4:00 p.m. at the Fitness and Wellness Centre, 22 Wing Base, North Bay. Admission is free.**

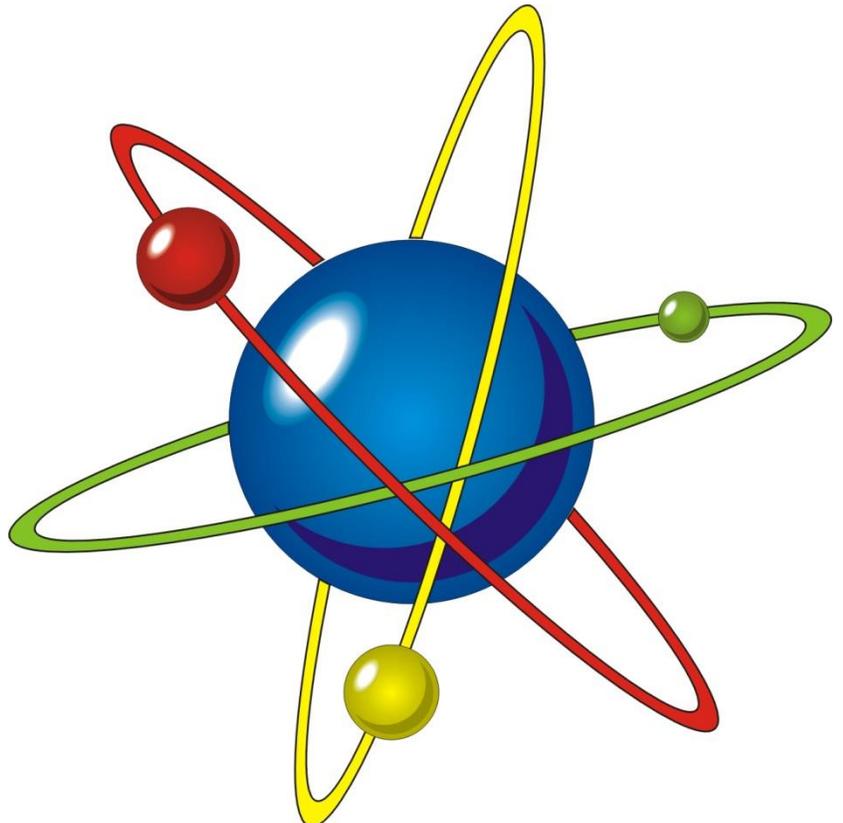


This Science Festival is a collaborative venture in partnership with Nipissing University; North Bay-Mattawa Conservation Authority; Ministry of Natural Resources and Forestry; First Team Robotics 1305; North Bay District Chamber of Commerce; and Science North.

North Bay
**SCIENCE
FESTIVAL**
NOV. 17, 2018

This day-long community event, appealing to a family audience of all ages, will consist of over 20 exhibitors presenting engaging, fun and interactive science and technology activities.

Nipissing Naturalists Club will once again have a booth.



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Renee Levesque, Bird Wing Scribe.

Monthly Bird Wing and Bird Bash reports are sent to members by email and posted on the Nipissing Naturalists Club's website, <https://www.nipnats.com/club-activities/bird-wing/>.

The Woodland Observer is published electronically each month from September to June and sent to members by email and posted in date order on Nipissing Naturalists Club website, <https://www.nipnats.com/newsletters/>.

Editor: Renee Levesque: rlevesque1948@gmail.com

Contributors this issue: Delphanie Colyer, Chris Connors, Marianne Haist, Renee Levesque, Andrée Morneault, Michael Odom, Fred Pinto, Paul Smylie, Jeremy St. Onge, Gary Sturge

Special thanks to Ontario Nature for providing me with photos from Jason King and John Urquhart, and to Caribbean Reef Buddy for use of its photos.

Membership Fees

Annual Nipissing Naturalists Club membership fees are: single \$20.00; family \$30.00. See "From the Editor" for the new 2-year membership costs good only until December's meeting.

There is an **additional annual \$5.00 membership fee for Bird Wing** which meets the fourth Tuesday of every month in the auditorium of the North Bay Public Library from 6:30 to 9:00 p.m. **This membership fee is paid directly to Bird Wing.**

Please note: While the library is undergoing renovations this year, September, October and November's Bird Wing meetings will be held at Laporte's Nursery, 1054 Lakeshore Drive, North Bay.



Nipissing Naturalists Club is affiliated with Ontario Nature: <http://www.ontarionature.org/>.