THE WOODLAND OBSERVER

NOVEMBER 2017

NIPISSING NATURALISTS CLUB

Renee Levesque

From the editor:

Bare are the trees where leaves once dwelt

Fall colours, the oranges in particular, lasted well into October this year. Families were seen picnicking at Sunset Park and people were seen swimming in Lake Nipissing even after the Thanksgiving weekend. In fact, until the waning days of October, we had some beautiful weather – except on my birthday and Steve Pitt's birthday when it poured heavily all day. (Probably fitting, however, because our birthdays fall on the day Hurricane Hazel hit Toronto!)

The guided photography hike in Laurier Woods with Paul Chivers was also unfortunately another of the rare October rainy days. Nevertheless, Paul had an enthusiastic small group accompany him. December's guided hike in Laurier Woods will be with Larry Dyke, geologist. Details of Larry's December hike and a short article by Paul on his October hike are inside.

November is now in full force with the time change and the colder days and nights – not easy to get used to after our glorious October. Although there are a few trees still hanging onto some of their colourful leaves, the main colour now is that of the yellow-golden on the Tamaracks.

The odd plants still show some blooms, but until they get covered with snow, what we are now mostly seeing are the various shades of browns, actually rather attractive in their own right, especially when the sun shines.

Two species of birds and one of a butterfly are highlighted in "Fall Finds". If anyone sees anything in nature that may be of interest to others, be sure to send your sightings to me, with or without a photo. And articles are always welcome.

This issue takes you back to the rainy days of August when Lucy Emmot, Caleb Beck and I ambled in our rain boots through Jocko Point looking for the Cardinal plant, with Lucy identifying many other plants which she lists in her article in this issue. One plant in particular caught our eye, the Potato Bean, which I highlighted following Lucy's list article.

Lucy also came through with another article, this one on Monotropes. November is a good month to highlight these plants, the Ghost Pipe in particular, even though it is in bloom primarily in August. But it certainly is a plant that conveys the colder days of November!

Franco Mariotti gave a great presentation on Antarctica at October's meeting. He was not able to write anything for the newsletter because he was off again to Antarctica days after the meeting. But he did email me some photos and because I was quite taken by his penguin photos, I wrote an article on two of the penguins he mentioned during his presentation, the Adélie and the Chinstrap.

November's meeting will conclude with the third in a series of ice-related talks, this one by Dr. Eric Mattson on glacier size and meltwater production.

Not leaving the topic of ice or snow behind, Christmas Bird Counts are almost upon us. Dates for the North Bay and Burk's Falls counts are inside, as well as contact names should anyone wish to take part.

I received many comments on the article on Ava the Trumpeter Swan that appeared in October's issue, including a thank you email from Centre Wildlife Care, the facility responsible for saving Ava's life. And for a possible submission to a souvenir album celebrating 100 years of bird conservation to be published this December by the Ministry of Environment and Climate Change Canada, I boiled this article down to the required 100 words. Although this was not easy to do, it was good enough to be accepted for inclusion in the album.

On the topic of submissions, members have until November 30 to send their photos to Sarah Wheelan for our photo contest. Details of the contest and the Family Science Carnival to be held on November 18 are inside.

And finally, following my "From the Editor" is a collage of nature's wood carvings. Kaye Edmonds sent me the photo of the all-seeing eyes; Dick Tafel snapped one of the monsters at the bottom of the collage; and I took the rest from my various local travels, including our trip to Dokis this past July. Those who went on this outing will recognize that natural wood carving.

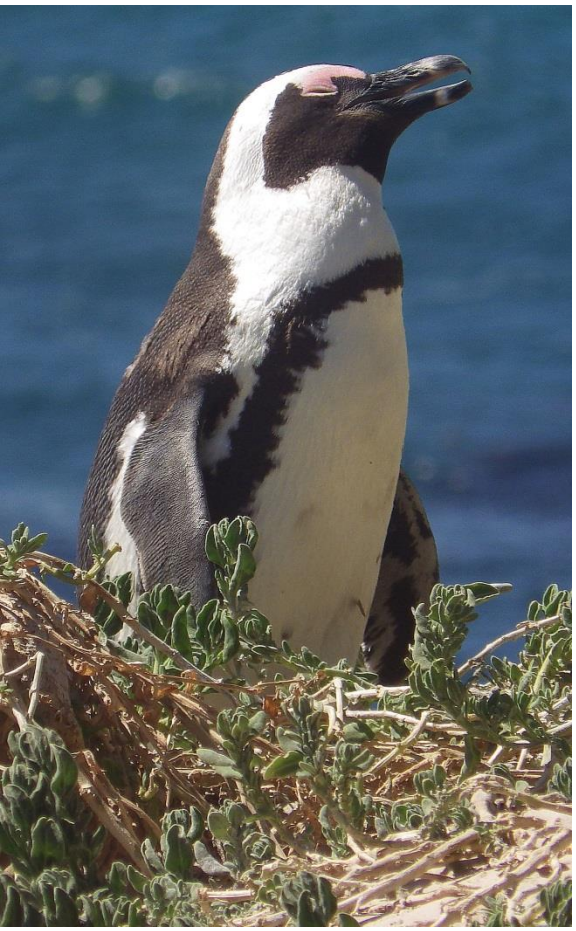
Renee Levesque

- *Renee Levesque*, rlevesque1948@gmail.com

A menagerie of natural wood carvings

The world of penguins

Adélie Penguin, Jason Auch



African Penguin, Renee Levesque

By Renee Levesque

I will never forget the first time I saw penguins, not the penguins of Antarctica that Franco Mariotti spoke about at October's meeting, but a Southern Hemisphere species nonetheless – the African Penguins I saw on Boulders Beach near Cape Town, South Africa.

It was one of those delightful moments. We have all seen films and documentaries featuring penguins and have read about them in books going back to childhood. Penguins are so popular the world over that they cannot but charm us if we are fortunate enough to actually see them.

Penguins are aquatic, flightless birds with black and white plumage that helps to camouflage them from predators, such as Orcas, Leopard Seals and the occasional sharks, while at sea. This camouflage is well-adapted to sea life where they spend at least half their lives, diving for krill, squid, fish and other sea

creatures. When seen from above, their black backs blend into the dark water, and when seen from below, their white undersides blend into the sunshine. This is known as countershading.

Within their smooth plumage, penguins have a layer of air that ensures buoyancy in water. They also have a thick layer of fat under their skin and a thick layer of waterproof insulating feathers to keep them warm. They are able to control the blood flow to their extremities to reduce the amount of blood that gets cold. And we have all seen photos of penguins huddled together to keep warm. In their huddle or crèche, they rotate positions so that each penguin gets a turn to be in the centre.

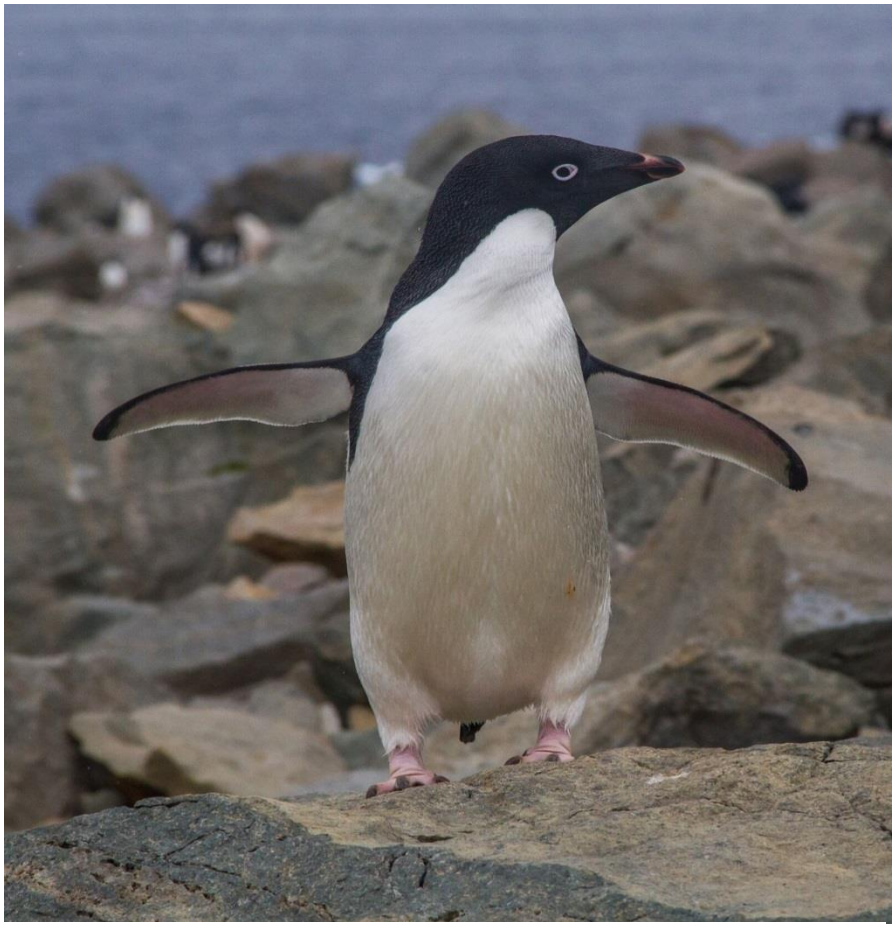
Penguins may not be able to fly, but in water, their flippers are like other birds' wings. As swimmers, they are extraordinarily agile. On land, they stand upright, using their tails and wings to maintain their balance. When moving on land, they either waddle on their feet or "toboggan" in the snow by sliding on their bellies while using their feet to propel and steer themselves. If they want to move quickly or walk on steep or rocky terrain, they jump with both feet together.

On land, penguins are without predators, although skuas will prey on eggs left unguarded and chicks that have strayed from the group. Therefore, they are not fearful of humans, though they tend not to approach closer than about 3 metres. Tourists are asked not to get any closer to the penguins than the 3 metres, but they do not need to withdraw if the penguins approach them closer than that.

This month, I will give a brief description of two penguins Franco mentioned in his talk, the Adélie and the Chinstrap.

The Adélie, one of the most southern birds in the world, is the penguin with the typical tuxedo look, mostly black with a white belly. It has a white ring around its eye and although its bill is red, the feathers at the base of the bill mostly hide the red.

The colonies of the Adélie are distributed along the coast of the Antarctic mainland and on the nearby islands. With colonies the size of up to half a million birds, if you are near any



Adélie, Franco Mariotti

of these colonies, you will be struck by how loud and how smelly they are!

The Adélie is one of only two species of penguin found on the mainland, the other being the much larger Emperor Penguin.

Although the Adélie lives on sea ice, it needs ice-free land to breed. It breeds with its life-long mate in the spring months, starting in October or November. The nest made of small, piled stones is simply built to separate it from other nests and to raise it above the ground to prevent meltwater from the snow getting onto the eggs and the chicks. Stones are in short supply in the Antarctic, so you can well imagine the squabbling that takes place among the penguins – penguins which are also quite adept at stealing stones from other penguins' nests!

Adélie chick, Matt Pauza

The female lays two eggs and both parents incubate the eggs for 32 to 34 days, each taking a shift that typically lasts 10 to 12 days. While one keeps the eggs warm, the other goes to feed. Once hatched, the chicks remain in the nest for 22 days. By March, they are ready to go out to sea with their parents.

The Adélie is an efficient hunter, diving to depths of 175 metres in search for food. It does not have teeth, but rather barbs on its tongue and on the roof of its mouth to help in the swallowing of slippery prey.

Like other species of penguins, the Adélie is very social. It is constantly interacting with others through body language and specific eye movements.

The Chinstrap is aptly named. As you will see from Franco's photos below**,** it has a narrow black band under its head that goes from ear to ear. It is like a strap keeping its dark hat on its head! It has a white face that extends behind the eyes and a white chin and throat, a short black bill and red eyes.

It is the most numerous of all the penguins – more than 7 million breeding pairs.

The Chinstrap breeds in November and December on the rocky land of the Antarctic Peninsula and on the South Orkney, South Shetland, South Georgia and South Sandwich Islands, as well as the Falkland Islands.

Like the Adélie, the female Chinstrap lays two eggs in a nest made out of stones. And like the Adélie, the male and female take turns keeping the eggs warm. The eggs hatch after about 37 days and the chicks remain in the nest until they are about a month old, during which time they are fed by both parents.

In March and once winter arrives, the Chinstrap leaves its breeding colony and stays at sea until the next spring. It is an excellent swimmer and diver, swimming at a speed of 30 km an hour and diving to depths of 70 metres.

Chinstraps, Franco Mariotti

There are so many more amazing facts that can be written about the penguin, a unique and beloved bird that even has its own special day, World Penguin Day, celebrated each year on April 25.

Sources: Much of the information contained in this report was gleamed from various websites: Wikipedia; Cool Antarctica; Ocean Wide Expeditions; Penguin World; Wild Republic; and National Geographic. The photo on the heading is from Wikipedia and the photo of the chick is from the Australian Government, Department of the Environment and Energy, website.

Chinstrap, Franco Mariotti

Lucy and Caleb at Jocko Point

Jocko Point's diversity

Editor's Note: *On August 23, Lucy Emmot and I accompanied Caleb Beck to Jocko Point, after receiving permission from First Nations to do so, to look for Cardinal plants. You may recall that Caleb had been in touch with Nipissing Naturalists Club in the spring, asking for help in locating the Cardinal plant this far north. See the June 2017 issue of The Woodland Observer at https://www.nipnats.com/newsletters/. While at Jocko Point, we checked out the other many plants which Lucy subsequently identified and of which she made a list. I sent Lucy's list to First Nations at their request.*

By Lucy Emmot, photos by Renee Levesque

We were very excited about the diversity of plant and mushroom life at Jocko Point. A diversity of soil types and rock, as well as exposure to both wind and water as dispersal mechanisms, makes a special place for plants and fungi – and a special human site too.

Most plants were finished flowering and some were remnants. My sample of the potential Cardinal flower was not conclusive, but I'm inclined to say that it was not a Cardinal flower. The stem was thin and flexible, as opposed to sort of gelatinous and thick; the leaves were inconclusive; and there were no roots or old flowering/fruiting parts.

It would be very enlightening to look at Jocko Point every few weeks of the growing season for plant and mushroom species.

THE WOODLAND OBSERVER

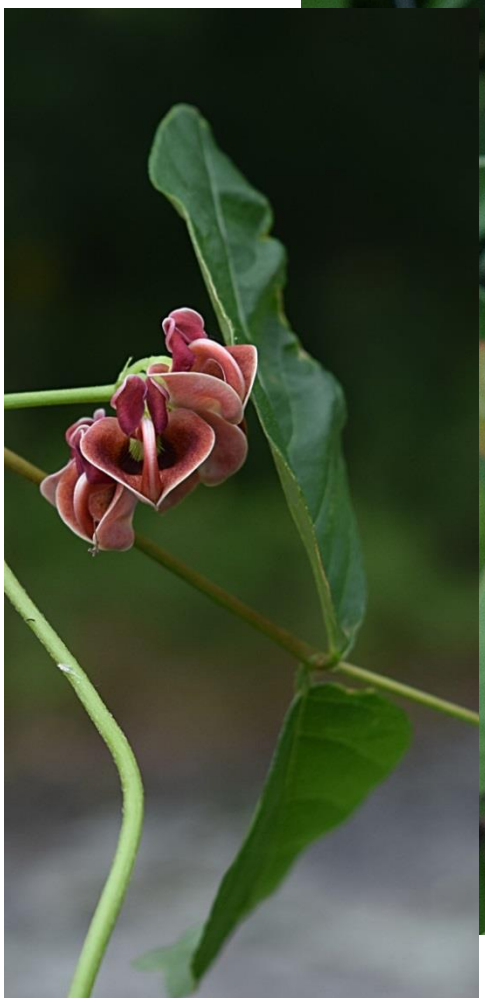
Below is a list of the plants we spotted in our wander – minus the mushrooms and lichen seen. It cannot be considered complete, but is wonderfully inspiring of a more thorough plant inventory.

Ash
Oaks, including Bur Oak
Maples
Elm
Winterberry Holly
High and Lowbush Blueberries
Dwarf and Red Raspberries
Blackberry
Sumac
Hawthorn
Juniper
Serviceberry
Sweet Gale
Elderberry
Dogbane
Jewelweed
Columbine
Pearly Everlasting
Evening Primrose
Mullein
Starflower
Helleborine
Heal-all
Dandelion
Wild Lettuce
Meadowsweet
Epilobium
Bugleweed
Mint
Water Parsnip
Polygonum
Avens
Cinquefoil
Swamp Candles
Marsh St. John's Wort
Bindweed
Fringed Loosestrife
Solomon's Seal
Maianthemums
False and Hairy Solomon's Seal
Thistle

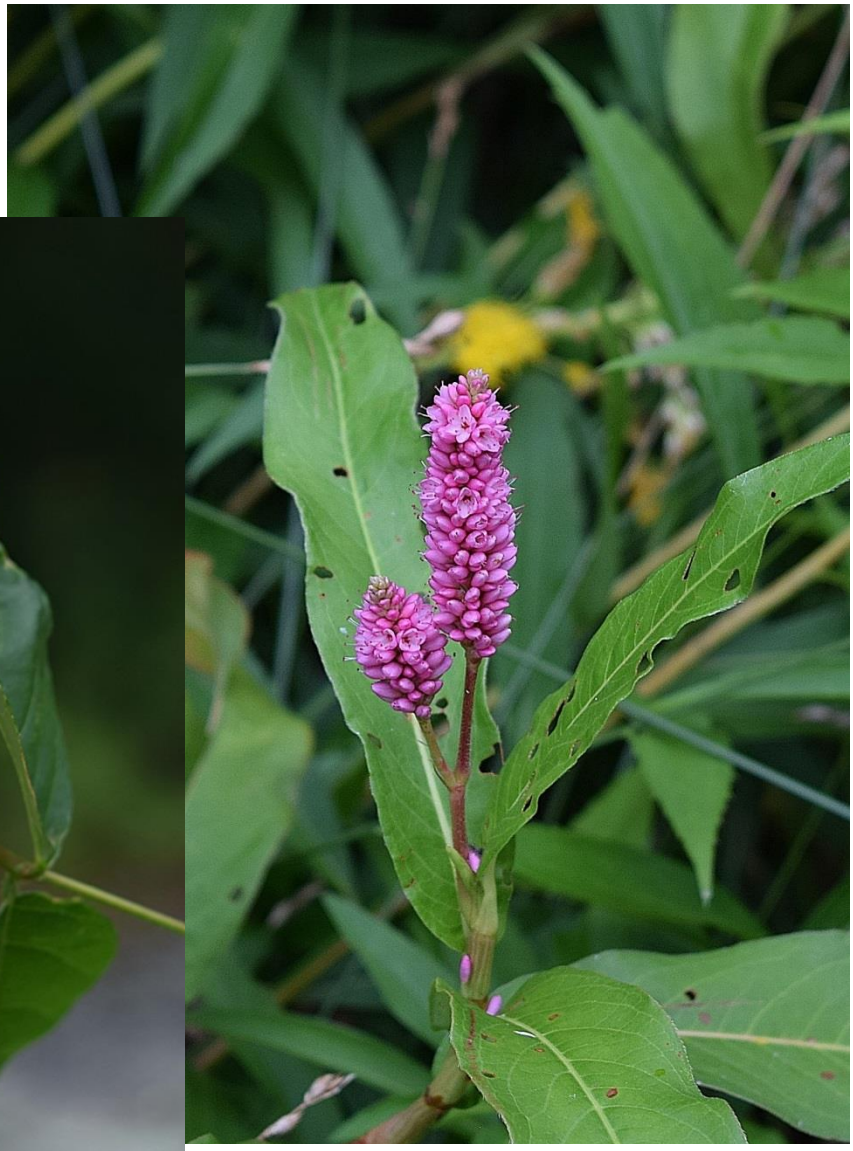
Bur Oak

Jewelweed

Groundnut
Scullcap
Burdock
Plantain
Strawberry
Chickweeds
Forget-me-not
Oxalis
Hawkweeds
Queen Anne's Lace
Corydalis
Yarrow
Tansy
Wild Sarsaparilla
Monotropa
Various...
Grasses
Sedges
Rushes
Cattails
Horsetails
Pondweeds
Violets
Ferns
Asters
Clovers



Groundnut, Potato Bean



Polygonum

Highbush Blueberry

Groundnut or Potato Bean

By Renee Levesque

In his book, *Walden,* (Chapter 4, "Sounds"), Henry David Thoreau, environmentalist and proponent of simple living, writes: *My house was on the side of a hill, immediately on the edge of the larger wood, in the midst of a young forest of pitch pines and hickories, and half a dozen rods from the pond, to which a narrow footpath led down the hill. In my front yard grew the strawberry, blackberry, and life-everlasting, johnswort and goldenrod, shrub oaks and sand cherry, blueberry and* ***groundnut.***

Renee Levesque

This is not Thoreau's only mention of groundnut or Potato Bean (*Apios Americana),* but it is a passage often quoted and my only familiarity with this groundnut until Lucy Emmot, Caleb Beck and I found it on August 23 during our Jocko Point amble. We didn't know what type of plant it was at the time and we were struck by how pretty the pink/purple flower was, similar to a pea blossom or a wisteria flower and quite fragrant. Thoreau described the flower as a "crimpled red velvety blossom" – a very apt description as you will see from the photo of the flower above and on the previous page.

I have been to Jocko Point many times and had not seen this plant before. The flower blooms in late August and perhaps I had not ever been to Jocko Point at that time until this year. Or perhaps it grew more assiduously this year because it liked our wet spring and summer. It is a plant that prefers rich, moist soil in lowlands and woodlands or along banks of streams and ponds. It also likes to grow under the roots of other plants, like the Elderberry, and because it is

a vine, a vigorous one at that, it likes something to grow on – shrubs, small trees and large vines. It is a slow-growing plant that takes about two years to reach its full size, anywhere from one to six metres in length.

Despite my not recalling having seen it before, it is a natural growing plant in Eastern North America from the Eastern provinces and Quebec and Ontario down through to Florida and west as far as the border of Colorado.

It is a legume that bears edible flowers, seeds (in pods) and especially tubers that taste a lot like potatoes. The tubers form along a thin rhizome like beads on a necklace, as seen below.

For centuries the Potato Bean was the staple food of Indigenous people and so can often be found growing where they once encamped. It was introduced by the Indigenous people to early explorers and settlers, some of whom came to depend on it as a food source. The tubers, because they are high in starch, were also used to make flour. And like potatoes, they are also high in protein, though even more so. Thoreau preferred his tubers boiled rather than roasted.

James St. John, Wikipedia

Note: *I am not suggesting or recommending you eat these tubers or any part of the Potato Bean Plant. As with all wild edibles, care must be taken that you pick the right plant, especially if you are unfamiliar with the plant. And even if you do pick the right plant, if you have never eaten it before, you don't know how it might affect you.*

Sources: A Way to Garden; Dave's Garden; Local Harvest; Norton Naturals, Native Plants; Orion Magazine," Stalking the Wild Groundnut"; Wikipedia.

Interesting fall finds

By Renee Levesque

Renee Levesque

Painted Lady Butterfly: During October, there was an influx of Painted Ladies in our area – and across Canada! The Painted Lady is a medium-sized black and orange butterfly with five eyespots on its outer hindwing. I saw many along roadsides and at Sunset Park where I took the above photo of one on October 20, the same day I saw a Monarch on the beach at Sunset Park.

The Painted Lady is also known as the Cosmopolitan Butterfly because it is found on every continent except Australia and Antarctica. Its global abundance is due to the fact that its larvae feed on many common plants, particularly the thistle, hollyhock, mallow and various legumes. The adult takes its nectar from thistle, aster, cosmos, blazing star, ironweed and Joe Pye Weed.

Its global abundance may also be due to the fact that it is highly tolerant of a variety of open and disturbed habitats – gardens, old fields, dunes, the deserts of southern British Columbia, waste areas, roadsides and areas where thistles abound. (It also known as Thistle Butterfly because of its preference for this plant.)

The Painted Lady is an irruptive migrant. It migrates in the spring from the deserts of northern Mexico and from southwestern United Sates to the rest of the U.S. and Canada and can cover up

to 161 km a day. Two or three generations are born in Canada, the first appearing in May, followed by subsequent generations from June to October depending on the location. It does not normally overwinter in Canada, but makes its way back to southwestern United States and Mexico.

The exact reasons for its abundance this year seem to be a bit of a mystery, but it is felt that the rainy spring, which resulted in lush vegetation, may have been responsible. Other butterflies did not do as well in our cold spring as the hardy Painted Lady.

Radar images in early October in Denver, Colorado, show a 110 km-wide image of a wave of butterflies thought to be that of the Painted Lady. It's nice to have witnessed a small part of that wave here in Nipissing!

You can document photos and observations of butterflies at http://www.e-butterfly.org/.

Lapland Longspur: Sunset Park was good to a lot of us this past October. Kaye Edmonds was the first to spot the Lapland Longspur there in early October and it was subsequently seen by other birders.

Kaye Edmonds

The Lapland Longspur is a songbird of the Arctic, one of the most abundant birds of the far north. Its name is derived from its long hind toenail, seen well in Kaye's photo above. This hind toe helps the Lapland Longspur walk. It does not hop like most other songbirds, but rather walks or runs.

Because the Lapland Longspur breeds in moist sedge meadows, grassy tussocks and scrub in the high Arctic, we don't usually get to see this bird in its breeding colours. The breeding male is

especially outstanding with his black face and chest and his rufous nape as seen in the photo below left. In comparison, the non-breeding male is seen below right.

U.S. Fish & Wildlife Service

Renee Levesque

Here in Nipissing, we tend to see the Lapland Longspur during its fall migration. It winters in open fields across much of the U.S. and southern Canada, although it is often seen in small numbers here into January. It was on some of our Bird Bash lists this past January, seen at the Co-op Feed Store in Verner and at Verner Lagoon.

Canvasback Duck: On October 22, Stephen O'Donnell alerted birders to three Canvasback Ducks at Sundridge Lagoon. Because it is not often we see these elegant ducks in our area, some of us managed to get to the lagoon before the Canvasbacks left for points south.

The Canvasback is a large sleek diving duck with a long graceful neck and a long sloping profile. The male has a beautiful chestnut red head and neck, with a white to light grey body, black chest and rump, black bill, bluish-grey feet and a red eye. The female has a light brown head and neck with a darker brown chest and a grayish-brown body. Both sexes can be seen in Stephen's photo on the next page.

The Canvasback breeds on prairie marshes surrounded by cattails and bulrushes. It also breeds in sub-arctic river deltas in Saskatchewan and the interior of Alaska. Each year in the late winter, it takes a new mate.

The female lays between 7 and 12 eggs, and interestingly the Redhead Duck is known to parasitize the nest. When this happens, the Canvasback will usually lay fewer eggs. The female incubates the eggs for 23 to 28 days. She leads her chicks to open water several hours after they hatch and remains with them for several weeks, although she departs before they are fledged.

Immediately after hatching, the chicks are able to feed themselves, but they are not capable of flying for 60 to 70 days after hatching.

The technical name of the Canvasback is *Aythya valisineria,* valisineria being the name of wild celery, the preferred food of the Canvasback. It feeds mainly on bases and roots of aquatic plants, but also eats mollusks, aquatic insect larvae and sometimes small fish. It dives in water only a few feet deep and sometimes even dabbles.

Stephen O'Donnell

The Canvasback winters in the mid-Atlantic regions of the U.S., the Lower Mississippi Alluvial Valley and the coast of California in saltwater bays and in marshes with an abundance of submerged aquatic vegetation and invertebrates.

Sources for information on the Painted Lady: Canadian Press, Times Colonist; Ontario Butterflies; ThoughtCo; and Weather Network. Thanks to Mark Olivier for alerting me to the influx this fall of Painted Ladies. Sources for information on the Lapland Longspur and Canvasback Duck: All About Birds, Cornell Lab of Ornithology; Audubon Field Guide; Birds of North America; BirdWeb, Seattle Audubon Society; Guide to Boreal Birds. Thanks to U.S Fish and Wildlife Service for photo of breeding male Lapland Longspur.

It's a jungle beneath the soil!

The fascinating world of Monotropes

By Lucy Emmot

Renee Levesque

Ghost Pipe or Indian Pipe (*Monotropa uniflora*), pictured on the right, is a fascinating plant often confused with mushrooms when I take groups out foraging. The eerie white stems and exotic looking flowers always draw attention and prompt discussion.

Although Ghost Pipes are in the sub-family Monotropoideae, they are actually angiosperms in the blueberry family (*Ericaceae*). This family notably includes blueberries, cranberries, the pyrolas, heaths, kinnikinik and others.

Some of our favourite field guides, like *The Forest Plants of Central Ontario*, still list Monotropes in their own family (*Monotropaceae*), but the general modern grouping is that the Monotropoideae are a sub-family of the blueberry family (*Ericaceae*) and contain three tribes, all found in Ontario.

The Ghost Pipe and Pinesap (*Hipopytis monotropa*) are in the tribe Monotropeae; Pinedrops (*Pterospora andromedea)*, pictured on the next page, are in the tribe Pterosporeae; and the many lovely Pyrolas with green basal rosettes and scented distinctive flowers are in the tribe Pyroleae.

Andrejs Verlis, Wikipedia

Ghost Pipes commonly have black specks and a pale pink colouration and each stem bears a single striking flower with 3 to 8 petals, as you will see from the photo on the left. They are mostly buzz-pollinated, meaning they are specialized to attract native bumblebees.

Pyrolas do not at first glance look like a blueberry relative or a relative of the Ghost Pipe, but they do have a very interesting commonality, and that is all Monotropes are mycoparasitic at some point in n their life cycle. They are plants that are parasites on fungi during all or some parts of their growth. This is not as rare as many people think – orchids, ferns, clubmosses and others exhibit this trait. Notably, orchids and the Monotropes produce tiny, dust-like seeds without a carbon reserve and need a

fungal host to access energy until, in most species, they begin to produce photosynthetic (green) tissue.

Ghost Pipes and their allies are entirely non-photosynthetic and require a mycorrhizal fungal host throughout their lives – they are 'facultative mycoheterotrophs'.

It gets even more interesting! The fungi that Monotropes parasitize are already in a symbiotic relationship with a tree. The Ghost Pipe pipes into this exchange pathway and syphons off what it needs! While there may be undiscovered benefits to the host tree or mushroom, our understanding so far is that Monotropes are generally the majority beneficiary in this relationship.

Here is a simplified view of how it works: A tree, a White Spruce for example, turns carbon dioxide into sucrose through photosynthesis. Eventually this is transported to the tree's roots which are infiltrated by the mycorrhizae of a fungus, a Russula or a Lactarius for example. (Lactarius sp. is seen below.) At this point the sucrose can be processed into sugar alcohols and other compounds and distributed throughout the mycelial network. Monotropoideae access these sugars by infiltrating the network. It's a jungle beneath the soil!

Pinedrop, Gerry Carr

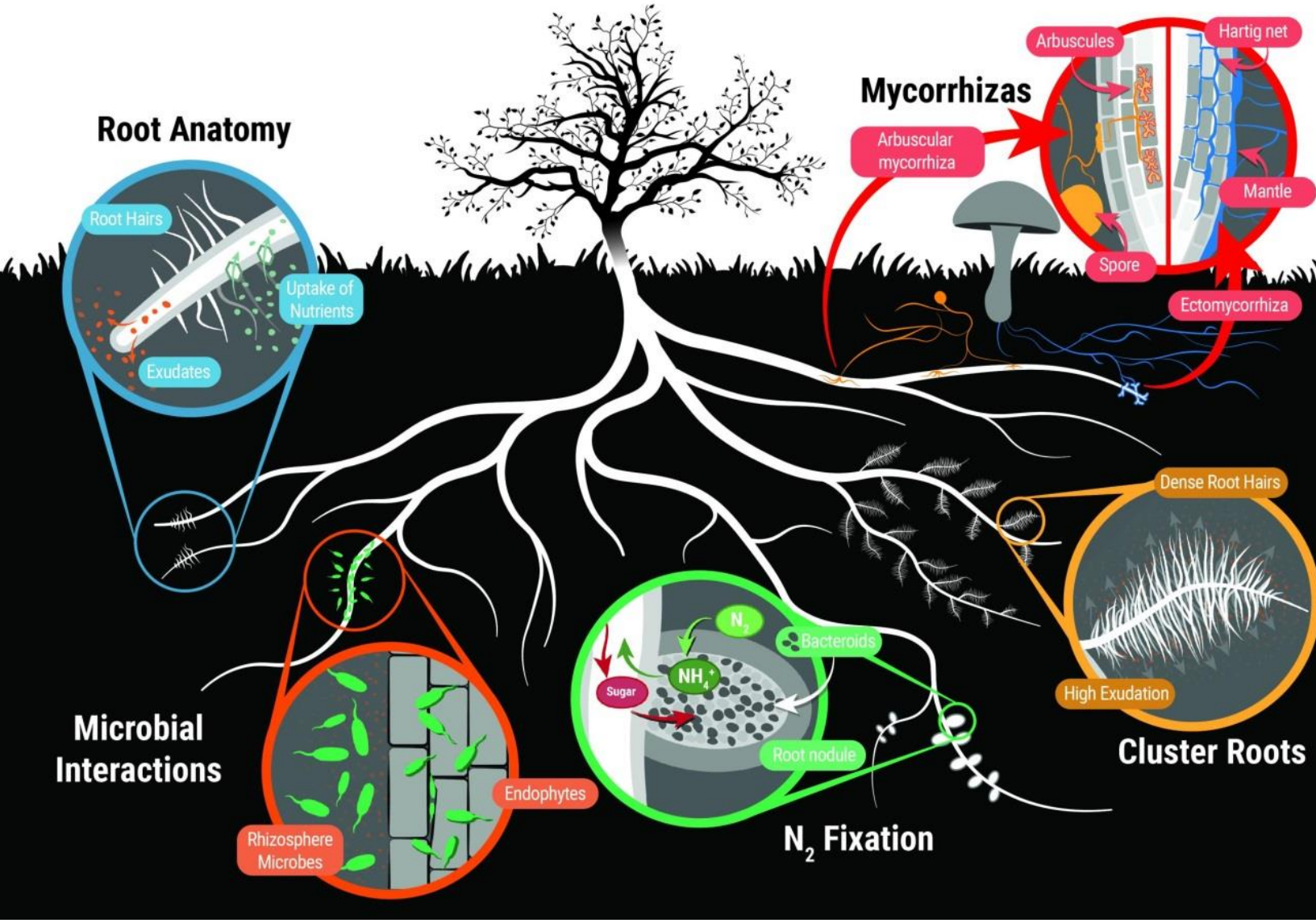
Lactarius sp., Renee Levesque

Over 80% of land plants, including all conifers, have a mycorrhizal associate, and plant/fungal symbiosis is thought to have been key to land colonization of plants.

Mycorrhizal fungi provide the host plant with nutrients, such as phosphate and nitrogen, copper, zinc and calcium, and increase the capacity of the host plant to withstand drought, heavy metals, excess salt and root pathogens. The fungus also significantly increases the surface area of the roots of its host plant, increasing exposure to micronutrients and 'greasing' the soil with slippery and acidic substances that facilitate nutrient

flow and provide a nice environment for beneficial soil organisms.

In return for its hard work, the host plant transfers up to 20% of its carbon, attained through photosynthesis, to the mycorrhizal fungus, some of which is stolen by parasites like the Ghost Pipe.



Above diagram reproduced from Plants in Action, http://plantsinaction.science.uq.edu.au, published by the Australian Society of Plant Scientists.

Monotropes can be found wherever the conditions are right for their fungal host, generally in conifer forests with low light in the understory and enough moisture for fungi to thrive. The limits to their range are defined by the limits of the range of their host mushroom and its associated partner plant. In some Balsam Fir and Spruce dominated forests, the Ghost Pipe is the most populous plant around.

Close examination of roots with a good lens allows us to actually see the mycelia in some cases. (This should not be confused with the nodules that some plants, like that of the legume family, produce to house bacteria.) Often mycelia are differently textured (spongy) and coloured (orange or yellow or white) than their partner's roots.

Monotropes need their fungal host and, as a result, can be a good indicator for mushroom foragers. In particular, three groups of mycorrhizal fungi, Boletus, Lactarius and Russula, contain prime edibles. However, in yet another exciting twist, the latter two are rendered edible only when their fruiting bodies are parasitized by another mushroom, *Hypomyces lactifluorum*, giving us the delicious Lobster Mushroom, seen below. So a Short-stemmed Russula may be exchanging goods with a White Spruce, being stolen from by a Ghost Pipe, and have its fruiting bodies infected with the Lobster Mushroom, all at once!

There is never a simple answer when it comes to nature. The Ghost Pipe may not be a mushroom, but it does need one.

Lobster Mushroom, courtesy of Northern Bishcraft

Editor's Note: *The photo of the Pinedrop was used by permission of the photographer, Gerald D. Carr, Courtesy Emeritus Professor, Department of Botany & Plant Pathology, Oregon State University. For members interested in checking out Dr. Carr's comprehensive collection of the mycotrophic ericaceae, see: http://www.botany.hawaii.edu/faculty/carr/ofp/ofp_index.htm. It is a remarkable website with wonderful photographs.*

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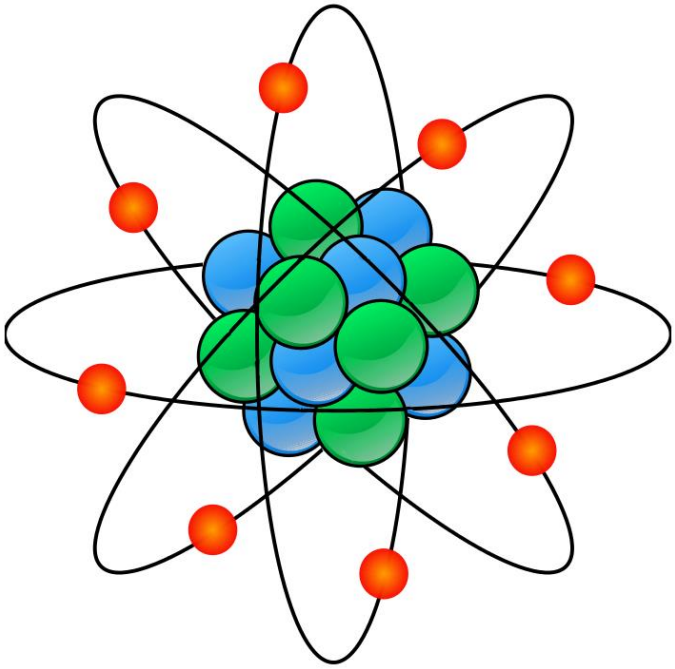
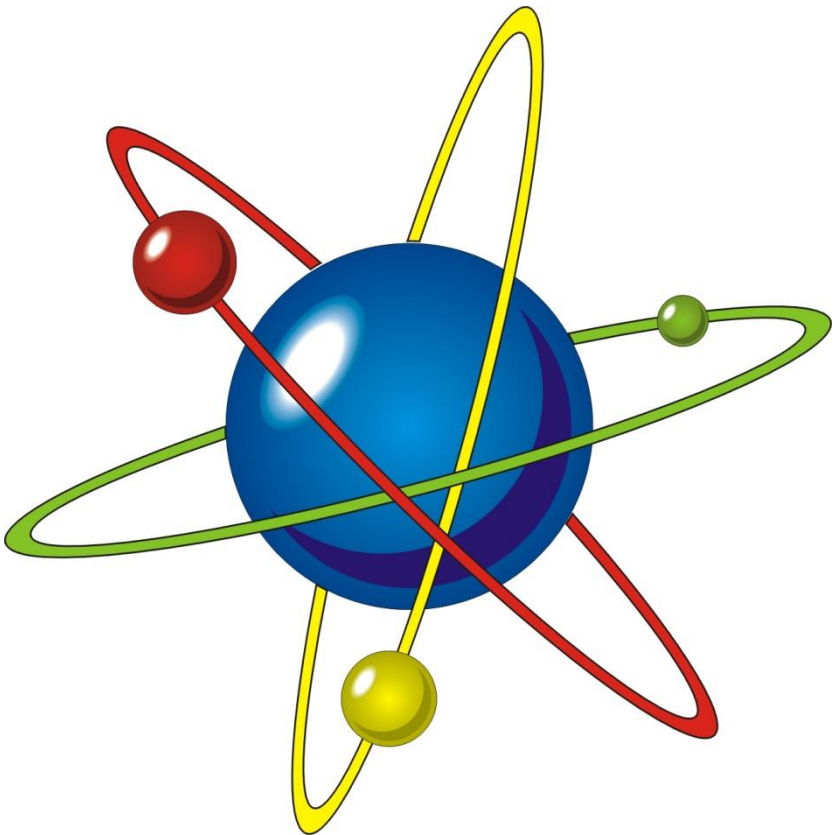
Family event caps Science Festival

North Bay's inaugural Science Festival takes place from November 14 to the 18th. It will highlight science and technology through several events and activities, concluding with a **Family Science Carnival to be held on Saturday, November 18, from 11:00 a.m. to 4:00 p.m. at Nipissing University. Admission is free.**



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. It will also include entertainment, so be prepared for buskers and music.

Nipissing Naturalists Club will have a booth at the Family Science Carnival.



The North Bay 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; and Science North.

Bohemian Waxwing, photo by Renee Levesque

The **North Bay** Christmas Bird Count (CBC) will take place on **Saturday, December 16**, and the **Burk's Falls** Christmas Bird Count on **Wednesday, December 20.**

If you are interested in taking part in the North Bay CBC, either as a field counter or a backyard feeder counter, contact Lori Anderson, compiler, at lori.anderson58@hotmail.com or 705-724-5780. If the regular team leaders cannot make the count, please let Lori know. She will have our booklets for recording data ready for pick-up at the next Bird Wing meeting on November 28.

White-Crowned Sparrow keeping warm at Christmas, photo by Lori Anderson

If you are interested in taking part in the Burk's Falls CBC, contact Martin Parker, compiler, at mparker19@cogeco.ca or 705-745-4750. Burk's Falls CBC's northern edge is just south of Sundridge, so not too far away for those from North Bay and surrounding areas. It then extends south to Burk's Falls and west to Magnetawan.

This year marks North Bay's 40th year and Burk's Falls 41st year of participation in North America's longest-running Citizen Science project which started in 1900. It is one of the world's largest wildlife surveys and the data collected is used daily by conservation biologists and naturalists to assess population trends and distribution of birds.

Christmas Bird Counts are conducted on a single day between December 14 and January 5. Counts are carried out within a 24-km diameter circle that stays the same from year to year.

Photo by 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**.

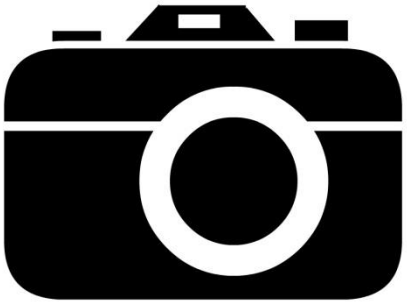
Photos must be taken **within 50 miles or 80 km of North Bay** or on a sanctioned **Nipissing Naturalists Club outing.**

Photos must be submitted by **November 30, 2017.**

Photos must be taken within the 12 months of the deadline, **from November 30, 2016 to November 30, 2017.**

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

Members will vote on their favourite photo in each category at the December 2017 meeting.



Renee Levesque

Shooting those autumn leaves

By Paul Chivers

A brief respite from all-day rain on Saturday, October 7, permitted the hike to go ahead as scheduled. And so a small but enthusiastic group accompanied me on the photography hike through Laurier Woods.

I coached the photographers and demonstrated how to extract colourful details from the forest despite the drab colours that were prevalent at the time of the hike. I described how to use various lenses to isolate compositions; how to use highlight and shadow to create balance; and how to apply design elements such as shapes and lines.

Editor's Note: *Paul Chivers, an award-winning photographer, was chief photographer at the North Bay Nugget for many years, as well as a photography instructor at Canadore College. He has pursued nature photography for almost 40 year. His work is widely published and exhibited.*

Paul Chivers

Laurier Woods guided hike

What is the Canadian Shield?

The final guided walk in Laurier Woods for 2017 will be held on **Saturday, December 2, starting at 10:00 a.m**.

Larry Dyke, geologist, will lead us on another Canadian Shield walk to answer the question: What is the Canadian Shield? To find the answer, participants will examine the rocks of Laurier Woods, with particular attention paid to events during the assemblage of the Shield that can be seen in these Woods.

Last November during the geology hike, Larry and participants were unable to find the promised pegmatite – and so they will search for that elusive igneous rock again this year.

Photos by Renee Levesque

Upcoming speakers

Eric Mattson

On **Tuesday, November 14, Dr. Eric Mattson,** Professor of Physical Geography, Nipissing University, will speak on **The State of the Cryosphere.**

Dr. Mattson is a specialist in the field of snow and ice hydrology. His main research interest is in understanding variations in glacier volume to determine past, present and future trends in glacier size and meltwater production.

Please note that November's meeting of Nipissing Naturalists Club will be held in the **Garden Room at Casselholme, starting at 7:00 p.m.** December's meeting will be back in the auditorium.

Forest Tent Caterpillar creating its cocoon, photo by Chris McVeety

On **Tuesday, December 12**, **Chris McVeety,** Forest Health Technical Specialist, Northeast Biodiversity and Monitoring Unit, will speak on **Forest Insects and Diseases around North Bay.**

During the growing season, Chris conducts surveys to identify and map the location of forest insects and diseases. Think of Spruce Budworm and Forest Tent Caterpillars, both of which have reached peak population levels in North Bay and area this year.

THE WOODLAND OBSERVER

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Dick Tafel, Chairman: rtafel@sympatico.ca. 705-472-7907

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Monthly Bird Wing reports are sent to members by email and posted on the Nipissing Naturalists Club's website, https://www.nipnats.com/club-activities/bird-wing/. Here you will find in date order monthly Bird Wing reports; monthly Bird Bash reports; Year-end reports; and Christmas Bird Count reports.

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: Lori Anderson, Paul Chivers, Kaye Edmonds, Lucy Emmot, Renee Levesque, Franco Mariotti, Eric Mattson, Chris McVeety, Stephen O'Donnell and Dick Tafel.

Thanks to Science North for use of the Science Festival logo.

Membership Fees

Annual Nipissing Naturalists Club membership fees are: single $20. 00; family $30.00.

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.

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