THE WOODLAND OBSERVER

DECEMBER 2018

NIPISSING NATURALISTS CLUB

From the editor:

To everything there is a season

Renee Levesque

The cover photo, taken by Fred Pinto at Sunset Park last November, is not in keeping with the usual December covers I have used for *The Woodland Observer*. It would have graced November's issue had there been one. However, it is not entirely out of place this month. It is a photo that won second place in the landscape category in last year's photo contest and we are to vote at December's meeting for photos of merit in 2018. I like Fred's photo because it conveys the darkening and somewhat barren days of a late November afternoon. Perhaps not a late afternoon of this November in which winter settled in a good six weeks before winter's official date of December 21. It is also a photo that lends itself to a crop that fits the size required for the cover. Not all photos retain their special quality when cropped to this extent.

Sadly, we lost one of our members on October 3. Merilyn Parker, a long-standing member, passed away at the age of 88. For those who knew Merilyn, you knew her as a deeply spiritual, gentle, kind, pleasant and positive lady who was committed to conservation, water conservation in particular. She loved the outdoors – swimming, hiking, skiing, camping and travelling the world, something she did for a year after she retired. I had known Merilyn since the 1970s when she and her late husband, Len Parker, then editor of the North Bay Nugget, were raising their many children and caring for what seemed to be a houseful of pets. One of these pets, a beautiful little border collie puppy, was given to us by Merlyn and Len. We called her Shannon and she became my very special dog for life. Merilyn and Len also let us use their cottage on Hemlock Island on Trout Lake for a week's holiday. The only downside to that holiday was developing a very bad case of swimmer's itch!

I am not a fan of an early winter, but at least two of the contributors in this issue are – Paul Smylie and Sonje Bols, both of whom love winter. Paul does not write about winter, but rather about turtles basking in the sun. Perhaps an ironic article this month for winter-loving Paul, but it brings back fond memories of summer for those who do not necessarily love winter. Part 2 of Paul's article, the temperature of turtles, will appear in January's issue. Sonje, who is employed by Ontario Parks as a Natural Heritage Education Leader, writes about winter walks and signs of winter life at Mikisew Provincial Park. We are fortunate to have a few provincial parks in our area and if after reading Sonje's article, you would like to write about your winter experience hiking or snowshoeing or skiing in any of these provincial parks, by all means please send me your article.

Katie Tripp is a first-time contributor to the newsletter. She writes about the fire site outing, with leader Andrée Morneault, in late October. I think after you read it, you might wish to have the Club organize another outing there come spring.

Although Chimney Swifts have long ago migrated to the upper Amazon basin of Peru, Ecuador, Chile and Brazil, it is not too late to give these insectivores in decline some thought after reading Melanie Alkins' and Fred Pinto's articles on these unique birds. Under the leadership of Allison Bannister, Director, discussions of what we can do to help the swifts are underway.

Then there is the fascinating topic of venomous creatures, like the Platypus and the Gila Monster, in Chris Connors' book review of *Venomous: How Earth's Deadliest Creatures Mastered Biochemistry*. Some might be in for a surprise at how deadly some venom can be.

Speaking of creatures, on December 11, our speaker Chris McVeety, Forest Health Technician, is back to talk about major forest pests. Chris also spoke to us last December, but a stormy night prevented many from getting out to hear him, so great to have Chris return as a speaker.

And while on the topic of creatures, rare sightings of birds in southern and central Ontario have been quite prominent this year, but there have been some rare sightings in our area too. In this issue, I write about two birds seen, one in early October and the other in mid-November, the Cattle Egret and the Carolina Wren respectively.

This December marks the 40th annual Christmas Bird Count (CBC). Last year, I also said it was the 40th, but compiler, Lori Anderson, tells me this year is really the 40th. Although the CBC has been around in our area since 1941, there were years that it was not held. If anyone wants to take part as a feeder watcher or a field observer, read the article inside this issue and contact Lori. Her email address and telephone number are provided in the article. This year marks Burk's Falls 42nd count and for those who want to help out with that count, Martin Parker's contact information is also provided in the article.

Don't forget that the meeting on **December 11 is your last chance to purchase a two-year membership at a reduced rate**: $35.00 for a single membership and $50.00 for a family one.

The holiday season will soon be here, a great time to get out and enjoy what winter has to offer. Enjoy it while it lasts because spring is just around the corner…

Renee Levesque, editor
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A visit to NOR062

Courtesy of Andrée Morneault

By Katie Tripp

On the last Saturday of October, Nipissing Naturalists Club members ventured out to explore the NOR062 forest fire site, about 20 km north of River Valley. Fires in Ontario are named after the Ministry of Natural Resources and Forestry's (MNRF) region or district and numbered sequentially each year. Therefore, NOR062 was the 62nd fire in the MNRF's Northern Region in 2018.

NOR062 was started by lightning on July 7, 2018, and continued to burn until August 18. Over this period of time, 2500 hectares were burned. A very dry spring and summer influenced this fire and the many additional fires that burned throughout the province this year. Our expedition was led by club member Andrée Morneault, who works as a silviculture forester for Nipissing Forest Resource Management.

Fred Pinto

Once we got to the fire site, we stopped at a completely burned area where Andrée showed us an image of the fire areas from photos taken during a fly-over. From it, we saw that the fire had completely burned some areas; only partially burned other areas; while some were not burned at all. Nipissing Forest Resource Management, the company responsible for managing forestry activities in this area, will regenerate some areas by aerial dropping of seeds and regenerate other areas by manual planting.

Our first walk-in site was a Red Pine area (pictured above) that had been planted about 30 years ago. Most of the pines did not survive the fire, but on the burnt and charred trees were White-spotted Sawyer Beetles and Black-backed Woodpeckers. White-spotted Sawyer Beetles quickly inhabit burnt trees, as do Black-backed Woodpeckers (photo at left) which feed on the beetles by flicking off the bark of the burned pines. The black backs of these woodpeckers act as a camouflage against the charred bark of the burnt conifers.

Unlike other native woodpeckers, Black-backed Woodpeckers build their nests preferentially in conifers. (Fred Pinto counted over 15 Black-backed Woodpeckers!)

This site also had other signs of life returning to it (photo at right**)** - other bird species, moose scat and tracks, liverworts, mosses and some herbaceous plants. Another standout feature of the burnt forest was the soil or lack thereof. Because fire burns the organic matter, many trees, especially the ones on higher ground or on rocks, had their roots nearly fully exposed (photo below). Although not all these trees died in the fire, now that there is little holding them to the ground, they will likely get blown over.

Fred Pinto

Katie Tripp

The effects of firefighting were also visible. Smaller trees and shrubs were flattened to the ground from the power of the water dropped by water bombers, and soil was eroded from the hoses used by the ground firefighters as they worked to douse smoldering fires. These hoses are so powerful they can erode soil even more than fire can.

In another area, surrounded by a pond, many of the trees were still alive, the fire having jumped the water but continuing to burn on the other side. (See photo on the next page.) There were signs that the fire had passed through, but only on the surface. This could be due to less intensity, perhaps less fuel, more moisture or a barrier that was formed by the water body.

Surface fires travel along the forest floor and do not reach the crowns of trees, instead only burning the woody debris, herbaceous layer and shrub layer. One way that surface fires transform into crown fires is if the understory reaches the branches of the overstory. In this particular area, there is visual evidence of the fire from fire scars and charred bark on the trees.

Sarah Wheelan

Fires tend to travel upslope and as they move through the forest, the heat vortexes on the leeward side of trees can leave scars commonly shaped like an upside down V. The height of these scars can vary from ankle height to several metres above the ground.

For lunch, we drove to a new site, one that hadn't been burnt. We made a small bonfire to warm ourselves. Although it was fairly mild out, the wind was quite noticeable, likely because of the lack of vegetation protection. We took advantage of the fire to roast marshmallows!

We next ventured to a site that had been cut using the shelterwood method. The purpose of shelterwood cutting is to emulate the effect a surface fire or another natural disturbance has on a stand. This area had been managed as a uniform shelterwood, in that the canopy was uniformly opened up to create the microclimate that supports the germination of White Pine seeds. There was a regeneration cut in 1997 to remove thin bark species that likely would have been killed in a fire. This left natural regeneration to a White Pine/Red Pine mix. A second cut in 2015 provided more light for the regeneration that had established after the 1997 cut.

The shelterwood method is used in White Pine dominated stands to emulate moderate intensity fire. White Pine is a species, like Red Pine, which is well-adapted to moderate intensity fires, and is a species that is likely to regenerate under 40-50% sunlight. Site preparation is also done to remove organic litter to expose soils the way a fire would. This is done because Red and White Pine seeds germinate best on bare soils.

In the photo at right of Andrée and Fred in the shelterwood area, you can see the overstory of the White Pine and the pine regeneration. Andrée is responsible for prescribing regeneration treatments in this forest. Fred is the forester who developed the guidelines that foresters in Ontario use to regenerate White Pine and other species.

Courtesy of Fred Pinto

The next site we visited was an area that had been salvage logged, i.e. dead and fire-damaged trees had been removed**.** The regeneration was killed by the fire and the remaining overstory was cut before too much decay made it impossible to log and process. **(**Only trees with more than 75% of their crown scorched are harvested.) This area will be planted in 2019 to 80% Red Pine and 20% White Pine.

The final site we visited was a Jack Pine stand. Jack Pine cones can open and release their seeds only with heat, either from very hot summer days or from fires. At this site, we could the see the open cones on the trees and on the ground, with a few Jack Pine seedlings popping up through the soil.

Thanks to Andrée, it was a fun day with lots of learning, walking in beautiful forest burnt or not, bird watching and many group pictures, one seen below.

Sarah Wheelan

Kaye Edmonds

Sittin' in the morning sun…

Part 1: Why turtles bask

By Paul Smylie

Late this past summer an initiative by Friends of Laurier Woods' Director, Lori Beckerton, was finally realized. Lori, an observant naturalist, has long known that the ponds and marshes of Laurier Woods are prime habitat for the three species of turtle most often encountered in these parts.

In Laurier Woods, the turtle that you will most likely encounter is the Midland Painted Turtle (*Chrysemis picta marginata)*; seen only rarely is the Common Snapping Turtle (*Chelydra serpentine)*, that prehistoric denizen of swamps and marshes and the stuff of Mother Goose nightmares; and seen somewhat less frequently than the other common local turtles is the shy and gentle Blanding's Turtle (*Emydoidea blandingi*). (The photo of the Common Snapping Turtle at right was taken in Laurier Woods in May 2013.)

Renee Levesque

There are eight species of turtle native to Ontario, and all, even the Midland Painted, have been deemed to be at risk. Just

recently, the Midland Painted, the most ubiquitous shelled reptile that you often see perched in groups along a log soaking up the rays, has been deemed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as Special Concern. This means that even this turtle, that up until now seemed to be almost immune to habitat loss and meeting its demise crossing highways, now requires special protection.

Watercolour by Paul Smylie

Because it is a poikilothermic ectotherm, the temperature of a turtle will change with its surrounding environment. In these parts, maintaining a constant body temperature as an ectotherm (homeothermic ectothermy) is not an option unless you've been fortunate enough to have been scooped away from your home to live in a temperature-controlled terrarium amongst the chaos and mess that is a child's bedroom. For those rugged individuals who are still toughing it out in the wild, there is little heat to be had in local ponds and marshes once the bell tolls the end of summer.

Around mid-October, a turtle's metabolism slows down as the water cools. This means it requires less food and less oxygen. Fortunately, there is an inverse

correlation with water temperature and the amount of oxygen that will dissolve in it. Colder water holds more oxygen.

Getting back to Laurier Woods, Lori proposed the idea to the Board Members of the Friends of Laurier Woods that it might be a good idea to provide more basking sites for the turtles of Laurier Woods. It had been observed recently that some of the more commonly used basking logs, especially in the back Arum Pond, are no longer there. With the aid of a few intrepid swamp enthusiasts and a somewhat less than stable canoe (right), a seven-foot cedar log was installed in Arum Pond and in each of the main ponds.

Kaye Edmonds

But why do turtles to bask? Are they not just out relaxing and soaking up some rays like many of us enjoy doing on a hot summer's day at the beach? No sirree Bub! Basking is serious stuff. Like all behaviours that animals exhibit, there can always be found a reason for it, and that reason, although not necessarily obvious at first, is always linked to survival or reproduction.

Being ectothermic, a turtle's metabolic rate is positively correlated to body temperature which is determined by the surrounding ambient temperature. By increasing the metabolic rate, turtles are able to feed and digest and grow faster, thus increasing their chances of survival. They will also have more energy to look for mates.

As with any behaviour, there is always a cost-benefit. Basking takes time away from other activities, such as feeding and mate searching, that are directly related to fitness (on a biological and not individual level). By basking, turtles are also exposing themselves to predation. This implies that there must be a benefit to basking behaviour, otherwise those individuals that waste their time basking, just winding down at their favourite spot on a log, waiting for Juan the Otter to bring them a pina colada, would soon be selected out and the behaviour would no longer persist. Unlike humans, where modern medicine has allowed us the luxury of engaging in a myriad of unhealthy behaviours, in the dog-eat-dog world of nature,

natural selection ensures that you don't see many turtles plying themselves with various intoxicants. They just don't have that luxury.

Turtles do most of their basking in the spring months, May and June in this area. This makes sense because water temperatures are still cool, and instead of waiting for the water to warm up, a turtle can get a jump on our relatively short swimming season. Basking is most likely to occur when the temperature difference between the air and water is at its greatest. In other words, the best time to see basking Painted Turtles is on a warm, early spring day, just as the ice comes off the pond. It's not surprising then that one warm morning in April a few years ago, only days after the ice opened up, I counted 65 Painted Turtles basking in Arum Pond.

Apart from simply increasing metabolism, which allows for optimization of feeding and digestive activities, there are a number of other advantages to basking. It is thought that basking will rid turtles of external parasites, including leeches, some species of which seem to have a preference for turtles.

Basking may create fever conditions to fight infections, similar to the fever humans experience when fighting a virus. The fever is a response by the immune system to usurp the nasty little bug by creating unsuitable conditions for its survival. To fight an infection, research indicates that turtles will bask to increase their body temperature by 5 degrees Celsius above normal.

Vitamin metabolism is thought to be another role in which basking is involved. Laboratory studies with Painted Turtles found that growth rates were determined more by basking frequency than by food provision. This speaks to the importance of basking behaviour in turtles.

Editor' Note: Part 2 to run in January's issue will focus on the temperature of turtles.

Paul Smylie

A tale of two chimneys

By Fred Pinto

Courtesy of Ottawa Field-Naturalists' Club

The City of North Bay used to have the largest Chimney Swift roost in Ontario. When the roost was first discovered, over 2,000 birds were observed roosting in one downtown chimney. Unfortunately, the number of Chimney Swifts arriving in North Bay each spring from their southern overwintering grounds has dramatically declined over the years. In 2017, using North Bay's major roost chimney, 97 to 472 Chimney Swifts were observed, and in 2018, 3 to 152 Chimney Swifts were observed. (These numbers are from the official SwiftWatch count days.)

Nipissing Naturalists have been discussing what, if anything, can be done to help reduce the decline of the local populations of Chimney Swifts.

One strategy that several people have mentioned is to build artificial chimneys, assuming that one of the factors causing the decline of the Chimney Swifts is the reduction of roosts. But there is very little evidence that these stand-alone structures are effective. However, we recently became aware of two artificial chimneys that are actually being used by Chimney Swifts. One chimney, a roost chimney, is located in Shawville, Quebec, and the other, a nesting chimney, is located in Etobicoke, Ontario.

The Shawville chimney (above) was rebuilt beside an old chimney that had been previously shortened and capped. See: https://ofnc.ca/news/for-a-swift-return-campaign-to-rebuild-chimney-a-success.

The original chimney in Etobicoke was on a school that had been torn down in 2016 and the land converted to a housing subdivision. Diane Scott, a local resident, was instrumental in identifying the original chimney as a nesting site and campaigning for a stand-alone chimney to be built.

The new stand-alone structure, made with concrete blocks, was completed in April 2017. (Pictured below is Diane standing by the stand-alone chimney.) On May 16 of that year, Diane observed 3 Chimney Swifts using the new structure. Later in the summer, she observed 7 Chimney Swifts using it. The assumption is that a mating couple plus a helper used the structure to raise a family of 4 young.

Although there is a report that describes the characteristics of chimneys that are known to be used by Chimney Swifts in Ontario and Quebec, this information was not used in the building of the Etobicoke chimney. What the land developers did was use the dimensions of the old chimney to build the new structure. It is located within 250 metres (820 feet) of the former chimney and is about 10 metres (33 feet) in height.

Fred Pinto

There are many unanswered question related to the decline of Chimney Swifts and other birds that feed on airborne insects. In terms of Chimney Swifts, while the number of chimneys used as roosts have declined in North America, there is little evidence to suggest that this is a major reason for the continent-wide decline in their numbers.

In North Bay we are concerned about roost chimneys because there is only one main one left in the downtown core. One strategy is to work with public landowners to reopen suitable chimneys close to Lake Nipissing because the lake still produces a large amount of the airborne insects on which Chimney Swifts feed.

Those lovely little acrobats

By Melanie Alkins, 2018 SwiftWatch Coordinator

Kaye Edmonds

As Fred Pinto states in the previous article, North Bay was home to what was once one of the largest Chimney Swift roosts in Ontario. For years, these lovely little acrobats were finding their homes and resting places here in the City and in surrounding areas. But Chimney Swifts have been declining in numbers. The cause of their demise has yet to be pinpointed with exact certainty, but there are assumptions that are currently under investigation.

Thanks to Nipissing Naturalists and some of our fearless birding leaders, like Dick Tafel, Vic Rizzo and Grant McKercher, what is known as the Main Street West roost has not been forgotten. The promotion of the importance of this roost and the monitoring of it has been passed along from one generation of Naturalists to the next.

As such, this year, after being lured into the roost last year and finally experiencing the phenomenal dance of these lovely little creatures, I was hooked and took on the role of coordinating the official Ontario SwiftWatch count this year for the City of North Bay on behalf of Nipissing Naturalists. In addition to participating in a citizen science project that will help us get a better understanding of the species, my goal was to raise awareness on the species locally by engaging fellow naturalists and birders to join in and to collect a full year of data points at the Main Street West roost as a baseline/reference point for future years.

This year, we monitored the Main Street West roost during the four official count dates as stipulated by Bird Studies Canada, plus an optional early spring count date, and we also looked at three more locations, thanks to April McCrum. These locations, possibly nesting sites, were put on the Ontario SwiftWatch map and were monitored for portions of the count.

Jim McCulloch, Wikimedia Commons

The following table summarizes the numbers recorded on each date at each of the locations:

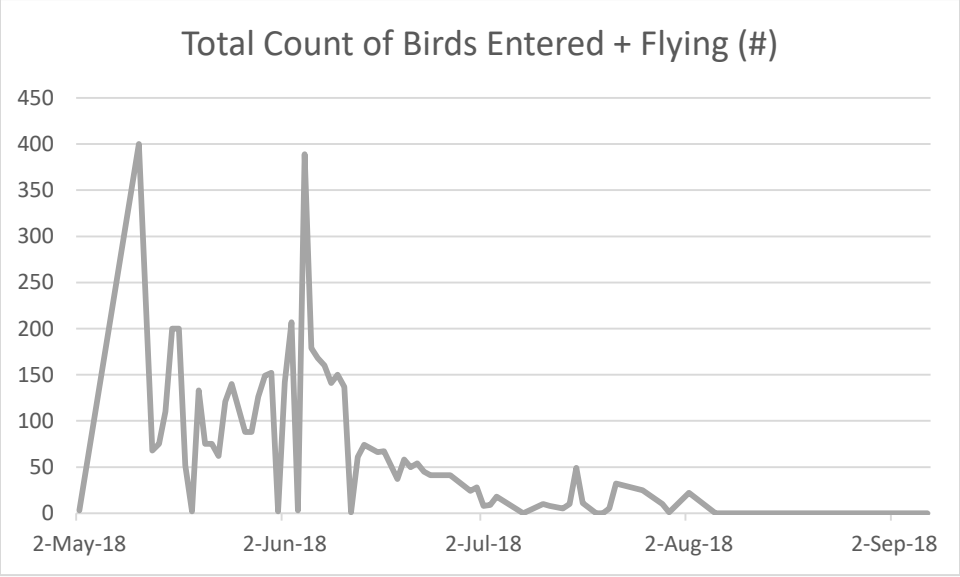
2018 Ontario SwiftWatch Official Counts – City of North Bay

	17-May	23-May	27-May	31-May	04-Jun
Main St W	200	62	88	152	3
Royal Theatre N	n/a	n/a	2	0	n/a
Royal Theatre S	n/a	n/a	1	0	n/a
Main St E	n/a	0	0	2	0

*n/a = no data available, as a count was not completed

Additionally, we were able to successfully monitor the Main Street West roost for a good portion of the season to provide a trend line on the arrival, peaks, lows and departure times of the Chimney Swifts.

The graph below illustrates the trends we observed this year at the Main Street West roost. Key dates to note: The swifts were first recorded on May 2; peak numbers were recorded on May 11 and June 5; and the departure this year seemed to occur the first week of August (August 6), after which no Chimney Swifts were observed at the roost through to September 7.



The volunteer and interest activity at the Main Street West roost was notable this year! We had over 30 volunteers help us count the swifts, and many interested citizens came out to observe the swifts courting in their V-shaped flight pattern and to watch them circling in mass overhead prior to fluttering their awkward way into the chimney.

We even had the superintendent of the building up at the wee hours of dawn timing the early morning departure of the swifts. It was also great to have some of the occupants of the building join us, sharing with us their admiration for these remarkable birds.

There are many observers who helped out this year: Michael Arthurs, Allison Bannister, Lori Beckerton, Anne Bentley, Christine Charette, Coco, Daniel Currie, Heaven-lee Grace Bosum, Riley Cormier, Kevan Cowcill, Clifford Cowcill, Brigitte Delguidice, Kaye Edmonds, Lucy Emmot, Jim Hasler, Julie Falsetti and her mother, Liz Irvin, Amanda Lanno, Taylor, Noah and Lyn Lefebvre, April McCrum, Grant McKercher, Tristan Michael, Fred Pinto, Oriana Pokorny, Erin Pond, Annette Shecapio-Blacksmith, Dick Tafel and Michelle Wapachee.

Thank you**.** Without your dedication and time, this would not have been such a successful year.

A special shout-out must go to Kaye Edmonds, Lori Beckerton and Jim Hasler for the countless hours they spent at the roost, counting and photographing the birds. There is a camaraderie that comes with spending so much time together passionately doing something for the greater good. For me, these were days definitely well-lived.

Even though this year has come to an end and our feathered friends have headed south, we are still thinking of them and will continue doing so over the course of the winter. Future projects that will build off the work that we completed this year will include:

> Finding **Chimney Swift Champions** in Callander, Powassan, Mattawa, West Nipissing, Dokis First Nation and any of the other surrounding communities where Chimney Swifts can be found.
>
> Finding a **Research Partner** who may be interested in banding the birds at the Main Street West roost so we can track the swifts to see where they are dispersing over the course of the season and where they are nesting, foraging and roosting outside of the Main Street West roost.
>
> Continuing to s**pread the word on the status of Chimney Swifts and how we can co-exist –** in other words**,** what we can all do to support the recovery of the species in our communities and on our properties. Examples of this include keeping old chimneys open; becoming pollinator-friendly – airborne insects are the main food source of Chimney Swifts; reporting any active roosts to our local Naturalists, to iNaturalist, or to Bird Studies Canada in support of citizen science that will help scientists and the general population better understand the species and their needs.

Because I will be focusing my efforts on pollinator projects, Allison Bannister will become the Chimney Swift leader. She is a Biologist and has some previous research experience working with the species. Allison welcomes any support you may wish to offer and looks forward to working on identified projects and activities with Nipissing Naturalists Club.

With that, may the wind be at your back, the sunshine warm on your face and the snow plentiful for you to enjoy playing outside this winter! See you on the trails, slopes or ice! Thanks for all of your support this season. The Chimney Swifts will be better off for it!

Editor's Note: A meeting to discuss what some of the projects and activities could be was held on November 29 in the board room of the North Bay Police Station. If you did not make it to the meeting, but want to help or become involved in any way, even counting swifts come next spring, please contact Allison at Allison.Bannister@ontario.ca.

For the last three years, SwiftWatch articles written by Grant McKercher, April McCrum and me have appeared in The Woodland Observer. If you wish to review these articles, you will find them in the July 2016, May 2017, September 2017 and September 2018 editions. Also, every year for some years now, Chimney Swift activity has been highlighted in the Bird Wing reports and many Bird Wing members and bird watchers report their findings on eBird.

Waiting for the Swifts, May 2013, Renee Levesque

Winter wildlife signs at Mikisew

Text and photos by Sonje Bols, who spent last winter working out of Mikisew Provincial Park

We are very fortunate to enjoy long winters with plenty of opportunities for winter recreation and enjoyment in the area. Canada Jays, Pine Marten, Moose, crossbills, Spruce Grouse and other Northern specialties are at our doorstep, and there are a myriad of provincial parks, conservation areas and crown lands to explore. There are many winter wildlife viewing opportunities found at Mikisew Provincial Park, a small, scenic park on the Western shore of Eagle Lake, just 15 minutes from South River.

While many of us may make the drive to Algonquin Park for winter wildlife sightings, Mikisew makes a fantastic destination for those looking for a quieter experience. Its empty snow-covered campgrounds are ideal for animal tracking, and its four short hiking trails make for decent winter birding.

The campgrounds are filled with Yellow Birch and Red and White Pine (photo at left), making them excellent places to look for winter finches – crossbills, redpolls and Pine Siskins, although this winter, as predicted, there may not be as many winter finches to be seen because of the low to poor cone and birch seed crops.

Ruffed Grouse are often seen on the roads approaching the park – Boundary and Eagle Lake Roads – and you may even get to see a Spruce Grouse.

Red Fox and Red Squirrel tracks abound, as do the tracks of the Snowshoe Hare and Pine Marten. Early December is an active time for beavers along the Beaver Meadow Trail where tracks and signs of feeding activity can be seen. In the photo at left, you can see a swath of cut-down saplings, and in the photo above, a felled trail sign tree, both signifying heavy feeding activity.

In addition to birch and pine trees, Mikisew has some of the largest Black Cherry trees I have seen in Northeastern Ontario. The specimen seen at right is on Maple Canyon Trail.

Bohemian Waxwing, Renee Levesque

The **North Bay** Christmas Bird Count (CBC) takes place on **Saturday, December 15**, and the **Burk's Falls** Christmas Bird Count on **Wednesday, December 19.**

If you are interested in participating in the North Bay CBC either as a feeder counter, whereby you can report on the species and numbers seen from the comfort of your home as long as you are within a 24-km (15-mile) radius of North Bay, or if you are interested in becoming a field counter, **please contact Lori Anderson, compiler, as soon as possible at lori.anderson58@hotmail.com or 705-724-5780.**

Feeder watchers played a major role last year when the extreme cold, the frozen lakes and the

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

sheer amount of snow that fell just prior to our CBC date made walking access to some of our normal spots difficult. Could be the same this year judging by our early "winter".

If you are interested in taking part in the Burk's Falls CBC, **please 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 if North Bayites and those from surrounding areas wish to participate. Gary Sturge will lead a group around one section of Lake Bernard and Dan Burton, the other.

This year marks North Bay's 40th year and Burk's Falls 42nd 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. Designated routes within the count circle tend to stay the same from year to year. See https://www.nipnats.com/club-news/club-projects/christmas-bird-count/ for more details on how to participate.

Renee Levesque

Rare Nipissing sightings

By Renee Levesque

Cattle Egret: A Cattle Egret *(Bubulcus ibis*) (below**)** was first seen by Dick Tafel in the late afternoon of October 10 in the Optimist Club Field beside Palangio Arena. Dick called me and some others and I immediately jumped in the car and headed there. The light was still good enough to get some photos and see the egret well. Although I have seen Cattle Egrets in many other places, this was the first time I had seen one in our area.

Kaye Edmonds

This marked the third time Dick has seen a Cattle Egret in Nipissing. He saw one on Miramachi Road in November 1987, and one on nearby Bayview Road in October 2001. According to eBird, one was also seen on October 21, 2001, by Martin Parker who saw it off Ferguson Street between Second and Third Avenues, North Bay.

Dick also called Gary Chowns who made his way over to Palangio Arena, but it was too dark by the time he got there to see it well. However, the next day, Gary and Luanne Chowns saw it in Lee Park, as did Kaye Edmonds and Sandra Arseneault. Interestingly, new member, Buddy Miles, saw one a few days later in a field of cows off Hwy 64 in West Nipissing. Was it the same egret or a second one?

The Cattle Egret, a member of the heron family, often seen perched with its neck drawn in when not foraging, is a small, stocky, white egret with short, yellow legs in breeding plumage and black legs when not, as seen in Kaye's photo above. It has a thick, short neck and a straight, short, yellow bill, thicker than other herons**. (**The juvenile Cattle Egret has dark legs and a dark bill.)

Renee Levesque

In breeding plumage, which of course this particular one wasn't, it being October, it has golden plumes on its head, chest and back. (See photo above)

Originally from Africa, the Cattle Egret came to South America in 1877, and found its way to North America by 1941, nesting there by 1953. In North America, it is found mainly in the southern United States, although it has gradually spread out over the decades and is now the most abundant heron in North America. It prefers to winter in coastal areas in which temperatures do not fall below 5 degrees Celsius.

Its spread is as a result of being a versatile bird in terms of its feeding and breeding abilities. It has the ability to adapt to new areas and landscapes, and has gained foraging habitat with the spread of agriculture.

For foraging, unlike other herons, the Cattle Egret prefers agricultural areas as opposed to wetlands, but damp fields rather than dry fields. However, like other herons, it breeds in marshes and swamps, lakes and riverside wetlands, although it also breeds in upland farms. During migration, it will stop along shorelines as well as farm fields. It nests in dense breeding colonies, often with other heron species.

As its name implies, it likes to be around cattle. It tends to forage in flocks, eating insects stirred up in fields and pastures by cows and livestock. Sometimes it will perch on the backs of cattle,

eating ticks and other invertebrates, as seen in the photo at right. It feeds primarily on insects disturbed by large animals, tractors, mowers and fires, but will also get prey from wetlands. It particularly likes grasshoppers and crickets, but will eat other insects, as well as crayfish, fish, frogs, mice, songbirds, nestlings and eggs. (It has been seen in Florida hunting migrating warblers.) Predators of nestlings, juveniles and/or adults are grackles, crows, Great Horned and Barred Owls, Cooper's Hawks, Peregrine Falcons, Black-crowned Night-Herons, fire ants, foxes, raccoons and dogs.

From Lee's Birdwatching Adventures Plus

Carolina Wren: In mid-November, Don and Mary Mitchell on Besserer Road off the North Highway noticed a different bird at their suet feeder, one that looked obviously like a wren. So Mary got out her field guide and discovered to her surprise it was a Carolina Wren (*Thryothorus ludovicianus*) (right), a wren that frequents the eastern United States, but with the milder winters of recent years, has increasingly moved northward and can now be found in Southern Ontario.

Renee Levesque

It is not the first time this small, chunky bird has been seen in North Bay. Kaye Edmonds had one at her feeder for almost an entire winter in 2012-13, and Gary and Luanne Chowns had one in

their yard in March 2008. Many of us saw one or both of these Carolina Wrens, thanks to Kaye, Gary and Luanne. And this past July, new member, David Rooke, heard one in the shrubs near Seguin Beach. David did not get its photo, but did record its song, posted on eBird.

Both males and females of this species of wren have upperparts that are bright reddish brown and underparts that are a warm buffy colour. They have white chins and throats and long, wide, white eyebrows. They have long tails that they cock upwards when foraging and hold down when singing. You will hear them more often than you will see them, their song a repeated phrase of quick, whistled notes sounding like *tea-kettle, tea-kettle or germany-germany*. (The Florida population of the Carolina Wren is larger and stouter with darker chestnut above and deeper buffy colour below, perhaps rather like the one seen at the Mitchell's.)

With their long, slender, downcurved bills, Carolina Wrens are able to turn over decayed vegetation to look for insects and take apart large bugs. They move through shrubby, overgrown areas and up and down tree trunks in search of insects. They also feed on fruit pulp and seeds from bayberry, sweetgum and poison ivy. Occasionally, they will eat lizards, frogs and snakes. During the winter months, they like mealworms and suet feeders - and this was very evident at the Mitchell's and at Kaye's back in 2012-13.

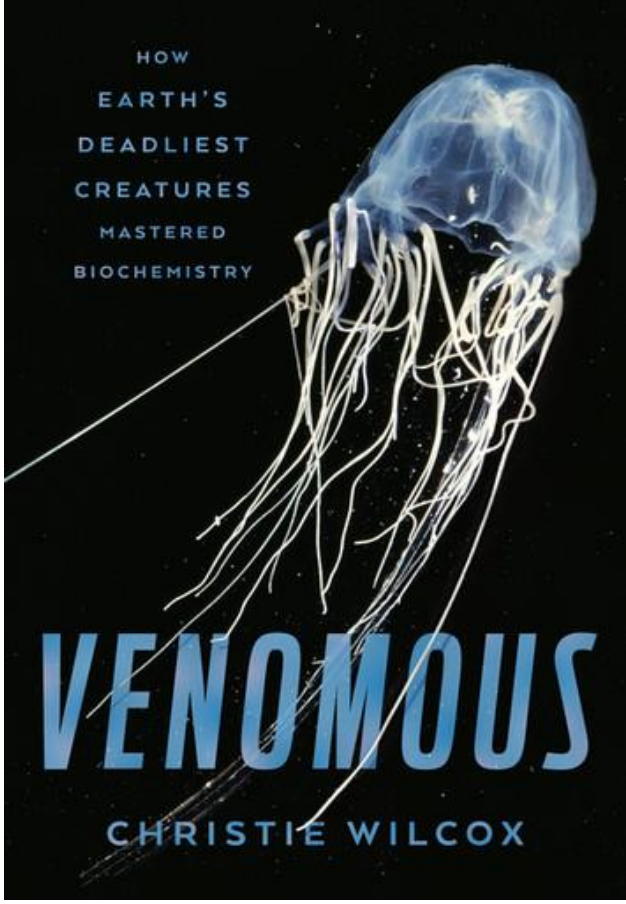
They like to nest in tangled understories, areas thick with vines and bushes, and in backyard brush and wood piles. But you will also find them nesting in hanging flower pots, abandoned hornet nests, other old nests, and even in garages, barns and other shelters. Two or three years ago, member Bev Kingdon had one nest in her front door wreath. (See photo below.) They will also nest in nest boxes, ones with slots rather than holes, and will take shelter in these boxes during the winter.

It is a common wren across its range, with a population increase between 1966 and 2015. Although it thrives throughout its range, icy and snowy winters reduce its population.

Source: All About Birds, Cornell Lab of Ornithology

Bev Kingdon

Book review



Venomous: How Earth's Deadliest Creatures Mastered Biochemistry
By Christie Wilcox
Scientific American / Farrar, Straus and Giroux (Aug. 9 2016)
256 pages

By Chris Connors

Absolutely fascinating on many levels is a good summary of this book. The creatures, the history of toxins and research, the eccentric characters who work with venoms, the sometimes gruesome ways these toxins can break down our bodies and the biomedical research from toxins are all fascinating and intensely interesting.

Every one of us has encountered a venomous creature, if only mosquitoes, bees and wasps. What we mostly overlook is the wondrous complexity of the chemical cocktail even these simplest of venomous creatures produce. Granted, if you're stung by a wasp your first thoughts are usually not fit for polite society, much less thoughts that marvel over the details of how these injected proteins engage in a coordinated attack on our cells, blood vessels and nervous system.

We are introduced to species you may not have known were venomous, such as the male Platypus (below) with his venomous spurs. It has 83 different toxin genes, some of whose proteins are similar to proteins from spiders, sea stars, anemones, snakes, fish and lizards ("*as if someone cut and pasted genes from the entire diversity of venomous life into the platypus's genome*"). By all accounts being envenomed by a Platypus is a life-changing traumatic experience. Its venom causes excruciating pain for hours and even days. A war veteran was hospitalized for six days in agony with pain worse than shrapnel wounds

Klaus, Flicker – Wikimedia

In between cringing in sympathetic pain for people who have had the misfortune to be injected, we get bits of natural history. The Platypus, for example, was considered not to be venomous until nearly the 1900s. We now know that Platypus toxicity is seasonal and the strongest strains of it are produced

during mating season when males use the venom to fight for females.

We learn what motivated some people to study venomous creatures. A newly minted PhD student, Angel Yanagihara, was stung by Box Jellyfish while swimming and was bedridden for days with welts lasting for months. As a result, she became morbidly curious as to what almost killed her and began studying Box Jellyfish toxins, something she has now been doing for over 20 years.

Bill Haast, the director of the Miami Serpentarium which produces venom for pharmaceuticals and anti-venom for life-saving procedures, injected himself with dozens of different venoms at once to give himself immunity to toxins. He donated his blood to bite victims when anti-venom wasn't available. He believed venom improved his immune system, and then lived to the age of 100 to prove it to those who doubted him!

Entomologist Justin Schmidt deliberately lets things bite or sting him so he can develop the Schmidt Pain Index which rates the pain of stings from 0.0 (harmless) to 4.0 (unfathomable agony). The Bald-faced Hornet, which we have around here, he rated as 2.0, and the Tarantula Hawk, which happily we don't have around here, he rated 4.0. The highest rated pain is the Bullet Ant, rated at over 4.

The book explains how various venoms work, some of which produce deadly results, and provides some good background on immunology and cell biology. Most of it can be followed by someone with a bit of background in these areas, but can be skipped over without losing any of the messages of the book.

As expected, researchers are finding a plethora of medical treatments in the toxins of these venomous creatures. The most well-known ones are the anticoagulants from leeches, which have been used for centuries, albeit not always productively. Dozens of anticoagulants have been isolated from leeches alone, with more than 60 bioactive compounds that can reduce chances of transplant tissue rejection, treat varicose veins, improve circulation in new tissues and used during surgeries like angioplasty.

The venom of the Gila Monster (below) has led to several diabetes treatments, and can possibly be used to treat Alzheimer's. Sea anemone venom is being tested for autoimmune disorders; tarantula venom for muscular dystrophy; shrew venom for cancer cells; centipede venom for epilepsy treatment; and scorpion "tumour paint" to identify cancers for complete removal during surgery –

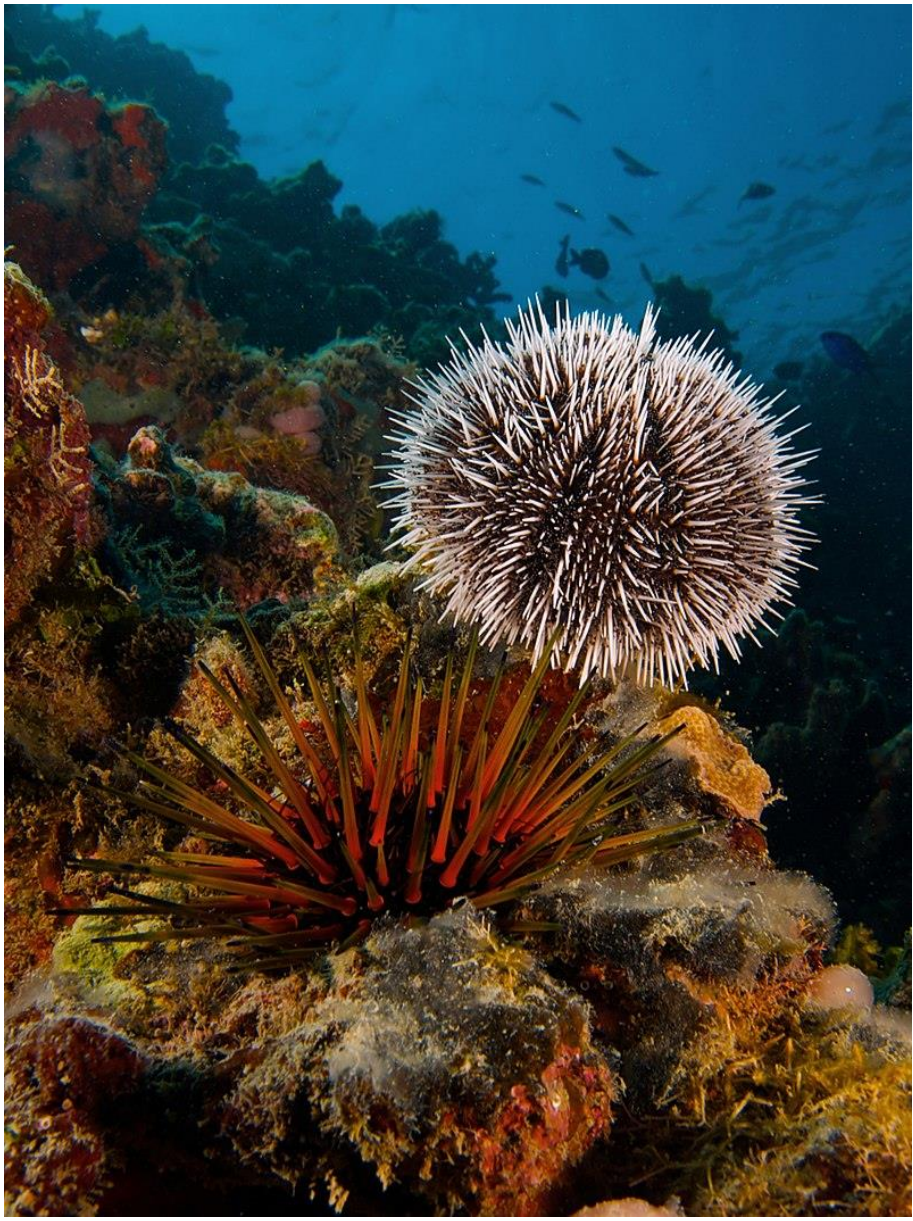
Josh Chandler, Wikimedia Commons

extremely important for childhood brain tumours. Despite this, the potential for medical treatments has barely scratched the surface. For example, the cone snail (death by quick paralysis) is not just a few paralytic toxins but an "*incredibly complex diverse pharmacological mix*". Even though Scientist Baldomero Olivera has studied the Cone Snail for over 50 years, it still remains a rich source of new toxin sequences.

The drug known as Prialt (a non-narcotic pain reliever when other medications can't control the pain) came as a result of the work done by one of Olivera's students whose work was based only upon one of the many compounds found in one snail. Now consider that each cone snail species has its own unique set of toxins - and there are more than 500 species in the genus *Conus* - and then add to that the more than 10,000 venomous marine snail species with a few hundred to several thousand different toxins. And further to those, add marine snail species, the biodiverse turrid snails, for example, that have never been studied in the lab. This would bring the venom peptide count to anywhere from 300,000 to 30 million different toxic peptides waiting to be discovered and sequenced, and to possibly provide new medical treatments.

The author concludes, *"There are species on this planet that we've never seen. They live in lands and seas that no human has ever explored, and they are struggling to survive in a world unknown to us. … Every species on this planet tells a story, an evolutionary novel packed with generations upon generations of knowledge. Letting those species disappear is like setting fire to every library on earth. All the information we could ever ask for—the key to understanding life itself—is right here. Snakes, spiders, and scorpions, bees and wasps and ants, jellies, fish, urchins, and octopuses, even the bizarre platypus: millions of years of trial and error, data we can never even hope to accrue on our own, will be nothing if we don't preserve the stunning biodiversity of this planet, and by doing so, safeguard biochemical riches."*

Editor's Note: For further information on venomous creatures and Christie Wilcox, see the website, biographic: https://www.biographic.com/posts/sto/venomous-weaponry.



Sea Egg (top) and Reef Urchin, Nick Hobgood, Wikimedia Commons

Speaker to talk on major forest pests

Forest Tent Caterpillar pupae

Chris McVeety, Forest Health Technician, Ministry of Natural Resources and Forestry, North Bay, will be the speaker at December's meeting to be held on December 11, starting at 7:00 p.m., at our new location, 176 Lakeshore Drive, the northeast corner of Lakeshore and Gertrude in the former Tweedsmuir Elementary Public School.

Photos courtesy of Chris McVeety

Chris will be talking to us about major pests and disturbances that have been detected this season in the forests of North Bay district. These pests include Spruce Budworm, Forest Tent Caterpillar (seen above), as well as smaller pests. Chris will also cover such issues as Dutch elm disease; White-Spotted Sawyer Beetle (larvae of beetle at right) in conjunction with the fires in our area this past summer; Ips engraver Pine Beetle; Emerald Ash Borer; and how the Forest Tent Caterpillar and White-Spotted Sawyer Beetle impact some woodpeckers.

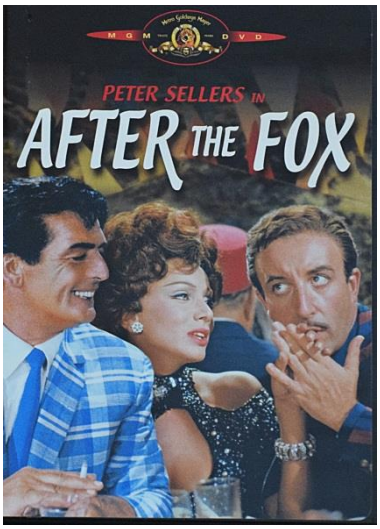
During the growing season, Chris conducts surveys to identify and map the location of forest insects and diseases. You may remember Chris from his presentation last December. Unfortunately there was a storm last December 12 when Chris spoke and many were not able to attend. However, Chris wrote a very informative article for the newsletter. You might want to re-read that in the March 2018 issue, found at https://www.nipnats.com/newsletters/.

AGM, pot luck and silent auction

Photos by Kaye Edmonds and Renee Levesque

The New Year starts off for Nipissing Naturalists Club with our **Annual General Meeting, held this year on January 8 at our new Club location, 175 Lakeshore Drive starting at 6:00 p.m.** As always, there will be a potluck dinner prior to the meeting and a silent auction after the meeting.

For the pot luck, please bring a prepared dish or food of your choice. Somehow it all works out as potlucks tend to and we are not faced with just desserts or just rolls. Also bring your own plate, utensils and cup.



For the auction, you can donate whatever you wish. It does not have to be nature-related. It can be anything - well within reason and appropriate – like the Blu-ray DVD of Peter Sellers in *After the Fox;* Dan Needles' entertaining book of rural life, *True Confessions From the Ninth Concession;* Kaye's handmade tic-tac-toe; and a door draft. (Three of these items are pictured on this page.)

Donations are to be brought to the meeting room the night of the AGM. Volunteers somehow manage to get the donations displayed for all to see, so you can bid on your favourite item or items to help raise money for the Club.

The AGM is always a fun time and it is good to hear what we have done during the year. As time passes, we often forget the many things we did, the outings we had and the events in which we took part..

THE WOODLAND OBSERVER

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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 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's website, https://www.nipnats.com/newsletters/. **Editor:** Renee Levesque: rlevesque1948@gmail.com.

Contributors this issue: Melanie Alkins, Lori Anderson, Sonje Bols, Chris Connors, Kaye Edmonds, Bev Kingdon, Renee Levesque, Chris McVeety, Andrée Morneault, Fred Pinto, Paul Smylie, Katie Tripp and Sarah Wheelan. Thanks to the Ottawa Field-Naturalists' Club for use of the photo of the Shawville chimney.

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 fees 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, Bird Wing meetings from November through to April, with the exception of January, will be held at Laporte's Nursery, 1054 Lakeshore Drive, North Bay. January's meeting will take place in the board room of the North Bay Police Station.

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