



Table of Contents

President’s Message	2
Talks	3
Walks.....	4
Report on Evening Walks for 2021 – SPN & Halton/North Peel Naturalists ..	5
Red-tailed Visitor	6
Ontario Breeding Bird Atlas – report from the field.....	7
Masthead Photo	9
Web-forming Moths	10
Tying Up the Loose Ends.....	13
Birdfeeders	16
Wasp Reconciliation	18
Reflecting on Good Intentions	20
Wetland Wildlife Photo Quiz	25
From the Web	26
Quiz Answers.....	26
Halton/North Peel Naturalist Club.....	27
Halton/North Peel Naturalist Club Membership Form.....	28

President's Message

As the warm days of summer unfold and September approaches, we are excitedly looking forward to the start of a new Club season.

At this time of the year, bird and insect migration has begun, with shorebirds, warblers and other birds having begun to head south, late-summer flowers and fruits abound, and gardeners and farmers are busily harvesting their bounty. A wonderful season to appreciate the ripening of so much in the natural world.

This issue of the newsletter includes information on the upcoming season as well as the always-excellent articles and spectacular photography we have all come to expect.

This issue's subjects are wide-ranging as ever, including the fascinating world of Web-forming Moths, the uses of natural fibers in crafts like basket making and birch bark canoes, handy tips on bird feeder use, the many varieties of wasps (timely, in the late summer!), the Monday evening walks and wetland wildlife.

The summer break has been a busy one, with members continuing to be busy on projects like the McNab Pollinator Garden in Norval - which was successfully established in 2020 and is being expanded this year. The members and volunteers involved have been working hard on it and it continues to be a huge success!

Looking ahead, while we plan to resume in-person meetings as soon as it is feasible, the vagaries of covid are such that we shall have to continue to hold virtual meetings for a while longer. Look for the zoom link for the September meeting to be sent via email in the coming days.

Have a read through your newsletter and I look forward to seeing you at the meeting!

Yves Scholten

Talks and Walks

Talks

As you know your executive will continue to hold Zoom meetings online for the time being. Meetings will still begin at 7:30 pm on the second Tuesday of the month. You'll be treated to a captivating presentation as listed below. Zoom login details and information will be sent out closer to each event date. A half hour business meeting, hosted by our president, Yves Scholten, will follow the presentation. We hope you'll join us!

Note: If you wish some support from Alexis to ensure your Zoom connection is functioning smoothly, please log in to zoom at 7:20 pm, prior to the meeting, for helpful zoom tips.

Zoom meeting Tuesday, September 14, 2021 at 7:30 pm

Club member Don Scallen: Fish Tales!

This region is home to scores of fish species from endangered Redside Dace to stunning Brook Trout. Their colour and diversity rivals that of birds and butterflies. With underwater video Don will introduce you to some of these fish and tell tales about their natural history.



Zoom meeting Tuesday, October 12, 2021 at 7:30 pm

TBA

Watch your inbox for details of this presentation closer to the date.

Zoom meeting Tuesday, November 9, 2021 at 7:30 pm

Aki Tanaka: Climate Change

Club member Aki Tanaka will speak on Climate Change. More information to follow in an email closer to the date.

Walks

As indicated below, **please confirm your spot for each outing** so that we can adhere to Covid safety protocols.

Sunday, September 12: Flowers and Fall Warblers, Norval area. We will meet at the parking lot for Willow Park Ecology Centre at 2:00 pm and explore the park and riverside. Later we will go to McNab to visit the pollinator garden, and lastly to the storm-water retention pond on 10th Line and 10th Sideroad to look for migrants. Leaders Fiona Reid and Ian Jarvie. Please contact Fiona (fiona.reid7243@gmail.com) to confirm your spot.

Saturday October 2: Scotch Block Reservoir and St Helena Road. Meet at 9:30 am south of Scotch Block on the dirt road that parallels the railroad track. We will check the reservoir for ducks and other waterfowl. Later we will drive to St Helena Road and hike into the first large pond, where we may see other waterbirds and some songbirds. The fall foliage should be good too. Leaders Fiona Reid and Ian Jarvie. Please contact Fiona (fiona.reid7243@gmail.com) to confirm your spot.

October Salamander watching. Date TBA. We have found that salamander activity can be quite impressive in early October, if conditions are right - a warm, wet night is best. Leaders Fiona Reid and Don Scallen. If you would like to be notified about an outing please contact Don (dscallen@cogeco.ca).

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A group of rogues captured at the amazing McNab Wildflower Garden in Norval. Kudos to Fiona Reid and Katherine Shaw for spearheading this initiative which has seen the planting of 70+ species of native wildflowers. In the image HNPNC VP for Life Ian Jarvie is telling a groanworthy Scottish yarn

whilst Fiona admires his buff ankles. Also present are Bill McIlveen dreaming of leaf miners with unpronounceable names, Katherine Shaw and Don Scallen (the only ones appropriately posed for the photo-shoot), and Helen Pinchen who appears beguiled by something flying overhead. Missing from the image is Helen of Troy (Helen Pettingill) the admirably patient photographer.



One of the McNab garden signs featuring Fiona's artwork.

Report on Evening Walks for 2021 – South Peel Naturalists and Halton/North Peel Naturalists

Article by W.D. McIlveen

It hardly needs mentioning that the COVID pandemic has caused a significant impact on the operations of many groups including our local naturalist clubs. This included the standard evening walk program which has operated for at least 30 years. In 2020, the entire summer walk program was cancelled although a few monitoring events were completed within the limits in effect that year. When 2021 started, we were optimistic that a walk program could be carried on. COVID interfered with the tentative program in that the first four events, namely trips to Iroquois Shoreline Woods, to Acton for the Acton Swift Watch, to Colonel William Parkway and to monitor the Scotsdale bird boxes, could not be carried out as part of the evening walk program. The restrictions were slightly relaxed for three weeks in June. With group limits of 10 people, we were able to conduct three events. Group limits were increased to 25 people at the beginning of July. This meant that we could carry out a fairly normal program for the last eight weeks!

During the summer of 2021, the evening walk program continued with a total of 11 evening walks between June 14 and August 23. As usual, all walks were done in various areas of Halton and Peel Regions as indicated in the following table. The names of the leaders and the numbers of participants on each walk are indicated. As in previous years, an attempt was made to balance the sites in the south and the north part of the area. Overall, there were 3 different leaders (Bill McIlveen, Fiona Reid, and Dawn Renfrew). The average attendance, even with participant limits in place, was slightly more than 10 which is higher than the average for the last few years. A demand for the program is certainly there.

Date	Location	Leader	Attendance
14-Jun	Creek Path Woods	Bill McIlveen	8 people
21-Jun	Morden Nelson Park	Bill McIlveen	8 people
28-Jun	Kerncliff Park, Waterdown	Bill McIlveen	7 people
5-Jul	Crozier Tract	Bill McIlveen	11 people
12-Jul	Britton Tract	Fiona Reid	11 people
19-Jul	Limehouse	Dawn Renfrew	8 people
26-Jul	Oak Park	Bill McIlveen	10 people
2-Aug	Hildebrandt Trail	Bill McIlveen	11 people
9-Aug	Swift Night Out	Bill McIlveen	14 people
16-Aug	Speyside	Fiona Reid	9 people
23-Aug	Ratray Marsh	Bill McIlveen	14 people

In the last several years, walks were timed to allow people to participate in two Chimney Swift watches at Acton and the former Oakville Trafalgar High School. The limitations in place prevented the first count from being done within the evening walk schedule but the count in Oakville did happen with a good crowd of observers! The results for the last seven years have been summarized in the SPN Newsletter. If you'd like to see those results, please e-mail Bill at wmcilveen@sympatico.ca to receive a copy.

As in previous years, the schedule included one walk at the Crozier Tract to maintain custodial responsibilities for that and the adjoining Hardy Tract, and one event to visit Rattray Marsh. The bird species tally at that last walk turned up 34 bird species including a Screech Owl and the target Common Nighthawks. In addition to the customary walk locations, a number of new locations were visited for the first time in 2021. This allowed people the opportunity to see new locations in the neighborhood that they might not have been familiar with. People were introduced to a variety of plants, animals and other creatures out in nature. A number of people new to the clubs were able to meet fellow members of the organizations.

Overall and in spite of the logistics and conditions that required some programing changes during the walk schedule, the participants apparently enjoyed the walks. We heard some good ideas to make future walks better. Due to the success of another year of evening walks, we hope that the program can be continued in 2022 (and beyond). We would like to hear suggestions for future walk destinations and would especially like to hear from people that are willing to act as walk leaders.

Red-tailed Visitor

W.D. McIlveen

Red-tailed Hawks are hardly a rare sighting in our area. They are typically seen sitting in trees at the edge of a woods or soaring over fields. It was therefore a considerable surprise to see a juvenile Red-tailed Hawk sitting on the railing of the deck at the kitchen door on August 12, 2021. My camera was not available at that moment. I was even more surprised when it returned to the same spot on, August 20. This time, by chance, the camera was available so I was able to get the attached picture. In the intervening time and afterwards, the bird made its presence known in and around the yard by making frequent short calls.



Ontario Breeding Bird Atlas – report from the field

Article by Fiona A. Reid & Photos by Ian Jarvie except where indicated.

After taking part in the Ontario Breeding Bird Atlas twenty years ago, I was excited to revisit old hotspots, and see what I could find this time around. Atlassing really appeals to me, as it is not about merely listing a bird, but trying to find evidence of breeding – is the bird carrying nesting material or food? Is it singing on territory? Best evidence of all, can I find a nest with young? Though I was a bit daunted at first with the online forms and online reporting, I eventually overcame my dinosaur mentality and started to actually enjoy reporting in the field on my phone, with a few exceptions.

It will be very interesting to compare the data obtained in the next 5 years with that of the previous 2001-2005 survey. I wonder if the advent of cell phones and apps for calls will produce more records, as it was not so easy to quickly play back a call and elicit a response from a bird during the last survey. I for one never carried tapes then. Though I must admit, my hearing was a lot better! I've found some changes in my 10 x 10 km square – the Dufferin Quarry has closed Town Line Road and excavated much of the prime old-field habitat that I loved to visit. But it has been very rewarding to return to some sites for quite rare birds and find them again. My location for Vesper Sparrow is exactly the same, and the ancestors of the ones I recorded in 2004 are still happily using that spot. Blackburnian Warblers, a rare bird in our area that I only located in one forest tract 18 years ago, are still breeding there, as confirmed by a male carrying caterpillars to its well-concealed young.





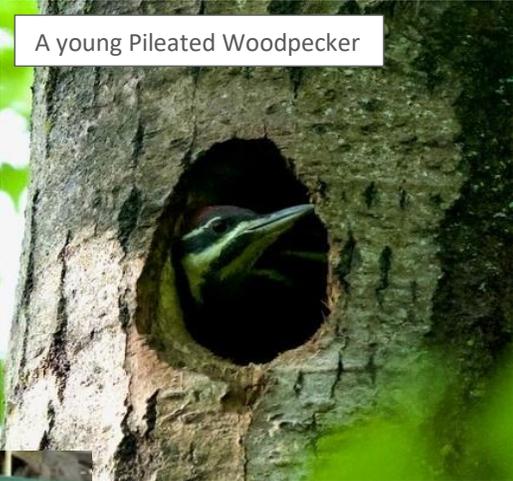
Hooded Warbler

Some of the uncommon species such as Hooded Warbler seem to be more common, as I found them in 4 locations this first season, whereas in the last survey it took me 4 years to find them on a single territory. Others, such as Canada Warbler, were sadly not rediscovered in the two spots where I saw them some 18 years ago.

As with all nature study, there is an element of serendipity. I was walking back through the Britton Tract forest after failing to find the Canada Warbler when I spotted a distant tree cavity. Checking with binoculars, a young Pileated Woodpecker was peering out! It was sheer luck I looked

up at that point, as the area was so leaf-covered there was only one place on the trail where the nest hole could be seen.

Another chance encounter came as I was pursuing a strange call, taking me off-trail and toward a marsh. All of a sudden, a Veery hopped up in front of me. I stopped, looked around, and at my feet was a perfect nest with 4 babies! The lessons learned: you may not find what you were



A young Pileated Woodpecker



Veery nest. Photo credit Fiona A. Reid

looking for but you could find something else, and of course if you are not out there looking, you would miss it all!

It is not too late to sign up for the atlas project. Even if you don't have your own square, you can contribute useful data from anywhere in the province – around your home or cottage, or anywhere you spend time exploring the forests, fields, and marshes around us.

Masthead Photo...

Darling Underwing, *Catocala cara*

Description and Photo by Fiona A. Reid

Underwing moths are well-camouflaged when only the upper wings are visible, but when disturbed they flash colorful underwings that are thought to resemble eyes of a predator. Many underwings have highly evocative common names: Sweetheart, Darling, Girlfriend, The Bride, The Betrothed, and the less fortunate Penitent, Dejected, Inconsolable, and Tearful! One can only wonder what was going on in the personal life of the scientist naming these moths! Darling Underwings are attracted to bait (banana and brown sugar, fermented to perfection) and may also visit lights at night. The caterpillars of these beautiful moths feed on willows. Adults can be seen from late July through September.



Web-forming Moths

Article and Photos by W.D. McIlveen

If one quickly thinks of an arthropod that produces a web, it would be no surprise if the first one to mind is a spider. Of course, spiders do produce webs of many sorts in our homes, among shrubs and other plants in our gardens, in the woods, and in the grass. The webs are most frequently used to trap prey but the silk is also used to manage egg sacs, to line tunnels, and to disperse the population via 'ballooning'. But spiders are far from alone in producing silk webs. Here in this group are many moths that create and utilize a similar silk material. Their skills are not always appreciated.

Silkworms

Upon a short reflection, readers will recall that it is silk moths that produce raw silk. Foremost in the group are the domestic silk moths. *Bombyx mori* has been domesticated for at least 5000 years and was widely used in China, Japan, and Korea. The domestication process has so altered the species biology that it would no longer be able to survive without the benefit of human intervention. Some related species have also been used in the production of silk thread. A few modest efforts have been made to create a silk industry in North America using our native species. While those species do produce silk, the human labour involved discourages any real attempts to get the industry in motion.

The list of native and introduced 'Silkworm' moths includes about 17 species in the moth family Saturniidae. This group includes the largest, most-spectacular moths that occur in our area. These are the Luna Moth (*Actias luna*), Polyphemus Moth (*Antheraea polyphemus*), Prometheus Moth (*Callosamia promethea*), and Cercropia Moth (*Hyalophora cercropia*).



Fig. 1. Cercropia Moth (*Hyalophora cercropia*) cocoon, Speyside, 2008

While these are not abundant, they can be found by diligent search. The other species in the group are smaller and no less spectacular but are rather rare in Ontario. As mature caterpillars, these moths spin a silken cocoon in which they spend the winter before transforming and emerging again as adults (Fig. 1). It is these cocoons that are the basis of the silk industry.



Fig. 2. Eastern Tent Caterpillar (*Malacasoma americanum*) Shanahan Tract, 2017

The next group of moths form fairly-conspicuous webs in the caterpillar stage. These webs are a form of defence for the caterpillars rather than for the pupae. Probably the earliest to appear each year are the webs formed by the Eastern Tent Caterpillar (*Malacasoma americanum*) (Fig. 2) and Forest Tent Caterpillar (*M. disstria*).

They usually create a dense web or tent in the branch of the tree or shrub where the mother moth laid the egg batch the previous year. The young caterpillars constantly produce silk and soon build up a nest where they spend the night. When they disperse to other parts of their host tree or shrub, they leave a silk trail that guides the caterpillar back to the nest at the end of the day.

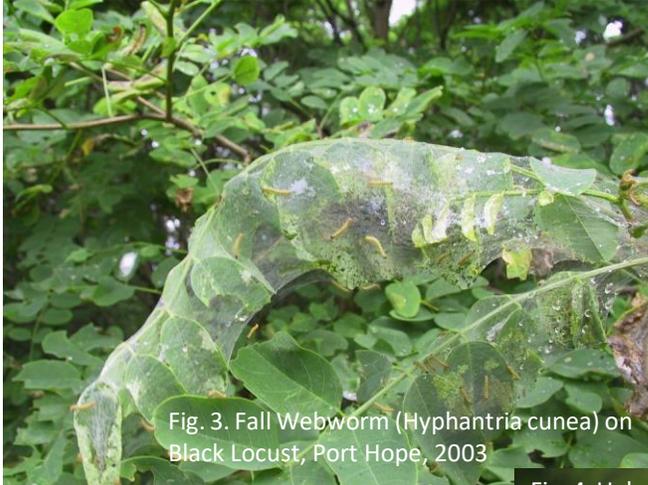


Fig. 3. Fall Webworm (*Hyphantria cunea*) on Black Locust, Port Hope, 2003

It is inevitable that birders conducting Christmas Counts will be fooled by the remnants of the nests of the Fall Webworm (*Hyphantria cunea*) (Fig. 3). Indeed, the nests can look like the silhouette of a bird sitting in a tree. Several other moth species form nests that enclose a number of plant leaves and a number of caterpillars. This arrangement protects the caterpillars by making them less visible to potential predators. Good examples of

this relationship include the Uglynest Caterpillar (*Archips cerasivorana*) which feeds on cherry species (Fig. 4) and the Parsnip Webworm (*Depressaria heracliana*) which feeds



Fig. 4. Uglynest Caterpillar (*Archips cerasivorana*) Britton Tract, 2015

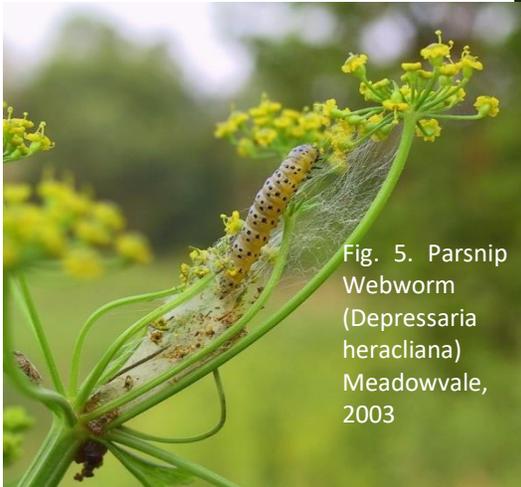


Fig. 5. Parsnip Webworm (*Depressaria heracliana*) Meadowvale, 2003

on Wild Parsnip (Fig 5). A similar application of foliage-enclosure is used by the introduced Spindle Ermine (*Yponomeuta cagnetella*). In addition to the shoots of the Running Strawberry Bush which it seems to prefer, it creates a net that covers the whole colony of the host plant (Fig. 6).



Fig. 6. Spindle Ermine (*Yponomeuta cagnetella*) Speyside Tract, 2004

Leaf-folders and Rollers

Caterpillars that feed on foliage are potentially large and nutritious targets for many predators like birds. The different species of caterpillar have adopted a variety of strategies that reduce their visibility. One way is to feed on the underside of the leaves where they are less conspicuous. Some have adopted various forms of camouflage that mimic fungus infections or even just a simple green colour. Some that are poisonous have bright warning coloration. Some species that are small enough can spend their whole immature stage within the leaf (e.g., leaf miners). Some others change the leaves by folding them or by



Fig. 7. Three-lined Leafroller caterpillar (*Pandemis limitata*) Acton, 2021

rolling them. By hiding and feeding within the altered leaf, they're inconspicuous to predators. In changing the leaf morphology, the caterpillars need to have a method for keeping the leaf in the new position and they rely extensively on silk to do this. Fig. 7 shows the early stage in the rolling of a cherry leaf by a Three-lined Leafroller caterpillar (*Pandemis limitata*)

Silk Line and Others

Most readers will have observed caterpillars hanging on a silk line, especially when they are at around eye level. In 2021, we encountered many of the small and prevalent Gypsy Moths (*Lymantria dispar*) in this manner. The top of the silk line is fixed somewhere on an overhanging tree. The caterpillar is attached at the lower end of the line. What is happening is not always clear. Chances are, the caterpillar is simply lowering itself to the ground to speed up their dispersal and give themselves an advantage in finding a new tree still retaining leaves when their original host has been stripped of foliage. By lowering themselves, the caterpillars might be escaping danger if a predator such as a bird appears on scene. If the caterpillars are still very tiny, they could possibly disperse by ballooning like spiderlings do. Most of the dangling caterpillars we see are too large to use this technique.

Butterflies generally don't utilize silk lines to the extent that moths do. They do use silk to a limited degree. Caterpillars that are about to form a chrysalis often attach themselves to a sturdy object before proceeding. They use silk to make that attachment. For example, we are all familiar with the green chrysalis of a Monarch butterfly hanging in a suitable location and that is courtesy of silk. Other butterflies do much the same. The Swallowtails go one step further and add a pair of guy wire lines to position their chrysalis on a specific angle.

As a final point in this discussion, there is one other group of organisms that deploy silk. These are neither moths nor butterflies but they do share the use of silk. These are the spider mites which are aligned with spiders. They do not have wings to help them disperse but they do utilize silk to balloon in the same manner as young spiders.

Tying Up the Loose Ends

Article and Photos by W.D. McIlveen

Materials such as the strings, cords, ropes, and threads needed to connect things likely remains far from the average human mind for very long periods of time. If such things are needed, they are simply sought in one's own sewing basket or at an appropriate store. In modern times, these materials are likely to be made of nylon and possibly cotton or a blend of these. In earlier times, the stringy materials would likely be derived as wool from sheep, linen from flax, hemp, cotton or even silk and occasionally other materials. Together they formed the basis of extensive industrial weaving and knitting industries. While the specific materials just mentioned did not appear in North America until settlers from Europe arrived, the First Nations peoples too had need of such materials. The following are short descriptions of some items (simplified collectively as 'string' elements here) that they could find in nature. Much of the information discussed is substantiated in the books by Charlotte Erichsen-Brown and Marjorie Harris.

Plants that mostly appear in a string form are vines. Some of these can be fairly long. Many of these may satisfy the general elongated shape needed for strings but they are often too brittle or lack the needed strength to be widely used. One type that works reasonably well



Fig. 1. Woven twig basket

is wild grape stems. These can be worked into baskets. The long branches of weeping forms of willow can be used in a similar manner. In some cases, the long stems and leaves of grass can be woven into boxes and other containers (Fig. 1). They are usually finer than the previously-mentioned vines and twigs and can be woven much more closely together. Bracken Fern (*Pteridium aquilinum*) is not mentioned by either Erichsen-Brown or Harris; however, an internet site suggests that split roots of Bracken were sometimes used to incorporate a black design into woven baskets.

Although it might have been possible for the First Nations people to cut certain hides into strips for bindings, one plant was able to provide a fairly comparable material. That plant is

Eastern Leatherwood (*Dirca palustris*) (Fig. 2). Its twigs are extremely pliable and the bark is strong and tough and even looks much like leather. If that bark is cut into strips, it can be woven into baskets, ropes, straps, and other forms of cordage and twine as well as for sewing canoes. The plant can grow into a moderate-sized shrub whose small yellow flowers are one of the first to appear in the Spring.



Fig. 2. Eastern Leatherwood (*Dirca palustris*) with flowers in Spring

The species remaining to be mentioned here all lack an immediately-visible indication of their string components and typically require some considerable effort to bring them to their full potential use. The first example is the roots of Paper Birch (*Betula papyrifera*), Tamarack (*Larix laricina*) and Spruce (*Picea* sp.). To obtain suitable roots, they need to be dug from the ground. The best roots are ones that are long, thin and limited in the amount of branching. Freshly-dug roots are dirt-covered and covered by a layer of bark that limits their utility (i.e. too round and fat). But if the roots are coiled and submerged in a stream,

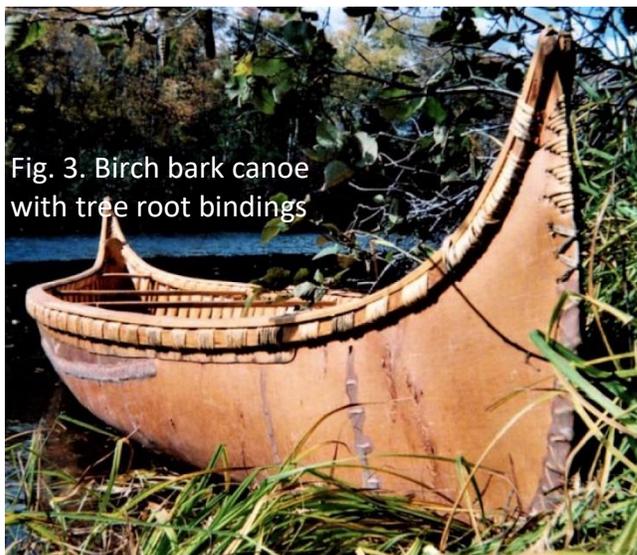


Fig. 3. Birch bark canoe with tree root bindings

they are not only cleaned but the bark is loosed for easy removal. The inner root is left clean and white. The roots can be split lengthwise leaving one side that is flat. Such roots were used extensively for sewing the bark sheets and other materials to create birch bark canoes (Fig. 3). Sometimes baskets were created by combining or folding pieces of birch bark. The edges and lids of many such containers were frequently finished and held together with essentially the same methods and materials used to create the canoes. The roots of the Birch were also used to

weave sacks.

The inner bark of both Basswood (*Tilia americana*) and Elm (Fig. 4.) (especially Slippery Elm *Ulmus rubra*) was particularly useful. The bast (phloem fibres) of the Basswood could be obtained by removing the coarse outer bark then soaking the next layer for up to 8 weeks in a stream. Gradually, the individual growth layers separate from each other. They could be divided lengthwise and woven together into ropes or strings. These could be used as lines, nets or for sewing together the parts of the Elm bark canoe. Elm bark could be removed from a suitable tree, turned outside in and used to form the outer shell of a canoe. The fibres of the inner bark of the Elm could also be used for sewing the bark together or for forming rope.



Fig. 4. Large American Elm (*Ulmus americana*) still surviving

The next group of plants, though not necessarily related, shared a similar characteristic with regards to the fibres that they produce. They all contain relatively-long bast fibers in the stem. These can be removed from the stems mechanically (beating of stems) then woven or twisted together into various cord formats. The species include different Milkweeds (*Asclepias* sp.), Fireweed (*Chamerion angustifolium*), Indian Hemp (*Apocynum cannabinum*

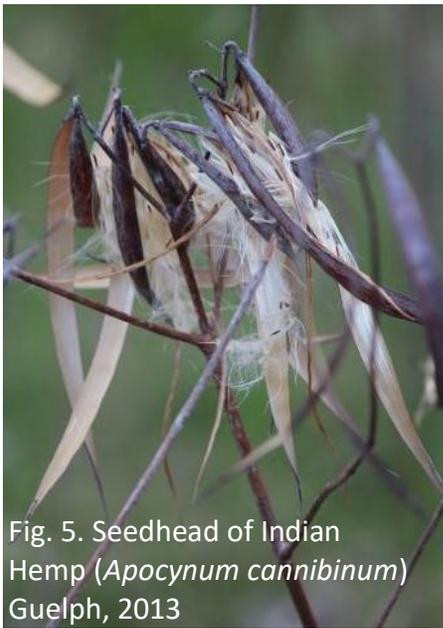


Fig. 5. Seedhead of Indian Hemp (*Apocynum cannabinum*) Guelph, 2013

and related species) as well as Stinging Nettles (*Urtica dioica*) and Wood Nettles (*Laportea canadensis*). In addition to the stem fibres, the floss of Milkweed and Fireweed were sometimes used to augment the stem fibers. The lists of specific uses for this group of plants have a considerable consistency throughout. Fibres from Milkweed were used to produce strong twine, cords, strings and rope and/or woven into coarse fabric or fish nets. The uses for Indian Hemp (Fig. 5) included production of string, thread, rope, twine that was further developed into fish nets, bowstrings, cloth, belts, baskets, and snares. The stem of Fireweed produces a strong bast fiber. These fibers have been



Fig. 6. Fireweed (*Chamerion angustifolium*) seeds spilling from opening pod

used and spun to make twine for weaving fishing nets, pack straps, rope, clothing or blankets. Fireweed (Fig. 6) also produces seeds that are accompanied by downy material but those fiber are generally too short to be useful for making threads. Stinging

nettle fibers were used by Native Americans to make twine, fishing nets, and rope.

One reference states that women artisans spun thread made from milkweed, dogbane, toad flax, velvet leaf, and nettle plants for weaving belts. Using weaving techniques similar to prehistoric finger weaving (without a loom), women wove the beads and thread to form a beaded belt. A few comments need to be made to clarify parts of the referenced information. Stinging Nettle and Wood Nettle were sometimes described as hemp by early visitors to North America but this is not surprising as the plants were being used for the same purpose. The stem fibers of these nettles could be developed into fine fibres.

Toadflax (*Linaria* sp.) and Velvetleaf (*Abutilon theophrasti*) were listed as two of the species whose threads were used in the production of beaded belts. Neither of these are native to North America so likely should not be included as being used by the First Nations, at least not until recent times. Erichsen-Brown does not mention either of these being used. Despite the allusion to Toadflax being related to the cultivated flax, it does not appear to have any notable fiber content. By contrast, Velvetleaf has been grown in China since around 2000 BCE for its strong, jute-like bast fibre.

References

- Erichsen-Brown, C. 1979. Use of Plants for the Past 500 Years. Breezy Creek Press, Aurora, Canada. 512 pp.
 Harris, M. 2003. Botanica North America. Harper Collins Publishers Ltd., New York, 665 pp.

Birdfeeders

Article and Photos by Ian Jarvie

I recently read an article from *Environment for the Americas* explaining how the health of hummingbirds can be affected by how we look after our feeders. I thought it might be useful information for those of us who like to have hummingbirds visit their yards, and although it's a bit late in the season, better late than never!

After reading the above article and doing a little further browsing, here is some information on filling and maintaining your hummingbird feeders:

- Use only refined white sugar, no brown sugar, honey, molasses or artificial sweeteners.
- Don't use red food colouring or any preservatives.
- Make a solution of 1 part sugar to 4 parts water using boiling water, and letting it cool to room temperature before use.
- Clean the feeder at least twice per week, more often in hot weather and every time it's ready for a refill - and, if the sugar solution is cloudy, it's spoiled and needs to be replaced. Clean all parts of the feeder using a solution of one part bleach to 9 parts water. (Old toothbrushes are handy for scrubbing.) Don't use soap, hummingbirds can apparently detect the residue and don't like it.
- In hot weather, replace the nectar every couple of days - sometimes it's better to only part fill the feeder - it's easier to remember to fill when it's empty, and it wastes less nectar.
- Unclean feeders and old nectar can apparently cause a variety of diseases in hummingbirds, including Candidiasis (a fungal tongue infection), Avian Pox (causes tumours on birds' beak) Aspergillosis (a mould and fungus infection) and Salmonellosis (salmonella). I don't know anything about these, but they sound pretty nasty, and I certainly wouldn't want to catch any, so some pretty simple measures will hopefully prevent them.

And while we are on the subject of clean feeders, I found out that since many of our backyard species congregate at seed and suet feeders in much greater density than in the birds' natural habitat, it's much easier for diseases to be transmitted from one bird to another. So here are some suggestions on how to reduce the risks for those birds too:

- First of all, use only new fresh seeds, and discard old or mouldy seeds. Seed goes mouldy faster in hot or wet weather.
- Clean out feeders, removing all old seed and any debris, at least every two weeks, and spray with a dilute bleach solution, wipe clean and rinse with fresh water. Use the same proportions as for the hummingbird feeders - one part bleach to 9 parts water. Dry thoroughly to prevent mould and mildew from forming and contaminating the seed.
- Once or twice per season, empty the feeder and scrub thoroughly, using one part bleach to 9 parts water with an old toothbrush or scrubbing brush. Dry completely before refilling.

- Clean up around the feeders, since birds like cardinals like to feed on the ground and can become sick from contact with the faeces of infected birds.
- Don't feed suet in hot weather, it goes rancid quickly.
- Some of the same hummingbird diseases can be contracted by birds at your seed or suet feeders - again, they sound pretty nasty.....Mycoplasmial conjunctivitis (house-finch eye disease - not limited to house finches) Salmonellosis, Aspergillosis and Avian Pox.

(As I write this, I am watching two hummingbirds visit my feeders - an adult male Ruby-throated Hummingbird chasing away a young bird every time it visits "his" feeder.)



Wasp Reconciliation

Article and Photos by Don Scallen

My mother was stung by a wasp as she pinned shirts and socks on a clothesline in the 1960's. Her response was predictable. No swearing – Mom never swore – but a shriek and a hasty retreat indoors.

Witnessing Mom's pain as a small boy, left a lasting impression on me. For years I was gripped by a great fear of wasps. I remember a pair of sandals with a black and yellow loop by the heel. Yellowjacket colours. My heart would jump when I glanced down at my feet.



As an adult this fear gradually eased. I've been stung only a few times in decades of exploring the outdoors. Each of those stings happened when I inadvertently ventured too close to nests. Wasps defending their homes.

I've walked through meadows teeming with wasps, innumerable times, without being stung. Wasps aren't aggressive, except when defending their home turf.

I've come to gradually admire and appreciate wasps as I do other wildlife. Many are beautiful and all of them play important roles in ecosystems.

Unlike honeybees and bumblebees, wasps are predators, consuming a wide variety of arthropods: spiders, caterpillars, crickets, grasshoppers, and many others. Wasps also visit flowers to sip nectar as an energy boost.

But beyond their contributions to ecologies, wasps dazzle with their diversity and lifestyles. Wasps were the first paper makers, a talent that may have inspired paper making in our species. Various species of wasps use their mandibles to rasp wood and bark, masticate it into pulp and then build their paper nests.

Other wasps use different materials to make their nests. The appropriately named potter wasps shape delicate little globes out of mud to harbour their brood. Other wasps dig holes in sand to serve as their nests.



Fraternal Potter
Wasp



Great Golden Digger Wasp

I haven't forgotten Mom's pain and truth be told I'm still wary of yellow jackets, the wasps that stung her, and the bane of late summer picnics. But in my garden, I welcome wasps of all stripes. Appreciation has trumped fear.

See more of Don's wasp pics at <https://www.inthehills.ca/2021/08/wasps/>

Reflecting on Good Intentions

Opinion Piece and Photos by Don Scallen

Restoring and enhancing nature is a good thing. However, it is also good to examine our actions critically. On the surface the initiatives below seem wholly positive. We need though, to be open to the possibility that they may have negative consequences. Since these actions are powered by good intentions, I find it uncomfortable to play Devil's advocate and I know people will disagree with some of my arguments. That's good. I welcome constructive criticism. But it is important that we think critically about the choices we make in our interactions with the natural world.

Planting Trees

I've written about this issue before at length (See "Complex Nature" in our May-June 2019 newsletter issue) so I will try to be brief. Lately advertisements from Forest's Ontario have appeared on my Facebook page asking for donations. Forest's Ontario is a major participant in Ontario's 50 Million Tree Program supported by the Federal Government, corporate sponsors and private donors.

Forest's Ontario promotes the large-scale planting of trees, an industrial, mechanized process. Trees of uniform size and limited diversity – usually pines and spruce – are planted in rows by machines. (Think sowing rows of corn with a mechanized planter.) Decades on, the resulting forests will continue to be expressed by these rows of conifers, often planted so close together that their shade inhibits the growth of biodiverse understory vegetation.

Planting a diverse mix of native trees in our towns and cities is laudable. But large-scale tree planting in rural areas needs to be very carefully considered. And the large-scale planting of conifers in rows should no longer be supported.



How nature does reforestation.



Industrial reforestation. Sadly, still a common model.

We should be skeptical of any grand plans to “manage” nature. The land in southern Ontario has capably reforested itself for millennia in between ice ages and, in more recent times, after repeated cutting from the settler era until today. The best way to re-forest? Do nothing. The trees will eventually return as the land proceeds through the natural stages of succession from meadow to shrubby field, to young woodland, to mature forest, supporting along the way, changing suites of biodiversity. Species like monarch butterflies, meadowlarks, cuckoos, towhees, asters, hawthorns, harriers, katydids and milksnakes will thrive as the land progresses from meadow to forest.

Barn Swallow Structures



Barn swallow “kiosk”
Guelph Arboretum

Barn swallow “kiosks” as they are called by Bird Studies Canada have been popping up across southern Ontario in recent years, largely in response to the designation of the barn swallow as “Threatened” in Ontario and in response to the legal requirement embedded in that status to replace barn swallow habitat when it is destroyed. Bridge reconstruction that eliminates barn swallow nesting sites would be an action requiring the building of barn swallow kiosks. A feel-good story, right? Sure, if only

the structures worked. Regrettably most of the time they don’t. Barn swallows occasionally nest in some of them, but in the main, they are ignored. We think we’re doing something constructive to help a threatened species by putting up lodging that looks great to us, but the intended tenants don’t share our enthusiasm.

Barn swallows are probably ignoring these structures due to an interplay of space and insect availability.

Some years ago, barn swallows were prevented from nesting in a large airplane hangar at Brampton Airport by stretching netting across the ceiling. A beautiful barn swallow kiosk was erected at considerable cost as an alternative nesting site. As far as I know, it has been completely ignored. Similarly, netting was installed at a picnic pavilion at Terra Cotta Conservation Area to prevent barn swallows from nesting under its roof. A barn swallow kiosk was dutifully put up nearby. Though occasional robins and phoebes have nested in it, barn swallows haven't. In each case, the habitat remained constant after the changes were made and presumably the insect availability remained comparable. This suggests that something about the construction of the barn swallow kiosks wasn't to the swallows' liking. Size is likely a factor. Both the airplane hangar and the picnic pavilion are much larger than the swallow kiosks.

Size can't be the complete answer though, as barn swallows will nest on smaller structures like outbuildings on farms or viewing towers adjacent to wetlands – like the one at the Point Pelee marsh boardwalk for those of you who have been there. In these cases, insects may be the answer. Though the smaller structures may not be the optimum size for barn swallow nesting, when located in the insect rich habitats of farms and wetlands, they may be used.

Perhaps further experimentation will show us how to build and situate barn swallow kiosks that will appeal to the birds. I hope so. But in the meantime, we should guard against being lulled into a sense of complacency by the erroneous belief that we are creating valuable alternative nesting habitat for these birds. The evidence suggests we're not.

Bird Feeding

First the good news: It is generally recognized that feeding birds is either neutral or beneficial to their survival. And, of course, it gives us the pleasure of watching them up close. However, it is important to keep bird feeders clean to guard against disease. See Ian Jarvie's article in this newsletter.

My concern is about unintended consequences of feeding birds that have an appetite for feeding on other birds. Blue Jays for example. Jays are corvids like crows and ravens. Corvids are incorrigible nest raiders. That's why we see songbirds go berserk in nesting season when a crow appears in the neighbourhood. There is concern that crows and ravens are subsidized predators – that their numbers are kept artificially high by the agricultural products and garbage we produce. In turn these species augment their diets with songbirds and other small animals.

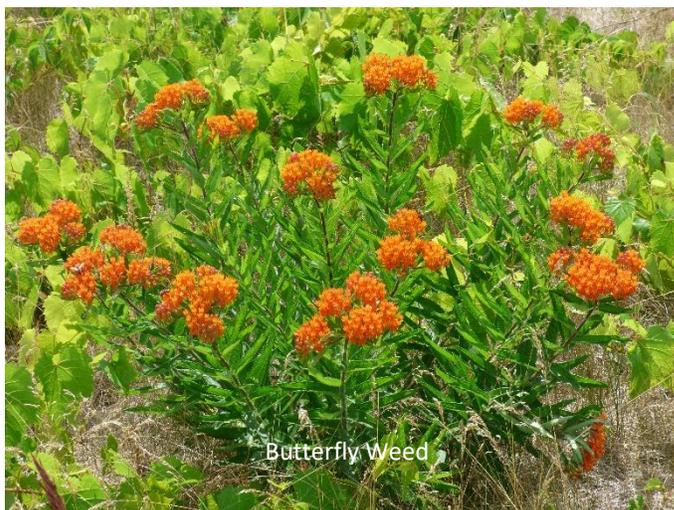
Blue Jays may also be "subsidized," but in their case, by our bird feeders, especially feeders that offer peanuts. If we are artificially supporting jays we may be contributing, inadvertently, to the predation of songbird nestlings. In my yard I've watched Blue Jays land on bird houses, in their attempts to snatch house wren young. I ponder the possibility that blue jays may be one of the reasons so few species of birds nest in suburbia.

This is speculation. I'm not aware of any studies to support my idea that peanut feeders artificially increase the number of jays, which in turn leads to more nest predation. But I do think it's a possibility we need to consider.

Planting Milkweed

In recent years we've been beseeched with appeals to plant milkweed to support monarch butterflies. What could possibly be wrong with that?

I've grown various milkweed species in my suburban yard for decades. Not only for the monarchs, but for the beauty they offer and the appeal of their nectar to a wide variety of bees and butterflies. But recently I've considered that the milkweed I grow may not be helping monarchs at all. In fact it may be adversely affecting their numbers, albeit in a small way. I get lots of monarchs in my yard, attracted primarily to *Liatris ligulistylis* (Meadow Blazing Star) and Butterfly Bush.



The monarch females nectaring on these plants are only a few wing beats from my milkweed, mainly Butterfly Weed (*Asclepias tuberosa*). No surprise then that I often see them ovipositing on these plants.

But here's the dilemma: The larvae that emerge from those eggs almost never live long enough to pupate. Monarch caterpillar mortality in my yard is close to 100%. This summer it has been 100%.

I realize that high caterpillar mortality is a given in nature. Caterpillars must avoid a gauntlet of predators as larvae, and monarch butterflies, like most lepidoptera, lay lots of eggs to compensate. But if my yard served as a microcosm of the greater environment, monarchs would be in even more dire straits than they are.

I have little to offer at this point as to why monarch caterpillars don't survive in my yard. Perhaps they aren't as successful on *Asclepias tuberosa* as on other milkweeds. Perhaps the abundance and diverse varieties of wasps in my yard visit the milkweed to dine on caterpillars after tipping nectar at my wildflowers. Perhaps the imported European fire ants, well established in my yard, take most of the caterpillars when they are young. Then again, perhaps all these possibilities are wrong. It could be something else, intrinsic to the suburban environment.

If my experience is similar to that of others it may signal a sad truth that planting milkweed in our simplified suburban environments may not be helping monarchs at all. I hope that's not the case.

I'm puzzled and disappointed by this situation. But before I get rid of my milkweed, I'd like to hear from you. Have you had success with monarch caterpillars in your suburban yard? If so, can you offer me any advice? (Short of enclosing the caterpillars in predator-free enclosures, that is.)

The last item I deal with is not an action we take to help nature but rather a rationale to support such action. A reason that is often used to encourage growing native plants in our yard goes something like this:

“We should plant native species because they are better suited than non-natives to our climate and environmental conditions.”

There are lots of good reasons to grow native plants in our yards. Native plants do a great job of providing food for caterpillars and other arthropods that, in turn, provide food for many other creatures. Many of them offer flowers that nurture bees, wasps and butterflies. And many of them are lovely and deserve pride of place in our gardens.

We don't need to invoke the rationale that they are better suited to local conditions than non-natives. And we shouldn't because it's not true. (Well maybe it is if you compare native plants with such garden stalwarts as petunias and marigolds but let's consider the bigger picture.)



A Norway Maple dominated woods in Don Valley. This is only one non-native species superbly adapted to urban conditions.

The reason we have invasive species is that they are remarkably well adapted to the conditions (climate, soil, water availability) that we have created in our urban and agricultural areas. It could be argued that it is invasives, not native plants, that are better suited to our environmental conditions. They *outcompete* many native species. Think Norway maple, little-leaf linden, common buckthorn and the various introduced honeysuckles. (With herbaceous plants the list is virtually endless.)

Many of our native shrubs evolved adjacent to wetlands or in the woods and are admirably suited to those conditions. But that's not what we offer them in town. On the other hand, nurseries carry numerous non-native shrubs that are perfectly happy in the dry, humous-impooverished soils of suburbia.

When we make an argument that natives are better suited to our soils and climate, we forget that the conditions that our native plants evolved in are not the conditions we offer them in urban gardens. Most of our herbaceous and woody plants evolved in forest conditions with shade, moisture, humous-rich soils, humidity and mycorrhizal fungal connectivity that doesn't exist in urban settings. Many native plants can live and thrive in suburbia but, alas, not because they are better suited to do that than non-natives.

As naturalists we strive to do right by nature. Sometimes though, good intentions don't yield positive results. We should think carefully about the consequences of our actions.

Wetland Wildlife Photo Quiz

Photos by: Don Scallen

Answers on page 26



From the Web

A lovely story about Tufted Titmice stealing hair from various mammals to line their nests:

<https://www.sciencealert.com/brave-birds-steal-hair-from-living-carnivores>

The outlook for most large cats including lions and tigers is bleak, as their ranges continue to contract. Welcome then, is this positive story about the expanding range of Cougars in North America:

<https://www.canadiangeographic.ca/article/cat-came-back-canadas-cougar-comeback?fbclid=IwAR3hurPtwQoECZUTfleRzzAVcarSzi7JVocRHdZdkDB7n-fOiMaqvHwleHc>

Answers to the Wetland Wildlife Photo Quiz on page 25

1. Salamander Larvae
2. Osprey
3. Caddisfly Larvae
4. Fairy Shrimp and Mosquito Larvae
5. Green Heron
6. Muskrat
7. Backswimmer
8. Northern Watersnake
9. Red-spotted Newts mating

Halton/North Peel Naturalist Club Membership Form

_____ Renewal or _____ New Member(s) Date _____

Name(s): _____

Address: _____ City: _____

Postal Code: _____ Telephone: _____

E-mail: _____

Membership Renewal: _____ Single (\$30.00) _____ Family (\$40.00)

New members only for the period:

from December through to August _____ Single (\$22.50) _____ Family (\$30.00)

from March through to August _____ Single (\$15.00) _____ Family (\$20.00)

from June through to August _____ Single (\$ 7.50) _____ Family (\$10.00)

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

Do you have any suggestions for programs or field trips?

WAIVER OF LIABILITY

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

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

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

Signature(s): _____ Date: _____

_____ Date: _____

Please fill out this form and bring it in to next indoor meeting or mail with payment to:
Halton/North Peel Naturalist Club
P.O. Box 115, Georgetown, Ontario L7G 4T1