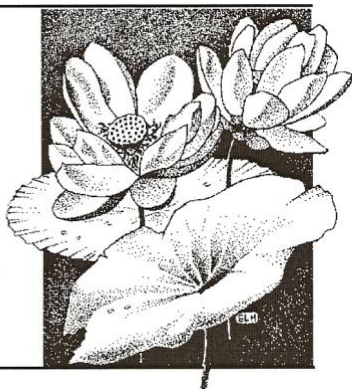


Lotus

NEWSLETTER

of the

NORFOLK FIELD NATURALISTS



DECEMBER 2022



Foreign Invasions: Threats to Ontario's Hardwood Trees

Bernie Solymár (article from October 1999)

You can now add to our already infamous list of 'foreign invaders', which already includes Dutch Elm Disease, Gypsy Moth, American Chestnut Blight and Flowering Dogwood Anthracnose, two new names: the Asian Long-Horned Beetle (*Anoplophora glabripennis*) and the Emerald Ash Borer (*Agrilus planipennis*). Both are beetles native to China and other parts of the Far East, both were inadvertently introduced into North America by ship in wooden packing materials from China over the last 5 years, and both feed on hardwood trees resulting in tree death.

The Asian Long-Horned Beetle (ALHB) was first detected in New York in 1996, 1997 and 1998 and in Chicago, Illinois in 1998. In June 1998 a live adult ALHB was found at a warehouse in Waterloo. Portions of the shipment the beetle is thought to have arrived in were also sent to 7 other locations in Ontario. The Emerald Ash Borer (EAB) was first identified in Michigan and confirmed in Windsor in July 2002, then in Kingsville (Essex County) in February 2003. The Canadian Food Inspection Agency (CFIA) were quickly on the scene in both cases and are continuing their efforts to monitor and eradicate these two, potentially devastating, pests before they can do serious, irreversible damage to our forest ecosystems.



The ALHB is an attractive insect with long, black and white antennae, white markings on its body and a bluish tinge on its legs. It is relatively large at 20-35 mm long with antennae that are longer than the body. ALHB feeds on broadleaf trees including maples, poplars, elms, sycamore, willows, and fruit trees. Adults, feeding on leaves and new bark cause young shoots to wilt and die. Female ALHB lay eggs in lip-shaped grooves in the bark of tree trunks and large branches. Young larvae bore into the inner bark layer causing scoring of the cambial layer. Mature larvae bore into the xylem layer and create large, winding galleries. Adults chew their way out of the tree, leaving behind large (10 mm), circular exit holes. Heavy infestations of hardwood trees result in decline and eventual death of the tree. Accumulation of sawdust at the base of trees, frothy sap exuding from oviposition (egg-laying) sites, presence of insects attracted to the sap (e.g. wasps and butterflies), and the adult's exit holes are things to look for when determining the possible presence of ALHB.

The EAB is a small (about 10 mm long) beetle with metallic green coloring on its back and underside, which attacks all species of native ash trees (but not mountain-ash). It is narrow and has short antennae. Female EAB beetles lay up to 80 eggs in bark crevices. Larvae burrow into the phloem and outer sapwood in the trunk and larger branches (over 3 cm in diameter), eventually girdling the tree, which results in decline and death. Characteristic features of EAB presence are series of shallow s-shaped tunnels, which can be easily seen when the bark is peeled back. Small d-shaped exit holes in trunks and branches are also a sign that EAB is present.

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The potential negative impacts from these two uninvited foreign pests to Ontario's woodlots, forests, landscape trees, and orchards is tremendous. In Brooklyn, New York, in 1996 thousands of trees were removed in the vicinity of where the ALHB was detected in an effort to stop the spread. The effort that year alone cost Brooklyn over \$2.3 million U.S. In Detroit millions of ash

trees, including those that lined city streets and backyards, have already been destroyed in an effort to prevent the spread of this pest. Bruce McGauley, an urban forester with the City of London, estimates that removing all ash trees from that city and replacing them with other species, would cost about \$3 million. The devastating impact of these beetles, if either or both species become established, on ecosystems in Carolinian Canada goes far beyond any dollar considerations.

So what's being done to halt the spread and establishment of these 2 pests in Ontario? The CFIA continues to do rigorous site inspections and, in partnership with the Ministry of Natural Resources and the Canadian Forest Service, are conducting surveys for both pests. Essex County is contemplating an aggressive ash eradication program, which would create a five-kilometre radius "firebreak" around Windsor. Funding support from the federal government is still pending. Some municipalities are developing policies that recommend no more than 15% of any one species be planted in streetscapes and parks, in an effort to lessen impacts of potential threats like the EAB and ALHB. Currently there are no pesticides registered for either pest and no effective biological controls exist. The public, if they find signs of the symptoms described above, are encouraged to contact one of the following: CFIA, MNR, or Norfolk County.

Rare Hybrid Grosbeak/Tanager Confirmed by DNA, Song Study

In June 2020, Stephen Gosser, a self-described "diehard birder," was out in the woods of western Pennsylvania when he thought he heard the song of the elusive and strikingly beautiful scarlet tanager. When Gosser finally located the songbird, he saw what appeared to be a Rose-breasted Grosbeak, but it sounded just like a Scarlet Tanager. He took some photos and called for backup — a team from the National Aviary in Pittsburgh arrived soon after to catch the bird and obtain a blood sample. To learn the rest of the story, go [here](#).



NATURE

**If one truly loves nature,
one finds beauty everywhere."**

~ Vincent Van Gogh



Merry Christmas!

**To All NFN
Members
and Friends:**

**HAPPY
NEW YEAR!**

*Happy
Holidays*

Asters and Goldenrods Walk

Eight people joined Dave Jolly on October 15th for a walk in Backus Woods to learn about the species of asters and goldenrods found there. We put the “5 Second Rule Check” into practice by looking at the leaf shape (narrow or broad), how it is veined (pinnate, parallel, net, closed celled), the flowerhead arrangement (club-like, flat-topped, corymb, panicle, wand-like, plumose), the flower colour (yellow, white, purple) and plant location (dry or wet). However, as beginners, it definitely took us much longer than “5 seconds” to come to our conclusions!

Within two hours and about one kilometre, we spotted, applied the “5 Second Rule Check” and identified the following nine asters and goldenrods divided into two groups:

A. Narrow-leaved goldenrods

1. Rough-stemmed goldenrod (*Solidago rugosa*)
2. Gray goldenrod (*Solidago nemoralis* var. *nemoralis*)
3. Tall goldenrod (*Solidago gigantea*)
4. Blue-stemmed goldenrod (*Solidago caesia*)

B. Broad-leaved goldenrods

1. Zig-zag goldenrod (*Solidago flexicaulis*)

We also observed a hybrid between the Canada goldenrod complex and Blue-stemmed goldenrod (*Solidago canadensis* x *caesia*)

Thanks, Len Grincevicius, for the photos.

C. Narrow-leaved asters

1. Panicked aster (*Symphyotrichum lanceolatus*)
2. Calico or One-sided aster (*Symphyotrichum laterifolius*)
3. New England aster (*Symphyotrichum novae-angliae*)
4. Arrow-leaved aster (*Symphyotrichum urophyllum*)



1. Calico or One-sided Aster
2. Gray Goldenrod

3. Rough-Stemmed Goldenrod
4. Panicked Aster

City Birds Are Changing Their Tune

Several species of urban-dwelling birds have modified their songs in response to human-generated noise

Article by Alejandro Portilla Navarrow, 11.14.2022

Dawn breaks in San Jose, the capital of Costa Rica. The city is still asleep, but the early risers are greeted by a beautiful symphony: Hummingbirds, corn-eaters, *yigüirros* (clay-colored thrushes), yellow-breasted grosbeaks, blue tanagers, house wrens, warblers and other birds announce that a new day has arrived.

Soon the incessant noise of vehicles and their horns, construction, street vendors and more take over, shaping the soundscape of the frenetic routine of hundreds of thousands of people who travel and live in this city. Then, the birds' songs will slip into the background.



“The act of birdsong has two main functions in males: It is to attract females and also to defend their territory from other males,” says Luis Andrés Sandoval Vargas, an ornithologist at the University of Costa Rica. For females in the tropics, he adds, the primary role of their song is to defend territory. Thus, in order to communicate in cities, to keep their territory safe and find mates, birds must find ways to counteract the effects of anthropogenic noise — that is, the noise produced by humans.

“The main effect of urban development on song is that many birds sing at higher frequencies,” says Sandoval Vargas. Studies over the past 15 years have found, for example, that blackbirds (*Turdus merula*), great tits (*Parus major*) and rufous-collared sparrows (*Zonotrichia capensis*) sing at higher pitches, with higher minimum frequencies, in urban environments than in rural ones.

But the birds' response to anthropogenic noise may be more complex than that, as Sandoval Vargas found when studying house wrens (*Troglodytes aedon*).

House wrens are small, brown birds — about 10 centimeters tall and weighing 12 grams — that feed on insects and tend to live near humans. In Costa Rica, they are found almost everywhere, but are especially abundant in the cities. “Males sing almost year-round and sing for many hours during the day, and much of their behavior is mediated by vocalizations,” explains Sandoval Vargas. But what makes them ideal for studying adaptations to urban environments is that most of the components of their song are within the same frequency range as the noise that we humans produce.

Over two years, taking advantage of the house wrens' breeding season — April through June — Sandoval Vargas and his team recorded the song of male house wrens at four locations within Costa Rica, and also recorded ambient noise. Although all four sites are within urban areas, the levels of human-generated noise are different at each site, ranging from very high and medium-high, to medium-low and low.

The study, published in 2020 in the *International Journal of Avian Science*, focused on the repertoire of sound elements — the variety of unique sounds that, when combined with one another, shape a bird's characteristic song — that are produced by the house wrens. As the scientists expected, house wrens tended to sing with higher-pitched sounds in places with more anthropogenic noise. But that's not all they discovered.

They also found that, in general, the size of the birds' repertoire decreased as anthropogenic noise increased, especially when the birds were exposed to levels of anthropogenic noise that were above the usual noise to which they were accustomed. The researchers observed the same pattern at the individual level: The same bird offered a smaller song repertoire on noisier days than on less noisy days.

A reduced repertoire can affect how well these birds learn their sound language, as songbirds need to hear themselves and other birds to crystallize their song. “What's happening here is that they're losing some of their vocabulary, some of their sounds, because they're not producing them. And, in these species, juveniles need to listen to adults to learn how to sing,” says Sandoval Vargas.

In the long run, this could make it difficult for birds to communicate with other populations of their species. Say, for example, you had a situation where you have a

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large population and a small population, and to conserve the small one, you wanted to take individuals from one to the other, Sandoval Vargas explains. “But it turns out that the individuals of the small population within the city sing very differently from those of the large population ... they are not going to recognize them. And, because they can’t communicate, they can’t reproduce [with them],” says Sandoval Vargas.

With the passage of enough time, this could induce the start of speciation processes — that is, individuals in the city evolving differently from those living in rural habitats.

Birds resort to various strategies in the face of human noise. Serins (*Serinus serinus*) — common birds in Spanish cities — sing for longer when there is more noise in the city to compensate for that noise, says Mario Díaz Esteban, a researcher at Spain’s National Museum of Natural Sciences, who led the research that made this finding in 2011.

This tactic, however, has its drawbacks. “The problem is that, if an individual has to spend a lot of time singing to compensate for the noise, that time cannot be spent on other functions, such as foraging, searching for mates and, probably most importantly, watching for predators,” Díaz Esteban explains.

The price of living in the city

Modifications in the songs of serins and house wrens are an indication that the birds, like many other creatures, are slowly — and in different ways — adapting to succeed in urban environments.

Australian ecologists Mark McDonnell and Amy Hahs noted, in an article in the 2015 *Annual Review of Ecology, Evolution, and Systematics*, that organisms that can alter their phenotype — observable traits such as body form, development or behavior — in response to environmental conditions are more likely to survive in changing environments and adapt to new conditions.

Changes in song are just one of many adaptations that birds exhibit when living in cities. They may also be slower to take flight. “There are a lot of people moving around in urban environments and birds may perceive that as a certain level of risk or threat ... if a human approaches, they’ll have a distance they will tolerate before they take off,” explains Hahs, of the University of Melbourne. The same could happen near pets or vehicles, she adds.

City birds also change their diets. Hahs relates the classic example of European blue tits (*Cyanistes caeruleus*) that learned to steal milk by opening bottles, when they normally feed on insects. “In Australia, the

big example we have are the ibis, which usually feed in wetlands, but have started stealing scraps from the bin,” she adds.

Díaz Esteban says that although, in general, the effects of human activities on birds can be negative, there may also be species “that benefit from the proximity of humans, either because there is more food, fewer predators, or their competitors tolerate human presence less.” But, he says, there is not much evidence that song modifications represent such an advantage for birds in urban environments.

And although the presence of humans and the construction of cities exert pressure on bird behavior, there are also many conservation opportunities within cities, McDonnell and Hahs say. They add that there is an urgent need to identify actions to create biodiversity-friendly cities.

“If we are able to reduce some of the urban impacts in our cities — create more green space, reduce urban heat islands through vegetation, and other actions [such as] finding ways to make habitats more connected,” Hahs says, “then more species present in our cities will find the urban environment less of a challenge.”

Article translated by Debbie Ponchner



How Much Do You Know About Birds?

Are you a bird expert, or are you just flapping your wings? It's time to put your talents to the test and see just how much you really know about our feathered friends.

To find out, go [here](#).

Protected Areas and Climate Action in Ontario

This video captures some highlights from the Protected Areas and Climate Action in Ontario gathering, held in October 2019 in Kingston. Speakers and participants explored how climate action and nature protection can take shape at the community level, how climate change may affect protected areas, and what policy tools are available.

Go [here](#).

American Crows and Common Ravens – Test Your ID Skills

American Crows and Common Ravens are easily confused with each other. Both are large, black birds in the corvid family. Unless they're standing near each other, it can be difficult to tell who's who.

The visual differences are subtle, but crow and raven voices are distinctive. [Tune in to the caws of crows or croaks of ravens](#) to learn these birds by ear.

Still interested in learning the difference without sound? Test your ID skills or learn what to look for in this fun, [replayable quiz](#) that uses photos taken in the wild. Just click “Start Snap ID Challenge” to get started.



Common Raven —Photo by Darren Clark of Cornell Lab



American Crow —Photo by Annie Lavoie of Cornell Lab

10 Fun Facts About the Red-tailed Hawk

(Information from National Audubon Society)

The Red-tailed Hawk is among the large, soaring hawks known as buteos, Red tails are the most widespread in North America. They often hunt along highways, circling overhead or hovering in place as they scan the ground for prey.

- 1) Named *Buteo jamaicensis*, their other namesake is because of their characteristic reddish-brown tail feathers.
- 2) Red tails are among the largest Buteo hawks in North America.
- 3) Adult Red-tailed Hawks make a majestic call: a hoarse screech that lasts for two to three seconds.
- 4) Red-tailed Hawks scan the ground by soaring in wide circles or by perching. Then, they snatch their prey with talons up to 1.33 inches long.
- 5) They have sharp eyesight that's eight times better than a human.
- 6) To woo a mate, a male Red-tailed Hawk might catch prey and pass it to a female in midair.
- 7) These hawk couples are experts at co-parenting. They build their nest together with sticks and leafy branches, often in a tree, but sometimes on a cliff ledge or building.
- 8) Red tails are partial migrants. Most that breed in Canada will fly south for the winter to other parts of North America.

- 9) Males are territorial and will screech in flight to stake out their space during nesting season.
- 10) Decades ago, one Red-tailed Hawk in New York City achieved celebrity status. Named Pale Male by residents, this bird stood out not only because hawks were far less common in the city then, but also because he was a light color morph with an almost-white head.

To read the full story, go [here](#).



Photo by John Heinz

❶ The Fall Issue of ON Nature can be found [here](#).

❷ **Kingston Groups Win Fight Against Wetland Destruction**

Many groups and individuals — including Ontario Nature and our member group the Kingston Field Naturalists — opposed a proposed development that would see a past industrial site on the waterfront clearcut and part of the Provincially Significant Wetland destroyed in the name of remediation. The battle to save the trees, turtles and other wildlife there has been going on for about five years.

On September 6th, Kingston City Council voted 8–5 to deny zoning changes and an application for a Minister's Zoning Order (MZO) that was needed to allow the project to go ahead, a huge victory. We hope this will help ensure that Provincially Significant Wetlands remain off limits to development.

Read Ontario Nature's Statement [here](#).

❸ To receive selected information by email, you can sign up:
ontarionature.org

Welcome New NFN Members

2022 - 2023 Season

Maryann Balazs and

Robert & Mary Lou Knetchtel

We look forward to meeting you and hope you will participate in and enjoy all the NFN indoor presentations and field outings, once COVID restrictions allow.

Thank You!

From Norfolk Field Naturalists to

Will & Morgan Partridge

Guardian Computing

For hosting our website

Yet another trip around the sun and the world continues to change. Although the pandemic is officially over, Covid-19 is still around, as are a plethora of other respiratory viruses that continue to create havoc for our health care system. We have not been immune as an organization and continue to hold virtual speaker presentations and limit numbers attending our naturalist-led hikes. At this time, we don't know when we'll go back to our normal meetings, but most of us sure miss that social interaction of being there "in person".

We have seen some major environmental threats develop over the last year as well. Bill 23, the More Homes Built Faster Act, is being pushed through by the Ford government. It favours developers and constrains the powers of conservation authorities, threatening sensitive habitats, like wetlands, and species at risk. Although focused on the Greenbelt there are very real risks of that legislation expanding to cover all of southern Ontario in an effort to mitigate the housing crisis – but at what cost to the environment and agricultural land?

In Norfolk, on the other hand, we have seen a positive development with the formation of the Norfolk Natural Heritage Strategy working group, co-led by NFN. It's a collaboration of various environmental groups and levels of government with representatives from local landowners, the farming community and Indigenous representation. With the financial support of Environment and Climate Change Canada and the Long Point Biosphere Region this project is moving ahead at a good pace. The hope is that the eventual Natural Heritage Strategy will be incorporated into Norfolk County's Official Plan with the full support of council.

The other exciting news is that the NFN was left a significant amount of funds in the estate of Harry Frishette, a one-time member. We have never been in a position before where we have had funds totaling in the 6 figures but anticipate dispersing funds to worthwhile projects/organizations.

On behalf of myself and the entire Board of Directors I wish you a safe and family-filled holiday season....and make sure to get outdoors and enjoy our southern Ontario winter!

The next BoD Meeting will be held on January 24, 2023. The report from this meeting will be in the February issue of the Lotus.

Upcoming NFN Events

Watch for pop-up events.

Christmas Bird Counts

Join one of the local Christmas Bird Counts and spend the day in the field identifying and counting all the birds you see or hear. Data collected during these annual events provides vital information on the distribution of winter bird populations.

Sunday, December 19, 2021

Woodhouse Count (Norfolk County)

Contact Adam Timpf

Tuesday, December 28, 2021

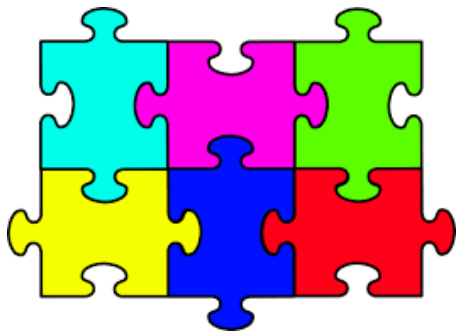
Fisherville Count (Haldimand County)

Contact: Linda Thrower

Picture Puzzle

Have you ever seen a Purple Martin?

If you want to see what one looks like, [go to this puzzle.](#)



NFN Meetings

Norfolk Field Naturalist meetings are held the second Tuesday of the month from September to May.

Meetings take place at the **Vittoria Community Centre, 35 Oakes Blvd., Vittoria.** The meetings are free and visitors are always welcome. Doors open at 7:15 pm, programs begin at 7:30 pm.

CURRENTLY, MEETINGS ARE HELD ON ZOOM

NFN Mailing Address

**Norfolk Field Naturalists
PO Box 995, Simcoe, ON
N3Y 5B3**

Next Lotus Issue:

February 2023

Input deadline:

Friday, January 27, 2023

About the NFN

Norfolk Field Naturalists members participate in meetings and field outings, many of which are family-friendly. **Membership fees are \$20 Individual and \$30 Family.**

Donations are eligible for income tax credits. Charitable registration # 11905869RR00001

Guest speakers present programs on interesting and relevant natural history and conservation topics. Club members receive the Lotus newsletter with articles on local natural history and club activities. Copies of the Lotus are available at meetings, by mail or by email and posted on the NFN web site. Articles published in the Lotus reflect the views and opinions of the authors, but not necessarily those of the NFN.

www.norfolkfieldnaturalists.org

2022 - 2023 NFN Executive with Contact and Project Information

Email: info@norfolkfieldnaturalists.org

President	Bernie Solymár
Vice-President	Peter Carson
Sanctuary	Peter Carson
Past President	Inga Hinnerichsen
Treasurer	Luke Haze
Secretary (Interim)	Inga Hinnerichsen
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Director Speaker Program and Field Events	Len Grincevicius
Director Publicity	vacant
Director Environment	Cindy Presant
Director-at-large	Bernd Mueller
Director-at-large	Madaline Wilson

Lotus Editor (appointed)	Jan Grincevicius
Website Coordinator (appointed)	Lisa Timpf
Butterfly Count (appointed)	Adam Timpf
Christmas Bird Counts (appointed)	Adam Timpf - Woodhouse Count
	Linda Thrower - Fisherville Count
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