President's Message

Early summer is a time when young birds are leaving their nests, learning to fly and survive in a challenging world. It is a tough time for them lacking experience with all of the human and natural threats with which they must cope. We watched a newly fledged robin resting on the lawn, and then crows appeared who viciously attacked the unfortunate bird. Screaming parents tried their best to save the fledgling but could only do so much against the much larger corvids. I sometimes think of the odds against successful reproduction for our migratory birds. Many fly north for a thousand or more kilometres from their wintering grounds just to breed, taking advantage of the abundant insect food in the northern growing season. Every year there are more migratory obstacles that they must avoid. Then they must find a territory, attract a mate, build a nest, incubate eggs and find enough food to satisfy their rapidly growing offspring. We appreciate the beauty of songbirds and their characteristic songs, sometimes forgetting the important work that they must do to ensure the continuation of their species. The mortality rate is high for the newly fledged young; most do not make it through the first year.

When driving, I do my best to avoid hitting birds or other wildlife, but sometimes they just bolt out in front of the vehicle. This is particularly evident at this time of year when young birds have not yet mastered their flying skills. I have found that along quiet country roads, with tall vegetation close to the edge of the road, birds are more likely to suddenly zip out from the shrubbery in front of the vehicle, than on busier roads in more open landscapes. It is a good idea to slow down on these kinds of roads so you are less likely to strike wildlife. Just one little thing you can do to help birds.

James Kamstra, President, North Durham Nature

Photo by Kim Lendvay

Upcoming Events – July to September 2024

Talks and Upcoming Meetings – no meetings will be held over the summer

August 10, 2024 – Lake Discovery Day is an all-day event highlighting the Lake Scugog environment (organized by Scugog Lake Stewards). It includes displays and activities at Latcham Centre in Port Perry. North Durham Nature will be leading a wetland ecology walk along the shoreline north of the boat launch at 1:00 pm. Registration not required.

September 24, 2024 – Dr. Erica Nol, Ornithologist from Trent University will give her presentation "Will the Songbirds Survive?" She will give us an overview of recent research on how songbirds are faring in their ability to fit in with our built landscape.

Waterways of North Durham

Layton River

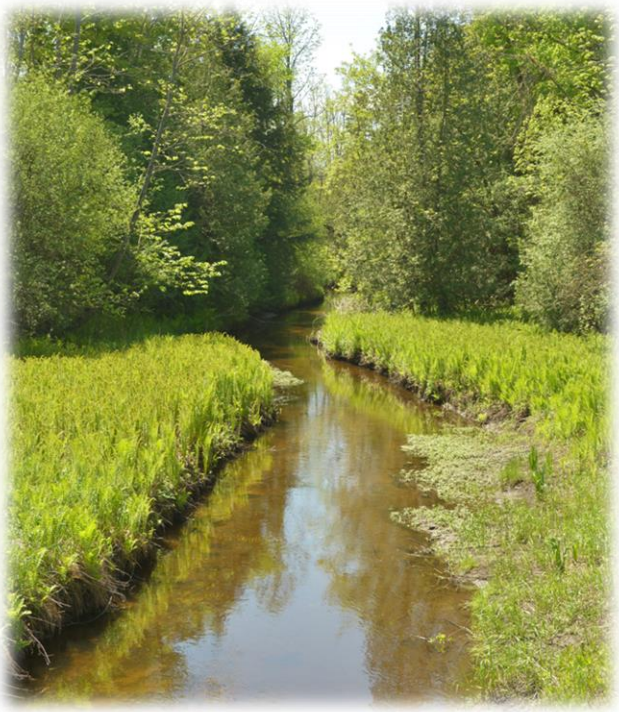
Article and photos by James Kamstra

The Layton River is less well known than some of the larger rivers in North Durham, such as the Beaver, the Nonquon or the East Cross. Nevertheless, it is a major tributary of the Nonquon River. Its source lies on the south side of Manilla from where it flows southward for approximately 18 kilometres to its confluence with the Nonquon about 2 km west of Seagrave. But the actual meandering channel of the Layton River follows a circuitous course of 54 km according to Kawartha Region Conservation Authority.

Layton River is really more of a creek than a river. The lower reaches of the channel are only about 5 m wide, while it averages 2 m wide for much of its length. The slow flowing channel sinews its way through the Layton River Provincially Significant Wetland Complex in the north portion while the lower part of the Layton enters into the extensive Nonquon River Provincially Significant Wetland. A narrow band of cattail or Reed Canary Grass marsh borders the channel through the central portion. Otherwise deciduous, mixed and coniferous swamp lies along the adjacent floodplain in many places. Alder thicket swamps are common and taller swamps contain a mix of White Cedar, Tamarack, Balsam Fir, Trembling Aspen, Green Ash and Red Maple.

The watershed surrounding the Layton River encompasses 56 km^2 in area. It more correctly should be called a subwatershed of the Nonquon, and comprises about 25% of that watershed. While the entire river channel lies within Durham Region (25% in Scugog and 70% in Brock Township), a small portion of the watershed lies within Kawartha Lakes. A number of small streams feed into the main channel, but the Layton bears no substantial tributaries. Overall, the watershed lands consist of 36% natural cover with most of the remaining area in agriculture and a small amount of residential. Riparian forest, marsh and adjacent forest form a continuous north-south natural corridor for wildlife movement, although bisected by ten road crossings. A fairly continuous band of natural cover connects eastward from the upper Layton through the Mariposa Brook watershed in Kawartha Lakes to the east. This is an important corridor that allows wildlife to move across the landscape, with opportunities to recolonize if necessary.

A very interesting plant can be found growing at a few select locations along the edge of the channel. Green Arrow-arum (*Peltandra virginicum*) (see photo above) is a provincially rare southern plant that is not known to occur anywhere else in Durham Region except the Layton; not even along the Nonquon River further downstream. Do not confuse it with Broad-leaved Arrowhead (*Sagittaria latifolia*), which is a common wetland plant in Durham, Arrow-arum is an arum with an upward pointing spathe flower spike. Arrow-arum is also taller and forms denser clumps than arrowhead. Its distribution in southern Ontario is very sporadic. Doug Apperson, who lives along the Layton, was the first person to document this plant near his property in 2020. I have since found it at two other locations within a couple kilometres of the original discovery site.



Layton River is all on private land and therefore there is no good public access to the natural areas along it. It is possible to view the waterway from one of the many road bridges that cross it. Even if not readily accessible however, it is good to know that the river forms an important north-south link of natural cover in north Durham.

Nature Quiz – What am I?

Well let's see – this looks a bit like some sort of tattoo but it's not on skin. What is the surface that that symbol is painted on? Or is it even paint?

Maybe it's time for a clue … I am an aquatic animal that spends my summers on logs in shallow lakes and ponds, only occasionally venturing cross-country for a brief foray. Looking at me, you will see a lot of reds, blacks and yellows.

Dinner can be aquatic insects, tadpoles, some plant matter and even carrion! What am I?

Spotlight on Nature - American Elm

Text and photos by James Kamstra

American Elm (*Ulmus americana*), also known as White Elm, can easily be recognized from a distance by its characteristic vase or chantarelle shape, with a crown that is narrow at the base, tapering out towards the top with a rather flat top. It is a common tree in North Durham, often occurring on bottomlands and swamps as well as in hedgerows and along roadsides. The leaves are simple, double toothed and often lop-sided in shape with the base of the leaf extending out more on one side.

Historically, American Elm was one of the tallest trees in eastern North America, with exceptional specimens attaining a height of 55 m and a diameter of 1.5 m. Probably everyone knows that the unintended introduction of Dutch Elm Disease (DED) caused a massive die-off of stately elms in Ontario and elsewhere. Despite its name, the disease did not originate in Holland. DED is believed to have originated in Asia, which spread into Europe in the early 1900s and was first identified by Dutch scientists, hence the name. Unfortunately, diseased elm logs were imported into the eastern US. DED spread out from there and then reached Ontario in the late 1940s.

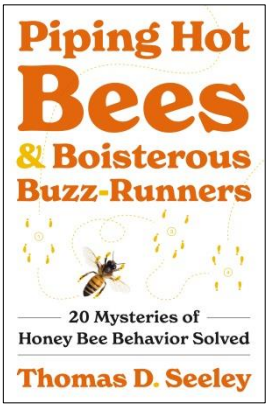
Dutch Elm Disease is caused by a fungus (*Ophiostoma* sp.) that is spread by two species of bark beetles that create extensive networks of tunnels under the bark. They carry fungal spores from one tree to another, thereby spreading the disease. The tree usually dies in one to three years. A massive elm die-off occurred across southern Ontario in the 1970s and 1980s. Fortunately, DED did not lead to near extinction of American Elm, which is a fast-growing tree that produces wind dispersing seeds at a young age. Bark beetles do not attack the trees until they have attained a reasonable trunk diameter of about 30 cm, which allows trees enough time to reproduce for several years.

Consequently, American Elms are not disappearing; they are just not the magnificent giants that they used to be.

When I first moved to Scugog in 1992, there were about a dozen apparently healthy mid-sized American Elms on the property. Within two years, nearly all were dead from DED. This was the second wave of the disease moving through. More recently I have seen many more dead or dying elms in North Durham, but also many healthy young ones. And there is the occasional large specimen elm to be seen in North Durham. In fact, it has been determined that approximately 1 in 100,000 trees are resistant to DED. Maybe over time, as such resistant individuals reproduce, the American Elm will retake its rightful place as some of the tallest trees in our local landscape. I recall years ago, a magnificent giant elm standing like a sentinel above an orchard near the corner of Taunton and Lakeridge Road. It had defied the disease but alas, one day, it was struck by lightning so it had to be taken down.

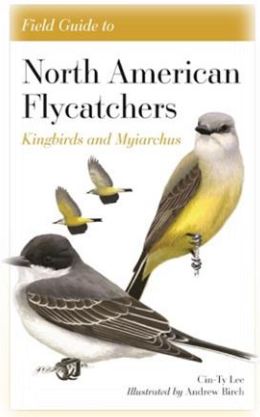
Book Reviews

By Geoff Carpentier



Piping Hot Bees & Boisterous Buzz-runners – 20 Mysteries of Honeybee Behaviour Solved. Thomas D. Seeley. 2024. Princeton University Press, Princeton, New Jersey, 08540. 296 pages. $29.95 USD. ISBN: 978-0-691-23769-5.

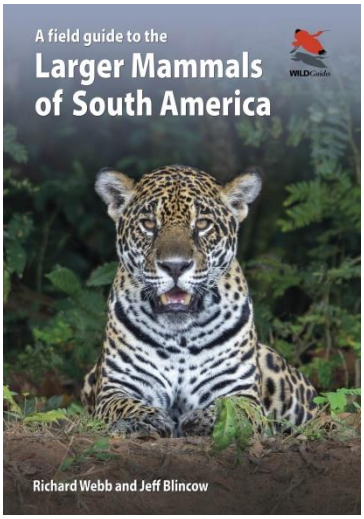
For anyone interested in honey bees this is a must read. The author first became interested in bees when he was about 11 years old and subsequently has spent his life studying these creatures that we appreciate due to their profound contribution to pollination. Seeley has delved deeply into the lives of these insects which led to his not only posing profound questions about their lives, but also to develop and implement studies to find the true answers. I won't detail all twenty questions, but if you're curious about the "tremble dance", water gathering, home site selection, thermoregulation and swarming to mention a few, this is the book for you. If you buy this book, you can curl up with some toast and honey and see what the buzz is all about!



Field Guide to North American Flycatchers – Kingbirds and Myiarchus. Cin-Ty Lee. 2023. Princeton University Press, Princeton, New Jersey, 08540. 190 pages. $19.95 USD. ISBN: 978-0-691-24064-0.

This is the second in a series of expert level books that will assist North American birders in identifying the complex group of flycatchers that comprise the Myiarchus and kingbird families. The Myiarchus complex is represented in our area exclusively by the Great-crested Flycatcher and the latter by the Eastern Kingbird. But once you start to travel to the southern US, Central America and beyond many more species of both clans will be encountered. The book covers 6 species of Myiarchus and eight kingbirds, plus the Scissor-tailed and Fork-tailed Flycatchers. Each species account includes a great amount detail regarding behaviour and plumages, seasonal movements and vocalizations. But more importantly is the great effort expended by the author to analyze identification differences between similar looking species. This is most useful when studying the Myiarchus group as they look so similar and often one looks for subtleties of colour and patterns to help in identification. Similarly, the "yellow-belled" kingbirds can be very confusing as anyone who ever tried to tell a Couch's from a Cassin's Kingbird can attest. This is an amazing resource that will be most useful to serious birders. The author may need to consider doing a supplemental book about the many additional Myiarchus in South America that look remarkably similar to the ones covered by this book.

A Field Guide to the Larger Mammals of South America. Richard Webb and Jeff Blincow. 2023. Princeton University Press, Princeton, New Jersey, 08540. 488 pages. $49.95 USD. ISBN: 978-0-691-17409-9.



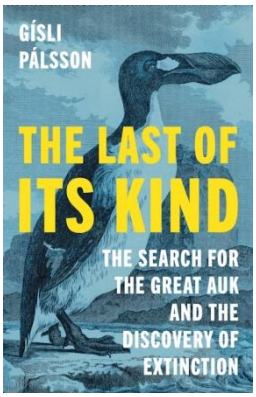
This is a book I wish I had owned many years ago. I have had the opportunity to travel to South America many times and one of the most challenging group of animals I encounter, as far as identification goes, is the mammals. Few good books have been available over the years. A few years ago Lynx Edicions, a European based publisher, released a multi-part series of Mammals of the World and followed that with a series of regionalized books on mammals from around the world. Prior to that the only other readily available resource was Emmons' book entitled *Neotropical Rainforest Mammals*.

This new and very concise book that does a great job of showcasing about 400 species of larger mammals (mice, rats and other species smaller than a guinea pig are not included). Every species is given individual coverage, even when similar species, such as the Titi monkey complex, have many similarities. Details on range, size, morphological features, habitat and similar species are all accompanied by a detailed range map. One thing I've not seen in other fields guides that I really like is the way the range maps are laid out. Often with a range restricted species, many authors show a large map, then a tiny dot where the species occurs – so it really is very hard to figure out where they actually are. These authors use the same principle but then overlay this with a zoomed

in map so you can see the "big picture" and local detail of range. Loved that! Of course every account is accompanied by fabulous photos!

I had a very different reaction to this last book I'd like to offer …

The Last of Its Kind. Gísli Pálsson. Princeton University Press, Princeton, New Jersey, 08540. 289 pages. $27.95 USD. ISBN: 978-0-691-23098-6.



I checked out several online reviews after I read the book cover to cover and was surprised how complementary most reviewers were. No disrespect meant but I found the book wordy, unfocussed and well off-topic much of the time. The thread of the book was good and concept important – to track the demise and history of the Great Auk. How did it go from an important part of a marine ecosystem to being exploited and eventually exterminated species? If the author had stuck to that concept, I think it could have been a much better book. But instead he wandered off talking about the researchers too much and repeating facts over and over throughout the book without adding much real value or detail. Sorry, but for me this book was a failure.

Fact or Fiction?

Text by Lynda Kamstra
Photos by James Kamstra

Removing Brown-headed Cowbird eggs helps the host bird

FICTION: It's difficult not to pass judgement on the Brown-headed Cowbird, but you have to admire their "thinking outside of the box" nesting strategy! When you see a cowbird egg in a sparrow or warbler nest, you may be tempted to remove it, but should you?

Forest clearing has encouraged the coast-to-coast expansion of the Brown-headed Cowbird from their original territory on the prairie grasslands. Their brood parasitic nesting behaviour is believed to have evolved while roaming with the bison, and now, cowbirds affect over 220 bird species.

Female cowbirds wait and watch for the opportune moment to lay eggs in other birds' nests. She will lay one egg a day and will have laid a total of 30 to 40 by the end of the breeding season which lasts May to July. Recent studies have discovered that individual female cowbirds specialize on a particular host species.

A watchful female Brown-headed Cowbird

The pressure on host bird species by cowbirds is alarming, and unfortunately, human intervention to mitigate the situation is not straightforward. Across the border, controlling cowbird populations alone was not sufficient to increase endangered Kirtland Warbler populations; greater success was achieved when combined with Jack Pine habitat management.

Surprisingly, research has shown that removing cowbird eggs from host nests results in more harm than good. Firstly, though most foster birds don't seem to recognize the cowbird egg, they do have an awareness of the total number or mass of eggs in their clutch and there is a risk of abandonment should an egg be removed. Secondly, after laying her egg, female cowbirds remain vigilant in the area and have been known to destroy the nest if there has been tampered with. In addition, although the Brown-headed Cowbird is not protected in Canada by the *Migratory Birds Convention Act*, it is illegal to tamper with the nest of the host species which is protected.

A lone baby cowbird in an Eastern Phoebe nest. Slower developing phoebe nestlings have either been kicked out or smothered.

What can we do in our own backyards to discourage cowbirds? When feeding, use tube feeders with short perches designed for smaller birds and clean up seeds on the ground. And, simply staying away from nesting birds will prevent commotion that might draw the attention of an eagle-eyed, spying cowbird!

The Brown-headed Cowbird is monitored well in Canada and Breeding Bird Survey data for Ontario show an overall decrease in population since 1970. Even the cowbird is part of the ongoing downward trend in migratory bird populations.

Nasty & Nice Nature News

Compiled by Geoff Carpentier

Private bird breeders help offset the impact of poachers. In a small area of eastern Brazil a tiny songbird has essentially been silenced by poachers, which is odd because they capture it because of its beautiful song! The Great-billed Seed-finch or Bicudo ('big beak' in Portuguese) was driven to the brink of extinction by poaching, when an estimated 300 birds were left in the wild. Tens of thousands persisted in captivity however, so its future wasn't as dire as many other endangered species. That said, it took the efforts of many scientists and breeders to help it find its way back to traditional Brazilian cerrado forest habitats. Through captive breeding, and the cooperation of strong (and legal) breeding trade, birds are being returned slowly into habitats they once occupied near São Paulo. Still in trouble, they have yet to raise young to maturity but the scientists are hopeful that will change as time and opportunity allow. So if you can buy them legally from over 49,000 registered breeders, why steal them from the wild? Well that may be a question without an answer, except that some people strive to own something that they shouldn't and choose contraband over fair market birds. (Source: University of São Paulo's Museum of Zoology)

Is there a darker side to EVs? The world is rightly on a path to try to offset the impacts of climate change. One of the initiatives that is foremost in the minds of most governments is the development of more and more EVs and hybrid vehicles. This is across all sectors, including large transport, aviation and of course personal vehicles. To make the batteries, that allow these vehicles to function, requires plenty or lithium and cobalt. This has led to some scientists cautioning that the benefits of the EVs must be weighed carefully against the negative outcomes that arise during the mining of the raw materials for the batteries. Lithium is primarily mined in South America, in the lithium triangle, bounded by Bolivia, Chile and Argentina, where about 50% of the lithium mined in the world is taken. The biggest challenge faced by the local indigenous peoples is the change in their landscape and the depletion of resources to satisfy the global need for lithium. Most of the water in this part of the world comes from glacial melt and the lithium mining industry is using about 65% of all the locally available water. This affects not only the indigenous peoples but also the wildlife of this unique region. China has invested billions of dollars into the mining industry there so the benefits to local people will be limited with most of the profits moving offshore. The world's largest deposit of cobalt (about 70% of global reserves) can be found in the Democratic Republic of Congo. The issue there seems to be that the major financial player, China, is not protecting the environment and water is being contaminated and people harmed. Solutions may eventually appear in new mining techniques for lithium (e.g. direct extraction) that will reduce the use of water in the mining process or finding alternatives to lithium to make batteries. Other issues, like tires damaged by heavy EVs and the failure of the industry to recycle lithium batteries, is augmenting the negative side of EVs. (Source: Focusing on Wildlife)

Aposematism? This is the evolutionary process whereby animals develop bright colors to warn potential predators that eating them is a bad or dangerous idea. Collaborators from Carleton and Seoul National University have studied this phenomenon. It seems counterintuitive to be brightly coloured when you are more likely to be eaten because you're more visible. But if you want to warn predators away it can be a good tactic. The issue is like the egg and the chicken – do you need to be brightly coloured before you develop toxicity or after? It seems the answer may lie in the gradual development of both characteristics. Get a little brighter, then a little more toxic and so on until the ideal balance is achieved! (Source: Science (journal).

A new player on the rise. Joro spiders (*Trichonephila clavata)* have invaded North America apparently. The 7-10 cm spiders are large and obvious once they emerge from the egg where they overwintered. Looking similar to the Garden Spider (*Argiope aurantia*) we find in some of our meadows, Joro spiders are non-aggressive. These natives of Asia build large webs with golden hues. They first appeared in Georgia about a decade ago and have since been seen in Tennessee and South Carolina. Since they are cold tolerant, they may eventually make their way to the northern states and maybe even Ontario. Timid, they tend to hide from rather than confront danger. The name of the spider originates from the Japanese where it is believed that a spider can turn into a fire-breathing woman who can control other spiders. Nice! (Photo at the right was downloaded from the internet)

The 3rd Ontario Breeding Bird Atlas Update

Year four is coming to a close but there's still time to get out there and find some nesting birds. Early summer is the best time of year to confirm breeding as the parents are feeding their young and the fledglings are hungry, noisy and conspicuous!

So let's keep going and see what new nest confirmations we can find. Not registered yet for the atlas? No problem you can still sign up NatureCounts - Ontario Breeding Bird Atlas or at least let me know what breeding species you've found so I can make sure your record gets into the atlas.

Answers to Nature Quiz – What am I?

Well many of you figured this out I'm sure .. I am a Midland Painted Turtle. What you're looking at in that odd photo is the underside of the plastron (the lower boney shell of the turtle). The upper side (the carapace), coupled with the plastron protects the organs of the turtles and acts the same as our skeleton to allow mobility. The animals spend a great deal of time in the water and, when small, feed primarily on pond dwelling prey such as insects, small fish, slugs and tadpoles. As they grow their diet becomes more varied and they feed on various types of plant material, live prey and even scavenged carrion.

Nature's Pretty Side

By Geoff Carpentier

Citizen science – the raccoon that wanted to help out … this little guy joined me at the hawk watch at Cranberry a few years ago ,,,

And like any good scientist, once the record keeping was done – it was time for a coffee break ….

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