President's Message

Ah winter, a time of year when much of nature seems to be dormant. When one walks around in the frozen, snowy woodland, the branches of deciduous trees are bare, and the dead stalks of last summer's plants poke up from the ground. There is not much animal life to be seen - perhaps some mammal tracks in the snow or an occasional band of chickadees. The walk may be pleasant on a fine winter's day, but the woods seem so lifeless. It makes one long for spring when the new leaves unfurl and the sounds of birds fill the air.

But this is all part of the natural cycle and needs to be appreciated. Plants have stored energy from the warm sun of the previous growing season, lying in wait to sprout. Insects of all kinds are hidden under bark, among leaf litter or underground in a dormant stage as eggs, larvae, pupae and even adults. The observant eye may spot a brown silky cocoon of a Cecropia Moth of the exposed branch of a shrub, or perhaps a bulbous goldenrod gall with a fat grub inside. The vast majority of organisms that are out there will be well-hidden, however, but it is comforting to know that there is life all around, even if it is not seen.

One of the things I really like about hiking around in the winter is that without the cover of foliage, it is possible to see so much further into the forest. The lay of the land, hills, valleys, woodland pools, interesting trees stand out so much better. Often, I will see new features that I had completely overlooked in the summer and may want to check out in the coming spring. So even if it does not look too inviting outside, there are good reasons to get out and experience the natural world where you can find it.

James Kamstra, President, North Durham Nature

Upcoming Events – October to November 2024

Upcoming Meetings

January 28, 2025 – Member's Night & Annual General Meeting - Mini-presentations on Australian wildlife, Newfoundland, birds of the woodlands, a lesson in survival and more.

February 25, 2025 – Dr. Erica Nol, Trent University - “Will Our Songbirds Survive”

March 25, 2025 – Martin Parker, Dave Brewer and Carly Davenport - “Birding in the Wilds of Mongolia”

Upcoming Outings

January 11, 2025 – Moonlight Nature Walk in Uxbridge Area (full moon this night)

February 5, 2025 – Snowshoe or Winter Walk to Ballyduff Conservation Area

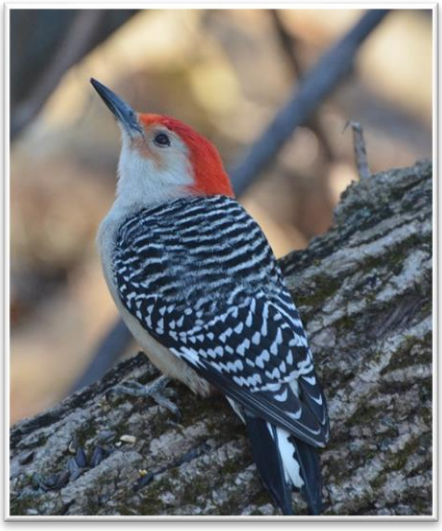
March 22, 2025 – Warbler and Sparrow ID Workshop at Scugog Memorial Library

Christmas Bird Count Results

This year on the Uxbridge count a reporter from Canadian Press (CP24) accompanied Geoff Carpentier and later met up with Karen Vanderlee and Gary Patterson to garner insights into how Christmas bird counts work. Read the whole story here: Birders see changing landscapes, climate in 125th annual count

Beaverton Christmas Bird Count – 50th Edition

Who would have thought when Jack Miller organized this event in 1975, we would still be dragging out our binoculars 50 years later. We've had some great birding years and others less so. We've had days well below zero in Fahrenheit temperatures (too cold for my Austin 850 and Lada) and other days warm enough to golf. We’ve had buckets of rain, deep snow, sleet, freezing rain and every other form of precipitation possible. Yet, we have always survived although our cars weren’t always so lucky. Keeping them on roadways proved a bit of a challenge at times. This December 30th wasn’t a challenge to drivers as they kept their windshield wipers going. It was a wet day with strong winds in the afternoon. As conditions were not ideal for birding, however, we ended the day with positive results.



A complete summary of the results will be posted on the club website, but the number of species observed was average (47 in total). In the past, we never observed 47 species until our 25th year. Credit for that improvement must go to the increased number of participants that now take part. An additional seven species were counted during our “count week” period. The number of individual birds tallied, on the other hand, was significantly below average with less than 40% of our total last year. Wet, windy conditions and a mostly frozen Lake Simcoe could be blamed for this dramatic drop in numbers. Our 27 field observers deserve a great deal of credit for identifying the number of birds they did count during, at times, very miserable conditions.

This year we continued to count strong numbers of Bald Eagles, Wild Turkeys, Common Ravens and Red-bellied Woodpeckers: birds that rarely, if ever, showed up in the first 20 years of our count. Our Feeder Watchers made significant contributions this year by identifying our only Red-breasted Nuthatch, Red-winged Blackbird, Common Grackle and Brown-headed Cowbird on count day. Big misses on the day included most owl species and swans, while low numbers of waterfowl could be explained by the lack of open water on Lake Simcoe. More puzzling was the lack of House Finches with only 8 found, all in the same count sectors.

We now have a strong contingent of field observers, including many NDN members, so we have good reason to be optimistic about future counts. Congratulations of 50 years of incredible Citizen Science!

John McLean, Compiler

20th Uxbridge Christmas Bird Count 2024

Good weather and 70 + people counting can make a difference to your total number of birds seen on the annual Christmas Bird Count. This year was the Uxbridge's 20th anniversary of the count,

and the birds and birders showed up for the event. 56 species of birds (slightly over our 20-year average) and over 11,000 individual birds (close to the maximum ever seen) were counted.

Four rare bird species, including Northern Pintail, Hermit thrush, White-crowned Sparrow and a Lapland Longspur were sighted.

The highest number of individuals of a single species this year were Snow buntings with over 2500 seen in four flocks. Canada Geese and Mallards were down in numbers possibly because most still water was frozen. Starlings were the second most abundant species. Overall, although the species count was high, half of the species seen were represented by less than ten individual birds. A disturbing trend, perhaps indicating that diversity may be rising but actual numbers of many species is dropping.

Many thanks to the participants in this year's count, Geoff Carpentier who educated a reporter from Canadian Press about the Christmas Count and added two rare birds. James Kamstra and Don Brownridge also each recorded a rare bird. This year, Ontario Parks counted birds in the new Uxbridge Urban Park for the count and Mike Burrell our Bird Studies Canada regional editor joined in too. Mike approves our rare bird sightings before they go to Audubon if our birders provide the correct details. Also, thanks to Mark Dorriesfield who inputted the field data at the Pot-luck supper. We appreciate Alan and Anne Wells opening their home for the evening wrap-up and all the birders at home and in the field for making this annual event a huge success. More details of the count will be available on the North Durham Nature (NDN) website and on the Audubon Christmas Bird Count Database under ONUX .

Derek Connelly, Compiler

Waterways of North Durham

Photos and text by James Kamstra

Uxbridge Brook is well known to Uxbridge residents since it flows through the town. The brook's headwaters comprise several streams on the Oak Ridges Moraine that join south of town to form the main channel that flows north. There, conifer swamps and seepage zones feed the streams with cold clear water. Skunk Cabbage grows along the headwater seeps, sending up its hood-like flower very early in spring. It is a rare plant in Durham Region but can be seen along Uxbridge Concession 7, south of Elgin Park Drive.

The portion of the brook through the central part of town has not been treated as well, however. Only a narrow band of vegetation lines the channel that is surrounded by parking lots, streets and the backyards of residential homes. Furthermore, a section flows underground through the downtown area. Just east of the Uxbridge Public Library, the brook disappears into a double culvert, to flow under buildings and Brock Street before resurfacing some 200 m downstream. This is not unique as many Ontario towns have done the same thing – channelized some waterways underground.

According to the historic plaque in town, a 20 m long stone-lined culvert was constructed here in 1898.

Sometime afterwards, to accommodate urban development, the culvert was greatly extended to the north and south. Then in 1965 a major flood occurred in Uxbridge because the culvert was too small to accommodate the flow from a huge rain event. The culvert was rebuilt and twinned at great expense in 2021. Fortunately, the practice of burying creeks is no longer allowed in new developments and in fact 'buried streams' have been returned to the surface in some towns such as Barrie.

North of the town, the natural quality of the Uxbridge Brook improves. No road crosses the creek for an 8 km section between Davis Drive and Durham Road 13. Apart from 40-hectare Wagner Lake, which is largely lined by residences, this section of the waterway flows through a rather extensive area of undisturbed lowland swamp that is rarely visited and difficult to access. The next stretch north from Durham Road 13 to Ravenshoe Road also meanders through an undisturbed area of marsh, alder thickets and mixed swamps.

Uxbridge Brook empties into Pefferlaw Brook just north of Udora village. The watershed that feeds into Uxbridge Brook encompasses 175 km^2 in area, which is actually a subwatershed of the Pefferlaw Brook and comprises about 40% of that overall watershed. Nearly all of Uxbridge Brook lies within Uxbridge Township except the last few km north of Ravenshoe Road before its confluence with Pefferlaw Brook that lies within Georgina Township. Several small streams feed into the main channel, and Leaskdale Creek is a major tributary further north. Overall, the watershed lands consist of 39% natural cover, 7% urban and 53% agriculture (Lake Simcoe Region Conservation Authority). North of the town, riparian woodland, marsh and adjacent forest form a continuous north-south natural corridor for wildlife movement, although bisected by occasional road crossings. Along with Pefferlaw Brook, it forms an important north-south link of natural cover extending from the Oak Ridges Moraine to Lake Simcoe.

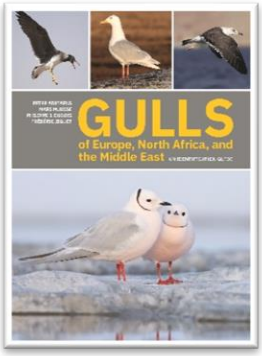
Lake Simcoe Region Conservation Authority (LSRCA) has completed a subwatershed study of Pefferlaw River which includes Uxbridge Brook. This can be found online at Pefferlaw River Subwatershed Plan 2012. Even though it is now more than a decade old, it still contains a great deal of relevant information on the aquatic characteristics of the watershed and makes recommendations for watershed improvement. The purpose of a subwatershed study (normally done by municipalities or conservation authorities) is to examine existing conditions of water quality, land uses, aquatic habitat, riparian cover and make recommendations to maintain or improve conditions. This is often a tall order, for there are nearly always increasing pressures of development and human population growth that challenge maintaining environmental functions, let alone improving them.

Much of Uxbridge Brook occurs on private land where there is no public access to the natural areas along its length. Public trails follow portions of the brook in the Countryside Preserve, north of Elgin Park Drive, and east of the Fields of Uxbridge. Several other trails follow portions of Uxbridge Brook or its tributaries, while some of the headwaters lie within the new Uxbridge Urban Provincial Park.

You may have heard about *The Brook Never Sleeps*, an interactive day-long workshop where students visit and learn about the ecology of Uxbridge Brook and streams in general. The event took place annually prior to COVID but was recently revived in November 2024, partially supported by North Durham Nature.

Book Reviews

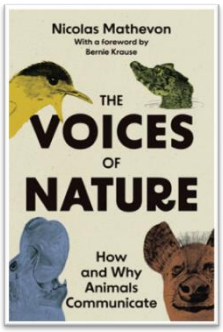
By Geoff Carpentier



Gulls of Europe, North Africa and the Middle East: An Identification Guide. Peter Adriaens, Nars Muuse, Philippe J. Dubois and Frederic Jiguet. 2023. Princeton University Press, Princeton, New Jersey, 08540. 320 pages. $42.00 USD. ISBN: 978-0-691-22283-7.

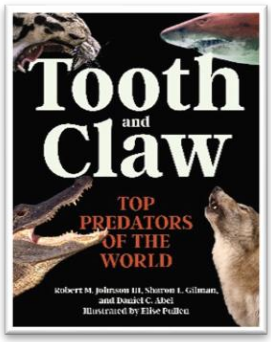
So, let's take a closer peek at this new gull book … 1400 photos of all 45 species of gulls that occur in the region. Each species account includes multiple images showing plumages, age classes and fine detail. Each account then offers between 4 and 8 pages of information to lead the reader to concise and accurate identification of these tricky birds. Anyone who has studied gulls in any way will understand how tough it is to ID them, even when detailed views are achieved. For every species that might be confused with another (read all of them here!), the authors offer concise comparisons to what they call similar taxa. This is an invaluable tool when comparing these similar-looking birds. With the new splits of the Herring and Common Gull

complexes, a book like this is a must. The amount of detail the authors offer for these two groups is quite amazing. The authors themselves are world authorities on gulls and have extensive experience and expertise that they bring to the book. Muuse is a Dutch ornithologist who founded the Gull Research Organization, Dubois is an editorial director of the journal *Ornithos* and Jiguet works for the National Museum of Natural History in Paris, while Adriaens is a renowned photographer specializing in gulls. You may hate gulls since they're so hard to identify, but maybe after using this book you'll hate them a little less!



The Voices of Nature – How and Why Animals Communicate. Nicolas Mathevon, 2023. Princeton University Press, Princeton, New Jersey, 08540. 392 pages. $32.00 USD. ISBN: 978-0-691-23675-9.

I've spent a great deal of time in the field and heard a lot of strange things, from singing fish in Venezuela, trumpeting elephants, bellowing elephant seals and birds simply singing their songs. Sometimes I know exactly what they're doing and why, but often I just think I may know and can make an 'educated guess' as to their motives and reasons. This new book by Mathevon offers valuable insights to augment my own observations - correcting some and reaffirming others. The book is a bit daunting to read as it is essentially a textbook with few illustrations, but plenty of 'meat'. Throughout the book he explains many concepts of sound and song – how do animals communicate with their young? How do animals communicate when ambient noise is oppressive? How does sound travel underwater? How do animals learn to vocalize? Do animals express emotions through their vocalizations? Well, you get the idea – you will know a great deal about animal communication once you finish reading this book! Teaser: Just to give you one idea of the complexity of sound – did you know that birds with larger beaks produce simpler songs than those with smaller beaks? The author used the Galapagos finches as an instrument to explain that the morphology of the beak and musculature lead to songs that varied exactly as one would expect – big beaked finches = less complex songs and vice versa.



Tooth and Claw. Robert M. Johnson III, Sharon L. Gilman, and Daniel C. Abel. 2023. Princeton University Press, Princeton, New Jersey, 08540. 353 pages. $45.00 USD. ISBN: 978-0-691-234028-2.

It is refreshing to find a book only about predators, and not just what they look like and where they live, but how they have adapted to become apex predators and sometimes even prey themselves. This new book details fascinating facts about many of the top predators of the world, as the title indicates. Ten chapters, presentrd in a readable, informative and interesting fashion, offer details about sharks, reptiles, raptors, cats, canids, bears, marine mammals and humans. Chapters include analyses as to why some predators succeed and others don't, how we positively and negatively impact them and why predators are part of the grander landscape of earth. It is a great read and should easily become a valuable part of your libraries.

Natre Quiz – What am I?

by Geoff Carpentier

A riddle: I have four wings, but I don't. I reportedly (at least historically) was spontaneously generated from rotting meat. You might think I'm trying to siphon your blood through your skin, but I'm not. What am I?

Fact or Fiction?

Text by Lynda Kamstra
Photo by James Kamstra

A Black-capped Chickadee's brain size changes with the seasons

FACT: In preparation for winter, the chickadee's hippocampus, the brain area implicated in short-term and spatial memory, has been shown to increase in both volume and neurogenetic activity. This brain growth, however, is temporary and begins as early as August and then wanes by late winter. It is thought to be an adaptation to help the chickadee remember the location of cached winter food. In harsh environments, this might involve up to 5000 caches per day! How is this possible when I struggle to remember what's in my fridge?

Black-capped Chickadees are known as scatter hoarders, meaning they hide individual food items in many different places to prevent losses due to pilfering. Other members of the Paridae (Chickadee and Titmice family) are also known to cache food and all have proportionately larger hippocampi compared to non-caching bird families. However, within the Paridae, the Black-capped Chickadee is the master of them all. Examples of other winter caching birds include nuthatches, crows, jays, and the Brown Creeper.

Recently, a fascinating study at Columbia University revealed what is happening inside the hippocampus. Neurobiologists were able to read electrical signals transmitted from the hippocampus using fitted probes on chickadees in a laboratory setting. When analyzing electrical brain patterns, they discovered that the birds were stamping each hiding place with a specific barcode-like pattern. When the birds went to retrieve their food, an electrical signal with the matching barcode pattern was produced even before the bird laid eyes on the food! Chickadees are also able to remember the quality of food that is hidden, and which locations have already been retrieved.

In the field, Black-capped Chickadees living in harsher climates showed greater caching behaviour, spatial memory, and hippocampus function than their counterparts in less harsh climates. Similarly,

a study with Mountain Chickadees found populations living at higher elevations (2400m) demonstrated more caching, better spatial memory, and better hippocampus function than populations at lower elevation (1900 m).

The discovery of the chickadee's plasticity in enhancing hippocampus function and then discarding old information when no longer needed may be of great relevance to understanding possible benefits to humans. Perhaps there is hope for me and my fridge!

Nasty & Nice Nature News

Compiled by Geoff Carpentier

New South Wales, Australia – War on Cats: Expert marksmen in New South Wales are targeting feral cats in a 'shoot to kill' hunt as part of an enhanced strategy including trials using cat baits, deployment of innovative cat traps, establishing large feral cat-free areas and exploring genetic controls. The project will focus on Australian national parks. Jack Gough, advocacy director at the Invasive Species Council of Australia said, "Every day, 5 million native mammals, birds, reptiles and frogs are killed by feral and roaming pet cats in Australia." The Australian government also plans to have a national strategy to control cats and will release an updated national threat abatement plan later this year. (Source: The Guardian)

Do Amazonian Manatees farm the land? Studies of manatees near Manaus, Brazil indicate that local animals, along the shores of Lake Amanã, can help spread the seeds of aquatic grasses, thus cultivating their own feeding grounds. Animals consuming and 'pooping' out seeds is not a rare phenomenon – unless you're a manatee apparently. The bonus is they also fertilize the seeds with their own faeces as they drop them in suitable habitats! It may be that other related species of Dugong, also "poop' out seeds but no studies are apparent that confirm this. (Source: Journal of Natural Conservation)

Turtle soup can kill you! In the Philippines, people still illegally take sea turtles and eat them. Three people died and 32 others were hospitalized recently when they dined on this forbidden food. The turtle flesh was incorporated into a soup called *adobo*, which is a mixture of meat (usually chicken or pork), vegetables, vinegar and soy sauce. Clearly, this is a serious case of food poisoning where the menu was "to die for"! (source: BBC News)

Orcas hunting whale sharks: Whale sharks are massive (36 tonnes) in weight and 12 meters in length. To hunt them, you must be strong, fearless and cunning. Orcas have learned to hunt these behemoths. They simply swim below them and lunge upwards, flipping them on their backs and then attacking the under belly near the pelvis. (Source: Live Science)

Where are my sandals? Along the shores of Long Beach, Washington State, a beachcomber collects some strange things from the shore as he does his beach clean-ups. One of the strangest is a surprising number of Crocs (shoes) he regularly finds. Curious, he did some research and concluded they came from a trans-ocean shipping container that had tumbled over the side of a cargo ship. Many goods are transported this way as 250 million of these containers cross the oceans every year,

but apparently, they don't all make it to their destinations. Many of them just fall off the ships and this is a fairly common occurrence as at least 20,000 of these truck-sized containers have fallen off ships in the last 15 years. (Source: Washington Post)

Bird on a wire: Villagers in the small towns of Pedro Luro and Hilario Ascasubi in Argentina are upset and annoyed with a huge flock of Burrowing Parrots that daily invade their town. These large parrots nightly roost on the hydro wires in town and make a lot of noise. In the morning, when they depart, they often cause the wires to touch each other and short out because the parrots are big and heavy. This frequently causes power outages, sometimes several times a day. Add in tonnes of bird poop and raucous calls well into the night and we have a nasty situation. The solution is unclear as the birds are protected under national law in Argentina. (Source: Washington Post)

The 3rd Ontario Breeding Bird Atlas Update

The final year of the atlas is about to begin, and we have some work to do in filling in gaps in the information gathered in the first four years of the atlas. If you'd like to help or need more info, please contact Geoff Carpentier directly. If you've already registered for the atlas in Durham Region, stand by as Geoff will be sending out information in the spring. Geoff is the Co-Regional Coordinator for Durham Region for the atlas project.

Gadwall nest – photo Geoff Carpentier

Answers to Nature Quiz – What am I?

Okay I'm a fly and here's why …

I have four wings, but I don't. True flies in the Order Diptera have four wings like other flying insects, but only two of those are functional and the other pair is vestigial and essentially useless when it comes to flight. The purpose of the vestigial wings (also called halteres) is not entirely understood, but they definitely aid the flies in maintaining balance when flying.

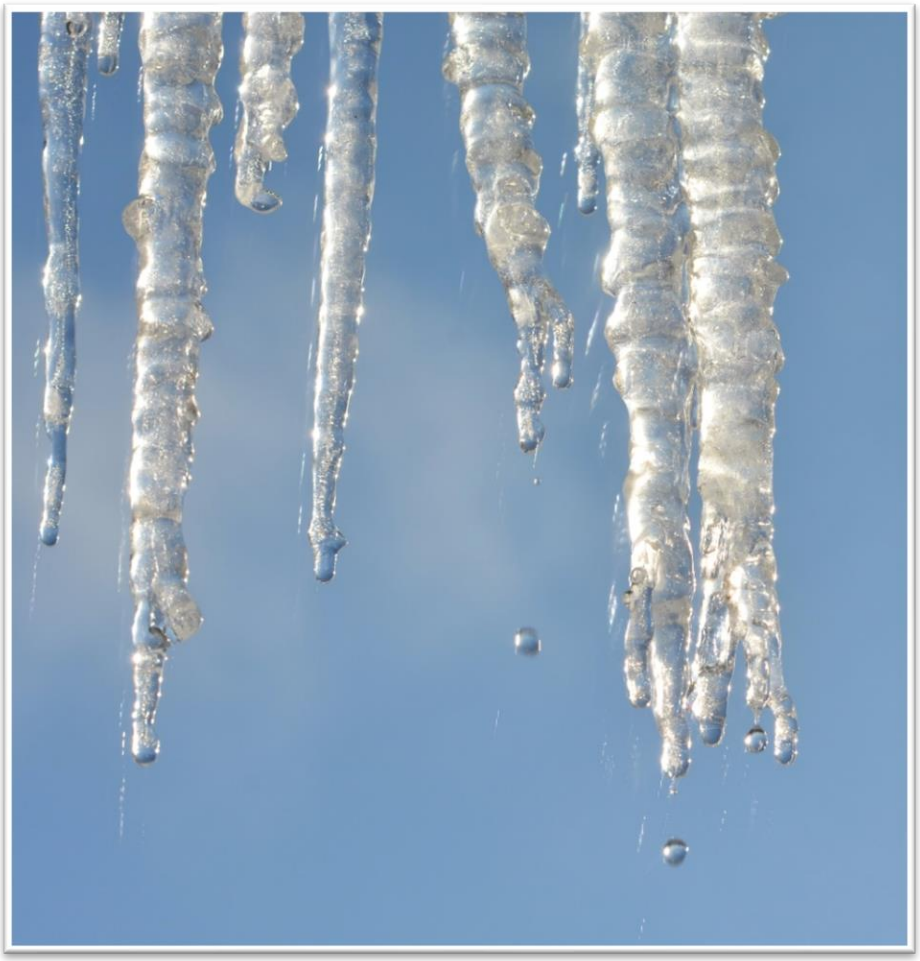
I reportedly (at least historically) was spontaneously generated from rotting meat. In early times, when the origin of things was poorly understood, many people often made unfounded assumptions. When meat was left out to rot it seemed that almost immediately maggots and flies could be found living in it and feeding on it. It was presumed that these must have come from the meat and thus the legend was propagated. Memorial University in Newfoundland, has an online reference to how the myths surrounding maggots and rotting flesh were dispelled. They state "To test the hypothesis, Francesco Redi placed fresh meat in open containers. As expected, the rotting meat attracted flies, and the meat was soon swarming with maggots, which hatched into flies. When the jars were tightly covered so that flies could not get in, no maggots were produced. To answer the objection that the cover cut off *fresh air* necessary for spontaneous generation, Redi covered the jars with several layers of porous gauze instead of an air-tight cover. Flies were attracted to the smell of the rotting meat, clustered on the gauze, which was soon swarming with maggots, but the meat itself remained free of maggots. Thus, [he deduced] flies are necessary to produce flies; they do not arise spontaneously from rotting meat. Redi went on to demonstrate that dead maggots or flies would *not* generate new flies when placed on rotting meat in a sealed jar, whereas live maggots or flies would."

You might think I'm trying to siphon your blood through your skin, but I'm not. Several species of flies are attracted to the moisture and odour on our skin, and it is not uncommon for a fly to land on us and seem to prod and probe looking for a morsel. In fact, they are drawing moisture from our flesh. Salt, in our sweat, is a huge attractant for flies. Sweat is rich in nutrients like carbohydrates and proteins as well as salt and sugar. Oil from our bodies accumulates on our skin to make our body odour stronger and therefore more attractive to flies. Flies often use their mouthpiece, called a proboscis, to suck up fluids and dead skin cells. Apparently, we are a smorgasbord!

Nature's Pretty Side!

Winter Beauty

By Geoff Carpentier



For more information about NDN

Visit Us On Facebook
and our website
www.northdurhamnature.com

NDN Executive Committee

President / Programs: James Kamstra
Vice-president: Derek Connelly
Past President: Cara Gregory
Treasurer / Membership: Kim Adams
Secretary: Lynda Kamstra
Outings: Derek Connelly
Promotion: Jay Thibert
Member at Large: Carly Davenport
Facebook Coordinator & Website: Mark Dorriesfield

Newsletter Editorial Board

Geoff Carpentier – Editor/writer

Proofreaders – James Kamstra, Jane Batterink and Carly Davenport