



The Quinte Naturalist

The Quinte Field Naturalists Association is affiliated with Ontario Nature, a non-profit organization sponsoring nature education, conservation and research.



Photo by Ian Dickinson

Monday, Feb, 27 Algonquin's Natural Beauty – Presented by amateur naturalists and outdoor photographers Tony and Kathy deGroot. Evening grosbeaks were stars on a recent QFN trip to Algonquin Park but they are just the beginning of what the park has to offer. Tony and Kathy share their adventures in the park with us.

Monday, March 27 – Motus Wildlife Tracking System. Program Manager Stuart Mackenzie. This most ambitious bird tracking initiative in the world is leading to spectacular discoveries!

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February is Treasure Table Month. See Club News on Page 7

PLEASE REPORT YOUR SIGHTINGS

In 1995 Christmas Bird Counts in Ontario indicated a healthy population of house finches. In 68 of the province's count circles birders recorded 32,619 of these recent arrivals, undoubtedly a very small sample of the total population. Twenty years later in 2015 more counters in more count circles found only 5986. What happened?

Sometime before 1994 bacterium found in domestic poultry had mutated to a form which caused conjunctivitis in house finches. Participants in Project Feederwatch began reporting members of this species with swollen, red, crusty eyes in February 1994 in Washington, D.C. Over the next few years thousands of infected birds died. These unfortunate victims had become listless and more vulnerable to harsh weather and predation. Any individual suffering from an extreme infection probably starved to death, blind and unable to find food.



Infected house Finch

If you... reported your observations you made an important contribution to human medical science.

Biologists recruited feederwatchers to provide data. For the first time scientists had usable data about the spread and extent of an epidemic in a wildlife population. Combining Feederwatch data with laboratory experiments led to important information about how an epidemic spreads, information applicable to humans as well as birds. For instance, it had long been believed that the virulence of a pathogen, the amount of harm it could cause, would decrease in time. Feederwatch data showed that it was

actually the density of the population that determined what proportion of individuals became infected. Where house finches were more sparsely distributed they were less likely to contract the disease. If you took careful note of the condition of the house finches at your feeders and reported your observations you made an important contribution to human medical science.

Goldfinches are now at risk.

The bacteria for house finch eye disease are known to infect at least 27 other species. In most of those species it seems to cause conjunctivitis in only the odd isolated individuals. Unfortunately bacteria are constantly evolving. Goldfinches are now at risk. This year participants in Project Feederwatch have been asked to report any goldfinches which appear to be infected. Some biologists believe that purple finches and evening grosbeaks may be next.

Please report your observations.

PLEASE DON'T REPORT YOUR SIGHTINGS



Photo by Kyle Blaney

Several great gray owls like this one in Prince Edward County have been found within easy driving distance of Belleville in the past few weeks. Their large size and quizzical expression make them favourites with birders, non-birders and photographers. Finding this bird your first inclination may be to broadcast the location so others may share the breathtaking experience. Don't do it.

In a recent post on his web site Terry Sprague explained the reason:

The policy with most naturalist clubs and responsible birders is to not report the location of this species publicly due of their sensitivity to disturbance while they are hunting during daylight hours and their vulnerability because of their habit of hunting along roadsides. Their unassuming habits allow them to be approached closely and herein lies the problem, when they are constantly disturbed from their routine and prevented from hunting.... While casual observing from a distance is not an issue, a minority of

birder/photographers who resort to baiting, trespassing and harassment are an issue. Also an issue are those casual passersby who simply don't know beyond having "found a large bird," that the presence of noisy individuals leaning over the fence with cell phone cameras clicking, barking dogs and noisy children are not the correct way to approach these magnificent birds.... It happened several times in the past where great gray owls have been harassed so relentlessly by such a panting posse of overzealous birders, that the bird has actually died of starvation.

There is no harm in sharing your find with friends and family and others who understand the safe procedure for observation.

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Have I contradicted myself with the titles on these two pages? I don't believe so. I am referring only to broadcasting the location of the bird to the general public. The point is the welfare of the bird not the checklist of the birder. Of course you should report the sighting to ebird for research purposes. To avoid creating a problem wait until the season is over and the bird has left or use the link which allows you to hide your checklist from public viewing. Enjoy the bird responsibly; help others to enjoy it in the same way. Some may criticize you for not sharing

with everyone but you may have spared the bird.

THE TREE THAT KEEPS ON GIVING

Story by Elizabeth Churcher and George Thomson
First Published in the Tweed News, March 18, 2015



The bright sunshine of early spring fills us with energy and leads us down the path and into the woods where we can gaze in admiration at the towering Sugar Maple. A glimpse at this elegant sentinel takes Elizabeth back to her childhood and teenage years when maple syrup production was the highlight of the spring. She and her brother along with their parents would struggle through deep snow drifts with brace and bit, hammer, spiles and buckets. In early years, parents took the lead but it was not long before Elizabeth was given the responsibility of breaking the trail and leading the procession from one maple tree to another over the hills of their picturesque Bancroft farm. Brother John took charge of the drilling equipment and prepared the tree for sap collection with a great deal of care and respect. Our Dad had introduced us to many species of trees in our early years and had taught us to treat them as valued friends. Indeed, throughout our lives, the taste of maple syrup, the gift of oxygen, the carbon sink, the cool shade of summer, the brilliant colours of autumn and the elegance of winter's dormant giant are all constant reminders of Dad's reverence for the Maple and of our responsibility to care for nature.

Growing up in Bancroft with a beautiful forest of mature Maples at our back door is a privilege that only a few of the Earth's population can enjoy. Maple syrup production is unique to northeastern North America because of the occurrence of the Sugar Maple in this region and the correct climate and weather conditions for the tree to make and release the sweet sap. An understanding of the complexity of sap production and flow cause us to hold this tree in awe. Sit back and relax as we attempt to unravel the story of how it all works.

The sweetness of Maple syrup comes from the sugar sucrose, the same sugar we put in our coffee. The sucrose in this spring's maple syrup originally was produced in last season's leaves by the tree's food-making process, photosynthesis. In photosynthesis, a complex series of chemical reactions changes carbon dioxide and water into glucose, sugar and oxygen, using the energy of sunlight. Of course, all green plants do this because the pigment chlorophyll, which gives them their green colour, traps the light energy and makes it available to run the reactions.

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The Maple tree is a wizard! It can convert one sugar to another in an amazingly short time, using the glucose molecules as building blocks to make sucrose. Glucose is an energy source for all the living cells of the tree and is moved around it in the form of sucrose. Just as our bodies have a circulatory system, so, too, the tree's sugars and other nutrients are transported through tubes that are made up of specialized cells called xylem and phloem. At maturity, xylem cells are dead and arranged end to end to form the heartwood and sapwood of the tree. --- So when you pick up a piece of wood, you really are holding a collection of xylem cells. If the wood is surrounded by bark, then you also have phloem cells in your grasp. The phloem cells, which are found just under the bark, move sucrose upwards and downwards in the tree to areas where it is needed. In autumn, sucrose moves down through the tree to be stored as starch in rays of living cells which radiate out through the xylem.

Throughout the cold winter, activity inside the tree slows to a halt but, with the awakening of spring, there is a resurgence of activity. It is at this time of year that nature performs a miracle! Remember we explained that sucrose is moved through the phloem tissue throughout the growing season. The only exception to this pattern of



movement occurs in early spring before the leaves open. During those days when the sun's rays are announcing the coming of new growth, the warming temperatures cause the conversion of starch in the rays of the wood into sucrose. This 2-3% sucrose solution which we know as maple sap moves out into the young xylem, also called the sapwood. The spile which brother John tapped gently into the hole he had drilled through the bark and into the outer sapwood is in just the right location to receive flowing sap.

Nature continues its sequence of wonderful acts to cause the sap to flow. As temperatures climb from frigid depths, we go through a freeze-thaw cycle. Sap flow requires cool nights, below freezing, followed by warm days, above freezing. When the temperature drops at night, gases in the xylem cells contract, causing pressure in the cells to drop. This action draws sap from nearby cells, continuing in a domino effect right

down to the root. In the warmer daytime, gases in the xylem cells expand, causing increased pressure which forces the sap out into brother John's spile. Eventually the temperature will stabilize above zero and the sap will stop running. When this happens, sucrose moves into the phloem where it is transported for the remainder of the growing season while the xylem takes charge of moving water and minerals about.

Throughout early spring when the Sugar Maple is generously sharing with us, we must remember that we are wounding the tree by tapping it and "sapping" some of its energy. Experts know how to tap the tree properly and leave enough sucrose to allow it to grow and live a healthy life. Just as Elizabeth learned from her Dad in childhood, they, too, understand and see value in the need to respect and care for our source of food, air, comfort and beauty --- our natural heritage, the Sugar Maple.

PICTURES FROM OUR ALGONQUIN TRIP



There's no waiting at this bird buffet line. Elizabeth, George, Marjorie and Dirk make sure of that in this photo by Donna Fano.



Ian Dickinson caught this gray jay carefully considering the options at the buffet.

The bands on the legs of the gray jay shown above indicate that it is part of the gray jay study in the park instituted by Dan Strickland more than 45 years ago. By February 23 this year researchers had found the first evidence of nest-building, right on schedule for this species. In the park territories average 146 hectares and the birds will be busy tending nests so they will be much more inconspicuous for the next few months. Sadly numbers of gray jays in the park have declined significantly. In the early 1970s there were 44 active territories in the Highway 60 Corridor by 2007 only 15 were still occupied. Climate change is the probable cause of the decline as stored food which sustains the birds through the winter and is used to feed nestlings now spoils much more readily.

CLUB NEWS



Treasure Table – Our February meeting is also Treasure Night. Bring treasures to the meeting to contribute to this fund-raiser. They can be edible, literary or anything else that someone might find useful or decorative. No garage sale rejects please. Please attach a label with price on the item. Prices are generally bargain basement level.

Annual Dinner. The tickets for our Annual Fundraising Dinner, being held on April 24th, are on sale at \$28 per person. The guest speaker will be Robert Alvo, author of "Being a Bird in North America" He will share highlights from his book which brings its subjects to life on the page with a blend of humour and science. You may also call Doug Newfield, 613-477-3066 and arrange for tickets.

Correspondence The full text of these letters is available in the QFN section of Terry Sprague's website.

Jan. 19, 2017. A response to Kirsten Corrigan, Manager of Crown Forests and Lands Policy branch of Ontario MNR expressing concern that the government's discussion paper, "Opportunities to Enhance Carbon Storage", does not address all of the factors that should have been considered. In particular it does not address the effects of climate change on forest ecosystems. As forests have been effective carbon sinks for millions of years there is a contradiction between the government's plans to allow the more intensive harvesting of forests and their argument that this will increase their ability to sequester carbon. More information is also available on Ontario Nature's website: <https://ontarionature.thankyou4caring.org/protecting-biodiversity-in-ontarios-cap-and-trade-system>

Jan., 27, 2017 In a letter sent to the Wildlife Section of MNR QFN strongly requests that the Government of Ontario does the right thing and ends the hunt of both the Snapping Turtle and the Bullfrog. Ontario Nature's comments on the issue are available at <https://ontarionature.thankyou4caring.org/crunch-time-for-snapping-turtles-and-bullfrogs>

Please "Like" QFN on Facebook

And visit Terry's website for all the latest news on nature
in the Quinte Area - naturestuff.net

Outing – There is no outing planned for March but that doesn't mean that there isn't a chance to go birding. Friends of Presqu'ile's Waterfowl Weekend is a great opportunity to view waterfowl with the help of knowledgeable volunteers.

March 25 and 26: Waterfowl Weekend, 10:00 am to 4:00 pm

World-class waterfowl viewing during the spring migration. Volunteer naturalists will help you view and identify over 25 different species of ducks, geese, and swans. Also, check out displays and children's activities in the Nature Centre. Join The Friends for BBQ lunch fund-raiser at the Lighthouse, on Saturday and Sunday, from 11:00 am. The Lighthouse Interpretive Centre and The Friends' Gift Shop will be open.



One endangered species that has been little studied is the jackalope. Many believe it to be extinct but it is probably still found in isolated pockets in the American west. Those hunting the animal are advised to equip themselves with a good supply of whisky as they are particularly fond of it. The drink slows the jackalope and thus makes them more visible. It is a particularly vicious animal so locals advise wearing stovepipes on your legs to avoid being gored. Some Wyoming state legislators have introduced a bill to have the species declared the state mythological creature in an attempt to publicize its plight.

The Quinte Field Naturalists Association, an affiliate of Ontario Nature, is a non-profit organization sponsoring nature education, conservation and research. It was founded in 1949 and incorporated in 1990, and encompasses the counties of Hastings and Prince Edward. The Quinte Field Naturalists Association is legally entitled to hold real estate and accept benefits. Quinte Field Naturalists meet on the fourth Monday of every month from September to March (except December), 7:00, Sills Auditorium, Bridge Street United Church, 60 Bridge Street East, Belleville. In April we hold our annual dinner at an alternate time and location. New members and guests are always welcome.

Bring a friend.

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Next Newsletter Deadline – March 10, 2017

Please send submissions to sharronjohnblaney@gmail.com