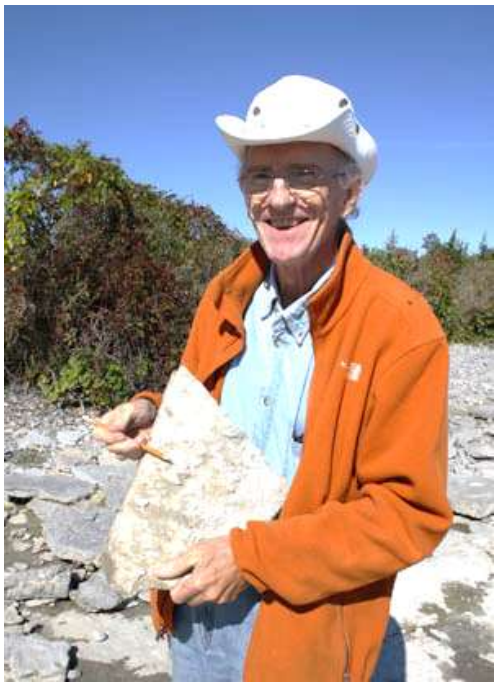
The Quinte Naturalist

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

THIS MONTH'S PROGRAM



Bedrock, Beaches and Bones: Geological Heritage of the Quinte Area

A popular Queen's professor of geology, now retired, Dugald Carmichael loves to ski, paddle, hike, photograph, and make maps. Since retirement he has contributed to books about the Salmon River Watershed, Lennox and Addington County, and Prince Edward County. Dugald hopes the fascinating geology of the Quinte area will not only inform us but also entertain us. Meeting details on page 6. (Photo courtesy Orland French)

Autumn Glow

By George Thomson and Elizabeth Churcher

First published in the Tweed News October 14, 2015. Reprinted with permission.

Elizabeth and George sent along this picture of a red maple on their property.

The 'Season of Thanksgiving' is with us. As we load up the wheelbarrow with Butternut Squash and fill bushel after bushel with potatoes, we are reminded that we live in a land of plenty. A brief departure from the fruit and vegetable gardens to gaze across our rolling landscape, too, fills us with gratitude for living in beautiful Tweed surroundings. Right now, as autumn is making its way onto the stage, a spectacular show is beginning to unfold --- a show that is unique to northeastern North America. Our woodlands are transforming from their lush green summer cloak to their magnificent autumn glow.

Only at this time of the year, in the northeastern portion of our continent, do whole forests change colour almost simultaneously. The colour change is confined primarily to the hardwood trees. Here, though, we may mention one cone-bearing tree, the Tamarack or Larch. Who has not been thrilled by the wonderful golden-yellow colour of the Tamarack needle-leaves in autumn, especially when they stand out against the dark greens of spruces and pines? The Tamarack is our only deciduous conifer, and, along with poplars, lends colour to regions of Western Canada.

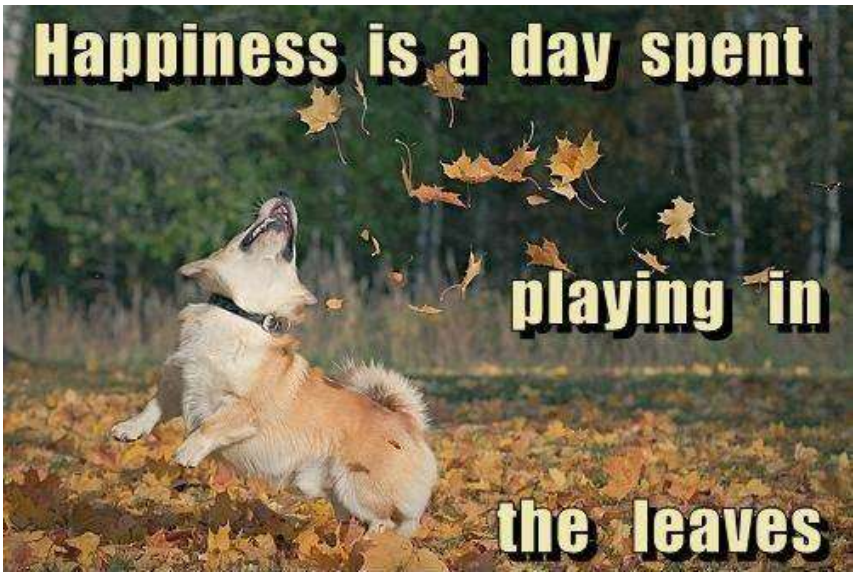
Each season of the year welcomes a different set of conditions for trees and they respond in ways that support their ongoing life. After their green phase and their production of sugars by photosynthesis all through spring and summer and into autumn, leaves on trees change to other vibrant colours. We have only to think of the bright crimson of Sumacs & Red Maples, the golden yellows, roses & oranges of Sugar Maples, the yellows of poplars, hickories, birches & oaks, and the wines of the ashes.

What causes all of these colours? Sit back, relax and let us explore these changes together. The green pigment, chlorophyll, the pigment in leaves that is essential for photosynthesis, is contained in leaf cell structures called chloroplasts. Countless numbers of green chloroplasts give the green colour to leaves. But what about the yellows and oranges? It turns out that they are in the leaves all along, hidden by the predominant green colour. Just like the chlorophyll, the yellow and orange pigments,

called xanthophylls and carotenes respectively, are located in the chloroplasts. In the chill of autumn, the production of chlorophyll slows and the chlorophyll molecules eventually break down into colourless compounds. This hierarchical shift in pigmentation allows the carotenes and xanthophylls to show their colours. --- Voila, the bright yellows of aspens, birches & hickories and the oranges of Sugar Maples! Just in case you are wondering, this orange colour is produced by the same carotene pigment that fills our carrots with vitamin A.

The 'reds', from flaming scarlet to deepest purple, have a somewhat different story. These rich colours are caused by pigments called anthocyanins which are also responsible for the red colour in fruits and vegetables such as red cabbage, radish, beets, cherries, apples and grapes. --- And after we enjoy the brilliant scarlet red of the Red Maple, we can look forward to anthocyanins providing beauty for us as we decorate our homes with Christmas Poinsettias. Anthocyanins are found in a structure within the leaf cell called a vacuole. As the weather gets colder, they become more abundant. All of the vibrant colours of autumn appear as we feel a chill in the air. A sudden temperature drop just after the sun has set is especially likely to produce brilliant autumn leaves. --- And so are crisp, sunny fall days. If, however, a hard frost visits early, the pigments in the leaves are destroyed and the leaves on the trees become more brownish than coloured.

As winter approaches, our landscape changes gradually one more time. With the help of winds, leaves fall to the ground and the magnificent glow dims. Eventually, chemical changes in the colour pigments cause the leaves to turn brown and we are left with a sombre blanket over our gardens and forest floors. But do not despair: all is not dark. These leaves will decompose and, after winter's sleepy days, will provide nutrients to soil that will support new life in spring.



As autumn marches on, we encourage you to give thanks and feast on all that this wonderful season shares with us. Enjoy the fall colours while they last. Go out into the woods, wander down a trail or stroll across a meadow and revel in Nature's spectacular production, 'Autumn Glow'.

South Shore Outing

On a chilly Saturday, October 17 five QFN members headed for the south shore of the County to see what we could find in this Important Bird Area. After a quick stop to look for the sandhill cranes at the Hamilton wetland on Demorestville Rd. (we didn't see them) we headed directly to Prince Edward Point and the banding station.

It was a special day at the station. Mark Read was hosting a 4-hour big sit for raptors. On a big sit you stay in one place for the allotted time and record all the birds, in this case raptors. It was billed as a chance to learn more about identifying raptors in flight. Unfortunately the day was windy as well as chilly and Mark was doing more of a big stand and discussing the lack of raptors with the occasional person who stopped.

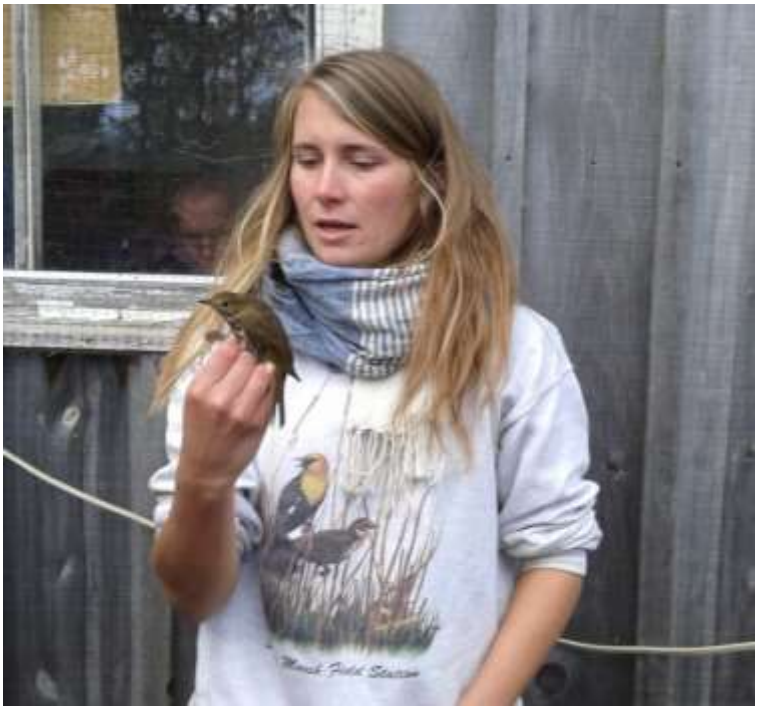


Photo by Bernadette Hymus

The best day to visit the banding station is a day when the banders have a few birds to band but not so many that they don't have time to talk. The 17th was just such a day. This bander was able to point out the distinguishing features of this hermit thrush, talk about its habits and answer questions. She did the same for the next bird, a blue-headed vireo (photo on next page). At the end of each discussion the bird was placed on the hand of a child before it was released.

The bander described the next bird as so fierce that banders were generally not happy to see it in the net. As I had heard that the sturdy beak of a rose-breasted grosbeak could inflict painful nips that was what I expected. Someone else suggested a hawk. It was a surprise to see her produce a black-capped chickadee. It proved her point by never giving up its attempts to pinch and peck her fingers. This bird was too aggressive for a child so she had to release it herself.

We proceeded to the nets which are far larger and more elaborate than they were a few years ago. A system of ropes now allows volunteers to stretch the nets until the tops are 3 metres or more above the ground. Visitors are asked not to walk along the net lanes but paths along the ends of the lanes allowed us to see activity. As we stood at the end of one lane, working to identify a brown creeper caught in a net a bander came along to furl the nets for the day. It was mid-day and the woods were already quiet. It was time for lunch.

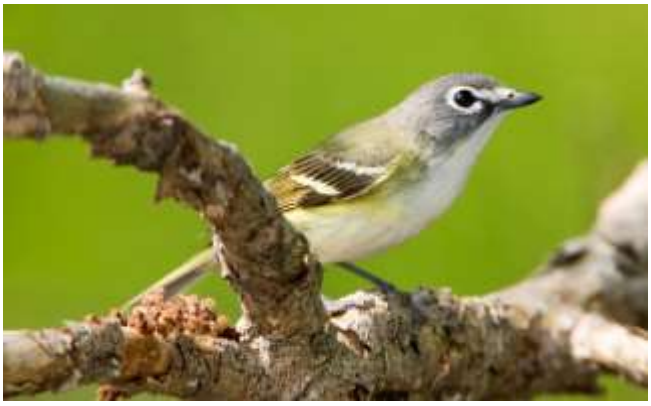


Photo by Laura Gooch on ebirdr.com

The blue-headed vireo is one of the easier small woodland birds to identify. It is always wearing its "spectacles."

After lunch we headed west to Point Petre. With its expanses of pastureland and old fields during migration the southwest corner of the County always attracts American kestrels. Again this year we saw several perched on wires and hovering over fields looking for grasshoppers and small mammals. This small falcon was once known as sparrow hawk because early ornithologists thought that sparrows were its preferred prey. The species breeds readily in captivity and was the primary model for bioaccumulation of organochlorine pesticides such as DDT in birds of prey.

The same part of the County also attracts merlins, our other small falcon during migration. It was present also. The small woodlots scattered among the fields provide the semi-open habitat they prefer. Older field guides call it a pigeon hawk because of its similarity to a pigeon in flight. Unlike kestrels which usually capture their prey on the ground merlins hunt smaller birds on the wing. Every year a few merlins nest within the residential areas of Belleville. A few years ago a pair nested near the top of a tall spruce in a neighbour's backyard. The birds were not at all subtle about their attitude toward anyone who dared to enter their territory. Their vociferous objections could be heard several houses away.

Merlin ***Photo by Sydney Smith***

As we left Point Petre and headed up County Road 24 we kept our eyes open for the small flock of eastern bluebirds which had taken up temporary residence along a fence line festooned with wild grapes. Sure enough, there they were. Like the merlin they were "lifers" for some members of our group.

We finished the birding day with a drive down Salmon Point Road. We stopped to observe a couple of turkey vultures perched on a barn beside an abandoned house. Almost immediately the air was filled with twenty-five of more turkey vultures. I don't think there's any way to describe standing on the roadside with circling carrion eaters just overhead as an appropriate way to end a birding day so I'll just say that we had a good day.

The Naturalist's Calendar

Monday, Oct. 26
QFN's regular meeting. Sills Auditorium, Bridge Street United Church. 60 Bridge St. East. 7:p.m. Use the Bridge Street entrance.
Speaker: Dugald Carmichael – Bedrock, Beaches and Bones: Geological Heritage of the Quinte Area.

Nov. 7, 8, 11, 14, and 15
Christmas at Presqu'ile
Over the past 24 years this event has become one of eastern Ontario's premier juried arts and craft shows. Running from 10 a.m. to 4 p.m. on two weekends and the intervening Wednesday the show offers high quality Christmas gifts and decorations. As well as the show in the Nature Centre you can visit the Tea Room in Stonehedge for rum cake and a hot drink. At the Interpretive Centre beside the lighthouse the works of artists Linda Barber, Rose Brown and Doug Comeau will be on display and the Friends' gift shop will be open. Admission to the park and the show is free.

Thursday, Nov 19
Grassland Bird Conservation: Keep the Cows and Manage Creatively
Biosciences Complex, Queen's University, Kingston, 166 Barrie St, Room 1102.
Dr. Noah Perlut from the University of New England will explain how new agricultural management affects the ecology and evolution of grassland birds.
In the afternoon Kurt Hennige will join Dr. Perlmut at St. Paul's Presbyterian Church, 1955 Stella Forty-Foot, Amherst Island to explain research results on bobolinks and eastern meadowlarks on the island. There is no charge for either the afternoon or evening.

This year **Project Feederwatch** season runs from **November 14, 2015 to April 8, 2016**. It's easy. Record the birds at your feeder on days and at times of your choice. You don't have to be an expert. If you can't identify a bird ask for help. That's why we belong to the Quinte Field Naturalists. You can find the information you need on the Bird Studies Canada Website. http://www.birdscanada.org/.

26th Annual
Trenton Woodlot Conference
Friday, Nov. 20
8:00 am – 4:30 pm

NEW LOCATION!
Batawa Community Centre
8 Plant St., Batawa
Admission: $30.00
Includes hot lunch

For more information
or to register online
info@hastingsstewardship.ca
613 391 9034
www.hastingsstewardship.ca

Presentations:

- **Secret Life of a Forest - Michael Runtz**
- **Our Biodiversity - Mark Stabb**
- **Botanicals in your Woodlot**
- **Tree Legacy Program, permaculture, fruit and nut trees**

Afternoon field trip option in the Batawa hills and forests with a geologist, biologist and forester.

Exhibitors and Artisans

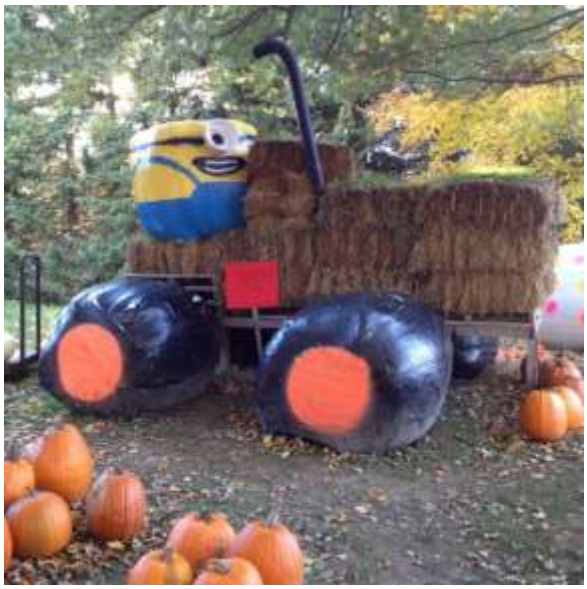
The Hastings Stewardship Council

Monday, December 28

Christmas Bird Count

Become a citizen scientist. Participate in this year's count and help gather data used in biological research to help birds and promote biodiversity.

Please let John Blaney know if you want to participate this year. 613-962-9337 sharronjohnblaney@gmail.com



UPCOMING PROGRAMS

Monday, Nov. 23. Spiders of Ontario

QFN's regular November meeting in Sills Auditorium**.**
Toronto Zoo's Curator of Invertebrates, Tom Mason, will introduce some of our common spiders, as well as explain their significant role in the ecosystem and the importance of learning more about this understudied group of animals.

The Quinte Field Naturalists Association, an incorporated 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.

President
George Thomson
613-478-3205

Past President
Wendy Turner

Vice-President
Phil Martin
613-922-1174

Recording Sect'y
Vacant

Correspnding Sect'y
Elizabeth Churcher
613-478-3205

Treasurer
Doug Newfield
613-477-3066

Environmental Officer
Denice Wilkins
613-478-5070

Membership/Mailing
Marjorie Fisher
613-968-3277

Outings/Newsletter
John Blaney
613-962-9337

Refreshments
Sharron Blaney
613-962-9337

Next Newsletter Deadline – November 10, 2015
Please send submissions to sharronjohnblaney@gmail.com