



# The Quinte Naturalist

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

## SEPTEMBER



*Photo by Kyle Blaney*

One of my favourite fall wildflowers is goldenrod. In our area seventeen different species of goldenrod have been found, most displaying some variation of the vibrant yellow seen in the photo. As it happens goldenrod is also a favourite of many pollinators like this fly. In fact goldenrod supports a whole range of insects and their predators (note the spider web). My love of goldenrod began very early in my childhood. Admittedly my 6-year-old love of goldenrod emerged not from an appreciation of either its beauty or the complex ecosystem it supported. I loved the “bonkers” which I could make by striping the leaves from a stem with a gall on it. Those near me definitely did not enjoy the use I made of these bonkers unless they also happened to be small boys also armed with bonkers. Then the fun began.

Terry Sprague also loves goldenrod. See page 2 for his quite different take on goldenrod galls

**SEE PAGE 8 FOR INFORMATION ABOUT THIS MONTH'S PROGRAM**

## A WEED BY ANY OTHER NAME

*By Terry Sprague*

*Originally published Thursday, August 27, 2009*

I have walked the stretch of the Millennium Trail from Picton to Bloomfield many times, but this was the first I had noticed something coming in on the wind. The soft fragrance wafted gently on the light breeze and we recognized it right away as goldenrod. Some of us have a difficult time shaking the myth that goldenrod is a “weed” that must be avoided because of ancient beliefs. The soft, feathery plumes grace our kitchen table every year at this time as we bask in the delicate fragrance and showy flowers. The group I had with me on this day waded through some true weeds along the trailside to get even closer to the delicate fragrance that was now enveloping us in the light prevailing westerlies.

Once our nostrils were filled with the aroma, it was then I pointed out the culprit that does cause us allergic reactions at this time of the year, when goldenrod is in full bloom and obvious. Some greenish pollen was already drifting from one mature ragweed we disturbed with our feet as we approached the goldenrod. Because goldenrod is obvious, and ragweed is not, it is goldenrod that gets blamed for allergies.

As our eyes wandered around the cluster of blooming plants, they caught sight of something else, just below the blooms. Then we noticed there were other goldenrod stems with the same enlargements, and curiosity sparked the question of their origin and meaning. And this is where the fascinating story of the goldenrod gall began.



Insect galls are no strangers to any plant, and there probably isn't a plant on this earth that doesn't play host to some species of unique insect gall. There are hundreds, perhaps thousands of them. We see them on oak trees, poplars, even spindle galls on silver maples. Even the gall insect responsible for the swelling on this plant is specific only to two of the dozen or so species of goldenrod we have in the Quinte area. The goldenrod gall fly is microscopic in size so we don't really get an opportunity to notice them. Unbeknownst to us, the female lays her

egg on the stem of the goldenrod plant, her sensitive and educated feet ensuring that the right species of plant has been selected. A few days later the egg hatches and the larva instinctively burrows into the stem. Then, something very interesting happens. Secretions released by the chewing larva alter the chemical composition of the plant, and the plant cells around the feeding site start to divide more rapidly than nearby unaffected cells, causing masses of cells, as though stimulated by steroids, to grow up around the larvae and completely encase it.

But it doesn't end here. Some of these cells, especially those nearest the larva, are transformed into special "nutritive" cells brimming with an abundance of starch and fats. Here the larva continues to feed through the summer, passing through two larval stages.

Now here is the interesting part. Winter is coming on and the fly's internal clock dictates that it is to emerge in the spring. Since the gall fly loses its chewing abilities once it transforms into an adult, how can it escape from its tomb if it has no tools with which to work? The insect, while still in the larval stage, chews a tiny tunnel out to the edge of the plant gall, but leaves a thin coating of plant material at the exit - a sort of trap door. The larva returns to the chamber where it commences to manufacture a type of antifreeze called glycerol, preparatory to spending the winter. This glycerol protects the insect's delicate cell membranes from being destroyed by freezing temperatures. The rest of the larva can freeze solid, if it wants to. Come spring, the larva springs back to life, and turns into a pupa. About 10 days later the adult fly emerges, makes its way up the tunnel it created before winter set in, breaks through the thin membrane it thoughtfully left behind covering its chamber's entrance, and flies away. Few of us ever witness this, as these are very small insects indeed.

I never cease to be fascinated by the life histories of insects. But there are other gall insects out there too, and we have seen most of them in our travels. Oak trees are favourite sites for numerous species of gall insects. Galls at the base of poplar leaves are very common too and harbour not one, but seemingly hundreds of minute creatures. Cut one open sometime. And those little capsules we often see on the underside of silver maple leaves are from spindle mites. Filbert galls occur commonly on wild grapes, and even the goldenrod has yet another type of gall insect which produces an elliptical gall, not as common as the spherical gall we are all acquainted with, but I do come across them from time to time.

If we are observant, you can even see the tunnel from which the adult gall insect escaped. Not all are successful though. If they were, we would soon be smothered in gall flies. Downy woodpeckers enjoy the challenge of hacking away at these galls to feast on the slumbering larva inside. Gall insects actually require at least three months of cold weather to develop properly. During mild winters, they are less successful.



## REMEMBRANCE OF SUMMER PAST

I sometimes think that it's odd that the Quinte Field Naturalists stop meeting for the late spring and summer; there are so many interesting things going on during the summer. Here are a few of the events and sightings that came to my attention. I hope that you also had opportunities to enjoy new experiences and familiar sightings during a Quinte summer.

### EGRETS COME HOME TO ROOST

Last year a flooded field on Harmony Road became a birding hotspot. According to ebird almost 90 species have been recorded there but the stars of the show are great egrets. From June until early October as many as 34 have been seen arriving in the evening to roost on the edge of the swamp bordering the field. Hunted almost to extinction for their feathers in the late nineteenth century their decline inspired some of the first laws to protect birds. The Harmony birds are not breeding or displaying like the one to the right but their size and numbers make them spectacular nevertheless



*Photo by Kyle Blaney*

### PELICAN BRIEF



*Photo by Gilles Bisson*

You might characterize the summer of 2015 as the "Summer of the Large White Bird." In addition to the great egrets an American White Pelican provided book ends for the summer by making appearances in late June and then again in late August. "Large" underestimates the bird's size. "Enormous" would be more accurate. An adult pelican is about a metre and a half long and can have a wingspan approaching 3

metres. At 7 kilograms or more it weighs as much as your Thanksgiving turkey.

In Ontario pelicans nest only in the northwest in Lake Nipigon and Lake of the Woods. Individual birds, particularly non-breeders can be wanderers.

## RARE PLANT FOUND

While walking on the Trans-Canada Trail west of Ivanhoe last summer a visiting botanist noticed a vigorous colony of a plant that just didn't belong. Closer examination proved it to be Barrens St. John's Wort, a close relative of the Common St. John's Wort which is abundant locally. The flowers are larger and to my eye more attractive than the common species. They can easily be distinguished from the common species by the absence of any black dots on either the petals or undersides of the leaves. Unlike the Common St. John's Wort it is native to North America but generally found only in the American Midwest and mid-south.



*Photo by John Blaney*<sup>1</sup>

In Ontario there are only other two known sites. The Hastings plants probably did not arrive unaided. The TC Trail is a former rail line and both of the other sites are quite distant in southwestern Ontario, one of those also an abandoned rail line. Even if a few seeds hopped a freight many years ago it's humbling to realize that even in a long-settled area like Quinte we still don't even know all the species to be found here.

## LET'S NOT SOLDIER ON



The section of the Trent River north of Campbellford has achieved a distinction which no one wanted. In 2008 it was found to be the home to the only known wild population of an invasive plant known as water soldier.

Water soldier might remind you of the top of a pineapple and it does resemble some other aquatic plants. The serrations on the leaves are the distinguishing feature.

These serrations are only one of the reasons that water soldier is undesirable. The leaves can cut swimmers or anyone handling the plant. As seen in the picture it also forms thick mats which hinder any recreational water activities. It reduces plant biodiversity by crowding out native plants and depriving them of sunlight. There is also reason to believe that it can alter water chemistry and harm phytoplankton and other aquatic life.

#### What You Can Do To Help

- Learn how to identify water soldier and the precautions to take to discontinue spreading.
- Take a digital photo and report your sighting to the Invasive Species Hotline (1-800-563-7711).
- When boating, avoid areas where water soldier is known to occur. If you must go through these areas reduce boat speed. The boat wake can dislodge plants and offsets allowing them to spread in new areas.
- Inspect your boat, trailer and equipment after use; remove any organisms that you see.
- Avoid planting water soldier in your water garden and aquarium.
- Never collect plants from the wild for ornamental plants.
- Select water garden sites that are isolated from potential flooding situations.

From the website of Ontario's Invading Species Awareness Program:

[www.invadingspecies.com](http://www.invadingspecies.com)

## AN OLD FRIEND

Some of you will remember Mark Olivier. A few years ago Mark moved north and now lives in Sault Ste. Marie. Every so often he still lets us know what he is doing.

As an avid citizen scientist Mark has more than 1,000 entries in ebird. Lately he has directed his enthusiasm and photographic skills toward a new subject, butterflies. He uses his photography to document the habitats, plants, life stages and habits of these beautiful insects.

When Mark records his findings in ebutterfly he is making an important contribution to science because very little is known about the distribution of butterflies in Algoma. Both ebird and ebutterfly give naturalists the opportunity to record important data wherever we are. For more about the importance of ebutterfly go to [www.ebutterfly.org](http://www.ebutterfly.org) and read the item in "Latest News."



*Photo by Mark Olivier*

***The Black Swallowtail is one of our larger butterflies. There are two generations a year and individuals overwinter in a chrysalis.***

***Mature caterpillars are green with black bands and yellow or orange dots circling the body. You may find them in your garden on carrots, parsley or dill or in the wild on Queen Anne's lace.***

## BIRDATHON

### THANK YOU TO OUR GENEROUS DONORS.

For some the annual Prince Edward Point Bird Observatory Birdathon is a competitive team event. They spend 24 hours, the whole team travelling in one car searching every nook and cranny in The County for every last bird including that one rarity which nobody else will see. The QFN team was somewhat less organized. In fact it was downright chaotic. I'm told that we had 15 participants but I never did see three of them. Apparently we found 127 species, at least that's the number on the list. But, you know what? We had fun and enjoyed finding a lot of birds.

Most important. Our donors contributed \$715 toward conservation. Of that total 25% goes to Bird Studies Canada, 25% comes back to the QFN and 50% goes to the bird observatory.

## FRINK CENTRE

For the past two years Tom Wheatley has found Nelson's Sparrow beside the Frink Centre boardwalk between the end of September and mid-October. This species probably passes through our area every year in very small numbers. Its song, if you can call it that, sounds exactly like a bead of water dropped on a hot cast iron skillet. At the time of writing in mid-September the boardwalk is closed for repairs but it is scheduled to be reopened in time to look for the sparrow this year.

The QFN bird checklist for the Frink has had some additions since it was compiled about two years ago: solitary sandpiper, gadwall, red-bellied woodpecker, northern goshawk and two birds not identifiable to species, a scaup and a cuckoo. This brings the total species found at the Frink to 164.



*Photo by Keith Matthieu*

***The tail with the black centre and black and white bars identify this solitary sandpiper.***



*Photo by Tom Wheatley*

***Generally solitary and secretive Nelson's sparrow will respond to pishing.***

## UPCOMING PROGRAMS

### Sept. 28 FLAP - Fatal Light Awareness Program

Across North America, as many as 1 billion birds are killed annually in collisions with windows. FLAP's Founder and Executive Director, Michael Measure, will discuss the strides that have been made in abating the problem and how we can protect birds from our own windows. Quinte Field Naturalist meeting, 7:00 pm, Sills Auditorium, Bridge Street United Church, Belleville. All welcome, by donation.

### Oct. 26 Bedrock, Beaches and Bones:

#### Geological Heritage of the Quinte Area

Retired Queen's geology professor and author, Dugald Carmichael, will not only inform but also entertain us with the fascinating geology of the Quinte area. Quinte Field Naturalist meeting, 7:00 pm, Sills Auditorium, Bridge Street United Church, Belleville. All welcome, by donation.

## OCTOBER OUTING

### Saturday, Oct. 17 South Shore Migrants

It's the season for migrating raptors such as eagles and many other species that don't nest in Quinte. Meet at the Golden Jet, in Zwicks park at 8:30 a.m.

*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  
613-395-3246

**Recording Sect'y**

Bernadette Hymus  
613-962-7926

**Corresponding 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 – September 10, 2015

Please send submissions to sharronjohnblaney@gmail.com