



# The Peninsula Naturalist

Volume 230

Newsletter of the Peninsula Field Naturalists Club

April 2012

## PRESIDENT'S MUSINGS

“To everything (turn, turn, turn)  
There is a season (turn, turn, turn)  
And a time for every purpose under Heaven.”

(Sometimes it's difficult to comprehend which season it is, and what purpose belongs to it.)

Many folk-songs involve that *'turn, turn, turn'* notion of circles, and events circling and coming around. We all know the saying 'What goes around, comes around'. So I'm saying that I will vacate the position of PFN President this fall because I feel that it is time; the season has come around. Thanks for putting up with me for the past eight years!

The Peninsula Field Naturalists Club needs a change, a new 'face at the front'. I don't know who that face will be. I do know the PFN is very similar to many other Ontario Nature Clubs - as one of our members put it - "an aging group of bird-watchers". The PFN will turn 60 in 2 years!

Nothing wrong with birding - but to be relevant in the future, the Club needs to renew itself. It must consider what outdoor recreation will attract younger members, like young folks who want to actually go out into the woods instead of watching documentaries about it, or young parents with children who can be attracted by Nature and turned on to the outdoors instead of the 'X-box'. Yes, I know - parenting and working two jobs doesn't leave much time - but usually folks make time for the kind of recreation they choose to enjoy. 'A time for every purpose' - that will direct the priorities that people choose for themselves.

There are good things happening in our Club. We have recently added new members - make them welcome! We have new younger members, who want to bring others of their age into the Club - good for them! We have Directors who want to include the public in our outings - bring'em in! Our website is becoming more attractive, more appealing visually as well as in content. We have a Facebook page - check it out - just google 'Peninsula Field Naturalists Facebook'! If social media will help our renewal, well then, bring it on! What this old coot is sure of is Dylan's words - "Get out of the way if you can't lend a hand, 'cause the times they are a-changing!"

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## RECENT NEW PFN MEMBERS

**Cathy Foxcroft & Frank Drasnin**  
**David Griffiths**  
**Don Hilton**  
**Sharon Lawler**  
**Dan Puglia**  
**Ed Skala**  
**Margaret Smith**  
**Fred & Kathleen Wilkinson**

**WELCOME , ALL!**

## NATURAL AREA STEWARDSHIP AT THE RBG

Tys Theysmeyer, the Head of Natural Lands at the Royal Botanical Gardens, 'knows his stuff'. As the ecologist in charge of the natural areas at the RBG, his work requires knowledge of a variety of disciplines ranging from water quality to arboriculture and everything in between. On February 27, we were fortunate to hear and see (in his photos) a sampling of how he and a relatively small group of assistants are maintaining and restoring the 300 hectares of coastal marshes in the RBG's 2700 acres of property.

Originally the RBG was established in 1931 as a park under the Hamilton Parks Board. However the Royal Botanical Gardens Act of 1941 separated the property from the Hamilton Parks system, with the intent of it becoming a 'living museum'. Financing of the property by the Province of Ontario amounts to 30%, with the other 70% coming from other sources.

Biologically, the RBG property is designated as: a World Biosphere Reserve; an International Biological Area; an ANSI (Area of Natural & Scientific Interest); a Fish Sanctuary; a PSW (Provincially Significant Wetland); an ESA (Environmentally Sensitive Area); and a National Heritage Site. In short, it is biologically IMPORTANT! The list of species found in the property includes species of: 750+ plants; 250 birds; 68 fish; 9 amphibians; 14 reptiles; 39 mammals; 50+ Species At Risk (SARs) and an uncounted number of insect species. Offhand, Tys mentioned that Bobcats are a resident.

Some of the most common bird species present are: Red-winged Blackbird; Yellow Warbler; Bluejay; European House Sparrow; American Goldfinch; Blackcapped Chickadee; House Wren. The forested area includes Red Maple, Red Oak, Shagbark Hickory, White Ash, Black Cherry, and possibly the largest Bitternut Hickory and White Oak trees in the Province.

Maintaining the health of the area involves a variety of tasks, some of which result from

human activities in the property. Tys noted that there are 27 official trails in the RBG and 40 'spontaneous' trails (made by hikers going off the official trails). To curb the spontaneous trails, the staff are obliged to set up exclusion areas, physically preventing entrance. Some visitors bring in birdseed, which attracts unwanted 'trash birds' and also can spread undesirable plant species. Another issue, air pollution, affects the forested areas, since too much air-borne ammonium can result in forest loss. As well, loss of fallen leaves as a result of earthworm activity promotes forest decline, which the staff counter by planting forest understory plants to help retain leaves.

Tys mentioned that at Princess Point, there had been evidence of First Nations people growing corn on some prairie-land. The current staff have planted in grasses such as Indiangrass, Big Bluestem, Little Bluestem and have already tried one man-made 'burn' – a common way of promoting prairie grasses and forbs in restoration areas. In answer to a question about Phragmites, Tys said that this species does well in slightly saline soil – which probably accounts for its success on roadsides (which are salted during winter snow clearance).

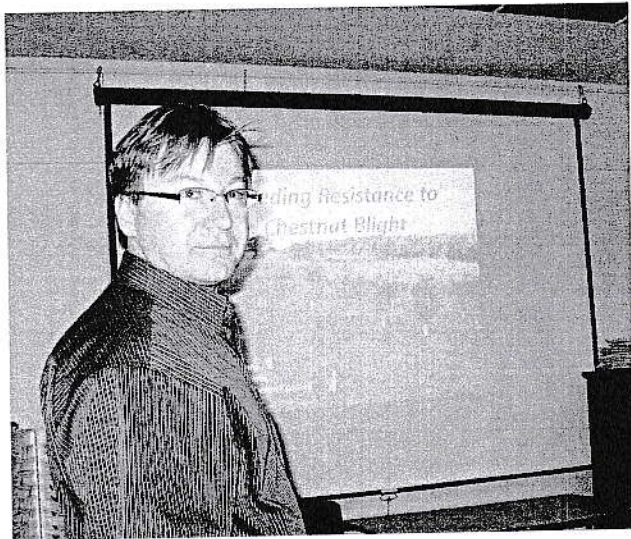
As much of the land is hilly with ravines, streams and waterfalls, the bottom-land includes substantial areas of marsh and ponds. The Cootes Paradise marsh, which is attached to Lake Ontario had serious problems with sewage in the past. Tys stated that four giant sewer tanks have been constructed, which can hold the sewage overflow during heavy rains and thus prevent the sewage reaching Cootes Paradise. Also, a barrier between the lake and the marsh controls fish traveling into the marsh, which enables the staff to exclude carp but allow other fish in to spawn. Among the accepted fish, pike, American eel and Gar now spawn there. With phosphorus run-off also on the decline, many water-loving species are returning; cat-tails, water lilies, muskrats, mink, Canada geese, Least Bitterns, Blandings turtle and possibly Jefferson salamander are present, to name a few.

For more information, see: [www.rbg.ca](http://www.rbg.ca) and click on "Visit: Gardens and Trails".

## RESTORING THE AMERICAN CHESTNUT

**T**he King of the Carolinian Forest” they were called, and the Canadian Chestnut Council (CCC) is dedicated to restoring the American Chestnut (*Castanea dentata*) in its former range in Ontario.

Dragan Galic, our speaker on Monday, March 26, is an enthusiastic participant in the Council’s plans of breeding blight-resistant trees to achieve their goal. With his background of expertise in plant breeding and management and soon to achieve his Ph.D., Dragan complements the other experts at the CCC in their quest.



Beginning his presentation, Dragan commented that a century ago, American Chestnut trees reached about 35 metres (120 ft) high, with a circumference of about 3 metres (9 ft). Now, of those trees that remain, 65% are 10 metres or shorter. Before the Chestnut Blight fungus arrived, the American Chestnut grew in Ontario in a wide band paralleling the north shore of Lake Erie, growing especially well in gravelly and sandy well-drained acidic soils. Old trees could reach several hundred years of age. Prior to 1920, it has been estimated that 1.5-2 million American Chestnut trees existed; now the estimate is perhaps a few thousand.

Since 1987, American Chestnut has been protected by the Endangered Species Act, and efforts have been made to increase the numbers;

unfortunately, of about 10K trees given out for planting, only about 5% have survived.

Historically, the wood of American Chestnut was an excellent timber, a rot-resistant hardwood that was used for everything from house panelling to timbers lining the early Welland Canal locks. The nuts were used by settlers to feed livestock, and a number of native animals and birds including the Passenger Pigeon also used it as food. Pioneers also used the bark for tanning leather, as the bark was high in tannin-content.

One problem with growing American Chestnut, as Dragan mentioned, relates to the pollination of the flowers. Trees bear both male and female flowers (so the trees are considered bi-sexual), but the male flowers open earlier than the female, so that mainly the trees are cross-pollinating – only about 4% self-pollinate. Thus a single lone tree is unlikely to bear nuts. And if surviving trees are too far apart, they will not cross-pollinate effectively to maintain the species.

The Chestnut Blight fungus (*Crytonectria parasitica*) was introduced into North America accidentally about 1904 when Chinese chestnuts were brought in, presumably to increase the sweetness of the nuts. Unfortunately the American Chestnut had little or no resistance to the fungus, so by about 1920 the blight was widespread. The fungus, which can be dispersed by wind and birds, can persist in the soil for many years and infected trees may take up to 10 years to die after infection. Although the fungus cannot be attacked externally by human intervention, a virus exists which is capable of attacking the blight fungus. Dragan noted that infected trees typically produce a number of suckers from the stump at the soil-line, some of which may survive for a few years.

The Canadian Chestnut Council’s main purpose is to restore *Castanea dentata*, hopefully with plants resistant to the Blight fungus. Several scientists from University of Guelph are involved in this effort. Dr. Greg Boland has surveyed the former range of the species and found a fair number of trees in Norfolk County, many of which he pollinated where possible.

These are being monitored. Dr. Adam Dale, a plant breeder specializing in berry crops, started a chestnut breeding program in 2001, using 90% Canadian content as breeding stock. Two sites, one at the Tim Horton Onandaga Farm Camp near Burford and another at Riverbend Farms, Aylmer, are currently the research locations for the breeding program.

A typical breeding program involves several steps. Using pollen from known sources to pollinate a number of flowers, saving the resulting seeds, growing them into plants and determining which plants have the characteristics you want, then growing those up to flowering and repeating the pollinating and selecting - this is time-consuming, particularly with slow-growing plants such as trees. Then, to determine if the seedlings have any resistance to blight, they must be inoculated with the fungus and studied to see if they survive. Basically, this is the process that the Chestnut Council's scientists have been following.

A technically-difficult aspect is that to ensure that only the wanted pollen makes contact with the female flower. This is solved by covering the un-opened flower with a paper bag, and then introducing the chosen pollen at just the right time. The nuts, when they develop, are kept in the bag until used.

Dragan explained that to begin the breeding program, the scientists used Canadian-sourced trees to be the first female parents, and trees produced from seeds from Connecticut (originating from Chinese, Japanese, European or USA) as the male parents. From nuts from these crosses (F1), they grew seedlings and selected preferable plants to be the parents of a new (F2) generation. So far, they have planted over 1800 F1 seedlings and will plant about 2000 F2 seedlings in 2012.

After producing the hybrid trees, their resistance or susceptibility to the blight fungus must be tested. This was done by inoculating the tree with the fungus. The site of inoculation was also important. The researchers considered that inoculating on the trunk might be too severe, so the fungus was introduced into a branch, which

was then watched for signs of blight. At the end of the growing season, the branch was removed; if the tree showed no sign of blight it would be retained, or would be removed if it showed severe symptoms. The testing also used two strains of the blight fungus, one a mild strain and the other a more severe one - which Dragan called 'more vicious'.

Future research will include testing F2 trees by trunk inoculation, and attempting propagation of more trees from rooted cuttings to increase the test material more quickly than by the pollination method. The counter-acting virus may also be introduced at some point. Dragan noted that the growth of the blight fungus is more severe in a hot growing season, because of increased plant stress - which suggests that the next few summers might be a real test for the success of the hybrid trees.

The Club have been invited to arrange an outing to the Tim Horton Onandaga Farm Camp in the fall, to see the research site and the trees firsthand. This should be a very interesting trip - we will keep you posted.

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### SPRING 2012 OUTINGS FOR PENINSULA FIELD NATURALISTS

I have included a few (but not all!) outings for other local clubs on this list- *Brian Calvert*. (Note: Several Club events which occurred before this Newsletter was printed, have been deleted - *Ed.*).

#### AUSABLE RIVER FOSSILS

**Saturday, April 28, 2012, 8:30 a.m.**

Niagara Peninsula Geological Society goes to Hungry Hollow near Arkona, famous for trilobites and brachiopods. Glenn Sloggett: [desleo\\_56@cogeco.ca](mailto:desleo_56@cogeco.ca)

#### MARCY'S WOODS

**Saturday, April 28, 2012 at 10:00 a.m.**

Meet the Bert Miller Club at the south end of Holloway Bay Road, Sherkston. You might see yellow trilliums! Tim Seburn 905-871-2577 or Rick Stockton 905-894-1944.

**LOUTH PHOTOGRAPHY, GEOLOGY & WILDFLOWERS**

**Sunday, April 29, 2012 at 8:00 a.m.**

Waterfalls, glacial grooves, cliffs and crevice caves at one of the best places to find spring wildflowers! Bring your camera, tripod, questions and a friend to meet the Peninsula Field Naturalists at Louth Conservation Area on Staff Road west of Rockway. Brian Calvert 905-892-6267 will lead the way and Donna Murphy 905-680-6389 will provide photography tips.

**PFN BIRD IDENTIFICATION WALKS**

**Saturday, May 5 & Wednesday, May 9, 2012, 8:30 a.m.**

Meet in the Malcolmson Eco-Park parking lot at the end of Niagara Street, just north of Lakeshore Road. Barb West 905-935-5339

**SHORT HILLS SANCTUARY CLEANUP**

**Sunday, May 6, 2012, 10:00 a.m.**

Please help the Hamilton Naturalists Club with the annual maintenance of their sanctuary at the corner of Metler Road and Center Street, east of North Pelham. Plenty of wildflowers! Bring lunch and tools for digging weeds. John Potter 905-892-2566.

**SPOOKY HOLLOW PLANTS**

**Sunday, May 13, 2012 at 8:30 a.m.**

Meet the Niagara Falls Nature Club at Fonthill Shoppers Drug Mart to carpool to this amazing Hamilton Naturalists sanctuary near Turkey Point. Bring lunch. Janet Damude 905-892-2158.

**NIAGARA WOODLOT ASSOCIATION SPRING WALK**

**Saturday, May 19, 2012, 10:00 a.m. - 1:00 p.m.**

Bring binoculars to the Buchanan family forest, 377 Carl Road, Welland to look for flying squirrels and the emerald ash borer. Take East Main under the tunnel, then north on Darby Road and west on Carl to 377 on your left. Paul Robertson 905-384-0749 or Gord McQueen 905-734-6466.

**BERT MILLER CLUB MIGRATORY BIRD COUNT**

**Sunday, May 20, 2012**

Marcie Jacklin 905-871-2577

**ST. JOHNS CONSERVATION AREA WILDFLOWER WALK**

**Sunday, May 27, 2012 at 1:30 p.m.**

Meet the Peninsula Field Naturalists for a walk around the pond through a mature forest. Janet Damude 905-892-2158.

**PENINSULA FIELD NATURALISTS PICNIC**

**Saturday, June 9, 2012, 10:00 a.m. (Rain date June 10)**

We hope to see bluebirds in the nearby conservation area. Hosted by Don & Sue Minchin 905-562-1953. From St Catharines, drive west on Road 81 to 11th Street Louth, turn left (south) a very short distance, then right onto Robbins Avenue, continue to #2288 Robbins Ave at the end.

**GEM & MINERAL SHOW**

**Saturday, June 9, 2012, 10:00 a.m. - 5:00 p.m.**

This annual Niagara Peninsula Geological Society event is now at Mountainview Church, 150 Glendale Ave. Check it out on your way home from the PFN picnic!  
[www.ccfms.ca/clubs/npgs](http://www.ccfms.ca/clubs/npgs)

**DOORS OPEN NIAGARA**

**June 15 - 17, 2012**

The PFN might have a nature walk that ties in to this 200th anniversary of the War of 1812.

**NIAGARA FALLS NATURE CLUB PICNIC**

**Wednesday, June 20, 2012 at 6:00 p.m.**

Bring plate, cup, utensils to a potluck picnic at Queenston Heights, followed by a walk. Giselle Mills 905-892-3973.

**NIAGARA PENINSULA GEOLOGICAL SOCIETY PICNIC**

**Saturday, June 23, 2012**

At Niagara Glen, and I need to find out what time because they asked me to lead a nature walk!



**The Peninsula Field Naturalists Club**

A non-profit organization started in 1954 with the objectives to preserve wildlife and protect its habitat, to promote public interest in and a knowledge of the natural history of the area, and to promote, encourage and cooperate with organizations and individuals having similar interests and objectives. Affiliated with Ontario Nature and Nature Canada .

P.O. Box 23031, RPO Carlton, St. Catharines, ON. L2R 7P6

Website : [peninsulafieldnats.com](http://peninsulafieldnats.com)

**UPCOMING EVENTS**

**CLUB MEETING:**

**MONDAY, APRIL 23, 6:00 pm – POTLUCK DINNER AND EX-TREASURES SILENT AUCTION**

**Members with surnames A-L bring salads or desserts; M-Z bring first course; everyone bring cutlery, cup plates – also ex-treasurers for the auction.**

**Set-up helpers arrive 5:30**

**ANNUAL PFN PICNIC:**

**SATURDAY, JUNE 9, 2012, 10:00 A.M. (Rain date June 10)**

**Hosted by Don & Sue Minchin ,905-562-1953**

**LOCATION - #2288 Robbins Ave, Louth**

**From St Catharines, drive west on Road 31 to 11th Street Louth, turn left (south) a very short distance, then right onto Robbins Avenue, continue to #2288 Robbins Ave at the end.**

**The Peninsula Naturalist Newsletter**

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The Editor welcomes written articles or artwork on any natural history topic. Please submit typed reports on paper or by email to: [jmpotter@talkwireless.ca](mailto:jmpotter@talkwireless.ca). Colour photos (jpg) accompanying articles are welcome. All pieces of artwork will be accepted; line drawings are preferred as they are better suited to photo copying. New ideas and constructive criticism are always welcome.

**Editor:** John Potter

**Assistants:** Kay Smith, Mary Potter

- please send submissions to the above address –

**Deadlines for submissions 2012:**

**Feb. 4; April 7; Oct. 6**

**2011 / 2012 PFN EXECUTIVE**

President	John Potter 905-89
Past Pres.	Roman Olszewski
Vice-Pres.	
Secretary	Wendy Bradley
Treasurer	Don Minchin
Membership	Brian Calvert 905-
Website	Donna Murphy
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