FALL 2012

FIELD BOTANISTS OF ONTARIO NEWSLETTER

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President's Message

It is a pleasure to send my first message to members as newly-elected president of the Field Botanists of Ontario. First, I would like to thank Bill Crowley for his outstanding contributions as president over the last three years. Bill sets a high standard with his communication and leadership skills. He is noted for his eloquent, off-the-cuff tributes to speakers and field trip leaders. He has probably attended more FBO outings over the past few years than any other member, so he has had lots of practice. Bill's initiative in organizing, with Jennifer Doubt of the Canadian Museum of Nature, a very successful joint meeting in Ottawa in 2011, was also greatly appreciated. Bill McIlveen's humorous send-up of Bill Crowley, was one of the highlights of the AGM this year. I will now think of Bill's ancestors as including priests in vestments and Cossacks on horseback, whether this is accurate or not. Bill remains as Past-President on the board, so he will continue to help shape our program and contribute his excellent photos to the newsletter.

I would like to highlight a very positive trend in our organization - that we are steadily gaining new, younger members who are taking advantage of the wonderful opportunities to learn about field botany, and natural heritage in general, that our field trips offer. On our outing to the Ausable River valley in September, I was pleased to see many youthful participants, as well as a few of us who are older, enjoying the hike and benefiting from the experience and knowledge of Tony Reznicek. As of November 25, 2012, the tally of memberships was 262 (or 320 individual members, as some memberships are for families), an increase of 33% from 2011. There is a waiting list for most of our trips.

It is a strength of the Field Botanists of Ontario that there are members just beginning to learn about field botany as well as those with a wealth of experience and knowledge. We continue to honour the most distinguished contributors to field botany with the Goldie Award. This year, it was presented to Professor Emeritus Peter Ball, and this issue of the newsletter includes a review of his many important achievements.

Our focus as an organization will continue to be our field trips. Please let board members, especially our field trip coordinators, Sarah Mainguy and Leah Lefler, know what your interests are and the type of trips you would like to participate in. As you will have noticed, we are expanding our activities in Eastern Ontario, with our AGM at Elbow Lake on the Frontenac Arch, and several other field trips organized in recent years. We are currently planning trips for 2013 and look forward to hearing your ideas.

Mike McMurtry

On the cover:
Mary Beth Lynch cruising to take a closer look at Water-willow (*Justicia americana*), off Hill Island (St. Lawrence Islands N.P). Photo by Jennifer Jung.

Self-portrait inside the looping Sugar Maple marker near Caledonia. Photo by Paul O'Hara.

Sidebar artwork: Northern Wild Raisin (*Viburnum cassinoides*).

The standard source for scientific names and authorities of vascular plants is:

Newmaster, S.G., A. Lehela, P.W.C. Uhlig, S. McMurray and M.J. Oldham. 1998. Ontario Plant List. Ontario Ministry of Natural Resources, Ontario Forest Research Institute, Sault Ste. Marie, Ontario. Forest Research Information Paper No. 123, 550 pp. + appendices.

Membership forms can be found on the FBO website:
www.trentu.ca/fbo
Annual memberships are $15.00 for individuals and $18.00 for families.

Field Botanists of Ontario (FBO) is a non-profit organization founded in 1984 for those interested in botany and conservation in Ontario.

Editor's Note

Dear Fellow Field Botanists, as your editor matures in his semi-volunteered position, we thought that it would be useful to initiate this new feature. The regular column "President's Message" will, of course, remain the cornerstone of communication between the FBO Board and the members. As for the "Editor's Note", we don't yet know how it will evolve, but the goal is to provide an introduction to the current Newsletter's reports and articles and, perhaps, to share with you occasional flareups of commentary brilliance on matters relating to botany, or other things of importance.

Speaking of botany, the subject of one of this issue's reports, actually, only marginally meets our inclusion criteria, but we have included it nevertheless: although mushrooms are not plants (they are just, well, plant-like organisms from a different Kingdom, apparently shockingly close to animals!), so many members enjoy learning about them that - Richard - we will always welcome accounts of your oversubscribed trips and field seminars on our pages.

Then, there are the nearly-microscopic mosses, true plants for sure, but overlooked by most of us (size matters). For the second time this year, Jennifer Doubt has impressed us by her intimate knowledge of these important ecosystem components and we have a report on the Menzel reserve trip, authored by Emily Johnson, to prove it. Listing so many moss names, this report is sure to increase your Latin vocabulary.

This year, as you know, we held our AGM at Elbow Lake, in Eastern Ontario. As is our tradition, to accompany the meeting, trips to locally interesting areas were organized. One of them was the St. Lawrence Islands National Park. Mary Beth and Josh treated the participants to a variety of habitats and plants, most importantly such rarities as Pitch Pine and Deerberry. The trip's program was changed, almost at the last minute, to include a water element: the boat rides were enjoyed by everyone.

For those curious about the severely contorted trees that you sometimes stumble upon in the bush, Paul O'Hara provides a larger cultural and historical context. His first article, exactly one year ago [Vol. 23(3), Fall 2011] on Marker Trees was met with much interest, so much so, that Paul followed up on several tips and travelled to many locations in Southern Ontario to document these interesting specimens.

Finally, each year the FBO honors, with the John Goldie Award, distinguished recipients who, through their lifetime of work, have advanced the knowledge of botany in the Province. This time, we are very pleased to present the Award to Dr. Peter Ball. You will read an eloquent note about Dr. Ball's achievements, written by Bill McIlveen.

Because this Newsletter will reach you just before the holiday season, we would like to wish you all a very Merry Christmas and best of field-botanizing in the New Year!

Field Trip Reports

Edible and poisonous botany at Joker's Hill

7 October, 2012

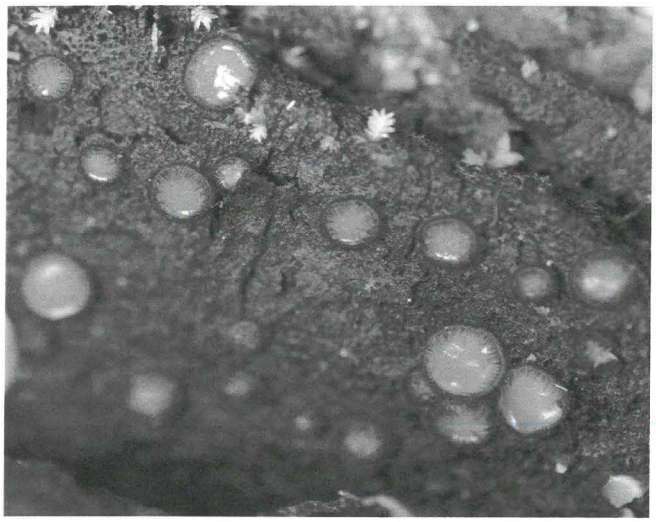
By William McIllveen

Due to the high interest, a repeat of the popular Mushroom Workshop took place on October 7, 2012. The leader for the day was Richard Aaron who has done this for the Field Botanists for a number of years. Like last year, the trip took place on the Koffler Scientific Reserve at Joker's Hill located about 3 km southwest of Newmarket. The 350 hectare parcel of land was donated to the University of Toronto by the Kofflers in order to support biological research, and it now serves as its primary field station. The reserve is located on the Oak Ridges Moraine and is dominated by woodlands in both natural stands and plantations. The site provides opportunities for ecological studies for over 50 professors at the University.

Discussing the collections (Richard Aaron third from left). Photo: W. McIlveen.

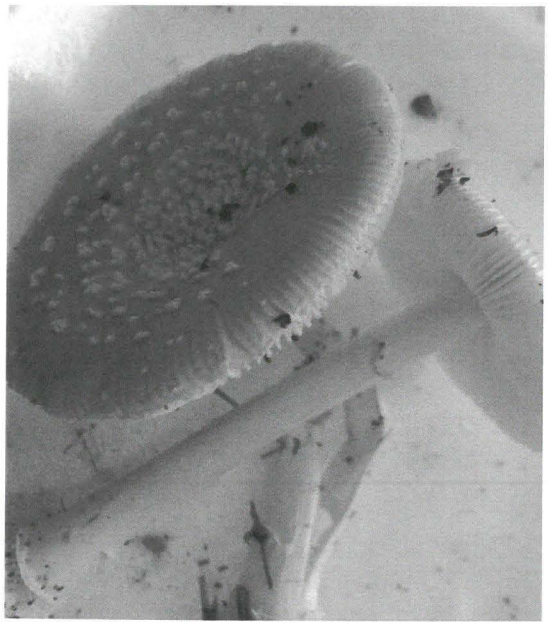
The day started in the classroom with self-introductions of the eleven FBO members who were present for the event. Using a specimen of the Bird's-nest Fungus (*Cyathus stercoreus*), Richard started to explain the basics of fungal taxonomy. Because of their size, macro-fungi are the members of the kingdom that are mostly regarded as mushrooms. Although there are many smaller members within the group, most mushrooms fall within the Phyla identified as Ascomycetes and the Basidiomycetes. The distinction between the two groups is based on the manner of spore production and dispersion. The perfect stage of the former group produces spores in a sac called an ascus, frequently with eight spores (or some multiple of eight) per ascus and many asci per reproductive structure. Basidiomycetes by comparison produce spores on a basidium, typically four at a time. Basidiomycetes have evolved various strategies to produce the maximum numbers of spores and thus perpetuate their species. This mostly means maximizing the surface area where the

spores are produced including gills, tubes, spines, and bearing masses of spores internally in "stomachs", a strategy employed by the puffballs. Different species have devised different means for ensuring that the spores are dispersed and some of these mechanisms were discussed.



Eyelash Cup (*Scutellinia scutellata*) . Photo: W. McIlveen.

After the lecture we went to the woodlot across the road to look for any mushrooms that we could find. Before we started our own collections, Richard pointed out some examples and discussed their characteristics. This included such species as the Violet-toothed Polypore (*Trichaptum biforme*), the Gem-studded Puffball (*Lycoperdon perlatum*) and the Eyelash Cup fungus (*Scutellinia scutellata*). We then scattered through the woods to see what we could find and brought the treasures back to the lab.



Frost's Amanita (*Amanita frostiana*). Photo: W. McIlveen.

After lunch, we started to sort the specimens into three main groups, combining multiple collections wherever possible. From there, the task fell to Richard to identify the species. He reviewed the main distinguishing features of many of the collections. It was not possible to recognize all of them on sight but Richard managed to identify 69 species. There were a fair number of more-difficult species that were left unidentified so it must be considered that our class had a rather successful hour of collecting in the field.

It is not feasible to mention all of the species collected but I will mention a couple of highlights for me. One was the similarity between the edible Honey Mushroom (*Armillaria mellea*) and the highly toxic Deadly Galerina (*Galerina autumnalis*). Although it is not that hard to separate them when they are placed side by side, they can grow in the same place and thus be easily confused. (I had to wonder why there are not more tragic consequences arising from misidentification of these two.) The second highlight was the collection of Luminescent Panellus (*Panellus stipticus*). We had the benefit of a dark room where we crowded together to see a light show but alas, this specimen remained recalcitrant and would not glow for us. At least I know what to look for in future and will try to see the light. Not such a bad goal in life - wanting to see the light!

On behalf of the Field Botanists, I would like to say 'Thank You' to Richard for offering another fine and informative workshop.

Management on the edge: protect, fire... life

15 September, 2012

By Jennifer Jung

Unique among the National Parks of Canada, St. Lawrence Islands is a composite of over 20 islands and a jigsaw puzzle of mainland properties. Stretching from Brockville to Kingston, it is accessible from exits 647 to 685 off Highway 401, from the United States via the 1000 Islands International Bridge and of course by water. The 1000 islands region is a great place to go botanizing. It sits in an interesting geographical position where the weather is mild enough to allow southern species to persist, but has a strong northerly influence from the granite substrates of the Canadian Shield (Frontenac Arch). In addition, the islands have their own features, such as isolation and limited habitat. The combination of these influences means that they boast impressive biodiversity, including several species-at-risk such as Least Bittern, Five-lined Skink and many plant species. This beautiful September day we were met with the smiling faces of Josh Van Wieren and Mary Beth Lynch who promptly gave us each a copy of *The Pitch Pine Post*, the Park's newsletter, which turned out to be more than appropriate for our field trip.

Pitch Pine (*Pinus rigida*) can be reliably identified by the bundles of three twisted needles and its contorted, tortured silhouette. It is at its northernmost limit in Canada, with only two known populations: one in the extreme south-west corner of Quebec and the other in the 1000 Islands. The population in St. Lawrence Islands is a disjunct one and has declined by 40% over the years, primarily because there is little to no recruitment.

Georgian Island. Two years after prescribed burn: 80% mortality of adult Pitch Pine, rich moss cover, over 200 pine seedlings. Photo: J. Jung.

Pitch Pine seedlings need open environment created by disturbance and are easily outcompeted by other plants for light.

St. Lawrence Islands is taking two approaches to help their Pitch Pine population. Firstly, seeds (cones) are being collected, germinated in the greenhouse and then planted back into the population. Secondly, the park actively tries to change the environmental conditions to favour Pitch Pine. This is where the prescribed burning comes in. Pitch Pine has several adaptations to fire such as protecting buds by having them located deep in the bark and the ability to produce suckers which is common in hardwoods, but rarely found in conifers. Populations of Pitch Pine in the United States are so adapted to fire that they actually require it to open the cones (scarification). Interestingly, the cones in the Canadian populations open just fine without fire.

The first site that we visited along the Six Nations Trail is an experimental site testing the effects of mechanical disturbance and fire on Pitch Pine recruitment. Results from this experiment will be used to develop the best management method. The competing trees have been removed in an area of approximately 0.4 hectares. On one side of the trail, the ground was mechanically disturbed and the other side a burn was conducted in August 2011. One year after the burn over 50 species of forbs are growing in the area including Horseweed (*Conyza canadensis*), Pokeweed (*Phytolacca americana*), Elderberry (*Sambucus* sp.), Blue-stem Goldenrod (*Solidago caesia*) and Ebony Spleenwort (*Asplenium platyneuron*). Prior to the experiment there was practically no ground vegetation growing. The high diversity is likely due the previous human history of agriculture in the area, which would have introduced many species to the seed bank. In addition to the new vegetation, the disturbance also seems to have triggered the adult Pitch Pines to produce more cones on the treated sites as compared to the untreated sites.

After our introduction to Pitch Pine ecology, Josh and Mary Beth had a great surprise for us. Instead of the original literary, we were going to go on an island tour. Although the beauty of the 1000 Islands can be enjoyed from the mainland, it is best appreciated on the water floating between the islands. The huge number of islands, exposed bedrock and water really reminds

me of coastal B.C. The Park owns 23 islands of the more than 1000 in the area. By the way, did you know that an island is defined by the number of trees on it? After suiting up, lifejackets and warm clothes, and a quick pre-take off safety inspection we sped up the St. Lawrence River to our first island destination, Georgina Island (with a short stop at the lighthouse Osprey nest for the people on Mary Beth's boat).

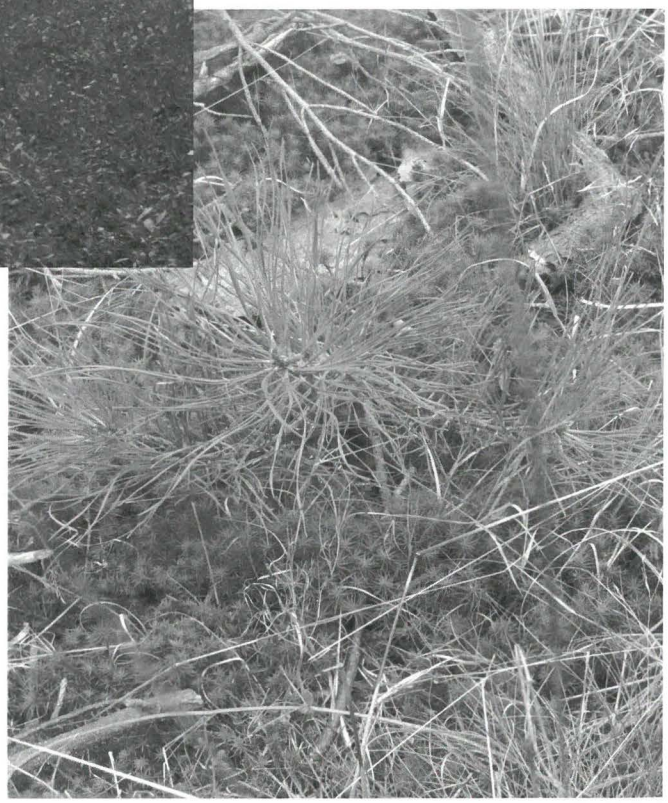
By the time we stragglers made it to the island, it was definitely time for lunch. Yes, lunch on the dock on an island in the middle of the St. Lawrence River, what else could be better? We then took a short hike to see another prescribed burn site. On the way, we stopped to look at a stand of Pitch Pine that was not

Georgian Island: Inspecting an unmanaged area with thick layer of blueberries and no saplings in sight. Photo: J. Jung.

part of the prescribed burn. The understory was chock full of blueberries (*Vaccinium pallidum, V. angustifolium* and *Gaylussacia baccata*) with no sign of seedlings or saplings. At the burn site, Josh once again explained to us that the prescribed burn was conducted in Aug 2010 and that it was a thorough burn. Some places were left to smolder for over two weeks! This is much different from the rapid yearly fires that First Nations people would have used to promote, of all things blueberries. The estimated natural fire interval is between 50 and 100 years, although we don't really know because all the trees here are 90 years old.

The target for the 2010 prescribed burn was to have a 60% adult mortality, but the reality is closer to 80%. For a botanist, a post-fire visit is an absolute delight, but it was evident from the comments from some passing hikers that not everyone was happy about the "destruction". Nevertheless, just two years after the burn over 200 Pitch Pine seedlings were now thriving in the new habitat and the understory forb diversity jumped from six to seventeen, with only three species present prior to the fire. A blanket of moss also developed after the fire despite the fact that mosses are not usually associated with fire regime. This is very fortunate for the Pitch Pine seedlings because they love the microclimate created by the moss.

After a pit stop at the wonderful facilities – composting toilets! – Josh and Mary Beth took us to go see Water-willow (*Justicia americana*). Having never heard of this plant, let alone seen it, I was expecting a shrub or perhaps a tree. So when we pulled up to these funny looking cattail cross *Phragmites* (!), neon green bamboo-like stems growing in the water, I was quite surprised. Water-willow is in fact not a willow in the Salicaceae sense at all, but belongs to the Acanthaceae and is the only representative of this family in Canada. Similar to Pitch Pine, Water-willow is at its northern limit in here and is listed as threatened under COSEWIC and SARO. In Canada, it has only been found growing in the Point Pelee and Niagara Falls regions, several locations along the St. Lawrence River in Quebec and of course in the 1000 islands.



Pitch Pine seedling two years after prescribed burn. Photo: J. Jung.

Our final destination was West Grenadier Island, where our objective was to see the largest population of Deerberry (*Vaccinium stamineum*) in Canada. This species requires close examination because it looks very similar to the more common blueberries in the area. Just like Pitch Pine and Water-willow, Deerberry is at its northern distribution limit here, with just five populations in Canada, two in the Niagara region and three in the St. Lawrence Islands (NHIC). It's no wonder why it too is listed as threatened by COSEWIC and SARO. Similar to Pitch Pine, natural seedlings of Deerberry are hard to come by, even though mature plants produce fertile fruit. Included on the long list of possible suspects for recruitment failure are fire suppression and trampling. As such, St. Lawrence Islands has been proactive in closing the Deerberry area on West Grenadier Island to the public. Perhaps the greatest surprise we had on the field trip was the unexpected find of a little patch of tall grass prairie next to the Deerberry stand! In a 2 by 3 m area at the edge of the island we saw the prairie species Big Blue Stem (*Andropogon gerardii*) and Sundrops (*Oenothera fruticosa*). Both species were near their prime, displaying beautiful yellow, blue and red colours.

A trip to the St. Lawrence Islands was definitely worth it. As you can tell by our account, there is plenty to see there. All three of our objective plants, Pitch Pine, Water-willow and Deerberry, are tracked by the NHIC. So, if you see these species, definitely report them! St. Lawrence Islands is working to make the islands kayak friendly, so there is no excuse not to go on a leisurely, island-hopping botany trip and experience this little bit of coastal B.C. right here in Southern Ontario.

The mosses of Menzel

16 September, 2012

By Emily Johnson

The Menzel Mosses outing happened on September 16th, the second day of our 2012 AGM weekend. We had a pleasantly mild day with nine people attending the hike lead by Jennifer Doubt. This 800+ hectare nature reserve became Menzel Centennial Provincial Park in 1993. It was named for a private donor, and a trail guide is available from the MNR. Although there is only one simple there-and-back trail, a variety of habitats are found in just 2.4 km. It showcases fields with openings of limestone pavement, a treed fen, a ridge of glacial deposit, cultural meadows, a shrub fen, and the shoreline of Mud Lake. There are two stretches of boardwalk over swamp and fen, which is one of the biggest in Southeastern Ontario. Portions of the park are classified as PSW (Provincially Significant Wetland) and ANSI (Area of Natural and Scientific Interest).

Since we were mostly new to mosses, Jennifer explained some basics. Mosses can be identified to the genus in the field using a 10X or 20X hand lens, but even bryologists have to take many back to the lab to determine the species. They classify mosses by growth habit for identification. Acrocarpus mosses are cushion-shaped with all plants growing vertically from the substrate, while pleurocarpus mosses are prostrate and branched. In severely resource-poor habitats, bryophyte diversity could actually be greater than that of vascular plants. There are approximately 500 species of bryophytes in Ontario and about 100-150 species are estimated to occur at Menzel Centennial. Many insects live in moss and feed on the algae growing in water within mosses. Moss capsules are also a good source of protein for mice and slugs. Mosses are like sponges and their lack of vascular tissue means they need to be able to absorb water and nutrients from every surface. Unlike flowering plants, which reproduce at a set time of year, mosses have to be more opportunistic. There is not one set time of year when mosses produce spores and a stressed plant may even go without producing spores for as long as ten years. Some mosses are called "ephemeral mosses" because they are annuals. These tend to be found in fallow fields or growing in active fields after the harvest.

The trail started in a regenerating field with patches of exposed limestone pavement. Here, we saw Hairy Twisted Moss (*Syntrichia* sp.) and Silvery Bryum (*Bryum argenteum*). Both are very common species which are often even found in cities. *Bryum argenteum* has its silvery appearance because it lacks chlorophyll at the tips of its small, dense leaves. There was also Fire Moss (*Ceratodon purpureus*) which can rapidly colonize acres after a fire in boreal regions. A spray bottle was needed to revive some of these mosses found on the dry limestone pavement.

We then carried on into a forested area. Bristle Cap Moss (*Orthotrichum* sp.) was found on the path. Its sharp teeth at the top of the capsule regulate when spores are released. The very tiny acrocarpus *Barbula* and Elevator Moss (*Thuidium*) were also found here. On a rock, there was the pleurcarpus *Hypnum* sp., *Plagiomnium cuspidatum*, and Grass Moss (*Brachythecium* sp.). We noted the very small costae (midribs on the moss leaves) and the toothed capsules on *Brachythecium*. There was also *Callicladium* sp. on fallen wood and *Hypnum pallescens* on bark.
We entered a peat-based swamp, finding *Hypnum lindbergii* on the soil and *Helodium* sp. which is a more northern moss typical of fens. When we found *Sphagnum* sp., Jennifer explained that it is different from other moss genera because its growth is indefinite. At maturity, many cells will die within *Sphagnum*. This results in spaces which serve as water vessels and help the moss to hold water. There was Neon Moss (*Aulacomnium* sp.) and Broom Moss (*Dicranum* sp.) which has rhizoids (moss "roots") up along its stem to help absorb water. Spear Moss (*Calliergon* sp.) can often be found submerged in water with only the tips emerging. Big Red Stem (*Pleurozium schreberi*) is

one of the three boreal feather mosses. It can be identified by its red stalks, but the leaves sometimes have to be scraped off in order to see the redness. There was also Pocket Moss (*Fissidens* sp.) and *Campylium* sp. with narrow pointy leaves at nearly right angles to the stems. *Campylium* is a fen moss which is often found at the base of plants.

We crossed a cultural meadow and a ridge of gravelly glacial deposit. When we reached the open shrub fen we saw *Hypnum pratense, Helodium blandowiii,* which is a fen indicator, *Campylium stellatum, Sphagnum squarrosum,* and *Plagiomnium ellipticum,* which is sometimes mistaken as a vascular plant. *Dicranum undulatum* was at the bases of shrubs. Its leaves have a wavy shape and dwarf males are found at the bases of female portions. From there, it was a short walk to the lake, where we had lunch. Mud Lake, surrounded by fen, was named for its peat bottom. We noted patches of Richardson's Pondweed (*Potamogeton richardsonii*) in the lake. In the treed fen by the lake, we found *Anomodon attenuatus*, *Rhodobryum roseum,* and the leafy liverwort *Porella* sp.

On the walk back, we stopped again in the treed fen, where we found Tree Moss (*Climacium dendroides*), *Hypnum lindbergii, Drepanocladus aduncus,* and *Plagiomnium* sp. Also, there was *Dicranium viride* which has leaves which easily break off and become new clones. *Tetraphis pellucida* has four teeth at the top of its capsules. There was a patch of this on top of a rotting stump and Jennifer brushed the abundant capsules while we watched the spores puff out in the angular afternoon light. On this species, we also saw tiny gemma cups which are asexual reproductive structures.

Of course, Menzel Centennial also has many interesting vascular plants. In the fen, we noted Marsh Fern (*Thelypteris palustris*), Leatherleaf (*Chamaedaphne calyculata*), Labrador-tea (*Ledum groenlandicum*), Sweet Gale (*Myrica gale*), Shrubby Cinquefoil (*Potentilla fruticosa*), Winterberry (*Ilex verticillata*),Royal fern (*Osmunda regalis*), Slender Sedge (*Carex lasiocarpa*), Marsh Cinquiefoil (*Potentilla palustris*), Swamp Birch (*Betula pumila*), Autumn Willow (*Salix serissima*), and Hog Pignut (*Amphicarpaea bracteata*). Upland, there were Prickly Ash (*Zanthoxylum americanum*) thickets, with Upland White Aster (*Solidago ptarmicoides*) common on the glacial deposit. We missed seeing it in flower, but many asters were putting on a show. According to the MNR, the park also has Butterfly-weed (*Asclepias tuberosa*), dropseed (*Sporobolus* sp.), Bog Rosemary (*Andromeda polifolia* ssp. *glaucophylla*), Pitcher-plant (*Sarracenia purpurea*), Three-leaved Buckbean (*Menyanthes trifoliata*), Alder-leaved Buckthorn (*Rhamnus alnifolia*), Black Chokeberry (*Aronia melanocarpa*), Water Bog-rush (*Cladium marsicoides*), White Beaked-rush (*Rhynchospora alba*), cranberry (*Vaccinium* sp.), Grass Pink (*Calopogon tuberosus*) and Rose Pogonia (*Pogonia ophioglossoides*).

Thank you, Jennifer, for sharing the beauty of bryophytes with us.

Botanical roots

Call return: Indian Trail Marker Trees in Southern Ontario (Part Two)

By Paul O'Hara

Amazing what a year can bring. Last fall, my article "A Call Down the Path: Trail Marker Trees in Southern Ontario" appeared in the FBO newsletter. Shortly after, it was picked up and re-published 8 times in naturalist newsletters from Ottawa to Windsor-Essex. And shortly after that I got calls and emails from folks in Gananoque, Oakville, Owen Sound, Sarnia, Kincardine, Milton, Mississauga, Walsingham and Simcoe telling me of marker trees they knew of. I spent much of last winter following up on the calls and here are a few stories about some of the amazing trees I saw.

Janice and Art with the Beech marker on The Ark Farm. Photo: P. O'Hara.

On The Huron Beach Trail

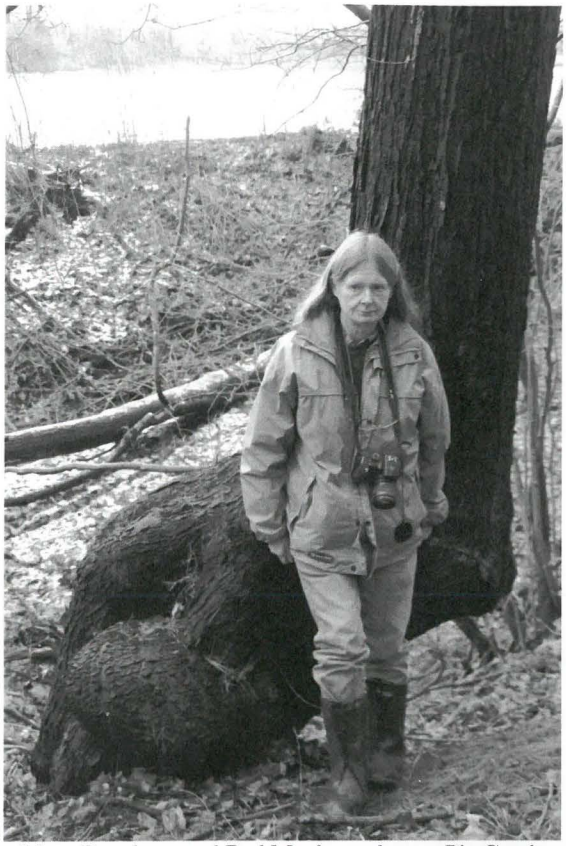
Janice McKean and Art Wiebe run the The Ark Farm, a bed and breakfast, organic veggie farm and native plant nursery on the Lake Huron shore north of Kincardine. They read my article in the Grey-Bruce Woodlot Association newsletter and emailed me to say they might have a potential marker tree on their property.

I visited Janice and Art at The Ark Farm on a snowless February day. After feeding me a wonderful homemade vegetarian lunch, we bushwhacked through the White Cedar (*Thuja occidentalis*) that crowded Andrews Creek (which runs through their property), and climbed up the abandoned beach ridge where the tree stood. Wow! There was no mistaking it, an old Beech (*Fagus grandifolia*) marker that pointed north along

the edge of the ridge. Janice and Art told me that archaeologists documented an ancient First Nation fishing village along Andrews Creek, adding that there are not too many places to get off the lake around here, suggesting that the creek valley must have been a welcome respite from the winds off Lake Huron. I would guess this tree was marked close to 200 years ago, maybe by the ancestors of the nearby Saugeen First Nation or the Chippewas of Kettle and Stony Point.

Big Creek Marker

Mary Gartshore is well known to the scientific and naturalist community of Southern Ontario. Co-founder of St. Williams Nursery and Ecology Centre and an incredible biologist, it didn't take Mary long to spot a tree in Norfolk County. Mary took time out of her busy schedule over the Christmas break to show me the tree - a grizzled Red Maple (*Acer rubrum*) along a cart path adjacent to Big Creek. The balding and plated bark and stag-headed crown were giveaways to its advanced age. Mary told me that many arrowheads and spear points of earlier native cultures have been found in the adjacent sandy fields and I learned from Scott Gillies, Curator of the Eva Brook Donly Museum in Simcoe, that a major Indian trail ran up the east branch of Big Creek where this tree is found.

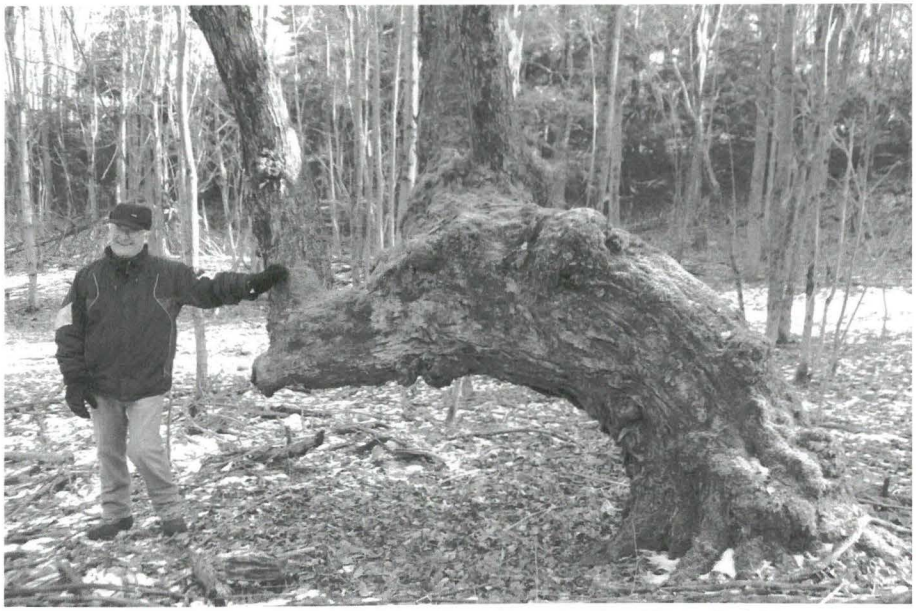


Mary Gartshore and Red Maple marker on Big Creek. Photo: P. O'Hara.

Summer Camp on the St. Lawrence

John MacLeod is a retired high school environmental studies teacher who acts as a volunteer steward at Landon Bay, a 225-acre ecological reserve on the St. Lawrence River, east of Gananoque. John contacted me after Holly Bickerton - biologist, FBO member, and former student of John's – forwarded the article to him. John immediately tied the marker shapes to a tree he knew at Landon Bay and emailed me. We made arrangements to meet after Christmas, and on January 8, I made the trip to beautiful southeastern Ontario to meet John at the Landon Bay Ecological Reserve.

Before showing me the tree, John led me down the Donevan Trail to the Lookout Trail and, in his words, "the best natural



John MacLoed and Red Maple marker at Landon Bay. Photo: P. O'Hara.

view of the Thousands Islands" - a granite promontory that provided a stunning panorama of Landon Bay with the Thousand Islands in the distance. He told me the bay was a summer fishing camp and gathering place for the Haudenosaunee of southeastern Ontario and, judging by the view, I could see why. Stepping off the rock we continued

A group of FBO members listen to Peter Ball on a field trip to the Turner Tract near Campbellville, June 14,1992. Photo: B. McIlveen.

More recently, along with Tony Reznicek, he has been active in the Flora of North America (FNA) project as one of the Editors of Vol. 23 (Cyperaceae) including treatments in *Carex* and *Kobresia*. He also authored treatments of *Salicornia*, *Arthrocnemum*, and *Sarcocornia* in the Chenopodiaceae. As well, he has additional treatments of various mints in preparation for that volume. In addition to the FNA, he authored the treatments of *Eriophorum*, *Parnassia*, and *Salicornia* in the Jepson Manual for California.

The Field Botanists of Ontario are therefore very pleased to award the 2012 edition of the Goldie Award to Peter Ball in recognition of his extensive contributions to the legacy of botany in Ontario, as well as to all of North America and to Europe. We are truly fortunate to have someone of Dr. Ball's abilities as a resource to resolve difficult plant identification problems in our own area.

FALSE DICHOTOMIES IN BOTANY

By Ionatan Waisgluss

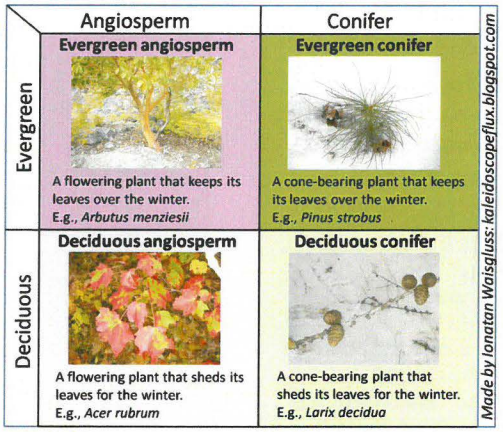
Countless times, when talking about trees, I've come across a question like this:

*"That's a really big tree! Is it a **conifer**, or is it **deciduous**?"*

In a lot of cases, especially in Ontario, you can get away with such a question; you'll get your answer, take a photograph, and everybody will continue their day as normal. To the devoted botanist, however, there is something very troubling about this question. To illustrate my point, let's substitute the two terms used above for ones we are more familiar with, and let's ask a similar question. Imagine someone walks up to your car as you're giving it a wash on a sunny afternoon, and asks:

*"That's a nice car! Is it **red**, or is it **standard-transmission**?"*

You stand there, perplexed. Even if you have very little knowledge about cars, you know that something is wrong with the question. They started off by asking whether it was a certain **colour**, and then asked about its **transmission**! It's fine to ask about each of these things independently, but the question presupposes that the car can either be one or the other. We know intuitively that a car can be a range of colours (e.g., red, blue), and a range of transmissions (e.g., manual, standard). We know, as well, that the two ranges are independent of one another.



Similarly, a tree can be from a **taxonomic group** (e.g., conifer, angiosperm), and have a certain **habit** (e.g., deciduous, evergreen). In other words, you can have a tree that is **coniferous and deciduous**, just like you can have a car that is **red and standard-transmission**! To further illustrate the point, I have created a cross-chart that uses **Taxonomic Group** as one category, and **Habit** as the other. For each section, I have added examples from Canadian plants (using my own photos) to help tie everything together. (from the Editor: Ontarians observe that *Arbutus menziesii* grows naturally only in south-western British Columbia, while you can easily substitute *Larix decidua* with our native *L. laricina*.)

Please keep in mind that the chart does not offer complete coverage of all taxonomic groups or plant habits; there are plants that are neither angiosperms nor conifers, and plants that can't be described as being deciduous or evergreen. However, this chart can be used comprehensively for describing **any woody plant species in Canada**. I hope that it provides some clarity in discussing Canadian plants and that it gets people thinking about the importance of using scientific terminology appropriately.

In the Land of Siberian Tiger: Botany made dangerous

Your editor has recently travelled some 13 time zones to Eastern Asia for a botanical conference, held in Vladivostok, Russia. As part of it, several field trips were organized to various locations around the southern Primorye Region, the Sea of Japan's coastline, its islands, and into the Sikhote-Alin Mountains - home of the famous Ussuri Taiga and the Siberian Tiger. Those of you who are interested in the botany of that part of the world may want to view the photos (and short video clips) of plants and vegetation, put on a Flickr website.

Many of the genera and species will be familiar to you (*Equisetum hyemale, Mitella nuda, Phryma leptostachya, Cornus canadensis, Quercus, Fraxinus, etc.*), you will also see our "exotics" growing in their natural habitat, plus - of course - numerous other species native to East Asia, including many shrubs and trees, like the magnificent Maximowicz's Poplar (Bohdan - you would love that one). The website will remain active until 23 January, 2013, when the photos' resolution (now the highest) will be reduced and there will be no videos. http://www.flickr.com/photos/botanica4/sets/