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FIELD BOTANISTS OF ONTARIO *NEWSLETTER*

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President's Message

It won't be long before the weather turns and field botany in Ontario is in full swing again. Many great trips are in the works and we are trying hard to get the trip list out earlier this year than in the past. Thank you to the volunteer trip leaders who have already confirmed dates and locations.

In February, we held the first FBO winter social, Botanists et Ale, at the Royal Electric Bar & Public Eatery in Guelph. It was a success - a fun night with a higher member turn-out than expected. Thanks to Will Van Hemessen for organising the event. We plan on having another one next winter.

This year's AGM will be on September 19 in Belleville at the Sans-Souci Café. Details and trip options will be available soon. Thanks to Tristan Knight for planning it so far in advance.

Organising the trips offered each field season is a big task so I want to gratefully acknowledge those who make it happen: Jessica Consiglio, Gwyneth Govers and Sarah Mainguy. The 2020 trip list will soon be available. Like last year, you can register for trips on-line at: <https://www.fieldbotanistsofontario.com/> We have had positive feedback about switching to on-line registration. However, it is still a new system so if you have any suggestions, please let us know.

See you on the trails,
Troy

On the cover: Top: Creek habitat of aquatic moss *Hygroamblystegium fluviatile* during summer drawdown. Photo: Brianna Collis. Bottom: Fishing for ... mosses at Inglis Falls. Photo: Will Van Hemessen. Centre inset: *Agalinis gattereri*. Photo: Brenda Kostiuk.

Sidebar artwork: Black-eyed Susan (*Rudbeckia hirta*)

Trip location maps generated using NatGeo Mapmaker software.

The suggested standard source for scientific and common names is the Database of Vascular Plants of Canada (VASCAN): (<http://data.canadensys.net/vscan/search>).

Field Botanists of Ontario website: www.trentu.ca/fbo

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Annual memberships are \$20.00 for individuals and \$25.00 for families. Membership forms can be found on the FBO website above.

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

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Editor's Note

This time, instead of the editor's invitation to the newsletter, he would like to provide potential contributors with some guidelines for submission of their wonderful pieces. (At some point, the guidelines may evolve into a more comprehensive instructional document on the FBO's website.)

As you have undoubtedly noticed, we accept a wide range of papers, although the focus is on the trip reports, the core of the organization's activity. There is also no defined rigid format to the reports and we welcome all the variety of styles that reflect individuals' writing skills.

A few things, however, you would be asked to adhere to. Please submit the text (preferably in Word) and any photos (preferably as jpeg files) separately - do not combine them as your effort will be in vain: eventually, the layout of the newsletter trumps everything.

For the Latin names of plants, see page 2 for the data source. In your report, quote species by common name followed by Latin (scientific) name in parentheses. Thereafter, if a species is mentioned again, use only its common name. If species of a particular genus are listed repeatedly in a single sentence or in a paragraph, abbreviate the generic name to its initial in the second and subsequent mentions (e.g., *Carex stipata*, *C. pensylvanica*, *C. tenera*). Whilst we are at it, italicize scientific names, and for the common names begin them with capital letters, e.g., White Birch.

Otherwise, you are free as a bird. This newsletter is by you and for you.

Authors: I am waiting for your pieces! Enjoy this issue.

Chris Zoladeski

Forest dangles and other sedges

1 June, 2019

By Burke Korol

On first of June 2019, a well-attended FBO field trip included two sites in Middlesex County: Parkhill Conservation Area and Fossil Road along the Ausable River. The focus of this outing was to learn about the field identification and ecological aspects of *Carex* sedges. The trip's leader was Dr. Anton (Tony) Reznicek. Tony is the co-author of the Field Manual of Michigan Flora and the Flora of North America's account of the genus *Carex*. With 224 species (i.e., not including the dozens of subspecies, varieties and hybrids), the genus *Carex* is Ontario's richest. So, we were both glad and privileged to have a North American expert leading our tour.

The genus *Carex* has two commonly recognized subgenera: *Carex* and *Vignea*. Tony introduced the tour by explaining some of the key morphological features of the former subgenus, by using Woodland Sedge (*C. blanda*) as a typical example. He pointed out its three styles, sexually specialized inflorescence (i.e., separate male and female flowers), lateral, pedicellate spikes and leaf-like bracts. He then contrasted species in subgenus *Vignea*, which, without exception in Ontario, have two styles, sessile spikes with both male and female flowers and, if present, bristly bracts.

Being such a large genus, comprehensive taxonomic keys for *Carex* usually divide its members into sections of morphologically similar species. For example, Woodland Sedge is placed in Section Laxiflorae – characterized by relatively soft clumps with sharply winged angles. We saw several examples of species in this section.

Moving along, we then compared two similar sedges in Section Hymenochlaenae: Graceful Sedge (*C. gracillima*) and Handsome Sedge

(*C. formosa*). Both of these sedges have gynecandrous (i.e., female flowers distal and male flowers proximal) terminal spikes and dark purple culm bases. The latter feature is also correlated with tristigmatic flowers. But in contrast to Graceful Sedge, Handsome Sedge has shorter, lateral spikes, all of which were gynecandrous, and pubescent abaxial (lower) leaf surfaces.

We then found more woodland *Carex* species and compared them. Pennsylvania Sedge (*C. pensylvanica*) is often found in dry, oak woodland in large colonies. If you can find some, you will see that their mature perigynia (i.e., fruits) are pubescent. Tony described the latter character as a sort of 'get out of jail free card' because hairy perigynia are quite uncommon in sedges. If a sedge has this character, you will greatly reduce the number of possibilities when trying to identify your specimen. Also present was Fibrous-root Sedge (*C. communis*), another species with hairy perigynia, which looks a bit like Pennsylvania Sedge, but it is caespitose (i.e., clumped or tufted) with generally wider



leaves. Next, we looked at Wood's Sedge (*C. woodii*) which, like *C. pensylvanica*, is also a mesic forest, clonal species with few fertile stems, but it is usually about twice as tall as Pennsylvania Sedge. Finally, we observed the very common Long-stalked Sedge (*C. pedunculata*). Tony recommended that field botanists learn to recognize the evergreen, mostly vegetative tufts of this common woodland species. Most sedge leaves tend to be long-tapered near their apices, but this one has a rather abruptly tapered leaf apex.

Continuing on, we found some Limestone Meadow Sedge (*Carex granularis*). Like Woodland Sedge, this member of the



Handsome Sedge (*Carex formosa*). Photo: B. Korol.



Drooping Sedge (*Carex prasina*), as demonstrated by Tony Reznicek. Photo: B. Korol.

Granulares section is common along forest trails, but differs in its more glaucous foliage and less sharp stem angles. Then we looked at Bright-green Spreading Sedge (*C. laxiculmis* var. *copulata*), which also has less sharply angled stems than Woodland Sedge. The other variety (i.e., var. *laxiculmis*) of Spreading Sedge, which we saw later, has wider and more glaucous leaves than var. *copulata*. Each of these varieties will soon be raised to full species status.

Still in woodland habitat, but on richer soils, we found more taxa including the following: Hitchcock's Sedge (*C. hitchcockiana*), with its hard, bluntly triangular stem and rough leaf sheaths; Pubescent Sedge (*C. hirtifolia*) – a rhizomatous, colonial species that is 'hairy all over'; and the provincially rare, but locally common, Carey's Sedge (*C. careyana*), with its long spikes and culms and huge perigynia.

As the group descended to the bottom of a steep valley, we found distinctive species like Plantain-leaved Sedge (*C. plantaginea*) and White Bear Sedge (*C. albursina*). These sedges have very wide (i.e., 3 cm and up to 5 cm in the latter) leaves. Plantain-leaved Sedge often has 'puckered' leaves with purplish bases, unlike those of White Bear Sedge.

Carex species are habitat specialists, so if you don't visit uncommon habitats, you'll miss seeing about half the species an area has to offer. This explains why we were able to locate the uncommon Drooping Sedge (*C. prasina*), which grows in clumps along seeps in woodlands, when we arrived at the valley bottom. Unlike the other 'forest dangles' mentioned above (e.g., Graceful and Handsome sedges) Drooping Sedge lacks reddish stem bases. Also at the valley bottom, Tony identified Smooth-sheathed Sedge (*C. laevivaginata*). This species is an example of the subgenus *Vigneia*. With its friable leaf sheath apex, it resembles the very common Awl-fruited Sedge (*C. stipata*), but its sheath apex is more thick and rough-ridged.

At this point we began heading back to the parking area, so we could drive to our second location of the day. On the walk back to our cars, we paid more attention to woodland herbs, with the more noteworthy being Eastern Leatherwood (*Dirca palustris*), Licorice Bedstraw (*Galium circaezans*), Michigan Lily (*Lilium michiganense*), Narrow-leaved Wild Leek (*Allium tricoccum* var. *burdickii*) and hundreds of fruiting plants of Twinleaf (*Jeffersonia diphylla*).

The second and final site we visited was on Fossil Road along the banks of the Ausable River. Here we found sedges that grow in non-forested habitats. Tony soon pointed out the calciphile Porcupine Sedge (*C. hystericina*), which was growing in a wet, roadside ditch. Had we been on acidic bedrock (e.g., on the Canadian Shield) the look-a-like Sallow Sedge (*C. lurida*) would likely be found in such habitat.

Along the banks of the river Tony showed us Hammer Sedge (*C. hirta*). This one is unusual, because unlike most of Ontario's sedges, it is a non-native species and its stems have true internodes. We then found some Grey Sedge (*C. grisea*), which can grow in open or shady sites. Along the river's floodplain there was plenty of Emory's Sedge (*C. emoryi*). This plant is not uncommon as a vegetative species, but we did manage to find a few of its flowers. Emory's Sedge resembles Tussock Sedge (*C. stricta*), which we did not see, but unlike Tussock Sedge, Emory's Sedge lacks 'ladder' leaf sheaths and has truncated ligules. We also noted the very tightly packed, distigmatic flowers of

Emory's Sedge. Rounding out the trip list here Tony pointed out Woolly Sedge (*C. pellita*), Golden Sedge (*C. aurea*), more Limestone Meadow Sedge and a hybrid-type plant that was either Mead's or Rigid sedge (*C. meadii* or *C. tetanica*).

Our trip was then concluded just moments before some threatening thundershowers began. This article could have been longer had I mentioned the many other ecological tidbits and puns that Dr. Reznicek shared. ❁

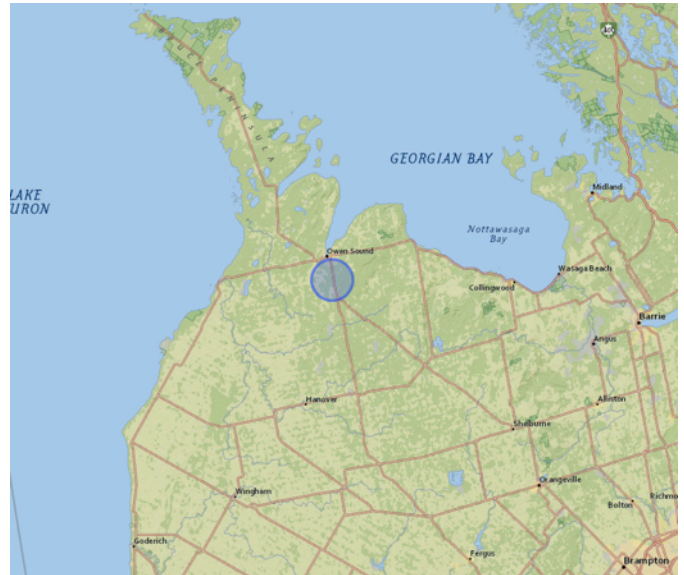
Bryophytes of Inglis Falls

21 September, 2019

By Will Van Hemessen

On a glorious, unseasonably warm Saturday in late September, bryologist Jennifer Doubt led a group of twenty moss and liverwort enthusiasts to Inglis Falls Conservation Area in Owen Sound. Although the conservation area was located just around the corner from the venue for that night's FBO Annual General Meeting, Inglis Falls was not chosen just for convenience. The site has a long and storied history of study by well-known botanists such as John Macoun and it has a particularly long history of moss collecting, largely at the hands of early twentieth century naturalist E.A. Moxley. In 1928, Moxley published *The Moss Flora of North Grey County and Part of the Bruce Peninsula, Ontario* in *The Canadian Field-Naturalist*, which included accounts of close to 200 moss species from this region.

Our group included a few experienced bryologists, several bryophyte enthusiasts and a number of other naturalists with little bryophyte experience but eager to learn. We began by exploring the rocky trail on the eastern side of the falls. This area was characterized by large areas of exposed dolostone bedrock and boulders with cool, wet hollows and crevices which provided ideal habitat for bryophytes. Here we found several noteworthy species, including the appropriately named Frogskin Moss (*Homalia trichomanoides*) growing on bark at the base of an ancient White Cedar (*Thuja occidentalis*), Ontario Rhodobryum (*Rhodobryum ontariense*) growing on top of dolostone boulders and Toothed Silkmoss (*Plagiothecium denticulatum*), which we found was so soft that it could almost be recognized by touch alone. We also encountered several rare ferns in this area, including American Hart's-tongue Fern (*Asplenium scolopendrium* var. *americanum*), Green Spleenwort (*A. viride*) and Laurentian Bladder Fern (*Cystopteris laurentiana*). One member of our group discovered a few individuals of Nipplewort (*Lapsana communis*) along the trail, which perhaps belonged to the same population collected by John Macoun more than a century earlier!



After lunch we made a brief foray along the trail to the west of the falls to look at a healthy population of Allegheny Thamnobryum (*Thamnobryum alleghaniense*), a provincially rare moss known mainly from the Niagara Escarpment. After this we drove a short distance down the road to the headquarters of the Grey Sauble Conservation Authority where the Sydenham River could be more easily accessed. In a shallow reach of the river flowing rapidly over



Allegheny Thamnobryum (*Thamnobryum alleghaniense*).

Photo: W. Van Hemessen.

dolostone bedrock we discovered some unusual aquatic mosses, such as Large-leaved Pocket Moss (*Fissidens grandifrons*) and a species of *Fontinalis*. We also enjoyed watching as Chinook Salmon attempted to make their way up the rapids.

The Inglis Falls field trip was very successful and all of us learned something new about bryophytes. It was an excellent way to spend the last day of summer. ❁

Lichens of Louth and Rockway Conservation Areas

23 June, 2019

By Brianna Collis and Roman Olszewski

On June 23, 2019 a group of field botanists joined local amateur lichenologist and bryologist Roman Olszewski at Rockway and Louth Conservation Areas to search for our tiny friends. We started our hike in the beautiful woods above the falls at Louth and found rock-dwelling crust lichens *Caloplaca flavovirescens*, *Verrucaria nigrescens* and *Porpidia* sp. The Fluffy Dust Lichen, *Lepraria finkii*, made its appearance later in the outing. Tree bark was inhabited by look-alike *Lecanora thysanophora* – which was, however, easily distinguished from *L. finkii* by its white-fringed margin and yellowish-tinged thallus. *Physcia stellaris* (or *P. aipolia*, depending on the chemistry) as well as the ubiquitous *Phaeophyscia adiantola* were similarly established on

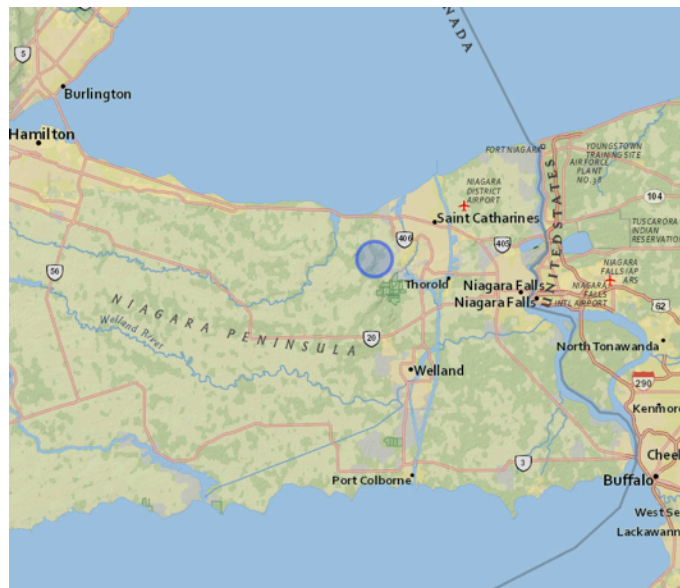


Scraping rock outcrops in search of small plants. Photo: L. Wallis.

bark. We also noticed what was later confirmed as the ground-dwelling Born-again Pelt, *Peltigera praetextata* while *Chrysothrix caesia* and several other common corticolous lichens were added to the Louth checklist.

Our observations of mosses started out with *Orthotrichum* c.f. *anomalum*, and possibly other *Grimmia*/*Schistidium* species on the sun-bathed rocks heading into the woods. Forest-dwelling mosses

that we came across at Louth Conservation Area included: *Thuidium delicatulum* (the Common Fern Moss), *Climacium* sp. (tree moss),



Plagiommium cuspidatum (Baby Tooth), *Rhodobryum ontariense* (Rose Moss), the very common *Anomodon attenuatus* and *A. viticulosus*, *Dicranum flagellare*, *Hypnum pallescens*, *Fissidens* sp. and liverworts *Porella platyphylla* and *Radula complanata*.

The water level of the creek beyond the falls at Louth was surprisingly low and this gave us the opportunity to see the aquatic moss *Hygroamblystegium fluviatile* as it clung to the exposed limestone rocks. Unfortunately, we searched unsuccessfully for the robust moss *Thamnobryum alleghaniensis*, which was very common on the bank a little over a year ago.



Caloplaca flavovirescens, a crustose rock-dwelling lichen, Louth Conservation Area. Photo: B. Collis.



Climacium sp., on the forest floor, Louth Conservation Area. Photo: B. Collis.

Beautiful Witch-hazels (*Hamamelis virginiana*) grew on the slopes of this conservation area and it was a pleasure to hike through, as long as you avoided all the Poison Ivy (*Toxicodendron radicans*)! Other vascular plants we enjoyed finding on our hike, despite our main focus being on mosses and lichens, included Two-leaved Bishop's Cap (*Miella diphylla*), Canada Honewort (*Sanicula canadensis*), Maple-leaved Viburnum

(*Viburnum acerfolium*) and Purple Flowering Raspberry (*Rubus odoratus*) in bloom. We also encountered Peck's Sedge (*Carex peckii*), Plantain-leaved Sedge (*Carex plantaginea*), Burreed Sedge (*Carex sparganioides*), and several ferns including the tiny walking fern (*Asplenium rhizophyllum*), Rattlesnake Fern (*Botrypus virginianus*) and Bulblet Fern (*Cystopteris bulbifera*).

After we finished our excursion to Louth, we were led to a recently-discovered but secret site of a critically imperilled (in Ontario) fan moss, *Forsstroemia trichomitria*. Those interested in becoming a moss detective can join Mission Forsstroemia on iNaturalist to help search for and document this rare species.

The weather was gorgeous during the outing and the group of about twelve dispersed in the bright afternoon sun after a great day of botanizing. ✱

Prairie Point Alvar

22 September, 2019

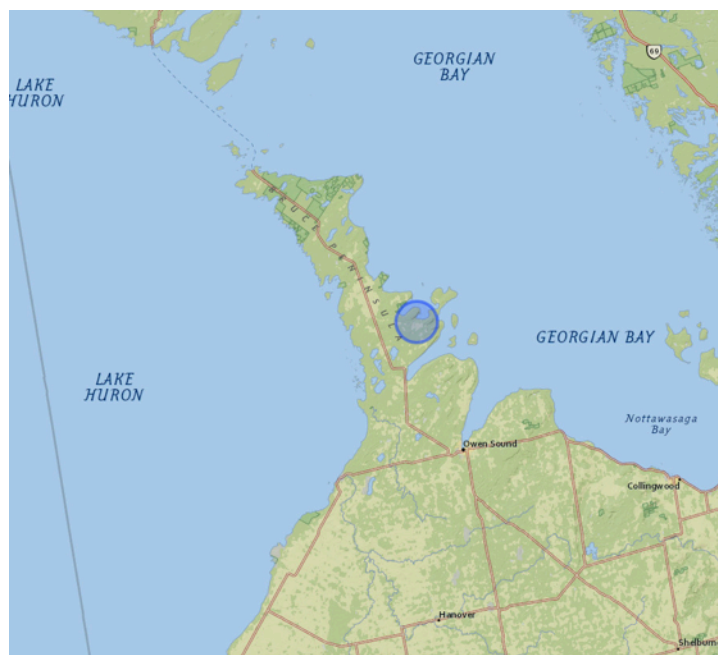
By Hanna R. Dorval

On the 22nd of September, a group of field botanists had the pleasure of joining Jarmo Jalava and Miptoon from Neyaashiinigmiing on a journey through the Prairie Point Alvar,

followed by a walk along the Bruce Trail in search of fascinating ferns.

Prairie Point Alvar is part of the Neyaashiinigmiing reserve land, located near Cape Croker on the Bruce Peninsula. Used in the past as pastureland for cattle, this botanically diverse and unique area has been converted to a place where traditional food collection, education, and biodiversity monitoring and protection now co-occur. Natural prairie and alvar habitats are increasingly uncommon within the province and are continually threatened by agricultural practice and urban expansion.

Unusual assemblies of plants have been reported from this area, and despite the trip taking place fairly late in the season, we were still able to view some of the colourful blooms. One particularly interesting plant viewed during our exploration was Gatteringer's



False Foxglove (*Agalinis gatteringeri*). The plants here are nearing the northern limit of their range, are ranked S2 (imperiled) and considered endangered by the Ontario Ministry of Natural Resources and Forestry and the Committee on the Status of Endangered Wildlife in Canada (Jones 2015). Blooming late (August to mid-September) and with pink flowers that only last one day, we were lucky to have spotted this plant, especially considering the short delicate stems and leaves are nearly impossible to find on their own among the dense grass.

Sporadic Great Plains Ladies'-Tresses (*Spiranthes magnicamporum*) were spotted among the grasses, some in full bloom while most only beginning to form and open their inflorescence. Yellowed lower lips, lack of basal leaves while flowering, and a sweet vanilla scent make this plant distinctive.



Dryopteris goldiana. Photo: B. Kostiuk.



Spiranthes magnicamporum. Photo: H. Dorval.

The purple flowers of a variety of asters (*Symphiotrichum*) and the golden tufts of Grey-Stemmed Goldenrod (*Solidago nemoralis*) and Giant Goldenrod (*S. gigantea*) added sparks of colour to the otherwise grey sky and tan grassy fields. Granitic boulders occurred occasionally among the grasses, and boasted lichens including Golden Moonglow Lichen (*Dimelaena oreina*), Tile Lichen (*Lecidia tessellata*), and a selection of Rock-Posy species (*Rhizoplaca*).

The Bruce Trail winded through beautiful Sugar Maple (*Acer saccharum*)-dominated forest, protecting the group of botanists from wind and rain, the leaves only beginning to shift from a photosynthetic green to a golden yellow marking the end of a season. The closed canopy provides ample shady opportunities for ferns and bryophytes to thrive. A short walk along the trail revealed the occasional Christmas Fern (*Polystichum acrostichoides*) and Maidenhair Fern (*Adiantum pedatum*). Goldie's Fern (*Dryopteris goldiana*) and Male Fern (*D. filix-mas*) were also observed from trailside.

A separate branch of the Bruce Trail down which a portion of the group ventured provided sightings of Northern Holly Fern (*Polystichum lonchitis*) and Maidenhair Spleenwort (*Asplenium trichomanes*), both species with an apparent preference for the dark, mossy crevices in the limestone bedrock along the escarpment. A pocket of forest boasting a substantial population of Downy Rattlesnake-Plantain (*Goodyera pubescens*) was also observed from the trail. This species is rare on the Bruce Peninsula and was not known from the area until 1980 (Johnson 2016). Speckled Blister Lichen (*Viridothelium virens*), observed growing on the smooth bark of large beech trees along the trail, is ranked S3 in the province and is a primarily tropical species found at the very northern limit of its range here on the Bruce Peninsula.

Thank you, to Neyaashiinigiing, for allowing the Field Botanists of Ontario to experience this unique and beautiful traditional land, and Miptoon for being our knowledgeable and pensive guide. Thank you also to Jarmo, for sharing with us his incredible enthusiasm and knowledge of this area. ✨

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Visiting Ontario's Oldest Black Gums

27 September, 2019

By Angela Zhou

On September 7, 2019, a group of approximately 23 field botanists met at The Commercial Roadhouse to then carpool to a slough forest in the Willoughby area in Niagara Falls. Upon arriving, the trip leader, Albert Garofalo, who is an experienced Habitat Technician for Environment and Climate Change Canada, provided the group with some historical points on the slough forests and Red Maple (*Acer rubrum*) swamps in the Niagara Region.

Afterwards, Nate Torenvleit spoke about his work in this same forest as he had collected tree cores of some of the older trees within. Nate provided some samples to pass around and share amongst the group. Everyone was able to witness cores of Black Gums that were over 580 years old.

We then proceeded to enter the forest where we came across massive Red Oaks (*Quercus rubra*), some estimated to be over 100 years old. We also saw several Pin Oaks (*Quercus palustris*) and



Shellbark Hickory (*Carya laciniosa*). Lower to the ground we spotted various vascular plants including Turtlehead (*Chelone glabra*), Indian Cucumber-root (*Medeola virginiana*), and Buttonbush (*Cephalanthus occidentalis*). These were just a few of the several dozen vascular plants on the growing species list for this forest.

We then found the Black Gum (*Nyssa sylvatica*) that is over 580 years old, where we took a group photo and stopped for lunch.

Excitingly, a few patches of False Hop Sedge (*Carex lupuliformis*) were spotted on the way out of the forest. This species has a provincial rarity rank of S1 and is considered endangered in Ontario. *Carex lupuliformis* is usually found growing in riverine swamps and marshes and temporary forest ponds in open areas where there is an abundance of sunlight. At first glance, this native sedge closely resembles Hop Sedge (*Carex lupulina*), however *Carex lupuliformis* has knobs on the angles of mature achenes, almost creating a diamond-shaped outline in comparison to the more rounded achenes on *Carex lupulina*.



Bark of a mature *Nyssa sylvatica* tree showing irregular, blocky ridges.
Photo: D. Campbell.

After making our way out of the forest, most of the group travelled to the final destination of the trip just a short drive away to see yet another rare species. After maneuvering through several patches of Poison Ivy (*Toxicodendron radicans*), we encountered the Round-leaved Greenbrier (*Smilax rotundifolia*). This species is associated with Black Gum forests and is considered threatened in Ontario with a provincial ranking of S2. Sometimes confused with Bristly Greenbrier (*Smilax tamnoides*), they can be distinguished by the widely spaced stout prickles on the Round-leaved Greenbrier stems and bristly stem without stout prickles on the Bristly Greenbrier.

This then concluded the trip. Some group members returned to The Commercial Roadhouse to enjoy food and drinks after such a memorable day of botanizing. ✨



Carex lupuliformis pistillate spike, the ripe perigynia, and diamond shaped achenes, with prominently swollen knobs. Photo: D. Campbell.

Marching through Wye Marsh

7 July, 2019

By Pat Deacon

In early July 2019, a group of field botanists joined trip leader Sarah Mainguy at the Wye Marsh Interpretive Centre to explore the northern reach of the Marsh. This, roughly 1000 hectare wetland, is located in Tay Township (named after the pet dog of Lady Sarah Maitland) in the County of Simcoe. The predominantly cattail (*Typha* spp.) marsh also includes fen, swamp and upland forest communities as well as Mud Lake which outlets to Georgian Bay on the east end of Midland. For many years the Wye Marsh was near and dear to renowned Simcoe County naturalist Fran Westman who carried the title “Mother of the Marsh”.

The Midland area was originally settled by the Huron-Wendat peoples in the 15th century. By 1639 Jesuit missionaries arrived and established Sainte-Marie Among the Hurons. Conflict saw the area deserted for a period of about 150 years before re-settlement in 1820 gave way to a logging boom in

the 1860s. The village of Wyebridge, at the south end of the marsh, was home to mills drawing power from the Wye River. Eventually, much of the marsh became a private hunting reserve before provincial and federal efforts lead to the designation of the site as a National Wildlife Area in 1978. Today, the marsh is managed by a variety of partners including



Short-lived humans, kids, really, in front of a nearly 600 year old Black Gum senior citizen. Photo: R. Bauer.



the Ministry of Natural Resources and Forestry, the Canadian Wildlife Service, Ducks Unlimited Canada and the Friends of Wye Marsh.

Our trip began with a stroll through a stand of Eastern White Cedar (*Thuja occidentalis*) forest with a sparse groundcover of Ostrich Fern (*Matteuccia struthiopteris*), Northern Lady Fern (*Athyrium filix-femina*), Sensitive Fern (*Onoclea sensibilis*) and Flat-top White Aster (*Doellingeria umbellata*). Glossy Buckthorn (*Frangula alnus*) thrives on mesic to wet soils and was well-established in the lowland forest and swamp communities. Passing an interpretive log cabin, the group marvelled at the green roof that had formed on the rotting shingles, lush with mosses, lichens, a vegetative sedge (*Carex* sp.) and Black Raspberry (*Rubus occidentalis*). The group's enthusiasm to delve into the mosses and lichens reminded me of the quiet moments that follow the FBO representative requesting a volunteer to write up the trip report. Onward to the marsh!

Leaving the cool and shaded forest we stepped onto the beginning of the marsh boardwalk in full sun and high humidity. Sarah pointed out a few of the staple species in the marsh including Narrow-leaved Cattail (*Typha angustifolia*), Lake Sedge (*Carex lacustris*) Water Sedge (*C. aquatilis*) and Canada Blue-joint (*Calamagrostis canadensis*). We discussed the distinguishing features between Water Sedge and Tussock Sedge (*Carex stricta*). Tussock Sedge has sheaths with ladder-like fibres while Water Sedge lacks this feature. Even at a distance, a mature stand of Tussock Sedge is clump forming, while Water Sedge tends to form colonies.

An elevated section of the boardwalk put the vast size of the marsh into perspective and from a bridge the group was able to see Fragrant Water-lily (*Nymphaea odorata*) which has purple stripes running along the petioles. The group could not turn up the

provincially rare American Lotus (*Nelumbo lutea*) which is known from the area, albeit a rather disjunct occurrence for a species largely restricted to the Carolinian Zone in Ontario.

A Snapping Turtle (*Chelydra serpentina*) swam out from a mat of Great Duckweed (*Spirodela polyrhiza*) and across one of the open water channels that run through the marsh. Great Duckweed is easily identified by the purple colouration on the underside of the leaf and has thread-like roots growing from the leaf.

Discussion of cattail hybrids was had and gazing out across the marsh to fruiting plants it appeared that there was a mixture of Narrow-leaved Cattail (*Typha angustifolia*; male and female portion of the fruits separated) and Broad-leaved Cattail (*T. latifolia*; the male and female flowering parts nearly fused together). The hybrid *T. x glauca* was observed later in the day and was much taller and more robust than the surrounding parent species; however the elongated fruits were not present.

Poking up beside the boardwalk was a plant which the group originally thought was American Sweetflag (*Acorus americanus*). Referring to Michigan Flora Online, it was noted that the plant seemed to have a single raised mid-vein on the leaves suggesting the introduced European Sweetflag (*A. calamus*). While the group settled on this identification, we only inspected material from a single small clump and the mid-vein was poorly defined.

While we were confident in the identification of a *Stuckenia* species from the edge of the water, (likely *S. pectinata*), there were no volunteers willing to wade out to a patch of an unidentified narrow-leaved pondweed which often requires mature fruits to determine the species. (Next time we'll have to draw Horsetails, shortest internode goes in.) Areas of shallow marsh contained Water



Sartwell's Sedge (*Carex sartwellii*) with Baltimore Checkerspot (*Euphydryas phaeton*). Photo: P. Deacon.

Horsetail (*Equisetum fluviatile*) which is similar to Marsh Horsetail (*E. palustre*) but has stems that are easily flattened and is somewhat restricted to habitats with deeper water.

Scanning the mass of submerged vegetation, a number of stems of the native Siberian Water-milfoil (*Myriophyllum sibiricum*) were located. With 7-10 leaf segments on each side of the leaf, this species is distinguished from the non-native invasive Eurasian Water-milfoil (*M. spicatum*) which typically has 14-17 leaf segments per side. There are seven species of Water-milfoil known to occur in Ontario with the aforementioned species and Whorled Water-milfoil (*M. verticillatum*) all being relatively common and widespread.

Walking along a berm trail much of the groundcover was comprised of Path Rush (*Juncus tenuis*). Sadly, dozens upon dozens of turtle nests had been predated along the berm with shell fragments littering the path. Later in the day we were able to compare Path Rush with the similar Dudley's Rush (*J. dudleyi*) which has leaf ligules appearing as small knobs (as opposed to delicate and thin in *J. tenuis*).

Near the western extent of the berm, a small patch of the native Common Reed (*Phragmites australis* ssp. *americanus*) was observed. This species has deep red internodes, a modest-sized panicle and sparse growth. Additionally, the native subspecies has a ligule length of greater than 1mm in length while the non-native is less than 1mm.

Setting foot back on land we started down a snowshoe trail through a Sugar Maple (*Acer saccharum*) – White Ash (*Fraxinus americana*) forest intermixed with White Cedar stands throughout. Tree tip-ups and deadfall made for good variety in microtopography with pits and mounds alongside persistent vegetation growing on toppled root masses and decaying stems. Unfortunately the declining White Ash has resulted in an explosion of Glossy Buckthorn seedlings and saplings.

Over the course of a few hundred metres of trail we were treated to an impressive diversity of sedges including Brownish Sedge (*Carex brunescens*), Rosy Sedge (*C. rosea*), Dewey's Sedge (*C. deweyana*), Graceful Sedge (*C. gracillima*), Woodland Sedge (*C. blanda*), Bladder Sedge (*C. intumescens*), Limestone Meadow Sedge (*C. granularis*), Hop Sedge (*C. lupulina*) and Long-stalked Sedge (*C. pedunculata*) and Lake Sedge. As the trail paralleled a cedar-lined stream, a patch of Eastern Rough Sedge (*C. scabrata*) was found



Marsh Bellflower (*Campanula aparinoides*). Photo: P. Deacon.

growing along the banks. Often occurring with Skunk Cabbage (*Symplocarpus foetidus*), this species is a good indicator of groundwater discharge.

By early afternoon the group took a break for lunch at the Interpretive Centre beneath a grove of Red Maple (*Acer rubrum*) and American Basswood (*Tilia americana*). A display of plants for sale next to the picnic tables included a Trojan Horse, a May-apple (*Podophyllum peltatum*) sharing a pot with a stowaway Lesser Periwinkle (*Vinca minor*)!

After lunch, the group explored an area of marsh beneath a powerline right-of-way near the Highway 12 entrance. Stepping into the marsh we immediately located a patch of Hairy Sweetgrass (*Anthoxanthum hirtum*), first by olfaction, and then by observation. I always enjoy "botany by nose" be it the sharp smell of fresh Low Calamint (*Clinopodium arkansanum*) underfoot, the putrid smell of drying Foxglove capsules (*Penstemon* spp.) or the sweet smell of Hooded Ladies'-tresses (*Spiranthes romanoffiana*). Sweetgrass is traditionally used by First Nations as a ceremonial smudge and weaving material and the patches in Wye Marsh may have been utilized by the Huron-Wendat community.

Over the course of the day the group was able to observe both Lesser Panicle Sedge (*Carex diandra*) and the similar Sartwell's Sedge (*Carex sartwellii*). A single clump of the former was observed near the boat launch while the trip ended with the group wading through a near monoculture of the latter in a marsh beneath power lines. Sartwell's Sedge differs in that it is rhizomatous and the leaf sheaths lack the reddish dots of Lesser Panicle Sedge.

With the sun beating down and the humid air resting still within the marsh, our sweaty but learned crew was content to call it a day.

Our thanks to Sarah Mainguy for leading an interesting trip! ❀❀

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