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FIELD BOTANISTS  
OF ONTARIO

NEWSLETTER

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# President's Message

Spring is here. I write this on the first day of spring, March 20, 2016, a sunny, but chilly day that follows a week of unseasonably mild temperatures. After a relatively balmy winter season, with salamanders on the move and Spring Peepers already calling, I headed over to RBG's Cootes Paradise in Hamilton with the hope of finding some botanical signs of spring. It's early for spring wildflowers, but I was optimistic. The same day, a member posted on the FBO Facebook page pictures of Harbinger-of-Spring (*Eriogonum bulbosum*) spotted near Cambridge.

Walking the Hickory Valley Trail down to Captain Cootes Trail and back up the Grey Doe Trail, I crossed oak-maple-hickory ridges and marshy valley bottoms. My eyes were drawn to bits of green among the dominant brown and grey tones of the forest floor, much of which turned out to be semi-evergreen species, such as Pennsylvania Sedge (*Carex pennsylvanica*), Wild Strawberry (*Fragaria virginiana*), Spinulose Wood Fern (*Dryopteris carthusiana*) and, of course, Garlic Mustard (*Alliaria petiolata*). The small population of Purple Cress (*Cardamine douglasii*) I came across last year was not yet to be found. However, the purple-brown, fleshy spathe of Skunk Cabbage (*Symplocarpus foetidus*), one of our earliest spring wildflowers, could be seen poking out of the leaf litter in the bottomlands, and the yellow dandelion-like flowers of Coltsfoot (*Tussilago farfara*) dotted the gravelly trail margins and eroding streambanks along Captain Cootes Trail. Among the fallen oak leaves on the valley slopes, I spotted a favourite of mine, the distinctive pointed-lobed maroon leaves of Sharp-leaved Hepatica (*Anemone acutiloba*), remnants of last year's growth. No flowers yet, but the fuzzy flower buds had emerged on short stalks about an inch above the soil surface. Soon enough. I know this place has much more to reveal in the weeks to come.

The coming of spring means that the FBO field trip season will soon be underway and I'm sure many of us are ready to hit the trails. Our field trip coordinators are finalizing the trip list and working out the details with our volunteer trip leaders. We've put together another excellent program this year with a great selection of botanical field trips and workshops, including trips to the Ausable River valley, Mer Bleu Conservation Area, Bruce Peninsula National Park, Port Albino in Niagara, Killarney Provincial Park, Minesing Swamp, and much more. I'm looking forward to another exceptional year of field botany in Ontario and hope to see you out on the trails.

Dan Westerhof

**On the cover:** Sprengel's Sedge (*Carex sprengei*) at a site in the Credit River watershed. Photo: Charles Cecile.

Sidebar artwork: Virginia Waterleaf (*Hydrophyllum virginianum*).

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/vascan/search>).

Field Botanists of Ontario website: [www.trentu.ca/fbo](http://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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## Editor's Note

It just happened, whatever we call it - by default, technicality, artifact of production flow, that this issue of the Newsletter is focused essentially solely on sedges. Everyone's favourite and challenge.

Richard Baxter diligently followed Steve Varga on a trip in Durham County carefully assembling a long list of sedges, and other graminoids, and submitted a well-illustrated effort that you will appreciate while sitting in a dry location. As we said a few times before, sedges are easy to identify and differentiate when compared side by side, as Richard proves it...

If your interest happens to be Sprengel's Sedge (*Carex sprengelii*), a handsome and distinctive woodland plant, turn to Charlie Cecile's and Dawn Renfrew's mini-monograph on encounters with it in the Credit River watershed. I think I will speak for the authors in suggesting that if anyone stumbles upon comparably large populations elsewhere in the Credit River Valley, dropping a note to either Credit Valley Conservation or NHIC would be appreciated.

During your walks and travels across the province also look for a new sedge, *Carex nigra*, described in an exhaustive article by Anne Barbour and Mike Oldham. Its status is somewhat uncertain, but the plant should be relatively easily identifiable. Plus, its habitat - roadside ditches or other such wet spots, should be accessible.

On the back page of the issue there is an advertisement about the FBO Student Award, which we are again offering to young botanists. Details and criteria for awarding the monetary price are specified in the ad.

Lastly, in our continuous effort to improve the newsletter, we are starting to include small maps showing the general location of the trips. It was a very good suggestion from Dan Brunton that we are eager to fulfill. Speaking of submissions, your editor is continuously awaiting your reports! We are flexible with the style and format of your contributions, and basically the only requirement is to include the correct spelling of both the common and scientific names, to the best of your capabilities.

All the best this spring.

Chris Zoladeski

# Field Trip Reports

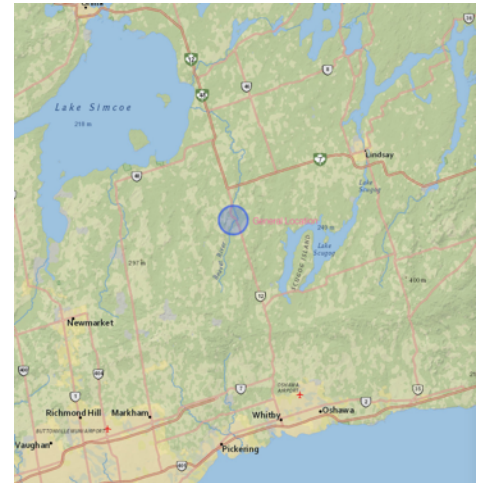
## Graminoid explorations in Durham

28 June, 2015

By Richard Baxter

**O**n a very wet June 28, 2015, approximately 15-20 dedicated FBO members gathered in the Blackwater area (Brock Township, Regional Municipality of Durham) for a graminoid focused tour of wetland habitats led by Steve Varga. This trip is the wetland counterpart to the upland graminoid trip Steve also leads, and both of these trips are very helpful (see the Summer 2015 FBO newsletter for an excellent account of the 2014 trip). Weather was appropriate for a wetland plant excursion as it was very rainy for the majority of the day, tapering off a bit towards the end. Despite the excessive moisture it was a great trip, on which a good diversity of wetland sedges and grasses (and a small number of rushes) were observed. Non-graminoid plants were for the most part ignored on this day.

At the beginning of the trip Steve passed us a handout on the identification of wetland sedges, rushes and grasses. We briefly went through some of the anatomical features to be used in identifying these groups, features that can be seen illustrated in many botanical texts and field guides (for example Lone Pine's *Wetland Plants of Ontario* by Newmaster, Harris and Kershaw, 1997, has a nice side by side illustrated comparison of grasses, sedges and rushes). A review in brief: sedges have triangular stems. Grasses and rushes have rounded stems, with grass stems usually hollow, and rush stems usually solid. Grasses and sedges both have their flowering parts arranged in spikes of various types. Sedges have perigynia, sac-like structures enclosing the pistillate flower and a single scale. Grasses have two sets of scales: two outer glumes, and



an inner palea and lemma enclosing the flowering parts. Rushes have small fully formed three-parted flowers with petals and sepals. These are the basic anatomical parts, but, as with any plant group, a combination of many aspects of the plants will need to be examined when trying to arrive at an identification (e.g. coloration of the vegetative parts, arrangement and form of reproductive parts, a lack of or presence and degree of hirsute-ness, caespitose-osity or lack of caespitose-osity, habitat conditions, etc., etc.).

Sedges (family Cyperaceae) include around 300 species in Ontario, and the province has approximately 200 species of the genus *Carex* alone, divided into several Sections, some of which are more physically distinct than others (if you can familiarize yourself with them, it can help narrow down the task of identification). Grasses (family Poaceae) include over 300 species in Ontario. Overall, these groups can be an intimidating prospect, and the identification of these graminoid plants does require some patience, a ruler, a hand lens, and of course experience always helps.

Steve mentioned the book *Grasses of Ontario* by Dore and McNeill ([http://publications.gc.ca/collections/collection\\_2015/aac-aafc/A54-3-26-1980-eng.pdf](http://publications.gc.ca/collections/collection_2015/aac-aafc/A54-3-26-1980-eng.pdf)), an excellent, if somewhat dated (1980), source of information on Ontario

grass diversity and distribution. Additional and more recently published identification references for graminoids are found at the end of this trip account.

**Stop 1** was a large wetland on the Beaver River, just south of Sunderland, Ontario where we walked along a rail trail on the south side of Regional Road 13, just west of Hwy 7/12. Habitat in this wetland was a combination of large open marsh with thicket swamp, and smaller patches of deciduous trees. The habitats that we examined, mainly within 20-30 metres of the trail, appeared to be very wet and saturated with water year round.



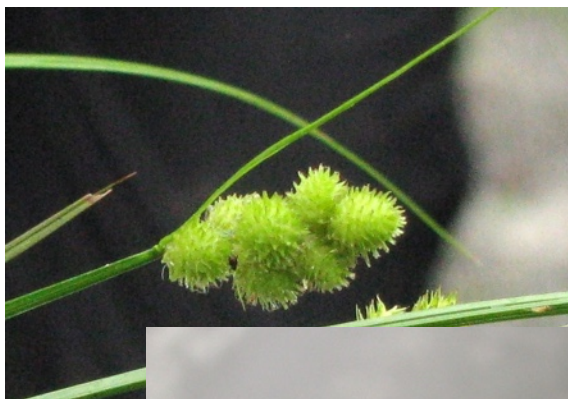
*Glyceria grandis*. Photo: R. Baxter.

Though the focus of the day was on wetland species, a small number of upland grasses were also examined, including: Smooth Brome (*Bromus inermis*), Timothy (*Phleum pratense* ssp. *pratense*), Quackgrass (*Elymus repens*), Kentucky Bluegrass (*Poa pratensis* ssp. *pratensis*), Canada Bluegrass (*Poa compressa*), Cheat Grass (*Bromus tectorum*), and Meadow Fescue (*Schedonorus pratensis*, synonym *Festuca pratensis*). These common and familiar species are mostly non-native to Ontario. However, though the Flora of North America (FNA) indicates it is native to Eurasia, Steve mentioned that Canada Bluegrass may have a native form; Kentucky Bluegrass is listed as S5 in the Southern Ontario Plant List, so appears to be considered native, but the FNA indicates that the only clearly native subspecies *alpigena* and *colpodea* occur in the arctic and subarctic regions. These grass species are generally found in disturbed habitats, as well as cultural meadows, pastures and hayfields.

Moving into the marsh habitat along, we found several other grass and sedge species. Wetland grasses observed included Canada Bluejoint (*Calamagrostis canadensis* var. *canadensis*), Reed Canary Grass (*Phalaris arundinacea*), Fowl Manna Grass (*Glyceria striata* var. *striata*), Rice Cut Grass (*Leersia oryzoides*), and American Manna Grass (*Glyceria grandis* var. *grandis*). Reed Manna Grass (*Glyceria maxima*) - was not seen, but Steve mentioned that it also forms dense stands in Southern Ontario.



*Carex comosa* with its spreading beak teeth. Photo: R. Baxter.



*Carex bebbii* (top), *C. cristatella* (middle) and *C. projecta* (bottom). Photos: R. Baxter.

The sedges included: Retrorse Sedge (*Carex retrorsa*) – Section Vesicariae, Bebb’s Sedge (*Carex bebbii*) – Section Ouales/Cyperoidea, Necklace Sedge (*Carex projecta*) – Section Ouales/Cyperoidea, Prairie Sedge (*Carex prairea*) – Section Heleoglochis, Crested Sedge (*Carex cristatella*) – Section Ouales/Cyperoidea, Awl-fruited Sedge (*Carex stipata* var. *stipata*) – Section Vulpinae, and Lakebank Sedge (*Carex lacustris*) – Section Paludosae.

What we initially thought was Cypress-like Sedge (*Carex pseudocyperus*) turned out upon closer inspection to be Bristly Sedge (*Carex comosa*). Both *C. pseudocyperus* and *C. comosa* are placed in Section Vesicariae. The species differ in that the teeth at the end of the beak of the perigynia in *C. comosa* are spreading, and the beak teeth on *C. pseudocyperus* are straight.



*Carex stipata* (top) and *C. vulpinoidea* (bottom). Photo: R. Baxter.

Steve noted that the only sedge group that could really be considered a bit difficult to separate out species is the Ouales/Cyperoidea, however he did seem to waffle on this perceived difficulty a little. This Section of *Carex* alone contains around 20 species in Ontario. Steve indicated that the three most common Ouales/Cyperoidea species that would generally be encountered in Southern Ontario are *C. projecta*, *C. bebbii*, and *C. cristatella*, all of which we saw at Stop 1. *Carex bebbii* and *C. cristatella* were somewhat similar with bunched spikes. *Carex cristatella* is on average a bit bigger than *C. bebbii* and has perigynia that are spread out (reflexed back) more within the spikelet than the tightly packed *Carex bebbii* spikelets (with perigynia ascending) – though I must admit I found them pretty similar. *Carex projecta* has spikes that are more stretched out like a necklace, giving it one of its common names.

**Stop 2** was beside the Pefferlaw River on Zephyr Road, where we explored the wet roadside ditches and a small wet meadow beside a large area of mixed swamp.

Grass species additions at this location included Orchard Grass (*Dactylis glomerata*), Creeping Bentgrass (*Agrostis stolonifera*), Fowl Bluegrass (*Poa palustris*) and European Common Reed (*Phragmites australis* ssp. *australis*). We also came across a grass in the roadside ditch that we called Hairy Panic Grass (*Panicum acuminatum*) in the field, which is what is referred to in the Southern Ontario Plant List as *Dichanthelium acuminatum*. Though it was not identified to variety, I

assume it would most likely be var. *fasciculatum*, which has a provincial conservation rank of S5.

Sedges found at this location included Golden Sedge (*Carex aurea*) – Section Bicolores, Hop Sedge (*Carex lupulina*) – Section Lupulinae,

Greater Bladder Sedge (*Carex intumescens*) – Section Lupulinae, Foxtail Sedge (*Carex alopecoidea*) – Section Vulpinae, Graceful Sedge (*Carex gracillima*) – Section Hymenochlaenae, Fox Sedge (*Carex vulpinoidea*) – Section Multiflorae, Porcupine Sedge (*Carex hystericina*) – Section Vesicariae, Inland Sedge (*Carex interior*) – Section Stellulatae, Woolly Sedge (*Carex pellita*) – Section Paludosae,

Beaked Sedge (*Carex utriculata*) – Section Vesicariae, and Meadow Sedge (*Carex granularis*) – Section Granulares.

When *Carex aurea* matures, its spike turns a distinct and attractive orangey-gold colour, and the mature fruiting bodies are considered edible, though I wouldn’t say the small quantity I had gave a very memorable flavour...decent texture. I think it would take some serious gathering to get much satisfaction out of a mouthful of Golden Sedge fruits.



*Carex leptalea*. Photo: R. Baxter.

I found *Carex vulpinoidea* and *C. stipata* superficially a bit similar, but Steve pointed out that *C. stipata* has thicker and fleshier stems, and *C. vulpinoidea* has smaller, more densely packed perigynia. The differences are easily apparent when the two species are examined side by side.

Non-*Carex* Cyperaceae family members found here included Bald Spikerush (*Eleocharis erythropoda*), Woolgrass (*Scirpus cyperinus*) and Dark-green Bulrush (*Scirpus atrovirens*). In addition we

found two rushes (Family Juncaceae): Dudley's Rush (*Juncus dudleyi*) and Jointed Rush (*Juncus articulatus*). Non-graminoids of interest included Giant Bur-reed (*Sparganium eurycarpum*) and Alderleaf Buckthorn (*Rhamnus alnifolia*), Ontario's only native buckthorn species.

**Stop 3** was also on Zephyr Road at a swamp associated with Zephyr Creek, just East of Zephyr, Ontario, where we looked at another road side ditch and the edge of the large mixed swamp.

At this location we managed to add five more *Carex* species to our day's total, including Prickly Sedge (*Carex spicata*) – Section Phacstoglochis, Long-stalked Sedge (*Carex pedunculata*) – Section Clandestinae, Dewey's Sedge (*Carex deweyana* var. *deweyana*) – Section Deweyanae, Bristle-stalked Sedge (*Carex leptalea*) – Section Leptocephalae, with its distinct small spikes that have somewhat clasping rice grain-like perigynia, and Two-seeded Sedge (*Carex disperma*) – Section Dispermae.

*Carex spicata* was the only introduced *Carex* species we observed on the day. Interestingly, for such a diverse group, Ontario does not have a long list of introduced sedge species, with only around ten (excluding hybrids) listed as non-native.

By my count the total species observed for the day included 24 *Carex* sedges, 3 non-*Carex* sedges, 17 grasses and 2 rushes, all in all a great day despite the rain. Though no rarities were observed, a healthy number of species were examined allowing for a solid grasp of graminoids that would be commonly encountered in the wetland habitats of Southern Ontario. Also, a good number of *Carex* Section representatives (16 Sections in total) were encountered showing good diversity of form in this genus. I was impressed by the fact that a relatively small area covered could produce such a good haul of species. \*

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# Botanical roots

## Carex sprengelii (Sprengel's Sedge) in the Credit River Watershed

Charles Cecile and Dawn Renfrew

**C**redit Valley Conservation is continuing with its Natural Areas Inventory (NAI) program within its watershed. During the 2010, 2014 and 2015 field surveys for this project, three dense populations of *Carex sprengelii*, Sprengel's Sedge, were found in deciduous forests in the Town of Caledon, a few kilometers from the Credit River hamlet of Cataract. These interesting occurrences may be the result of several factors that currently and historically affected these woodlots.

Sprengel's Sedge, also known as Long-beaked Sedge, takes its name from Kurt Polykarp Joachim Sprengel (1766-1833), a Prussian botanist and physician who was one of the first to study plants microscopically (Go Botany - New England Wild Flower Society website). It is a relatively common species in Ontario, ranked S5 (MNRF Natural Heritage Information Centre) and occurs in all provinces except Nova Scotia, PEI and Newfoundland/Labrador, and not in the two territories (Canadensys/Vascan website). It also grows in New England and Midwest states in the US (Flora of North America –FNA website). It is listed as regionally rare by Kaiser (2001) where "regionally" refers to the GTA (Halton, Peel, York, Durham and Metropolitan Toronto) and locally rare in the Region of Peel and the Credit River watershed. It is ranked as locally "uncommon" in Halton Region (Crins et al., 2006).

*Carex sprengelii* is a species of moist to dry forests and thickets, occasionally found in open meadows or marshy ground (Voss and Reznicek, 2012), often associated with calcareous rocks and soils (FNA website). It is also found growing along riverbanks, lakeshores, limestone river bluffs, thickets, meadows, roadsides (FNA website), which seems to suggest that it can colonize disturbed habitats. This is a species with short-creeping rhizomes, forming loose clumps and colonies (FNA website). Voss and Reznicek (2012) note that "plants

often form circular patches up to 1 m in diameter, which may in time die out in the centre, leaving a ring of living shoots”.

A large and dense population of *Carex sprengelii* was found growing in a 1.8 hectare mesic sugar maple (*Acer saccharum*) woodlot, west of the Credit River, during 2014 field surveys (see cover page photo). The canopy, subcanopy and understory are dominated by Sugar Maple but there are also small amounts of Black Cherry



(*Prunus serotina*) and Basswood (*Tilia americana*) in the canopy, some White Elm (*Ulmus americana*) and Eastern Hop-hornbeam (*Ostrya virginiana*) in the subcanopy, and Chokecherry (*Prunus virginiana*) and Hop Hornbeam in the understory layers. Ground flora species include White Trillium (*Trillium grandiflorum*), Giant Blue Cohosh (*Caulophyllum giganteum*), Downy Yellow Violet (*Viola pubescens*), Woolly Blue Violet (*Viola sororia*), Canada Wild Ginger (*Asarum canadense*) and Wild Leek (*Allium tricoccum*). *Carex sprengelii* dominates the ground in approximately half of the woodlot, forming a dense turf excluding most other herbs. Little or no understory or shrub layer exists in this part of the woodlot, where a partially open canopy allows more light to reach the forest floor. The woodlot is middle-aged and has mineral soil. There is widespread evidence of light deer browsing and small amounts of trash and earth disturbance around the woodlot margins. In addition, the open landscape of an active aggregate pit adjacent to the woodlot results in more sunlight.

A second similar large population of *Carex sprengelii* was discovered in 2015 (photo above) in the Forks of the Credit Provincial Park, in a Sugar Maple forest at the top of the valley on the west side of the Credit River, approximately 2 km from the first site.

An equally dense *Carex sprengelii* population, although smaller in extent, was found during a NAI botanical inventory in 2010. That population occurs in a small woodlot, isolated by cultural meadows, in Upper Credit Conservation Area, just northeast of Alton (Caledon), approximately 7 km from the two above-described sites. This is a relatively young woodlot, a fresh-moist Sugar Maple forest with a very open, heavily browsed understory and *Carex sprengelii* dominating the ground layer. Smaller amounts of White Elm, Eastern Hop-hornbeam and Black Cherry also occur in the canopy and subcanopy. The understory is sparse and mainly composed of Chokecherry, North American Red Raspberry (*Rubus idaeus* ssp. *strigosus*) and Eastern Leatherwood (*Dirca palustris*).

A limited internet search found few other reports of such dense growth of *Carex sprengelii*. One site in Nebraska (Fontenelle Nature Association) describes *C. sprengelii* as “a common understory plant” with a photo showing dense growth of the species (Beneficial Landscapes Blog). The species is also described as “abundant in upland woods often forming large, confluent colonies on ridgetops” (Fontenelle Nature Association webpage with photos). In Illinois, *C. sprengelii* is described as “locally abundant in NW Woods Forest Preserve in Des Plaines” (Illinois Plant Information Network webpage).

Of interest, a study of the rare Davis’ Sedge (*Carex davisii*) in New England found that competition from *C. sprengelii* was a potential threat to that species (Thompson, 2003).

One possible factor in the dense growth of *Carex sprengelii* in the Caledon woodlots is the introduction of earthworms which are not native to Ontario. Earthworms are known to remove the organic duff layer on the forest floor. When the duff layer is consumed by earthworms and converted into mineral soil, the native ground flora species decline or are lost (Frelich and Holdsworth 2002), possibly

affecting competition among remaining species and allowing invasives to become established (Evers et al., 2012). The introduction of earthworms in northern hardwood forests can “result in declines in the abundance of most herbaceous layer plants, often transforming a diverse community of forbs and tree seedlings into a community dominated by *Carex* species” (Hale et al., 2006; Holdsworth et al. 2007). White-tailed Deer grazing and earthworm activity could also act together to alter plant community composition, structure, and function in forests (Evers et al., 2012).

In North Dakota, researchers found that *Carex sprengei* was more abundant in ungrazed woodlots (Nelson, 1961). In another study, graminoids were most abundant in heavily grazed sites, forbs were abundant in lightly grazed sites and *C. sprengei* decreased with an increase in grazing (Butler et al., 1986).

It isn't clear whether earthworm activity or livestock grazing have been significant factors in the abundance of this sedge at the three Caledon sites. However, it seems very likely that historical livestock grazing did occur, evidence of which would be the lack of understory in the forests and their proximity to historically pastured lands. As well, the open character of the forests that permits more light to reach the forest floor may very likely be a factor. ✨

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Mike Oldham at the Natural Heritage Information Centre, OMNRF, in Peterborough provided helpful comments and suggestions. Bill Crins offered suggestions and references on earthworms affecting natural ecosystems. Anton Reznicek, at University of Michigan, also provided helpful comments on these occurrences.

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## *A new sedge for Ontario discovered in the City of Kawartha Lakes*

*From Anne Barbour and Mike Oldham*

Ever since its inception, the CKL Flora Project has been fortunate to have the help of Mike Oldham from the Ministry of Natural Resources and Forestry's Natural Heritage Information Centre. As project mentor, Mike has answered many questions dealing with taxonomy and S-rank issues, he has been our liaison with officials at VASCAN (<http://data.canadensys.net/vascan/search>) and herbarium staff (TRTE, CAN, DAO), he has identified hundreds of collected specimens, most of them graminoids, he has motivated other botanists to share their records from CKL, and he has done what Mike likes and does best of all: he has collected his own specimens in our city/county.



Knowing that co-chairs Dale Leadbeater and Anne Barbour wanted 2015 to be the final field season for the project, Mike asked for a list of plants recorded so far in the city, and a list of what has been collected, with the intention of spending a day here and there exploring CKL for botanical beauties not yet collected.

On June 15<sup>th</sup>, Mike sent Dale and Anne this exciting email:

I had a nice day last Thursday driving around part of southern CKL. I started in the Ganaraska Forest in the SE corner of the county. Although there isn't much of the Ganaraska Forest in CKL, it is such a different type of habitat that I wouldn't be surprised if a few species new to the county might be hiding there. I did collect *Luzula acuminata*, a native species not in the spreadsheet.

I then drove various concession roads north to Lindsay. I noticed in the spreadsheet that there were quite a few common species, which may not have been vouchered in CKL (at least weren't in the two spreadsheets of specimens that you sent), so in particular I kept an eye out for them and collected a few:

*Acer platanoides* Linnaeus  
*Asparagus officinalis* Linnaeus  
*Chelidonium majus* Linnaeus  
*Hesperis matronalis* Linnaeus  
*Lithospermum officinale* Linnaeus  
*Medicago sativa* Linnaeus subsp. *sativa*  
*Myosotis sylvatica* Ehrhardt ex Hoffman  
*Poa compressa* Linnaeus  
*Potentilla inclinata* Villars  
*Ribes rubrum* Linnaeus  
*Scrophularia lanceolata* Pursh  
*Syringa vulgaris* Linnaeus

I thought there might be some unrecorded weeds in Lindsay and walked at a couple of spots in town that seemed potentially interesting for introduced species (a trail through disturbed woods adjacent to and on the east side of the Scugog River; and a path through a vacant weedy area along a former railway). I did add one introduced species not on the list: *Sisymbrium loeselii*.

The real highlight of the day was when I was driving in the southern part of the county near Manvers and

saw an odd-looking sedge colony in a roadside ditch and stopped for a closer look. The sedge was obviously in the *Carex stricta* group, but didn't look right for *C. stricta* or any of the related species known from this area (e.g., *C. aquatilis*, *C. lenticularis*, *C. haydenii*) and I suspected it was ***Carex nigra***, a species I've been watching for in Ontario for quite a few years. It is common in the Maritime provinces and Newfoundland, where I've seen it several times, and is known from a few sites in Michigan, Wisconsin, Quebec and New York but not previously from Ontario. The species is generally considered native to North America (e.g. VASCAN), though it is possible that Great Lakes region (or even all North American) populations are introduced. There was certainly nothing too unusual about the site I found it in.

When I pressed my CKL specimens on Thursday evening, it keyed out well to ***C. nigra*** and was a good match for specimens I'd collected in Nova Scotia and Newfoundland. I scanned some of the ***Carex nigra*** collection (attached) and emailed it to Tony Reznicek (University of Michigan), who confirmed the identification as ***C. nigra***. **Very exciting to find a plant new to Ontario in CKL!!**

Cheers,

Mike

More details from Mike...

*Carex nigra* is relatively common in the Atlantic provinces and New England but is rare in the Great Lakes region where it is known from three counties in Michigan and two counties in Wisconsin (for a North American range map see <http://bonap.net/MapGallery/County/Carex%20nigra.png>). The species also occurs in Europe and it is introduced in British Columbia. It has not previously been reported from Ontario. *Carex nigra* is generally considered native to North America and the Great Lakes region and is rare and legally listed in several jurisdictions adjacent to Ontario (Michigan – Endangered, S1; New York – Endangered, S1; Wisconsin – Special Concern, S1).

The Great Lakes region distribution seems odd for a native species and I asked Tony for his views on its native status:



ambiguous for it being a native plant. Looking at things over again, I'd probably come down on it being alien -- I think I was just very impressed by the first site where it was re-discovered in Michigan which was a beautiful natural area -- but perhaps an anomaly.

Of course, its habitat in the east is typically also fields and ditches. And there are even

"Yes, I've wondered about it being native too. For years, it was known in the Great Lakes region from a few scattered populations, usually associated with ports, so highly suspect (Belle Isle, Michigan, I think Milwaukee, Wisconsin), but its rediscovery in Michigan was in an area of rich swales far from a road -- with things like *Trichophorum clintonii* -- on a fossil beach ridge (albeit near an old trail), and the second recent site was also along a fossil beach ridge -- but near a park entrance road, and so too, I believe, a new site near Superior, Wisconsin (but this along a powerline cut). So the situation is at least

*Carex nigra* in its roadside habitat. Photos: M. Oldham.





the *Carex nigra* is in the ditch is not far beyond on the south side (44.129°N, 78.564°W). Attached are a couple of photos of the species at the CKL site. Judging by the habitat, this species could easily be elsewhere in CKL or Ontario.

I have added an element record in Biotics for *Carex nigra* and ranked it SU since there is some uncertainty regarding its native status in Ontario. Based on the habitat and location of the only currently known Ontario population I suspect it is an introduction. ✨

Pressed *Carex nigra*.  
Photo: M. Oldham.

people who suspect that it was introduced into America early on, perhaps even by the Vikings! I think going forward, it's going to be harder and harder to decide whether new discoveries of native plants are native at specific sites."

If anyone is interested in seeing the CKL population of *Carex nigra*, which is in good condition now (July 10), it can easily be located on Manvers Station Road, which goes east off County Road 32, not far north of Hwy. 115. It is a short road that dead-ends at the railway tracks. The *Carex nigra* is in the ditch on the south side of the road, not far past the last house on the south side and in an open area of the ditch (most of the ditch is lined by tall willows). If you watch for the marker for house #37 on the north side of the road,

## RBG Experiences



### IDENTIFICATION WORKSHOPS

For conservation and environmental professionals, ecologists, and horticulturists

Courses are also suitable for graduate students, amateur botanists and master gardeners. Through illustrated lectures and hands-on practical sessions, Royal Botanical Gardens' botanists and visiting scientists demonstrate key identification characteristics and share their expert tips for identification.

#### SPRING HAWTHORN IDENTIFICATION

Thursday and Friday, June 2 and 3;  
9:30 a.m. to 4:30 p.m. at RBG Centre.  
Fee: \$275 (RBG members: \$250);  
Students: \$200  
MAXIMUM 20.  
PRE-REGISTER BY MAY 24.

Ontario hawthorns (*Rosaceae*, *Crataegus* L.) present field botanists with a challenge: they look almost alike, and making an identification usually requires information from both flowering and fruiting specimens. This workshop places the Ontario species of *Crataegus* in the context of the genus as a whole, and suggests what features need to be examined in order to be able to make an identification using the just-published treatment of the genus in *Flora North America* (Phipps 2015). Instructors: Timothy Dickinson, senior curator emeritus, Royal Ontario Museum Green Plant Herbarium, and Nadia Talent, research associate, Royal Ontario Museum Green Plant Herbarium.

#### FERN AND ALLIES

Thursday and Friday,  
August 11 and 12;  
9:30 a.m. to 4:30 p.m. at RBG Centre.  
Fee: \$275 (RBG members: \$250);  
Students: \$200  
MAXIMUM 20.  
PRE-REGISTER BY AUGUST 3.

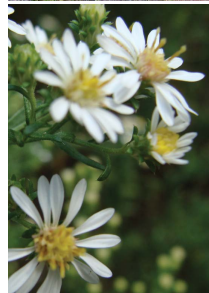
Are you interested in learning how to identify ferns, horsetails, lycopods and other pteridophytes in southern Ontario? Join us for an intensive two-day, hands-on workshop with Dr. Jim Pringle and Nadia Cavallin. Over the two days, participants learn about the unique life cycles of ferns and are introduced to their unique botanical morphology and terminology in a classroom and during field visits to nearby natural areas. Participants gain valuable field recognition skills and practice keying out species in the classroom. Ecological niches and habitat specificity are also covered. Be prepared to go out in all weather conditions. Bring along your hand lenses, field guides or botanical keys, and even your mystery specimens! Bring your lunch.

#### ASTER & GOLDROD IDENTIFICATION WORKSHOP

Thursday and Friday,  
September 15 and 16;  
9:30 a.m. to 4:30 p.m. at RBG Centre.  
Fee: \$275 (RBG members: \$250);  
Students: \$200  
MAXIMUM 20.  
PRE-REGISTER BY SEPTEMBER 7.

Are you ready to take on the challenge of identifying asters and goldenrods? Join us for an intensive two-day, hands-on workshop with Dr. Jim Pringle and Nadia Cavallin. Over the two days, the unique botanical morphology and associated terminology specific to the aster and goldenrod groups are introduced and illustrated in both a classroom setting and during field visits to RBG's nature sanctuaries and nearby natural areas. Participants gain valuable field recognition skills and practice keying out species in the classroom using appropriate magnification. Both fresh and pressed specimens are examined. Ecological niches, habitat specificity, population ranges and distribution are also covered for a variety of aster and goldenrod species in southern Ontario. Be prepared to go out in all weather conditions. Bring along your hand lenses, field guides or botanical keys and even your mystery specimens! Bring your lunch.

FULL COURSE INFORMATION AT: [www.rbg.ca/plantidentification](http://www.rbg.ca/plantidentification)  
REGISTER: <http://tickets.rbg.ca/PEO> or 905-527-1158 ext. 270



## The 2016 FBO Student Award

**The FBO Student Award is granted annually to students or recent graduates in recognition of their outstanding research and contribution to botany in Ontario. Research areas considered include: field botany, plant ecology, restoration, ethnobotany, and economy studies related to Ontario's flora. The award is presented at the Field Botanists of Ontario Annual General Meeting to a student whose research best supports the main objectives of the FBO (see objectives below). The winner is awarded \$500 and their research will be presented at the AGM or in an issue of the FBO newsletter.**

### Details for the award:

- Students must submit either a detailed two page summary of their research, or a published article,  
by July 31<sup>st</sup>, 2016 and send this information to Troy McMullin at: [troycmullin@hotmail.com](mailto:troycmullin@hotmail.com).
- Each submission should include the applicant's name, contact information, school, major, year that the study was completed, research topic/title, and the name of the advisor/supervisor.
- Applicants must either be students or have graduated within the year before the Annual General Meeting (AGM).
  - Research needs to have been completed while the applicant is a student.
- Submissions will be judged by at least three members of the FBO executive committee.
- Award recipients are required to either prepare a poster for the AGM (AGM registration costs will be waived), or write a one to two page article summarizing their research for the fall/winter issue of the FBO newsletter. The article will be submitted within one month following the AGM, and sent to Chris Zoladeski at: [editor.fbo@gmail.com](mailto:editor.fbo@gmail.com)
  - One submission per person each year. The award cannot be received by the same individual more than once.
- An honourable mention is given for second place. Second place finishers are invited to prepare a poster for the AGM and write an article for the newsletter as well.
- The award is presented annually as long as there is a qualified winner and funds are available.

**The FBO is a not-for-profit organization founded in 1983 for those interested in botany and conservation in the province of Ontario.**

### Our main objectives are:

- to provide opportunities for people to meet and pursue their interests in field botany
- to provide education in field botany
- to encourage the exchange of botanical information
- to increase knowledge and documentation of the flora of Ontario
- to provide botanical expertise to the naturalist community