



Ontario

PLANT PRESS

The Field Botanists of Ontario Newsletter

Fall 2021 Volume 33 (3)



Dutton Prairie

Carey's Sedge in Ontario

Fruit trees as... weeds

A Christmas gift suggestion

ISSN 2563-7754

President's Message

As we conclude a successful field trip season, I want to thank the members that participated in trips, our trip leaders, and those that agreed to write trip reports. With any luck, full numbers will be permitted on our field trips next year.

Our 2021 AGM will be on November 4 from 7:00-8:30 pm on Zoom. A link to the meeting will be sent to all members in advance. We will be presenting the Goldie Award, the FBO Student Award, and, for the first time, the Bill Crowley Memorial Award for Photography. We had many strong candidates for each award this year. We will also be voting on new board members and other business and we value input from as many FBO members as possible. I hope you will be able to attend.

This is my last message as president and I would like to express my appreciation to everyone involved with the FBO once more. The organisation is completely volunteer run. As a result, we all benefit from high quality trips at a low cost. Contributions from members at all levels (e.g., sharing knowledge in the field, maintaining membership during the pandemic, writing trip reports and newsletter articles, posting observations on social media, attending the AGM, etc.) help to make our organisation a community where we can learn together. I also thank our dynamic and committed team of board members - the future of the FBO is in good hands.

I look forward to continuing to serve on the board as past president and to meeting many of you in the field or at other FBO events.

Troy

On the cover: Mesic tallgrass prairie at Dutton, with Pale Coneflower (*Echinacea pallida*) - digital painting based on original photo by Will Van Hemessen.

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.fieldbotanistsofontario.com

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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.

Trip location maps generated using NatGeo Mapmaker.

Field Botanists of Ontario

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

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From the Editor

I wonder if, one hundred years from now, another Helen Humphreys will be able at all to write a book like the one by the Humphreys of 2021. With digital data collecting, bytes and gigabytes, iPads to record observations, printed labels, virtual maps, and the rest of it, the absence of all that human feel that comes with actual inscriptions on physical paper... will it be even realized by people in the 22nd century? Will they know what they will be missing? The reason for this short musing is Humphreys' new book, "Field Study, Meditations on a Year at the Herbarium", introduced in this issue of Ontario Plant Press. Our traditional main contents is not less interesting: including the Dutton Prairie trip report (writers: it's never too late to submit!), the status of Carey's Sedge in the province, and the second in Bill McIlveen's series on weeds (there will be two more). All good reading for the lengthening autumn days.

Between the tracks at Dutton Prairie with Will Van Hemessen

3 August 2019

Brian Ford



August the third dawned warm and bright at the deserted Dutton community centre as, one by one, eager FBO'ers arrived for an excursion to the renowned Dutton Prairie. Carpooling was arranged, sunscreen was lathered and clothing tucked in preparation for driving out to the hike's starting point.

Will, our trip leader, began the hike with an introduction to the site and a brief history of how the Dutton Prairie came to be. The key takeaway was that the railway predated the agriculture, which has all but engulfed the surrounding landscape. The unique aspect of this

particular site is that it was a double rail line with a substantial distance between tracks in places. When the trains were coming through, frequent sparks kicked up by the wheels grinding the rails would ignite fires in the rail corridor, which led to the development of a distinct prairie community.

Several notable species are found at the Dutton Prairie, some which occur only at few other places in Ontario. Of particular interest on this outing were Grey-headed Prairie Coneflower (*Ratibida pinnata*), Compass Plant (*Silphium laciniatum*, title box photo by W. Van Hemessen) and Pale Purple Coneflower (*Echinacea pallida*). The two former species were showing exceptionally well throughout the rail corridor and were visible while Will gave his introduction to the site where he described them as being part of the DYC (Damn Yellow Composites) club. We learned that rail-transported native prairie hay from the States is one hypothesis as to why some of these rare species are found here.

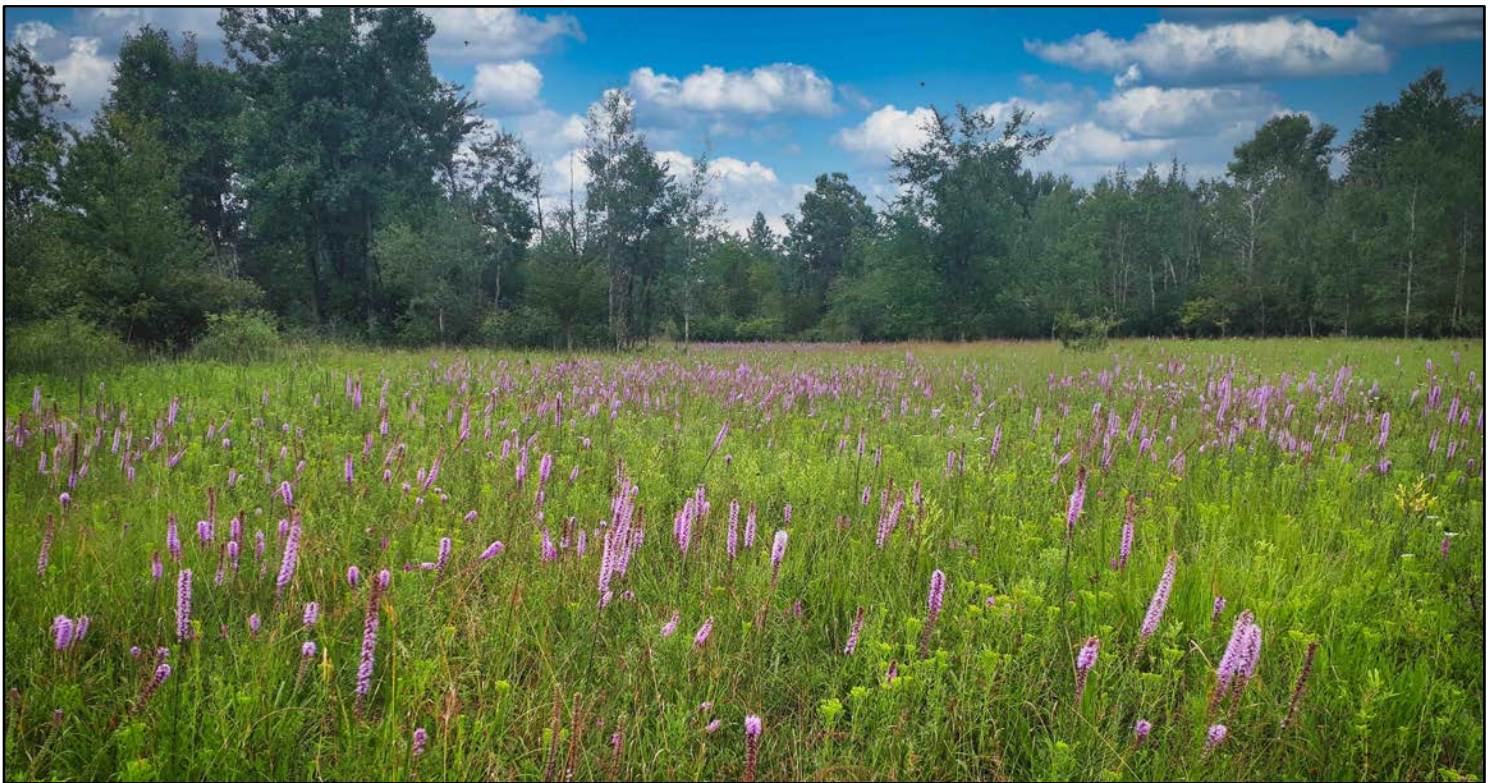
Early on in the first half of the walk we quickly tallied the big three prairie grasses – Switchgrass (*Panicum virgatum*), Big Bluestem (*Andropogon gerardii*) and



Decommissioned railroad right-of-way with Compass Plant (*Silphium laciniatum*).
Photo: W. Van Hemessen.

Indian Grass (*Sorghastrum nutans*). These were followed up by sightings of Hanging Bulrush (*Scirpus pendulus*), Virginia Mountain-mint (*Pycnanthemum virginianum*) and a rare non-native legume – Yellow Vetchling (*Lathyrus pratensis*). As we passed through a pioneering Trembling Aspen (*Populus tremuloides*) forest, the group noticed a tall thistle with whitened leaf undersides beside the trail, which was identified as Field Thistle (*Cirsium discolor*) – a first for several of us in attendance. After leaving the thistle behind us, the group moved out of the Aspen and into another section of prairie, this one more expansive than those we had walked through previously. There, the leaders of the group stopped and gestured excitedly to something at their feet. They had found Pale Purple Coneflower, just past peak bloom! Will

long leaved grass – Prairie Cordgrass (*Spartina pectinata*, now *Sporobolus michauxianus*). We marvelled at the delicate comb-like inflorescence borne on a nearly six-foot culm. A short while later, several of us began eyeing a Dogwood by the trailside suspiciously; it turned out to be none other than Roughleaf Dogwood (*Cornus drummondii*), a locally abundant species more typically found on the shores of Lake Erie. After another short distance of walking through dense shrubs, the landscape opened up and right away everyone knew we were looking at a special place. The prairie stretched out before us and we could see a large patch of the species at risk – Dense Blazing Star (*Liatris spicata*) in the distance. Close to the trail we could see many representatives of this wet prairie: Smooth Beardtongue (*Penstemon*



Wet meadow with Dense Blazingstar (*Liatris spicata*) and Ohio Goldenrod (*Solidago ohioensis*). Photo: W. Van Hemessen.

told us that we were very lucky since he had come to this spot several times last year without seeing a single flowering plant. This stop marked the end of the morning's walk so we turned around and started back to the cars to break for lunch.

After a brief rest, we started on again; this time on the opposite side of the road. Right away we encountered a large patch of Wild Oregano (*Origanum vulgare*) in full bloom. A few more paces brought us to a very handsome,

digitalis), Rough-leaved Goldenrod (*Solidago rugosa*), Small-headed Beak-rush (*Rhynchospora capitellata*) and Ohio Goldenrod (*Solidago ohioensis*). Will told us about a Panic Grass he had recently found in this prairie patch and a quick scouring of our immediate vicinity turned up the grass in question. Precocious Panic Grass (*Dichanthelium praecocius*) is identified by hairs on its culm of two different lengths, a feature known as "double vestiture" – a term that tickled many in attendance, and particularly George Bryant.

Farther along this section of trail we identified Nodding Spurge (*Euphorbia nutans*), Hoary Tick-trefoil (*Desmodium canescens*), Golden Fruited Sedge (*Carex aurea*) and Swamp Thistle (*Cirsium muticum*). Between sections of prairie in some of the low-lying areas there were Tamarack (*Larix laricina*) with Royal Fern (*Osmunda regalis*) underneath.

As remarkable as the sections of prairie were that we visited during our trip, we were constantly reminded about how imperilled this landscape is. From what Will told us, the prairie has been consistently shrinking for the past couple of decades. Autumn Olive (*Elaeagnus umbellata*) and Trembling Aspen have been taking over large stretches of the drier prairie and Willow (*Salix* sp.) and Common Reed (*Phragmites australis*) have been taking over large expanses of the wetter prairie. Will was

surprised at how much the *Phragmites* had encroached portions of the prairie in just the past year or two. Many of us present lamented on the apparent lack of money and sound direction being put towards preserving this unique area despite its celebrated status as a highlight of the Dutton Dunwich municipality on the community's website.

On the whole, visiting the Dutton prairie remnant was decidedly bittersweet. Sweet, thanks to the diverse array of species holding their own, and bitter from the knowledge of what once was. A heartfelt thank-you goes out to Will for being such a knowledgeable host and for sharing his enthusiasm with everyone present that day. I also want to thank George Bryant for taking excellent field notes for the day which helped jog my memory while I wrote this report.

Carex careyana (Carey's Sedge) in Southern Ontario

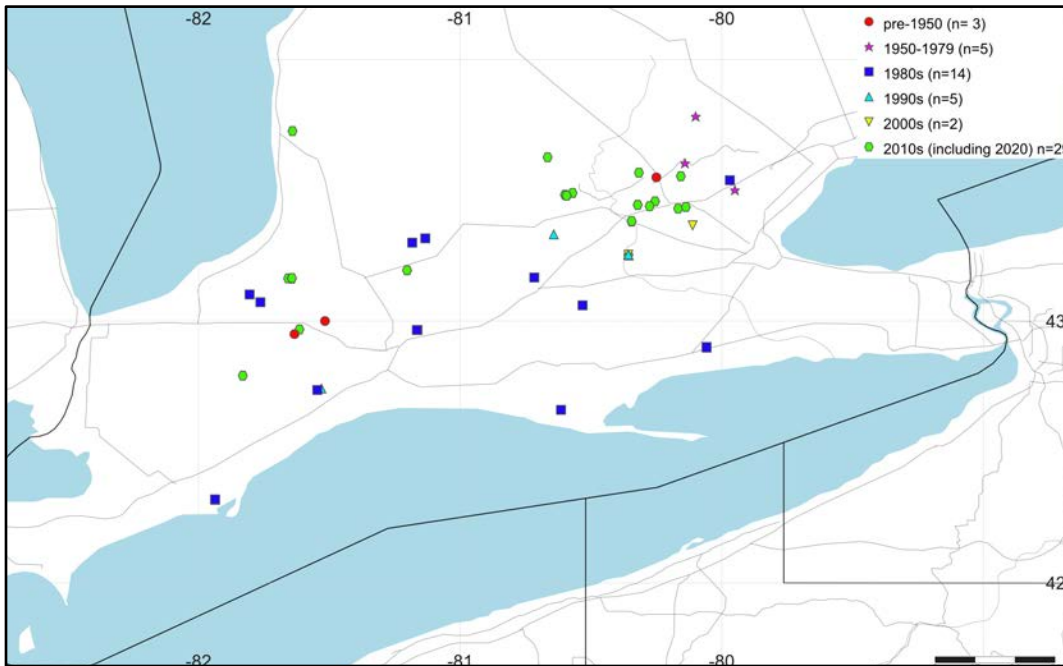
Charles Cecile and Michael J. Oldham

Carex careyana Torrey ex Dewey (Carey's Sedge) is a rare species in Ontario and Canada. It grows in rich forests primarily in Ontario's Carolinian Zone although it has been found in other nearby areas of southern Ontario (NHIC 2020). Due to an increased documentation in southern Ontario, the provincial subnational conservation status rank (S-rank) for this species was recently changed from S2 to S3.

Carex careyana was first reported from Ontario in Wellington County by A. B. Klugh (1906), who stated that it was "common in two bushes in the vicinity of Guelph". Klugh collected specimens in 1905 and 1906, which are deposited in Ontario herbaria (CAN, OAC, QK, TRT). The species was next documented in Ontario by A.A. Wood who collected it in 1934 at Poplar Hill and Strathroy, Middlesex County (DAO).



Ball (1978) reported an additional site in Halton Region where first found in 1966. He discussed the occurrence of this species in southern Ontario when only these four locations were then known. Ball noted that "the species, although rare in Ontario, is probably much more widespread in the province but has been overlooked". He



described the habitat as confined to hardwood forests that have a comparatively rich ground flora and that the species seems to occur both on rocky limestone and on sandy substrates. Ball and White (1982) mapped the species from eight Ontario sites, five of them based on post-1964 records.

Since then *Carex careyana* has been documented from more than 30 additional sites (see map) in southern Ontario, where it is now known from the counties and regional

municipalities of Brant, Chatham-Kent, Elgin, Haldimand, Halton, Hamilton, Lambton, Middlesex, Norfolk, Oxford, Perth, Waterloo, and Wellington (Oldham 2017, Oldham and Brinker 2009). Reports from Essex County and York Region by Scoggan (1978) seem unlikely since no supporting specimens or additional records are known and the flora of both areas has since been relatively well-surveyed and documented.

iNaturalist (iNaturalist.ca) has helped to document the distribution of *Carex careyana*, with 24 Ontario observations since 2015. As part of a project to update the Wellington County Vascular Plant List since 2013, *Carex careyana* has also been found at seven new locations in Wellington County.

Carex careyana is a member of the Cyperaceae family, Section Careyanae. This section also includes the following similar-appearing Ontario species: *Carex digitalis* (Slender Woodland Sedge), *Carex laxiculmis* (Spreading Sedge; with var. *copulata* and var. *laxiculmis* in Ontario, these are sometimes considered separate species), *Carex plantaginea* (Plantain-leaved Sedge), and *Carex platyphylla* (Broad-leaved Sedge).



Carex careyana plants are cespitose, with culms that are lax and drooping. Large, wide leaves are up to 40 mm in width and the bases of plants and staminate scales are strongly tinged with reddish colour (Reznicek et al. 2011). The perigynia are large at 5–6.5 mm long, being distinctively trigonous, and the sheaths of the cauline bracts and leaves have flat green blades (Reznicek et al. 2011). **In the field, watch for large-leaved plants with reddish bases, large and angular perigynia, and culms that have green blades, unlike the more common *Carex plantaginea*.** Visit Reznicek et al. (2011) to view additional diagnostic photos.

All these occurrences support Ball's (1978) suggestion that this species may be overlooked in parts of southern Ontario. Interested field botanists can be watchful for *Carex careyana* growing in rich moist deciduous forests during late May and early June. Reporting finds to the Natural Heritage Information Centre (e.g. via the NHIC iNaturalist project) will help to document and perhaps conserve this species in southern Ontario.

All photos by Charles Cecile.

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Sources of weeds. Part 2: Fruit Trees

Part 1 (Taring around Ontario) was published in the Spring 2021 issue

W.D. McIlveen

The general concept of a weed is that it is a herbaceous plant. That may be helped along by the fact that herbaceous plants are more numerous in kind and overall numbers. The notion is further helped along by herbs being physically much smaller and therefore many more can fit into the same space as a tree. The present account relates mainly to the larger woody plants, specifically fruit trees, that have escaped active management.

In Ontario, fruit crops are divided roughly into four groups. These are 'Apples', 'Berries' (many types), 'Grapes', and 'Tender Fruit'. The latter class includes pears and stone fruits. While these certainly qualify as tender, so are the fruits from each of the other groups. This paper deals with pome fruits and stone fruits. Some of the species



Figure 3. Example of old farm orchard east of Aberfoyle, 2004. Photo: W.D. McIlveen.

throughout southern Ontario. These would have been selected for specific characteristics that maximized the length of the production period (early summer to late fall), storage quality into the winter, suitability for cooking, eating and taste, and juice for cider. It would take considerable effort to trace all of the varieties that would have been available to the early settlers in the Province. If we look at the cultivars known and recommended about a hundred years ago (Anonymous, 1919), we find that there are at least 48 types available. They are suited to production at various times during the growing season and for different parts of the Province. Some cultivars have persisted with recognizable names up until recent times but many have simply disappeared. Many of the old cultivars have been replaced by newer ones though breeding and selection. And, as noted above, the old McIntosh apple lives on in its original, though grafted, form or as the genetic base for many of the newer cultivars.

The importance of orchards to the early farmsteads in Ontario is evident in the illustrated historical county maps that were produced in the later part of the 1800s. They showed the location of features such as buildings but they also showed the location of orchards. The vast majority of farms in 1877 had their own orchards, sometimes more than two. The section of map shown in Figure 2 is a typical of these county maps and demonstrates the abundance of orchards. Virtually none of these orchards remain today. This is not too surprising considering that trees that formed those orchards would be 150 years old today had they survived. The trees shown in Figure 3 likely formed one of those old farm orchards.

Considering the large number of apple trees that existed we should not be surprised in the least that wild apples now occur widely in suitable sites. Each tree could produce numerous fruit. (i.e., in orchards that were not



Figure 4. Distribution of Wild Pears growing in Halton based on records collected to 2015.

completely harvested) and each fruit could have numerous seeds. The fruit could be dispersed away from the parent tree.

The old orchards contained mainly apples, but they did have some pears and possibly a few cherries or plums. In general, apples were more prevalent because they were better for keeping into the winter while pears were more



tender. Still, those old orchards are the probable source of the wild pear trees that currently exist. Recorded locations of pear trees growing wild in the Region of Halton are shown in Figure 4. A rough estimate is that the sites mapped represent less than half of the locations where wild pears are present. The overall conclusion is that wild apples and wild pears mostly originated in the old orchards but several generations of the escaped trees have spread over time. Apples and pears do not represent major invasive space-consuming problems; however, they do pose a nuisance since they will act as hosts for insects and diseases that attack commercial crops of the same species.

Stone Fruits

The stone fruits include peaches and nectarines, plums and prunes, cherries, and apricots. To a great extent, these are grown commercially mainly in the Carolinian area of Ontario. Some of these may also be cultivated as a few trees on residential properties within the same climatic zone. Despite abundant source trees in the famous fruit orchards of the Niagara area, there are no records for peaches, nectarines or apricots growing wild in that area (Riley, 1989; Varga et al., 2000) though Peach (*Prunus persica*) is included in the plant list for Ontario as a very rare exotic (SE1) (Newmaster et al., 1998). Apricots (*Prunus armeniaca*) are not mentioned at all on the Ontario list. There are some records of domestic plum (*Prunus domestica*) growing wild in Simcoe. Waterloo, Niagara-Haldimand,

Fruit of Wild Pear, Bell School Line north of Britannia Road, 2015. Photo: W.D. McIlveen.

Hamilton-Brant, and Durham so it merits a ranking of uncommon exotic (SE2). Overall, these species barely register as weed species. They mainly produce large fruit with rather large stones that likely limits their capacity for dispersal into natural areas.

Cherries are represented as two types – Sweet Cherry (*Prunus avium*) and Sour Cherry (*Prunus cerasus*). They are cultivated over a larger geographic area in the province than the other stone fruits, particularly with respect to the Sour Cherry. Currently, there are 29 cultivars of Sweet Cherry and 5 cultivars of the tart type available in Ontario (Slingerland, 2016). Most of the Sweet Cherry cultivars are relatively new introductions so many of these would not have had any time to figure in the wild populations. Cherry trees were sometimes included in farm orchards. The cherry shown in Figure 5 is a very old tree remaining from one of the original farms that were incorporated into the Bronte Creek Provincial Park.

Sweet Cherries often are pollen-incompatible and require the pollen from a different cultivar before fruit is set. This condition also requires an insect like a Honey Bee to carry the pollen to the flowers of the second pollen-compatible cultivar. By contrast, the tart cherries are all self-fruitful. One would suppose that this condition would lead to a larger population of Sour Cherry in the wild. In fact, it is the Sweet Cherry that is much more prevalent (SE4 or common exotic) in woodland sites and can be found in most municipalities in the GTA (Greater Toronto Area). Sour Cherry is reported to occur in a number of the GTA municipalities yet is only ranked as SE1. Such a situation leads one to conclude that the trees growing wild are not necessarily reproducing in the wild but their numbers are being replenished by new seeds carried from the orchards by birds. Cherries are one crop that relies

on bird 'bangers' to frighten away birds that would otherwise enjoy a feast of ripe cherries. In general, many of the wild-growing cherries are associated with sites within an easy-flight-distance for birds.

Also worth mentioning here are the rootstocks used in cherry orchards. A number of lines have been developed on which to graft the desired clones. Of the 27 rootstocks used in Ontario, 8 are selections of the Sweet Cherry, 15 are Mahaleb Cherry, and 4 involve the wild Black Cherry. We would not be



Figure 5. Large old cherry tree from former farm orchard at Bronte Creek Provincial Park, 2012.
Photo: W.D. McIlveen.

able to easily distinguish the origin of the first or last of these groups should they happen to escape to the wild. In the case of the Mahaleb rootstocks, it is not clear whether the rootstocks may have been the source of the Mahaleb Cherries trees that are occasionally found growing in the wild. Mahaleb Cherries may also have been planted originally as a large flowering ornamental or for their spicy seed.

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As part of FBO's new initiative, we will be publishing occasional submissions on the professional activities, particularly publications, of our members. That way the membership at large will know what occupies the minds of our fellow botanists between FBO field trips and AGMs! :)

Here is the first in this series: publications in the past 2 years by Paul Catling and Brenda Kostiuk.

Catling, P.M. and B. Kostiuk. 2020. Orchids of the Bruce Peninsula, Part I: Introduction, history of study and a current checklist. *Native Orchid Conference Journal* 17(1): 4-15. [NOC JOURNAL V17.1 \(filesusr.com\)](https://filesusr.com/NOC_JOURNAL_V17.1)

Catling, P.M. and B. Kostiuk. 2020. Orchids of the Bruce Peninsula, Part II: Why are there so many orchids on the Bruce? *Native Orchid Conference Journal* 17(1): 16-32. [NOC JOURNAL V17.1 \(filesusr.com\)](https://filesusr.com/NOC_JOURNAL_V17.1)

Catling, P.M. and B. Kostiuk. 2020. Orchids of the Bruce Peninsula, Part III: Is the Bruce Orchid flora changing? *Native Orchid Conference Journal* 17(1): 32-41. [NOC JOURNAL V17.1 \(filesusr.com\)](https://filesusr.com/NOC_JOURNAL_V17.1)

Catling, P.M. and B. Kostiuk. 2021. Observations on the Systematics of the *Platanthera aquilonis* - *P. dilatata* Complex in Newfoundland. *Native Orchid Conference Journal* 18(1): 9-16.

Catling, P.M. and B. Kostiuk. 2021. Distalmost sheathing bract pubescence in *Cypripedium parviflorum* and *Cypripedium candidum* in Eastern Ontario. *Native Orchid Conference Journal* 18(2): 4-14.

A delightful gem is now available for your reading pleasure in the form of a book, *Field Study*, by Helen Humphreys, of Kingston, Ontario. Its subtitle is "Meditations on a Year at the Herbarium". Beautifully illustrated, it will be a perfect companion when you slouch in your armchair next to the Christmas tree for an evening read. A meticulously researched story of plants collected and people behind them; all based on herbarium labels, margin notes, scribbles, sketches, drawings and old photographs, but mostly the plant specimens themselves. 231 pages, just published by ECW Press, Toronto. info@ecwpress.com

