Field Botanists Of Ontario

Newsletter

Winter 1997
Volume 10(4)

ISSN: 1180-1417

Illustration: The rare and threatened Short's Aster (*Aster shortii* Lindl.) of Pelee Island and southern Essex County by Mary Celestino.

FIELD BOTANISTS of ONTARIO

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Published quarterly by the FBO; ISSN: 1180-1417.

The FBO is a non-profit organization founded in 1984 for those interested in botany and conservation in the province of Ontario.

The **deadline** for submissions for **Volume 11(1) - Spring 1998** is **February 21, 1998**.

Standard source for scientific names of vascular plants:

Morton, J.K. and J.M Venn. 1990. A Checklist of the Flora of Ontario: Vascular Plants. University of Waterloo Biology Series Number 34. 218 pp.

President's Message:

Over the past year many of the faces on the FBO executive have changed but the programs and dedication to learning more about Ontario's flora continues. Those of you who managed to attend the Annual General Meeting this year will have noticed some of these changes. Claudia Schaefer has moved to British Columbia to begin a new job with an environmental consulting firm in sunny White Rock. On behalf of the FBO, I wish Claudia all the best in her new endeavours and thank her for her tremendous input into FBO activities during her term as President. Heather Mackey moved from her former position of Secretary to Vice-President for a brief period this summer, but had to resign from this position for health reasons. Jeremy Lundholm has stepped in as Secretary and is a welcome addition to the board. At present, we are looking for new board members to help with FBO activities. If any members are interested in becoming more involved with the FBO, please feel free to contact me or other members of the executive.

The 1997 AGM was held in the shadow of the Niagara Escarpment at Brock University and offered a wide selection of interesting trips with different themes. On Saturday, members chose from trips to the Fonthill Kame which involved some clambering up kame hills and some first-hand experiences with many Carolinian species such as Pignut Hickory, Tulip Tree, and Broad Beech Fern. A trip to Willoughby Clay Plain forest offered many surprises, even for the leader, and members had the opportunity to acquaint themselves with several provincially-rare species. Finally, there was a trip examining cliff and bottomland vegetation communities in the Albion Hills area of the Escarpment. Saturday's trips were followed by a group dinner and the AGM. My thanks are extended to Ilmar Talvila who ran the meeting in my absence (I also worked in beautiful BC for the summer). We were fortunate to have Peter Kotanen speak to us about the impacts of extensive grubbing by booming Snow Geese populations on vegetation communities in the Arctic region. On Sunday, members were treated to a casual stroll through Point Abino, a little-visited, but biologically diverse, natural area or a chance to botanize in the Wainfleet Bog. Thank you to our speaker, Peter Kotanen, and to trip leaders Pat Davies, Anthony

Goodban, Jarmo Jalava, John Riley, Peter Foebel, Richard Stockton, and Steve Varga for helping me with the organization of the trips and providing enjoyable outings for our members.

I think the 1997 field trip agenda offered a wide variety of excellent trips that were generally very well-attended. Trips ranged from learning about reproductive strategies of plants along the Bruce, exploring the Wasaga Beach sand dunes with Anton Reznicek, a weekend trip to Killarney Provincial Park and trips to the Menzel Nature Reserve and Puzzle Lake near Napanee. Many thanks to Ken Ursic and Sarah Mainguy for organizing the trips and keeping things running smoothly throughout the field season. Thanks also to those members that have volunteered (or been coerced!) into writing field trip reports for the newsletter so that all of our members have a chance to share in the trip experiences. Many thanks also to Ed Morris for doing such a super job at putting these articles, along with many other interesting features, together in the FBO newsletter.

In 1997, we also donated FBO funds to Nature Conservancy and, in this way, have made an effort to conserve some of the many diverse natural areas in the province. The FBO continues to be in good shape financially and I hope that our group will continue to contribute to conservation efforts in the future.

Madeline Austen

Minutes of the Field Botanists Of Ontario Annual General Meeting.

July 12, 1997 8:00 pm.,
Brock University, St. Catharine's

The meeting was called to order by Ilmar Talvila (Treasurer). Eight-teen members were present including executive members Ilmar Talvila (Treasurer), Jeremy Lundholm (Secretary), Bill McIlveen, Ken Ursic, and Ed Morris.

1. Approval of 1996 AGM minutes was moved by Ken Ursic. Bill McIlveen seconded. All were in favour.

2. Treasurer's Report (Ilmar Talvila):

Ilmar reported that the bank balance on June 30, 1997 was $7747 compared with $6563 June 30, 1996. We had a balance of $5644 on January 1, 1996--this increased to $6247 by December 31, 1996. Revenue from membership was up to $2900 compared with $1900 in 1996. Field trip expenses amounted to $95. Donations by trip leaders were down this year to $235 from $275. Honorarium expenses for trip leaders remained about the same this year. We paid $100 for our FON membership but this will not be required in subsequent years. Our insurance premium, paid to the FON, remains $340.

Ilmar mentioned that the executive had decided to contribute surplus funds above $5000 to a charity for the protection of habitats. In 1997 we donated $1500 to the Nature Conservancy of Canada for the purchase of land in southern Ontario.

Don Kirk commented that the FON had recently found funding to purchase the entire Lyall Island site.

Ilmar indicated that there will be an attempt to reduce newsletter costs, and added that we are in good financial shape and that there is no need to increase fees.

3. Field Trips Report (Ken Ursic)

Ken reported that there are 12 regular trips and 5 associated with the AGM for the 1997 field season. We are lucky this year to have an assortment of interesting trips and a selection of great leaders. There was a slight glitch in the Walpole Island trip in the spring. An alternate destination (Ojibway Prairie) was chosen. The Wasaga Beach trip is completely booked with 6 people on the waiting list.

4. Membership Report (Bill McIlveen)

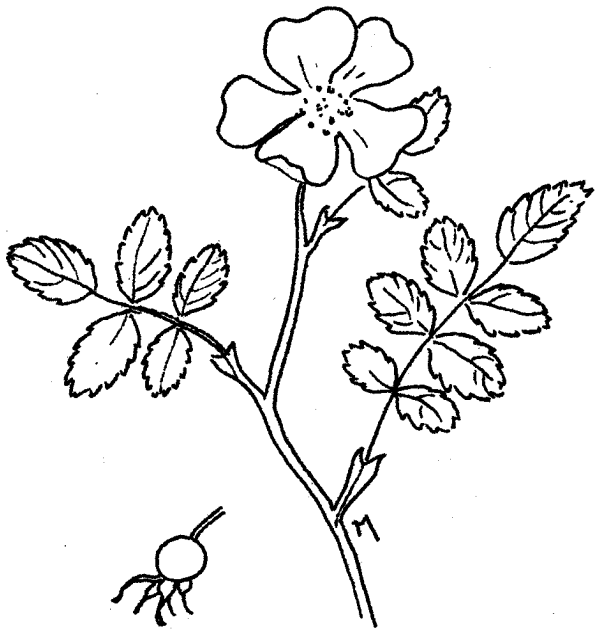
The number of paid memberships decreased in 1997 to 179 from 223 in 1996. This includes family and business memberships. The total number of members decreased to 221 in 1997 from 281. Bill reported 32 new or reinstated members, 8 complementary memberships and 4 life members.

5. Changes in the Executive (Ilmar Talvila)

Ilmar reported Claudia Schaefer's resignation as president and read her outgoing message. Following Claudia's recommendation, Ilmar encouraged us to consider the winter workshop an annual event.

6. Newsletter Report. (Ed Morris)

Ilmar noted earlier in his report that newsletter expenses were being closely watched as the most recent issues were much more costly than any in the past. Recent issues have averaged 20 pages whereas the



Smooth Rose (*Rosa blanda* L.)
by Mary Ann Miller

average was 11 pages before Ed became editor. There is general agreement that the only problem with this increase has been the cost. The higher quality of the newsletter is appreciated by the membership.

Margot Ursic wondered if we can get a special deal on printing the newsletter via corporate status. Ed indicated that the current rate we get at Laurentian University is competitive with a "Zippy Print"-type of outfit (8¢/page including stapling and folding). Ed also mentioned there is a great convenience factor for him to continue with the current printer.

Irene McIlveen mentioned that we should be able to get a reduced postal rate from Canada Post if our newsletter counts as a scientific publication. The possibly of using the IUTS system was also raised. Ed clarified that items cannot be sent via IUTS from Laurentian University, so this is not an option. But if the finished newsletter could be sent through another university, eg. Guelph this may work.

Ilmar suggests that we looking carefully for ways to reduce the cost of the newsletter.

Publicity:

Paul McGaw raised the issue of publicity. He thought we should try to get more exposure with some of the other naturalist groups and suggested advertisements in Seasons etc.

Ilmar reminded the group that we do not have anyone specifically responsible for publicity, but that someone on the executive might take on this role. Information could be distributed via the FON. The possibility of free web page services also needs to be investigated.

Irene McIlveen will find out the cost of advertising in Seasons (the FON magazine).

Ilmar recommends that an *ad hoc* committee for publicity be formed.

Membership List:

The issue of distributing the membership list amongst members was brought up. Bill indicated that liability and privacy issues need to be investigated before membership information is shared.

Books Needing Reviewers:

Ed received two books that need to be reviewed for the newsletter: Plants of the Kingston Region: 1996 and A Guide to The Orchids of Bruce County. Peter Beckett took the latter and will review it. Ordering information was provided for those interested.

The meeting was adjourned at 9:00 pm

A Note from the Editor:

Since the Annual General Meeting, I am pleased to announce that newsletter expenses have stabilized and expenses came in well under the cap which Ilmar had proposed.

I also wish to apologize to Mark O'Donnell for losing the trip report (AGM trip to Albion Falls) he sent to me via email. Usually I make copies of any material I receive on disks or through email, but neglected to make a copy of this field trip report. Mr. Murphy has a ruthless way of reminding us not to take chances.

Finally, we are toying with the idea of changing the name of the newsletter. If you have any concerns or proposals for a new name, don't hesitate to contact me.

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(705) 522-9523 edmorris@ican.net

Field Trip Reports:

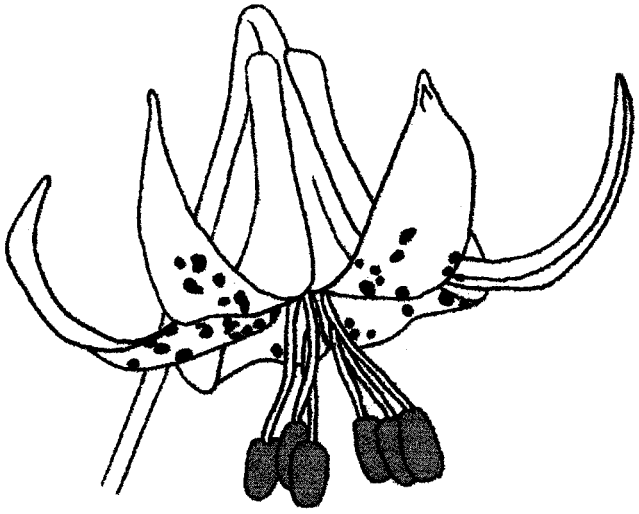
AGM Trip to the Willoughby Clay Plain Forest.

Leader: Steve Varga
Participants: Peter Beckett, Jim Dougan, Jean Nicholas Haas, Jen Line, John McAndrews, Bill McIlveen, Irene McIlveen, Ed Morris.
Date: Saturday, July 12, 1997
Weather: Very hot, very humid and hazy.

Steve Varga used this field trip as an opportunity to kill two birds with one stone: to introduce 8 field botanists to a significant natural area packed with Carolinian delights, and to characterize the vegetation communities therein for his own field work with the Ontario Ministry of Natural Resources. This worked to everyone's advantage and the 18 eyes at hand managed to discover some botanical gems.

The Willoughby Clay Plain Forest ANSI (Area of Natural and Scientific Interest) is found about 12 km due south of the Niagara Falls, just south of the Queen Elizabeth Way highway. As our enthusiastic "volunteer dirt man," Jean Nicholas Haas confirmed a thick layer of organic muck covers the heavy clay plain and provides rich nutrients for a great diversity of plant species. The terrain is gently rolling with long shallow sloughs

Jack McAndrews inspects 'Cyperaceae peat' collected from a depth of 1 m.



Michigan Lily (*Lilium michiganense* Farw.)
by Ed Morris

scattered throughout the forest.

Our field trip began before we even entered the woodlot, as Steve pointed out a number of interesting graminoid species in the wet ditch on the roadside:

Carex crinita Lam.
Fringed Sedge

Carex hystericina Muhl. ex Willd.
Porcupine Sedge

Carex vulpinoidea Michx.
Fox Sedge

Glyceria striata (Lam.) A. Hitchc.
Fowl Manna Grass

Fringed Loosestrife (*Lysimachia ciliata* L.) with its sunny yellow flowers, was also present. Gray Dogwood (*Cornus foemina* Miller ssp. *racemosa* (Lam.) J.S.Wilson) and Common Winterberry (*Ilex verticillata* (L.) A.Gray) bordered the woodlot.

We quickly retreated under the shade of the dense forest canopy. White Elm (*Ulmus americana* L.), Red Maple (*Acer rubrum* L.), Silver Maple (*Acersaccharinum* L.) and the Red/Silver Maple hybrid *Acer* x *freemanii* E. Murr. formed much of the canopy. The two tree species that received the most attention, however, were Swamp White Oak (*Quercus bicolor* Willd.) and Pin Oak (*Quercus palustris* Muenchh.). Swamp White Oak is uncommon in Canada, found only in southwestern Ontario and in southern Quebec. The Canadian distribution of Pin Oak is restricted to the Windsor, Sarnia and Niagara areas of southwestern Ontario. (Farrar, 1995). Time was spent admiring these majestic oaks.

Because of the unusually dry spring, most of the shallow sloughs were dried up, making the walk through the forest effortless. We were also pleased to note that the mosquito population was low. Wood Frogs were very common, suggesting that the sloughs are an important spring breeding habitat. The long, bare and drying black mud sloughs were bordered by:

Bidens tripartita L.
Beggarticks

Impatiens capensis Meerb.
Jewelweed

Iris versicolor L.
Wild Blue-flag

Vaccinium corymbosum L.
Highbush Blueberry

Viburnum recognitum Fern.
Southern Arrow-wood

Electric green blades of White Grass (*Leersia virginica* Willd.) [relatively speaking, an innocuous version of Rice Cut Grass (*Leersia oryzoides* (L.) Sw.)] and glossy tussocks of Brome-like Sedge (*Carex bromoides* Schk. ex Willd.) were also present. Steve was keeping his eyes open for rare sedges. As a result, he presented us with what he suspected, and later confirmed, was the nationally and provincially rare sedge, *Carex seorsa* Howe (which resembles the more common *Carexbrunnescens* (Pers.) Poiret ex Lamb. ssp. *brunnescens*).

The uplands among the sloughs also proved to be very exciting botanically. A good population of Merrybells (*Uvulariasessilifolia* L.) was found, many of the plants developing their distinctive 3-sided seed pods. The nodding flowers of the Michigan Lily (*Lilium michiganense* Farw.) were a welcome splash of colour in the woods. Keen-eyed Irene McIlveen found a mysterious plant that had everyone stumped, even Steve (for a millisecond!). This inconspicuous plant turned out to be Hairy Forked Chickweed (*Paronychia fastigiata* (Raf.) Fern.), which is only known from three, other locations in Canada (Oldham, 1990). Good spotting, Irene!

I am not sure whether it was the heat at this point or whether we were overwhelmed with new plant

Merrybells (*Uvularia sessilifolia* L.) in fruit.
Photo by Ed Morris.

species, but we were becoming rather blasé about rarities after a while, as Steve found (and later confirmed) the provincially rare *Carex albicans* Willd. var. *albicans* (Oldham 1996; listed as *C. artitecta* Mack. in Morton & Venn 1990) and nationally and provincially rare *Carexvirescens* Muhl. ex Willd. Ah, the richness of the Carolinian zone!

Shamefully, I tend to keep my eyes glued to the forest floor and ignore the trees. Pignut Hickory (*Carya glabra* (Miller) Sweet), restricted to Carolinian Canada, would not have been added to my 'life-list' had it not been for others looking skyward on our field trip. Nor would Black Gum (*Nyssa sylvatica* Marsh.), a nationally and provincially rare tree also restricted to the Carolinian zone (Farrar, 1995). Bill McIlveen was impressed by the diameters of these Black Gums, which towered over a small swamp of Buttonbush (*Cephalanthus occidentalis* L .).

After much time in the woodlot, we drove to another location at the south end of the clay plain basin. It was now early afternoon and most of the group was feeling the heat and moving like slugs. Few were willing at first to brave the dense willow thickets to continue exploring. Once inside, however, spirits improved as Jim Dougan found Loesel's Twayblade (*Liparis loeselii* (L.) Rich. ex Lindl.); several willows (*Salix* spp.) were recognized and those participants that had the stamina (myself not included!) compared them. We ended our trip with mild heat stroke and our botanical appetites whetted.

With any luck, our inventory and Steve's report will ensure that this unique woodland continues to be preserved in future. For me, having never experienced (botanically) the Carolinian zone in the summer, it was a day that all naturalists dream of having: discovering new life-forms in a new habitat with other enthusiastic people. Many thanks to Steve and the other participants.

Jen Line

Farrar, J.L. 1995. Trees in Canada. Fitzhenry & Whiteside Ltd. and the Canadian Forest Service, Natural Resources Canada, Markham, Ontario.

Oldham, M.J. 1996. Natural Heritage Resources of Ontario: Rare Vascular Plants. Natural Heritage Information Centre, Ontario Ministry of Natural Resources, Peterborough. 53 pages.

Oldham, M.J. 1990. Provincially Rare Plants of the Carolinian Zone. *In* Allen, G.M., P.F.J. Eagles, S.D. Price. Conserving Carolinian Canada. Conservation Biology in the Deciduous Forest Region. University of Waterloo Press, Waterloo, Ontario. pp. 109-127.

AGM Trip to Point Abino.

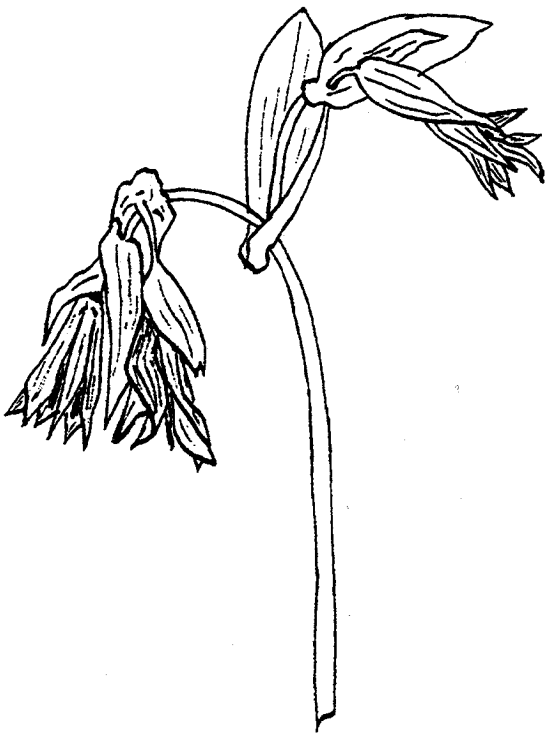
Sunday July 13, 1997

One of the highlights of the 1997 AGM was a specially arranged trip to the Point Abino peninsula, situated along Lake Erie between Port Colborne and Fort Erie. This was a special outing in many respects, one being that few naturalists have the opportunity of visiting these privately owned properties, another being the outstanding Carolinian woodland habitats and Great Lakes dune systems and finally the personal touch given by Bert Miller Nature Club who made the access arrangements possible and gave a glimpse into the world of the Marcy family. They are remarkable American landowners who have preserved one of the last and best remnants of the Point's natural beauty.

As background information, Point Abino is designated as a provincial life science Area of Natural and Scientific Interest (ANSI) by the OMNR. The ANSI areas encompass the east side of the peninsula and a smaller separated area at the point. A detailed life science inventory was prepared by Ian Macdonald in 1990 which offers meticulous detail of the vegetation communities and rare species locations within the ANSI.

Our leaders were John Riley of the FON, and Peter Foebel and Richard Stockton of the Bert Miller Nature Club. The group was also accompanied by Earl Plato, president of the Bert Miller Nature Club, who has roamed these woods for many years, often tagging along with the late Bert Miller, cataloguing its flora.

The trip started at the Marcy farmhouse north of the point. Here the participants car pooled to the gate of the Abino Woods Association, a private and exclusive enclave of American cottages at the point. With special permission we entered the compound and eventually entered the Abino Woods, a natural area cooperatively owned by the cottage community. An undisturbed forest of massive oaks and maples on steep sand ridges of ancient dune origin greeted us with a dense understory of Horsebalm (*Collinsonia canadensis* L.), Canada Waterleaf (*Hydrophyllum canadense* L.), Wood Nettle (*Laportea canadensis* (L.) Wedd.), and Bellwort (*Uvularia grandiflora* Smith). Several members of the



Bellwort (*Uvularia grandiflora* Smith)
by Bob Bowles

group sought to find the "Garden of the God," an area described by early botanists such as Zenkert and later by Bert Miller. Although this sites was originally described as an oak opening and dune savanna community, it may also have referred to an acidic bog like area. A degraded semblance of this community was discovered 10 years ago by the nature club, however it was never discovered in Macdonald's inventory. Miraculously John Riley and several followers found what appeared to be remnants of a bog community that has undergone advanced succession in a hollow between the dune ridges. Although degraded it might lend some support to the existence of this legendary botanical paradise.

The path through Abino Woods eventually lead to the eastern shore of the Point. Here the sand gave way to limestone bedrock and cobble. Great Lakes shoreline flora could be found including:

Calamintha arkansana (Nutt.) Shinn.
Wild Savoury

Chamaesyce polygonifolia (L.) Small
Seaside Spurge

Hypericum kalmianum L.
Kalm's St. John's-wort

Lobelia kalmii L.
Kalm's Lobelia

Prunus pumila L.
Sand Cherry

Panicum virgatum L.
Switch-grass

Schizachyrium scoparium (Michx.) Nees
Little Bluestem

An ancient and hollowed out Sycamore (*Platanus occidentalis* L.) clung tenaciously to a limestone cleft along the shore. Beyond in the immediate background was the striking outline of the recently abandoned Point Abino lighthouse, its ghostly white sentinel emerging out of the turquoise of Lake Erie. Further off in the far horizon one could see the first outlines of the Appalachian mountains in New York state. It may be worth noting that the sand ridges of Point Abino is frequented throughout by the Appalachian Sedge (*Carex appalachia* J. Webber & P. Ball).

After walking around the point past beautiful summer homes, the group headed back to the Marcy farm and again car pooled down toward the lakeshore, this time to explore the magnificent dune forest owned by the same family. After climbing over a dune ridge we all congregated for lunch on the spacious porch of the enormous three story log cabin that has been used by the Marcy family for generations. This property has one of the most diverse and least disturbed forests in Point Abino, characterized by steep ridge dunes of ancient origin interspersed with narrow valleys of wetland forest and small meadow marshes. Such moisture gradients on sand provide rich habitat for many tree species, some of which are listed in the next column.

Acer saccharum Marsh.
Sugar Maple

Carya cordiformis (Wangenh.) K. Koch
Bitternut Hickory

Fagus grandifolia Ehrh.
Beech

Liriodendron tulipifera L.
Tulip Tree

Quercus rubra L.
Red Oak

Sassafras albidum (Nutt.) Nees
Sassafras

Tilia americana L.
Basswood

Tsuga canadensis (L.) Carrière
Eastern Hemlock

Bladdernut (*Staphylea trifolia* L.) formed a dense understory interspersed with Flowering Dogwood (*Cornus florida* L.), Canada Yew (*Taxus canadensis* Marsh.) and Witch Hazel (*Hamamelis virginiana* L.) with the notable herbaceous species listed below:

Agastache nepetoides (L.) Kuntze
Yellow Giant Hyssop

Arabis laevigata (Muhl. ex Willd.) Poiret
Smooth Rock-cress

Collinsonia canadense L.
Horsebalm

Hydrophyllum canadense L.
Canada Waterleaf

Milium effusum L.
Wood Millet

Osmorhiza longistylis (Torrey) DC.
Anise Root

Pedicularis canadensis L.
Canada Lousewort

Polygonum virginianum L.
Jumpseed

Polymnia canadensis L.
Leafcup

Earlier in the season the woods would have been covered in Blue Phlox (*Phlox divaricata* L.) and some of the densest stands of White Trillium (*Trillium grandiflorum* (Michx.) Salisb.) and Red Trillium (*Trillium erectum* L.) to be found in the Niagara Peninsula. Although not readily noticed by the group, the tops of the ridges are the best places to find the provincially rare Appalachian Sedge mentioned early.

At one point the group climbed up a dune ridge and met the steep exposed shore cliff that is buffeted by the wind and waves of Lake Erie. Here the dunes are actively pushing back into the forest. Attempts to stabilize the shore have been made with the planting of poplars near the base of the dune along the shore. A

number of large oaks clung to the top of the shore cliff, their roots being exposed by the continuous erosion. Localized colonies of Marram (*Ammophila breviligulata* Fern.) and Sagewort Wormwood (*Artemesia campestris* L. ssp.. *caudata* (Michx.) H.M.Hall & Clements) appeared too sparse to have any effect on stabilizing the dune face. Along the beach our leaders pointed out Sea Rocket (*Cakile edentula* (Bigel.) Hook.), one of the first colonizers of bare sandy beaches.

A final loop through the forest dunes was made which added to the majesty of this property. The loop ended back at the cabin, but instead of hopping over the dune ridge to the cars everyone took the long access road trail around a very prominent dune ridge. It was here that we could admire the stands of Tulip trees and get a glimpse of the extensive wetland forests that stretched beyond, proof that this property needed many more hours or days to explore. However it was time to head back to the Marcy farmhouse and sign the guest book before heading out, leaving vivid memories of a Carolinian treasure known only to a select few.

Donald Kirk

Mushrooms of Algonquin Park.

It was a fine day on September 13th, a perfect time to be in Algonquin Provincial Park. About 20 FBO members who dared venture beyond the known realm of the vascular plant and into the bizarre world of fungus, showed up for this most interesting field trip. John Neville, a graduate student at University of Guelph who is working on his Ph.D. in mycology, was our most learned guide.

The day began at the new Algonquin Park Visitor Centre. John introduced us to mushrooms and showed an excellent selection of photographs of mushrooms likely to be seen today. Before long we were out on the Bat Lake Trail hot on John's heels with 20 pairs of eyes in search of all things “mushy.” For most of the FBO members (myself included), mycology is a whole new field, which requires the learning of many new names and ecological concepts. It was near impossible to take in all the names that John rattled off and see all the mushrooms. My account is therefore biased to which species I actually saw and had made an impression on me.

The first thing that I found hard to grasp was the high diversity of species. Frequently, John would only classify to genus. This is usually insufficient for FBO participants accustomed to identifying vascular plants. However, while mushroom genera may be quite recognizable, positive I.D. of the species frequently requires microscopic spore examination. The Checklist of the Conspicuous Fungi of Algonquin Park by Greg Thorn (1988) lists 1070 species, but admits that it is incomplete!

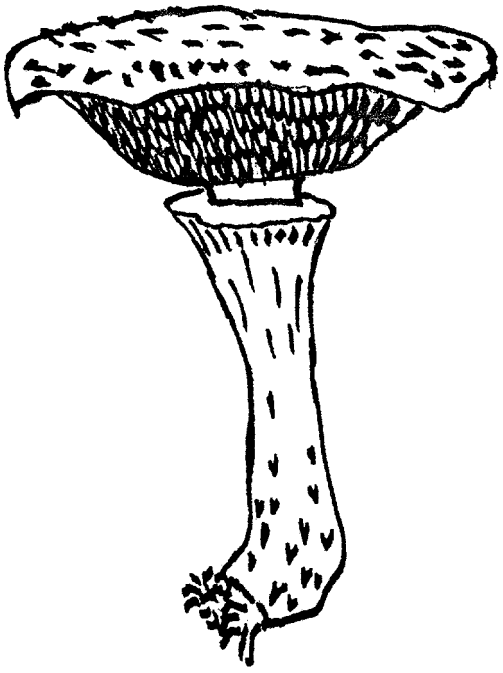
The first thing that John showed us was *Lactarius* readily distinguishable by the liquid that exudes from a broken cap. A little further another *Lactarius* was parasitized by *Hypomyces lactiflourum* (Schw. ex Fr.) Tul., known as the Lobster Mushroom since it smells and has the colour of lobster. One of the *Boletes* group with pores instead of gills was Slippery Jack (*Suillus luteus* (L. ex Fr.) S.F.G.) with a sticky cap. Further along we found the tiny Pinwheel Mushroom (*Marasmius rotula* (Scop. ex Fr.) Fr. with a ribbed umbrella-like cap. We noted rotting wood, which appeared to be dyed, but actually a fungus simply called Blue-green Stain (*Chlorociboria aeruginascens* (Nyl.) Kan). Probably, the most abundant mushroom of the day was the Honey Mushroom (*Armillaria mellea* (Vahl. ex Fr.) Kar.), a species that attacks and kills living hardwood trees, and is usually seen on wood.

There were several species of *Cortinarius* always distinguishable by a fine webbing between the cap and the stem. One of the strangest was the Aborted Entoloma (*Entoloma abortivum* (Berk. & Curt.) Donk). It appears as a typical greyish mushroom, but is frequently parasitized by another fungus, the previously mentioned Honey Mushroom, which produces irregular lumpy blobs (hence the name "Aborted"). My favourite find of the day was a beautiful golden cluster of *Pholiota squarrosoides* (Pk.) Sacc. protruding robustly out of the trunk, of a Paper Birch (*Betula papyrifera* Marsh.).

My account is a mere smattering of the myriad of mushrooms that we encountered on that fine day in the Algonquin forest. John proved to be more valuable than any field guide in helping to identify and experience these most interesting of living things.

James Kamstra

Thorne, G. 1988. Checklist of Conspicuous Fungi of Algonquin Park. The Friends of Algonquin Park, Whitney.[1]



Painted Suillus (*Suillus pictus* (Pk.) A.H.S. & Thiers) by Bob Bowles

[1] Published in cooperation with the Ontario Ministry of Natural Resources and only available through the Visitor Centre of Algonquin Park.

Wasaga Beach Back Dunes Trip.

September 20th, 1997.
Trip Leader: Tony Reznicek.

Note: The symbol "*" is used to indicate plants which caused people to get excited.

Have you ever noticed that most botanists drive old, beat-up cars (or trucks)? That was the thought crossing my mind as we waited for stragglers in the drizzle of a cool September morning near Wasaga's back dunes. Is it that botanists just aren't highly valued (i.e. remunerated) members of our society or that we just don't care what we drive as long as it gets us there? Well, who knows, but one thing I can say with certainty is that those of us who did manage to make it out to this trip were richly rewarded. It was, you might say, a Cadillac of a field trip.

Tony Reznicek was good enough to come up from Michigan to take a group of about 18 of us through this area where he had done botanical work in the 1980's. He explained that these parabolic-shaped dunes located just south of Wasaga Beach had been formed over thousands of years by the prevailing winds off Georgian Bay. The dune vegetation has many prairie and savanna affinities, but is unique in that its tree cover is predominantly Red Oak (*Quercus rubra* L.) and Red Pine (*Pinus resinosa* Sol. ex Aiton). The plant communities on these dunes have, historically, evolved to rely on the periodic wildfires that swept through the area. Unfortunately, the fires that used to maintain the open character of the woodlands here are now suppressed to protect the encroaching residential developments. As a result, these former barrens have become increasingly congested with trees. Tony was shocked by the extent to which the area had become overgrown since he last visited almost a decade ago. The up side to this was that it gave him a good excuse to climb a few of the tall pines along our way in order to find the lookout point which used to be fairly easy to locate!

Indeed, as we mounted and descended over the humps of the parabolic dunes, we found ourselves surrounded by 15-20 year old Red Pines as well as an abundance of Red Oaks and Red Maples (*Acer rubrum* L.). The older oaks were scattered and, as Tony pointed out, were distinguished by more open crowns, fire marks and multiple stems, as well as their impressive size. Despite the closed canopy, there were still patches and remnants of the original dune understory flora.

The areas with more of the original flora were relatively easy to pick out. More recently burned areas

Some vascular plants observed *en route* to the lookout at Wasaga Beach.

Common	Family	Scientific	*	Habit
Eastern Red Cedar	Cupressaceae	*Juniperus virginiana* L.		T
Common Juniper	Cupressaceae	*Juniperus communis* L.		S
Sedge	Cyperaceae	*Carex muhlenbergii* Schk. ex Willd.		G
Sedge	Cyperaceae	*Carex rugosperma* Mack.		G
Slender Flatsedge	Cyperaceae	*Cyperus lupulinus* (Sprengel) Marcks	*	G
Flatsedge	Cyperaceae	*Cyperus houghtonii* Torrey	*	G
Bearded Shorthusk	Graminae (Poaceae)	*Brachyelytrum erectum* (Schreber ex Sprengel) P.Beauv.		G
Kalm's Brome	Graminae (Poaceae)	*Bromus kalmii* A.Gray	*	G
Hair Grass	Graminae (Poaceae)	*Deschampsia flexuosa* (L.) Trin.		G
Canada Wild Rye	Graminae (Poaceae)	*Elymus canadensis* L.		G
Panic grass	Graminae (Poaceae)	*Panicum ovale* Elliott		G
Little Bluestem	Graminae (Poaceae)	*Schizachyrium scoparium* (Michx.) Nees		G
Indian Grass	Graminae (Poaceae)	*Sorghastrum nutans* (L.) Nash		G
Sand Dropseed	Graminae (Poaceae)	*Sporobolus cryptandrus* (Torrey) A.Gray ssp. *fuscicolus* (Hook.) E.K.Jones & Fassett	*	G
Slender Ladies-tresses	Orchidaceae	*Spiranthes lacera* (Raf.) Raf.	*	H
Butterfly-weed	Asclepiadaceae	*Asclepias tuberosa* L.		H
Puccoon	Boraginaceae	*Lithospermum caroliniense* (Walter ex Gmelin) MacMillan		H
Snowberry	Caprifoliaceae	*Symphoricarpos albus* (L.) S.F.Blake		S
Flowering Maple	Caprifoliaceae	*Viburnum acerifolium* L.		S
Field Pussytoes	Compositae (Asteraceae)	*Antennaria neodioica* E.Greene ssp. *howelii* (E.Greene) Bayer		H
Frostweed	Cistaceae	*Helianthemum canadense* (L.) Michx.	*	H
Beaked Hawkweed	Compositae (Asteraceae)	*Hieracium gronovii* L.	*	H
Hairy Goldenrod	Compositae (Asteraceae)	*Solidago hispida* Muhl.		H
Rock Cress	Cruciferae (Brassicaceae)	*Arabis holboellii* Hornem.		H
Rock Cress	Cruciferae (Brassicaceae)	*Arabis lyrata* L.	*	H
Bearberry	Ericaceae	*Arctostaphylos uva-ursi* (L.) Sprengel		S
Trailing Arbutus	Ericaceae	*Epigaea repens* L.		H
Huckleberry	Ericaceae	*Gaylussacia baccata* (Wangenh.) K.Koch		S
Blueberry	Ericaceae	*Vaccinium* sp.		S
Bitter Milkwort	Polygalaceae	*Polygala polygama* Walter	*	H
Long-headed Anenome	Ranunculaceae	*Anenome cylindrica* A.Gray		H
Cut-leaved Anenome	Ranunculaceae	*Anenome multifida* Poiret ex Lam.		H
New Jersey Tea	Rhamnaceae	*Ceanothus herbaceus* Raf.		S

G = Graminoids (Grasses, Sedges, etc...); H = Herbs (Non-woody, broad-leaved flowering plants); T = Trees; S = Shrubs.

Tony Reznicek climbs a pine tree so we can find the elusive lookout point in the Wasaga dunes, and wakes up a sleepy onlooker (the porcupine on the branch to the left).

tended to have more light coming in and carpets of *Carex pensylvanica* Lam. as well as patches of open sand, while the more overgrown areas had more moss and lichen ground cover. The understory was impressively diverse, with many beautiful common and uncommon shrubs, herbs and grasses (see Table).

By the time we reached the lookout, the skies had cleared and we could see clear out into Georgian Bay. Tony informed us that this point, formed in the direction of the prevailing winds, is one of the highest in the area, at about 1400 feet above sea level. Still fairly free of canopy cover, the sandy lookout had Rabbit-berry (*Shepherdia canadensis* (L.) Nutt.), Rose bushes (*Rosa blanda* Aiton or *R. acicularis* Lindley), patches of Little Bluestem, and a few White Pines (*Pinus strobus* L.) scattered across it. This was where we first sited the uncommon Prostrate Juniper *(Juniperus horizontalis* Moench*). Apparently, this is one of the few spots in Ontario where the ranges of the three juniper species (*J. communis, J. virginiana* and *J. horizontalis*) overlap.

And that was all before lunch! Another thing I've noticed about some really keen botanists is that they forget to eat when they're in the field. Well, Tony did let us take a breather for lunch by the famous Oxbow River. (Don't worry if you've never heard of it, neither had most of us!). It was, nonetheless, quite impressive. Then we were off to explore some of the trails in an officially designated park portion of the Wasaga dunes (the area we roamed in the morning was protected but not really accessible to the public). This area is also suffering from the same absence of fire and, to compound the problem, was also planted with pines years ago, but has the "benefit" of being actively used for snowmobile travel in the winter. This has, ironically, kept parts of it open, and a few native dune/savanna species were spotted here that we didn't see in the morning: Short-leaved Fescue (*Festuca canadensis* E.Aleks.*), Big Bluestem (*Andropogon gerardii** Vitman), Hairy Lettuce (*Lactuca hirsuta* Muhl. ex Nutt.*) and the nationally and provincially rare Hill's Thistle (*Circium hillii* (Canby) Fern.*). Unfortunately, there was also a greater abundance of non-native invaders than in the less disturbed site, most notably Knapweed (*Centaurea nigra* L.). For me, one of the highlights of the afternoon was the Pine Sap (*Monotropa hypopithys* L.) and the Indian Pipe (*Monotropa uniflora L.*) spotted within metres of each other just off the trail, but the inconspicuos orchid that got everyone else excited was the Autumn Coral-root (*Corallorhiza odontorhiza* (Willd.) Nutt.) spotted by Jeremy Lundholm.

Well, that just about sums up the plants, but not the trip. Tony was full of interesting botanical and ecological information, incredibly energetic, and (there's no better way to say it) he blew us away with his plant identification skills. We all learnt a lot and, more importantly, were inspired by his vast knowledge and enthusiasm. Thanks again Tony!

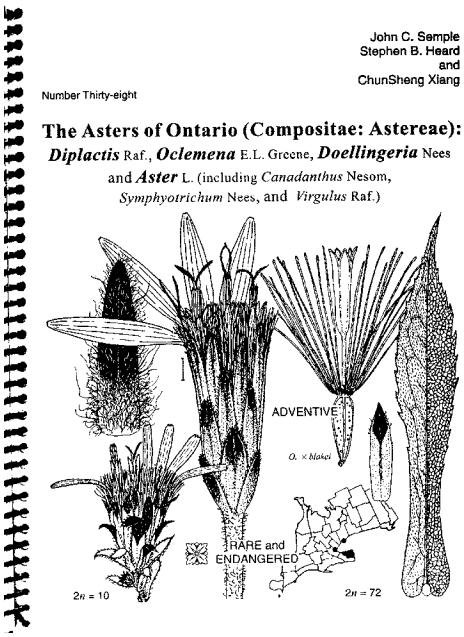
Margot Ursic

Review: The Asters of Ontario (Compositae: Astereae): *Diplactis* Raf., *Oclemena* E. L. Greene, *Doellingeria* Nees and *Aster* L. (including *Canadanthus* Nesom, *Symphyotrichum* Nees and *Virgulus* Raf.).

By John C. Semple, Stephen B. Heard, and ChunSheng Xiang. 1996. University of Waterloo Biology Series No. 38. 94 pp.

$10.00 + $3.50 shipping & handling + taxes.

The asters and goldenrods have been considered among the most difficult groups in the Ontario flora. However, over the past fifteen years or so, John Semple and his students have contributed significantly to making these groups more easily accessible and understandable to field botanists.



This most recent monograph, dealing with the asters of Ontario, is a major revision of the monograph published by Semple and Heard in 1987. A comparison of the two editions indicates that vast changes in the understanding of evolutionary relationships, taxonomy, nomenclature, and distribution have occurred in the past decade.

The most obvious difference between the two editions is that the generic concepts have changed. In the first edition, two genera, *Aster* and *Virgulus*, were recognized. In this new edition, four genera are recognized, but *Virgulus* is not one of them! Some readers may complain about these sorts of changes in classification, but there are good reasons for them. Semple *et al*. have done an admirable job of summarizing the numerous and complex scientific analyses that have led to the taxonomic treatment presented in this monograph. One of my main criticisms of the first edition was that there was inadequate discussion of the reasons for recognizing segregate genera (Crins, 1989). This edition corrects that oversight. The evidence from evolutionary studies suggests that the '*alpina*', '*acuminata*', and '*umbellata*' groups, all formerly included within *Aster*, should be treated as distinct genera, and that they may be more closely related to *Erigeron* than to the true asters. One of the implications of not splitting the genus *Aster* would be that *Solidago* (the goldenrods) would have to be lumped with *Aster* in the broad sense (based on the evolutionary evidence now available). Thus, this book covers the white-, blue-, and purple-rayed plants formerly included in Aster in Ontario.

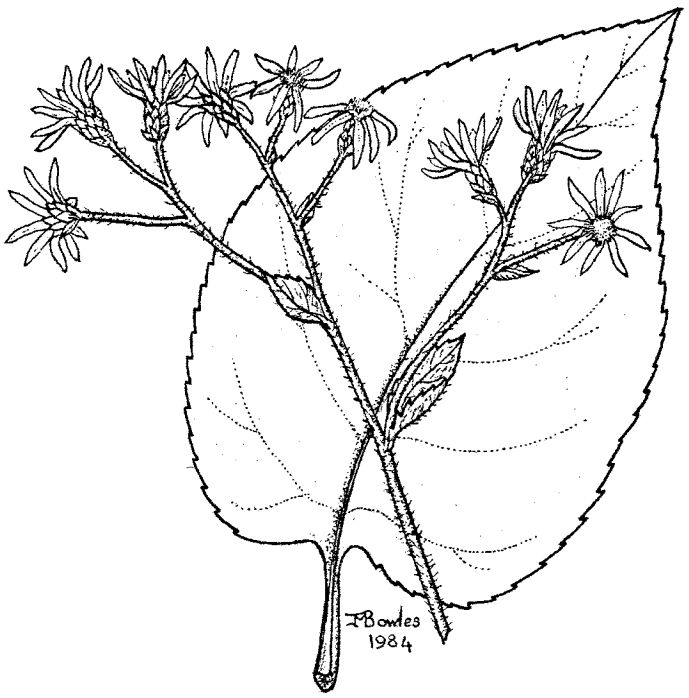
Unfortunately, some of the terms used in the discussion of the evolutionary evidence are not defined in the glossary. Thus, some readers may find it difficult to understand the discussion when they come to terms such as "monophyletic", "paraphyletic", and "clade". The glossary is confined mainly to descriptive morphological terms.

The introductory sections of this book deal with the recent evolutionary studies noted above, general notes on how to use the book, and basic natural history information about asters. A map of Ontario (Figure 3) indicates some of the major physiographic and geographic features. This is a useful map, but the Carolinian Forest Zone as shown is a bit too extensive, especially on the north shore of Lake Ontario. It might have been helpful to indicate the other major vegetation regions of the province, as well.

I differ on one point with regard to the authors' interpretation of floral biology (p. 10). The authors suggest that differences in floral morphology between related species of asters are sufficient to cause differentiation among effective pollinators. My observations of pollinators and pollen-feeders (e.g., syrphids), however, suggest that there is very little specificity of flower visitors to sets of composite species flowering at any given time. Apparently, the capitula of simultaneously flowering composites are visited relatively indiscriminately. Thus, pollinators and other flower visitors will work on available capitula, regardless of species, or even genus (*Achillea*, *Anaphalis*, *Doellingeria*, *Aster*, *Leucanthemum*, etc.). It is less clear whether flower visitors will mix colours on their visits, but I suspect they do (i.e., they will visit yellow-flowered composites in their forays among the white-flowered composites, as well). In any case, it seems highly unlikely that pollinator specificity is an isolating mechanism among asters that flower at the same time.

The introductory sections are followed by the key to asters, and then the detailed descriptions of the genera and species. The bulk of the book is made up of the descriptions, which also include lists of synonyms, brief discussions of the morphology, cytology, and ecology of infraspecific taxa (subspecies and varieties) that occur in Ontario, notes on floristic affinities and distribution patterns, and when relevant, comments on economic uses (ornamental cultivars, etc.). Each species is illustrated, with sketches of overall growth form, and leaf, capitulum, phyllary, and achene-disccorolla-pappus morphology. The illustrations are of good quality, although some plates are a bit congested (e.g., Figure 25, *Aster ontarionis* Wiegand), and they depict the important features of each species well. Dot distribution maps are provided for each taxon, including infraspecific taxa and hybrids. Where hybrids are known in Ontario, they are discussed under the treatment of one of the parental species.

The species treatments are of uniformly high quality. Distributional data have been updated from the first edition, and, where taxonomic changes have occurred or new taxa are recognized, these also are described and mapped. There remain a few questions for which there is no suitable explanation, however. For example, there is no explanation for the occurrence of *Oclemena* X *blakei* (Porter) Nesom in Algonquin Provincial Park. Although one of its parents, *O. nemoralis* (Dryand. in Ait.) E.L.Greene, is common there,



Large-leaved Aster (*Aster macrophyllus* L.)
by Jane Bowles.

the other parent, *O. acuminata* (Michx.) E.L.Greene, is unknown, in spite of efforts to find it.

Another question raised in my review of the first edition ("what ... factors account for the absence ... of species like *A. urophyllus* Lindl. in DC. along the north shore of Lake Ontario?") has been answered in two ways. Firstly, at least one population is now known from this area, so the disjunction is not as apparent as it once seemed. Secondly, the authors note that the areas around Peterborough, where the species is not yet recorded, have limited suitable habitat.

The book has been produced with desk-top publishing software. A comparison of this edition with the first edition shows the great increase in capabilities of this type of production over the past decade. This new edition is much more aesthetically pleasing. Also, much more effort has been devoted to ensuring that production errors (including typographical errors) have been minimized. There are occasional inconsistencies in the spelling of some terms. For example, Figure 2 uses the generally accepted spelling "spathulate" for leaf shape (Stearn, 1966.), whereas the spelling "spatulate" is used in the glossary and most places in the text. The definition of "axis (of leaf)" in the glossary (p. 91) is unclear.

All in all, the first edition was good, but this edition is better! All field botanists in Ontario, and in nearby provinces and states, should obtain this book. It will provide an up-to-date entry into this challenging (but now even more accessible) and important group in our flora.

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Crins, W.J. 1989. The Asters of Ontario: Aster L. and Virgulus Raf. (Compositae: Astereae). Canadian Field-Naturalist 103(2): 314.

Stearn, W. T. 1966. Botanical Latin. Hafner Publishing Co., N.Y.

Letters:

Regarding Curly Grass in Ontario.

October 24, 1997.

Dear Ed,

It was with great interest that I read Bill Stewart's posthumous article "Some Notes on the Discovery of Curly Grass…" (Volume 10(3):9-11). It was wonderful to have an account that was so close to being first hand and it certainly explained very clearly why the specimens spent so long in the attic. However, there was one inaccuracy. The article in the American Fern Journal was published in volume 35, the year being 1945 (no 1935). I have a transcript of the article and I have checked the volume number carefully and it was definitely in volume 35 and that, I think, is were the confusion arose in Mr. Hand's memory.

In spite of the pundits, I believe Eugene Moxley really did find Curly Grass at Sauble Beach. All the evidence points to him being a thoroughly honest and meticulous botanist and one can well imagine his chagrin at having his word doubted, especially when he had three well preserved specimens, one of which was returned to TRT [Royal Ontario Museum Herbarium, Toronto] in Hubert Brown's collection. As Mr. Stewart pointed out, Atlantic coastal species are found in Muskoka, not too far east of Georgian Bay. There is also the case of *Aspidotis densa* (Brackner) Lellinger (formerly *Cleilanthes siliquosa* Maxon) known from the Gaspé Peninsula, which was found in Durham in Grey County by Dr. Ard in 1833. Shorelines and climatic conditions were vastly different at the end of the Pleistocene period, and it is not difficult to imagine species, which were formerly widely dispersed, remaining in isolated pockets of suitable habitat. In the case of Curly Grass, the unbridled development of Sauble Beach has almost certainly eliminated its last foothold in Ontario.

Sincerely,
Joan Crowe

Here are a couple of 'seasonal' pictures for you, although the loss of colour in printing will diminsh their impact a bit. Best wishes in 1998. -Ed

Mountain Holly (*Nemopanthus mucronatus* (L.) Trel.) at Dawson ponds. Photo by Ed Morris.

Cranberry (*Vaccinium macrocarpon* Ait.) at Dawson Ponds. Photo by Ed Morris