



*FIELD*  
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**Flat-topped White Aster (*Doellingeria umbellata*) Credit: W.D. McIlveen**

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## President's Message

### Staying Green – a Strategy for Success

At this time of year, most of our flora is turning brown: the few flowers that are left are just glints through fluffy seeds, and the more sensitive species have become flattened and crisp. The exception is that in many forest environments in southern Ontario a mass of green often reveals itself in the fall. Some of the green is our Eurasian flora providing evidence of one of their strategies for out-competing native plants; photosynthesizing well past the first frost. Many southern Ontario forests show a solid layer of green at about head-height at this time of year: this is when the pervasiveness of Common Buckthorn (*Rhamnus cathartica*) is truly revealed.

Some of the exotic species are so like native species it is hard to tell them apart, but their green-ness is one clue. Have you been assuming that the native Alder-leaved Buckthorn (*Rhamnus alnifolia*) is dominant in your

... cont'd on p. 4

## Editor's Corner

Only a few Asters and Goldenrods are still blooming in late October as another field season winds down. Also ending is my location at the head of the Avenue of the Maples. Faithful correspondents (yes Al, you especially) and others loyal to the mailbox and the telephone should take note of my new contact information to the right in the masthead.

Already I have received trip reports for the 2008 field season, and I encourage others to hand in their "assignments". The deadline for the final winter issue of 2008 is November 23. As plants and botanists take the season off, it will be great to revisit our achievements of the warm summer season. 🌿

Cheryl Hendrickson, Editor

### Standard source for most scientific names and authorities of vascular plants:

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

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

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# Field Trip Reports

## The Green Plant Herbarium at the Royal Ontario Museum November 10, 2007

This was an unusual “field” trip for the FBO for not only did we meet in the heart of Canada's largest city, but also because it took place below ground, in the cavernous multi-storied labyrinths of the Royal Ontario Museum (ROM), where natural light necessary for photosynthesis does not reach. And yet, there are thousands of plants there, admittedly dead, but conveniently already identified.

Indeed, the ROM is Ontario's largest herbarium as Deb Metsger, Assistant Curator and one of the trip leaders, explained. We first assembled in a mammalogy lab, full of animal skeletons. Deb presented us the program for the day and some of the ROM's regulations to follow, such as not consuming food on the premises. We would be later split into two groups for the afternoon workshops, according to people's interests and comfort with either a general introduction to plant identification and herbarium keeping and maintenance, or a plunge into the murky waters of the sexually promiscuous hawthorn genus (Vol. 20.2) and what it can do the idea of separate species (not mentioning to the sanity of researchers who dare to reveal its secrets — although Tim Dickinson, upon closer examination, turned out to be rather a normal type of fellow).

The Green Plant Herbarium, as it is referred to, represents one of twelve disciplines at the ROM. Of the three million specimens held in the museum's Department of Natural History, there are some 600,000 plant collections.

The ROM has three main mandates as an institution: collection, exhibition and education. The botanical collections started as the herbarium of the Department of Botany at the University of Toronto. In 1982, they were moved to the Sigmund Samuel Building of the U of T, to be finally deposited at the ROM in 2000. As the herbarium grew over the years, it has eventually become the most vast repository of vascular plants in the province.

This title would not be without the contributions by early explorers such as John Macoun and many other botanists of days past,

and not only the big names but also numerous enthusiasts and amateurs. Their various collections, species lists and regional checklists, originally handwritten, have now been all digitized and supported by maps, to form today's modern databases.

### eFloras

<http://www.efloras.org/>

Access to a variety of online floras, including Flora of North America, Flora of China, and others

Northern Ontario Plant Database

<http://www.northernontarioflora.ca/>

Free public access to herbarium records housed in northern Ontario educational and government institutions.

E-Flora BC

<http://www.eflora.bc.ca/>

A potential model for an online Atlas of the flora of Ontario

Oregon flora and Oregon Plant Atlas projects

<http://www.oregonflora.org/atlas.php>

A potential model for an online Atlas of the flora of Ontario

International Plant Names Index

<http://www.ipni.org/>

Information on scientific names, their authors, and the publications in which they have been described

International Organization for Plant Information

<http://plantnet.rbgsyd.nsw.gov.au/iopi/iopihome.htm>

Global Plant Checklist and similar projects; botanical links

Index to Plant Chromosome Numbers

<http://mobot.mobot.org/W3T/Search/ipcn.html>

The Atlas of Canada – Toporama

<http://atlas.nrcan.gc.ca/site/english/maps/topo/map>

Online georeferencing, access to free digital topographic maps

Geographical Name Search Service

<http://gnss.nrcan.gc.ca/gnss-srt/searchResults.jsp>

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This extensive database is used not only for basic research on floristics, but also to answer the big issues, like biodiversity challenges. Such an exciting program is, for example, the Pan-Canadian Biodiversity Network. Examples of public education and awareness are special exhibits for the visiting public, like Tall Grass Prairie Plants, or teaching exhibits on invasive plants. Still another is ROM's involvement in a tree replacement initiative for Toronto, which engages the citizens with tree plantings and the oak replacement program in Queen's Park. Next year, the Schad Gallery of Biodiversity will also open.

Deb described in more detail the ROM's plant collections and collectors, and these were as varied as the flora they sampled. Even the simple scrapbooks, such as those of Adam White and Catharine Parr Traill, hold great value to this day as floristic as well as artistic documents. *Native Canadian Plants and Ferns*, dated from the end of the 19<sup>th</sup> century, is another example of an early flora. Then, take Eleanor and Emerson Skelton; what started as wonderful floral scrapbooks ended with the *Haliburton Flora*, published by the ROM. And who would now have the dedication to collect complete plant material (leaves, flowers, fruits) from the *same* individual over the course of the growing season, like the Skeltons did?

Not only vascular plants were collected. Robert Muma, a bookbinder, artist and a botanist, did wonderful drawings and paintings of mosses. After his death, these pieces of art and science were donated to the ROM by his son Walter, a long-time FBO member known to many of us. We were also shown wonderful collections of old botanical classics, such as the *Flora of British Isles*, another donation to the ROM.

ROM also possesses large image collections, some 60 thousand slides of plants, which are gradually being digitized. Many of these photographs were used for the publication of the ROM's field guide to Ontario's wildflowers. Finally, Deb presented to us and paid homage to a group of dedicated volunteers who help with the collections, their sorting, mounting, and organizing.

After this in-depth introduction we were led to the herbarium room. There, on display for our enjoyment were many of the aforementioned collections: mounted specimens, scrapbooks, floras, and seed and fruit collections. We dispersed about the room and looked at all these at our leisure with Deb, Tim, Nadia Talent (a post-doctoral fellow quite fanatical about *Crataegus*) and other staff who answered our questions. ❁

Chris Zoladeski

## MacGregor Point and Inverhuron Provincial Parks September 16, 2007

MacGregor Point Provincial Park is located southwest of the Bruce Peninsula on the shores of Lake Huron, near the Bruce nuclear generating station. This park was established to replace nearby Inverhuron Provincial Park, which was deemed to be too close to the nuclear station.

The area of MacGregor Park was originally an undisturbed Class 1 wetland. Ditches were dug to drain it – things that we wouldn't dream of doing today! It is still a significant wetland, however it is interlaced with hiking trails, a campground, picnic areas, and all the other trappings of a typical park. Ontario Hydro paid for the construction. FBO member Joe Johnson did the initial plant inventory work here, and we relied on his list to help identify some of the species we encountered today.

We started on the Huron Fringe Trail led by our guide Nora Toth. This trail soon led us to Turtle Pond – a marl-based pool filled with *Chara* algae. Painted Turtles (*Chrysemys picta*) and Snapping Turtles (*Chelydra serpentina*) are known to be here as well. Along the shore here we found Sweet Gale (*Myrica gale*) and Speckled Alder (*Alnus incana* ssp. *rugosa*) which was infested with some sort of woolly aphid.

As we neared the shore of Lake Huron the plant species started to get interesting. We encountered Cooper's Milkvetch (*Astragalus neglectus*) along with Canada Milkvetch (*Astragalus canadensis*), which gave us the unique opportunity to compare the two very similar species. Canada Milkvetch has a ring of tissue around the stem at the leaf petiole base, which is absent in the Cooper's. Also, there are no



Canada Wild Rye (*Elymus canadensis*)  
Credit: Walter Muma

**Pitcher Plant (*Sarracenia purpurea*) marl pond.**  
Credit: Walter Muma



**Grass-of-parnassus (*Parnassia* sp.)** Credit: Walter Muma

tendrils on the end of the leaves of Cooper's.

This being late summer, the group was also presented with many opportunities to engage in the inevitable discussions about what species of asters and goldenrods we were seeing. Some of these encountered were Hairy Goldenrod (*Solidago hispida* var. *hispida*), Grass-leaved Goldenrod (*Euthamia graminifolia*), Ohio Goldenrod (*Oligoneuron ohioense*), Gray Goldenrod (*Solidago nemoralis* var. *nemoralis*), Smooth Blue Aster (*Aster laevis* var. *laevis*), Panicked Aster (*Symphotrichum lanceolatum*), New England Aster (*Symphotrichum novae-angliae*).

We found a nice patch of Northern Grass-of-parnassus (*Parnassia glaucus* or *parviflora*) interspersed in amongst small boulders on the beach, an unusual sight for those of us used to seeing this species in inland bogs and such. We also found Kalm's Lobelia (*Lobelia kalmii*), Pitcher-plant (*Sarracenia purpurea*), and Smaller Fringed Gentian (*Gentianopsis virgata*).

The sedge and grass folks had a field day debating the identity of numerous species of these plants. Some of the notables found were Beaked Spike-rush (*Eleocharis rostellata*), Great Lakes Wheat Grass (*Elymus lanceolatus* ssp. *psammophilus*), Canada Wild Rye (*Elymus canadensis*), Little Bluestem (*Schizachyrium scoparium*), and Softstem Bulrush (*Schoenoplectus tabernaemontani*).

We paused at Seiche Pond to continue our identifications, and also to sample the natural beauty of the area and the sunny day. Next was a stop at Pitcher Plant Marl, containing its namesake (of course) as well as, among others, Sticky False Asphodel (*Tofieldia glutinosa* ssp. *brevistyla*).

After a break for lunch at MacGregor Park, we headed off to Inverhuron Provincial Park, only a few miles distant. Inverhuron was a much quieter park than MacGregor, as there is no longer a campground here.

Our guide here was Adrienne, who started us off with an exercise in awareness. She had us each draw a picture of a tree, any tree. When we were done, she pointed out that none of us drew the roots of our chosen tree, in order to show us that we as humans seldom look at the whole picture. A good lesson!

We walked along the park road and then up onto the sand dunes. We found Iceland Lichen (*Cetraria arenaria*) here (thanks to our resident FBO lichen expert), and Giant Rattlesnake-plantain (*Goodyera oblongifolia*) hiding under a Common Juniper

(*Juniperus communis* var. *depressa*).

After passing a surprised sunbather (clothed), who probably wondered why all these geeky-looking people were hiking across the dunes, we arrived at the beach. Here we found the very rare Pitcher's Thistle (*Cirsium pitcheri*). This plant appears to prefer dune areas that are changing and constantly shifting. Our guide pointed out that therefore this plant could actually thrive in areas where there is human disturbance (hmmmm... only up to a point, I would think). Also found here on the dunes at the beach was American Beach Grass (*Ammophila breviligulata*).

All in all, a very interesting day at two unique habitats.



Walter Muma

... cont'd from inside cover

favourite fen, or has Glossy Buckthorn (*R. frangula*) invaded? Glossy Buckthorn's entire leaves will be green at this time of year. Are green maple leaves attached to seedlings in a forest sub-canopy? No doubt Norway Maple (*Acer platanoides*), though you could

look for bristle-tipped lobes to confirm the identification. Do you have a population of the endangered Wood Poppy (*Stylophorum diphyllum*) in your Carolinian woodlot, or is it that ubiquitous Celandine (*Chelidonium majus*)? Celandine can be green even under snow.

I don't mean to attribute competitive characteristics to non-native plants. We should remember that particularly with global warming, the strategy of staying green may also serve our native plants well. We find oaks (*Quercus* spp.) often staying green past other species, so that oak leaves often constitute the surface layer if you are looking in the leaf litter to confirm the identity of a high-canopy unknown. Many woodland species stay green long into the winter: establishing hardy winter rosettes to tide them through sub-zero temperatures. Pennsylvania Sedge (*Carex pennsylvanica*) and Peduncled Sedge (*C. pedunculata*) can be seen as green tussocks under snow. White-grained Mountain-ricegrass (*Oryzopsis asperifolia*) is also called Winter Grass. Many *Panicum* species form winter rosettes which have been used in keys to help with identification. The name Christmas Fern (*Polystichum acrostichoides*) speaks for itself. 🌿

Sarah Mainguy, President

### ***Agrostemma githago* Discovered on Field Trip**

The discovery of Corn Cockle (*Agrostemma githago*) in an abandoned field during the Lake Erie Shoreline field trip created some excitement, as most people had never seen it before (provincial ranking SE3).

This attractive flower is a member of the Caryophyllaceae and closely related to the Campions, except that the calyx lobes are very long and sharply pointed, noticeably projecting between the petals. This species probably originated in the eastern Mediterranean region but has spread throughout Europe as a weed in crop fields, especially wheat (also known as corn in England) hence the name Corn Cockle. Cockle is Old English and somewhat mysterious in origin, except that *coccus* is Latin for scarlet or crimson and the flower is reddish-purple.

Unfortunately, the tiny black seeds contain

saponins which are poisonous. Therefore, flour or animal feed containing them can be dangerous. In Britain in the 18<sup>th</sup> century it was found necessary to use a fine sieve to remove the seeds of the Corn Cockle. 🌿

Joan Crowe



**Corn Cockle *Agrostemma githago* –  
Credit: Walter Crowe**



**Charleston Lake Provincial Park  
August 11, 2007**



**Button Bush (*Cephalanthus occidentalis*)  
Credit: Bill Crowley**

The following trip report has been prepared without the benefit of notes and formal botanical training, however, I think that a few words of praise of the trip are in order.

In the past, the FBO has had difficulty attracting a reasonable number of people to eastern Ontario field trips. This trip proved to be an exception as a full crew of twenty avid FBO members showed up for the trip which was ably led by Holly Bickerton. The park is situated on the Frontenac Axis which is an area where the Canadian Shield stretches southward to meet the Appalachian region and is crossed by the St. Lawrence River. Needless to say the geology and habitats are different and varied.

In the morning, Holly led us along a path where we saw a good mix of flora. Much of it was in wetlands but we had the luxury of a dry path from which to view it. The flora is interesting because much of it is at the southern

or northern limit of its range. Thus there is a relatively large number of rare species in the park.

After lunch Holly showed us a Pitch Pine (*Pinus rigida*) growing on the grounds of the park headquarters. It was growing at the northern limit of its range, and thus is rare in Canada. To me, this was one of the highlights of the trip because I had never heard of such a tree, much less seen one.

In the afternoon we went to another area of the park with much different geology. We saw a mix of ferns and a rocky overhang where a few thousand (or maybe a few hundred) years ago First Nations peoples spent the summer. Holly wasn't as familiar with the geology of this area of the park, so she arranged for a knowledgeable interpreter to help guide us through this part of the trip.

I have a number of favourite areas of Ontario. I love Algonquin, the Bruce, Carolinian Canada, Manitoulin, North of Superior, the Rice Lake Plain, and now I have added the Frontenac Axis to my list. Which one do I like the best? All of them.

I think it is safe to say that many of us were seeing the Frontenac Axis for the first time, and thanks to Holly, most of us want to return and see it again. 🌿

Bill Crowley

## Requiem for Asters

Asters to ashes, and dust to dust.  
No use protesting, but grumble I must.

All those lovely blue Asters are things of the past,  
Tossed out of our waysides by Rules, hard and fast.

Please follow The Rules. It's a botanist's duty!  
Never mind poetry, starlets, or beauty.

Try to welcome *Eurybia*, *Symphytotrichum*,  
*Doellingeria*. Just do not pick 'em.  
But when autumn arrives and the Goldenrods flame,  
Shed a tear for the Asters. (What's in a name?)

Sheila C. Thomson

# Botanical Roots

## Historical Events That Shaped the Sudbury Landscape

W.D. McIlveen

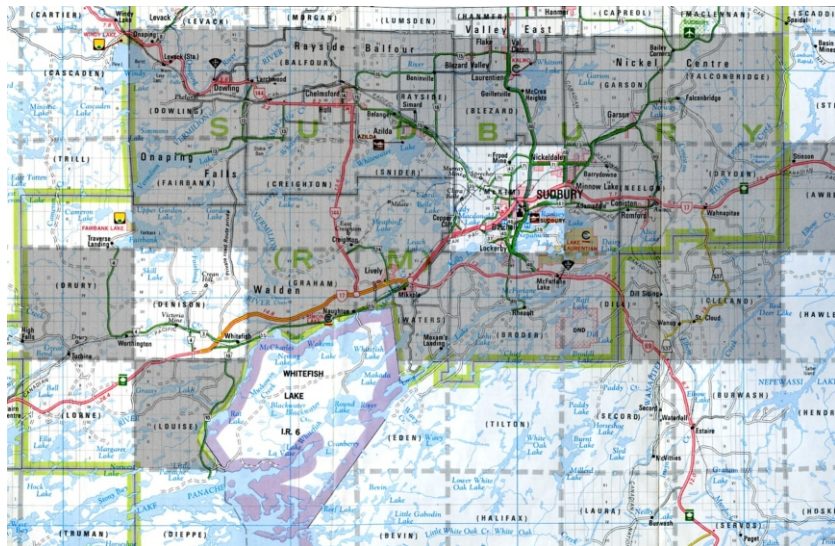
*The environmental problems associated with the mining and smelting complexes at Sudbury are well known to much of the public. While copious studies of the land and water problems have been published, this article deals mainly with the very early aspects of human involvement in the region.*

Sudbury first originated as a small side station along the CPR railroad constructed between North Bay and Sault Ste. Marie. At the time, the railroad construction was undertaken as an interim measure that would allow major transportation to occur between Eastern and Western Canada. Construction of the transcontinental railroad faced huge logistical problems crossing Northern Ontario. By running a rail line to Sault Ste.

Marie access was gained to Lake Superior and beyond via a relatively easy route. In this way, connection of the eastern and western parts of the country could be achieved in a much shorter time. It was on this line that Sudbury appeared.

Prior to the appearance of the railroad, the Sudbury area contributed huge quantities of Red and White Pine timber to the lumber trade. The logs were shipped via Georgian Bay and a good portion of the lumber went to the rebuilding of Chicago, which had been destroyed by fire in 1871. It is not totally out of the question that Mrs. O'Leary's cow, the one that supposedly kicked over the lamp that caused the Chicago Fire, contributed to the initial environmental problem in Sudbury. Certainly, parts of cut-over forest would have greeted railroad construction crews.

During the construction of the railroad, ore deposits



**Map of Sudbury area showing townships withdrawn (shaded areas) from further settlement by Provincial Order-in-Council in 1915.**

were discovered in 1883 near the Murray Mine. Mining interests were first directed to the copper in the ore. Nickel was regarded as a problem contaminant until it was discovered how to make use of this valuable metal. The other major contaminant in the ore was sulphur, mostly present in pyrite. Getting rid of the sulphur mainly involved burning it off. Piles of waste wood were set on fire under piles of the ore. The sulphur from the burning ore was released as large clouds of sulphur dioxide that rolled across the land. The sulphur dioxide was toxic to most forms of vegetation in the area including forest species as well as crops being grown on farms that were starting to come into the area under the *Free Grants Act* of 1906. Soon the damage led to conflicts between mining interests and farming interests.

The first arbitrator in these disputes was the local sheriff. He awarded damages as he saw fit in the period from 1909 to 1914. The provincial government tried to





**R.H. Murray, the first Sulphur Fumes Arbitrator for Ontario, inspecting a crop at Port Colborne, 1959.**

distance itself from the problem. As World War I progressed, the demand for nickel increased and consequently metal production increased. Along with this, there were more complaints from farmers and a major lawsuit was launched all the way to the Supreme Court of Ontario. Considering the need for war materials and the legal ramifications of the court actions, the Provincial Government was forced to act. In an Order-in-Council in 1915, large areas of land were withdrawn from further settlement for agriculture. The combination of demands by the mining companies operating at that time saw most of nineteen townships withdrawn from further agricultural development. These were Graham, Fairbanks, Creighton, Snider, Waters, Broder, Rayside, Balfour, Dowling, Trill, Drury, Louise, Dryden, Dill, Neelon, Cleland, Garson, Falconbridge, and Awrey. The action forestalled further complaints by the farming community. With no new farmers arriving to start planting crops, the companies would have no new complainants to deal with. The action did nothing to solve the problem for farmers that already held private lands in the affected townships.

In 1918, the government passed the *Industrial and Mining Lands Compensation Act*. This act allowed the mining companies to purchase "smoke easements" from local landowners. These easements are listed on title of all lands affected and were binding on all future landowners. Complaints by farmers continued into various lawsuits, legal rulings and investigations for several years. In 1921, the Province passed the *Damage by Fumes Arbitration Act, 1921*. This was not particularly effective and it was replaced by the *Damage by Fumes Arbitration Act, 1924*. This remained in effect until 1970 though there were amendments in between the years 1924 and 1970. Only two men, R.H. Murray and Bruce Dreisinger, ever

served in the capacity of Sulphur Fumes Arbitrator. Although they were fair in their assessments, neither the companies nor the farmers were entirely satisfied. Since that time, other measures to reduce local impacts of air pollution have taken place including reduction in the amounts of sulphur dioxide released into the air.

Several factors affected the flora that originally flourished in the Sudbury area. Already mentioned above were the lumber-cutting and direct effects of the clouds of sulphur dioxide. Along with the farming came forest-clearing and there are reports that sometimes illegal fires were set to facilitate the discovery of new veins of ore. Trees were cut to fuel the ore roast piles. Other emissions from the smelters included copper and nickel, and to lesser extent, other phytotoxic metals that were deposited in the vicinity of the smelters. The sulphur dioxide increased the acidity of the soil, rendering the metals more available to uptake by plants and thus they became more toxic.

Owing to the scale of the operations, the impacts were apparent for many kilometers downwind of the smelters. Although the amount of emissions that occur at present is but a fraction of the former levels, there is an extensive legacy of metals left in the soil. Considerable efforts have been made to restore vegetation cover in large parts of the Sudbury area in large-scale reclamation efforts. Despite this, the natural flora has been extensively damaged or impaired. In time, some of this lost flora might be recovered, however, the human population of Sudbury continues to grow. As the population increases, the possibility will diminish that all of the original flora can ever be restored because land continues to be used for housing and other human purposes. 🌿

### **Editor's Note:**

I received the letter below from FBO member Joe Johnson in response to John Riley's recollection of the inaugural FBO meeting at Red Bay, Bruce Peninsula (Vol. 20:1). At that meeting, Riley reports, Bernard Boivin insisted that the species of *Rosa* he had come across was the western Prairie Rose (*Rosa arkansana*), a new record for Ontario. Below is Joe's account of the follow-up verification.

In the intervening years, *Rosa arkansana* has indeed been found and verified, but not in Bruce County. Mike Oldham of the Natural Heritage Information Centre brings us up to date on the status of Prairie Rose since the first unverified "discovery" in 1984. - CJH



**Prairie Rose (*Rosa arkansana*) growing along an abandoned railway line in Thunder Bay District, Ontario. Credit: M.J. Oldham**

### ***Rosa arkansana* Sighting at Inaugural Meeting Not Accepted**

Regarding John Riley's article on the Plant Press and the FBO in the Spring 2008 Newsletter, the details on the 1984 "Bruce Peninsula Botany Weekend" certainly brought back memories.

The report of sterile or non-flowering *Rosa alcea* (*syn. R. arkansana*) was actually at the *Hymenoxys* (= *Actinea*) (Stemless Rubberweed, Lakeside Daisy) alvar at Cabot Head, which is not far from Dyer Bay, though twice as far from a better known *Hymenoxys* alvar near Dyer Bay Road corner at Highway 6. Don Cuddy, who led that field trip, filled me in on the details at the time.

When we saw Boivin's photo of the rose, both Vince Elliott and I (particularly Vince) were reminded of the most common species of rose on the Bruce, *R. acicularis* (Prickly Rose). Finally, on July 6, 1986, I went to the site and in accordance with what Cuddy had told me, I walked all around the perimeter of the alvar (adjacent to it), also here and there in the alvar itself. This was immediately after close examination of rose illustrations, keys, and descriptions in various publications that I'd put in my car. The only roses that I saw were scattered small sterile specimens of *R.*

*acicularis* under Jack Pines and possibly other trees. I could find nothing that could conceivably be *R. arkansana*. Consequently, I refused to accept that record.

Joe Johnson

### **Prairie Rose (*Rosa arkansana*) in Ontario**

Although Soper and Heimburger (1982) speculated that Prairie Rose (*Rosa arkansana* Porter) "probably extends into western Ontario near the Manitoba and Minnesota borders" it is not listed as occurring in Ontario in various floristic treatments prior to 1984 (e.g. Boivin 1966, Scoggan 1978-1979). In 1984 an article in *The Plant Press* ("The Bruce Botany Weekend: First Gathering of Ontario Field Botanists is a Success"; anonymous 1984) reported that "On alvars near Dyer Bay, Dr. Boivin found many specimens of a small rose (less than 30 cm high), which he was familiar with due to his research on the flora of the prairie provinces. This shrub is a western species, *Rosa alcea* [now considered a synonym of *Rosa arkansana*]. In addition to being new to the flora of the Bruce Peninsula, it is also new for Ontario." *Rosa arkansana* was accepted as an addition to the flora of Ontario by Reznicek, Catling, and Riley (1985; as *R. alcea*) and is listed for Ontario by Morton and Venn (1990; with



Reznicek, Catling, and Riley 1985 as a reference), Newmaster *et al.* (1998), and Kartesz (1999). Although no Ontario specimens of *Rosa arkansana* (or *R. alcea*) are housed in the Agriculture Canada herbarium (DAO) where Bernard Boivin deposited most of his collections (Paul M. Catling, personal communication, 13 September 1996), a specimen was collected during the fieldtrip and was deposited in the University of Michigan herbarium (MICH). This specimen was recently borrowed by Dr. Walter Lewis who is preparing the "Flora of North America" treatment of *Rosa*. Dr. Lewis has identified the specimen as a dwarfed *Rosa acicularis* subsp. *sayi* (Walter Lewis, personal communication, October 2008).

In 1996 Ross Brown and Allen Woodliffe found two nearby stands of *Rosa arkansana* along a railway line west of Tupperville, in Chatham-Kent County. The larger patch consisted of over 200 stems. Specimens documenting this find are deposited in the Ontario Natural Heritage Information Centre (NHIC) herbarium and MICH.

Since *Rosa arkansana* is a common species in southern parts of the Canadian prairie provinces (Scoggan 1957, Boivin 1967, Harms 1974, Looman and Best 1979) it has been specifically searched for over the past decade during fieldwork by Michael J. Oldham and Wasyl D. Bakowsky in the Lake of the Woods, Rainy River, and Rainy Lake areas of northwestern Ontario. A number of native species of the Canadian prairies reach their eastern limits in this part of the province and recent fieldwork in the area has resulted in several additions to the Ontario flora. Although no Prairie Rose has yet been found in natural habitats in northwestern Ontario despite considerable fieldwork, two populations were found in 2001 along an abandoned CN railway line (Thunder Bay District, along abandoned CN railway line, near Mack, ca. 14 km NNE of Upsala, M.J. Oldham & W.D. Bakowsky 26707, MICH, NHIC, 13 August 2001 (see Figure 1, below); Kenora District, abandoned CN railway, ca. 8.7 km SE of Hwy. 599, S of Unaka Lake, railway embankment, M.J. Oldham & W.D. Bakowsky 26776, MICH, NHIC, TRTE 18 August 2001).

*Rosa arkansana* is similar to *R. acicularis* (Prickly Rose) and *R. blanda* (Smooth Rose), both widespread and common species in Ontario. From *R. acicularis* it can be distinguished by its usually stipitate-glandular sepals (typically glabrous in *R. acicularis*) and from *R. blanda* by its prickly upper leafy branches (typically few or no prickles in *R. blanda*). A useful field character is that *R. arkansana* usually has 9 to 11

leaflets while *R. acicularis* and *R. blanda* have 5 to 9 leaflets (with 9 leaflets typically only on younger vigorous shoots).

Prairie Rose is considered probably adventive from further west in both Michigan (Voss 1985) and the Chicago region (Swink and Wilhelm 1994) and is found primarily on roadsides and railway rights of way. It is one of the more weedy species of North American roses.

Since the plants observed by Bernard Boivin in 1984 were non-flowering and the only specimen collected has been identified as *Rosa acicularis*, and the area of the sighting has been carefully searched subsequently (Johnson 2008), the Bruce Peninsula record of *R. arkansana* should be considered unverified (at best). *Rosa arkansana* has however recently been collected in both southwestern Ontario (Chatham-Kent County) and northwestern Ontario (Kenora and Thunder Bay Districts). All populations are adjacent to railway tracks and the species should be considered a rare but established introduction in Ontario. The species is ranked as SE1.

Michael J. Oldham

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Tony Reznicek (University of Michigan) and Peter Ball (University of Toronto) examined and verified my Ontario collections of *Rosa arkansana*. Tony also provided useful correspondence on *R. arkansana* in Ontario as did Walter Lewis of the Missouri Botanical Garden. Paul Catling (Agriculture Canada, Ottawa) checked for Ontario specimens at DAO. Al Woodliffe (Ontario Ministry of Natural Resources, Chatham) informed me of *R. arkansana* in Chatham-Kent County and collected a specimen. Wasyl Bakowsky assisted with fieldwork which was supported by the Natural Heritage Information Centre, Ontario Ministry of Natural Resources.

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Happy field botanists on the Port Franks field trip at the September 2008 Annual General Meeting.  
Credit: Lynn Dukelow