

FIELD BOTANISTS OF ONTARIO

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Cladonia fimbriata

NEWSLETTER

Summer 1994
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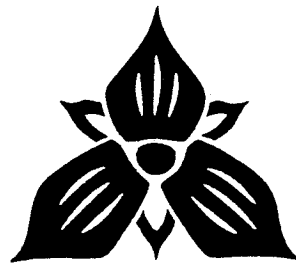
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**THE FBO ANNUAL GENERAL MEETING 1994 WILL BE HELD THE WEEKEND OF
AUGUST 6-7 AT WYE MARSH**

OTHER UPCOMING FIELD EVENTS:

August 13 - Rice Lake prairies
August 21 - Grass Workshop, University of Guelph
September 10 - Torrence barrens and Muskoka shorelines
September 24 - Rondeau Provincial Park
October 15 - Urban weeds in Hamilton

For further information contact Irene McIlveen (519)-853-3948.



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NEWSLETTER

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

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ILLUSTRATIONS

Drawings in this issue of the FBO Newsletter are by Irene McIlveen.

A MESSAGE FROM THE EDITOR: CALL FOR NEWSLETTER MATERIAL

This is your newsletter and it should be your mouth piece as a field botanist. Do you have anything to say?

Most of our material comes from field trip reports submitted by participating members. Often these reports have to be prised out of the reluctant "victim of the day" and they come in a wide variety of reporting detail, technical accuracy and writing styles. They arrive on my desk in a form ranging from hand written notes to polished reports on diskette, but they are always an interesting personal reflection of the event. Occasionally an unsolicited article arrives and is cause for mild celebration.

Over the years the list of contributors has grown, but a quick survey of back numbers of the FBO Newsletter will reveal that a small hard core of members have provided most of the material.

We would like to include a greater variety of material of botanical interest and this is why we started "Range Extension Notes". The fact is, though, that if they are to survive, such projects have to be fed. No one knows better than I do that newsletter articles take time to prepare and require a certain amount of application and self discipline. I suspect that procrastination and "avoidism", rather than lack of material, are the major enemy of the well intentioned.

My problem, as the editor, is that good ideas and good intentions do not provide the material I need. The result is that, when a newsletter issue is due, I have to scramble to dream up marginally interesting filler material and write last minute editorials calling for articles.

Past surveys of the membership have shown that the newsletter is an important part of our organization, but it doesn't spontaneously appear from thin air.

Is there anyone out there who can help?

ERRATA

On page 4 of the Spring 1994 issue of the Field Botanists of Ontario Newsletter 7(1), the drawing of Yellow Lady's-slipper (*Cypripedium calceolus*) was incorrectly labelled *Cypripedium acaule*.

On page 8 of the same issue the common name "Long Purples" was incorrectly used to describe Eyebright (*Euphrasia* spp.). Long Purples is, of course, Purple Loosestrife (*Lythrum salicaria*). We apologise to Joan Crowe for this confusion.

FBO T-SHIRTS

Due to overwhelming lack of interest from FBO membership, the FBO T-Shirt has been cancelled. Cheques have been returned to the handful of people who placed orders.

Please do not place any further orders.

Presumably the time for an FBO T-shirt has not yet come.

FIRST LICHEN WORKSHOP, SUDBURY

I would like to start this article by stating that those who did not participate in the FBO Lichen Workshop in Sudbury missed an excellent event! In addition to the novel topic, the weather was extremely fine in contrast to the earlier, rather-gloomy cold spring conditions. We could not have asked for a better situation - fine weather, the scenery of northern Ontario and almost no black flies. We can not say there were no flies as we noted a few. In another day or two, they would surely have been very unpleasant and unwelcome classmates!

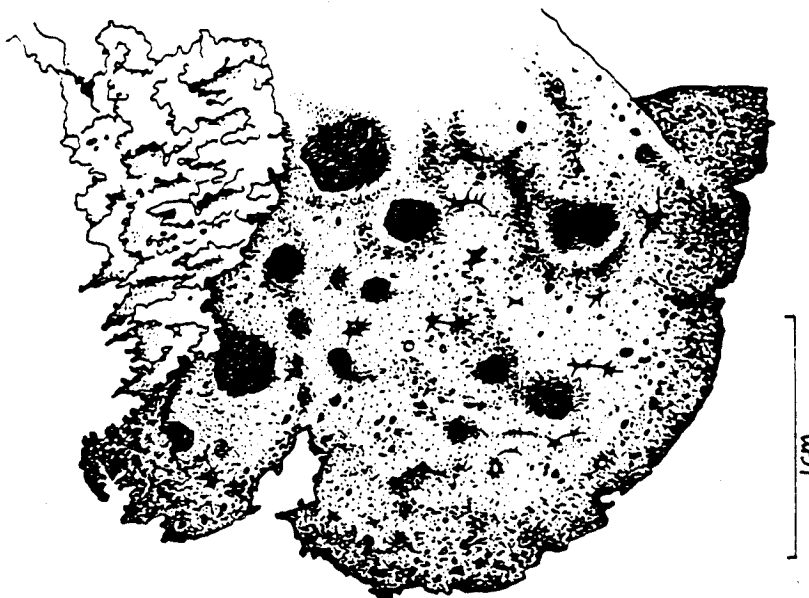
On May 14, 1994, four FBO participants were joined by Dr G. Courtin of the Biology Department at Laurentian University for their first formal exposure to the subject of lichens. The course was organized by Dr. Peter Beckett, an active member of FBO, and lasted for the better part of two days. It focused entirely on lichens - especially on their identification.

Lichens are generally regarded as falling within the domain of botanists, but could be claimed by others. They have not received as much attention as they deserve, most likely since they are slow growing and more specifically because there is limited immediate economic incentive to work with them. Lichens are unusual in that they comprise more than one identifiable species that function essentially as one organism. Lichens consist of both a fungal and an algal partner. The fungal partner can come from either the ascomycete or the basidiomycete group. The algal partner can either be a green alga or a blue-green alga or possibly both. The latter case is particularly significant in that the lichen organism is then actually composed of members of three distinct biological kingdoms (fungi, algae and protists or bacteria-like cells).

Lichens play an important ecological role in being an early colonizer of freshly exposed rock. They serve as important food sources for some wildlife and can be used as biological indicators of environmental conditions. For example, Peter Beckett has used lichens to demonstrate that improved air quality (reduced emissions of SO₂) in the Sudbury area in recent years has resulted in the re-establishment of lichens closer to Sudbury. Lichens can also form up to 30% of the standing biomass in certain old-growth forests in western North

America.

The first day of the course began in the laboratory with an introductory lecture by Peter on the significance of lichens, their biology, and most important for taxonomists, an introduction to the nomenclature of the parts of lichens. Without an understanding of the latter, it would be very difficult to work through a key.

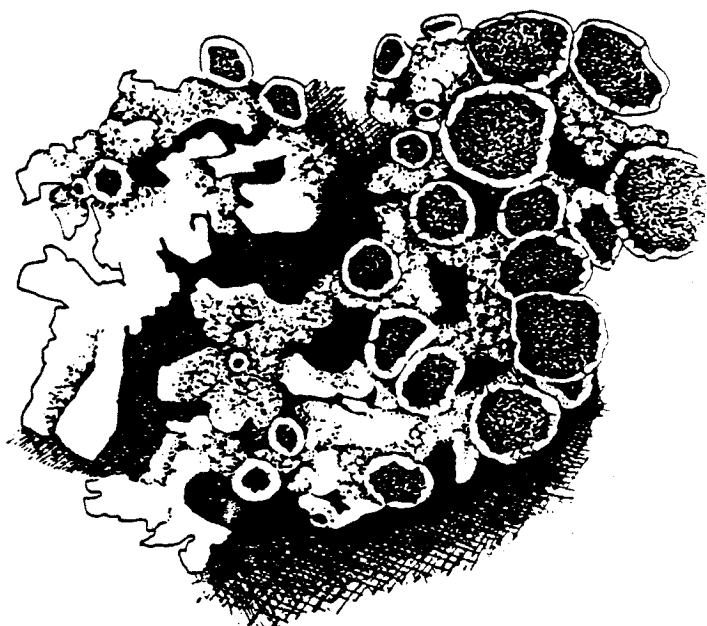


Umbilicaria muehlenbergii

The afternoon involved a field visit to observe lichens in their natural setting and to obtain specimens for identification. The first and longest stop was south of Sudbury at Rock Cut Lake just off Highway 69. The site was located in an open Red Oak (*Quercus rubra*) forest with a lot of exposed rock. In reality, the rock was not all that exposed because the surface was nearly covered by lichens of many types. We focused on the larger species because they were easier to see, easier to identify, and especially because they were easier to collect. The smaller crustose types are very thin and cling tenaciously to rock surfaces. Chiselling out chunks of rock substrate, cutting cross sections of rock and storage in a herbarium were thankfully beyond the scope of the workshop.

The Rock Cut Lake site provided an assortment of species of which caribou lichens dominated (we were reminded that "reindeer moss" is technically an incorrect appellation). The main species were *Cladina rangiferina* and *C. mitis*,

both of which are commonly collected for environmental contaminant monitoring because of their size and ease of collection. A species used for similar purposes is *Stereocaulon* although identification to species is often difficult because the diagnostic features associated with sexual reproduction are infrequently present. Also found were other species such as *C. uncialis* and *Umbilicaria deusta*. We also encountered several *Parmelia* species, *Hypogymnia physodes* and *Cladina pleurota*, a species that closely resembles the red-tipped lichen frequently called British Soldiers.



Physcia aipolia

We stopped for a short time near the Murdock River, a short distance south of the first site. The woods here were more dense and consisted of White Pine (*Pinus strobus*) and a few other species. The woods offered a different type of habitat.

The third stop was in a stand of mature Balsam Poplar (*Populus balsamifera*) growing in a wet area. This was a few kilometres west of Highway 69 on the road to Killarney. To a degree, walking was facilitated by the presence of a snow mobile trail cut through the woods. We saw a few wisps of *Usnea* (Old man's beard) as well as some examples of *Cetraria*

sepincola, *C. pinastri*, *Melanilia septentrionalis*, *Physcia aipolia* and *Evernia mesomorpha*.

Saturday evening and Sunday morning were spent in the laboratory identifying the samples. Peter provided excellent pointers to help us with the keys at timely intervals. Although we did not get to work through all of the samples, we made good progress. I am sure that none of the participants would ever claim to be experts in lichens after such a brief exposure, but there is also little doubt that some knowledge and appreciation for lichens had been passed on to a fresh group of naturalists.

I would personally like to thank Peter for offering to present the course and for taking the time to organize it so well. I know that I learned a lot. I hope that more people have a similar opportunity in the not too distant future.

W.D. McIlveen



Cetraria pinastri

PLANTS IN THE LONDON AREA

A recent study of woodland fragments (patches) in the London area has been conducted by FBO members Jane Bowles, Bill Draper and Brendon Larson as part of the City of London Official Plan, "Vision '96". Preliminary results indicate that White Ash (*Fraxinus americana*) was the species encountered most often. It was recorded from 80 of the 85 patches studied and from 520 (67%) of the 776 plant communities described in the study.

The other most abundant woody species were Choke Cherry (*Prunus virginiana*), present in 82 patches and 55% of the communities and White Elm (*Ulmus americana*) in 80 patches and 53% of communities. Sugar Maple (*Acer saccharum*) was only recorded from 75 patches and 52% of the communities, while Black Cherry (*Prunus serotina*) was in 77 patches, but only 38% of the communities.

Two invasive alien species were also among the most frequently encountered plants in the study. Garlic Mustard (*Aliaria petiolata*) was recorded from 44% of the communities in 80 patches, more than any other herbaceous species except Mayapple (*Podophyllum peltatum*) (46% of communities in 80 patches). Common Buckthorn was present in 43% of communities in 77 of the patches.

Cream-coloured Violet (*Viola striata*) (7 patches) and three sedges were among the most frequently encountered species considered rare in Ontario (Argus *et al.* 1982-87). The sedges were *Carex jamesii* (8 patches), *C. emoryi* (6 patches) and *C. trichocarpa* (5 patches).

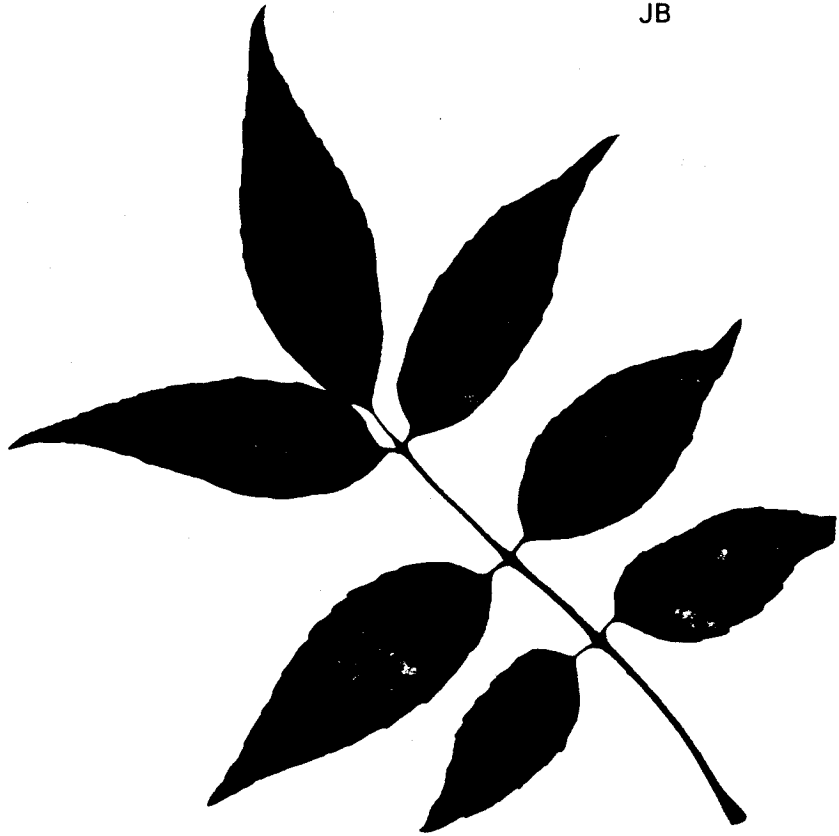
Creeping Fragile Fern (*Cystopteris protrusa*) not listed in Argus *et al.* (1982-87) and first discovered in Ontario by W.G. Stewart in Elgin County (Britton *et al.*, 1985) was encountered in a total of 9 communities in 8 patches.

References:

Argus, G.W., K.M. Pryer, D.J. White and C.J. Keddy (eds). 1982-87. Atlas of the rare vascular plants of Ontario. Parts 1-4. National Museum of Natural Science, Ottawa. Looseleaf.

Britton, D.M., W.G. Stewart and W.J. Cody. 1985. *Cystopteris protrusa*, Creeping Fragile Fern, an addition to the flora of Canada. Canadian Field-Naturalist 99(3): 380-382.

JB



Fraxinus americana

NEW COSEWIC STATUS

The list of Canadian species at risk rose in April from 236 to 255 at the annual meeting of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

Six of the 19 species added were plants and three of them have populations in Ontario.

Blunt-lobed Woodsia (*Woodsia obtusa*) has populations in Ontario and Québec and is now listed as Threatened. Also listed as Threatened are Deerberry (*Vaccinium stamineum*) and the Ontario population of Round-leaved Greenbriar (*Smilax rotundifolia*).

The status of threatened is given to any species of fauna or flora that is likely to become endangered in Canada if the factors affecting its vulnerability are not reversed.

RANGE EXTENSION NOTES

CONTRIBUTIONS TO RANGE EXTENSION NOTES

We encourage members to contribute reports to this section. The following basic information should be included in a range extension note:

1. Scientific, common and family name of the plant.
 2. Precise location of the record.
 3. Collection and herbarium information. In general, range extensions should be supported by a specimen deposited in a recognized institutional herbarium. In some cases an identifiable photograph deposited in an institutional herbarium will suffice.
 4. Collection date.
 5. Significance of the record, e.g. new county record, etc. A map can be used to show the new record(s) in relation to previous records of the species.
 6. Notes: this can include remarks on identification, local abundance, habitat, etc.
-

Betula pumila L. (Betulaceae), new to Middlesex County, Ontario

Jane M. Bowles

RR#3, Thorndale, Ontario, NOM 2P0

Betula pumila L. (Swamp Birch) is widely distributed in Ontario from the shores of Lake Ontario to Hudson Bay (Soper and Heimbürger, 1982), but it is very rare in southwestern Ontario (Figure 1). Lack of suitable habitat such as bogs, cool swamps and depressions around the shores of lakes and along rivers, may be a factor limiting its distribution in the south.

Betula pumila is reported from three sites in Haldimand-Norfolk (Sutherland, 1986), and one site, Oxley Swamp, in Essex County (Botham, 1981). It has also been reported in Perth County (McIntosh, 1989) and from Blandford-Blenheim Township, Oxford County (Hilts and Macfabe, 1978). Oldham (1993) does not list it for Elgin, Middlesex or Kent Counties.

During an inventory of woodlots in and around the newly annexed areas of the City of London, several shrubs of *Betula pumila* were found scattered near the edge of a pond in a complex of wet depressions associated with Tennants Pond. The community around the pond was dominated by Silver Maple (*Acer saccharinum*), Tamarack (*Larix laricina*) and Trembling Aspen (*Populus tremuloides*) and contained several other species of northern affinity found in Middlesex only in pond margin habitats, including Wild Calla (*Calla palustris*) and Chokeberry (*Aronia melaocarpa*).

Specimens

Ontario, **Middlesex County**, City of London, Topographic Map 40I/14 (ST. THOMAS), UTM: 520524, 30 May 1994, Jane M. Bowles, London Subwatershed Studies B-087 (UWO).

Acknowledgements

Thanks are due to Kenneth and Norma Laidlaw for allowing me access to their property.

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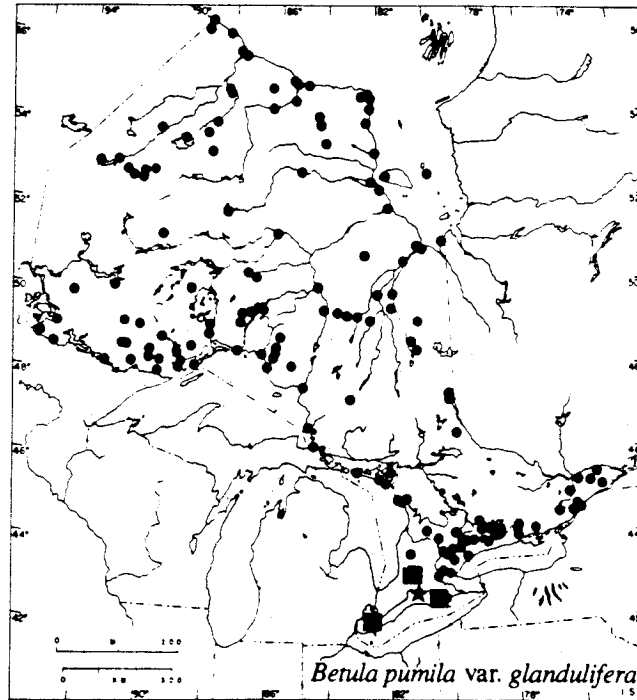
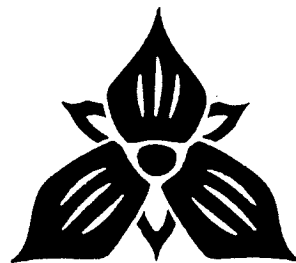


Figure 1: Distribution of *Betula pumila* in Ontario. Adapted from Soper and Heimbürger (1982) (●), more recent reports cited in Oldham (1993) (★) and the new station reported here.



FIELD BOTANISTS of ONTARIO

Membership in the Field Botanists of Ontario includes subscription to the FBO Newsletter and the privilege of attending field trips and workshops. Annual Membership Fees are \$12.00 single and \$15.00 family.

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