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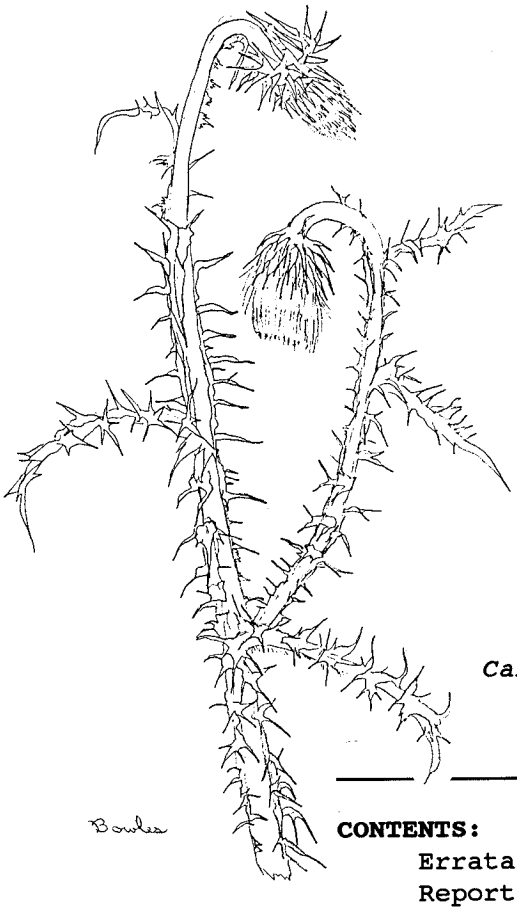


FIELD BOTANISTS OF ONTARIO

Carduus nutans

NEWSLETTER

Fall 1990

CONTENTS:

UPCOMING FIELD TRIP:

The only remaining field excursion planned for this year is the trip to explore shrubs and trees on the Niagara Escarpment. The trip takes place on October 14. This is your last chance to attend an FBO outing in 1990! It is not too late. Use the green form enclosed with your last newsletter.

! MEMBERSHIP RENEWALS !

FIELD BOTANISTS OF ONTARIO MEMBERSHIPS FALL DUE AT THE BEGINNING OF THE CALENDER YEAR. PLEASE HELP US BY USING THE FORM ENCLOSED WITH THIS NEWSLETTER TO RENEW YOUR MEMBERSHIP AS SOON AS POSSIBLE.

!!! ATTENTION !!!

FIELD BOTANISTS of ONTARIO

NEWSLETTER
Published quarterly by the FBO.

The FBO is a non-profit organization founded in 1983 for those interested in botany and conservation in the province of Ontario.

ERRATA

There were two botanical errors made during editing in the report on the Blue Mountain Field Trip which appeared on page 9 of the Summer 1990 issue of the FBO Newsletter: Maidenhair spleenwort is *Asplenium trichomanes* and "*Cladina uncialis*" should read "*Cladonia uncialis*".

We apologize to Sheila Thomson for these and any typographical errors in the text of her article.

PLEASE NOTE!

THE DEADLINE FOR SUBMISSION
FOR ARTICLES TO APPEAR IN THE
WINTER 1990-91 ISSUE
OF THE
FBO NEWSLETTER
IS

DECEMBER 15, 1990

WALPOLE ISLAND SEDGES AND GRASSES

Despite its name, the Walpole Island First Nations Community actually comprises six separate islands in the Snye River delta of Lake St. Clair. On Saturday July 7, leaders Gary Allen and Mike Oldham were joined by Ross Brown, last year's trip leader. They took 16 participants to the Sandpits, the Nahdee Lane prairie and two roadside sites on Walpole Island proper. On Sunday twelve of us, with Mike and Gary visited Squirrel Island and the Potawatomi prairie on Potawatomi Island. On both days we were accompanied by Marjorie Williams, Natural Heritage Co-ordinator from the Walpole Island Heritage Centre.

Of the 26 provincially rare sedges and grasses growing in the Walpole Island community, on Saturday we located two grasses, *Panicum acuminatum* and *P. sphaerocarpon*, and four sedges *Carex bicknellii*, *C. swanii*, *Fimbristylis puberula* and *Scleria triglomerata*. On Squirrel Island the following day we found one grass, *Sporobolus cryptandrus*, which only grows there, and discovered a **new grass record** for both Walpole Island and Lambton County, *Beckmannia syzigachne*. We also saw a sedge which grows only on Squirrel Island, *Cyperus schweinitzii* and the rare sedge *Carex conoidea*.

Altogether we saw 25 of Walpole Island's 82 listed sedges and 28 of its 83 listed grasses. Everyone had been given a copy of Mike and Gary's sedge and grass list to which we added four sedges and four grasses, although only one was actually a new record.

The Walpole Island community is home to over 90 rare plants so there was no shortage of other plants to see. In the Sandpits area we saw colicroot (*Aletris farinosa*) and wild indigo (*Baptisia tinctoria*) in flower. In an adjacent grass-edge savannah we saw Culver's root (*Veronicastrum virginicum*) in flower, but the yellow ladies tresses (*Spiranthes ochroleuca*) was not in bloom.

In the Nahdee Lane prairie, the highlights were pink milkwort (*Polygala incarnata*) and fimbristylis (*Fimbristylis puberula*) which in one particular spot were growing side by side. Walpole Island is the only known Canadian location for both. Also the flowers of the provincially rare prairie white-fringed orchid (*Platanthera leucophaea*) were a welcome sight. The plants' survival of the recent drought was a relief to concerned botanists who had noticed the orchid's drought-induced demise elsewhere. A non-plant highlight for George Bryant was a brilliant pink katydid, which he and Gary Allen saw before it got away.

By the end of the day we had seen goldenseal (*Hydrastis canadensis*), five of Walpole's six milkweed (*Asclepias*) species, Ohio buckeye (*Aesculus glabra*) and a long list of other plants both rare and otherwise.

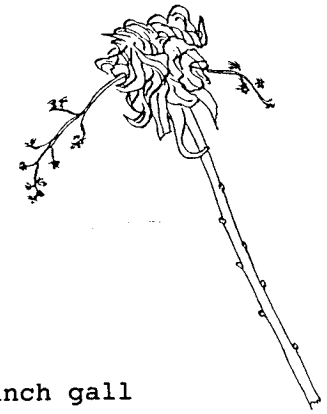
On Saturday night we enjoyed a wonderful display of sedges and grasses. There were dozens of mounted specimens from Mike Oldham's personal herbarium, 29 of his books and booklets, and 30 plastic bags of fresh, identified plants. All the plants displayed were species which grow in the Walpole community, though the herbarium specimens were

largely collected elsewhere. In addition we all received five handouts. Of the many books on display Mike recommended three for the beginning grass-sedge enthusiast: **Grasses of Ontario** by William G. Dore and J. McNeill (1980), **Michigan Flora, Part 1: Gymnosperms and Monocots** by Edward G. Voss (1972) and **New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada: Volume 1** by Henry A. Gleason (1952).

On Sunday Squirrel Island produced more than plants for us to enjoy. For several minutes we observed a nesting pair of provincially rare yellow headed blackbirds. The male, perched on some reeds (*Phragmites australis*) fussed and clucked at us constantly. Later in the day on Potawatomi Island we flushed a bobwhite.

The Potawatomi site, being more than 50 hectares of prairie and savannah, is one of the largest in the community. This piece of land has been chosen for a pilot project in leasing land for conservation purposes. Currently a heritage body is being formed by the Walpole Island Heritage Centre to work out the details of the leasing agreement.

Judy Hernandez



Bunch gall
on *Solidago*

POISONOUS PLANTS OF CANADA

Mulligan, G.A. and D.B. Munro (1990) Poisonous Plants of Canada. Agriculture Canada, Ottawa. 96 pp. ISBN: 0-660-13467-5.

This new book has just been announced by the Canadian Government Publishing Centre. It provides an up to date, annotated bibliography of wild, cultivated and indoor plants in Canada which have been reported to be poisonous.

It provides alphabetical listing of plants by family, and English and French common names are given. There is an indication of plant distribution and the toxicity to humans and animals. References to documented cases of poisoning are also given.

The book is aimed mainly at veterinarians, poison control personnel and other professionals, but it could also provide a useful reference text for university and college courses on livestock management and human medicine. It is also of use to anyone with more than a passing interest in plant poisons.

Copies of the book can be purchased from commercial bookstores or can be obtained for $8.95 plus $3.50 shipping and handling from:

Canadian Govt. Publishing Centre
Ottawa, CANADA
K1A 0S9

DRAWINGS IN THIS ISSUE OF THE FBO NEWSLETTER ARE BY

Bob Bowles
&
Jane Bowles

CHECKLIST FOR ONTARIO

Morton, J.K. and Joan M. Venn (1990) A Checklist of the Flora of Ontario, Vascular Plants. University of Waterloo Biology Series # 34. 218 pp. ISBN.0317-3348.

This checklists is something that botanists in Ontario have wanted and needed for a long time. It provides, at last, a unified base which standardizes the nomenclature of local plants. It has already been put to good use in several recent site and regional checklists.

As a checklist it is just that, a list of plants grouped by families and arranged in alphabetical order. No information about the status or range of plants is given expect recognition of native or alien origin. This is a disadvantage to some users, but it does not seriously detract from the main purpose of the checklist. Common names have not been tackled at all.

Botany suffers from an appalling degree of name changing, both in spite of and because of "The International Code of Botanical Nomenclature", and through changing opinions in taxonomy. John Morton and Joan Venn have made a dedicated, thorough and valiant effort to sort through the tangle and set down the correct and current names for all known components of the Ontario vascular flora. This is something for which all botanists in Ontario should be deeply grateful.

In the text, accepted plant names are given in bold print and synonyms and other names are listed in italics and cross referenced to the correct name. This makes both the correct name and the alternates very easy to find.

The way in which plants are grouped into families follows the taxonomy proposed by Cronquist (1981). This is a modern approach which has received wide international acceptance. The authors, confused by the conflicting taxonomies in the two recent Pteridophyte Floras covering Ontario, have followed neither and adopted the more conservative scheme which does not recognize recent advances in fern taxonomy, but does avoid the current controversies.

Plant families are arranged alphabetically within the major groups (Pteridophytes, Gymnosperms, Monocots and Dicots). This contrasts with all the major Floras and herbaria dealing with Ontario. The main exception is the **Atlas of Rare Vascular Plants of Ontario** (Argus *et al.* 1980-89) which is completely alphabetically arranged. The reason is obviously for quick and easy reference, but it is a little disconcerting to find related families at opposite ends of the book. A list indexing families to a widely adopted and recognized taxonomic order would have been a comforting addition and would have made the checklist more easily used in reference to the Floras available. Although taxonomic ordering is to a certain extent arbitrary, it does place families in some framework of presumed relatedness and this is useful to the practicing botanist.

Another disconcerting departure from recent practice is the reversion to some of the older family names rather than those names which use the consistent ending ..ACEAE for all plant families. Although alternate names are given, we find the genus *Aster* back in the COMPOSITAE instead of the ASTERACEAE, and *Poa* back in GRAMINAE instead of POACEAE.

Even in a project which does so much to bring relief to the confusion experienced by the botanical community in Ontario, there is bound to be

some continued disagreement over some of the species and genus names and boundaries adopted in the checklist. Closer examination of the details will no doubt reveal several cases. For example the Provincially rare grasses *Dichanthelium spretum* and *D. villosissimum* var. *praecocius*, listed in Argus *et al.* (1984), have now been combined in *Panicum acuminatum* along with, among others, *Panicum implicatum* which is quite common. No doubt there are good taxonomic reasons for this, but it may take time to be accepted.

It is also interesting to note that the checklist reverses the controversial decision made by Semple and Heard (1987) in their monograph on the asters of Ontario to separate the virguloid asters as another genus. New England aster is listed under its old name *Aster novae-angliae* L. not as *Virgulus novae-angliae* (L.) Reveal and Keener.

This is an invaluable addition to the literature on the Ontario flora and a must for any serious botanist. It comes in a choice of two bindings. A soft cover "perfect" binding for bookshelves and reference and a practical ring binding which opens flat for desktop and herbarium use.

Copies cost $20.00 + $2.00 shipping and handling, and can be ordered by sending a cheque made payable to the "University of Waterloo" to:

Department of Biology
University of Waterloo
Ontario N2L 3G1

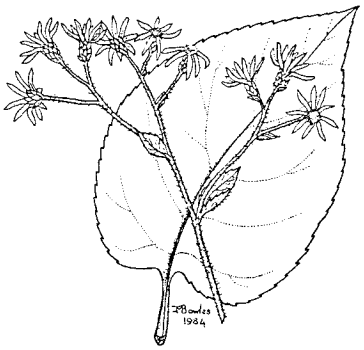
Literature Cited:

Argus, G.W., K.M. Pryer, D.J. White and C.J. Keddy (eds) (1982, 1983, 1984, 1987) Atlas of the rare vascular plants of Ontario. Parts I, II, III & IV. Botany Division, National Museum of Natural Sciences, Ottawa.

Cronquist A. (1981) An integrated system of classification of flowering plants. Columbia University Press, New York. 1262 pp.

Semple, J.C. and S.B. Heard (1987). The Asters of Ontario. *Aster* L. and *Virgulus* Raf.(Compositae: Astereae). University of Waterloo Biology Series # 30. Waterloo. 88 pp.

Jane Bowles



Aster macrophyllus

RAINFOREST WEEK AT THE ROM

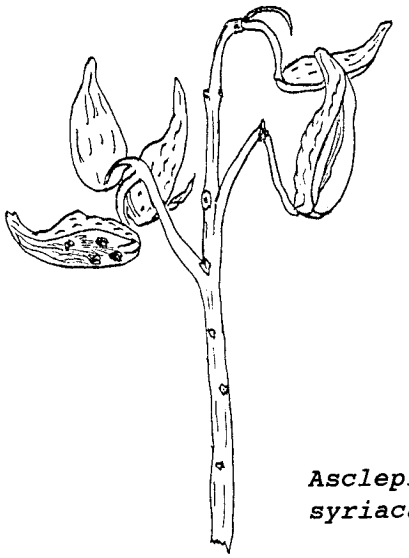
The Royal Ontario Museum is celebrating "World Rainforest Week" with a number of special events which should be of interest to FBO members. From Wednesday October 24 to Sunday October 28 there will be a series of panel presentations, family-oriented displays, workshops, performances, storytelling, films and environmental games revealing why rainforests are being destroyed and what Canadians can help do about it.

Apart from the some of the panel presentations, all displays are included with joint ROM/Gardiner admission. Panel presentation tickets are $8 adults, $7 members and seniors and $5 students. A money saving pass to all events is available in advance. For more information and details of the schedule call 586-5549 or 586-5797.

BIG AND LITTLE CHUTES FIELD TRIP

On that splendid morning of July 21, 22 FBO members showed up at the Big Chute Marine Railway station ready to explore the special flora of Muskoka District and Simcoe County. The field trip was conducted by Bob Bowles who had investigated that area recently. We started our exploration on the north side of the Severn River, in the Muskoka District. That area is an open forest of pine and oak on a rocky substrate. We saw several interesting species such as ebony spleenwort (*Asplenium platyneuron*), a specimen of red cedar (*Juniperus virginiana*), sleepy catchfly (*Silene antirrhina*), Douglas's knotweed (*Polygonum douglasii*), tall cinquefoil (*Potentilla arguta*), beautiful pale corydalis (*Corydalis sempervirens*) in flower, yellow pimpernel (*Taenidia integerrima*) in fruit, racemed milkwort (*Polygala polygama*), fragrant sumac (*Rhus aromatica*), and Carolina cranesbill (*Geranium carolinianum*). The Poaceae (grass family) was represented by ensheathed dropseed (*Sporobolus vaginiflorus*), bottlebrush grass (*Hystrix patula*), and ticklegrass (*Agrostis scabra*), and the Asteraceae (aster family) by upland white aster, considered now a goldenrod (*Solidago ptarmicoides*) and early goldenrod (*Solidago juncea*). Some species abundant in that location were sweet-fern (*Comptonia peregrina*), common juniper (*Juniperus communis*), wild garlic (*Allium canadense*) and the famous poison ivy (*Rhus radicans*).

After having found Venus's looking-glass (*Triodanis perfoliata*), we went along the shore of the river to see a population of lizard's tail (*Saururus cernuus*), as well as monkey flower (*Mimulus ringens*), blue-joint (*Calamagrostis canadensis*), swamp milkweed (*Asclepias incarnata*), common rush (*Juncus effusus*), and



Asclepias syriaca

fringed brome (*Bromus ciliatus*). This area was infested by the gypsy moth (*Lymantria dispar*) which we could see everywhere on oak and other deciduous trees.

During lunch we had a chance to look at the main local attraction, the marine railway. We saw many boats going up or down the falls on the marine railway which is unique in North America. After lunch we explored the south shore of Severn River in Simcoe County. We went looking for a Massasauga rattlesnake (*Sistrurus catenatus*), but could not find it where Bob Bowles had seen it a few days earlier. We did find little flower dragon-head (*Dracocephalum parviflorum*) that was not in flower yet. We got a chance to photograph a beautiful specimen of slender ladies' tresses (*Spiranthes lacera*) in flower.

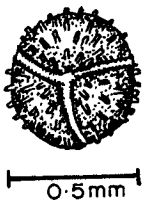
Among the group were "butterfly people" who caught quite a few specimens during the day. Apart from the gypsy moth males and females which were very abundant, we saw coral hairstreak (*Harkenclenus titus*), northern eyed brown (*Lethe eurydice*),

dion skipper (*Euphyes dion*) and several others. Sid Daniels also gave us a chance to look closely at a ribbon snake (*Thamnophis sauritus*), a northern water snake (*Nerodia sipedon*) and a leopard frog (*Rana pipiens*).

For the last part of the trip we looked at aquatic plants growing in the Severn River. We saw hard-stemmed bulrush (*Scirpus acutus*), blunt spike-rush (*Eleocharis obtusa*), common and grass-leaved arrowhead (*Sagittaria latifolia* and *S. graminea*), water-plantain (*Alisma plantago-aquatica*), wool-grass (*Scirpus cyperinus*) and water shield (*Brasenia schreberi*). We then looked for quillworts and found two species: *Isoetes echinospora* and *I.* X *eatoni*. Quillworts are difficult to tell apart and we relied on Dr. Don Britton to tell us what they were. We finally found some pipsissewa (*Chimaphila umbellata*) in flower.

After all that botany under a blazing sun, everybody appreciated some fresh water and a rest in the shade before starting back home.

Line Lapointe



Megaspore of *Isoetes echinospora*

FIELD GUIDE TO PEAT MOSSES

McQueen, C.B. (1990) Field Guide to the Peat Mosses of Boreal North America. University Press of New England. 138 pp.

Botanists interested in bryology should welcome this new field guide. Although not comprehensive, it covers some 30 of the most often encountered and easily recognized *Sphagnum* species in northern North America.

Sadly, although *Sphagnum* covers vast areas of the North American land mass, most botanists tend to lump or ignore the fascinating variety displayed by peat mosses. This may be partly because positive identification can be tricky and most keys use microscopic features. This book should raise the enthusiasm of latent *Sphagnum* bryologists and encourage people to start discovering just how fascinating and rewarding these mosses are.

Almost a third of the book is given over to a clear and informative discussion of peatmoss ecology. In it, the use of ecological clues, such as habitat zonation and succession, as an aid to identification is stressed. Mention of the taxonomic confusion in *Sphagnum* is avoided.

Keys using features visible with a 10x or 20x hand lens are used to separate the Sections and species of *Sphagnum*. There is also a novel "random access" key which allows the user to select particular characters for quick identification. With occasional problems over some more "difficult" species the keys have worked quite well when I have tried them in the field. Colour plates and simple line drawings help clarify the distinguishing characters of the main species which are also described and compared with similar species.

One drawback of this book is its hefty price. At $33.95 it ranks as one of the more expensive field guides on the market. Nevertheless it will make a worthwhile addition to any collection of plant field guides, and it represents a breakthrough in *Sphagnum* identification for field botanists.

Jane Bowles

SARATOGA SWAMP OUTING

On Sunday August 12th, under the capable leadership of Jane Bowles, a group of 11 enthusiasts set out under threatening skies to explore the Saratoga Swamp. The area is located 8 Km. northeast of Godrich and comprises about 1200 hectares. It is an ANSI (Area of Natural and Scientific Interest). Jane completed a life science inventory for the swamp in 1988 so we were most fortunate in having her expertise. The site includes various treed wetland vegetation types on creek and spillway lowlands, as well as upland forests.

We headed into the northern section, starting from the concession road which runs about mid-way through the swamp from east to west. On the lane way in we were greeted by an unusual alien, green foxglove (*Digitalis lanata*). The clearings in this portion host a multitude of butterflies, which were not visible due to the overcast conditions. Just to tantalize us, however, a tiger swallowtail (*Papilo glaucus*) hovered about and then darted off. Fern lovers were delighted to find rattlesnake fern (*Botrychium virginianum*), marsh fern (*Thelypteris palustris*), bulbet fern (*Cysopteris bulbifera*), royal fern (*Osmunda regalis*) and spinulose and crested wood fern (*Dryopteris carthusiana, D. cristata*).

We wended our way back towards the cars at noon and were met with a patch of wild marjoram (*Origanum vulgare*) studding the centre of the lane. A tremendous downpour found us scattering for shelter in our cars shortly thereafter. It continued for such a long time that a couple of people decided to leave. The hale and hearty did not give up, but set off in rain gear to the southern portion of the swamp after having relocated some of the cars to the next concession. Jane bravely stepped from the roadway into dense wet understorey with us dutifully following! There were no marked trails so we relied on direction by compass.

The southern portion contains treed bog-like communities which may be unique in southern Ontario. Red maple (*Acer rubrum*) forms a canopy, with shrubs such as wild-raisin (*Viburnum cassinoides*) and chokeberry (*Aronia melanocarpa*). The ground layer flora contains some bog species such as Labrador tea (*Ledum groenlandicum*), leatherleaf (*Chamaedaphne calyculata*) and Virginia chain fern (*Woodwardia virginiana*) which was one of the highlights. There was almost no *Sphagnum*, but sedges such as *Carex oligosperma*, *C. canescens*, and *C. magellanica* ssp. *irrigua* were evident. There was also spicebush (*Lindera benzoin*), velvet-leaf blueberry (*Vaccinium myrtiloides*), dalibarda (*Dalibarda repens*) swamp dewberry (*Rubus hispidus*), bristly greenbriar (*Smilax hispida*), nodding beggarticks (*Bidens cernua*) and woodland horsetail (*Equisetum sylvaticum*).

We found ourselves in an area where eastern hemlock (*Tsuga canadensis*) dominated and there was a vast carpet of cinnamon fern (*Osmunda cinnamomea*) as far as the eye could see in a moat-like depression separating the spillway lowland from a low ridge. Virginia waterleaf (*Hydrophyllum virginianum*), jumpseed (*Polygonum virginianum*), yellow violet (*Viola pubescens*) and black nightshade (*Solanum ptycanthum*) were here too.

We proceeded onto a ridge and came upon a small colony of 8 plants of ginseng (*Panax quinquefolius*) which is on the list of Provincially rare species. Spikenard (*Aralia racemosa*), honewort (*Cryptotaenia canadensis*), Indian tobacco (*Lobelia inflata*), bull thistle (*Cirsium vulgare*) and white vervain (*Verbena*

urticifolia) completed the list of more interesting finds of the day.

Part way through the afternoon the rain had let up after all, but by the time we had emerged into the roadway again we had completed three full hours of wet-slogging. However the entire outing was very worthwhile, and we knew we were richer for having spent the day exploring this fascinating Saratoga Swamp.

Sue Kittell

HASTING HIGHLANDS LICHENS & SPHAGNUM

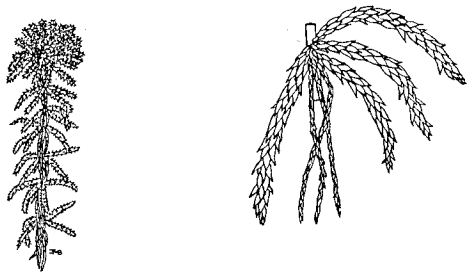
Saturday and Sunday, September 9-10, 1989.

This two-day field trip was the FBO's first outing devoted to lichens and mosses. Our host, Cecelia Avila-Logsdon of Dragonfly Farm, went to great lengths to make the trip enjoyable, and it was. The leader was Dr. Peter Beckett of the Biology Department at Laurentian University. Eight keen members (including the leader) met at the Lake St. Peters farm about 35 Km. north of Bancroft.

On Saturday, after an indoor introduction to the sex life of lichens, the group started out on trails to see the amazing variety of species on the farm. At the first stop the rain started, but we ignored it while Peter pointed out a patchwork of various lichen all growing on a young Bebb's willow (*Salix bebbiana*). We continued walking slowly, all the while examining species either on trees, on rocks or on the ground. Peter pointed out that the profusion of lichens was a sign that the area was not very polluted. Cities are largely lichen deserts because air pollution is deadly to these life forms.

By the end of the day we had learned the identity of about 23 species, which we noted on a summary checklist provided by Peter. The checklist, covering Haliburton, Hastings and Peterborough Counties, lists 263 species and we added two more to it.

After dinner that night Peter set up a microscope and laid out some specimens. So we wrapped up the first day by having a closer encounter with the colourful and intriguing lichens of Dragonfly Farm.



Sphagnum wulfianum

The following morning was sunny. We visited Dallas Bader's farm, just north of Maynooth, to study *Sphagnum* mosses. In Bader's Bog, 16 Km. south of Dragonfly Farm, I recorded 11 *Sphagnum* species tentatively identified: *S. fimbriatum, S. ?teres, S. ?centrale, S. squarrosum, S. ?palustre, S. magellanicum, S. fuscum, S. pulchrum, S. rubellum, S. subsecundum* and *S. recurvum* var. *fallax*. However we did not exhaust the list of species found in this backyard bog.

After lunch we explored the woods surrounding Dallas' rustic home, before going our separate ways. We thoroughly enjoyed having Peter as a leader, and we truly appreciated learning from him the nature of and some names for the many grey, green, brown and yellow splotches we see plastered to rocks and trees on our outings.

Judy Hernandez