Field Botanists Of Ontario

Newsletter

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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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The deadline for submissions for Volume 9(4) - Winter 1996/1997 is December 21, 1996.

The FBO does not review or endorse products (including keys, floras, etc...) produced <u>independently</u> by FBO members. At the discretion of the editor and/or the executive, we will publish notices of their availability as a service to the membership.

Standard source for Latin names:

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.

Additional source for common names (as needed) and authority abbreviations.

Gleason, H.A. and A. Cronquist. 1991. Manual of Vascular Plants of Northeastern Unitied States and Adjacent Canada (2 ed.) New York Botanical Garden, Bronx, NY. 910 pp.

after

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Editor's Comments.

I am pleased to introduce drawings by a new artist in this issue. FBO member Mary Celestino drew this edition's cover illustration of Gray-headed Coneflower (Ratibida pinnata (Vent.) Barnhart). The following field note accompanied the drawing.

August 2, 1996. West Stone Road Alvar, Pelee Island.

I now have access to a better printer, so my ability to reproduce photographs has increased since the last issue. I am pleased with the difference in quality. The pictures inserted into the Aquatic Plants and Atlantic Coastal Plain article were provided by the Information Office of the University of Florida, Center IFAS, Aquatic Plants (Gainesville) via the The internet. photographer's name is included in each photo. Some of the other

'illustrations' this month are leaf rubbings I took from plants around my own home, or from the Laurentian University Arboretum. Unfortunately, the few Carolinian specimens had dropped their leaves long before started

Too bad! are for Leaf 1: I shouldn't give you any trouble. Most t h e beginner, I'm usually a tree, but appear as a but there are 1 or 2 tough ones too. Don't be fooled: all are woody, but not all are trees! Your next hint is that

collecting.

all these plants are typical of the sub-boreal forest region. Additional hints and trivia accompany each illustration.

Note that the deadline for submissions to the Winter '96 edition is coming up very shortly: December 21st. I need to catch-up and get the newsletter mailings a little better synchronized with the seasons.

Ed Morris

mining smelters.

shrub in those areas once fumigated by

President's Report on the Past Year.

The Annual General Meeting in September ended another year in the life and times of the Field Botanists of Ontario, and started the next. Peterborough was the spot, and trips to Petroglyphs Provincial Park, the Kaladar Rock Barrens, and Presqu'ile Provincial Park on the first day introduced people to a variety of habitats. The group dinner was a chance to meet other F.B.O. members. The

business meeting was brief, always, and as \mathbf{m} Hutchinson gave interesting talk to the group, followed coffee and treats and more socializing. Sunday was the day to see the Rice Lake Prairies, and even visiting a cemetery in the rain was a pleasure. Thank-you to trip leaders Sean Blaney, Todd Norris, Lisa Roach, James Kamstra and our speaker, Tom, for a very enjoyable weekend, particularly to Carole Ann Lacroix for organizing the event.

Justus Benkhuysen was our newsletter editor at the start of the 1995-96 year, but decided to make a move out west and had to resign

as editor. We are grateful for the work that he did while he was on the executive, and we wish him the very best. Luckily there was an FBO member, Ed Morris, who volunteered to step in, and the transition was a smooth one. The first issue that Ed put together arrived late to our members, and we apologize for that. This might be expected with the first issue under a new editor, but in fact it was due to delays at the printer. We are currently trying some format changes to improve the look of our newsletter, and appreciate any comments. But not as much as we'd appreciate articles - on any aspect or level of plant appreciation. Thank-you Ed for taking the newsletter under your wing.

will miss her

thank her for

O t h e r changes to the executive occurred at the AGM. After several years on the Board. Irene McIlveen is stepping down. We and sincerely her time, and in particular for her organization of trips in the past. Carole Ann Lacroix is also stepping down from being Vicepresident, as she currently has many other commitments. and we thank her again for $_{
m the}$ AGM. Madeline Austen has become our new Vicepresident. and we are very happy to have her move into this position. Wasvl Bakowsky, who organized the very popular trips last year, is remaining on the Board to help Leaf 2: where needed (he's about to be a Wasyl Senior), and trips will being too soft on you. now be organized by our two

new executive members, Ken Ursic and Sarah Mainguy. Welcome, Ken and Sarah, and thank-you for your participation. Much thanks also to Ilmar Talvila, Bill McIlveen, Heather Mackey and Bob Bowles for their continued commitment to the FBO, as they remain on the Board for another year.

You will notice a referendum ballot in this newsletter. We ask that you take the time to send in your vote on donating some of FBO's funds to a conservation agency to purchase land (See Minutes of the Annual General Meeting -Ed). Time does not always allow Board members to actively participate in conservation activities (although several executives do so in their jobs!), but the FBO can help set aside land for conservation through financial support. I also hope that starting next year we can announce in the newsletter restoration projects that need volunteers for plantings, or ask for members' help in inventorying areas that may need protection. Write or call me with news or additional ideas!

Claudia Schaefer

Minutes of the Annual General Meeting.

Trent University, Peterborough. Saturday, September 21, 1996.

> The meeting was called to order by President Claudia Schaefer; 27 members were in attendance.

> > Approval of the minutes of the 1995 Annual General Meeting was moved by Wayne McShane and seconded by Bill McIlveen. Carried.

Treasurer's Report: Ilmar Talvila presented a statement of revenue and expenses. As of August 31, 1996 the bank balance was \$8,151 with a predicted end-of-year balance of \$6,875. In 1996, the August 31 bank balance increased by \$1,694 over 1995; increased revenues were due to an increase in field trip revenues. George Another easy one, I'm Bryant will audit 1995the books.

Committee Reports:

Membership: Bill McIlveen reported that the membership numbers were down only slightly (-4.5%) from 1995 with 278 paid members.

Field Trips: Wasyl Bakowsky reported that field trips went well in 1996, with 10 to 23 people attending trips.

Newsletters: Ed Morris reported on the newsletter and asked for material from the membership for upcoming issues. Ed apologized for delays in the recent newsletter due to problems with the printers.

Changes to the Executive: Claudia announced the following changes to the executive. Justus Benkhuysen stepped down as newsletter editor because of a move to the west coast and has been replaced by Ed Morris. Wasyl Bakowsky is stepping down from field trips, but will continue on the board as needed. Irene McIlveen is also stepping down after several years on the board. Sarah Mainguy and Ken Ursic are new executive members who will share duties of coordinating field trips. Carole Ann Lacroix is stepping down from the vice-presidency and will be replaced by Madeline Austen. Claudia thanked all outgoing executives for their hard work and commitment to the FBO. The 1996/97 Board of Directors was introduced as follows:

President: Claudia Schaefer
Past President: Bob Bowles
Vice-president: Madeline Austen
Treasurer: Ilmar Talvila
Secretary: Heather Mackey
Membership: Bill McIlveen

Field Trips: Ken Ursic, Sarah Mainguy

Newsletter: Ed Morris

Executive Member: Wasyl Bakowsky

Referendum: Claudia notified the members that the executive would like to donate FBO funds of \$1,500 to \$2,000 on behalf of the FBO membership to an organization involved in purchasing land for conservation. A referendum will be sent out in an upcoming newsletter requesting input from the membership on appropriate recipient agencies for the donation. Roger Jones suggested that the FBO executive consider setting up a fund to support small botanical research projects; results from these projects could be published in the newsletter.

Annual meeting for 1997: The location for the next AGM will be announced at a later date.

Claudia opened the floor for comments or questions from the general membership. The business meeting was adjourned at approximately 8:30 pm. Moved by Jeff Matheson and seconded by George Bryant. Carried.

Madeline Austen

Mono Cliffs Provincial Park.

Leaders: Allan Anderson and Don Britton.

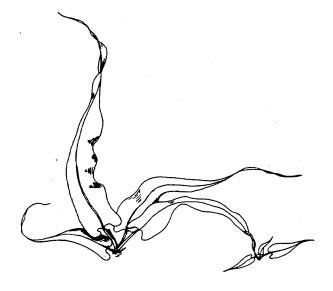
The second FBO field trip of the season began on a drizzly June 9th, after one of the latest springs in recent memory. Allan Anderson led a trip to Mono Cliffs Provincial Park to explore moist cliffs, crevices, stream edges, and the drier openings for ferns. Dr. Don Britton, co-author (with William J. Cody) of the Agriculture Canada publication "Ferns and Fern-Allies of Canada," provided assistance. The forest at Mono Cliffs is reminiscent of the Pacific North-West rain forest, with the towering cliffs of the Niagara escarpment providing an evocative backdrop. The drizzle only enhanced the experience. Ravens croaked from the top of the cliff, and wood warblers normally associated with larger forest tracts in the north, such as Black-throated Blue and Canada Warblers, sang in the understorey.

Allan began by leading us through a fern's morphology, pointing out the size and shape of the frond, the dissection of its pinnules, and the location and shape of its sori. A variety of wood-ferns, members of the diverse genus *Dryopteris*, grew conveniently along the trail. Spinulose Wood-fern (*Dryopteris carthusiana* (Villars) H.P. Fuchs), had thrice-cut, delicate fronds with a distinctive long

basal pinnule, while Intermediate Wood-fern (D.intermedia (Muhl. ex. Willd.) A. Gray) had shorter basal pinnules and a distinctive glandular rachis. Dr. Don Britton pointed out a $D. carthusiana \times D.intermedia$ hybrid $(D. \times triploidea \text{ Wherry})$, which appeared more robust than either parent and possessed both long basal pinnules and glands. Also present were Marginal Wood-fern (D.marginalis (L.) A. Gray), distinguished by evergreen, more simple fronds, and Crested Wood-fern (D. cristata (L.) A. Gray), also known as the 'Venetian Blind' fern.

The limestone fern fest began with a climb up a nearby cliff, slippery with rain. Sign those waivers before your trip, folks! The rewards were Walking Fern (Asplenium rhizophyllum L.), inching its way along the cliff with its long tip-rooting leaves, Smooth Cliff-brake (Pellaea glabella Mett. ex Kuhn), the delicate Maidenhair Spleenwort (Asplenium trichomanes L.) and the clifftop-hugging Rock Polypody (Polypodium virginianum L.). Allan pointed out a few ferns in pockets of organic soil in crevices which can also be found in other rich organic soils, such as Bulblet Bladder-fern (Cystopteris bulbifera (L.) Bernh.) and Fragile Fern (C. fragilis (L.) Bernh.).

Back to earth, other ferns appeared in more typical damp, rich fern habitat. Northern Beech Fern (Phegopteris connectilis (Michx.) Watt), Oak Fern (Gymnocarpium dryopteris (L.) Newman) and more Crested Wood-fern grew along the edge of a Although none was found today, Havspring. scented Fern (Dennstaedtia punctilobula (Michx.) Moore) has also been found in this spot. Obsessive prowling during the inexactly-named lunch 'break' Silvery Spleenwort turned up (Athvrium thelypterioides (Michx.) Desv.) in the woods near the escarpment.



Walking Fern (Asplenium rhizophyllum L.) by Jane Bowles

At the base of the talus slope, Allan pointed out one of the gems of the Niagara Escarpment: Hart'stongue Fern (*Phyllitis scolopendrium* (L.) Newman). Last year's fronds still showed their long, bold sori, and this year's fronds were just well enough developed to show their distinctive arrowhead shape and fleshy texture. Hart's-tongue Fern is only known from a few scattered localities in North America, and most of the extant North American plants occur in a small area on the Niagara Escarpment.

We searched fruitlessly in patches of old field and among mature planted pines for the stems left over from last year's Grape Ferns (*Botrychium* spp.) and Adder's-tongue Fern (*Ophioglossum pusillum* Raf.), but the mowed grass along the path and woodland edges has been left to naturalize, and advancing succession seems to have eliminated these little ferns from their open habitat.

One more moist foray into the woods led us to four fern-allies. The Club-mosses *Lycopodium dendroideum* Michx. and *L. obscurum* L. are almost identical except on the lower part of the stem, where scales are spreading (and therefore prickly) on *L. dendroideum*, but lie smooth and flat on *L. obscurum*. The dark, bristly ground-cover of Shining Club-moss (*L. lucidulum* Michx.) and Ground-cedar (*L. digitatum* A. Braun) enhanced the atmosphere of cool, damp northwestern woods found in the shadow of the escarpment.

Sarah Mainguy

Kolapore Swamps, Forests, Escarpment and Caves.

Leaders: John Riley and Jarmo Jalava

On July 7th, about twenty members explored three sites near Feversham in southern Grey County. We had the good fortune to be led by John Riley and Jarmo Jalava who had conducted fieldwork in these ANSIs and were very familiar with the botany and physiology of the areas.

To the background sounds of Winter Wren, Mourning and Black-throated Green Warblers, our group plunged into Kolapore Swamp - the first stop on our itinerary. Following an old corduroy road, formerly used for logging, we gradually descended from a Sugar Maple (Acer saccharum Marshall) forest into a pristine White Cedar (Thuja occidentalis L.) swamp. John Riley pointed out that this was a classic Grey County glacial meltwater area -- much loose and exposed rock on the slopes ("lagg deposits") with a cedar swamp at the bottom.

Nine orchid species were observed on this morning outing. These included Heart-leaved Twayblade (*Listera cordata* (L.) R. Br.) and Broadleaved Twayblade (*Listera convallarioides* (Sw.) Nutt. ex Elliott) in full flower, plus a giant 3 ft. Northern Green Orchis (*Platanthera hyperborea* (L.) Lindley).

The most interesting grasses here were the

retrorse-stemmed, reflexed-head Smith's Melic-grass (Melica smithii (Porter ex A. Gray) Vasey) which is common on the limestone rocks, and Nodding Fescue (Festuca subverticillata (Pers.) E. Alexeev). Nodding Fescue can look very much like Woodland Poa (Poa alsodes A. Gray). Other more common native grasses included:

Leersia oryzoides (L.) Sw. Rice Cut Grass

Cinna latifolia (Trevir. ex Goeppinger) Griseb. in Ledeb. Nodding Wood Grass

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

In the wettest part of the cedar swamp, Jarmo Jalava pointed out the "beautiful red bases" of *Carex plantaginea* Lam. Here in the cool spring water, he then caught a Pickerel Frog, pointed out the concealed orange "flash spots" on the hind legs and reminded us that insect repellent is toxic to hand-held amphibians.

After lunch we followed an active mountain bike trail west from Kolapore toward the escarpment.



Northern Green Orchis (*Platanthera hyperborea*). Photo compliments of Jeffrey R. Hapeman, University of Wisconsin.

Ferns were the major attraction here and they included:

 $\begin{array}{c} \textit{Polystichum lonchitis} \; (L.) \; Roth. \\ \textit{Holly Fern} \end{array}$

Dryopteris goldiana (Hook. ex Goldie) A. Gray Goldie's Fern

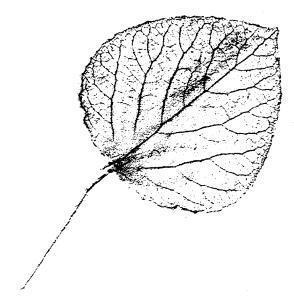
Cryptogramma stelleri (S. Gmelin) Prantl Slender Cliff-brake

Asplenium trichomanes-ramosum L. Green Spleenwort

A. trichomanes L. Maidenhair Spleenwort

Highlights of this trail were two remnant patches of Ginseng (*Panax quinquefolius* L.) adjacent to a large patch of Canada Waterleaf (*Hydrophyllum canadense* L.). Jarmo allowed that in his experience the two plants are often found together. Mac Kirk pointed out that each Ginseng plant is now worth \$60 in Toronto and \$600 in Hong Kong. It takes seven years before a plant will produce seed and another two years for the seed to germinate; hence a large plant is valuable.

By mid-afternoon a light drizzle had begun to fall and many participants chose to call it a day. However, the field trip description had mentioned a disjunct population of Northern Starwort (Stellaria borealis Bigelow ssp. borealis) and Jarmo was prepared to take people to the spot in an effort to relocate the plant. Access to the site, an overgrown talus slope of the Kolapore Escarpment, was via another logging road. This traversed an extensive monoculture of Hart's-tongue Fern (Phyllitis



<u>Leaf 3</u>: Beavers' food of choice. Note I have a laterally compressed petiole.

scolopendrium (L.) Newman), reminding one observer of a tropical rainforest. John Riley observed that "99% of the North American population of Hart'stongue Fern is in this area. It is specific to limestone, but why is it so abundant here...in every woodlot?".

After clambering around and over many huge limestone boulders at the bottom of the cliff face, we found our quarry. The very unspectacular sparsely-leaved, recumbent chickweed was perched on a rock and could well be the same individual found by Jarmo several years' earlier. An exciting (for botanists) conclusion to a very rewarding day. Our appreciation to John Riley and Jarmo Jalava who led this trip on behalf of the FBO.

George Bryant

Dry Oak Woodlands, Forests, and Prairie in Hamilton-Wentworth.

Trip Leader: Anthony Goodban

FBO members continued their exploration of prairie and savanna habitat on August 11th, 1996. Trip leader Anthony Goodban guided our investigation of dry oak woodlands, forests, and prairie at two areas in the Hamilton-Wentworth Region: Spencer Gorge Wilderness Area and Ancaster Prairie. Anthony is an expert on the flora of the Hamilton-Wentworth area.

Prairies, which technically have less than 2.5 trees per hectare, and their close relatives, savannas (which have greater than 2.5 trees per hectare but less than 50% canopy cover) have been hot habitats among scientists and naturalists alike. unusual collection of plants that inhabit them is the reason why. It is thought that prairie plant species migrated into southern Ontario some time between 8,000 to 4,000 years ago during a warm dry period called the hypsithermal interval. The pockets of prairie and savanna that now remain in southern Ontario form the northern and eastern limits of the prairie peninsula, or eastward extension of the Great Plains that likely existed at one time (see Seasons, Summer 1993, vol. 33(2)). Many southern Ontario prairies have been the subject of FBO field trips, including Ojibway Prairie near Windsor, Holland Landing, and those near Rice Lake.

The Spencer Gorge Wilderness Area is probably best known for its spectacular Y-shaped incised valley cut into the Niagara Escarpment by the erosional forces of Spencer Creek. Tews and Webster Falls are at the two valley heads. Much less conspicuous, and the reason Anthony brought us here, are the prairie plant associations throughout the semi-open forest of the Spencer Gorge plateau. Scattered in small openings along the Tews Falls side are Big Bluestem (Andropogon gerardii Vitman), Bush Clover (Lespedeza intermedia (S. Watson) Britton), Butterfly Weed (Asclepias tuberosa L.) and New Jersey Tea (Ceanothus americanus L.). We found Canada Wild-rye (Elymus

canadensis L.) growing close to the cliff edge, where the first leg of the morning walk ended with spectacular views overlooking the town of Dundas. Along the trail towards Webster Falls, we saw the rare Downv Foxglove (Aureolaria virginica (L.) Pennell), which has affinities more to dry woods and has a provincial ranking of S1, which means there are five or less occurrences (or very individuals) in the province. We also saw Chinquapin Oak (Quercus muehlenbergii Engelm.) and young Wild Chestnuts (Castanea dentata (Marshall) Borkh.), most of which will

maturity. The group reconvened in the afternoon at Ancaster Prairie (also known as Paddy Green Prairie), which was discovered in 1993 by Marv

succumb to chestnut blight long before

Gartshore. It is sandwiched between an agricultural field and Leaf 4: Even bears will the roadside, not unlike many other prairie remnants which are along the dry sides of roads and railbeds. This spot has remained variable in shape. simply because it is too steep to

till. It contains a high proportion of native prairie species such as Bush Clover (Lespedeza capitata Michx.), Indian Grass (Sorghastrum nutans (L.) Nash) and Big Bluestem (Andropogon gerardii) along with Little Blue Stem (Schizachyrium scoparium (Michx.) Nees) and the tall Bicknell's Sedge (Carex bicknellii Britton). Ancaster Prairie may require some human assistance in order to resist the invasion of weeds and woody species. It is becoming somewhat overrun with Sassafras (Sassafras albidum (Nutt.) Nees) and a spring burn is being considered to reduce the woody vegetation and to stimulate species in the soil seed bank. Anthony considers the Ancaster prairie to be one of the best prairie examples in the region, possibly second only to the well-known Brantford prairie.

It is only fairly recently that prairies have been recognized as an integral, natural component of the southern Ontario landscape and considerable efforts are being made to restore and preserve these areas. I'm sure we can look forward to more expertly-led FBO field trips to other Southern Ontario grasslands.

Jeff Matheson

eat my 'fruits.'

lleaves can be quite

Muskoka Aquatic Plants and Atlantic Coastal Plain Weekend. Leader: Bill Crins.

On August 24th, equipped only with

canoes and sunscreen, a small crew of aquatic plant enthusiasts descended upon the Severn River under the blue skies of Muskoka. Bill Crins was our guide as we meandered up a smaller river which is home to such delights as Water-milfoil (Myriophyllum sibiricum Komarov) with its lush expanse of submerged fronds and ubiquitous Bur-reed (Sparganium fluctuans (Morong) Robinson) and Spike-rush (Eleocharis robbinsii Oakes).

The river was flanked by thickets of Royal Fern (Osmunda regalis L.), Buttonbush (Cephalanthus occidentalis L.), and Sweet Gale (Myrica gale L.) and a host of other typical Great Lakes forest An almost species. effortless day paddling was broken $b\bar{v}$ several short portages which elicited

some minor grumbling. But on we pressed, buoyed by the generally good

nature and sense of adventure common to most botanists. After passing fens and floating bogs we arrived at Morrison Lake. Puzzled by the antics of cottagers with their noisy water toys, we ate a quick lunch on a dry bed of Hair Grass (Deschampsia flexuosa (L.) Trin.) and made a loop around the south end of the lake before heading back. While it was difficult, at times, for everyone to hear Bill's outpouring of phyto-tidbits, the combined knowledge of others in the group filled in the gaps and enabled beginners to appreciate the botanic diversity of the area.

One of the highlights was undoubtedly the opportunity to view several species of *Utricularia* at the same time.

Utricularia cornuta Michx.

Naked Bladderwort; Horned Bladderwort

U. intermedia Havne

My

Northern Bladderwort

U. gibba L.

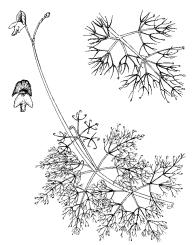
Creeping Bladderwort

U. purpurea Walter

Spotted Bladderwort; Purple Bladderwort

U. vulgaris L.

Common Bladderwort



Spotted Bladderwort (*Utricularia purpurea*)

By Laura Line, Information Office of the University of Florida, IFAS, Center for Aquatic Plants (Gainesville).

Other species of interest we encountered included Yellow-Eyed Grass (*Xyris difformis* Chapman), Deergrass or Meadow Beauty (*Rhexia virginica* L.), and Pipewort (*Eriocaulon aquaticum* (Hill) Druce) among many others. Crystal-clear waters (a treat for those of us from south-western Ontario) allowed for closer scrutiny of an array of submergents:

Potamogeton amplifolius Tuckerm. Large-leaved Pondweed

P. epihydus Raf. Ribbon-leaf Pondweed

P. illinoensis Morong Illinois Pondweed

P. natans L. Floating Pondweed

P. oakesianus Robb. Oakes' Pondweed

P. pusillus L. Slender Pondweed

P. vaseyi Robb. Vasey's Pondweed

 $Najas\ gracillima\ (A.\ Braun\ ex\ Engelm.)\ Magnus\ Slender\ Water-nymph$

N. flexilis (Willd.) Rostkov & W. Schmidt Northern Water-nymph

Vallisneria americana Michx. Water Celery; Tape Grass

Every so often, the gelatinous, other-worldly baubles of *Nostoc*, a blue-green alga, could be spotted amongst the members of the relatively modern kingdom of Planta.

While a full day of botanizing can be draining, some of our crew had enough energy left over to

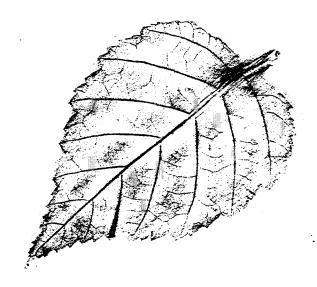


Illinois Pondweed (Potamogeton illinoensis)

By Alison Fox. Information Office of the University of Florida, IFAS, Center for Aquatic Plants (Gainesville).

indulge another vice. The result was a furtive trip by a small contingent of botanists to the nearby CasinoRama. Although most left poorer and visibly shaken by the experience, one of our members had the luck to pocket a sizable jackpot (to be donated straight to the coffers of FBO, no doubt).

The second day of the workshop lead us to Dawson Ponds to further indulge our curiosity about aquatics and enjoy the late summer weather. The banks of several shallow ponds provided habitat for a handful of sedges (listed on the next page) as well as Club-spur Orchid (*Platanthera clavellata* (Michx.) Luer), Lance-leaved Violet (*Viola lanceolata* L.), Bog Lycopodium (*Lycopodium inundatum* L.) and two species of Sundew (*Drosera rotundifolia* L.and *D. intermedia* Hayne).



<u>Leaf 5</u>: My sap can be made into a very nice syrup.

Sedges seen at Dawson Ponds.

Carex gynandra Schwein.

C. lurida Whalenb.

C. michauxiana Boeckeler

C. scoparia Schk. ex Willd.

Cladium mariscoides (Muhl.) Torr.

Twig Rush

Cyperus bipartitus Torr.

Dulichium arundinaceum (L.) Britton

As the day grew late, some of our maverick members grew restless and began chasing insects (dragonflies and syrphids, I believe). Amateurs like myself contented ourselves with trying to remember and rehearse the characters and names of the species Bill had introduced to us. Throughout, Bill's expertise captivated the group. His knowledge of our aquatic flora (not to mention his skills as a "Sedgemeister") provided an enriching experience for all present. Thanks to all who participated, especially Bill Crins, Claudia Schaefer, and Wasyl Bakowsky for organizing...

Jeremy Lundholm

A Call for Your Observations.

Do you have Red Cedar growing along your back roads? Have you seen Sycamore on your walks? What about Jack Pine? These aren't particularly uncommon species, yet we don't know enough about their distribution. For example, the southern limit of Jack Pine is not well known.

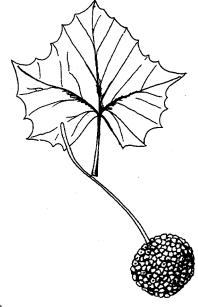
We'd like all members who know locations of these species, to send us a note indicating the species and location (something in between "the SW corner of Fred's backyard" and "Bruce County" or "Muskoka"). Township, Lot, and Concession information is quite good, or note the distance and direction from a well established landmark.

For Sycamore, please indicate if it's possible that the tree was planted. Watch for the introduced Scot's Pine, which can look a lot like Jack Pine.

The species again are: Jack Pine (*Pinus banksiana* Lam.) Red Cedar (*Juniperus virginiana* L.) Sycamore (*Platanus occidentalis* L.)

Whether you send us information on one or all three species, we appreciate your help in determining the range of these trees. Once we have enough information on a species, we'll summarize it and publish it in the newsletter. Send your observations to:

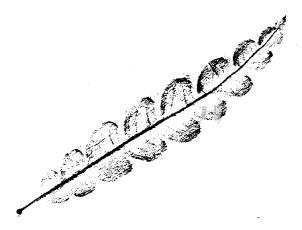
Claudia Schaefer 92 Waterloo Ave., Apt. B Guelph, Ontario N1H 3H8



Sycamore by Jane Bowles.

Can of Worms: Authorities and Botanical Nomenclature.

In the last issue, I began to insert authorities after the Latin names of the plants. It is *the* change which provoked the most mail from the readership. The authority is the name or shortened form of the name of the person who was first to *adequately* describe the plant in literature. It is also part of the plant's Latin name. If a Latin name is changed, for whatever reason, the original authority is placed in brackets and the name of the person who renamed the plant follows. Do not concern yourself with learning who-named-what, authorities are not



<u>Leaf 6:</u> I'm a sweet smelling friend of *Frankia*.

usually spoken or written in informal communications between botanists. Field trip report writers need not be concerned about including authorities in their submissions. The editor will insert them as names are cross-referenced with our standard source for Latin names (currently Morton & Venn 1990).

I have received some well argued cases for not including authorities in our field trip reports. The most convincing concern was that the the use of authorities interrupted the flow of the field trip report. I think this is a valid point, but perhaps the use of authorities is not the real culprit. In this issue, I've changed lists of species from prose to list form if there are more than four species listed. I think that this style improves the flow, with or without authorities.

Another argument put forward was that some members or potential members might be intimidated by an authority. Again, this might be true, but could it possibly be any more intimidating than the Latin binomial itself? In fact, to some people the authority may be a item of interest. Jane Bowles wrote a very interesting piece called "Who was Michx.?" when she was editor. I want to read/write more of these.

Why include the authority? Why does it matter who-named-what? For day to day communication, it doesn't matter that much. However, the FBO newsletter gets deposited in a number of libraries, and herbarium. Yes, the newsletters are published for the use and enjoyment of current FBO members. however they contain information about plant distribution in time. This information may be of interest to a future researcher or field botanist. We all know that--and grumble when--Latin names change. I know from personal experience that synonyms (Latin names used in the past) can be difficult to associate with a modern name. encounter this every time I edit an article for this newsletter! In these situations, inclusion of authorities really does help the reader/researcher be more sure of the connection.

We cannot foresee how our field trip reports might be used in the future, but we shouldn't underestimate their value. Our main articles, of course, already command a good deal of respect. In any case, the FBO newsletter should use standards for botanical communication which promote appropriate style.

Thanks to Prof. Keith Winterhalder for his comments on this article.

Ed Morris

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.

Upcoming Field Trip Reports

There are a number of field trip reports which I hope to receive for upcoming newsletters. Please let me know if you are working on any of the below, and how they are progressing.

Ed Morris

From the Summer:

- Prince Edward County Dunes, Shores, and Alvars. (Bill McIlveen)
- •Maitland River Valley Forest, Floodplain, and Seepages. (Dale Hoy)
- Windsor Ojibway Prairies and Savannas
- •Hill Island Pitch Pine Ridge and Southern Leeds County.

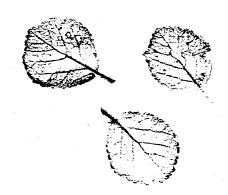
From the AGM Weekend:

- •Presqu'ile Provincial Park (Ilmar Talvila)
- •Kaladar Jack Pine Barrens (Mike Oldham)
- •Petroglyphs (Margot Ursic)

Notices:

FBO member Doug Lockrey would like us to tell you that he has written and printed a number of booklets of drawings, checklists, and keys for various plant groups in Ontario. For further information contact:

Doug Lockrey, 215 Reedaire Court, Apt. 116, Whitby, Ontario. L1N 6A2



<u>Leaf 7:</u> We are the last ones, and probably the toughest. We live in boggy ground.

Professor of Plant Ecology and curator of the Laurentian University Herbarium, SLU.

Botanical Time Wasters!

More Great Places to Botanize on the Internet.

The picture of *Platanthera hyperborea* was found in the "Orchids of Wisconsin" site. Permission to use the image was granted (almost instantly) from the curator of the site, Jeffrey R. Hapeman of the Botany Department, University of Wisconsin. For his contribution, he will be sent a copy of the newsletter. Here are a list of some sites you may want to check out.

"Orchids of Wisconsin" http://www.wisc.edu/botany/Orchids/Jeff.html

Biological Images http://darwin.ceeb.uky.edu/micro/MIF/art.html

The photo and line drawing of aquatic plants used in Jeremy's Aquatic Plants article were obtained from this site.

Aquatic Plants http://aquat1.ifas.ufl.edu/photosci.html

Here's some Botanical Anagrams (word jumbles) to puzzle through:

VERBSLOUCH

Hint: A plant mentioned in this newsletter issue. Two words.

ELOPEIT

Hint: A plant part. One word.

MADKELPWESWIM

Hint: It has green leaves. (Not a very good hint). Two words.

PERCHUSEWIT

Hint: A tree species. Two words.

AANHINDREEFRIM

Hint: Likes rich, moist woods. Two words.

The first person to untangle all 5 anagrams (using only their own brain power!) will receive one free field trip during 1997. Answers must be <u>mailed</u> to:

Claudia Schaefer 92 Waterloo Ave, Apt. B Guelph, Ontario N1H 3H8

Identities of leaf illustrations.

Leaf 1:

Red Maple (*Acer rubrum* L.) In the former 'moonscape' of Sudbury, these continue to grow as shrubby, multi-stemmed tree, while nearly all other species seem to develop normally. The reason for their regressive die-back on treated soils remains unexplained.

Winterhalder, E.K. 1995. Natural Recovery of Vascular Plant Communities on the Industrial Barrens of the Sudbury Area. *In* Restoration and Recovery of an Industrial Region. (J.M. Gunn, ed.) Springer-Verlag, New York. 358 pp.

Leaf 2:

Swamp Maple (*Acer saccharum* Marshall), also known as soft maple. Don't try to make syrup out the sap: the yield is too low.

Leaf 3:

Trembling Aspen (*Populus tremuloides* Michx.) is a favourite food of beavers and porcupines.

Leaf 4

Red Oak (*Quercus rubra* L.) acorns are eaten by bears either when plentiful or when other sources of food are scarce.

Leaf 5:

White Birch (*Betula papyrifera* Marshall) Yes, I have made syrup from it, and it tastes similar to maple syrup.

Leaf 6:

Sweet Fern (*Comptonia peregrina* (L.) Coulter). *Frankia* is a genus of symbiotic nitrogen fixing fungi (Actinomycetes) associated with the roots of this, and several other shrubs including the Alders (*Alnus* spp.). The association is analogous to that of legumes and *Rhizobium* bacteria.

Maxwell, C.D. 1995. Acidification and Metal Contamination: Implications for the Soil Biota of Sudbury. *In* Restoration and Recovery of an Industrial Region. (J.M. Gunn, ed.) Springer-Verlag, New York. 358 pp.

<u>Leaf 7:</u> Swamp Birch (*Betula pumila* L.) This was the tough one! Congratulations if you knew it. Again, it is one plant which is colonizing the former moonscape.

It's Your Turn.

We hope you enjoyed this page, and we encourage you to send us more word games, internet sites, poems, trivia, or even quiz material for upcoming newsletters. It's difficult for me to put together material which is suitable for everyone across the province, so please contribute!