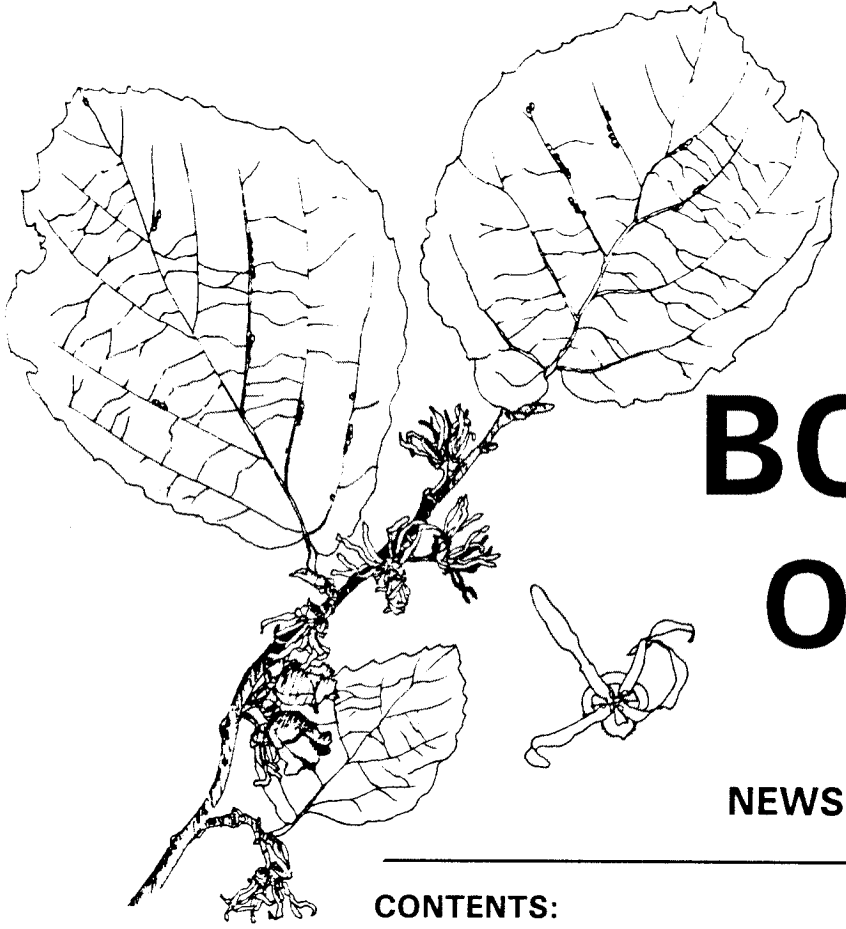


FIELD BOTANISTS OF ONTARIO

ISSN: 1180-1417

NEWSLETTER

Fall 1993
Volume 6(3)

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MEMBERSHIP RENEWALS

PLEASE USE THE FORM ENCLOSED WITH THIS NEWSLETTER TO RENEW YOUR FBO MEMBERSHIP FOR 1994

PLEASE HELP US BY RENEWING YOUR MEMBERSHIP AS SOON AS POSSIBLE.

Membership fees are $12.00 single, $15.00 family and $250 life.
Send fees and completed renewal form to:
W.D. McIlveen
RR #1, Acton, Ontario L7J 2L7

FIELD BOTANISTS of ONTARIO

NEWSLETTER
Published quarterly by the FBO
ISSN: 1180-1417

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

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DRAWINGS

In this issue of the FBO Newsletter, the cover drawing of *Hamamalis virginiana* is by Irene McIlveen and other drawings are by Bob Bowles and Jane Bowles.

WE NEED A CONTINUOUS SUPPLY OF DRAWINGS AND ARTICLES FOR THE NEWSLETTER, AND WE KNOW THE TALENT IS OUT THERE. **PLEASE CONTRIBUTE!**

FIELD BOTANISTS IF ONTARIO
MINUTES OF THE ANNUAL GENERAL MEETING
ROYAL BOTANICAL GARDENS, HAMILTON, ONTARIO

SATURDAY, SEPTEMBER 25, 1993

The meeting was called to order by current President George Bryant. Thirty-five members were in attendence.

Approval of the minutes of the 1992 Annual General Meeting. Moved by John Tiedje, seconded by Jim Hodgins. Carried.

Treasurer's Report:
Ilmar Tavilla presented a statement of Revenue and Expenses for the period January 1 to August 31, 1993 (attached). He reported that the finances of the FBO remained healthy.

Ammendments to Articles of the Constitution:
It was moved that Article 2 (OBJECTIVES) of the Field Botanists of Ontario Constitution be updated to conform with the proposed changes published in the FBO Newsletter, Volume 6(1). Moved by Wayne McShane, seconded by Bill Crins. Carried.

It was moved that Article 6 (BOARD OF DIRECTORS) of the Field Botanists of Ontario Constitution be ammended as follows: that "four" be replaced with "five" for the number of additional directors. Moved by Bob Bowles, seconded by Jane Bowles. Carried.

Committee Reports:
Membership: Bill McIlveen reported that the number of memberships (183) remains about the same as last year.

Field Trips: Irene McIlveen reported that attendance on field trips remains good, with 150 registrations for 9 field events. There were 42 registrations for the Aster and Goldenrod workshop.

President's Report:
George Bryant gave a brief verbal account of the highlights of the year, including the strong financial condition and good attendance at field trips and workshops.

Changes in the Executive:
Out going Past-president, Donald Kirk introduced the new member of the Executive, Dale Hoy.

The new President Bob Bowles introduced the 1993-1994 Board of Directors as follows:

President:	Bob Bowles
Past-president:	George Bryant
Treasurer:	Ilmar Tavilla
Secretary:	Vicki Young
Membership:	Bill McIlveen
Field Trips:	Irene McIlveen
Newsletter Editor:	Jane Bowles
Executive:	Bill Crins
	Mary Gartshore
	Dale Hoy

Bob Bowles thanked Donald Kirk and George Bryant for their contributions to the FBO during their tenures as President.

Annual Meeting for 1994:
Bob Bowles announced that the next AGM will be at Wye Marsh Wildlife Centre in late summer.

The business meeting was adjourned at 8:03 p.m.

FIELD BOTANISTS OF ONTARIO
STATEMENT OF REVENUE AND EXPENSES

	January 1 - August 31, 1993		January 1 - August 31, 1992	
Bank balance beginning of period		$6,088.86		$ 4,852.41
REVENUE				
Memberships	1,357.00		1,005.00	
Field trips	3,411.00		3,087.00	
AGM	125.00		571.16	
Donations	------		62.00	
Publications	(10.00)		-----	
Bank interest	30.90		49.24	
US exchange	5.58	4,919.48	16.34	4,790.74
		$ 11,008.34		$ 9,643.15
EXPENSES				
Field trips	970.22		951.45	
Honoraria	375.00		1,227.10	
AGM	-----		41.94	
Newsletter	2,347.23		1,900.00	
Publications	64.68		----	
President	206.20		170.20	
Membership	41.68		----	
Treasurer	46.44		18.07	
FON membership	-----		100.00	
Trip insurance	-----		315.00	
Bank charges	9.60	(4.061.05)	19.15	(4,742.91)
Bank balance		**$ 6,947.29**		**$ 4,900.24**
NET INCOME	**$2,047.05**			

PRESIDENT'S REPORT 1992-1993

The FBO has now been in existence for nine years. The newsletter, field events, membership and finances have all conspired to provide a very rewarding association.

Our Treasurer, Ilmar Talvila, reports that our financial health remains excellent. This has enabled us to keep our membership dues very reasonable.

I consider a significant accomplishment of the past year to have been the establishment of a trip leader compensation policy. All leaders now receive an honorarium plus reimbursement for certain expenses. Much work goes into the organization of our field trips and I feel the FBO has developed an admirably high standard for field trips and workshops. A special thanks to goes to Irene McIlveen, who took over the task of field trip coordination at short notice, and did a superb job of managing a challenging portfolio.

Our editor, Jane Bowles, has continued to produce, almost single-handedly, the quarterly Newsletter which is the only contact most members have with our organization. Much of what the FBO is now is as a result of Jane's contributions.

In 1993 our field events and two workshops (Bryophytes and Asters and Goldenrods) were well attended by members. We understand that both workshops had a capacity attendance.

This year we approved two constitutional changes at the annual meeting. The objectives of the club were updated and the executive was increased by one member. The goal of the latter change was to spread the workload more equitably.

Bill McIlveen reports that our membership continues to hover just below the 200 mark. With the increasing interest in natural history, study I expect membership numbers will grow.

I felt our annual meeting in Burlington this year was very successful. Forty-eight members (or roughly 25% of our membership) registered for at least one activity. We had five field trips and a fascinating evening with a presentation by Douglas Larson on old growth on the Niagara Escarpment. The plant quiz given by Wayne McShane was also a lot of fun.

Our best wishes to Donald Kirk who steps down as Past-President after 7-8 years on the executive and to Bob Bowles who has become President.

There is a continuing concern that too much work falls on the Editor and Field Events coordinator. We hope some of the new executive will be able to alleviate some of this workload.

On a personal note, I will say that I have obtained a lot of pleasure and satisfaction from the FBO field trips, newsletters and executive meetings. The study of field botany rivals birdwatching in being the perfect avocation for me. Both provide a pleasant mix of intellectual, aesthetic and physical gratifications.

George Bryant

FIELD BOTANISTS OF ONTARIO
ARTICLES OF THE CONSTITUTION

Article 1. **NAME AND STATUS**

The organization shall be known as the FIELD BOTANISTS OF ONTARIO. It is a non-profit organization.

All assets and other accretions of the Field Botanists of Ontario shall be used in promoting the Objectives of this organization and in no way shall be used for the purpose of financial gain for its members. In the event of dissolution of the Field Botanists of Ontario, all remaining assets after payment of liabilities shall be distributed to one or more recognized charitable organizations in Canada.

Article 2. **OBJECTIVES**

(1) Provide opportunities for people to meet and pursue their interests in field botany.

(2) Provide education in field botany.

(3) Encourage exchange of botanical information.

(4) Increase knowledge and documentation of the flora of Ontario.

(5) Provide botanical expertise to the naturalist community.

Article 3. **MEMBERSHIP**

Any person or family shall, upon application and payment of dues, become a member of the FBO. Payment of the Annual Dues as set out in the By-laws will be a necessary condition for the continuance of membership.

(1) Individual Membership. A person shall be granted individual membership upon payment of the annual fee, the amount of which shall be set out in the By-laws.

(2) Family Membership. A family shall be granted a Family Membership upon payment of the annual fee, the amount of which shall be set out in the By-laws.

(3) Life Membership A person shall be granted a life membership on payment of a fee, the amount of which shall be set out in the By-laws. The fee is to be such that when invested it will yield interest at least equal to the amount of the annual individual membership fee.

Article 4. **PUBLICATIONS**

Publications shall be prepared and distributed as directed by the Board.

Article 5. **OFFICERS OF THE FBO**

There shall be a President, Vice-president, Secretary and Treasurer. One person may not hold more than one office.

Article 6. **BOARD OF DIRECTORS**

The Board shall consist of the officers of the FBO and five additional members. The immediate Past-president shall continue as a member of the Board.

The Board shall meet at least twice a year at the call of the President or of any two other of its members. The Board shall be responsible for: all matters affecting the welfare of the FBO; the management of the funds of the FBO; a report of the year's work to membership at the Annual Business Meeting.

The Board shall have the power to accept any resignation and to appoint a member of the FBO to fill any vacancy for the remainder of the original term of office.

The Directors shall receive no remuneration for acting as such.

Article 7. **COMMITTEES**

The Board may appoint such standing and special committees as are deemed to be necessary to conduct the affairs of the FBO.

Article 8. **AUDITORS**

An auditor shall be elected by an open vote at the Annual Business Meeting. The Auditor shall examine the Treasurer' s accounts for the year and certify as to their correctness at the next Annual Business Meeting. The auditor shall not be a member of the Board.

Article 9. **BUSINESS MEETINGS**

(1) An Annual Business Meeting of the Field Botanists of Ontario shall be held.

(2) Special Business Meetings shall be called by the Secretary on the request of ten voting members. The Secretary shall specify in the notice of meeting the nature of the business to be transacted. At this meeting no business other than that for which the meeting was called shall be transacted except by unanimous decision of those present.

Article 10. **ELECTIONS**

A nominating committee consisting of the President, the immediate Past-president, and two members who are not on the Board shall receive and present at the Annual Business Meeting, a list of names of members who are willing to stand for election to become an officer or other Board members.

Article 11. **TERM OF OFFICE**

All members of the Board shall commence their duties at the close of the meeting at which they are elected, and shall serve until the end of the next Annual Business Meeting or until their successors are elected. The President and Vice-president may serve no more than three consecutive years in one position.

Article 12. **QUORUM**

(1) Twenty members shall constitute a quorum at the Annual Business Meeting or at any Special Business Meeting of the FBO.

(2) A majority of the serving members of the board constitutes a quorum for a meeting of the Board.

Article 13. **DUTIES OF THE PRESIDENT**

The President shall preside at the Business Meetings of the FBO and at meetings of the Board. The President shall be, ex-officio, a member of all committees. The President shall supervise the affairs of the FBO.

Article 14. **DUTIES OF THE VICE-PRESIDENT**

In the absence of the President, or at his request, the Vice-president shall act in the President's stead.

Article 15. **DUTIES OF THE SECRETARY**

The Secretary shall keep minutes of the proceedings of the Board, and meetings of the general membership. The Secretary shall provide notice of Board meetings to each Board member prior to the meeting and to all members of the FBO prior to meetings of the general membership.

The secretary shall be the custodian of the records of the FBO and of the Constitution and By-laws. The Secretary shall compile the Annual Report and make it available to the membership at large at the Annual Business Meeting.

Article 16. **DUTIES OF THE TREASURER**

The treasurer shall be charged with the collection and custody of the moneys of the FBO and shall keep a systematic account thereof which shall at any time be open to the inspection of the board or the Auditors. The Treasurer shall make disbursements only when authorized by the By-Laws or by decision of the Board. The Treasurer shall submit a statement at each Annual Meeting showing the financial standing of the FBO.

Article 17. **AMENDMENTS**

Each proposed amendment to this constitution shall deal with only one article and shall be moved by one member and seconded by another. Written notices of such motions shall be sent to the Secretary with sufficient time to permit notification of the motion at least one month prior to the Annual Business Meeting. Each motion for amendment shall be moved, seconded, discussed and voted upon separately. Each amending motion and any amendments to the motion itself must be carried by a two-thirds majority of the members present at the Annual Business Meeting.

Article 18. **BY-LAWS**

The Board shall make or amend By-laws that are consistent with the provisions of the Articles of the Constitution. The By-laws and any amendments thereto shall be published and circulated to the membership of the FBO. All By-laws shall be submitted for a vote at the next Annual Meeting.

Article 19. **REMOVAL OF A BOARD MEMBER OR OFFICER**

The full Board may, by a two-thirds majority vote, remove a Board member or officer from office, if the Board considers that the member's actions are detrimental to the FBO.

REPORT OF THE 1993 ANNUAL MEETING

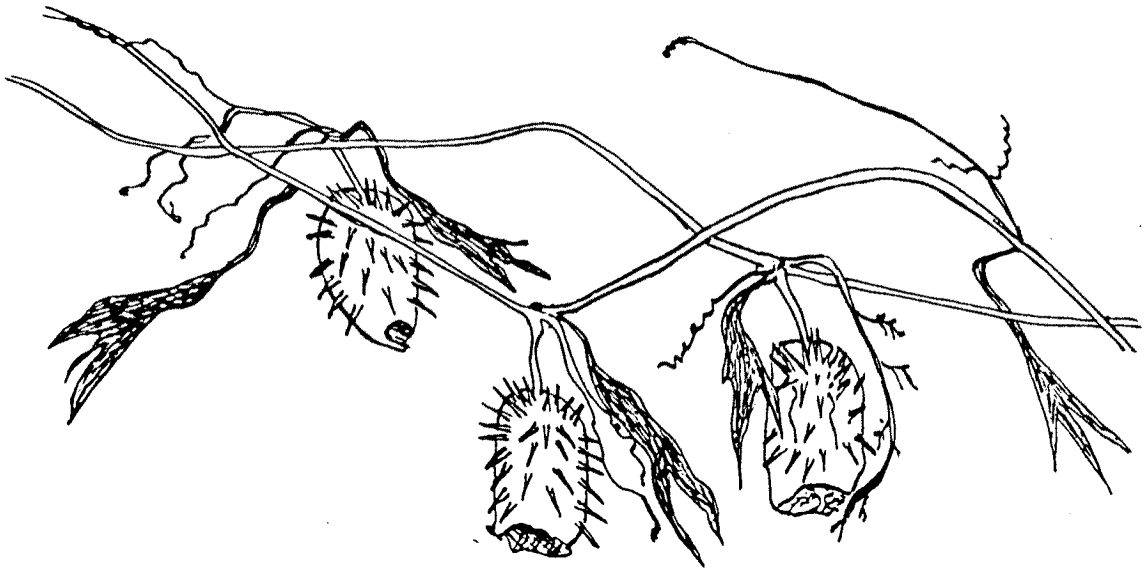
The Annual Meeting of the FBO followed a day of field trips led by Bill Crins, Mary Gartshore and Bill McIlveen in the Hamilton area. The Business Meeting was held at the Royal Botanical Gardens in Burlington.

George Bryant opened the meeting with a plant identification quiz compiled by Wayne McShane who showed a general picture and close-up shot of 30 plant taxa.

This was followed by the Business Meeting chaired by George Bryant as outgoing President. The answers for the plant quiz were given amid groans and squeals of delight. There probably was a winner, perhaps Bill Crins, but that wasn't the purpose of the quiz.

Bill McIlveen introduced our speaker, Dr. Douglas Larson, cliff ecologist extraordinaire, from the University of Guelph. His somewhat political, humorous and botanically informative rhetoric was met with obvious approval if judged by the enthusiastic questions afterwards.

The evening closed with goodies, coffee and conversation.



Echinocystis lobata

TOURING ESSEX COUNTY

The initial outlook for a pleasant day of botanizing was bleak as 14 participants gathered in the northwest corner of Windsor's Ambassador Mall under dark skies and a light rain. Our leader, Dave Bradley, had to bring us to the mall overhang to unfold his maps of Windsor and Essex County. Dave gave us an excellent preview of where we were heading and what we could expect to find. We got on our way slightly after 10:00 a.m. on that Sunday morning of July 25, 1993.

Our caravan drove directly to the south end of Randolph Street within the city limits of Windsor where Dave promised to show us Sullivant's Milkweed (*Asclepias sullivantii*) with its fleshy leaves and showy purplish flowers. Sure enough, there it was in the ditch beside the road in cohabitation with Winged Loosestrife (*Lythrum alatum*) and Virginia Mountain Mint (*Pycnanthemum virginianum*).

The light rain continued as we made a short jaunt to the railroad tracks along Cameron Street at Totten Road. Dwarf Snapdragon (*Chaenorrhinum minus*) was prevalent on the rail bed. Black-eyed Susan (*Rudbeckia hirta*), Spotted Knapweed (*Centaurea maculosa*), Showy Tick-trefoil (*Desmodium canadense*), and Wild Parsnip (*Pastinaca sativa*) were also noticeably in bloom. The highlight, however, was the observation of several beautiful specimens of the prairie Compass Plant (*Silphium laciniatum*). These plants are unique in the way that they align their basal leaves in a north-south direction.

Groups of botanists always seem to attract curious attention from onlookers. As we were crossing the tracks on our way back to the cars, a local, shirtless, resident approached us to enquire about our activities - apparently a battered and abused child had been found recently in the area that we were botanizing!

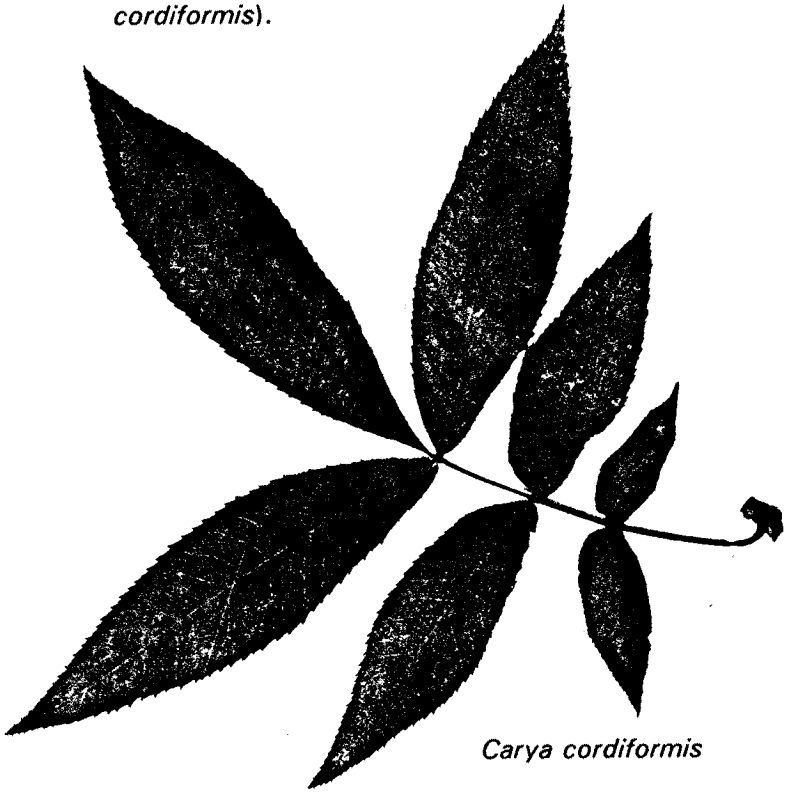
Our caravan then headed out toward the Amherstburg area about 15 km southwest of Windsor. Along the way the vast marsh areas were blooming with the deceptive beauty of Purple Loosestrife (*Lythrum salicaria*). On the edge of the River Canard waterway we got our treat for the day, thousands of plants with hundreds of spectacular blooms of the provincially rare American Lotus (*Nelumbo lutea*). Dave told us that such a bloom occurs only every few years when the plants have stored enough energy in their rhizomes to support the display.

The rain had let up by now and we made a lengthy drive to the Maidstone Conservation Area, a few miles northeast of the town of Essex. Since most of Essex County is farmland, with about 2% forested, it is often necessary to drive a considerable distance to get from one natural habitat to another. This Essex Region Conservation Authority (ERCA) property, an Environmentally Significant Area (ESA), is a mature wet-mesic Oak-Hickory swamp set in a Brookston clay soil. As we exited our cars we were greeted by more rain forcing most of us to scurry back into our cars for lunch. Under light rain Dave led us into the dark understorey of the woodlot where he spent considerable time describing how to distinguish between troublesome pairs of tree species - Shagbark Hickory (*Carya ovata*) from Big Shellbark Hickory (*Carya laciniosa*), Red Oak (*Quercus rubra*) from Shumard Oak (*Quercus shumardii*), and Bur Oak (*Quercus macrocarpa*) from Swamp White Oak (*Quercus bicolor*); then qualifying our identifications by reminding us of the great amount of variability possible through hybridization. More easily identifiable were several other tree species - Pin Oak (*Quercus palustris*) with very obvious descending dead lower branches, Green Ash (*Fraxinus pennsylvanica*), Ironwood or Hop-hornbeam (*Ostrya virginiana*) and Basswood (*Tilia americana*). We had the pleasure of enjoying the sweet scent of the freshly crushed leaves of Spicebush (*Lindera benzoin*) while avoiding the thorns on Prickly Ash (*Zanthoxylum americanum*).

Several understorey species were discovered along the boardwalk: Fowl Manna Grass (*Glyceria striata*), White Avens (*Geum canadense*), May Apple (*Podophyllum peltatum*), Canada Moonseed (*Menispermum canadense*), the erect self-supporting Carrion-flower without tendrils (*Smilax ecirrhata*), Prickly Gooseberry (*Ribes cynosbati*), Spotted St. Johnswort (*Hypericum punctatum*), Sensitive Fern (*Onoclea sensibilis*) and Moneywort (*Lysimachia nummularia*).

The next stop was 20 km south at another ESA and an ASrea of Natural and Scientific Interest (ANSI) owned by ERCA, the Arner Point Area

of the Cedar Creek Basin. On the right-of-way to the property Dave enthralled us with his description of the life cycle of the Checker-wing Fruit Fly (Diptera: Tephritidae, *Eurosta* sp.) in the gall of a Tall Goldenrod (*Solidago altissima*). Once again, light rain greeted us as we entered the wooded area where the sandy alluvial soils support some very majestic Carolinian species. This is a mature upland hardwood community of Sassafras (*Sassafras albidum*), Red Oak (*Quercus rubra*) and Red Maple (*Acer rubrum*). Other significant trees lining our walk were spectacular Tulip Trees (*Liriodendron tulipifera*), White Ash (*Fraxinus americana*), and Bitternut Hickory (*Carya cordiformis*).



Carya cordiformis

On and about a dikeway out to the point we observed Indian Hemp (*Apocynum cannabinum*), Swamp Milkweed (*Asclepias incarnata*), Horsebalm (*Collinsonia canadensis*), Arrowhead (*Sagittaria latifolia*), Wild Germander (*Teucrium canadense*), Smooth-headed Sow-thistle (*Sonchus uliginosa*) and Arrow-leaved Tear-thumb (*Polygonum sagittatum*), but more significantly, four plants rare in Ontario and Canada - Small-flowered Agrimony (*Agrimonia parviflora*), Rough-leaved Dogwood (*Cornus drummondii*), Swamp Rose Mallow (*Hibiscus moscheutos*), and Halberd-leaved Tear-Thumb (*Polygonum arifolium*).

As we walked the wooded shoreline to the point we passed by many large Flowering Dogwood trees (*Cornus florida*) until we reached the magnificent Honour Roll American Chestnut tree (*Castenea dentata*). In the environs of this tree we observed Solomon's Seal (*Polygonatum biflorum*), Red and White Baneberry (*Actaea rubra, A. pachypoda*), Jumpseed (*Polygonum virginianum*), and Showy Tick-trefoil (*Desmodium canadense*). However, we had no luck in tracking down the very rare American Ginseng (*Panax quinquefolium*). Near the tip we gazed upon some rare Black Gum (*Nyssa sylvatica*) trees with Downy Arrowwood (*Viburnum rafinesquianum*) and Enchanter's Nightshade (*Circaea lutetiana*) growing beneath.

As we headed back to the cars the rain had dissipated for good. Along the way were some stalks of Round-headed Bush Clover (*Lespedeza capitata*) and the rare, dry mesic, Sweet Joe-Pye-weed (*Eupatorium purpureum*) with a rounded inflorescence and purple restricted to the nodes. Common Blackberry and Black Raspberry (*Rubus allegheniensis, R. occidentalis*) were abundant. Dave gave a great tip for distinguishing *R. occidentalis* from *R. strigosus* (both with leaves whitened beneath) -if you hit the plant you may have an "occident".

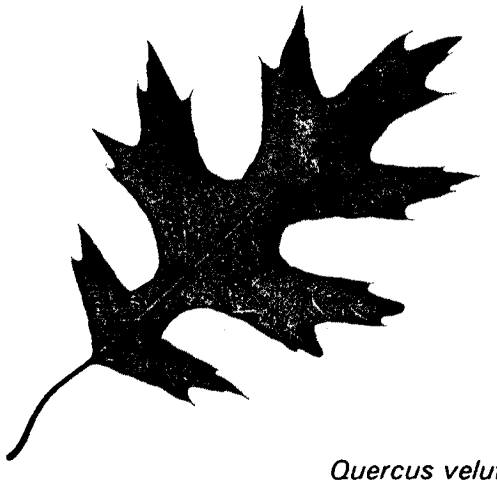


Castanea dentata

Eight people hung on for the final 20 km leg of our tour - to Point Pelee National Park. Point Pelee is particularly unique in having large areas with the dominant tree being Hackberry (*Celtis occidentalis*) and the dominant understorey cover being the rare Short's Aster (*Aster shortii*). With time running late we headed for the nearest patch of the Prickly Pear Cactus (*Opuntia humifusa*), rare in Ontario and Canada. Growing in close proximity were delightful blooms of Tall Bellflower (*Campanula americana*) as well as Hoary Alyssum (*Berteroa incana*). Along the pathway leading to the camp-ground we observed two species of Carrion-flower side-by-side: *Smilax lasioneura* and *S. hispida*. Overhead were Chinquapin Oak (*Quercus muehlenbergii*) and Black Oak (*Quercus velutina*). Many of the trees were covered by the vines of Virginia Creeper (*Parthenocissus* spp.), Summer Grape (*Vitis aestivalis*), Riverbank Grape (*Vitis riparia*) and Poison Ivy; this southern variety of Poison Ivy (*Rhus radicans* var. *radicans*) also bordered the pathway with a large-leaved, waist-high, shrub growth form. Dave showed us some Red Mulberry (*Morus rubra*) with incredibly large leaves, growing right next to White Mulberry (*Morus alba*). The former is rare in Ontario and hybridization with the introduced White Mulberry is threatening some populations; Point Pelee naturalists are presently removing White Mulberry trees for this reason. We also found the provinically rare Burning Bush or Wahoo (*Euonymus atropurpurea*). On a quick loop to the dunes we passed shrubs of Fragrant Sumac (*Rhus aromatica*) and the Canadian rare, but Pelee abundant, Hop-tree (*Ptelea trifoliata*).

Time had run out and with stomachs beckoning we did what any serious birder would do in the spring - stop at Doug's Place for food and repose. We feasted on delightful Lake Erie perch and pickerel as we shared thoughts on the very productive and memorable day of botanizing that had materialized from a rather sombre beginning. Many thanks must go to Dave, who with sensitivity and great patience, used his exceptional knowledge and experience to ensure that we had a first class tour of some of the highlights of Essex County flora.

Dale Larson



Quercus velutina

IN RESPONSE ...

RE: "PENSYLVANICA"

I noted with interest the speculations on the spelling and origin of this word in the recent issue of the FBO Newsletter [Volume 6(3): 3]. Actually "pennsylvanica" and "pensylvanica" are alternate spellings. One school of though says that in latinising a word of extraneous origin, the original spelling of the root must be maintained if the word comes from a language using the latin alphabet. The other school contends that the new word is now latin and must conform to latin rules of spelling. Double consonants, certainly double 'nn's do not occur in latin (though there a few exceptions).

The rules of botanical nomenclature oblige us to use the spelling of the describing author unless it can be shown to be in error. Thus 'pensylvanica' and 'pennsylvanica' are both permissable.

J.B. Phipps
Professor
Department of Plant Sciences
University of Western Ontario.

LAKE OPINICON AQUATICS

One of the many benefits of attending FBO events is the chance to acquire handouts of botanical articles. This can prove invaluable, particularly when they can be used for writing up a field trip report. At the Queen's University Biological Station near Chaffey's Locks, Lake Opinicon, FBO members were fortunate to obtain reference materials not only on the aquatic plants of Lake Opinicon (examined in the morning of August 21, 1993), but also on the ecology of a bog which we explored that afternoon. In 1945, Queen's University acquired the first part of this 2000 acre site and developed it as a biological station.

Led by Dr. Adele Crowder from Queen's University, our group witnessed the collection of a variety of aquatics from the deck of the biological station barge. We then landed and began to sort out the various plants according to their gross morphology, and place them in different porcelain trays. Finally identifications were made by Dr. Crowder, and by Dr. James Pringle of the Royal Botanical Gardens. Over twenty species of aquatic plants were determined including *Najas flexilis* and *N. guadalupensis* (Bushy Naiad), *Wolffia punctata* and *W. columbiana* (Water-meal), *Megalodonta beckii* (Water Marigold) and at least seven species of *Potamogeton* (Pondweed).

The life cycle of several of the aquatic plants was reviewed. Many species over-winter in a bud stage - the "turion", and we observed several of these. Unusual features of several plants were discussed. *Najas* was the only annual - it is pollinated under water by pollen that looks just like a microscopic worm. Eurasian Water-Milfoil (*Myriophyllum spicatum*), an alien which invaded Ontario and seemed like a serious threat, has been much reduced as a result of an introduced tiny moth, the larva of which predates it. Common Coontail (*Ceratophyllum demersum*) never roots, but floats free of the bottom, and forms new plants by breaking into bits.

Before lunch we took a side excursion to a boardwalk through a cattail marsh. Quite a number of wetland plants were observed including Small Beggar-ticks (*Bidens discoidea*), provincially rare, but common at this site. A novelty to some and a concern to others were the many patches of floating European Frog-bit (*Hydrocharis morsus-ranae*), many of which were in flower. This recently introduced plant has expanded its range quite aggressively and threatens to rival Purple Loosestrife (*Lythrum salicaria*) with its invasive tendencies. The latter plant was also much in evidence. As we returned to the biology station we noted scattered marble and granite outcrops (the station is right on the contact zone between the Canadian Shield and the overlying limestone) along with some huge White Birch (*Betula papyrifera*) which had recently succumbed to the double whammy of Birch Leaf-miner and Bronze Borer.

There is only one species of moth in eastern North America, with a caterpillar which has urticating (nettle-like) spines. Bob Bracken from Ottawa had the fortune to discover this feature of the larva of the Io Moth (*Automeris io*) when he picked up a striking emerald and lavender spiny caterpillar. Bob's temporary discomfort should have been more than compensated for by our appreciation of this armed creature.

After lunch we journeyed to Hebert Bog - considered a "classic rich graminoid fen". Here we were entertained by a debate over the definitions and correct terms for rich and poor fens, bogs and other wetlands. This then lead into a general discussion of the problems in classifying peatlands. Hebert Bog has formed in a deep rock basin, the centre of which is occupied by a small lake. The shape of the lake and the surrounding bog mat changes from year to year as a result of ice action and wind. By traversing the "lagg", the encircling moat of deeper water, we entered the zone of floating bog mat. Considerable attention was given to analysing the intricacies of several Bladderwort species including *Utricularia cornuta, U. minor, U. gibba, U. vulgaris* and *U. intermedia*. We also discussed the taxonomy of Pipewort (*Eriocaulon aquaticum*).

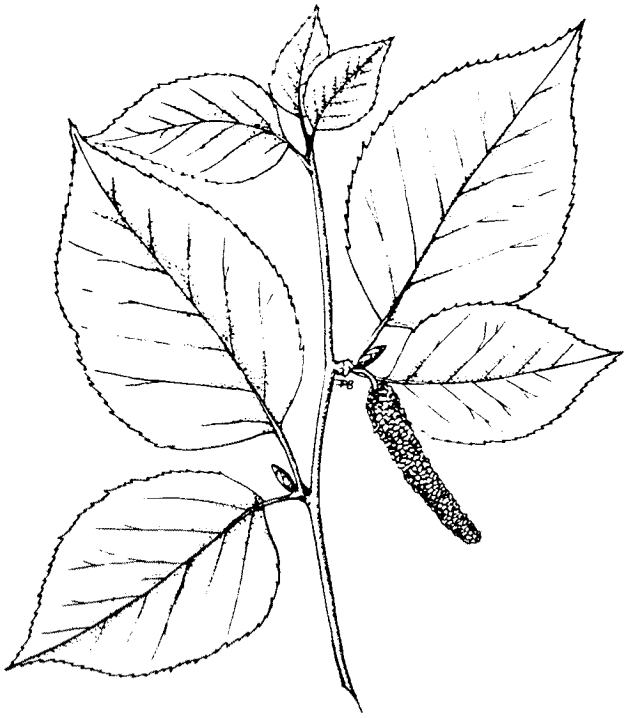
Minor differences in height in the bog mat from hummocks down to hollows, and tracks, create different micro-habitats with different plant associations. Peter Beckett delivered a brief lecture on his favourite plant family - Sphagnaceae. The acidity of hummocks varies with the top being most acidic sometimes attaining pH of 2.5. Different species of *Sphagnum* prefer different micro-habitats. Characteristics of several species were

discussed. There are four species of red *Sphagnum*: *S. rubellum* being the best known of these.

Participants were warned of the hazards of breaking through the crust of the floating mat. Despite these warnings two people had first-hand bog experiences as one leg broke through the mat and entered the deep water. They were only prevented from going for a swim by the other leg which remained affixed to a bog hummock.

Our thanks to Dr. Crowder and Queens University for a delightful day with many varied botanical observations.

George Bryant

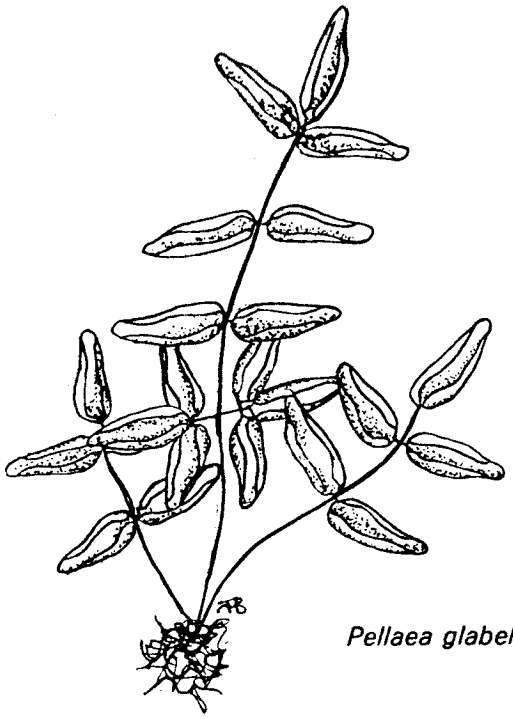


Betula papyrifera

FERNS AND FERN ALLIES NEAR QUEEN'S BIOLOGICAL STATION

On Sunday, August 22, 1993, ten people, including our leader Dr. James Pringle, met at the Lodge at Queen's University Biological Station near Chaffey's Locks on Lake Opinicon.

For those present on the Saturday before, Jim had given out a list of 38 fern and fern allies that were known to grow in the area. At lunch time on Saturday some of the sure-footed participants climbed down a little cliff to find *Pellaea glabella* (Smooth Cliffbrake).



Pellaea glabella

On Sunday we saw over 30 of the species on the list, plus *Thelypteris noveboracensis* (New York Fern). In the morning we drove in two vans to a side loop of the Rideau Trail. *Camptosorus rhizophyllus* (Walking Fern) was found on a rocky cliff. A few clumps of *Asplenium trichomanes* (Maidenhair Spleenwort) were found. *Athyrium filix-femina* (Lady Fern) had been a feast for the insects as is usually the case at this time of the season. The sporophyll stalks of *Botrychium virginianum* (Rattlesnake Fern) had withered, but the fronds were still abundant. At a place well known to Jim, he pointed out *Dryopteris clintoniana* (Clinton's Fern). Further on, a small clump of *Matteuccia struthiopteris* var. *pensylvanica* (Ostrich Fern) was found.

We returned to the lodge verandah for our lunch, and in the afternoon hiked on a privately-owned trail rich in ferns. We stopped on the way to examine *Selaginella rupestris* (Rock Spikemoss). It has a scattered distribution in Ontario, but can be found in Frontenac Park as well as in this area.

On the trail we saw *Athyrium thelypterioides* (Silvery Glade Fern), *Cystopteris bulbifera* (Bulblet Fern) and *Lycopodium lucidulum* (Shining Clubmoss).

Not content with the wealth of ferns, we were then taken to see an abandoned mica mine that had a few interesting botanical specimens at the edge. As we returned to our vans a field of *Sium suave* (Water Parsnip) was spotted.

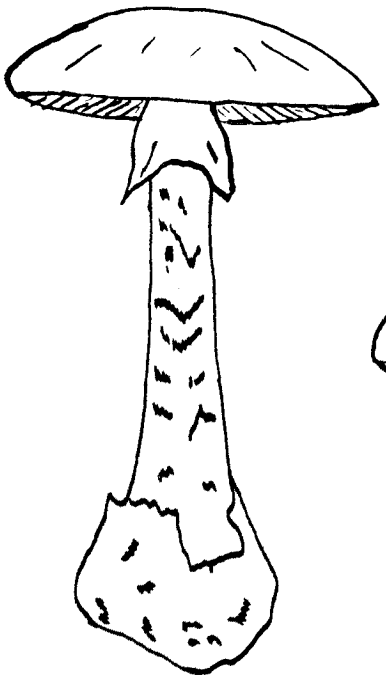
The handouts for the trip were much appreciated, and being able to read them afterwards filled in some of the details. Gratitude goes to our patient leader. Meeting old friends, both plant and human, is one of the joys of these outings.

Winifred Smith

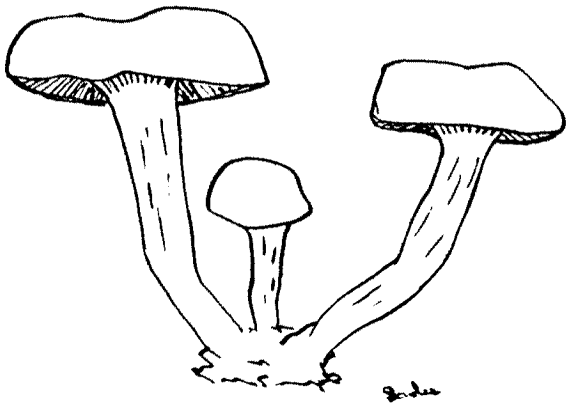
RECENT PUBLICATION

White, D.J., E. Haber, and C. Keddy, 1993. Invasive plants of natural habitats in Canada: an integrated review of wetland and upland species and legislation governing their control. Canadian Museum of Nature, Canadian Wildlife Service, Canada's Green Plan, North American Wetlands Conservation Council. 121 pp. Available from: Habitat Conservation Branch, Canadian Wildlife Service, Environment Canada, Ottawa, Ontario K1A 0H3.

This book contains descriptions, an assessment of their impact and distribution maps for the major weed species in Canada. It also covers regional legislation governing weed control and some review of control measures investigated for certain species.

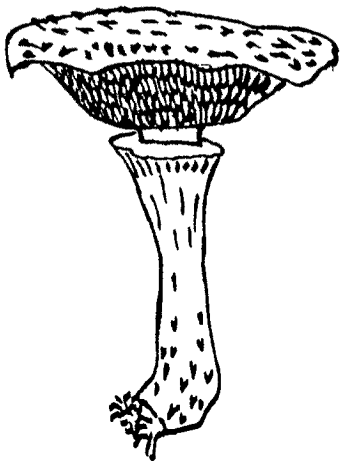


Amanita virosa



Omphalotus olearius

Boletinus pictus



RANGE EXTENSION NOTES

If this section is to continue we need more submissions from the membership. New county records, park records or range extensions are all worth reporting. If you enjoy this section of your newsletter, please consider submitting a range extension note.

The following 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.

Please submit range extension notes to the FBO Newsleter Editor. Submissions will be reviewed before publication. Reprints of range extension notes are available from the editor or from the authors.

Vicia hirsuta (Leguminosae) new to Lambton County, Ontario

Jane M. Bowles

R.R. #3, Thorndale, Ontario N0M 2P0

While conducting a life science inventory of the Sydenham River Corridor Carolinian Canada Site (Bowles, 1992), a small-flowered vetch was found in a woodland opening above a ravine slope in Lambton County. The plant had both flowers and fruit and was identified as *Vicia hirsuta* (L.) Gray, Hairy Vetch, a European species with no recent records in Ontario (Morton and Venn, 1990; Scoggan, 1979). John Macoun (1883) in his "Catalogue of Canadian Plants" described the species as "introduced in a few places". Although noted as common in Québec, only three locations are given for Ontario. Macoun listed it as a garden weed from Ottawa and Perth, Ontario, and from the vicinity of Hamilton. Apart from the record reported here, the species is not listed in any County or Regional floras for southwestern Ontario (Oldham, 1993).

The flowers of *Vicia hirsuta* are pale mauve or whitish, very small (under 4mm long) and are borne on elongated peduncles. The pods are hirsute, up to about 10 mm long, and contain only 2 seeds (Voss, 1985).

Specimens

Ontario, **LAMBTON COUNTY**, Brooke Township, Sydenham River Corridor Carolinian Canada Site, 6 km south of Alvinston Post Office, UTM MT303353 (map 40I/13), 19 June 1992, J.M. Bowles # JB/SYD/92.102 (UWO, personal herbarium of Michael J. Oldham).

Literature Cited

Bowles, J.M. 1992. A life science inventory of Sydenham River Corridor Carolinian Canada Site. St. Clair Region Conservation Authority, Strathroy, Ontario. vi + 62 pp. + appendices.

Macoun, J. 1883. Catalogue of Canadian Plants Part I - Polypetalae. Geological Survey of Canada. Dawson Bros., Montreal.

Morton J.K. and J.M. Venn 1990. A checklist of the flora of Ontario vascular plants. University of Waterloo Biology Series #34. Department of Biology, University of Waterloo, Ontario. 218 pp.

Oldham, M.J. 1993. Distribution and Status of the Vascular Plants of Southwestern Ontario. February 1993 DRAFT. Ontario Ministry of Natural Resources, Aylmer. xix + 150 pp.

Scoggan, H.J. 1979. The Flora of Canada. Part 3 - Dicotyledoneae (Saururaceae to Violaceae). National Museums of Canada, Ottawa.

Voss, E.G. 1985 Michigan Flora. Part 2. Cranbrook Institute of Science, Bulletin 59. Bloomfield Hills, and University of Michigan Herbarium, Ann Arbor. xix + 724 pp.

Carex lupuliformis (Cyperaceae) new to Elgin and Middlesex Counties, Ontario

Michael J. Oldham, Dave McLeod and Ron Vanderjeugd

Ontario Ministry of Natural Resources, 353 Talbot Street West,
Aylmer, Ontario N5H 2S8

Carex lupuliformis Sartwell (False Hop Sedge) is one of Ontario's rarest sedges (Ball and White, 1982) and is rare throughout most of its range (Argus and Pryer, 1990; Ostlie, 1990). It was first collected in Ontario in 1902 by W. Herriot near Galt, and despite several searches (C.A. Campbell, W.J. Crins, A.A. Reznicek, pers. comm.), it has never been rediscovered there. In 1985 A.A. Reznicek spotted Ontario's second known population in an open ash-willow forest near Amherstburg, Essex County (Oldham and Crins, 1988). Here we report three additional southern Ontario populations, two in Elgin County and one in Middlesex County (Figure 1).

In 1992 Dave McLeod discovered a population of *Carex lupuliformis* in a small depression at the edge of a deciduous woods in London (McLeod, Allen and Oldham, 1992). While conducting wetland evaluations in western Elgin County in 1993, Ron Vanderjeugd and Mike Oldham discovered two more populations. At all three newly discovered sites *C. lupuliformis* occurs in open areas in or at the edge of deciduous woodland. All sites have standing water in the spring, but by August two of the three were still moist, but without standing water (the third site was not visited after July). The two Elgin populations are relatively large (93 plants counted at one site and 100+ plants estimated at the other), while the Essex and Middlesex populations are considerably smaller, with about 10 to 20 plants each.

Carex lupuliformis bears a strong superficial resemblance to *C. lupulina* (Hop Sedge), but is larger in all dimensions. The best distinguishing feature is the shape of the mature achenes, which in *C. lupuliformis* have pointed angles with nipple-like knobs, while in *C. lupulina* the angles of the achenes are smoothly rounded and without projections (Reznicek and Ball, 1974; Jones and Hatch, 1990). At all four extant Ontario sites the two species grow together facilitating easy comparison.

While the discovery of three new populations in the past two years and the close similarity between *Carex lupuliformis* and the common *C. lupulina* might suggest that this species has been overlooked in Ontario, there are several reasons why we suspect this is not the case. A search of major Ontario herbaria by A.A. Reznicek during his M.Sc. study of *Carex* series *Lupulinae* in Canada did not reveal misidentified material of *C. lupuliformis* filed with *C. lupulina* or other related species (Reznicek, 1973; Reznicek and Ball, 1974). Several active southwestern Ontario field botanists (M.J. Oldham; D. McLeod; A.A. Reznicek, pers. comm.; D.A. Sutherland, pers. comm.) routinely check all *C. lupulina* encountered for possible *C. lupuliformis*, and although several hundred *C. lupulina* populations have been checked, the three sites reported here and the Essex County site reported by Oldham and Crins (1988) are the only new locations discovered for *C. lupuliformis*. In the states and provinces of Connecticut, Delaware, Iowa, Maryland, New Jersey, New York, North Carolina, Ohio, Ontario, Quebec, Texas, Vermont, Virginia, and Wisconsin, this species has been assigned an element rank of S3 (rare or uncommon, on the order of 21 to 100 occurrences) or higher by The Nature Conservancy (Argus and Pryer, 1990; Ostlie, 1990; Jones et al., 1990). In no portion of its range is the species common (Jones and Hatch, 1990; Ostlie, 1990). A COSEWIC (Committee on the Status of Endangered Wildlife in Canada) status report is currently being prepared for *C. lupuliformis* (E. Haber, pers. comm.)

Field botanists in southern Ontario should continue to watch for additional populations of this rare sedge.

Specimens

Ontario, **ELGIN COUNTY**, Aldborough Township, 9.1 km NNW of West Lorne Post Office, 12 July 1993, M.J. Oldham # 15125 & R. Vanderjeugd (duplicates to be distributed to MICH, UWO).

Ontario, **ELGIN COUNTY**, Aldborough Township, 6.0 km NNW of Rodney Post Office, 21 September 1993, R. Vanderjeugd (duplicate to be distributed to UWO), 29 September 1993, M.J. Oldham # 15849 (duplicates to be distributed to CAN, TRTE).

Ontario, **MIDDLESEX COUNTY**, City of London, Byron, North Street Woods, 8 July 1992, D. McLeod #9234 and G.M. Allen (duplicate to be deposited at UWO); 14 July 1992, M.J. Oldham # 13935 (MICH).

Literature Cited

Argus, G.W. and K.M. Pryer. 1990. Rare Vascular Plants in Canada: Our Natural Heritage. Canadian Museum of Nature, Ottawa. 191 pp. + distribution maps.

Ball, P.W. and D.J. White. 1982. *Carex lupuliformis* Sartw. ex Dew. One page in Argus, G.W. and D.J. White, editors. Atlas of the Rare Vascular Plants of Ontario. Part 1. National Museum of Natural Sciences, Ottawa. Looseleaf.

Jones, S.D. and S.L. Hatch. 1990. Synopsis of *Carex* section *Lupulinae* (Cyperaceae) in Texas. Sida 14(1): 87-99.

Jones, S.D., G.D. Jones and J.K. Wipff. 1990. The rediscovery of *Carex lupuliformis*, section *Lupulinae* (Cyperaceae) in Texas. Phytologia 69(5): 346-347.

McLeod, D., G.M. Allen and M.J. Oldham. 1992. Preliminary Biolgical Survey of North Street Woods, City of London, Ontario. Ontario Ministry of Natural Resources, Aylmer. Unpublished report. 7 pp.

Oldham, M.J. and W.J. Crins. 1988. New and significant records of Ontario sedges (Cyperaceae). Canadian Field-Naturalist 102(3): 500-507.

Ostlie, W.R. 1990. Element Stewardship Abstract for Carex lupuliformis - false hop sedge. The Nature Conservancy, Minneapolis, Minnesota. Unpaginated [14 pp.].

Reznicek, A.A. 1973. The Taxonomy of *Carex* series *Lupulinae* in Canada. M.Sc. Thesis, University of Toronto, Toronto, Ontario.

Reznicek, A.A. and P.W. Ball. 1974. The taxonomy of *Carex* series *Lupulinae* in Canada. Canadian Journal of Botany 52(11): 2387-2399.

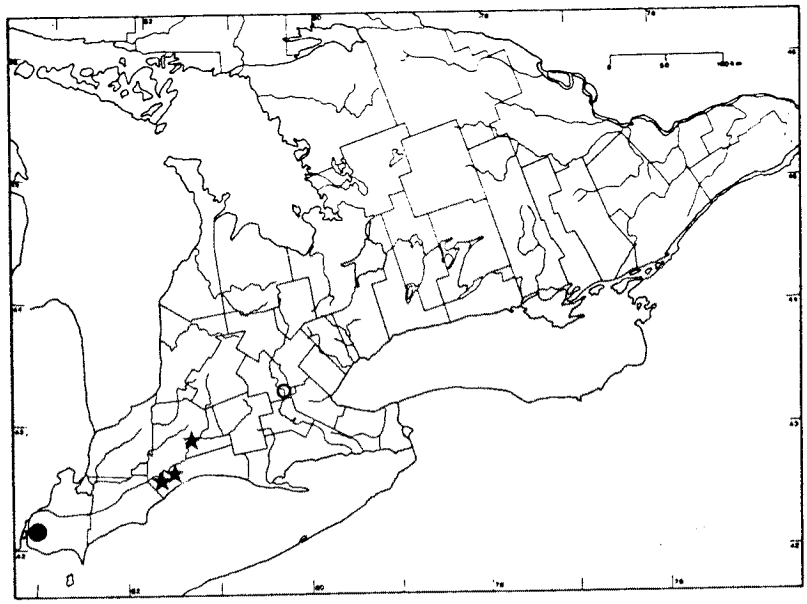


Figure 1: Range of *Carex lupuliformis* in Ontario. Adapted from Ball and White (1982). ○ historic record; ● Essex site from Oldham and Crins (1988); ★ Middlesex and Elgin County sites reported here.

Phegopteris hexagonoptera (Aspleniaceae) new to Lambton County, Ontario

Michael J. Oldham

Ontario Ministry of Natural Resources, 353 Talbot Street West,
Alymer, Ontario N5H 2S8

Phegopteris hexagonoptera (Michx.) Fee (Broad Beech Fern) is a southern species found at scattered sites in southwestern Ontario, eastern Ontario, and southern Quebec (Dickson and White, 1983; Cody and Britton, 1989). In 1984 Goltz, Britton and Whiting reported an apparently disjunct station in Muskoka District. *Phegopteris hexagonptera* is considered rare in Ontario, Quebec, and Canada (Vincent, 1981; Argus and Pryer, 1990).

While conducting a wetland evaluation near Ipperwash Beach, a small colony of *Phegopteris hexagonoptera* was found at the edge of a deciduous swamp forest (Figure 1). Although found in the nearby counties of Essex, Kent, Elgin, Middlesex, and Haldimand-Norfolk (Oldham, 1993), Broad Beech Fern has not previously been reported from Lambton County (Dodge, 1914; Gaiser and Moore, 1966; Tiedje and Tiedje, 1992).

Specimen

Ontario, **LAMBTON COUNTY**, Bosanquet Township, Ipperwash Beach, 22 September 1993, M.J. Oldham # 15782 and R. Vanderjeugd (duplicates to be distributed to OAC, UWO).

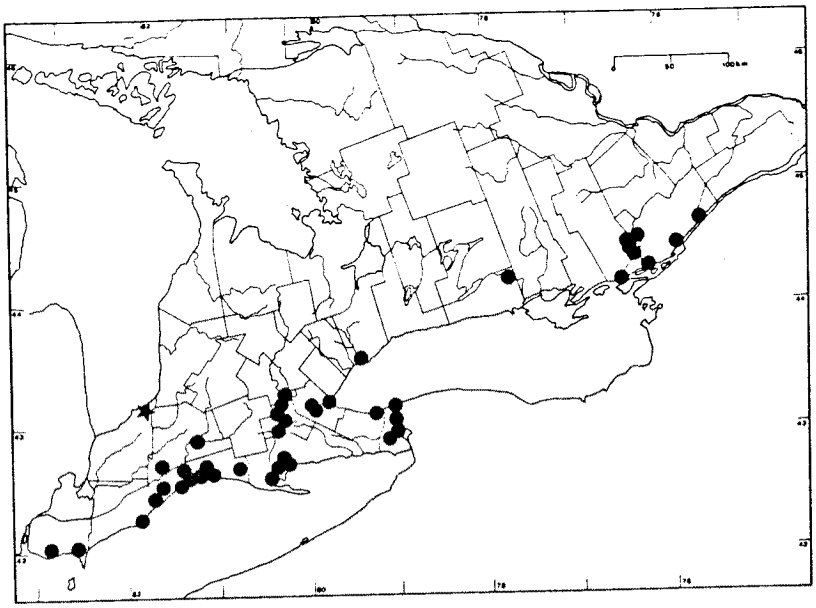


Figure 1: Range of *Phegopteris hexagonoptera* in Ontario. Adapted from Dickson and White (1983). ● previous records; ★ new location reported here.

Literature Cited

Argus, G.W. and K.M. Pryer. 1990. Rare Vascular Plants in Canada: Our Natural Heritage. Canadian Museum of Nature, Ottawa. 191 pp. + distribution maps.

Cody, W.J. and D.M. Britton. 1989. Ferns and Fern Allies of Canada. Research Branch Publication 1829/E, Agriculture Canada, Ottawa. 430 pp.

Dickson, H.L. and D.J. White. 1983. *Phegopteris hexagonoptera* (Michx.) Fee. One Page in G.W. Argus and D.J. White, editors. Atlas of the Rare Vascular Plants of Ontario. Part 2. National Museum of Natural Sciences, Ottawa. Looseleaf.

Dodge, C.K. 1914. The flowering plants, ferns and fern allies growing without cultivation in Lambton County, Ontario. Michigan Academy of Science, Annual Report 16: 132-203.

Gaiser, L.O. and R.J. Moore. 1966. A survey of the vascular plants of Lambton County, Ontario. Research Branch, Agriculture Canada, Ottawa. 122 pp.

Goltz, J.P., D.M. Britton, R.E. Whiting. 1984. *Phegopteris hexagonoptera* (Michx.) Fee (Southern or Broad Beech Fern) discovered in the District of Muskoka. The Plant Press 2(2): 39-40.

Oldham, M.J. 1993. Distribution and Status of the Vascular Plants of Southwestern Ontario. February 1993 Draft. Ontario Ministry of Natural Resources, Aylmer. 150 pp.

Tiedje, J. and D. Tiedje. 1992. Vascular Plants of Lambton County, Ontario. Fifth Edition. Privately published, Sarnia, Ontario. 53 pp.

Vincent, G. 1981. Report on *Phegopteris hexagonoptera* for the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), Ottawa. Unpublished report. 54 pp.

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