

FIELD BOTANISTS OF ONTARIO

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NEWSLETTER

Spring 1995
Volume 8(1)

CONTENTS:

FBO Financial Statement	3
Workshop report	4
Experiences With an Altona Forest Inventory J. Douglas Lockrey	5
Botanicalantics	6
From The Editor	7
Book Notices	7
Natural Heritage Information Centre, M.J. Oldham	8
Range Extension Notes New County Plant Records For Southern Ontario, Brendon M.H. Larson.	9

A CALENDAR OF FIELD EVENTS FOR 1995

and a field trip application form
are enclosed with this newsletter

An introductory workshop on plant identification and the use of
simplified keys will be held on
Saturday, April 22 at
University of Guelph Herbarium
details of the workshop and an application form are enclosed
with this newsletter

**NEWSLETTER**

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

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ILLUSTRATIONS

Illustrations in this issue are by Bob Bowles and Mary Anne Miller. The cover drawing by Bob Bowles is Trembling Aspen (*Populus tremuloides*).

FIELD BOTANISTS OF ONTARIO

Statement of Revenue and Expenses January 1 to December 31, 1994

	Jan. 1-Dec 31 1994	Jan. 1-Dec 31 1993
Bank balance beginning	4,908.79	6,088.86
Memberships	2,111.50	3,156.00
Field trips	2,309.00	2,085.30
A.G.M.	541.00	621.00
Donations	381.00	110.00
Publications	-----	20.00
Bank interest	12.13	40.45
US exchange	27.77	20.74
	5,382.40	6,862.19
	\$ 10,291.19	\$ 12,951.05
EXPENSE		
Field trips	816.45	1,194.00
Honorariums	1,050.00	1,300.00
A.G.M.	525.00	612.48
Newsletter	2,200	3,823.28
Publications	13.34	76.90
President	191.14	445.68
Past President	121.81	-----
Membership	23.22	41.68
Treasurer	31.24	55.64
FON membership	100.00	100.00
C.N.F. membership	-----	35.00
Filing fees	50.00	-----
Trip insurance	308.00	330.00
Bank charges	6.60	27.60
	(5,436.80)	(8,042.26)
Bank balance	\$ 4,854.39	\$ 4,908.79

Grass Workshop - University of Guelph -
August 21, 1994
hours of splendour in the grass

By 9:00 am of a hot August day the laboratory in the basement had filled with 17 persons eagerly awaiting their entry into the mysteries of grass. For me it was a return visit; I had already been mystified years earlier. I even had some dim memories of that previous F.B.O. workshop where my head had been stuffed full of grassy knowledge. Over time this had slowly decayed or been blown away until now scarcely a wisp of grass was left. It was time for a fresh sowing.

Carole Ann Lacroix proved to be an excellent teacher. It would not be her fault if I remained a grass-ignoramus. We started with a course in BASIC GRASS - all those beautiful Greek and Latin words describing the parts of grass: palea, glume, lemma, articulation, rachis, pedicel. This was accompanied with several pages of simple clear drawings and explanations which showed us that grass flowers really were flowers that did relate to "real" flowers. Taxonomic keys were provided which gave us introspection, inspiration, and indignation for the rest of the day.

Then the serious fun began !

We groped around in boxes etc. for grass specimens. I tried to pick grasses which looked easy so that I could identify them quickly and look like a graduate student rather than a freshman. The hours passed happily away as we peered through our microscopes working our way up the pedicel and down again, working into dead ends and out again, counting the glumes and the sterile and fertile florets as we went along.

We drank lots of coffee. Those who were getting headaches could take aspirin or bromides or soporifics. Or they could go outside and scream in the carpark. But hey! This wasn't so bad.

All the grass names sounded familiar, names like *Lolium*, *Setaria*, *Poa*, *Bromus*, *Agropyron*, *Leersia* and *Digitaria*. The grasses even looked familiar and I fondly believed that I had identified all my specimens correctly. I thought: "This grass business isn't so difficult after all". Then I remembered: I had said the same thing at the end of that other grass workshop !

It's easy to know the grass of the hour but where are the grasses of yesteryear?

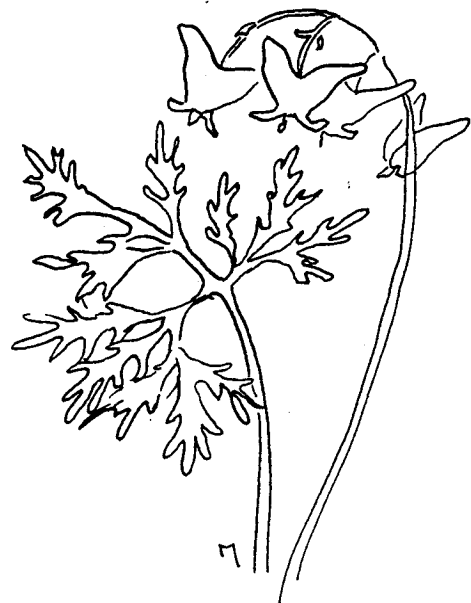
After lunch we went out and stood blinking in the bright sunlight like newly released prisoners. We were going now to look at living grasses and other things.

Our first stop was to the weed garden and a just started wildflower garden. We visited the herbarium in a separate building and saw how specimens were prepared, pressed and dried. Carole-ann made frequent interesting forays into taxonomy and ecology as we walked about. We stopped at some grasses growing by the edge of a playing field. Then we closed off our day with a tour of the Gosling Wildlife Garden. **Nice !** No *Petunias*, *Impatiens*, *Pelargonium* or sweet alyssum (*Lobularia*). Instead there were lots of flowers which I grew in my own garden; Flowers like *Eryngium*, *Echinacea*, *Buddleia*, *Echinops*, scarlet runner bean (*Phaseolus*) and wild cucumber (*Echinocystis*). Plenty of prairie grasses and cone-flowers (*Rudbeckia*, *Ratibida*) too.

Mary Gingrich and I went back to clean up the lab with Carole Ann. I botched this rather badly, leaving behind some bills under a pile of herbarium specimens. Fortunately Carole Ann retrieved them and mailed them back to me as I was desperately searching my home office for the third and last time and wondering how I was going to cook the books.

I left at 5:30 pm happy as the grass is green with my mind stuffed once again with glumes, lemmas and paleas. And hope !

Acanthus Fennicus



FIELD TRIPS FOR 1995

A calendar of field events and information relating to field trips and workshops is enclosed with this newsletter. There will be nine field trips, three workshops and the annual general meeting which also includes field trips. The AGM will be held at Pinery Provincial Park September 23 & 24. Details pertaining to the AGM will be in the next newsletter.

Detailed information on each event will be provided to registrants prior to the event. If you wish additional information before deciding to register please contact the events coordinator (Irene McIlveen (519)-853-3948).

EXPERIENCES WITH AN ALTONA FOREST INVENTORY

Under the direction of Dr. J. Murray Speirs, a number of 1000' survey lines have been laid out in a large tract of the west side of the Altona Forest Ecological Reserve in west Pickering. The east-west lines are 100' apart and have stakes placed every 100' along them. Dr. Speirs has an ongoing endeavour to record biological data ranging from nesting birds to mature trees, ground cover vegetation etc. For the ground cover, I and a university student assistant, Matthew Wilson, were commissioned by him to walk, with a 1 m grid, record-book, references and mosquito repellent, along 5 of the 1000' lines. Many hours of preparation were followed by 45 hours of field work over a period of 8 days in late July 1994. Three of the lines presented exhausting "obstacles" and compass challenges!

Our assignment was a) to record every plant species under shoulder height, along a 3 m wide swath for every 100' section, and b) at each of 20 sites per 1000' line, to record the percent ground cover of each species within the 1 m² quadrat laid on the ground, along with the overstorey immediately-overhead. My thanks go to Dale Hoy for her preparatory suggestions and her confidence in my capabilities in carrying out the task.

The record-book shows the presence of some 110 non-woody vascular plant species (including several sedges and 11 ferns) and 45 woody plants under shoulder height. Most grid studies showed significant percent cover for mosses and lichens as well.

Some of the spring-flowering plants known to be in this tract were rarely or not seen: these include *Claytonia virginica* (Spring Beauty), *Clintonia borealis* (Blue-bead Lily), *Podophyllum peltatum* (May-apple) and *Erythronium americanum* (Trout Lily). Also the numbers of *Mitella diphylla* (Mitre-wort), *Tiarella cordifolia* (Foam-flower) and *Trillium grandiflorum* (White Trillium) were low. However, the timing in late July allowed us to hone in on the asters.

At the 100 1 m² quadrats the most frequent immediate overstorey species were: *Acer saccharum* (Sugar Maple) (48), *Fraxinus americana* (White Ash) (17), *Ostrya virginiana* (Hop-hornbeam) (15), *Tsuga canadensis* (Eastern Hemlock) (12) and *Thuja occidentalis* (Eastern White Cedar) (11). The least frequent were *Fraxinus nigra* (Black Ash) (5), *Abies balsamea* (Balsam Fir), *Pinus strobus* (White Pine) (2), *Prunus serotina* (Black Cherry) (2), *Quercus rubra* (Red Oak) (2), *Acer saccharinum* (Silver Maple) (1), *Fraxinus pennsylvanica* (Red Ash) (1) and *Rhamnus cathartica* (Common Buckthorn) (1). The most prevalent trees under shoulder-height were *Fraxinus americana* (33), *Acer saccharum* (23), *Prunus serotina* (Black Cherry) (10), *Thuja occidentalis* (8) and *Tsuga canadensis* (6).

Along the 50 100' sections the most frequently observed non-woody vascular plants were *Epipactis helleborine* (Helleborine) (40), *Circaea lutetiana* (Enchanter's Nightshade) (38), *Aster* spp. (38), *Maianthemum canadense* (Canada Mayflower) (29), *Solidago caesia* (Blue-stemmed Goldenrod) (32), *Veronica officinalis* (Common Speedwell) (30), *Maianthemum stellatum* (Star-flowered False Solomon's-seal) (29), *Actaea rubra* (Red Baneberry) (24), *Prunella vulgaris* (Self-heal) (23), *Galium triflorum* (Sweet-scented Bedstraw) (23), *Viola pubescens* (Yellow Violet) (21), *Hepatica acutiloba* (Sharp-lobed Hepatica) (21), *Geum aleppicum* (Yellow Avens) (20) and *Maianthemum racemosum* (False Solomon's-seal) (20). The most prevalent low shrubs were *Rhus radicans* (Poison Ivy) (27) and *Ribes cynosbati* (Prickly Gooseberry) (19).

A personal first for south Pickering, *Rhus aromatica* (Fragrant Sumac) was observed at two sites. Along

a portion of one line, many specimens of fruiting *Uvularia grandiflora* (Large-flowered Bellwort) and flowering *Phryma leptostachya* (Lopseed) were noted. Although we spotted no *Urtica* species (Stinging Nettles), flowering *Pilea pumila* (Clearweed) in moist, shady areas and patches of *Boehmeria cylindrica* (False Nettle) in soggy, open spots were noted. Amongst the least frequent non-woody plants were *Galium circaezans* (Wild Licorice), *Mimulus ringens* (Monkey-flower), *Lysimachia nummularia* (Moneywort), *Monotropa uniflora* (Indian Pipe), *Scutellaria lateriflora* (Mad-dog Skullcap), *Penthorum sedoides* (Ditch Stonecrop) and *Ranunculus fascicularis* (Early Buttercup).

The ferns recognized were *Athyrium filix-femina* (Lady Fern), *Cystopteris bulbifera* (Bulbet Fern), *Dryopteris carthusiana* (Spinulose Woodfern), *D. intermedia* (Intermediate Woodfern), their hybrid *D. x triploidea*, *D. marginalis* (Marginal Woodfern), *Gymnocarpium dryopteris* (Oak Fern), *Onoclea sensibilis* (Sensitive Fern), *Polystichum acrostichoides* (Christmas Fern), *Pteridium aquilinum* (Bracken Fern) and *Thelypteris noveboracensis* (New York Fern).

No soil studies and measures of water-holding capacity were taken, so there can be no concrete conclusions about soil-plant relationships. Nevertheless, I do present a few observations.

Much of the property is an upland forest community, but the most northerly line is primarily in a lowland forest community with a dense understory of *Thuja occidentalis*, *Abies balsamea* and *Tsuga canadensis* overtopped by *Populus tremuloides*, *Fraxinus nigra* and other trees. The largest concentrations of *Cystopteris bulbifera*, *Aralia nudicaulis* (Wild Sarsaparilla), *Solanum dulcamara* (Climbing Nightshade) and *Agrimonia gryposepala* (Agrimony) were here.

The occasional opportunities in which it was relatively easy to walk, gave us time to take our minds off looking for ways to literally crawl through the underbrush in order to stay on line.

This allowed us to talk about indicator species, for example: a) the presence of *Waldsteinia fragarioides* (Barren Strawberry) guarantees an overstorey of any or all of *Acer saccharum*, *Fraxinus americana* or *Ostrya virginiana* (Hop-hornbeam); b) *Asarum*

canadense is associated with overstories of *Tsuga canadensis*, *Acer saccharum*, *Tilia americana* or *Fagus grandifolia*.

Some time ago, several consultant companies were employed to list the flora and fauna. Recognizing that they may or may not have walked any of the woods we were in, I did identify at least 20 plant species not in their combined listings of 300+ vascular species. These included *Carex lupulinus*, *Carex plantaginaea*, *Ranunculus fascicularis*, *Rhus aromatica*, *Lysimachia ciliata*, *L. nummularia*, *Galium circaezans*, *G. palustre* and *Solidago bicolor*.

Seventy hectares (175 acres) of the 130 ha urban forest is heavily wooded. Much concern remains from the fact that heavy destruction in the name of residential, school and parkland development can create havoc. Several levels of government have ruled that up to 20 ha will remain undisturbed. Nevertheless, it was disturbing to hear machinery at work beyond the survey lines where we were working. I trust that urban sprawl will leave the Altona Forest Ecological Reserve untouched.

J. Douglas Lockrey

botanicalantics

by Gerry Bennett

Here are the answers to last issues crossword puzzle

Across

1. Huckleberry
9. Singles
10. Idaho
11. Upas
12. Never in a
14. Dahlia
16. Formic
18. Cinchona
19. Golf
22. Agave
23. Needier
24. Tetrasperma

Down

2. Usnea
3. Kale
4. Easter
5. Erigeron
6. Realism
7. Osmundaceae
8. Tobacco farm
13. High gear
15. Henbane
17. Ananas
20. Opium
21. Gene

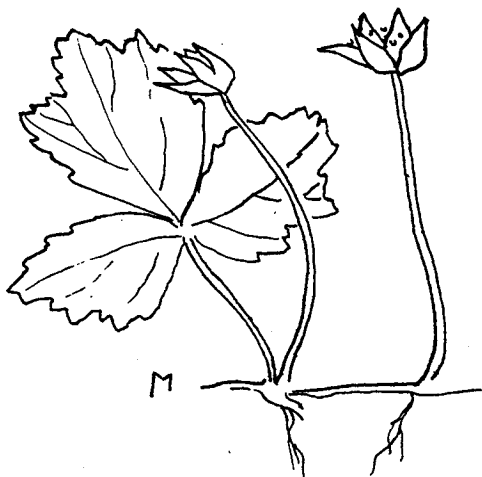
FROM THE EDITOR

The last issue of the FBO newsletter was not Jane's last effort as editor. Jane put much work into this issue before handing editorial responsibilities over to the new editorial team. Her hard work and enthusiasm will be missed.

As you know there are three new editors; Carole Ann Lacroix, Madeline Austen and myself. Articles for the newsletter should be directed to me, however if you have any questions or comments and I am unavailable Madeline or Carole Ann will be glad to help you.

In preparing this newsletter I found myself having difficulty deciding which illustrations to use. Several members have sent their renderings and these are much appreciated. However I would like to increase our library of artwork and therefore extend an invitation to all members to send in line drawings (preferably ink) of a botanical nature. There is no guarantee when and if material will be used but it is always nice to have a choice. Drawings with an educational component (key features illustrated) would be appreciated. Please contact me if you have any questions.

Justus



BOOK NOTICES

THE DICOTYLEDONAE OF OHIO:
Part 2. Linaceae through Campanulaceae

Tom S. Cooperrider

Ohio State University Press, Ohio (1994).

This is the second volume of what will be a three part series on the Dicotyledonae of Ohio. More than 700 species in 77 families are described and illustrated. Identification keys for each family and illustrations depict the diagnostic characters used to identify species. County distribution maps and the authors comments on habitat and frequency are included.

Available from: The Division of Natural Areas & Preserves, Ohio Department of Natural Resources, 1889 Fountain Square, Columbus, Oh. 43224. ISBN 0-8142-0628-X, \$68.73 + \$3.50 p&h.

**RARE VASCULAR PLANTS IN THE
NORTHWEST TERRITORIES**

C.L. McJannet, G.W. Argus, and W.J. Cody.

Canadian Museum of Nature, Ottawa (1995)

The latest publication of the **Canadian Rare Plants Project**. This annotated list treats 206 rare vascular plants in the Northwest Territories. It is divided into three sections. Section 1: definition of terms, criteria for assessing status and future research requirements. Section 2: list of rare plants including supportive documentation, phytogeography, status in other provinces, habitat and a distribution map. Section 3: three appendices: Listing of families (I), a phytogeographical list (II), and a list of excluded taxa (III). **Available from:** Direct Mail, Canadian Museum of Nature, P.O. Box 3443, Station "D", Ottawa, Ontario K1P 6P4 Canada Price in Canada: \$16.00 (including postage & GST).

BOTANY AT THE NATURAL HERITAGE INFORMATION CENTRE

The Natural Heritage Information Centre (NHIC) is a partnership between the Ontario Ministry of Natural Resources, Nature Conservancy Canada, Natural Heritage League, and The Nature Conservancy. Ontario's NHIC is one of a network of conservation data centres located throughout the Western Hemisphere. Similar centres exist in all 50 U.S. states, four other Canadian provinces, and 14 Latin American and Caribbean countries. All these data centres employ the same methodology and computer software, so that the data gathered can be compared between jurisdictions.

The NHIC compiles, maintains and provides information primarily on rare, threatened and endangered species and spaces in Ontario. This information is stored in a central repository containing a computerized database, map files and manual files, which are accessible for conservation applications such as land use planning, endangered species recovery work, and protected areas management. The goal of the centre is to generate a permanent and dynamic atlas and databank on the distribution, character, and conservation status of natural areas, critical flora and fauna, vegetation communities and special features in Ontario.

There are currently seven staff employed at the NHIC, a Co-ordinator (Ian Kirkham), Systems Administrator (George Van Drunen), G.I.S./Mapping Specialist (Peter Sorrill), Office Manager (Karen Ness), Community Ecologist (Wasył Bakowsky), Zoologist (Donald Sutherland), and Botanist/Herpetologist (Mike Oldham).

The centre will be adding an eighth position, a Stewardship Ecologist, later this year. The NHIC is located on the campus of Trent University in Peterborough, and has been in existence since December of 1993. In the spring of 1996 the centre will become part of Information Resources Division within the Ontario Ministry of Natural Resources (MNR), and will be housed in the new MNR building currently under construction in Peterborough.

One of the goals of the NHIC biologists is to create and maintain lists of rare plants, animals, and vegetation communities (termed "elements" of biological diversity) in Ontario, and gather information on specific locations of these elements. The NHIC has now completed lists for Rare Vascular Plants, Mosses (draft), Birds, Mammals (draft), Reptiles, Amphibians, Freshwater Fish (draft), and Butterflies (draft). Single copies of these lists are available on request from the NHIC.

The NHIC would be very interested in hearing from Field Botanists of Ontario members who know of rare plant populations, particularly those not mapped in the Rare Plant Atlas. Location information on rare plant populations is treated with great care and is used only for conservation purposes. Only by knowing where rare plant populations are located can they be adequately protected during land use and timber management planning activities.

Mike Oldham

Botanist/Herpetologist, Natural Heritage Information Centre,
P.O. Box 7000, Peterborough, Ontario K9J 8M5

RANGE EXTENSION NOTES

CONTRIBUTIONS TO RANGE EXTENSION NOTES

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

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

An Assortment of New County Plant Records for Southern Ontario: Evidence for Murphy's Law

Brendon M.H. Larson

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Murphy's Law of Botanizing: Searches for rare plants in prime locations are usually unsuccessful, but the botanist surveying an uninspiring location is often rewarded with unexpected rarities.

Seasoned botanists may raise their eyebrows at this botanical maxim, but based on some of my experiences this summer, I may be able to convince them otherwise. In addition, I also hope to provide evidence that exciting new native plant records are not only to be found in high-quality protected areas, but sometimes amidst the dregs of our society. The marginal and biased evidence which I will present is that a fruitless search for *Prunus pumila* var. *pumila* at Rondeau Provincial Park turned up only new county weed records, whereas studies in the vicinity of the Paris landfill site uncovered some surprises.

The new records¹ for Rondeau Provincial Park and Kent County (not listed for the county in Oldham 1993 and M.J. Oldham pers. comm.) are not cause for celebration. Rather, they

¹Plants which are considered new county records are not listed for their respective counties in Riley (1989) for OMNR Central Region or Oldham (1993) for OMNR Southern Region. In many cases, unlisted plants have been discovered since these publications; conversations with local botanists provided more current information on county status.

represent the first time that a number of invasive alien species have been collected in the park. On the sandy peninsula which extends west toward Erieau, I collected Siberian Elm (*Ulmus pumila* L., Ulmaceae), and along the South Point Trail I found bird-dispersed Russian-Olive (*Eleagnus* sp., Eleagnaceae) and English Hawthorn (*Crataegus monogyna* Jacq., Rosaceae). The former two species are especially noted for their invasiveness (eg. Voss 1985; Szafoni 1991; Kennay and Fell 1992), and they are generally rare in southern Ontario, compared to the hawthorn, which is quite widespread (Riley 1989; Oldham 1993). Much more distressing was the collection of Japanese Honeysuckle (*Lonicera japonica* Thunb., Caprifoliaceae) by Mike Oldham along the Harrison Trail. This species is a recent invader to southern Ontario, but it is already established as a serious weed in parts of the eastern United States (eg. Wagner 1986; Nyboer 1992). The effects of biological invasions are not well understood, but one thing is clear - natural communities throughout the world are increasingly dominated by non-native species. It is important to document the occurrence and spread of these species, so that their effects can be monitored, documented and potentially reduced.

My first new Brant County record while surveying the plants found in the vicinity of the Paris landfill was a weed, Common Mugwort (*Artemisia vulgaris* L., Asteraceae). This solidified my lowly expectations for the place, and dashed any hope of exciting discoveries. The site was dominated by a barren, alvar-like community, which evidently arose from heavy historic disturbance associated with the nearby landfill. The dominant plants were interesting, however, and included Upland White Aster (*Solidago ptarmicoides*), Kalm's Lobelia (*Lobelia kalmii*), Slender-leaved Gerardia (*Agalinis tenuifolia*), Variegated Scouring-rush (*Equisetum variegatum*), and later in the fall, Nodding Ladies'-tresses (*Spiranthes cernua*) and Gray Goldenrod (*Solidago nemoralis*). Some of these are regionally rare (Riley 1989) and/or they were not known for Brant County when Riley's checklist was published. It is difficult to know whether these plants have always been associated with the site, and withstood the disturbance, or whether they have colonized the area recently, since the disturbance.

At the edge of a moist depression in the razed landscape, a minute, unrecognizable spike-rush (*Eleocharis* sp., Cyperaceae) was quite common. I collected it and keyed it to *Eleocharis elliptica* Kunth, but it didn't have the right "jizz" for this species. It was later identified as *Eleocharis nitida* Fern., which is new for southern Ontario (Catling pers. comm.; Larson in prep.) and considered provincially rare (Oldham 1994)! Later in the year, I collected a specimen of Great Plains Ladies'-tresses (*Spiranthes magnicamporum* Shev., Orchidaceae) amidst the innumerable and similar *Spiranthes cernua* found in this habitat. This is a prairie-associated orchid (Gleason and Cronquist 1991; Case and Catling 1983) which is rare in Ontario (S3: 20-100 occurrences in the province) (Oldham 1994). Although it is known from scattered sites in Essex, Kent, Lambton, Elgin, Middlesex and Haldimand-Norfolk counties, its discovery in Brant is at the eastern limit of its known range (Figure 1).

By now, Murphy's Law had crystallized in my mind, aided by the discovery of more easily identified Brant County novelties, further from the landfill site. In a floodplain woodland along the Nith River I encountered two provincially rare Carolinian species: American Gromwell (*Lithospermum latifolium* Michx., Boraginaceae) and Sweet Joe-Pye Weed (*Eupatorium purpureum* L., Asteraceae) (Figure 2 and Figure 3, respectively). Both of these species are good indicators of rich woodland habitats in southern Ontario (eg. NHIC 1995), so this was quite a rich floodplain. Sweet Joe-Pye Weed is very similar to the widespread *Eupatorium maculatum*, but it is found in much more mesic habitats and may be more overlooked than rare (White and Maher 1983).

At the junction of a small creek and the Nith River, three more new plants for the county were discovered. False Pimpernell (*Lindernia dubia* (L.) Pennell., Scrophulariaceae) was found in its typical habitat, a muddy shoreline (Gleason and Cronquist 1991); nearby, the more aquatic White Water Crowfoot (*Ranunculus longirostris* Godron, Ranunculaceae) and a pondweed (*Potamogeton nodosus* Poiret, Potamogetonaceae) were stranded on a receding shoreline. These plants are widespread in southern Ontario, but often uncommon to rare (Riley 1989; Oldham 1993). Given their dispersal ability, they are probably relatively common in this section of the Nith River.

Now that I have provided evidence for Murphy's Law, I can recount some additional discoveries of interest. In moist farmer's field mudflats in Peel County, I encountered large populations of Hedge-hyssop (*Gratiola neglecta* Torrey, Scrophulariaceae). This species was considered extirpated in the county by Webber (1984), since no specimens had been seen since a 1907 record from Snelgrove. Hedge-hyssop is generally very rare in southern Ontario, except in the Niagara - Hamilton region (Riley 1989; Oldham 1993). Its populations probably vary greatly from year to year depending on spring flooding, which provides the mudflats where it thrives. In deep water-filled furrows at the edge of the field was Water-starwort (*Callitriche cf. verna* - mature fruit needed for positive species identification), which was known for Peel, but is rare throughout southern Ontario (Riley 1989; Oldham 1993).

An additional highlight for the year was the discovery of Virginia Meadow Beauty (*Rhexia virginica* L., Melastomataceae) in Hastings County. Meadow Beauty is one of Ontario's "flagship" Atlantic Coastal Plain disjuncts (eg. Riley 1989), and although it is quite widespread in the Muskoka region, it is very local this far to the east in Ontario (Figure 4). This record links the Muskoka concentration of this species with the northeastern portion of its main range, along the United States coastal plain (Figure 4). This adds evidence to the conjecture that this species dispersed to the Georgian Bay region by multiple short or moderate "steps" between areas of suitable habitat along postglacial drainages, rather than by one long-distance event, with a subsequent population explosion in Muskoka (eg. Reznicek 1994). Although *Rhexia* may be found in over 100 locations in Ontario, its distribution is localized, so it has been placed on the rare species watch list for the province (Oldham 1994). The population was located in a disturbed area near a cottage in an ANSI, so one could still shoehorn this discovery into conformity with Murphy's Law. Ironically, the human disturbance may have been the reason for the appearance of these flowers. The lake was at a high water level this year, so most of the coastal plain flora was probably hidden in the seed bank (eg. Keddy and Reznicek 1982; Reznicek 1994).

If you are a devout believer in Murphy's Laws, and if you subscribe to the verity of the one proposed in this article, let me add one small corollary. I do not suggest that you confine your botanizing to landfill sites and city-scapes.

Specimens for New County Records

Ontario, **Kent County**, Rondeau Provincial Park:

-*Crataegus monogyna*, South Point Trail, rare in open oak woodland. UTM 298786 on map 40 I/5. October 11, 1994. B.M. Larson #3665 (DAO).

-*Eleagnus* sp. (*E. umbellata* or *E. multiflora* - flowering or fruiting specimen needed for positive species identification), South Point Trail, rare in open oak woodland. UTM 298786 on map 40 I/5. October 11, 1994. B.M. Larson #3664 (DAO).

-*Lonicera japonica*, Harrison trail, rare in open woods. UTM 303841 on map 40 I/5. June 6, 1994. M.J. Oldham #16057 (MICH).

-*Ulmus pumila*, sandy peninsula extending west toward Erieau, with *Panicum virgatum* and *Salix exigua*. 1 plant. UTM 267786 on map 40 I/5. October 11, 1994. B.M. Larson #3666 (DAO).

Ontario, **Brant County**, Town of Paris:

-*Artemisia vulgaris*, on *Coronilla varia* - dominated slope of abandoned rail line near Paris landfill. UTM 483825 on map 40 P/1. July 18, 1994. B.M. Larson #3540 (DAO).

-*Eleocharis nitida*, moist open area associated with Paris landfill site, with *Carex viridula*, *Equisetum variegatum*, and *Agalinis tenuifolia*. UTM 484824 on map 40 P/1. July 19, 1994. B.M. Larson #3551 (DAO; MICH).

-*Eupatorium purpureum*, sugar maple - white ash floodplain woods along the Nith River, with *Lysimachia nummularia*, *Euonymus obovatus* and *Lithospermum latifolium*. Rare. UTM 481826 on map 40 P/1. Sept. 11, 1994. B. M. Larson #3570 (DAO).

-*Lindernia dubia*, moist soil at edge of Charlie Creek near its junction with the Nith River, with *Myosotis scorpioides*. UTM 482825 on map 40 P/1. July 19, 1994. B.M. Larson #3566 (DAO).

-*Lithospermum latifolium*, sugar maple - white ash floodplain woods along Nith River, with *Circaea lutetiana*, *Caulophyllum thalictroides*, *Geranium maculatum*, *Podophyllum peltatum*, *Carex grisea*, *Euonymus obovatus* and *Viola sororia*. About 50 plants. UTM 481826 on map 40 P/1. July 19, 1994. B.M. Larson #3563 (DAO).

-*Potamogeton nodosus*, stranded on receding muddy edge of Nith River near its junction with Charlie Creek, with *Ranunculus longirostris*. UTM 482825 on map 40 P/1. July 19, 1994. B.M. Larson #3568 (DAO).

-*Ranunculus longirostris*, stranded on receding muddy edge of Nith River near its junction with Charlie Creek, with *Potamogeton nodosus*. UTM 482825 on map 40 P/1. July 19, 1994. B.M. Larson #3569 (DAO).

-*Spiranthes magnicamporum*, disturbed open area associated with Paris Landfill site, with *Spiranthes cernua*, *Equisetum variegatum*, *Lobelia kalmii*, *Solidago nemoralis* and *Agalinis tenuifolia*. UTM 484831 on map 40 P/1. Sept. 11, 1994. B.M. Larson #3577 (DAO).

Ontario, **Peel County**, Town of Caledon:

-*Gratiola neglecta*, moist mudflats in farmer's fields, with *Eleocharis obtusa* and *Juncus bufonius*. UTM 993565 on map 30 M/13. July 11, 1994. B.M. Larson #3531 (DAO).

Ontario, **Hastings County**, Hungerford Township:

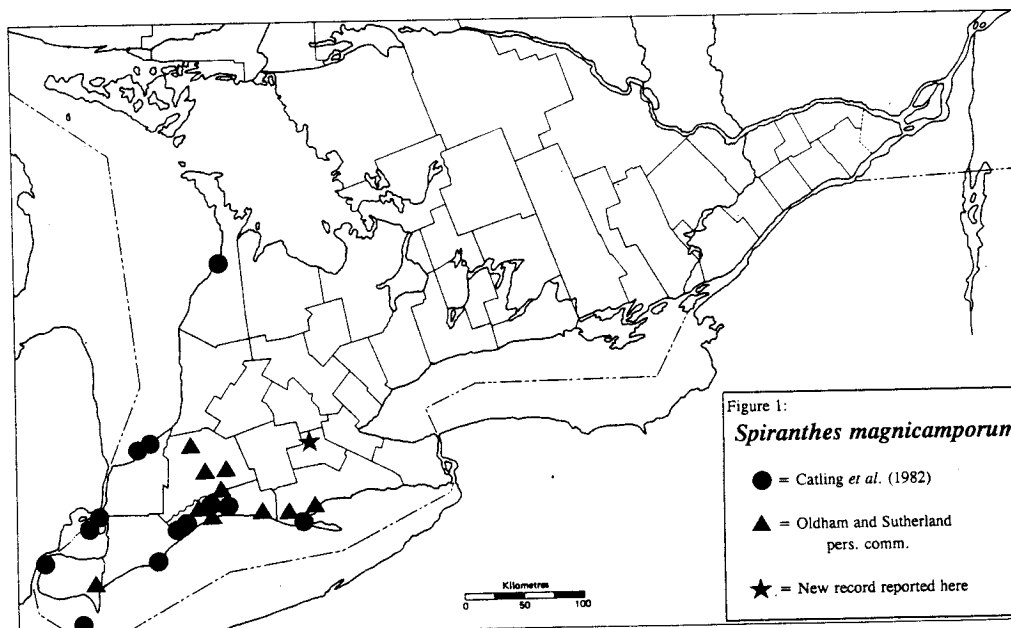
-*Rhexia virginica*, open shore on middle of north shore of West Sheffield Lake, near high water with *Dulichium arundinaceum*. UTM 284327 on map 31 C/11. September 18, 1994. B.M. Larson #3627 (MICH).

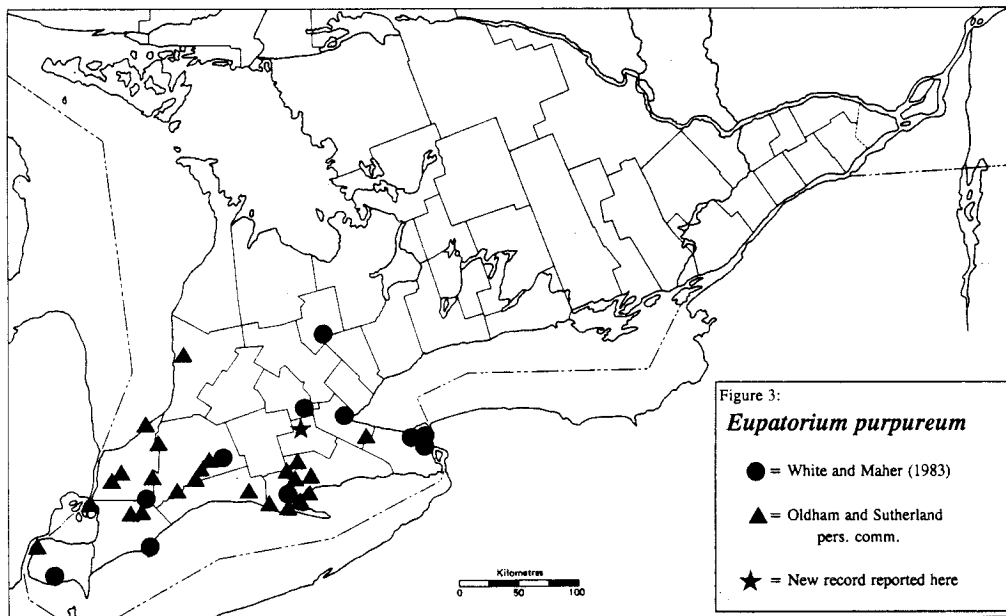
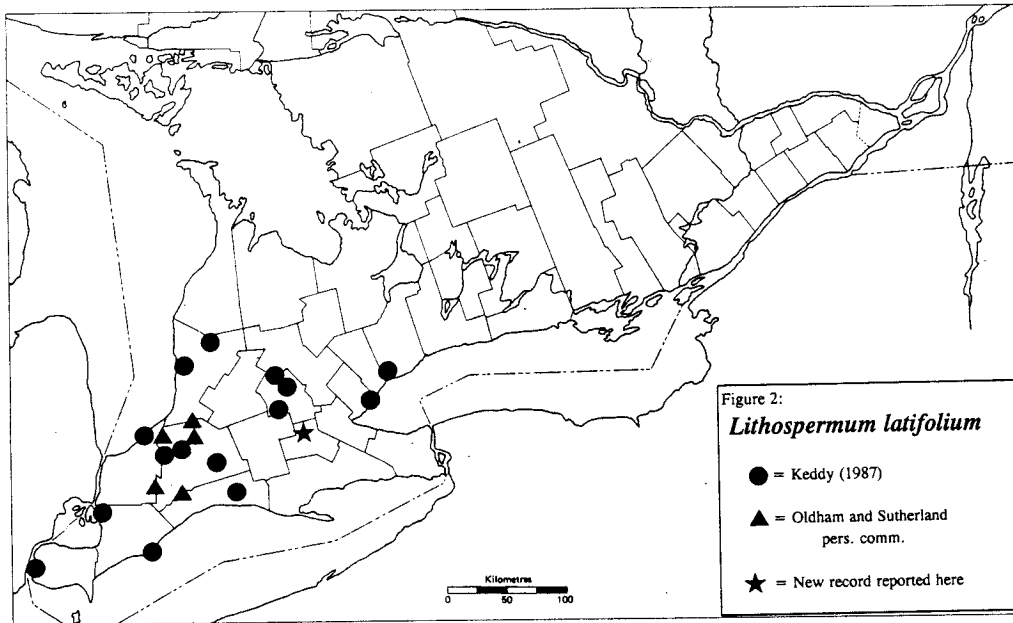
Acknowledgements

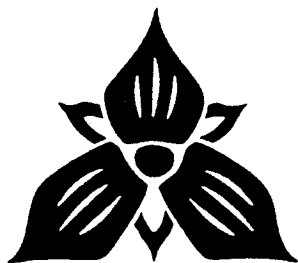
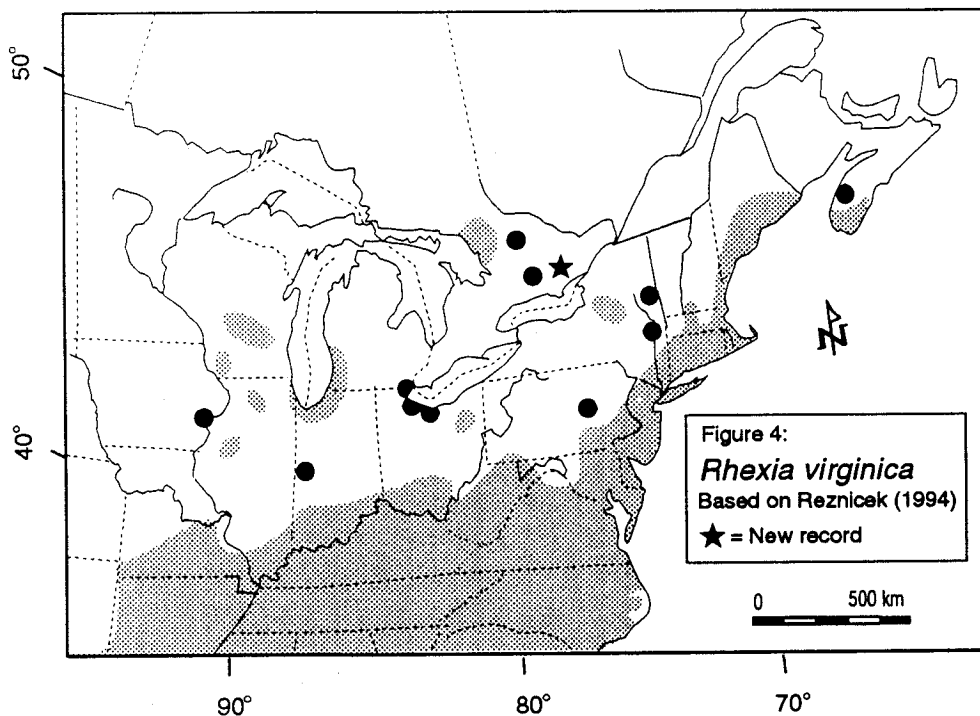
Mike Oldham, Don Sutherland and Wasyl Bakowsky at the Ontario Natural Heritage Information Centre provided updated location data for the rare species mapped in this article. Wasyl also provided information on the current status of plants in Brant County. Mike confirmed some of my identifications and allowed me to present his collection data for *Lonicera japonica*. Paul Catling identified the *Eleocharis*, confirmed other identifications and, along with Mike, provided comments on the manuscript. Sue Porebski graciously produced Figure 4. Thank you to those who contracted me to conduct field work leading to these finds: Eric Muller, Vivian Brownell and Paul Catling.

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