

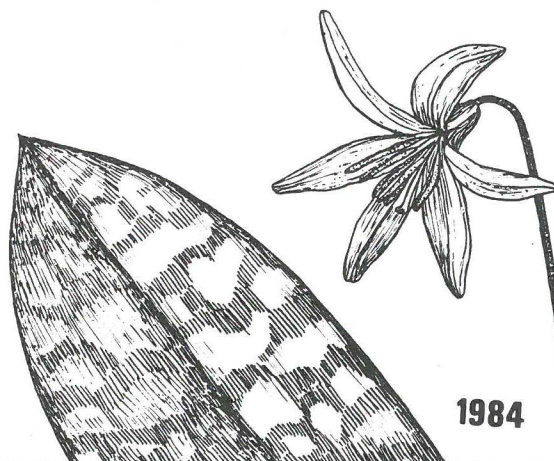
THE PLANT PRESS

FIELD BOTANISTS
OF ONTARIO NEWSLETTER

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NEWS

It has been about a year since a group of individuals interested in field botany in Ontario got together to discuss the possibility of forming a network of Ontario field botanists. THE PLANT PRESS was a first step towards improving communication and now - formation of an organization for those interested in field botany in Ontario is in the works!

FIELD BOTANISTS OF ONTARIO - YOUR INPUT ON THE FORMATION OF THIS ORGANIZATION IS REQUESTED

Before the function, structure and operation of the FIELD BOTANISTS OF ONTARIO (FBO) can be determined, we need input on what the potential members (subscribers to THE PLANT PRESS) would like the FBO to be. What type of organization would you like? Would you be interested in getting involved in the organization? Should there be regular field trips? Are you interested in becoming involved on special committees? Would you be interested in becoming involved in regional chapters? We would like your ideas about the FBO for a special feature in the June newsletter.

CONSTITUTION AND INCORPORATION

Dan Brunton, John Riley and Rick Bobbette recently presented a draft constitution for the FIELD BOTANISTS OF ONTARIO. A copy of this draft is included as a supplement to this issue. We request your input and comments on the questions posed in the enclosed supplement. All responses will be forwarded to the constitution authors and, if there is general agreement about the name of the organization and the objectives, incorporation will occur soon.

GENERAL MEETING AND CALL FOR NOMINATIONS

The date and location of a general meeting for all interested in the FIELD BOTANISTS OF ONTARIO will be announced in the June issue. A call for nominations for directors will be announced in a future newsletter.

BRUCE PENINSULA BOTANY WEEKEND (8-10 June 1984)

A gathering of field botanists at Red Bay Lodge is being planned. More information is included on page 17 of this issue and the enclosed flier (registration form). A deposit (\$ 25.00 per person) is required before the end of March 1984.

CORRESPONDENCE

PRIORITIES AND PROFESSIONALISM FOR FIELD BOTANISTS

"Biologists in general, and field botanists in particular, are quick to protest that government agencies do not take them seriously. Rarely do two field botanists get together without the topic arising. We have a real problem, without a doubt. The fact is that engineers, lawyers and planners generally do get treated better and botanists are often ignored. But, at the risk of arousing almost everyone's ire, I suggest that in some ways, field botanists get exactly what they deserve. Let me cite two examples:

"1. Inability to set priorities. While natural areas with nationally significant vegetation complexes and concentrations of rare species are being lost, many field botanists seem to be dissipating their energy on less significant issues. Local orchid bogs, single individuals of rare plant species, etc., seem to be taking a disproportionate share of our resources. Has anyone set the five top botanical conservation priorities for their counties or local areas? The Ottawa Field-Naturalists' Club has done this for eastern Ontario, and Donald Kirk described a similar priority ranking of sites in the Bruce Peninsula (Sanctuaries 2(1)).

"Maybe our messages to government in part are not getting through because everyone is seemingly giving a different message. An example of this is the Nature Conservancy's plans to spend tens of thousands of dollars to protect the (at most locally significant) Purdon Orchid Swamp, in eastern Ontario, while provincially significant sites nearby are ignored. I would therefore strongly suggest that field botanists set local, provincial and national priorities for botanical conservation and stick to them. If we dissipate our energy and/or money on local, unprioritized concerns, we will have no one but ourselves to blame when we lose many far more important areas.

"2. Inability to act as professionals. There seems to be an attitude that government contracts are not a genuine source of income for a professional school of botanists. Rather, they are a way for graduate students, or those with other secure family incomes, to generate supplementary income. Thus major contracts which could support Ontario botanists and allow

a professional group to survive are sometimes ruthlessly underbid. In the short run, everyone will earn less. In the long run, there will be disastrous consequences for this profession.

"First (and foremost), unless fair professional rates are charged, few will be able to afford to become full-time botanical consultants. Thus, employment opportunities in botany will remain bleak. Most professional consulting companies have already realized that there is no point in hiring botanists because they cannot hope to compete with people willing to sell themselves at minimal wage rates. Not only does this mean fewer full-time jobs, but, as frustrated individuals leave the profession, the quality of field botany will decline. Note also that the best qualified people - those with the greatest professional options - will leave first.

"Second, if an agency can get a \$ 25,000.00 contract done for \$ 5,000.00, it will assume that is exactly what the information was worth. Our credibility as a profession is damaged when many botanists are telling government that botanical data are cheap to purchase - and then these same individuals vociferously complain when the government claims that botanical data do not deserve much consideration! The few full-time field botanists who are trying to develop a professional discipline thus are trapped: their 'colleagues' under-cut them, making it very difficult for anyone to live on contracts. At the same time, their 'colleagues' debate attempts to have field botany taken seriously.

"I suspect that these comments will offend a few individuals. That is unfortunate, but if we are going to see field botany develop as a viable profession and see important natural areas conserved, we have to face these problems squarely. Next time this topic comes up at a meeting, my answer will be that it is time we stopped complaining and did something. These are two important issues for the FIELD BOTANISTS OF ONTARIO to address. I hope that we can reach a consensus soon to ensure that our profession establishes itself, and that important natural areas are protected."

Paul Keddy, Assistant Professor,
Department of Biology,
University of Ottawa

A CALL FOR A SYSTEM OF COUNTY RECORDERS OF BOTANY

"For many years there has been a system of vice-county botanical recorders in Great Britain. These people serve the role of being a central repository for the plant records for a county or a portion of a county (i.e. vice-county). The entire country is divided up into data collection units largely along political boundaries. Over time an invaluable amount of botanical data has been collected, tabulated and in turn made available to others. It was this information base that made the British Plant Atlas such a success.

"In the last few years I have undertaken environmental inventories in many different counties in southern Ontario. The same question always arises when a specific plant is found. Is it rare? Is it widespread? Is it a record significant enough to tell others? In some areas there are botanists who can be called upon for help. Usually they are ready and willing to learn of the find and to discuss the significance. But in many areas one is left very much out-on-a-limb when interpreting features such as distribution and abundance, either due to an actual lack of field information or a lack of knowledge of the local botanists. I am sure this type of experience is familiar to others as well.

"It is time to consider the establishment of an informal system of county recorders of botany in Ontario. In each county or region one person could be designated or recognized as the official recorder. It would be this person's responsibility to collect and record data on the plants. A list of the plants found and the relative abundance of each species would be initial, important information categories. Hopefully, most botanists would co-operate by informing the recorders of significant finds.

"Such a system is almost in place for southern Ontario now according to Steve Varga (THE PLANT PRESS 1(4):69-75). But who would "assign" the counties and let the rest of us know? I suggest that the Editorial Committee of THE PLANT PRESS could do this. They should be in a position to know who is working where, what their expertise is and whether they have any advanced book-keeping abilities. Conversely, anyone who is keen to take on the job could let the committee know their intentions. It might even be possible to standardize the data storage system by use of complementary book-keeping methods.

"It will probably be many years until a comprehensive inventory of plants in a fashion similar to the Ontario Breeding Bird Atlas can get off the ground, but we need not wait. It is time to consider the establishment of a system of county recorders of botany in Ontario. What do you think?"

Paul Eagles, Assistant Professor,
Department of Recreation,
University of Waterloo

A RARE PLANT TRANSPLANTING PROJECT WHICH FAILED

"With reference to Paul Keddy's article on transplanting summarized in the December 1983 issue [THE PLANT PRESS 1(4):65-66], we conducted an experiment which confirms some of his observations.

"The Dorcas Bay shoreline of Lake Huron in the upper Bruce Peninsula at one time supported extensive colonies of the queen lady's slipper (*Cypripedium reginae*). Citizen garden-lovers dug all of these up and transplanted them elsewhere prior to the purchase of the area by the Federation of Ontario Naturalists in 1963 as a plant reserve. Some diggers acted in anticipation of a planned subdivision on the fens and cedar-larch hummocks where the plants flourished. However, development was pre-empted, by which time the orchids had vanished.

"In 1968 a developer bulldozed a large section of Sauble Beach to create a trailer park. Before the dozer finished this botanical disaster, the remaining areas, profuse with lady's slippers, Hooker's orchid and the rich flora of the Bruce Peninsula, were salvaged. Several thousand of these splendid plants were restored to Dorcas Bay in exactly the locations where they once flourished naturally.

"Inspection in years following this operation disclosed that most, if not all, of the transplants had died out. Although the job was conducted by experienced workers loaned by the Sauble Valley Conservation Authority (off duty) and the time above ground was a mere 6 hours, some essential ingredient was missing - we shall never know. Unless, of course, the plants were promptly filched from Dorcas Bay by those selective grazers, human visitors with shovels."

Malcolm Kirk, Ravenna

MORE ON COLLECTING VS. PHOTOGRAPHY

In late June of 1983, three naturalists from Point Pelee National park and myself spent three days on the Bruce Peninsula in the hopes of seeing and photographing most of the orchid and fern rarities which grow there. We had directions to many of the rarities, and were able to photograph all the species we had come to see.

The site which had the most impact on me was a roadside ditch and adjacent forest edge near Red Bay where we went to photograph *Listera ovata* (common twayblade). This species, which is introduced from Europe and grows to over two feet in height, is known from only two sites in North America, both in Ontario.

The orchids were there alright, well over a hundred of them, most in peak bloom. But unfortunately for us, this site had been visited the previous day by a group of orchid photographers on a field trip with a well-known provincial naturalists' club. The site was extensively trampled, and the larger and showier twayblades had a cleared and flattened area three to six feet in diameter surrounding them. Here photographers had set up their tripods or lain on the grassy vegetation in order to photograph their prizes. However, within the trampled area were many bent and broken *Listera ovata* plants. With their eyes focused only on the showiest specimens which they wished to capture on film, these orchid enthusiasts had unknowingly destroyed about 25 plants of the common twayblade.

The plants which had been stepped or lain upon were smaller plants hidden in the long grass, many of which were not yet in bloom and therefore much less conspicuous. Because it was a cool, damp morning, I was able to "salvage" some of the plants, stems of which had been completely severed by careless photographers. I carefully pressed the top portion of six flowering plants and was able to donate a specimen to several of the larger Ontario herbaria.

Unfortunately, this is not the only instance of unavoidable destruction caused by thoughtless photographers. Similar scenes have been observed at Dorcas Bay, where conspicuous, flattened areas surrounded several showy clumps of *Platanthera dilatata* (tall white bog orchid) and 50-60 plants of *Listera convallarioides* (broad-leaved twayblade) were trampled.

I am sure that all of us who photograph orchids and rare plants have at one time or another unknowingly trampled an orchid or damaged the habitat. I am not advocating that we cease photographing rare plants. Quite the contrary, I advocate documenting the occurrence of rare species by diagnostic photographs deposited in recognized institutions. Although documentation by photographs is often the best choice, there are other instances where collecting a specimen, even with orchids, is required. [to be continued next issue]

Mike Oldham, Essex

NOTES AND ARTICLES

THE INTERNATIONAL SEED EXCHANGE

by Margaret Riley, Glendon Hall Research Laboratory, Departments of Botany and Forestry, University of Toronto, 2265 Bayview Ave., Toronto, Ontario M4N 3K8

Botanical gardens participating in international seed exchange are listed in the International Directory published in Holland. The third and last edition of the Directory was published in 1977. The exchange of seeds is amongst universities, forestry research institutes, arboreta and botanical gardens and is truly world-wide in its geographical coverage. No financial charges are made for the seeds which are exchanged in this way; they are offered free on a mutual exchange basis only.

The seed exchange program at the Department of Botany, University of Toronto, was started by the late Dr. George Duff in 1954, assisted by Dr. James H. Soper. When Mrs. E.R. Wood died in 1950, her estate at Glendon Hall on Bayview Avenue was bequeathed to the University of Toronto for the use of the Department of Botany. From 1950 - 1960, the Department, assisted by the Faculty of Forestry, began to develop a botanical garden and arboretum on the grounds. A research laboratory was started in a renovated garage building. Glendon Hall itself was occupied by the University of Toronto Law School when I joined the staff in April 1959. The Law School later moved down to the St. George Campus of the University of Toronto.

Seeds obtained during early years of exchange helped the development of the gardens, espec-

ially the systematic garden. Unfortunately, these plants had to be discarded to make way for the building of York Hall after the decision to commence Glendon College for York University had been made. Although the botanical garden had to be dismantled and the collections of plants built up during the 1950's were removed to make way for the buildings of the new college, the seed exchange continued. By this time the purpose of exchange was not to supply seeds to be grown in the garden, as in Dr. Duff's day, but to provide material for research and teaching as well as for display in the University of Toronto's Department of Botany greenhouses on College Street.

The first issue of the seed exchange list which I was involved with was issued in 1960 when Dr. Soper, who was Curator then, decided that seeds from native species collected in the wild in Ontario should be separated from those collected in the garden and greenhouse. This is the format that we still adhere to today as I prepare the 1984 issue.

Glendon Hall's participation in the international seed exchange involves the collecting of seeds of any native Ontario plants, as well as certain introduced and cultivated species. The exchange list is usually printed at the beginning of the year and distributed to about 400 institutions around the world. We in turn receive lists from nearly 300 institutions. Some gardens have a mailing list to more than 500 botanical gardens, but financial restraint prevents us from expanding. We are permitted to collect seeds from the trees and shrubs on the Glendon campus and also in the Don Valley near here. The majority of seeds are collected by Department of Botany staff and students. Former staff like Dale Hoy assist as well, and for the past two years we have been indebted to the Skeltons for their contributions from Haliburton County.

Our list of seeds available for exchange is currently one of four in the province of Ontario, yet in Europe, one city may send out three lists. In 1982, 2,400 packets of seeds were sent to 212 gardens and 2,480 packets were received from 200 gardens. Seeds of native liliaceous plants are much in demand, and red pine leads the way amongst our native conifers. Seeds of woody plants are kept in sealed containers at room temperature. I have sent poison ivy to Moscow and dandelion seed to Peking. It often surprises me what gardens request, and it may well be that what is regarded as a weed in one part of the world is highly prized in another!

RESTORATION OF THE NATIVE VEGETATION
OF THE CONSTANCE BAY SAND HILLS,
REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

by Scott Wilson, Department of Biology, University of Ottawa, Ottawa, Ontario K1N 6N5

In the summer of 1939 National Museums of Canada Chief Taxidermist Clyde Patch brought a pair of unfamiliar plants to Chief Botanist A.E. Porsild, who identified them as *Hudsonia tomentosa* (beach heather) and *Lithospermum croceum* (puccoon). Porsild was surprised by the discovery of these species and travelled to the site of their collection at Constance Bay (about 50 km up the Ottawa River from the city). Here he found a relic flora of dune species flourishing in the Constance Bay Sand Hills.

This remarkable community was established on dunes deposited on the ancient shoreline of the Champlain Sea. It was dominated by *Comptonia peregrina* (sweet fern), *Pteridium aquilinum* (bracken) and *Vaccinium* spp. (blueberries), but growing among these Porsild found no fewer than 24 species that were rare or previously unrecorded for the Ottawa district (Porsild 1941). Species such as *Andropogon scoparius* (little bluestem), *Lechea intermedia* (pinweed), *Aster sagittifolius* (arrow-leaved aster) and *Artemisia campestris* (=A. *camporum*) (wormwood), were considered to have spread into the district after the retreat of the last ice age and to have survived only in a few pockets around the Great Lakes. The Constance Bay Sand Hills was the only such pocket in the Ottawa district.

The then Department of Lands and Forests, unaware that the Sand Hills were a unique feature in the region, began to afforest the Hills in the early 1950's with conifers such as *Picea mariana* (black spruce) and *P. abies* (Norway spruce). Management practices included discing and furrowing the soil, herbicide application and the construction of a road network through the dunes.

A new management plan for the Hills, prepared by the Ministry of Natural Resources in 1982, called for continued silviculture. The plan also included the introduction of even more alien species (such as *Elaeagnus angustifolia* (Russian olive) for the promotion of wildlife). The remnant stands of native vegetation were to be maintained by the periodic bulldozing of roadsides.

Due to the concern expressed by the Ottawa Field-Naturalists' Club over the impending elimination of the native flora of the Sand Hills, the Ministry agreed that preservation of the area's unique features was a desirable goal and invited the Club to produce a management plan for the vegetation of the Sand Hills. The OFNC Conservation Committee responded with a plan which would create Vegetation Management Areas, resulting in the restoration of roughly 25% of the Hills to their original, pre-afforestation condition.

At the regional level, the Ministry has reacted favourably to the Club's proposals and has initiated a survey to determine the current extent of rare species. Negotiations with the district level of the MNR, which is directly responsible for the management of the Sand Hills, are continuing as the Club endeavors to convince managers that the Vegetation Management Areas must be of a certain minimum size to prevent extirpation.

The Club is working against time. At least one species, *Hudsonia tomentosa*, appears to have already disappeared. None-the-less, we are very encouraged by the positive attitude of the Ministry towards the concept of preservation of native vegetation and hope that this example of co-operative efforts will be the first of many such programs.

Reference

Porsild, A.E. 1941. A relic flora on sand dunes from the Champlain Sea in the Ottawa Valley. *Can. Field-Nat.* 55:66-72.

NEW STATIONS OF THE RARE PLANT *Hymenoxys acaulis* var. *glabra* (STEMLESS RUBERWEED) ON THE BRUCE PENINSULA

by Vincent Elliott, Stokes Bay, Ontario

Hymenoxys acaulis var. *glabra* (=Actinea herbacea), commonly called stemless rubberweed, is a member of the aster family. This plant resembles its close relative *Coreopsis lanceolata*. Like this species, rubberweed has showy, yellow, daisy-like inflorescences with up to 30 ray florets. Rubberweed differs from *Coreopsis* due to rubberweed's solitary, 3-4 cm diameter inflorescences on unbranched flowering stems. In addition, rubberweed has

only basal leaves which are thick and rubbery. When pulled, these leaves stretch a little and snap back, hence the common name.

Prior to the 1940's, rubberweed was known in Ontario only from the western half of Manitoulin Island. Here it occurs on flat, nearly bare, limestone pavement at Meldrum Bay. Presumably neither Krotkov (1940) nor Fernald (1950) found *H. acaulis* on the Bruce, as they did not include this locality in their publications. Listed as rare in Ontario (Argus & White 1977), the recently published distribution maps for this species (Argus & White 1983) show that *H. acaulis* is not just rare in Ontario (recorded only from the western half of Manitoulin Island and two localities on the northeast shore of the Bruce Peninsula), but is rare throughout its range in central North America.

Hymenoxys acaulis has been known from near shorelines at Dyers Bay and Cyprus Lake Provincial Park for some time. It was not until recently, however, that Joe Johnson discovered rubberweed in a large area on the Bruce. He emerged from the dark, wet, cedar swamp northwest of the Dyers Bay corner, and was dazzled by a 4 ha field of rubberweed in full bloom! These plants are growing in scattered localities over limestone pavement in association with *Saxifraga virginensis* (early saxifrage) and *Castilleja coccinea* (Indian paint-brush). This is what we now call "Joe's Rubber Patch".

I explored a larger area, covering everything for more than a kilometre in all directions, and found one more, nearly identical community. This is "Vince's Rubber Patch". To get to this, another cedar swamp must be crossed to a spot about 1 km northwest of "Joe's Rubber Patch". This region, east to the shore of Georgian Bay, needs more exploring. Maybe someone else will find another rubber patch, who knows!

Documentation: Ontario: Bruce County: Dyers Bay, 1 km west of the junction of Hwy. 6 and Dyers Bay Road, photograph and leaf voucher, 23 May 1978, V. Elliott, personal collection of VE, TRTE, CAN.

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----- 1983. Atlas of the Rare Vascular Plants of Ontario. Part 2. Nat. Museums of Canada.
Fernald, M.L. 1950. Gray's Manual of Botany.
Krotkov, P.V. 1940. Botanical explorations in the Bruce Peninsula, Ontario. *Trans. Roy. Can. Inst.* 23(1):3-65

THE FATE OF ESA'S IN URBAN ENVIRONMENTS:
TWO CASE HISTORIES IN PEEL AND HALTON

by Jim Dougan, 136 Cork St. West,
Guelph, Ontario N1H 2X5

One of the products of public concern over the elimination of natural areas in the late 1960's was the creation of Environmentally Sensitive (or Significant) Areas (ESA's). Following the example set in Waterloo Region in 1974, ESA's or their equivalent have now been designated in more than 10 Ontario jurisdictions. Although the designation of ESA status implies that such areas will be protected, this status does not ensure that their special characteristics will be preserved. Complex environmental and political issues affect many ESA's in urban areas. To illustrate these, my discussion will draw on examples from the suburban area west of Toronto, where I have been active as a consultant since 1976.

The two case studies which follow describe some of the environmental and political realities affecting urban ESA's. Many other ESA's in southern Peel and Halton Regions are subject to similar pressures.

Case 1 - Credit Valley Conservation Authority
ESA No. 11 - Creditview Oak Woods

This small (5 ha) woodlot is located 2.5 km east of the Credit River in Mississauga. More than 100 trees and saplings of *Quercus bicolor* (swamp white oak) occur here. This provincially rare species (Argus & White 1977) is restricted to wet or wet-mesic hardwood swamps and bottomlands in southern Ontario (Fox & Soper 1952; Maycock 1963). The population dynamics of *Q. bicolor* have not been fully studied for southern Ontario, but Maycock (1963) has demonstrated that the tree-sapling relationships of this species are similar to those of *Ulmus americana* (white elm). *Quercus bicolor* is restricted to swampy sites in Halton and Peel, where it is close to the northern limit of its range. It is known to form hybrid complexes with the more common species, *Q. macrocarpa* (bur oak) (Palmer 1948), and some trees in the Creditview ESA are probably hybrids.

The Creditview site represented the only stand of *Q. bicolor* given ESA protection in the Credit Valley Conservation Authority watershed, although other groves and small stands are located in areas slated for urban development (Dougan, unpublished data). Planning for urban development in the vicinity of this ESA was already in place before the ESA study was

completed. The woodlot was designated for residential development, with a stipulation that a workable tree preservation scheme form part of any future development proposal subject to approval by the City of Mississauga and the Credit Valley Conservation Authority. The developer, recognizing that the woodlot issue could delay approvals for the balance of the subdivision, proceeded with the planning and development of adjacent areas, leaving the woodlot issue for later consideration. As a result, roads and residential housing were constructed immediately south of the woodlot. Construction of the Highway 403 expressway, located just north of the woodlot, also proceeded. Culverts to route highway stormwater into an intermittent watercourse which runs through the woodlot were constructed, thereby creating the possibility of irreversible damage due to salt-loading in the winter.

In 1980 the developer began to plan for the woodlot. More detailed environmental studies were undertaken at the request of the City and the Credit Valley Conservation Authority, and eventually a scheme was devised which would preserve blocks of swamp supplied with rainwater captured on the site. This plan eliminated the need for an additional water supply from Highway 403 runoff or city mains. The oaks in these blocks would be left to flourish as they might. However, neither the developer nor the approval agencies wished to undertake the ownership and perpetual management of small blocks of swamp in the middle of a large residential subdivision. Ultimately, the developer agreed to provide a protection zone for the largest area of oaks, located in the rear of very deep lots, placed back-to-back. Restrictions on title would help ensure that homeowners were aware of the existence and importance of the system.

Several problems complicated the resolution of the fate of this ESA, the first being that the future of the site was already decided before the ESA came into existence. Second, the decision to postpone planning for the woodlot while other development proceeded reduced the final options available for preservation. Finally, environmental approvals had to be sought from two separate agencies (CVCA and City of Mississauga), making the approval process more cumbersome and prone to oversights, such as the failure to provide for long-term monitoring in the development agreement.

Case 2 - Halton Region
ESA No. 14 - Wildflower Woods

This moderately-sized (30 ha) woodlot grouping is located on Joshua Creek, beside the Ford Motor Company plant in Oakville. Situated on the shale plain near the Lake Iroquois shoreline, this ESA is noteworthy for its diversity of communities and the occurrence of regionally rare species, *Solidago patula* (rough-leaved goldenrod) (recently deleted from the provincially rare list (Argus & White 1983)) and *Lobelia cardinalis* (cardinal flower) (Regional Municipality of Halton (1978)). The herbaceous flora in this ESA contains large populations of spring ephemerals, including carpets of *Allium tricoccum* (wild leek), *Uvularia grandiflora* (large-flowered bellwort), *Trillium grandiflorum* and *T. erectum* (white and purple trilliums).

Surrounded by factories, nurseries and abandoned agricultural lands, this ESA is presently being plundered by tree thieves and wild leek collectors. Future developments which may impact the ESA are numerous. To date the Ford Motor Company has not been successful in its attempts to expand its operations into the ESA. Ontario Hydro has options on two corridors through the woodlot. Plans for residential and industrial development of lands immediately east of the ESA are draft-approved. A section of light rail transit may be built near the ESA in the future and a pipeline corridor is located along the western edge of the ESA. Ford Drive will soon be rerouted across the northern end of the ESA.

Although the Wildflower Woods ESA is predominantly privately-owned (Regional Municipality of Halton 1978), it is subject to a myriad of planning designations, as outlined in Table 1.

The Wildflower Woods ESA has not yet faced the full forces of human interference. As in the Creditview example described above, many agencies will determine its fate, although Halton Region's Ecological and Environmental Advisory Committee (EEAC) may provide greater continuity in environmental planning. In the meantime, this woodlot is a target for tree thieves and other vandals, a tragic by-product of the land development process.

What steps are necessary to ensure long-term viability of urban ESA's? The most critical is for comprehensive planning guidelines for individual ESA's, setting specific priorities

Table 1. Environmental planning jurisdictions affecting Halton ESA No. 14¹.

JURISDICTION	DESIGNATIONS	PERMITTED USES
Parkway Belt West Plan	a) Public Open Space and Buffer Area (in part) b) Special Complementary Use Area (in part)	Recreation-related uses only Permits expansion of existing private uses, plus public uses
Town of Oakville Official Plan	a) Environmental Policy Area "A" (in part) b) Environmental Policy Area "B" (in part)	Permits public and private uses, subject to approval Permits public and private uses, subject to approval
Halton Region	Environmentally Sensitive Area	Development "must not adversely affect ESA"

and conditions for the unique features of each ESA. This would entail the development of management plans for individual ESA's, including monitoring programs, rehabilitation measures and a mandate extending beyond the date of completion of urbanization. There should be an ongoing reassessment of the role of public ESA's as recreational areas.

Our urban ESA's are suitable candidate study areas for species management projects. Ecologists, planners and field botanists need to devote more time to providing a firm scientific base for habitat improvement measures. These include habitat corridor re-establishment, woodland edge improvements, exotic pest control and propagation of wild plants for rehabilitation purposes. For example Keddy (1983) has recently asserted that transplanting of rare species will not be a viable option until it is based on scientific principles and data. Research in these areas is now being reported in publications such as Restoration and Management Notes (Michigan State University).

I would like to express my thanks to Mr. Dirk Blyleven, City of Mississauga Planning Department, for his helpful comments, and to Ecoplans Ltd. for access to project reports. I would be interested to hear from others with ideas and working experience in the area of ESA management.

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WARNING: LADY'S-SLIPPERS CAN BE
HAZARDOUS TO YOUR HEALTH

by Allan H. Reddoch and
Joyce M. Reddoch, 548 Rivershore Crescent,
Gloucester, Ontario K1J 7Y7

The note by Bill Cattley (THE PLANT PRESS 1(2):23) on allergic reactions to plants reminded us of two recent review articles dealing with this topic, both stressing the chemical compounds involved (Mitchell 1975, Evans & Schmidt 1980). The numbers of genera and of chemical compounds causing trouble is very large. The means of contact can be quite varied; for example, in the Anacardiaceae (Cashew Family) alone, besides poison ivy (*Rhus radicans*), problems have arisen from eating mangoes, from handling cashew nut shells or paper contaminated with cashew nut oil, and from leaning on a bar top varnished with Japanese lacquer (ingredient *Rhus vernicifera*). Surprisingly, neither of these extensive articles mentions the orchid family.

Although it has been known for over a century that lady's-slippers can cause contact dermatitis, this fact does not seem to be widely known and is published only rarely. Although we had read about it, we learned the hard way. After Allan had measured the plant heights of a stand of showy lady's-slippers (*Cypripedium reginae*) with a flexible tape, his arm and the back of his hand which held the bottom of the tape became an oozing mess for a couple of weeks. Later, Joyce tried some test strips on her arm using various flower parts and the floral bract of pink lady's-slipper (*C. acaule*) and yellow lady's-slipper (*C. calceolus*) with quite positive results. We have seen no published reports implicating pink lady's-slipper, so this appears to be a new observation. Leaves, stems and flowers may all be active. The overall effect is similar to that of poison ivy and is of at least as great severity. We suggest that ram's-head lady's-slipper (*C. arietinum*) may also have the same potential.

People who have transplanted showy lady's-slippers have told us that poison ivy was present nearby, as is sometimes the case, and that they had come down with dermatitis from the latter at the time. It may be that the dermatitis actually came directly from the showy lady's-slipper.

It seems that not everyone is sensitive. The late Joe Purdon, who owned a small cedar swamp and fen in Lanark County, told us of selling bunches of showy lady's-slippers as bouquets at the Kingston market during the depression of the 1930's. Until his death last year, he would generously present bouquets to naturalists who came to visit his colony, much to the embarrassment of those who support orchid conservation. Yet Joe maintained that he had never had any skin problems as a result of handling the plants.

In the literature the problem is reported by Bacon (1902), who gave a vivid account of reactions, including fever, to showy lady's-slipper. More recently, Schmalte & Hausen (1979) in Germany have discussed the situation for yellow lady's-slipper and have identified chemically the dermatogenic compound, a quinone, cypripedin, not related to the urushiol implicated in poison ivy. Some additional references are in an article by Holman, Cunningham & Swanson (1981) on the glandular hairs of showy lady's-slipper. Dermatitis has also been documented by Hausen (1980) from one member of the related genus *Paphiopedilum*, *P. haynaldianum*, a plant sometimes grown by orchid fanciers.

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THE STATUS OF *Ranunculus rhomboideus* Goldie (PRAIRIE BUTTERCUP) IN ONTARIO

by Harry Williams, Millbrook, Ontario LOA 1G0



Figure 1. *Ranunculus rhomboideus* (X 1/2) by Steve Varga. Illustrated from a specimen collected by Tony Reznicek from the type locality at Holland Landing (Reznicek 1980).

The showy, yellow flowers of *Ranunculus rhomboideus* (prairie buttercup) (Figure 1) are indeed welcome harbingers of spring. During the flowering period, from approximately mid-April to mid-May, these plants are conspicuous and populations on grassy roadsides may be readily identified from a moving car. Despite this visibility, the status in Ontario and the life history of *R. rhomboideus* need further investigation. Gleason & Cronquist (1963) call this buttercup "perennial" and Scoggan (1978) lists it as a hemicryptophyte (perennating buds located at or near the surface of the ground). My observations are that while some of the local plants may survive the summer period of drought, many behave as winter annuals with seedlings developing during the autumn rains and completing their life-cycle the following year.

Considering its range over a sizable area of the province (Figure 2), *Ranunculus rhomboideus* is one of the least-reported species in the Ontario flora. Since the type collection in 1819 comparatively few specimens have been

collected, and consequently the published reports of the range and distribution of the species are inadequate or misleading in-so-far as Ontario is concerned. Fernald (1950) said that *R. rhomboideus* occurs "east to Ontario, Michigan and Illinois"; Scoggan (1978) gave "Ontario, north to the Kenora district". Collections from the District of Kenora may have been the basis for Gleason & Cronquist's (1963) report of the range as "Michigan and western Ontario"; they apparently saw no specimens from southern Ontario. Reznicek (1980) recorded the rediscovery of the site of the type collection, near Holland Landing, and Hilditch (1983) described a response to the threat to the area from the planting of trees. (Scoggan included the Holland Landing site in Ontario County; it is in the Regional Municipality of York).

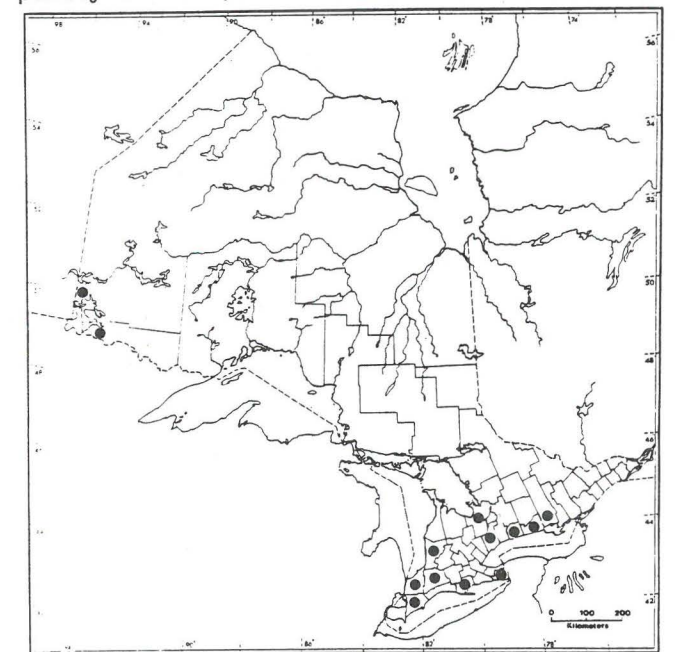
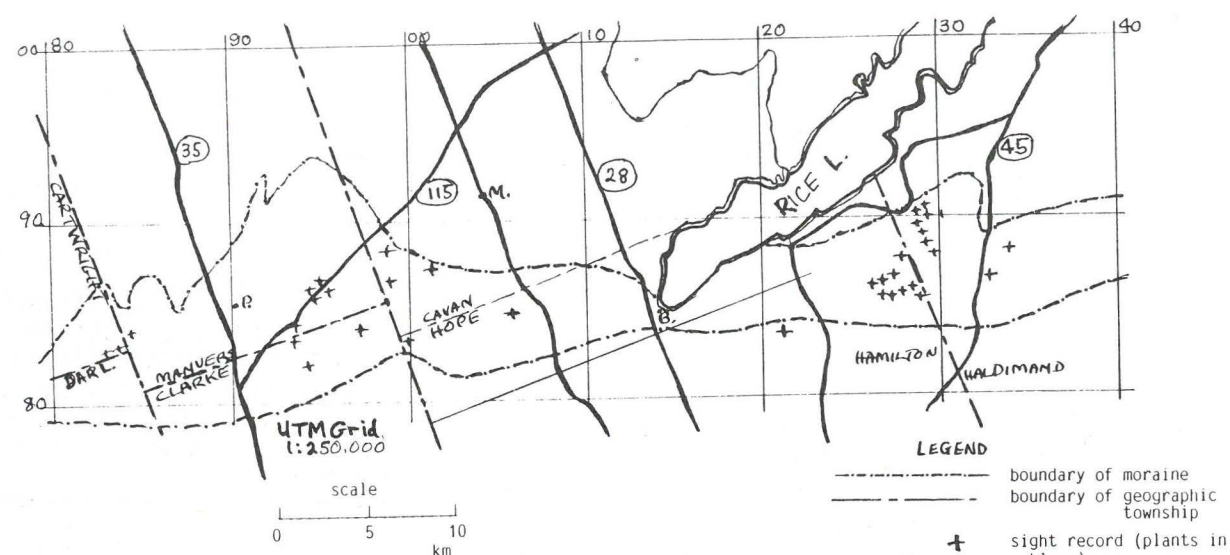


Figure 2. *Ranunculus rhomboideus* - Ontario distribution by counties and districts, from data supplied by the National Herbarium (CAN), with permission.

Ranunculus rhomboideus is particularly abundant on the eastern part of the Oak Ridges moraine the broad ridge of sands and gravels which runs from north of Trenton (Northumberland County) west to the Palgrave area (Regional Municipality of Peel). Before settlement, the original vegetation here was rather xeric forests of oak and pine with open areas and possibly some prairie south of Rice Lake. Katherine Parr

Figure 3. Sight records of *Ranunculus rhomboideus* in the eastern part of the Oak Ridges moraine, from data of Hazel Bird and Harry Williams.



Traill (1868) referred to "oak openings" and "the high, dry, rolling plains south of Rice Lake". With clearing of the land in the 1800's there was an increase in the area of prairie-like habitat and a corresponding increase in the prairie element of the flora. Much of this increase in prairie-like vegetation has been lost to reforestation since the 1930's, as in the Ganaraska and Northumberland Forests.

Despite this reforestation, populations of *R. rhomboideus* in the area of the Oak Ridges moraine are probably more numerous today than they were in pre-settlement times. I have seen this species in a ca. 50 km stretch east to west across the geographic townships of Haldimand, Hamilton, Hope, Cavan, Clarke, Manvers and Cartwright in Northumberland County and the former Durham County (Figure 3).

The actual range of *Ranunculus rhomboideus* may extend further east; I have not looked for it there yet, but I have noticed that *R. rhomboideus* appears to be absent from an area between Pontypool and Burketon and westward from here. On one brief reconnaissance into Uxbridge Township to the west, I failed to find any *R. rhomboideus* in what seemed to be suitable habitat.

The best spot I know to see *Ranunculus rhomboideus* in flower is in the northern half of Lot 32, Concession IX of Haldimand Township (UTM grid reference 288905). This is an old

field about 1 km south of County Road 18, just north of the "House by the Side of the Road". The sight of several hectares of flowers here is worth driving some distance to see. However the buttercup is present in smaller quantity along Highway 115 where this road crosses the moraine in Lot 18, Concession II of Manvers Township (UTM grid reference 942858). Two driveways lead off the highway here; the best stand is on the north side. Even at 80 km/hr the flowering plants are quite visible and I hope that any botanists seeing them would stop and pay their respects to this interesting element of our flora!

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A SIGHTING OF ALBINO WILD COLUMBINE IN DURHAM REGION

by James L. Hodgins, 90 Wolfrey Ave.,
Toronto, Ontario M4K 1K8

The white-flowered form of wild columbine (*Aquilegia canadensis*: Family Ranunculaceae) was first described by House (1923) in the Bulletin of the New York State Museum 243:48. The full scientific name of this plant is *Aquilegia canadensis* L. forma *albiflora* House. According to Gray's Manual of Botany, 8th edition, this albino form is very rare in eastern North America, which is the range of the common red-orange form of the species. A specimen of the white-flowered form was observed by the writer on 3 June 1983 at the Greenwood Conservation Area in Durham Regional Municipality. This is the first recorded sighting for Ontario and possibly Canada.

This plant was growing at the base of a west-facing valley covered with mixed forest, at the edge of the floodplain on the east side of Duffin Creek. The overstory consisted of white cedar (*Thuja occidentalis*), white elm (*Ulmus americana*) and white ash (*Fraxinus americana*). Associated understory species were the common form of *Aquilegia canadensis* (3 plants), European buckthorn (*Rhamnus cathartica*), goldenrod (*Solidago* spp.), creeping Charlie (*Glechoma hederacea*), colts-foot (*Tussilago farfara*), common buttercup (*Ranunculus acris*), large-leaved aster (*Aster macrophyllus*), climbing nightshade (*Solanum dulcamara*), fleabane (*Erigeron* sp.), burdock (*Arctium* sp.), catnip (*Nepeta cataria*), ostrich fern (*Matteuccia struthiopteris*) and field horsetail (*Equisetum arvense*). The surrounding soil was sandy with stones. A thin layer of forest litter was on top.

This white-flowered form of wild columbine had three separate stems which were contiguous at the base, possibly emerging from the same root. Height was 73 cm, flowers 11, buds 2 and fruits none. Three colour photographs of the plant in situ were deposited at the University of Toronto Herbarium (TRT).

[Has anyone else seen a white-flowered columbine? We would be interested in hearing from you!]

SOME INTERESTING PLANTS OF THE MINESING SWAMP, SIMCOE COUNTY

by R.S.W. Bobbette, 148 Kempenfeldt Dr.,
Barrie, Ontario L4M 1C2

The Minesing Swamp is the largest wetland complex in Simcoe County, Ontario. Including adjacent upland areas, it covers 6,250 ha (about 15,000 acres) 15 km west of Barrie, between Angus and Edenvale. It is difficult to understand why such an extensive natural area, which is so close to large centres, could be generally known and yet untouched so far as botanical investigation is concerned.

The first to collect plants in the Minesing were foresters at Angus. By the early 1960's they had recorded some of the more southern tree and shrub species from along the Nottawasaga River. Although the flora of the Minesing was discussed in general terms in the Nottawasaga Valley Conservation Report (1964), the first published articles about plants in the swamp were a series on orchids (Reznicek & Bobbette 1966a and 1966b; Reznicek et al. 1967a and 1967b). These articles include discussions of some of the rare orchids of coniferous forests and fens, as well as other notable associated species.

The year 1967 marked an upswing in botanical interest. Since that year a number of botanists, including J.H. Soper, J. Sparling and S. Walshe, have taken collections and/or other data almost on a yearly basis. The Minesing has been the site of only one major study (Bobbette & Maycock 1975), but virtually none of this information has been published. Specimens from the 1973-74 studies (reported in Bobbette & Maycock 1975) are now permanently housed at the Wye Marsh Wildlife Interpretation Centre, Midland.

All significant plants from the Minesing may be separated into three general categories: (1) plants with southern affinity; (2) plants with northern affinity; and (3) plants which are within their normal geographic range, but rare in Simcoe County. These categories are discussed below.

1. Plants with southern affinity

The vast majority of species with southern affinity occur in the bottomland or levee deciduous forests (list A), although a few with population centres to the southeast or southwest do occur in the conifer section (list B), or in the deciduous slope forests (list C).

LIST A

<u>Bromus latiglumis</u>	broadglume brome grass
<u>Eragrostis hypnoides</u>	creeping lovegrass
* <u>Eragrostis frankii</u>	Frank's lovegrass
* <u>Carex alopecoidea</u>	sedge
* <u>Carex amphibola</u> var. <u>turgida</u>	sedge
* <u>Carex formosa</u>	sedge
* <u>Carex grayi</u>	sedge
* <u>Lilium michiganense</u>	Michigan lily
* <u>Carpinus caroliniana</u>	blue beech
* <u>Celtis occidentalis</u>	hackberry
<u>Rumex verticillatus</u>	swamp dock
* <u>Amaranthus tuberculatus</u>	swamp pigweed
<u>Ranunculus flabellaris</u>	yellow water crowfoot
<u>Menispermum canadense</u>	Canada moonseed
<u>Zanthoxylum americanum</u>	prickly ash
* <u>Staphylea trifolia</u>	bladdernut
* <u>Acer nigrum</u>	black maple
* <u>Hypericum pyramidatum</u>	greater St. John's-wort
<u>Sanicula gregaria</u>	lesser snakeroot
* <u>Samolus floribundus</u>	water pimpernell
<u>Teucrium canadense</u>	Canada water mint
* <u>Monarda didyma</u>	scarlet bee balm
<u>Cephalanthus occidentalis</u>	button bush
<u>Lobelia cardinalis</u>	cardinal flower

LIST B

<u>Eleocharis rostellata</u>	fen spikerush
<u>Platanthera leucophaea</u>	prairie white fringed orchid

LIST C

<u>Symplocarpus foetidus</u>	skunk cabbage
<u>Panax quinquefolius</u>	ginseng
<u>Hydrophyllum canadense</u>	Canada waterleaf

* = species occurring near their northern limit in the Georgian Bay area

2. Plants with northern affinity

Fens and conifer swamps of the Minesing have an abundance of species characteristic of more

northern regions of Ontario. Platanthera orbiculata, found on the slope forests, and Alopecurus aequalis, known from the bottomland and levee forests, are the only typically northern species without exclusive association with conifers. Plants with northern affinity are listed below:

<u>Triglochin maritimum</u>	arrow grass
* <u>Triglochin palustre</u>	arrow grass
<u>Alopecurus aequalis</u>	short awn foxtail
* <u>Calamagrostis inextensa</u>	northern reed grass
* <u>Carex chordorrhiza</u>	sedge
<u>Carex diandra</u>	sedge
* <u>Carex tenuiflora</u>	sedge
* <u>Carex livida</u>	sedge
* <u>Carex vaginata</u>	sedge
* <u>Carex limosa</u>	sedge
<u>Carex pauperula</u>	sedge
<u>Carex buxbaumii</u>	sedge
<u>Scirpus hudsonianus</u>	Hudson's rush
* <u>Platanthera dilatata</u>	tall white bog orchid
* <u>Platanthera orbiculata</u>	round-leaved orchid
<u>Listera cordata</u>	heartleaf twayblade
<u>Salix pedicellaris</u>	bog willow
<u>Salix candida</u>	hoary willow
<u>Sarracenia purpurea</u> var. <u>purpurea</u>	pitcher plant (northern variety)
* <u>Ribes hudsonianum</u>	northern wild black currant
* <u>Viola nephrophylla</u>	northern bog violet
<u>Moneses uniflora</u>	one-flowered pyrola
<u>Menyanthes trifoliata</u>	buckbean
<u>Utricularia intermedia</u>	branched bladderwort
<u>Utricularia minor</u>	lesser bladderwort
* <u>Galium labradoricum</u>	Labrador bedstraw
* <u>Aster borealis</u>	bog aster
* = species of special significance	

All plants of special significance (*) are very rare in the county. The Minesing offers the only extensive, colder than normal environment in central Ontario for these northern calciphiles. Many of the other species listed here are at high population levels; some to the point of vegetational dominance in the swamp.

3. Plants within their normal geographic range, but rare in Simcoe County

<u>Carex sterilis</u>	sedge
* <u>Carex cryptolepis</u>	sedge
<u>Rhynchospora capillacea</u>	hair beakrush
<u>Cypripedium arietinum</u>	ram's-head lady's-slipper
<u>Platanthera psycodes</u>	purple fringed orchid
<u>Pogonia ophioglossoides</u>	rose pogonia
<u>Calopogon pulchellus</u>	grass pink
* <u>Arethusa bulbosa</u>	Arethusa
* <u>Impatiens pallida</u>	yellow touch-me-not
* <u>Angelica atropurpurea</u>	Angelica
* <u>Valeriana uliginosa</u>	wild valerian
<u>Aster laevis</u>	smooth aster
* = especially rare plants	

Impatiens pallida is relatively abundant in deciduous forests on the Niagara Escarpment, but rarely grows away from it. In the Minesing, it occurs only in rich deciduous forests along the Algonquin beach bluffs and in a low silver maple forest to the southwest.

From a floristic viewpoint, the Minesing Swamp is significant for the large number of plants which occur at or near distributional limits. That many of these species occur as dominant or codominant species in their respective plant communities, makes the floristic importance one of vegetational importance as well. Abundant black maple, hackberry, Canada moonseed, Michigan lily, blue beech, prickly ash and sedges with southern affinity, give the levee forest the aspect, or "flavour" of a deciduous forest of the Carolinian Zone of extreme southern Ontario. Some of the species of bottomland and levee forests (prickly ash, bladdernut and button bush) were mapped by Fox & Soper (1952 and 1954) during their definition of the Carolinian Zone of southern Ontario.

By the same token, the abundance of northern fen sedges and willows lends a boreal aspect to the fen and transitional communities of the saturated peat plain. Many of the fen species were listed by Sjors (1963) in his attempt to define vegetation in the Hudson Bay Lowlands.

Vegetation in the Minesing Swamp reflects a broader range of environmental conditions, for

an area of this size than is usually found anywhere in the Georgian Bay region - indeed, even in the entire Great Lakes Forest Region.

[Rick has 2 maps which he would be pleased to send anyone interested in exploring the Minesing Swamp. Map I shows the limits of spring flood, and documented maximum high water mark. It also emphasizes the sensitive forested slopes with their frequent ground-water springs. Map II shows the main vegetation cover types mapped for most of the swamp (from Clouter et al. (1976)). We were not able to include these as supplements, as Rick had hoped, and the Editor hopes that anyone interested in receiving these maps will send Rick a couple of 32¢ stamps - just to cover xeroxing and postage.]

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NEWS OF BOTANISTS

Joan and Peter Banks
2958 Sunset Blvd., Bright's Grove, Ontario
(519-869-4243)

Joan is interested in native and cultivated orchids; Peter's botanical interest is mushroom taxonomy.

Ken Carey
Department of Botany and Genetics, University of Guelph, Guelph, Ontario N1H 4Y7
(519-824-4120 ext. 2744)

Professor Carey is interested in vascular plant systematics, population biology, population genetics, evolutionary biology, ecology - specifically: levels and importance of various types of variability (genetic, environmental, etc.) in plant populations.

Charles Chaffey
Department of Chemical Engineering & Applied Chemistry, University of Toronto, Toronto, Ontario M5S 1A4 (416-978-3067)
Professor Chaffey is interested in statistics, random processes or design in evolution and the impact of the chemical industry on the environment.

Mireille Delisle
1605 Orchid Dr., Ottawa, Ontario K1G 0S3
(613-733-3386)

Mireille studied vascular and nonvascular plants in the Ottawa area before employment at the Wye Marsh Wildlife Centre herbarium (processing Rick Bobbette's Simcoe County collections) and, more recently, as a summer naturalist at Point Pelee National Park. Mireille is now back at the University of Ottawa - this time in the music department.

Timothy Dickinson
138 Secord St., Apt. 1, Thunder Bay, Ontario P7B 3E4

After receiving the above change of address from Timothy Dickinson, we received word that he had indeed graduated from The University of Western Ontario and was beginning an NSERC post-doc at Lakehead University. He is currently working in the School of Forestry on a project on the genecology and infraspecific taxonomy of *Larix laricina* set up by Dr. R.E. Farmer, Dr. W. Parker and others.

Timothy's work on *Ontario Crataegus crus-galli sensu lato* is mostly wound up for now, except for looking at variation and variability of leaf shape and preparation of manuscripts based

on his thesis (co-authored with his thesis supervisor, J.B. Phipps, and with former colleague J. Podani). Timothy notes that all of his collections for his thesis work have been deposited in UW0.

Donald Ferguson
418 Howey Dr., Sudbury, Ontario P3B 1G2
(705-674-7084)

Don is interested in the Ontario and Canadian flora and the preservation of rare plants and their habitats. He is particularly interested in the flora of Manitoulin Island.

Dan Gregory
183 Upper Middle Road, Oakville, Ontario L6H 1M2 (416-845-5910)

Dan has studied the ecology of boreal plant communities and has been active on a variety of botanical projects throughout Ontario. He recently completed botanical inventories of Westmeath and Brown-Wilson candidate provincial parks for the Ontario Ministry of Natural Resources. Currently Dan is associated with Michael Michalski Associates, 63 Galaxy Blvd., Unit 1, Rexdale, Ontario M9W 5R7

Barbara Hoover
R.R. 1, Victoria Harbour, Ontario L0K 2A0
(705-534-7471)

Barbara is interested in the flora of the Muskoka area, ferns, orchids and aquatic plants. She is employed as a naturalist at Georgian Bay Islands National Park.

Catherine McLeod
R.R.1, Hanover, Ontario N4N 3B8 (519-369-6836)
Catherine has worked as a research assistant on surveys of growth forms of spruce in provincial tree nurseries and a bog-sampling project from Guelph to Moosonee. She is currently seeking employment which would utilize her skills.

Anita Payne
3036 Olympic Way, Gloucester, Ontario K1T 1Y4 (613-733-1502)

Anita is interested in plant distributions, rare plants and photography. She has been involved in a study on adaptations and dispersal of shoreline plants and weeds. Currently Anita is looking for part-time or temporary employment in the Ottawa area.

Gary Rahn
R.R. 1, Sault Ste. Marie, Ontario P6A 5K6
(705-779-2006)

Gary has a general interest in natural sciences with special interest in botany and ornithology.

INFORMATION AND REQUESTS

CORRECTION OF ERRORS IN THE LAST ISSUE (THE PLANT PRESS Vol. 1 No. 4)

Although we attempt to proof-read each issue thoroughly, it is difficult to ensure that no typographical errors appear! These will, undoubtedly, occur in subsequent issues. Please bear with us and note the following corrections:

page 70 - Frank Cook lives on Larkspur Cres.

page 77 - Simcoe should have appeared to the left of Wye Marsh

page 81 - J. ten Bruggenkate is the correct spelling

page 84 - add to the Taxon (1980-81) references:

Rouleau, E. 1983. Index to scientific names cited in Taxon, Volume 30 (1981). Taxon 32:913-1014.

FIELD BOTANISTS OF ONTARIO BRUCE PENINSULA BOTANY WEEKEND 8 - 10 JUNE 1984

The first gathering of the Field Botanists of Ontario will be based at Red Bay Lodge. Cost for lodging and meals is \$ 60.00 and Harry Williams needs deposits (\$ 25.00) for 40 individuals by the end of March 1984. Please send your cheque and registration form (enclosed flier) to Harry Williams as soon as possible. We shall try to accommodate more than 40, it may be possible to provide food only at the lodge for up to 10 additional individuals, but we need a commitment from 40 individuals prepared to pay the full fee first!

Field trips and socializing will be featured. Joe Johnson and Vince Elliott have agreed to lead field trips and if the turnout is high, more field trips will be arranged. Everyone is asked to bring 4 slides which illustrate their interests. More information about the agenda for this weekend will appear in the June newsletter. If you are interested in helping with the organization of this weekend please contact Harry Williams, Millbrook, Ontario L0A 1G0 (705-932-2672).

POSSIBLE OJIBWAY PRAIRIE FIELD TRIP

Is anyone interested in participating in an August 1984 field trip to the Ojibway Prairie? Contact Rose Klinkenberg - more news next issue.

PRELIMINARY CHECKLIST OF THE FLORA OF THE ERIE ISLANDS

copies available from Brian Klinkenberg,
135 Andover Dr., Unit 79, London, Ontario
N6J 4C2 (cost \$ 4.00 to cover copying and postage)

This preliminary checklist includes about 1600 vascular plants. It is from the appendix of Brian's M.Sc. thesis on island biogeography of the Lake Erie Islands, which was completed in 1983.

ONTARIO ECOLOGY AND ETHOLOGY COLLOQUIUM

The annual Ontario Ecology and Ethology Colloquium (OEEC) will be held at the University of Waterloo on 24 - 25 April 1984. Enquiries should be addressed to: OEEC, c/o Department of Biology, University of Waterloo, Waterloo, Ontario N2L 3G1

THE DISTRIBUTION OF *Sida hermaphrodita* (MALVACEAE) IN ONTARIO

information requested by Dave Bradley, 95 Gary Ave., Hamilton, Ontario L8S 1Y4

I am interested in determining the distribution of this species in Ontario and would be pleased to receive any information about it.

SIX-MONTH CONTRACTS FOR FIELD BOTANISTS ONTARIO MINISTRY OF NATURAL RESOURCES SOUTHWESTERN REGION

applications requested by Paul Previtt, Regional Ecologist, Ontario Ministry of Natural Resources, Southwestern Region, 1106 Dearness Dr., London, Ontario N6E 1N9 (519-681-5350)

The Ontario Ministry of Natural Resources, Southwestern Region, is looking for qualified field botanists to work out of district offices in the region on a 6-month contract basis. Applicants should have (1) a degree in biology or plant sciences or equivalent work; (2) demonstrated knowledge of the flora of southwestern Ontario; (3) demonstrated ability in written and oral communication. Previous experience with botanical field inventories is an asset. Applicants should submit a resume, list of publications and sample of work done to the address above.

BUFFALO BOTANICAL SOCIETY FORMED

by Richard H. Zander, Newsletter Editor,
Buffalo Botanical Society, Buffalo Museum of
Science, Buffalo, New York 14211, U.S.A.

A new organization - The Buffalo Botanical Society - meets the second Tuesday of each month at the Buffalo Museum of Science. It is open to everyone, and its purpose is to promote the study of botany, especially field botany, in western New York State and adjacent Ontario. A newsletter is mailed to members every two months, with news and notes on regional botanical activities. The monthly meetings feature programs on botanical subjects. Special interest groups have been formed to concentrate on various aspects of botany; to date field botany, horticulture, edible and medicinal plants, aquatic macrophytes and algae, and art and photography sections have been organized. There are presently more than 70 members. The first Society field trip - a winter botany walk - drew 17 members. The Newsletter lists future field trips.

Dues are payable by cheque (U.S. funds) or by postal money order to P.M. Eckel, Treasurer, Buffalo Botanical Society, 43 Crescent Ave., Buffalo, New York 14214, U.S.A. - dues include a subscription to the Newsletter. Memberships: Individual, \$ 15.00; Family, \$ 20.00; Restricted income (pre-college or senior citizen), \$ 10.00 individual or \$ 15.00 family; Contributing, \$ 50.00; Sustaining, \$ 100.00; Patron, \$ 250.00. Institutional subscriptions are \$ 20.00. There is no charge to attend the meetings, and visitors are always welcome!

INSTITUTIONAL RESEARCH IN SYSTEMATICS AND PHYTOGEOGRAPHY IN ONTARIO

As part of a series on botanical research in Canada, Dr. Judith Canne of the University of Guelph compiled a listing of researchers and their current projects in systematics and phytogeography in Ontario. The original version of this list, which included studies on fungi and algae, appeared in the July 1983 issue of the Canadian Botanical Association Bulletin (16(3): 27-39). An update was included in the October 1983 issue (Canadian Botanical Association Bulletin 16(4):41).

All students considering further studies or employment in research in systematics and

phytogeography in Ontario would be well-advised to read these listings. Copies of the CBA Bulletin are available in university libraries.

LA SOCIÉTÉ BOTANIQUE DU QUÉBEC

by Luce Dumont, Editrice du Bulletin de la
Société botanique du Québec, Herbar Louis-
Marie, Pavillon Comtois, Université Laval,
Québec G1K 2P4

The "Société Botanique du Québec" was founded by a group of about 50 botanists on 16 May 1980 during the annual meeting of the Association Canadienne Française pour L'Avancement des Sciences (ACFAS) in Québec City. This is an organization through which botanists in the province communicate and exchange interests pertaining to plants. The founding members of the Société sought a means of exchanging information at a level different from that of scientific journals and periodicals. It was thought that an information bulletin would serve as a tool in keeping members mutually informed of their botanical activities, scientific events and recent books published in botany.

The membership is 170 to date. Three bulletins are published each year, two regular ones and the third presenting the texts of the conference organized by the Société during the ACFAS annual meeting. The first conference dealt with the study of weeds in Quebec and was published as Bulletin no. 3 (speakers: J.-M. Deschênes, P. Morisset, C.-J. Bouchard and G. Emond). The second was on floristic biogeography and was published in October 1983 (speakers: P. Dansereau, C. Hamel, L. Brouillet and I.M. Brodo and S.P. Gowan). The third conference was on classification systems in botany (speakers: P. Morisset, B. Baum, D. Barabé and R. Bernier). The fourth conference will deal with rare plants and will be held in May 1984.

Until now, these have been the main activities undertaken by the "Société botanique du Québec". Anyone interested in plants and wishing to become a member of the Société should write to M. Martin Dubé, Secrétaire de la Société botanique du Québec, a/s Herbar Louis-Marie, Pavillon comtois, Université Laval, Québec G1K 7P4. The membership fees are \$ 5.00 for students and \$ 10.00 for all other members, including institutions and organizations.

WANTED - ONTARIO *Crataegus* (HAWTHORN)

Our researches into the systematics of the difficult genus *Crataegus* continue well beyond the revision of the Ontario species (Phipps & Muniyamma 1980) which, like all such documents, is never the last word. Rather, it helped clarify for us where some of the problems were and we have initiated detailed population and reproductive studies on some of the species groups (series *Crusgalli*, series *Pruinosae*, series *Rotundifoliae*) to clarify the relative amounts of sexual and non-sexual (apomictic) reproduction and the internal segmentation of the species. The fact remains that the genus is very difficult and we have been gratified to see largely correct identifications coming in from careful collectors using our revision (in spite of a misleading typographical error (a wrong number) in the key).

Our principal ongoing taxonomic interests in the Ontario taxa are in the difficult groups, and the geographical ranges of rare species (mainly in the south). We, therefore, welcome good collections, in exchange for names, of most Ontario hawthorns. Pointful collections, however, mainly come with knowledge, otherwise there tends to be merely a high level of collection of the commoner and more striking species. Areas of special interest include: north of the Trans-Canada Highway (to ascertain northern limits); a band from Georgian Bay to Toronto and the St. Lawrence Valley (to verify old records); Niagara Peninsula: Essex and Kent Counties, Pelee Island; and western Manitoulin. However good collections from anywhere are welcomed. Taxa of special interest include all rarities, series *Rotundifoliae* other than *C. chrysocarpa* and any suspected hybrids.

The problems for the collector generally centre around difficulty of identification and even many experienced botanists have made numerous and, not infrequently, extremely bad identification errors. As with all difficult groups, understanding is therefore developed from trying to collect all or most taxa in an area until knowledge develops. The following notes are intended to help out.

The quality of the specimen is very important. Shoots 25-40 cm long, with fresh flowers or fairly ripe fruit are optimal. If you get

serious, field-mark the tree and collect both fruit and flower. Thorns are a diagnostic characteristic, even if a nuisance in pressing. Nuisance thorns should be snapped back at the base while pressing, rather than removed. Be very generous with paper, press very firmly and smooth out the leaves after 24 hours. The season of anthesis lasts about 6 weeks wherever several *Crataegus* species occur, each one being in flower for usually less than a week at a site, therefore repeated visits may be necessary. Early flowering is usually about the beginning of May in southern Ontario, early June in more central latitudes. Fruit is ripe usually in September and should be collected well before leaf-fall.

If you wish to try your hand at identification, I feel sure that our revision in the Canadian Journal of Botany is the best for this area. The reprint supply is exhausted but no one should have trouble xeroxing it. Semi-popular and popular works are invariably incomplete (even as to distinct and common species) and may include serious range-errors or taxonomic confusion (especially the lumping of species from different series) and none can be unreservedly recommended.

Palmer's treatment (1952) in Gleason, vol. 2, is taxonomically fairly accurate but I have met no one who finds this work at all easy to use. Even by restricting one's self to only the Ontario species indicated, Palmer's treatment is difficult as no indication of abundance is given. This could lead, for instance, to attempting to identify collections to taxa such as *C. margaretta* Ashe or *C. disperma* Ashe, both of extreme rarity in the province.

Soper & Heimbürger (1982), a justifiably popular treatment on Ontario shrubs, regrettably will also mislead, since there is no clear indication of omitted taxa (e.g. other series *Rotundifoliae* in the treatment of *C. chrysocarpa*; the distinct species *C. calpodendron* and the entire series *Pruinosae* - both latter distinct and easily recognisable) while all series *Coccineae* and series *Molles* are collated into a composite drawing, range map and description. The drawings in Soper & Heimbürger (1982) are, however, among the best available for *Crataegus*.

If you would like to try your hand at

Crataegus, specimens would be welcomed by the undersigned.

J.B. Phipps,
Professor,
Department of Plant Sciences,
The University of Western Ontario
London, Ontario
N6A 5B7

References

- Phipps, J.B. and M. Muniyamma. 1980. A taxonomic revision of *Crataegus* (Rosaceae) in Ontario. *Canadian Journal of Botany* 58(15): 1621-1699.
- Palmer, E.G. 1952. *Crataegus* in Gleason, H.A. *Illustrated Flora of the Northeastern United States and Adjacent Canada*. Vol. 2. Van Nostrand.
- Soper, J.H. and M. Heimburger. 1982. *Shrubs of Ontario*. Royal Ontario Museum. Toronto. 495 pp.

[In the past it has been possible to obtain the Phipps & Muniyamma (1980) monograph by ordering the entire number (Vol. 58, No. 15) for \$ 7.50 (cheques payable to Receiver General of Canada) from Administration, Canadian Journal of Botany, National Research Council of Canada, Ottawa K1A 0R6. This monograph contains colour plates which are much more useful as an aid to identification than a xeroxed copy.]

[For those who haven't figured out the typographical errors in the Phipps & Muniyamma (1980) key: couplet 6 should lead to 7 and 26 (not 25); couplet 37 should lead to *C. pringlei* and 38 (not 39)]

ONTARIO PLANTS IN PRINT

THE ONTARIO FIELD BIOLOGIST REFERENCES FROM 1980 - 1983

compiled by Bill Crins, Biology Department,
Erindale College, University of Toronto,
Mississauga, Ontario L5L 1C6

Temple, P.J. 1980. Plants of the Leslie Street headland, Toronto, Ontario. *Ont. Field Biol.* 34:19-32. (documentation of 282 taxa which have invaded this landfill site since its construction in 1959; more than half are introduced; some discussion of habitats)

- Judd, W.W. 1980. Insects associated with flowering basswood, *Tilia americana* L., at Dunnville, Haldimand County, Ontario. *Ont. Field Biol.* 34:33-39. (list of 42 species collected 16-23 July 1977; little interpretation of significance of insects to basswood)
- Kott, L. 1980. *Polystichum braunii* in Waterloo County. *Ont. Field Biol.* 34:47-48. (status and presence of this rare fern in Waterloo Co., Durham R.M., Manitoulin Dist. and, possibly, Peterborough Co.)
- Stewart, W.G. and C.G. Jackson. 1980. A red snow due to the dinoflagellate *Gymnodinium pascheri* (Suchlandt) Schiller at St. Thomas, Ontario. *Ont. Field Biol.* 34:93-94. (report on the red snow phenomenon caused by this alga at St. Thomas, Elgin Co.; additional Ontario records included)
- Cody, W.J. 1980. Book review of "The Vegetation and Phytogeography of Coastal Southwestern James Bay" (by Riley, J.L. and S.M. McKay. 1980). *Ont. Field Biol.* 34:108.
- Brown, J.R. and P.M. Catling. 1981. The status and distribution of yellow ladies'-tresses (*Spiranthes ochroleuca* (Rydb.) Rydb.) in Ontario. *Ont. Field Biol.* 35:7-12. (distribution map, specimen citations, an illustration and discussion of ecological preferences, pH and associated species)
- Riley, J.L., S. Varga and M.J. Oldham. 1981. Additions and changes to the vascular plants of the Rouge River Valley in Metropolitan Toronto and Durham Region. *Ont. Field Biol.* 35:25-34. (revisions since "Guide to the vascular plants and wildlife of the Rouge River Valley in Metropolitan Toronto and Durham Region" (by Riley, J.L. 1978) (checklist now includes 440 native and 223 introduced taxa)
- Oldham, M.J. 1981. Male fern (*Dryopteris filix-mas*) in Durham Region, Ontario. *Ont. Field Biol.* 35:79-80. (new record and ecology of this provincially rare fern)
- Judd, W.W. 1981. Ambush bug (*Phymata wolfii* Stal.) on wild carrot (*Daucus carota* L.) at Dunnville, Ontario. *Ont. Field Biol.* 35:81-82. (observations on the feeding and breeding behaviours of this insect at a site in southern Ontario)
- Brouillet, L. 1981. A new population of *Aster shortii* for Canada. *Ont. Field Biol.* 35:83-84. (description of a large population of this provincially rare composite in Essex County)
- Beechey, T.J. 1981. Book notice of "Provincial Nature Reserves in Ontario" (by Ontario Ministry of Natural Resources). *Ont. Field Biol.* 35:86.

- Judd, W.W. 1981. Insects associated with flowering bindweed (*Convolvulus sepium* L.) at Dunnville, Ontario. *Ont. Field Biol.* 35:88-92. (list of 25 species collected 13-16 July 1978; little interpretation of significance of these insects to bindweed)
- Hilts, S.G. 1981. Book review of "Protection of Natural Areas in Ontario" (by Barrett, S.W. and J.L. Riley. 1980). *Ont. Field Biol.* 35:95-96.
- Reznicek, A.A. 1982. The Cactus in southwestern Ontario. *Ont. Field Biol.* 36:35-38. (review of all records of *Opuntia compressa* from Ontario, including ecology, status and a distribution map)
- Beechey, T.J. 1982. Book review of "The IBP Survey of Conservation Sites: An Experimental Study" (by Clapham, A.R. (ed.). 1980). *Ont. Field Biol.* 36:44.
- Garton, C.E. 1982. Book review of "Plants of Quetico and the Ontario Shield" (by Walshe, S. 1980). *Ont. Field Biol.* 36:45.
- Ambrose, J.D. 1982. Book review of "Shrubs of Ontario" (by Soper, J.H. and M.L. Heimburger. 1982). *Ont. Field Biol.* 36:49-50.
- Lindsay, K.M. 1982. Rare vascular plants of twelve provincial parks in the deciduous forest region of southern Ontario. *Ont. Field Biol.* 36:53-70. (203 provincially rare species from Rondeau, Pinery, Bronte Creek, Short Hills, Turkey Point, Wheatley, Long Point, Ipperwash, East Sister Island, Ojibway Prairie, Fish Point and Lighthouse Point; map of study area and photos of interesting habitats containing rare species)
- Macdonald, I.D. 1982. Significant and interesting vascular plants in and around Killarney Provincial Park, Ontario. *Ont. Field Biol.* 36:89-95. (notes on 22 species of phytogeographic interest; additional comments on major habitat types and their species composition)
- Mooi, R.D. and D.F. Brunton. 1982. Ebony spleenwort (*Asplenium platyneuron*) new to Algonquin Park and Nipissing District, Ontario. *Ont. Field Biol.* 36:98-99. (documentation of this fern in Algonquin Park with reference to other records at the northern limits of its range in Ontario)
- Morton, J.K. 1982. Book review of "Forest Island Dynamics in Man-dominated Landscapes" (by Burgess, R.L. and D.M. Sharpe (eds.). 1981). *Ont. Field Biol.* 36:101.
- Crins, W.J. 1982. Significant range extensions: a new series of short reports in The Ontario Field Biologist. *Ont. Field Biol.* 36:102-103. (a simple format for reporting new county records and other range extensions of Ontario's flora and fauna)

- Crins, W.J. 1982. *Carex laevivaginata* new to Norfolk County. *Ont. Field Biol.* 36:103.
- Riley, J.L. 1982. *Perilla frutescens* naturalized in Ontario. *Ont. Field Biol.* 36:103.
- Oldham, M.J. 1983. The distribution of *Desmodium rotundifolium* (Michx.) DC. (Leguminosae) in Ontario. *Ont. Field Biol.* 37:27-32. (status, specimen citations, ecology and distribution map of this provincially rare species)
- Macdonald, I.D. 1983. *Glyceria septentrionalis* new to Ontario County, Ontario. *Ont. Field Biol.* 37:36.
- 1983. *Carex virescens* new to Elgin County, Ontario. *Ont. Field Biol.* 37:36-37.
- 1983. *Taenidia integerrima* new to Algoma District. *Ont. Field Biol.* 37:37.
- Oldham, M.J. 1983. *Fissidens exilis* a moss new to Ontario. *Ont. Field Biol.* 37:38. (Essex County)
- Klinkenberg, B. and R. Klinkenberg. 1983. Book review of "Carnivorous Plants" (by Slack, A. 1980). *Ont. Field Biol.* 37:41-42.
- Macdonald, I.D. 1983. Book review of "Plants of Essex County: A Preliminary List" by Botham, W. 1981). *Ont. Field Biol.* 37:42-44.
- Gray, S.L. 1983. Book review of "Urban Natural Areas: Ecology and Preservation" (by Andrews, W.A. and J.C. Cranmer-Byng (eds.) 1981). *Ont. Field Biol.* 37:47-48.

THE ONTARIO FIELD BIOLOGIST is a semi-annual journal in which the results of field-oriented biological studies in Ontario are published. Some of the botanical subjects in recent years include the results of floristic inventories, status and distribution reports of unusual and rare species of vascular plants and descriptions of unusual or restricted plant communities. All papers published in the journal are refereed. Manuscripts may be sent to the Editor, Dr. Peter McLaren, 125 St. Clements Ave., Toronto, Ontario M4R 1H1.

The current subscription fee is \$ 7.00 per year. For further information, contact the Subscription Secretary, Rosemary Gray, 36 Haslmere Rd., Toronto, Ontario M4N 1X5.

TORONTO FIELD NATURALIST REFERENCES FROM 1980 - 1983

compiled by Steve Varga, 5900 Yonge St., #618,
Willowdale, Ontario M2M 3T8

Riley, J. and S. Varga. 1980. A white pine stand in the Rouge River Valley - what can we make of it? *TFN* 329:6-12. (ecological

- description and regional significance of an unusual white pine - hemlock forest; graphs and a map supplied by P.F. Maycock outline the distribution/abundance of white pine in Ontario and southwestern Quebec)
- Varga, S. 1980. Rare plants of the Rouge River Valley - streambank meadows. TFN 330:14-18. (description of streambank meadows, vegetation map and illustrations of 6 species)
- Hamilton, E. 1980. Ferns of the Toronto area. TFN 331:12-13 (annotated checklist of Metro Toronto and the TFN's Jim Baillie Nature Reserve (Durham R.M.); key to *Lycopodium* and illustration of fern terminology)
- Varga, S. 1980. Rare plants of the Rouge River Valley. TFN 332:14-18. (description of moist deciduous forests and drier upland woods along the Rouge, illustrations of 14 species)
- Varga, S. 1980. Rare plants of the Lower Rouge River marshes. TFN 333:15-20, 31. (regional significance, botanical and ecological description, vegetation map and illustrations of 14 species)
- Varga, S. 1980. Rare plants of the Rouge River Valley - hemlock slopes. TFN 334:1, 9-11. (habitat description and illustrations of 10 species)
- Varga, S. 1981. Plant communities of High Park. TFN 338:13-19. (description of High Park prairie habitats, map of natural areas, list of 52 regionally rare plant species in the Park and illustrations of 11 species)
- Cattley, B. 1981. A naturalist re-discovers the Humber Valley - Finch to Lawrence. TFN 339:10-13. (comparison of the Humber of the 1920's with the Humber of today)
- Harris, J. 1981. Introducing the Humber Marshes. TFN 339:24-28. (natural history of 8 marshes along the Humber south of Bloor St.)
- Catling, P.M. and A. Rider. 1981. Ipperwash Provincial Park (is park status enough?). TFN 340:14-16. (account of the destruction of an impressive wet meadow at Ipperwash, description of the wet meadows and dune habitats of this part of the Lake Huron shore, illustrations of 7 plant species)
- Cattley, B. 1981. A naturalist re-discovers the Humber Valley - Sheppard to Albion. TFN 341:10-12.
- Varga, S. 1981. High Park: the plant communities of Spring Road Ravine. TRN 342:12-17. (description of moist and wet habitats of Spring Road Ravine, map of High Park natural areas and illustrations of 9 species)
- Smith, M. 1981. Oak Heritage. TFN 342:7-8.
- Hamilton, E. and M. Cumming. 1981. The mystery of Castle Frank. TFN 342:1, 11. (discovery of a planted pignut hickory (*Carya glabra*) along the Lower Don River)
- Cattley, B. 1981. A naturalist re-discovers the Humber Valley - Lawrence to Eglinton. TFN 343:10-12.
- 1981. A naturalist re-discovers the Humber Valley - Eglinton to Lake Ontario. TFN 344:10-13.
- Smith, M. 1981. Manitoba maples in Metropolitan Toronto valleys. TFN 344:8.
- Banville, D. 1981. The wild beans. TFN 344:1, 15. (illustrations and description of the wild bean or groundnut (*Apios americana*))
- Catling, P.M. 1981. Our vanishing flora. TFN 343:25-30. (examples of abuse and mismanagement of Ontario's native flora with emphasis on the need for a "wildflower protection act" - 111 wild plant species considered exploited and in need of protection are listed)
- Banville, D. 1981. Humber's southern accent... Twinleaf (*Jeffersonia diphylla*), Humber Valley. TFN 343:1, 13. (illustration, description and flowering dates)
- Taylor, S. 1981. On wildlife corridors. TFN 343:21-23. (Highland Creek is used as an example of the gradual destruction of urban natural areas, several solutions are given)
- Smith, M. 1982. More about heritage trees. TFN 345:27-28.
- Greenbaum, A. 1982. Two small ravines in the East Don watershed. TFN 346:22-25. (botanical descriptions of the Wellesbourne and Vyner Ravines)
- Varga, S. 1982. Environmentally Significant Natural Areas of Metro Toronto. TFN 348:1, 9-18, 29. (community descriptions and map of 37 ESA's and 39 potential ESA's; rare plants noted for each site, with a map and illustrations of 5 species)
- Smith, M. 1982. Heritage tree care. TFN 350:29-30. (what can be done to reduce the adverse effects of construction near trees)
- Hamilton, E. and D. Banville. 1982. A new fern for Toronto - Silvery Spleenwort, *Athyrium thelypteroides*. TFN 350:1, 26.
- Muma, R. 1983. Four Ontario mosses. TFN 353:1-2. (description and illustration of 4 mosses in Subclass Bryidae)
- 1983. The Sphagnum mosses. TFN 354:28-29. (introduction to Sphagnidae)
- Greer, L. 1983. What are mosses? TFN 354:28-29. (introduction to mosses, bibliography of moss literature relevant to Ontario)
- Muma, R. 1983. Andreaeidae, the second of 3 subclasses of Musci (Mosses). TFN 355:20. (description and illustrations)
- Hamilton, E. 1983. More ferns for beginners. TFN 355:21-22. (discussion of sterile/fertile fronds, pinnae edges, sori types, with illustrations)
- Hamilton, E., M. Smith and H. Juhola. 1983. Heritage trees and shrubs of Mount Pleasant Cemetery. TFN 355:23-29. (annotated list with reference map)

TORONTO FIELD NATURALIST is the newsletter of the Toronto Field Naturalists. It is issued 8 times per year and sent to all members. This publication includes members' observations, suggestions, drawings, poetry, humour, reports, news, reviews, bibliographies, calendars of upcoming meetings, outings, trips, events and projects. Aim: To stimulate interest in natural history and conservation. Each issue contains 22-44 pages in booklet form and is illustrated in black and white. Membership: \$ 20.00 family (2 adults same address); \$ 15.00 single; \$ 15.00 senior family; \$ 10.00 senior single; \$ 10.00 student, payable to Toronto Field Naturalists, 83 Joicy Blvd., Toronto, Ontario M4M 2T4. Back issues are \$ 2.00 each, postage included.

THE WOOD DUCK REFERENCES FROM 1980 - 1983

compiled by James S. Pringle, Royal Botanical Gardens, P.O. Box 399, Hamilton, Ontario L8N 3H8

- Shivas, M.S. 1980. Our friend - Monroe Landon. Wood Duck 33:85
- Hepworth, R. 1980. 1979 phenological summary. Wood Duck 33:92-93.
- Curry, R. 1980. In memoriam: Dr. Robert C.G. McLaren. Wood Duck 33:98.
- Hepworth, R. 1980. Land of giants. Wood Duck 33:108-109. (descriptions of original forests of Ontario from writings of early settlers)
- Shivas, M.S. 1980. Brief concerning sale and projected use of Brantford Boy Scout property situated near Normandale, Ontario, and the effect on nearby established and significant natural areas (including Spooky Hollow Sanctuary) - March 6, 1980. Wood Duck 33:114-115.
- Ambrose, J.D. 1980. Ontario rare woody plant program. Wood Duck 33:117.
- Broker, H. 1980. A word from the president. Wood Duck 34:22. (announcement of H.N.C. and H.R.C.A. nature reserves in Crieff area)
- Duncan, B. 1980. Conservation director's report, 1979-80. Wood Duck 34:25, 27.
- Attack, P. 1980. Clarification re tree cutting in the Halton Region. Wood Duck 34:57-58.
- Klement, S. 1981. What's still blooming and fruiting in the Dundas Valley. Wood Duck 34:57-58.

- Bush, J.C. 1981. Forest management program in Halton Region. Wood Duck 34:81-84.
- Duncan, B. 1981. Conservation director's reply. Wood Duck 34:84-85. (to Bush, above)
- Runnells, A. 1981. Some wildflowers of the Hamilton area. Wood Duck 34:93-94. (a list with 1 or 2 localities for each)
- Hepworth, R. ed. 1981. Orchids of Halton and Wentworth Counties. Wood Duck 34:132-134. (based largely on sight records by R.C.G. McLaren)
- Anonymous. 1981. Ceremony and dedication of tribute to Dr. Robert McLaren. Wood Duck 35:6. (sanctuary near Crieff)
- 1981. Edward Walter Burns. Wood Duck 35:18. (wildflower photographer, field trip leader)
- Elder, L. 1981. The way of the mulberry tree. Wood Duck 35:51. (rate of autumn leaf-fall)
- Runnells, A. 1981. For plant enthusiasts. Wood Duck 35:51. (location guide to several prairie compositae near Chatham)
- Hepworth, R. 1982. 1981 phenological survey. Wood Duck 35:63-64.
- 1982. 1982 spring watch. Wood Duck 35:127.
- Miles, J.B. 1982. Maitland River Bird Observatory. Wood Duck 35:128-132, 151-152. (includes partial list of plants)
- Emery, H. 1982. The linden tree. Wood Duck 35:148 (brief description)
- Ralston, N. 1983. Book review of "Shrubs of Ontario" by James H. Soper and Margaret L. Heimburger. Wood Duck 36:147.
- Hepworth, R. 1983. 1983 spring watch. Wood Duck 36:148.
- Shivas, M. 1983. Flowering Dogwood. Wood Duck 36:129.

THE WOOD DUCK is published by the Hamilton Naturalists' Club. Articles in the field of natural history and related club activities are included monthly - September to May inclusive. The Wood Duck is free to members, the basic membership fees are: \$ 10.00 active members; \$ 12.00 joint member (husband and wife); \$ 3.00 student and junior members; \$ 5.00 corresponding member (residing over 20 miles from Hamilton). Seniors may join for half the rates for "active" and "joint" memberships. Cheques should be made payable to Hamilton Naturalists' Club, Box 5182, Hamilton, Ontario L8S 4L3. Back issues with botanical information go back to the 1950's and many of these are not available. Complete files of back issues are at the Royal Botanical Gardens Library, where they may be consulted.

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BUSINESS MANAGER:	Jeff Kaiser	

OBJECTIVES OF THE NEWSLETTER

1. Provide a medium for communication among Ontario field botanists;
2. Distribute information on Ontario botanists and their activities;
3. Report on projects and research in progress;
4. Distribute current botanical information on subjects such as species distributions, identification keys, field equipment and methods;
5. Monitor Ontario plants in print and provide reviews where appropriate;
6. Encourage publication by field botanists, especially amateurs, both in THE PLANT PRESS and more formal publications.

OPINIONS EXPRESSED IN THIS NEWSLETTER ARE NOT NECESSARILY
THOSE OF THE EDITORIAL COMMITTEE

SUBMISSION OF NOTES AND ARTICLES

We are pleased to receive notes and articles about plants in Ontario. These articles should contain original information (i.e. your own observations and experiences) and/or should clarify some confusing aspect. All contributions are informally reviewed by the Editorial Committee. Contributions with content beyond our expertise may be sent to North American specialists. Although our system is not so rigorous as that of scientific journals, we request that articles be well-written and in the style of this newsletter. We are particularly pleased to receive 3 copies of typed, double-spaced manuscripts whenever possible.

DEADLINES FOR SUBMISSION OF MATERIAL

We need a minimum of 3 months to review submissions for the 'Notes and Articles' section and 6 weeks to decide on other submissions. These deadlines will be determined from the first day of the month of publication.

MAPS AND ILLUSTRATIONS

Base maps can be provided for articles appearing in the newsletter. Time permitting, arrangements can be made to provide illustrations.

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