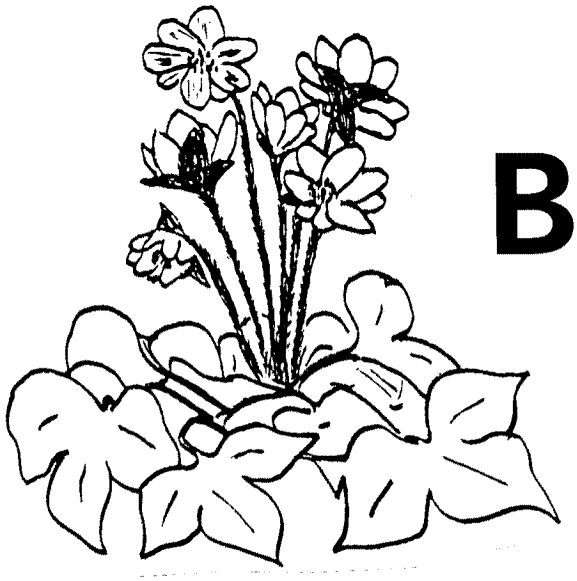


Hepatica acutiloba

FIELD BOTANISTS OF ONTARIO

ISSN: 1180-1417

NEWSLETTER

Spring 1992

CONTENTS:

FBO attains charitable status 2
Some responses to questions raised 3
Response to membership questionnaires 4
A perennial complaint 6
Spontaneous nomenclature: a response 6
Emily Hamilton 1910-1992 7
Death of Arthur Cronquist 7
Report on the second *Crataegus* workshop 8
Publications for Ontario field botanists 9

FIELD EVENTS FOR 1992

The 1992 field season is nearly upon us and we have a full program of events planned. A calender of FBO field trips and workshops and an application form are enclosed with this newsletter. Register early to avoid disappointment. Both of the workshops announced in the last newsletter filled up very quickly.

Further details of the Annual General Meeting at Honey Harbour will be announced in the Summer Newsletter, but please indicate now if you plan to attend so that we can reserve rooms at the Delawana Inn.

FIELD BOTANISTS of ONTARIO

NEWSLETTER
Published quarterly by the FBO
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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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FBO ATTAINS CHARITABLE STATUS

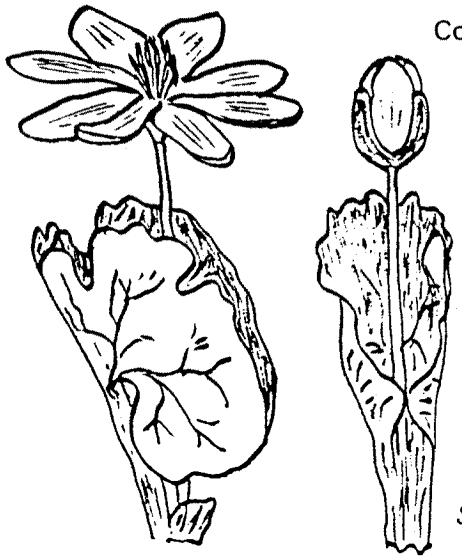
We are delighted to report that FBO is now provincially incorporated and federally registered as a charitable organization. This means that we will be able to provide tax receipts for contributions. We are planning to establish a life membership category which will include a tax deducible component. Funds received will go towards cooperative naturalist ventures.

SOME RESPONSES TO QUESTIONS RAISED

One or two quick reactions from a very inactive member regarding the philosophical points you raise via the Executive Meeting report (Winter 1991).

- I don't know of any public wildflower gardens that are not a disaster, though I freely admit there probably are some! I think this kind of planting is difficult to control, hard to interpret to the viewer, and enormously labour intensive. I'm against them!!
- I'm all for protecting rail lines. We are part of the environment, like it or not. Carry the "no protection" argument to its conclusion and most of the places, for example, the British are trying to protect should be abandoned because they are all a product of man's intervention! The results of our meddling can be interesting and valuable in themselves.
- Transplanting as a last resort is legitimate, but as a management tool a no-no. If the woodlot is going to be lost no matter what, lets try so save some plants, but lets not abandon the woodlot because the plants can always be transplanted.
- No, I don't think growth [of the FBO] for growth's sake is a worthwhile objective, as long as the interested people know of us and can join us if they wish. But getting the word out will be a challenge.

Clive Goodwin
Cobourg, Ontario



Sanguinaria canadensis

Some of the problems discussed at your Executive Meeting would fall into perspective if the concentration were (where we all know it ought to be) on saving ecosystems from destruction, rather than on individual threatened species.

Surely the FBO should take its place at the forefront of public demand for implementation of the recommendation in the Brundtland Report that a goal of 12% of each nation's natural habitat be preserved permanently in its natural state, a gene pool for the planet earth's species.

Are there practical ways that the FBO can promote the realization of this goal? At least we can further the cause by actively promoting the philosophy within and beyond our own organization. Just getting people to start thinking seriously about the implications of the declining gene pool would be an excellent start. Are there experts out there who could do an article or two for the Newsletter?

A practical move that comes to mind (as individuals and as an organization) is to contact our representatives at all levels of government for a commitment to the 12% goal. Here we get into the time-consuming, energy-draining field of active involvement in influencing the decision-makers in the right direction. Yes, this leaves even less time to enjoy the delights of botanizing ... but what is the alternative.

Sheila C. Thomson
Ottawa, Ontario

All drawings in this issue of the FBO Newsletter are by BOB BOWLES.

RESPONSE TO FBO MEMBERSHIP QUESTIONNAIRE

As most FBO members will know, a questionnaire was included with the membership renewal form for 1992. The questionnaire was included essentially to determine how the members felt about the programme and the activities of the organization. I have attempted to summarize the responses that were made to the questions. It was necessary to rearrange some responses where they were more applicable to other questions. Also, I paraphrased a few comments to fit with the demands of the computer. Overall, I think that I was able to capture the intent.

If you do not recognise your particular response to a question in the following, do not think it was disregarded. Each comment will be presented to the whole executive for their consideration.

Memberships
At the time this summary was prepared, I had received membership application forms from 125 people. Of this number, 112 were renewals, 11 were from new members and 2 had decided to cancel. If family memberships are counted arbitrarily as 2 people, the total membership presently stands at 166.

Field Trips and Workshops
Interest in attending field events or workshops had the highest response of any of the questions. The percentage of replies were 61 and 52 respectively for field trips and workshops. Only one or two indicated that they were not interested. Where there was no response at all to this question, there was usually no response to any other question, so one wonders if everyone was fully aware of the questionnaire on the back of the form.

A good interest in workshops was shown. There were three requests for workshops on asters and goldenrods, two on willows, two on sedges, a total of five dealing with bryophytes and lichens (two specified lichens, one specified *Sphagnum*). The others were related to smaller groups of plants (violets, *Euphorbias*, mints, serviceberries, sunflowers or halophytes). The requests for workshops on herbarium procedures, for sedges and for willows have been addressed for 1992.

In relation to future field trips (about 25% of responses), there were some general suggestions about locations and types as well as "existing events offer a good range". Field event ideas included trees and shrubs, mycology, alvars and boreal forest. It was not clear whether a suggestion about conducting trips in "areas close to Toronto" meant that the person was unwilling/unable to travel further afield or whether FBO was neglecting that area. It was clear that members from the eastern part of the province wanted FBO trips in that area and one said "don't complain about small turnouts".

Some members were obviously impressed by the trip reports in the Newsletter and requested repeats of trips they missed during the past two years including Georgian Bay, Walpole Island, Brantford prairies and Elgin County. Some specific location suggestions included Murphy's Point Provincial Park, Manitoulin Island, Long Swamp on the Bruce Peninsular, Grey County, ANSI's, Cardon Plain, Victoria County, the Goderich area, and new prairie/oak savannahs of Brant & Waterloo areas. One member suggested that she would like assistance on plant ID on her own property. Other suggestions included interpretive botany at the Toronto Zoo for feedback and ideas from FBO, and an offer to lead a trip to a poplar plantation. For those who would like to go a bit further afield, Ian MacDonald offered a 1993 field trip to Alberta (Milk River, Mountains, etc.).

With respect to management aspects of field trips, the following items were mentioned. Before trips start, there should be more background information given as opposed to picking up titbits during the trip (not all participants get to hear the trip leader during the walk). Trips should start promptly (especially when rain threatens) or earlier in the morning. Due to travelling distance for some people, this may not be feasible but one suggestion thought that "two-day outings (such as in Muskoka in 1991) reduces overall travel costs".

Some thought there could be a "linkage of

workshop and trip on the same topic (e.g. Sedges)". Other ideas included coordination of trips with local naturalists clubs (e.g. Kingston), with FON (e.g. to the Bruce) or with the Wildflower Society.

There was mixed response to the inclusion of all field events in one announcement at the beginning of the year. Some people liked the idea while others found it difficult to commit to trips in advance and wondered if they could pay on site.

Newsletter

Several comments indicated that the Newsletter was fine in it's current format. They liked the write-ups on field trips, but suggested that the reports concentrate on noteworthy features. Certain data should be routinely included in such articles (The Newsletter Editor already has a guide available for this purpose).

The responses indicated that the Newsletter should "fill void of **Plant Press**" or should "move towards **Plant Press** format and content". Other comments also noted that the Newsletter should concentrate on technical information with "up to date keys for difficult groups", "more technical newsletter for those who can't make trips" and "updates in scientific name changes". There was a combination request/offer for inclusion of a "list of papers published on "Canadian Weeds" and the "Biology of Flora of Canada".

Suggestions for articles included "general articles plant biology/ecology", "more reviews of publications" and "short features on herbaria in Ontario (one per issue)". Separate responses "dealing with descriptions of flora of specific areas" all seemed to concentrate on one geographic area being "botanical interests on Georgian Island, Manitoulin Island", "item on struggle for Grey County ANSI's" and "plant life on Lake Huron shore".

While these are worthy suggestions, to see them appear in print will require some writing effort. Unfortunately, there were few offers of assistance in actually preparing materials. There was a wonderful offer to make halftones of photographs for reproduction. Excuses (some which are valid) were at least as numerous as were good offers of help. I am certain that the Newsletter Editor would like to see every member take on some topic and share it with the rest of FBO. From my reading between the lines, a number of members do not feel they are expert enough to contribute. Every knowledgable person or expert had to start somewhere. The learning associated with researching some topic new to you can be very rewarding. With time, you will build your confidence and your own expertise which you can then share. Try it!

Cooperative Projects for FBO

The majority of suggested projects which could be undertaken by FBO involved some form of flora documentation. This ranged from a "botany blitz of an adopted area" and inventories of key sites, through to starting a plant atlas beginning with certain plant groups. Three suggestions related to county floras through listing, possibly through a system of county recorders. My own suggestion was also along this line indicating a need for a catalogue of floras/checklists for Ontario that would be needed as baseline information for any such activity.

Some more specific suggestions included mapping of *Rubus* intergrading, involvement with Weed Act interferences, developing and circulating a slide show for clubs and libraries, raising funds to purchase Chatsworth Bog, funding studies of plants/groups relevant to Ontario, management and restoration of natural areas/habitats, as well as a hands-on effort at Purple Loosestrife eradication at Oliphant Fen.

General Comments

The general comments frequently related to low involvement with FBO because of other commitments or health problems. As expected, many offered good wishes and support for FBO. The circulation of the membership list was appreciated. Others felt they were too new to offer suggestions.

I especially liked the comment that said "shortage of time and energy. I'm getting more ignorant too".

W. McIlveen

A PERENNIAL COMPLAINT

*"I have had the pleasure of reading your **"Species Plantarum"**, a very laborious and useful work, but my dear friend, we that admire you are much concerned that you should perplex the delightful science of botany with changing names that have been quite well received and adding new names quite unknown to us. Thus botany, which was a pleasant study and attainable by most men, is now become by alterations and new names, the study of a man's lifetime, and none now but real professors can pretend to attain it. As I love you, I tell you our sentiments. If you will forever be making new names and altering good and old ones for such hard names that contain no idea of the plant, it will be impossible to attain a perfect knowledge of botany."*

This familiar-sounding complaint was written in a letter from Peter Collinson to Carl Linnaeus in 1753. **"Species Plantarum"**, published in 1753, is the earliest publication from which all official Latin plant names are dated and represents the baseline for current plant nomenclature.

Peter Collinson (for whom Linnaeus named *Collinsonia* (Horse-balm)) was an English botanist and a prodigious letter writer. He collected and distributed seeds and plants sent to him form all over the world and was probably more responsible than anyone for introducing American plants to Europe's botanists and gardeners.

Mike Oldham sent in the quotation from Clute, W.N. (1931) **"The common names of plants"**.

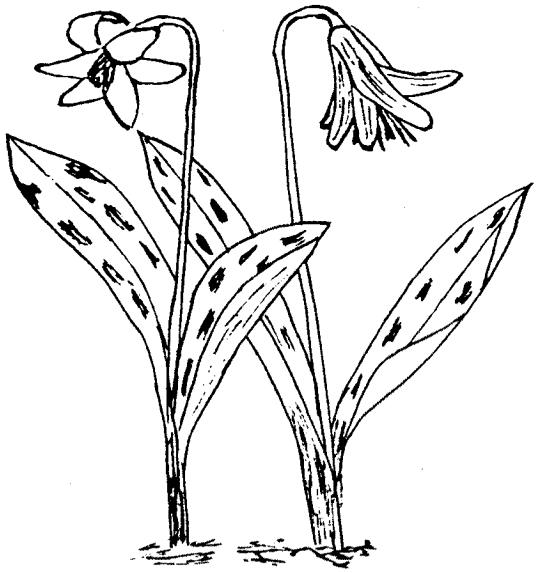
SPONTANEOUS NOMENCLATURE: A RESPONSE

In reply to the "renegade from Ottawa",
I agree that common names have no patents,
But all things considered its still nice to know
What we mean when we don't know the Latin.

If I'd thought my list might become gospel
I'd have inserted a few favourite names,
The Blue Beech I would have called Muscle
Beech,
The Norway Maple the Viking Shame.

In fact I don't mind loosing a few of them,
Like Niggerhead, Squaw-weed and worse,
But for the purpose of poets and other "folk",
By all means be creative in verse.

Riley (1989)



Erythronium americanum

EMILY HAMILTON 1910-1992

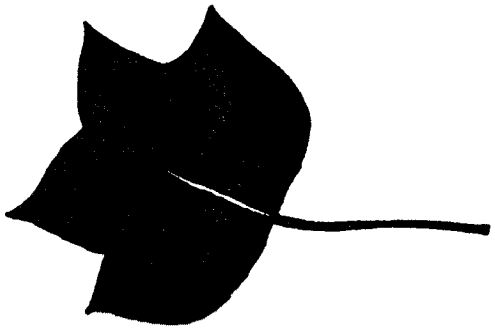
It is with sadness that we announce the death of FBO member Emily Hamilton on January 13, 1992. She was 81 years of age. Emily was also an active member of the Federation of Ontario Naturalists and the Toronto Field Naturalists for whom she served as director and member of the outings and editorial committee. She was a major contributor to the TFN ravine studies in Toronto. From 1984 until her death, Emily was a volunteer in the herbarium of the Royal Ontario Museum (TRT). She spent four or more days a week providing technical assistance in the collection and taking on special projects, such as pulling specimens for county flora projects and making a mini herbarium of berry producing plants to use in responding to poison plant inquiries. Her care for plant specimens was meticulous and she had little tolerance for sloppy collectors who failed to remove dirt from the roots before pressing a plant. After years of observing Emily I concluded that she treated plant specimens in the same fashion as she had the numerous babies who had been her charges as a Mothercraft nurse: loved them, scolded them and fussed over them - ever inventing new techniques for efficient handling!

Above and beyond everything else, Emily loved field botany. She studied plants around the world, but was particularly dedicated to the local native flora. I was always intrigued as to how she had learned so much. Her methods of study can provide guidance for all of us. Her interest in plants was first kindled at an FON field camp on the Bruce Peninsula in the 1950's where she chose to study grasses. She subsequently studied plant systematics with James Soper and James Cruise as part of two successive courses in natural history taught through the Continuing Studies Department of the University of Toronto. These courses focused on distinguishing features of plant families. A diligent student in her own right, Emily acquired a personal library of botanical manuals and field guides and undertook the study of plants family by family. She made collections of common species of some of the major plant families and placed them in scrap books complete with drawings and notes. The scrap books were used to really learn plants. Her knowledge was then reinforced by constant expeditions to look at things in the field. In this way Emily became one of the most knowledgable amateur botanists I have ever known. Her personal scrap books and library have been left to TRT so that others may make use of them in their own studies.

During the past three years Emily suffered heart attacks and her eyesight failed to the point that she was legally blind. However, she still botanized using what peripheral vision she had left. Ever cheerful and determined, she dedicated time to her avocation right up to her death. The herbarium seems very quiet now without her and we miss her council on local botany. However, we are all thankful to have been the beneficiaries of her friendship, assistance and knowledge.

A memorial service will be held in Mount Pleasant Cemetery at 2:00 pm on April 25, 1992. Her ashes will be scattered in the cemetery where she had spent many years mapping the arboretum. The service will be followed by a shrub and tree walk.

Deborah Metsger



DEATH OF ARTHUR CRONQUIST

Arthur Cronquist died on 22 March 1992 while looking at specimens in the herbarium at Provo, Utah. He was 73. Arthur Cronquist was respected internationally for his extensive knowledge of botany and for his classification system for the Angiosperms, but was perhaps best known to most North American botanists as the co-author of the **"Manual of Vascular Plants"**. He completely revised this book according to his own phylogenetic system in a new edition which was published in 1991.

REPORT ON THE SECOND *CRATAEGUS* WORKSHOP

As part of the field trip program associated with the FBO Annual General Meeting at Simcoe, the FBO sponsored the second part of the Hawthorn Workshop. For those who read the glowing report about Part 1 held in May (FBO Newsletter - Summer 1991), the second part was every bit as good (and there was no rain to deal with). Six members led by Dr. James Phipps, University of Western Ontario, set out to discover the joys of Hawthorns in fruit as opposed to the earlier workshop which concentrated on flowering characteristics. The two parts of the Hawthorn Workshop thus were properly complimentary to each other.

The workshop on September 15, 1991 began with a short classroom lecture as a review of taxonomic features of *Crataegus*. The review focused on the species that we would be seeing on the field trip later in the day. Handouts included an itinerary for the day and the most recent information regarding identification of the species within this genus in Ontario.

In total, we made eight stops on the field trip. Some of these were very brief and we examined typical features of hawthorn hedgerows that are common to southern Ontario.

Just north of Townsend, on Stone Quarry Road, there is a trail on the east side of a stream. It goes north along the stream valley which is surrounded by scrubby woods and old pasture. In the old pasture, there were several hawthorn species including *Crataegus succulenta, C. macrosperma, C. dodgei* and *C. coxinae*. In addition, there was a possible *C. scabrida* and a species identified as "*C. holmesiana*-type". Also noted was American Crabapple (*Malus coronaria*) whose foliage resembles some hawthorns. The fencerow just north of the first field east of here held *C. punctata* and *C. pedicillata* in spectacular fruit.

A stop was made at the Salem-Rockford rocklands. This site is about 1 km. north of the famous Hagersville Tire Fire site. It is a limestone alvar with shallow soil and a small abandoned quarry, and was included in the Natural Areas Inventory of Haldimand-Norfolk. The hawthorns noted on the walk were *C. punctata, C. compacta, C. calpodendron*, and more specimens of *C. succulenta, C. dodgei* and *C. holmesiana*-type. In addition, a few small shrubs of an unknown (and possibly new) species of *Crataegus* were pointed out. Also noted at this site were Fragrant Sumac (*Rhus aromatica*), Chinquipin Oak (*Quercus muehlenbergii*) and Perfumed Cherry (*Prunus mahaleb*).

A fair amount of time was spent in an area identified as part of the North Cayuga Slough Forest. The area that we examined was mainly an open hickory-maple forest with old field clearings. A trail system within the woods was followed but the beginning or end points of this trail were not known. Six hawthorn species were encountered (*C. macrosperma, C. crus-galli, C. pruinosa, C. succulenta, C. dodgei* and *C. compacta*). My notes also show ten species of aster and ten species of goldenrod in flower during our visit to this site. Of note among the latter were Sharp-leaved Goldenrod (*Solidago arguta*) and Silverrod (*S. bicolor*).

The final stop for the day was north of Port Dover on the north side of Norfolk Road 3 at Black Creek. Here the creek runs over bare limestone flagstones. Just west of this creek, we were shown more *C. punctata* and *C. dodgei*. There were also *C. monogyna, C. pringlei* and *C. chrysocarpa* var. *arboriginum*. We looked at some of the numerous asters here but all seemed to be members of the species seen at the previous stop.

Once again, the FBO and participants are indebted to Jim Phipps for taking time to share his knowledge with others. His organization skills have set a standard against which all future field trips/ workshops can be judged. Although I am far from being an expert in *Crataegus*, I did find myself being able to lock on to certain characteristics of the different species, sometimes from a fair distance away. This must be regarded as progress or learning, and an achievement that would have been difficult to obtain from only reading literature.

W. McIlveen

PUBLICATIONS FOR THE ONTARIO FIELD BOTANIST

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353 Talbot Street West, Aylmer, Ontario, N5H 2S8

There is a vast amount of literature available to assist the amateur or professional field botanist in Ontario, and every year additional useful information is published. With the ever increasing cost of books and periodicals, one cannot always purchase every book available. Since there is not yet a flora of Ontario, the choice of which books and other publications to get is not always easy. In this article I will discuss some of the books and publications I find most useful in assisting me with vascular plant identification in Ontario. Much of the literature I will mention will not be available in your local bookstore, but some of it might be in larger or more specialized bookstores such as the Nature Canada Bookshop in Ottawa, Open Air Books in Toronto, or the University of Guelph Bookstore. Other items you may have to order through a local bookstore or directly from the publisher. In the 'Literature Cited' at the end of this article, I have indicated the price (often in U.S. dollars) and publisher's address where known. Some of the prices I quote are several years old, and undoubtedly many books have increased in price since then.

Most field botanists probably start their interest in plants by looking at woodland wildflowers. There are two widely used wildflower guides for northeastern North America: "A Field Guide to the Wildflowers" (Peterson and McKenny, 1968) and "Newcomb's Wildflower Guide" (Newcomb, 1977). Both guides are good, although I have a slight preference for the latter. Newcomb's guide includes a simplified key, which makes identification easier, and will prepare the amateur for using the more technical keys used in botanical guides. One of the main drawbacks of a wildflower guide is that it is not comprehensive, although a surprising number of Ontario wildflowers are included in one or both of these books. Before long one will encounter a plant which is not included in either guide, or because of the brevity of the descriptions you will not be sure of your identification. Another drawback is that neither guide includes most shrubs, trees, ferns, grasses, rushes, sedges, or aquatic vascular plants.

Sooner or later a field botanist requires something more detailed and technical than a wildflower guide. For general identification purposes, especially for the amateur, "The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada" (Gleason, 1952) would be my first choice, primarily because it includes essentially all Ontario species and virtually every species is illustrated. This is an expensive, three volume work, but invaluable for the serious field botanist. There is a cheaper, softcover, Dover reprint edition available, but unfortunately this is a reprint of an earlier edition and the nomenclature, illustrations, and keys have all been improved upon in the 1952 edition. If you can afford it, get the hardcover 1952 edition. Gleason and Cronquist (1963) have condensed the "Britton and Brown Illustrated Flora" into a one volume "Manual of Vascular Plants of the Northeastern United States and Adjacent Canada". This volume is cheaper, more compact, and can be carried in the car or even in the field, however it has no illustrations or glossary, so is most suitable for the advanced amateur or professional with a reasonable knowledge of the local flora and experience in the use of botanical keys. Cronquist (1991) has recently revised the Manual, and although I have not yet seen it, the new version promises to be extensively revised and much more up-to-date. The only other manual to cover all of northeastern North America is "Gray's Manual of Botany" (Fernald, 1950). The taxonomy used in this manual differs from that of Gleason and Cronquist (Fernald tended to divide species up more finely, i.e. he was more of a 'splitter'), and the keys in Gray's Manual can be useful as an alternate to Gleason and Cronquist (1963).

Because they cover all of northeastern North America, Fernald (1950), Gleason (1952) and Gleason and Cronquist (1963) include many

plant species not found in Ontario (as do the two wildflower guides discussed previously). In order to sort out which species occur in the province, you will need Morton and Venn's recent (1991) checklist of the vascular plants of Ontario. Although it contains no keys, illustrations, distribution information, or common names, it does list common synonyms, introduced or native status, and is an excellent reference for up-to-date nomenclature and synonymy. Scoggan's (1978-1979) four volume "Flora of Canada" will be less useful to the average Ontario field botanist because it covers the entire country and its keys are often more difficult to use than keys in other floras.

Since Ontario lacks a published flora, a field botanist has to rely on one of the above manuals or a flora from an adjacent state or province. In most of Ontario, the "Michigan Flora" is most useful. Two of three volumes in this series have been published. Part 1 covers the gymnosperms and monocots (Voss 1972), while Part 2 covers the first half of the dicots, from Saururaceae to Cornaceae (Voss 1985). This outstanding flora has excellent keys and is fairly inexpensive. The Michigan range maps give some idea of relative distribution and abundance in Ontario. The main drawback to the Michigan Flora is that the third and final volume has yet to be published.

Several other adjacent states and provinces have publications useful to the Ontario field botanist. Two of a planned four volume flora of Ohio project have been published, one on monocots (Braun, 1967) and one on Asteraceae (=Compositae) (Fisher, 1988). Both volumes have keys, illustrations of many species, and Ohio range maps by county. Despite its high price (US $65.00), I find the Asteraceae volume useful, since it covers a large family not yet covered by the "Michigan Flora". Although New York state does not have a recent complete flora, eight parts in the "Contributions to a Flora of New York State" series have been published to date and are very useful (Mitchell and Dean, 1978; Mitchell and Beal, 1979; Andrus, 1980; Mitchell and Dean, 1982; Mitchell, 1983; Mitchell, 1988; Clemants, 1990; Furlow and Mitchell, 1990). Each part contains excellent illustrations of each species, detailed species descriptions and keys. The recently published "Vascular Plants of Minnesota: A Checklist and Atlas" (Ownbey and Morley 1991) may be useful to botanists in northwestern Ontario, although it contains no keys, descriptions or illustrations.

Two other U.S. floras which I find useful may interest some Ontario botanists, "Flora of the Great Plains" (Great Plains Flora Association, 1986) and "Plants of the Chicago Region" (Swink and Wilhelm, 1979). The former covers the Great Plains states from the base of the Rocky Mountains east to the beginnings of potentially continuous forest and from the Canadian border south to the Texas panhandle region. It is a technical flora with keys and detailed descriptions but no illustrations, and will be most useful to botanists in southwestern and northwestern Ontario. The companion "Atlas of the Flora of the Great Plains" (Great Plains Flora Association, 1977) maps the distribution by county of the vascular plants of the Great Plains. "Plants of the Chicago Region" is an unusual flora, but one I find surprisingly useful for southwestern Ontario. Rather than being arranged taxonomically as almost all other floras are, this one is alphabetic. Once one gets over the shock of using an alphabetically arranged flora, this sequence is probably easier to use for the average amateur field botanist. The book contains no species descriptions or illustrations, but has keys, habitat descriptions, lists of associates, and county dot distribution maps (covering a 22 county area around the southern tip of Lake Michigan in the states of Wisconsin, Illinois, Indiana, and Michigan). The lists of associates are a very useful feature and give the reader a good 'feel' for the type of habitat each species occurs in. There is an interesting appendix on "A Method for Environmental Assessment of Open Land" using a numerical quality rating for each species occurring in a particular site. I strongly recommend "Plants of the Chicago Region", although you may want to wait for the fourth edition, which is apparently in preparation.

Field botanists in eastern Ontario, particularly those with at least a rudimentary knowledge of French (both books are entirely in French), may want to acquire "Flore Laurentienne" (Marie-Victorin, 1964) or "Geographie Floristique du Quebec/Labrador" (Rousseau, 1974). The

former contains keys, descriptions, and some illustrations, and covers the southern part of Quebec. The latter is a phytogeographic treatment with no keys, descriptions, or illustration, but it does contain interesting information and range maps on species occurring in Quebec and Labrador.

One approach to learning the flora of your local area is to pick a group of plants and concentrate on them, before moving on to the entire flora. Favourite groups for amateur botanists are orchids, ferns, trees, and shrubs. Ontario botanists are fortunate to have a number of excellent publications available on these and other plant groups. Two orchid books are well worth getting, "Orchids of Ontario" (Whiting and Catling, 1986) and "Orchids of the Western Great Lakes Region" (Case, 1987). Both are excellent, and any Ontario botanist with an interest in orchids should have both. For ferns, the recently published "Ferns and Fern Allies of Canada" (Cody and Britton, 1989) will be useful, with its range maps, keys, and line drawings, despite the rather high price for a softcover book. I have yet to find an ideal tree book for Ontario, although there are quite a few tree guides available. "Native Trees of Canada" (Hosie 1969) will be of some value, although I find the keys difficult to use and the treatment of Carolinian species inadequate and at times in error. "Michigan Trees" (Barnes and Wagner, 1981) is good, with nice illustrations, keys and descriptions; range maps would have made it even more useful. For shrubs we are fortunate to have "Shrubs of Ontario" (Soper and Heimburger, 1982). It contains nice line drawings, detailed range maps, species descriptions and keys. Minor drawbacks are the poor coverage of some introduced shrubs (e.g. *Lonicera*) and difficult groups (e.g. *Crataegus*).

There are other specialized treatments which will be valuable for Ontario field botanists. "Grasses of Ontario" (Dore and McNeill, 1980) is a must if you have any interest in grasses. I recently picked up a second copy for the ridiculously low price of $5.35 at the Nature Canada Bookshop in Ottawa. It was a real bargain at its original price of $12.00. Anyone trying to make sense of goldenrods or asters will need John Semple's two booklets (Semple and Ringius, 1983; Semple and Heard, 1987). The Research Branch of Agriculture Canada has produced many fine monographs of various groups in Canada, including gentians (Gillett, 1963), lupines (Dunn and Gillett, 1966), milkworts (Gillett, 1968), plantains (Bassett, 1973), thistles (Moore and Frankton, 1974), *Atriplex* (Bassett *et al.*, 1983), *Vaccinium* (Vander Kloet, 1988), and fescue grasses (Aiken and Darbyshire, 1990). These publications include illustrations, range maps and keys, and are very useful. They range from small pamphlets which were free at one time, to extensive and expensive monographs ($48.50 for the 201 page treatment of *Vaccinium*). Some of these are out of print, and you will have to contact the Canadian Government Publishing Centre (Supply and Services Canada, Ottawa, Ontario K1A 0S9) for current information on availability and price.

While they won't help you much with plant identification, two other publications are worth mentioning. Rare plants are usually a magnet for field botanists, and the "Atlas of the Rare Vascular Plants of Ontario" (Argus *et al.*, 1982-1987) contains a useful series of range maps for 542 provincially rare plants (both an Ontario dot distribution map and a North American range map for each species), as well as notes on habitat, status elsewhere, and sometimes other topics. For those with an interest in vegetation and plant ecology, "The Vegetation of Wisconsin" (Curtis, 1959) contains a wealth of information. Because of its similar Latitude, the vegetation of Wisconsin and Ontario are surprisingly similar.

Of course, you will want to obtain any county or local floras available for your county and perhaps adjacent areas. There are many such publications available for Ontario, and to cover them would take an article in itself. Varga (1983) and Varga and Allen (1990) summarize regional publications covering southern Ontario. My personal favourite is "The Flora of Manitoulin Island" (Morton and Venn, 1984), and even if you never get to Manitoulin this is a useful and interesting book.

Newsletters, journals, and other periodicals are an excellent way of keeping up with new botanical information. There are many technical botanical journals, some of which

contain articles of interest to the advanced amateur field botanist. A visit to the nearest university library or herbarium is a good way to investigate the available technical literature. Several periodicals are useful for the amateur or professional alike. Hopefully you already receive the Field Botanists of Ontario Newsletter. If not, membership is only $12.00 annually for individuals (contact W.D. McIlveen, Membership Chairman, R.R.#1, Acton, Ontario L7J 2L7). The New York Flora Association is a group somewhat like the F.B.O., which has field trips and produces a newsletter. I find their newsletter interesting and often relevant to Ontario. Membership is U.S. $10.00 year, and for an additional U.S. $5.00 one can also receive the 496 page "Preliminary Vouchered Atlas of New York State Flora" (write to New York Flora Association, 3132 CEC, Albany, New York 12230). Although it is a little more technical, "The Michigan Botanist" contains many articles of interest to Ontario field botanists (membership is U.S. $10.00 annually from the Michigan Botanical Club, c/o Herbarium, North University Building, The University of Michigan, Ann Arbor, Michigan 48109-1057).

Membership in your local field naturalists' club is a good way to meet others with an interest in field botany. Most larger towns in Ontario have a club, and many have monthly meetings, field trips, and a newsletter. For information on the nearest club write to the Federation of Ontario Naturalists (F.O.N.), 355 Lesmill Road, Don Mills, Ontario M3B 2W8. The F.O.N. itself produces a nice nature magazine called "Seasons", and sponsors a variety of fieldtrips (membership is $31.00 for an individual).

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