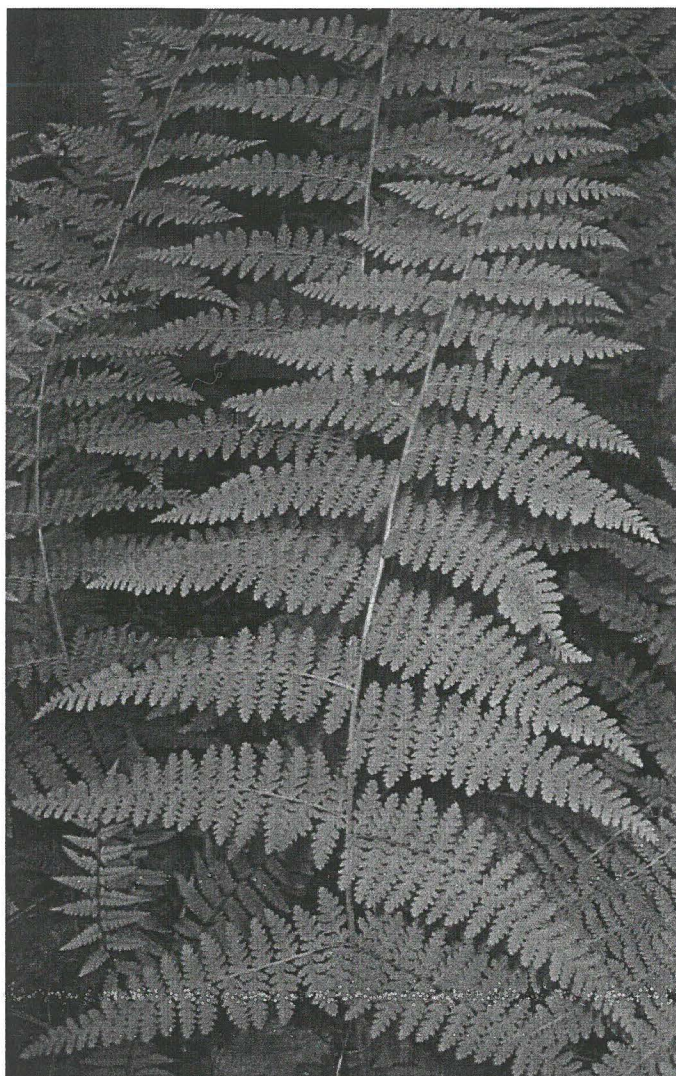


Field Botanists of Ontario

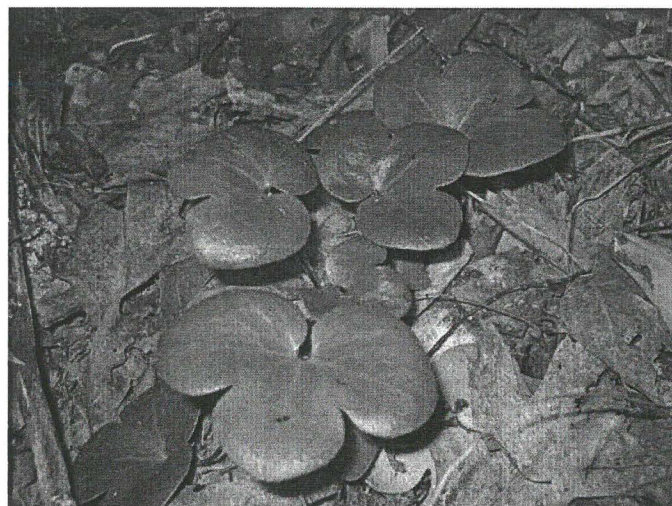
Newsletter

Volume 18(1): Winter 2006

ISSN: 1180-1417



Frond of Hay-scented Fern (*Dennstaedtia punctilobula*)
photographed during the Madawaska Highlands FBO Trip.
Photo: Mike McMurtry



Leaves of Round-lobed Hepatica (*Anemone americana*)
photographed during the Madawaska Highlands FBO Trip.
Photo: Mike McMurtry

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FIELD BOTANISTS OF ONTARIO NEWSLETTER

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

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The **deadline** for submissions for **Volume 18(2)** is **March 15, 2006**.

Standard source for scientific names and authorities of vascular plants:

Newmaster, S.G., A. Leheld, P.W.C. Uhlig, S. McMurray and M.J. Oldham. 1998. *Ontario Plant List*. Ontario Ministry of Natural Resources, Ontario Forest Research Institute, Sault Ste. Marie, Ontario. Forest Research Information Paper No. 123, 550 pp. + appendices

2005 Annual General Meeting Update

Mary Ann Johnson

Well another annual general meeting has come and gone. Thanks to all the field trip leaders who gave generously of their time and experience. A special thanks to Dan Kraus from the Nature Conservancy who made us all think about our role in conservation biology as field botanists.

I would also like to thank Dirk for his time and patience as president for the past couple of years, keeping the rest of the executive in line. I am looking forward to watching the FBO grow over the next couple of years and am eagerly anticipating what looks to be a great field season in 2006. ▲

Field Botanists of Ontario
Revenue and Expense Statement
January 1 to December 31, 2004

	2004	2003
Bank Balance Beginning	\$9,786.09	\$7,078.95
Revenue		
Memberships	\$2,370.84	\$2,879.00
Life Memberships	\$0	\$0
Field Trips	\$1,695.00	\$2,820.00
Annual General Meeting	\$935.00	\$1,535.00
Donations	\$395.00	\$341.00
US Exchange	\$16.94	\$36.58
Bank Interest	\$0.18	\$0.03
Bank Correction	\$15.00	
Memberships 2005	\$48.00	
Total Revenues	\$5,475.96	\$7,611.61
Expenses		
Field Trips	\$56.35	\$75.00
Field Trip Refunds	\$0	\$0
Field Trip Honoraria	\$1,320.00	\$884.12
AGM Honoraria	\$0	\$0
AGM Expenses	\$1,031.19	\$1,917.29
Newsletter	\$1,307.47	\$828.92
Executive	\$287.05	\$310.14
Liability Insurance	\$934.20	\$702.00
Bank Charges	\$145.85	\$87.00
FON Membership	\$0	\$100.00
Total Expenses	\$5,082.11	\$4,904.47
Bank Balance Ending	\$10,179.94	\$9,786.09
Increase (Decrease)	\$393.85	\$2,707.14

Auditor's Report to the FBO Board

I have reviewed the Field Botanists of Ontario accounts as prepared by your Treasurer, Bill Draper, and found everything to be in order.

In the course of this review I examined the bank statements, deposit records, donated cheques, executive expenses and receipts. It is my conclusion that the accounts balance with the bank statements and are accurately described in the Revenues and Expense Statement for 2004.

The Treasurer is to be commended for maintaining monthly bank reconciliations and for preserving records in a very presentable fashion. The executive is also to be commended for incurring minimal expense while managing affairs on behalf of the FBO.

I believe that the Revenue and Expense Statement for 2004 accurately represents the transactions and financial picture of the Field Botanists of Ontario from January 1 to December 31, 2004.

Respectably submitted,
George Bryant

Toronto, January 29, 2005

Tributes

Nels Maher – The Great Naturalist

Joan Crowe

Many of you will already have heard that Nels passed away on August 26, 2005, after a long and courageous fight with cancer. He was out picking elderberries not far from his fern garden, all ready to make this year's batch of wine. He was a born naturalist and a devoted Scout. As a boy, with his father away at the war, he explored all round Owen Sound and was gifted with a fantastic memory for species and locations. He developed a very good relationship with the Cape Croker people and knew the botany of that area very well. It was his retired brother-in-law's interest in ferns, and particularly his initiation of the fern garden, which stimulated Nels to specialize in that group. Quite recently, he struck up a friendship with Don Britton and the two would go off on expeditions up the Bruce Peninsula looking for fern hybrids!

Nels was, however, much more than simply a naturalist. It is due to his vigilance that Black's Park in Owen Sound is still intact with its astonishing array of fern species, and hasn't been swallowed up in the backyards of nearby houses with a road pushed through the middle. He was always involved with some environmental project. He was the one who recognised the uniqueness of the Galbraith Natural Area south of Chatsworth, which has recently been acquired for protection by the Nature Conservancy Canada (NCC) and The Escarpment Biosphere Conservancy.



Nels Maher pictured in his fern garden. Photo: Joan Crowe

I first heard of Nels at a Field Naturalist meeting when we moved to Owen Sound in 1993. There was a rehabilitation project in Harrison Park, a boardwalk being built in a nature reserve and a project at the Sydenham Sportsmen's Club and he was the backbone of all of them. It was when we started on our series of books that I really came to know him. He was invaluable on the Plant Committee not only because of his local

knowledge, but also because he was a professional printer and past owner of Stan Brown Printers. That gave us the inside track with printing. I well remember the Federation of Ontario Naturalists (now Ontario Nature) getting us a quote for printing the Orchid book in Toronto. It was double what we paid at Stan Brown's! Moreover, he knew all the tricks of the trade. He was the one who structured the Geology book so we could have pictures dispersed at intervals without it costing us a fortune. It was because of Nels that we embarked on the fern book. The anecdotal information for all the species was

written by him and almost all of the pictures were taken by him. Photography was another of his joys. Many of you will also have seen his fern identification pamphlet with his frond silhouettes, a combination of his naturalist and printing skills.

He was a pillar of the local Bruce Trail Club and took care of a section for many years. He served on the National Park committee and numerous other committees over the years. His most recent project was a tree survey of Owen Sound's urban forest, which has come up with some remarkable results, which we hope to publish in the near future, as we know this was something he had in mind. With his wife Jean he guided naturalists from many parts of the world over this region and made many lasting friendships. In spite of all his activities he still had ample time to spend with his six children and their families.

Although we came from very different backgrounds I had a lot in common with Nels. A father away at the war and natural areas to explore on my own and above all the self-sufficiency and respect for nature engendered by our early and continuing association with Girl Guides in my case and Scouts in his. He was "down to earth" in all he did, said what he thought but was open to discussion. I shall miss him, as will thousands of others whose lives he touched. He leaves a great legacy and inspiration for us to follow. ▲

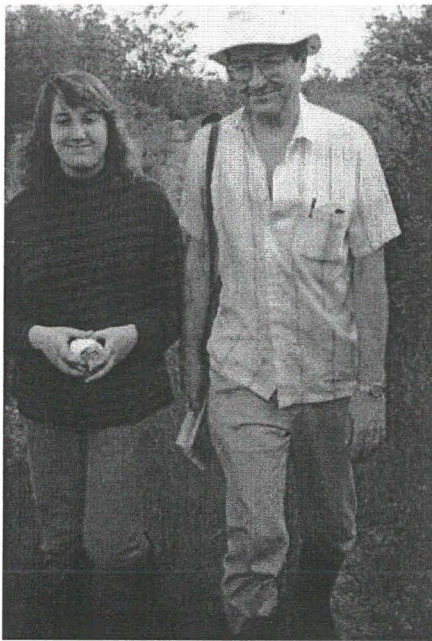
Wayne McShane, MD: May 17, 1942 – Sept. 24, 2005

Elaine McShane

The Field Botanists of Ontario lost one of its earliest members and supporters with the passing of Dr. Wayne McShane. He was 63. Born in Brockville, Ontario, and a graduate of Queen's University, he served his community of Brampton as a family physician for 37 years. A keen botanist and outstanding photographer, he combined these two interests to create a premier collection of photographs of native Ontario wildflowers.

A field trip with Nels Maher in the 1980s to view the regional orchids of the Bruce Peninsula was the event that initiated Wayne's pursuit of studying orchids and sparked his quest to photograph all the orchids of Ontario. He ultimately photographed all but two. He also endeavoured to find and photograph a wide variety of native wildflowers, including many rare species in their myriad habitats. Wayne's guidebook (Newcomb) is filled with the flowering dates of each plant as he found it, to assist him in future trips. He added tiny diagrams and additional notes to expand on the identification. He was a self-taught botanist using his own extensive collection of botany texts, both modern and old, as well as the expertise from the trip leaders of the FBO. Wayne remained a scholar, and was an enthusiastic, keen, and knowledgeable trip companion with a friendly personality and a great sense of humour.

Wayne made many Saturday botany expeditions all over Southern Ontario in the company of his family, wife Elaine or daughters Julie, Heather or Valerie. Other trips were solitary. He returned to a site as many as four Saturdays in as many weeks to photograph a plant in its peak flowering period.



Wayne McShane pictured with youngest daughter, Valerie, in 1990. Photo: Elaine McShane

Diagnosed with cancer over a year ago, Wayne's health began to fail this summer. He planned what was to be his final botany trip to fulfill his goal of finding and photographing one of the two remaining orchids: the tiny, rare and fragile Bog Adder's Mouth (*Malaxis paludosa*). He chose the Sleeping Giant Provincial Park site near Thunder Bay, where it was last seen many years before. He set out with Elaine in August 2005.

Happiness was photographing the lovely Western Purple Aster (*Aster modestus*). It was flowering in a drainage ditch at the edge of the parking lot of Thunder Bay Hospital where Wayne unexpectedly arrived, perhaps like that aster, out of his territory. Although he did not ultimately find the *Malaxis paludosa*, this was a trip with other discoveries equally satisfying, since life (and botany) for Wayne was always about the journey and not the destination.

Wayne's legacy is his collection of slides that are not only a photographic record of native species but also works of art. He logged many hundreds of miles to achieve them. He possessed a great talent and immense knowledge that he never publicly celebrated, and a true passion for native Ontario wildflowers that he quietly enjoyed. ▲

Walking With You

Valerie McShane

The below is a poem I wrote for my father, Wayne McShane.

Walk through the fields where we traveled. See the Pileated Woodpecker to the right and the Blue Curls flower on the ground for you to photograph. I will be beside you holding the flash of your camera and you and I will walk several more hours smelling the flowers of each season. We will not rush but take our time. We will listen to the leaves, and talk about the many memories we shared of Newfoundland and the bog, of Montreal trips and the fantastic food we shared. We will talk about the times when it would rain on our long distance journeys, and I would sing "O Mr. Sun" to make it sunny; it always worked. We will laugh and then be startled by another grouse and laugh even more. And I will search like I always do to find some kind of edible berry and I will pick the biggest for you.

Go ahead of me now, keep following the pathway and find those two orchids you need to see and all the things in between. Next time we meet you can show me all the things you saw on your journey. ▲

Field Trip Reports

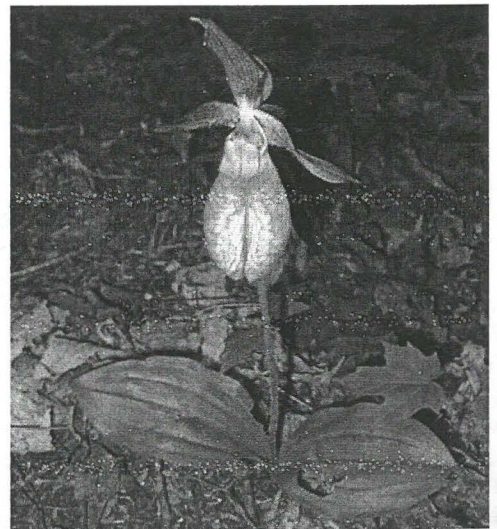
Madawaska Highlands

June 26, 2005

The invitation was hard to refuse: "Join us in the heart of the Madawaska Highlands where the mixture of boreal and southern elements, combined with the diversity of the landscape, makes this one of the most botanically diverse areas in Ontario." A group of botanists met at the property of the Thomson family in the heart of the Madawaska Highlands about 35 km east of Griffin for an outing led by Eleanor Thomson. The Thomson family has a cabin on a 36-hectare property there that they use year-round as a base for skiing, hiking, nature study and relaxation. Eleanor, who works as a consultant doing botanical surveys, provided us with a list of about 500 plants that she has identified on the property. Over the course of the day we saw most of these plants.

We started the day with a walk from the cabin up a wooded slope through White Spruce (*Picea glauca*), Ironwood (*Ostrya virginiana*), Red Maple (*Acer rubrum*), White Ash (*Fraxinus americana*), Mountain Maple (*Acer spicatum*) and Red Oak (*Quercus rubra*) to a hilltop granite rock barren. On the way up the hill we noticed a boulder weighing forty or fifty kilograms that had been moved by a Black Bear (*Ursus americanus*) recently. Along the way we saw Canada Anemone (*Anemone canadensis*), Barren Strawberry (*Waldsteinia fragarioides*), and Common Haircap Moss (*Polytrichum commune*). At the top of the knoll we talked more about the surrounding landscape. We were on the Canadian Shield, north of the Frontenac Axis and just to the north of the Madawaska River, a popular destination for whitewater canoe and kayak enthusiasts. The property is generally forested but there are some rock barrens and wetlands, including swamp, bog/fen and marsh. The Thomsons

acquired the property about 30 years ago and while it has never been logged to their knowledge, it is still recovering from a large fire. In and around the rock barren we saw Bracken Fern (*Pteridium aquilinum*), Common Juniper (*Juniperus*



Moccasin-flower (*Cypripedium acaule*) in bloom. Photo: Mike McMurtry



Matricary Grape Fern (*Botrychium matricariifolium*).
Photo: Mike McMurtry

communis) and Sheep Sorrell (*Rumex acetosella*), all common northern rock barren species, including the latter although it is an introduced species. Reindeer Lichen (*Cladina rangiferina*) and Yellow-green Lichen (*C. mitis*) were underfoot and a White Admiral butterfly (*Limenitis arthemis*) added interest. After standing and talking on the hot, dry rock barren for a few minutes we retreated to the cooler forested trails and explored more of the property.

Other forest species in the area were Wintergreen (*Gaultheria procumbens*), Partridgeberry (*Mitchella repens*) in flower, Marginal Wood Fern (*Dryopteris marginalis*), Ground Pine (*Lycopodium dendroideum*), White-grained Mountain-rice (*Oryzopsis asperifolia*), Pennsylvania Sedge (*Carex pensylvanica*), and another sedge, *Carex lucorum*, with no common name. While we were examining the woodland sedges, we noticed our leader was uncharacteristically agitated and jumping from one foot to the other. We were surprised when she dashed off to nearby cover and removed her slacks to brush off the red ants that were biting her legs. Eleanor soon regained her composure and resumed her interpretation of the flora and fauna.

In forest openings we found Poverty Oat Grass (*Danthonia spicata*), the elegant Common Hairgrass (*Deschampsia flexuosa*), both typical grasses of Ontario rock barrens, as well as Wild Sarsaparilla (*Aralia nudicaulis*) and Field Pusstoes (*Antennaria neglecta*). Our first of many orchids for the day was Checkered Rattlesnake Plantain (*Goodyera tessellata*).

The next point of interest was an area that Eleanor termed fondly the "boglet". This moist depression with no noticeable inflows or outflows of surface water supported Balsam Fir (*Abies balsamea*), Blue Ground Cedar (*Diphasiastrum*

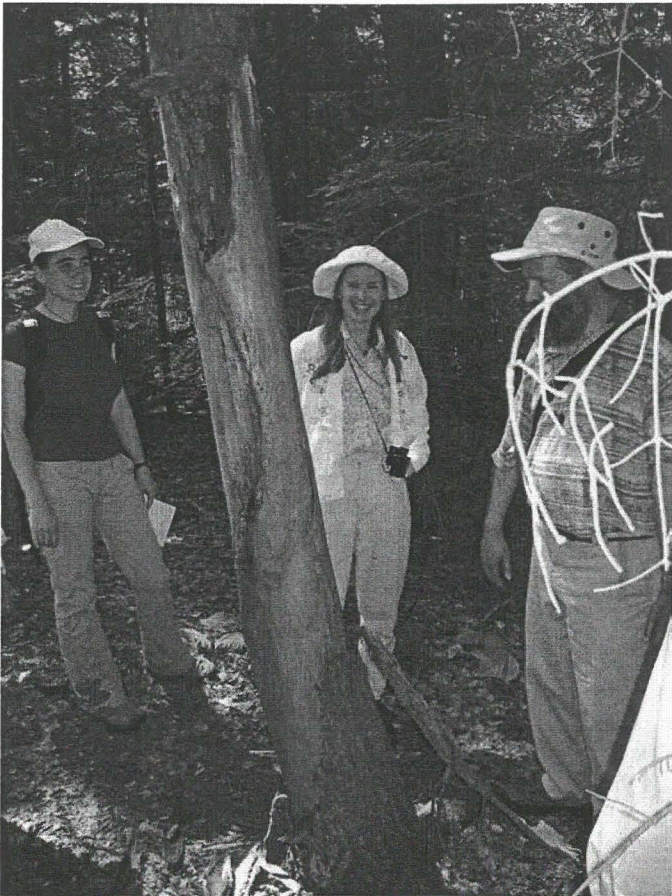
tristachyum), Common Green Peat Moss (*Sphagnum girgensohnii*), as well as Goldthread (*Coptis trifolia*). Eleanor helped us find Rough Hair Grass (*Agrostis scabra*) on the hummocks between wet depressions. In the wetter areas were Three-leaved Solomon's Seal (*Maianthemum trifolium*), Wild Calla (*Calla palustris*), Northern Water-horehound (*Lycopus uniflorus*) and Creeping Snowberry (*Gaultheria hispidula*). The fertile fronds of Cinnamon Fern (*Osmunda cinnamomea*) were prominent and Mountain-holly (*Nemopanthus mucronatus*) was also observed. The group unintentionally disturbed a nesting Sharp-shinned Hawk (*Accipiter striatus*), whose agitated behaviour indicated a nest with young somewhere nearby. We found Black Spruce (*Picea mariana*), Bog Buckbean (*Menyanthes trifoliata*), Tamarack (*Larix laricina*), and Pitcher-plant (*Sarracenia purpurea*) in the centre of the "boglet", all species indicating acidic conditions. We also discovered Winterberry (*Ilex verticillata*), Bunchberry (*Cornus canadensis*), Moccasin-flower (*Cypripedium acaule*) and Star-flower (*Trientalis borealis*).

Three-fruited Sedge (*Carex trisperma*) was the most abundant of the sedges in this habitat. By the standards of the Southern Ontario Wetland Evaluation Manual (OMNR 1993), most of this wetland would be considered a conifer swamp due to the extensive tree cover. On the ridges of the wetland we found Spinulose Wood Fern (*Dryopteris carthusiana*), Sensitive Fern (*Onoclea sensibilis*) and our third orchid, Dwarf Rattlesnake Plantain (*Goodyera repens*), with darker green leaves than *G. tessellata* and conspicuous white veins on the leaves. One of the fern highlights of the trip for the author was a large stand of Virginia Chain Fern (*Woodwardia virginica*). The chain-like sori on the underside of the frond of this fern are diagnostic.

Other species were Black Ash (*Fraxinus nigra*), Shining Clubmoss (*Lycopodium lucidulum*), American Beech (*Fagus grandifolia*), Kidney-leaved violet (*Viola renifolia*), Yellow Birch (*Betula allegheniensis*) and Running Club-moss (*Lycopodium clavatum*). Hay-scented Fern (*Dennstaedtia punctilobula*) was very soft to the touch and when dried apparently has a scent similar to hay. Graceful Sedge (*Carex gracillima*) formed drooping inflorescences.



Yellow Sedge (*Carex flava*). Photo: Mike McMurtry



Eleanor Thomson points out a bear scrape on Eastern White Cedar (*Thuja occidentalis*) bark. Photo: Mike McMurtry

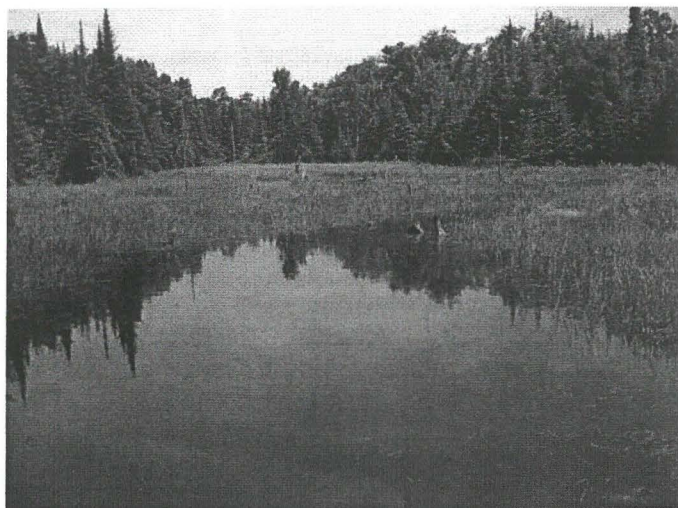
The group stopped along the way to examine an American Beech with bear claw marks and an Eastern White Cedar (*Thuja occidentalis*) whose bark had been completely ripped off. We didn't see an actual bear (not until the drive home) but got the distinct impression we were in the middle of prime bear habitat. Some of us were glad to be part of a large group.

We skirted the edge of a "beaver meadow" or shallow marsh, dominated by Yellow Sedge (*Carex flava*). Also in the marsh was Retorse Sedge (*Carex retrorsa*), with its retrorsed perigynia, and Fowl Manna Grass (*Glyceria striata*). Spear Wild Licorice (*Galium lanceolatum*) was in flower. We located Canada Yew (*Taxus canadensis*) near the perimeter and talked about how it is now in demand by the pharmaceutical industry as it is the source of taxanes, compounds valued for their reputed anti-cancer properties. We started the walk back to the cabin for lunch and saw Matricary Grape Fern (*Botrychium matricariifolium*) on the path as well as Cut-leaved Grape Fern (*B. dissectum*), Downy Rattlesnake-plantain (*Goodyera pubescens*) and Bluebead Lily (*Clintonia borealis*) under Ironwood, Sugar Maple (*Acer saccharum*) and White Ash (*Fraxinus americana*). We added Crested Wood Fern (*Dryopteris cristata*), Downy Arrow-wood (*Viburnum rafinesquianum*), Rattlesnake Fern (*Botrychium virginianum*), the Leathery Grape Fern (*B. multifidum*), Hooker's Orchid (*Platanthera hookeri*), Common Helleborine (*Epipactis helleborine*), Early Coral-root (*Corallorhiza trifida*), Ground-pine (*Lycopodium obscurum*) and Hairy Solomon's Seal (*Polygonatum pubescens*) along the way. Another marsh

produced Rice Cut Grass (*Leersia oryzoides*), False Melic Grass (*Schizachne purpurascens*), Loesel's Twayblade (*Liparis loeselii*), Marsh Fern (*Thelypteris palustris*), Green Adder's-mouth (*Malaxis unifolia*) and Northern Wild Comfrey (*Cynoglossum boreale*). Sheila Thomson pointed out the cup-like seed capsules Two-leaved Bishop's Cap (*Mitella diphylla*), shaped to hold rainwater, and Indian Cucumber-root (*Medeola virginiana*) which flowers multiple times over the growing season.

We walked back to the Thompson's cabin for lunch and enjoyed cool drinking water from a well-sunk deep into the bedrock. We were entertained by a singing Purple Finch (*Carpodacus purpureus*) just outside the cabin. Black Donald Lake was visible through the front window of the cabin. Eleanor's sister Rosemary and her father Harry told us of the travels of the family to the Thelon River in the Northwest Territories. Eleanor's grandfather (Sheila's father) had surveyed the Thelon in the 1920s (Thomson 1990) and Harry and Sheila had travelled on the Hanbury and Thelon Rivers in 1979; caribou antlers were mounted in the wall as a memento. The Thelon Wildlife Sanctuary is the largest and most remote wildlife refuge in North America. Harry told of watching thousands of Barren-ground Caribou (*Rangifer tarandus granti*) pass by their camp for an entire day.

After lunch, some of the party accompanied Sheila to find Adder's Tongue Fern (*Ophioglossum vulgatum*) and another group ambled down the hill with Eleanor and Harry, moving from a mixed forest on the slope to a swamp below. Along the way we saw Maple-leaved Viburnum (*Viburnum acerifolium*), Common Polypody (*Polypodium virginianum*), Bush Honeysuckle (*Diervilla lonicera*), the leaves only of Small Round-leaved Orchid (*Platanthera orbiculata*), Trailing Arbutus (*Epigaea repens*) and finally Spotted Coral-root (*Corallorhiza maculata*). This species has purple spots on the white background of the lip of the flower (Case 1987). Also present were Squawroot (*Conopholis americana*), Dewey's Sedge (*Carex deweyana*) in dry habitat under Eastern Hemlock (*Tsuga canadensis*), Buffaloberry (*Shepherdia canadensis*), Leatherwood (*Dirca palustris*), Gay Wings (*Polygala paucifolia*) and Large-leaved Aster (*Aster macrophyllus*). As we neared the bottom of the slope, the habitat grew a little wetter and we saw Bulbet Fern (*Cystopteris bulbifera*) growing under Black Ash (*Fraxinus nigra*) and Balsam Fir (*Abies balsamea*). Also present were Swamp Black Current (*Ribes lacustre*), Dwarf Enchanter's Nightshade (*Circaea alpina*), Rough Bedstraw (*Galium asprellum*), White Baneberry (*Actaea pachypoda*), Tall Meadow Rue (*Thalictrum pubescens*) and Striped Coral Root (*Corallorhiza striata*) under Black Ash and Eastern White Cedar. The wetland also contained Small Jack-in-the-pulpit (*Arisaema triphyllum*), Slender Sedge (*Carex leptalea*), Kidney-leaved Violet (*Viola renifolia*) and Virgin's-bower (*Clematis virginiana*), also called "old man's beard" for the beard-like shape of the vine with flowers. We noted Canada Honeysuckle (*Lonicera canadensis*), Inflated Sedge (*Carex intumescens*) and the greenish Alligator Liverwort (*Conocephalum conicum*) as well as the Ebony Jewelwing damselfly (*Calopteryx maculata*).



A beaver meadow in the Madawaska Highlands.

Photo: Mike McMurtry

When we rejoined the other group we found that they had indeed found Adder's-tongue Fern at the edge of a nearby beaver meadow.

The group would like to thank the entire Thomson family for their hospitality and Eleanor in particular for sharing her knowledge and fondness for all of the wild things in the Madawaska Highlands. ▲

Mike McMurtry

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Coastal Plains Plants in Muskoka

September 10, 2005

People started to arrive at the meeting place, a public boat-launching site at Morrison Lake, shortly before 10:00 am. As virtually every second participant brought a canoe, it was obvious that there would be no shortage of floating devices and comfortable seating. So the author of these words, who, acting upon the encouragement of Dirk Janas, presented the crowd an inflatable dinghy capable of accommodating a captain and a deck boy, had no choice but to deflate the thing. The rubber boat back in the car's trunk and the seven canoes on the shore, the eleven participants gathered around the leaders—Dirk Janas and James Kamstra, for an introduction to the peculiar plant geography of Atlantic Coastal Plain disjuncts. Before the talk, we were given printouts describing the ecology of the local area, along with checklists of species likely to be encountered during the trip.

Briefly, the Atlantic Coastal Plain disjuncts share the common feature of having the centre of their distribution in the broad belt of Atlantic Ocean coastal, running roughly from New England south to the Carolinas, Florida and even further west along the Gulf of Mexico. These species also have

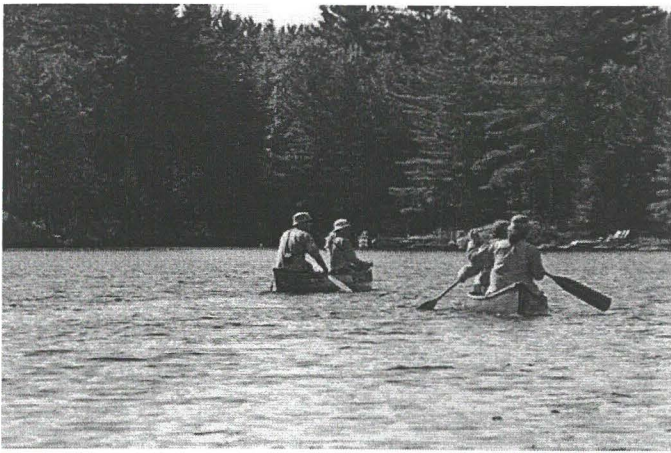
stations much further inland, separated by distances of hundreds of kilometres from those on the coast.

Several theories have been put forward to explain this interruption in the distribution. One explanation is that recent and ongoing dissemination by animals, principally birds, or transportation by wind can spread propagules over long distances. However, for most of the species the most likely causes of the pattern lie in their postglacial history. When the glaciers finally began to recede to their polar nuclei, they left behind series of huge lakes, such as Algonquin, Iroquois and Nipissing. These post-glacial lakes, at various points of their evolution, were connected with the waters of the Champlain Sea and the Atlantic via large draining channels (Chapman and Putnam 1984). As the climate was initially cool and the newly liberated land was not covered by the continuous mantle of forest, conditions were favourable for the plants of bogs, fens, dunes and other open and semi-open habitats to expand inland along the suitable habitat corridors around the lakes and channels. Then, a drier climate and isostatic rebound of the land resulted in the lakes decreasing in size, connections disappearing and drainages even changing the direction of the outflow. When the closed-canopy deciduous and mixed forest migrated northward it effectively acted as an ecological barrier and additionally severed the connections. Through such a combination of geology, ecological succession and plant biology, present-day distributional patterns began to emerge.

Depending on the source, the number of plants considered Atlantic Plains disjuncts varies from several to about two dozen. Keddy and Sharp (1989) provide perhaps the longest list, including such species as:

Virginia Chain Fern (*Woodwardia virginica*)
 Spatulate-leaved Sundew (*Drosera intermedia*)
 Small Waterwort (*Elatine minima*)
 Screw-stem (*Bartonia paniculata*)
 Swamp St. John's-wort (*Triadenum virginicum*)
 Horned Bladderwort (*Utricularia cornuta*)
 Purple Bladderwort (*U. purpurea*)
 Ridged Yellow Flax (*Linum striatum*)
 Common Meadow-beauty (*Rhexia virginica*)
 Eight-angled Floating-heart (*Nymphoides cordata*)
 Carey's Knotweed (*Polygonum careyi*)
 Golden-pert (*Gratiola aurea*)
 Water Bog-rush (*Cladium mariscoides*)
 Bright-green Spike-rush (*Eleocharis olivacea*)
 Robbin's Spike-rush (*E. robbinsi*)
 Small-headed Beaked-rush (*Rhynchospora capitellata*)
 Brown Beaked-rush (*R. fusca*)
 Bayonet Rush (*Juncus militaris*)
 Ridged Panic Grass (*Panicum rigidulum*)
 Two-cupped Pondweed (*Potamogeton bicupulatus*)
 Alga-like Pondweed (*P. confervoides*)
 Two-formed Yellow-eyed-grass (*Xyris difformis*)

Having been equipped with such knowledge and the day shaping up as perfect for our adventure on the water, without further ado, we departed shortly before 11 o'clock.



FBO trip members on the water at Morrison Lake.
Photo: Bill Crowley

Along the shoreline, initially a Silver Maple (*Acer saccharinum*) swamp formed the dominant cover. At the water's edge, several common species could be seen: Swamp Loosestrife (*Decodon verticillatus*), Royal Fern (*Osmunda regalis*), Sweet Gale (*Myrica gale*) and Winterberry (*Ilex verticillata*). In a small rocky bay, in shallow water grew Heart-leaved Pickerel-weed (*Pontederia cordata*), Seven-angled Pipewort (*Eriocaulon aquaticum*), Fragrant Water-lily (*Nymphaea odorata*), Water-celery (*Vallisneria spiralis*), and Dortmann's Lobelia (*Lobelia dortmanna*) sticking its fruit-covered stems above the water surface.

Then we had our first official stop. The princess of Ontario's Coastal Plain disjuncts—Common Meadow-beauty (*Rhexia virginica*)—presented itself on wet sand just above the water level. Unfortunately, we missed the last of the flowering specimens by about a week and only the fruiting plants could be seen. Anyway, *Rhexia*'s flowers themselves are of a fleeting nature as some remarked, its petals being quite delicate and prone to falling off unless the plant is handled gingerly. As the folks jumped out to see the *Rhexias*, James told us the species is our only representative of a large family Melastomaceae, with the centre of distribution in the tropics, where all the other genera, except *Rhexia*, occur. The family has a unique leaf venation in the form of a few longitudinal veins anastomosing perpendicularly to form a characteristic pattern. Other species of interest at this tiny location included Lance-leaved Violet (*Viola lanceolata*), Creeping Spearwort (*Ranunculus flammula* var. *reptans*), *Eriocaulon aquaticum* and Two-formed Yellow-eyed-grass (*Xyris difformis*).

Back on the deep water, we rode through some extensive but rather drab-looking colonies of narrow stems, all chewed up at the water surface. These would surely have been left unnoticed were it not for Dirk telling us that we were actually flowing over another disjunct species—Bayonet Rush (*Juncus maritima*). The sorry state of the plants was caused by waterfowl that nibbled the above-water portions of stems of this otherwise showy rush, the only one in Ontario that can grow in deep water. In submersed plants, the filiform leaves grow from the rhizomes and they only flower when water levels drop. These colonies, thus, reproduced themselves vegetatively but Dirk added that the species attains its regular size, blooms and sets fruit in a few other lakes in Muskoka.

So the near-north explorers continued on, passing along the shoreline covered by a shrub thicket of *Ilex verticillata*, Speckled Alder (*Alnus incana* ssp. *rugosa*), Leatherleaf (*Chamaedaphne calyculata*), and the water's edge having a cover of *Decodon*, Black Chokeberry (*Aronia melanocarpa*) and Eastern Buttonbush (*Cephalanthus occidentalis*). We were at that moment searching for any traces of Eight-angled Floating-heart (*Nymphoides cordata*), almost guaranteed by the leaders (alas, we could not find it through the entire day). To recompense, other treats were pointed out to us, at first the submerged leaves of Purple Bladderwort (*Utricularia purpurea*) and, shortly afterwards, large floating *Sphagnum* mats loaded with interesting stuff.

The mats were thick enough to support the whole group eager to discover their secrets. On the various species of peat moss a sparse shrub layer was formed by *Chamaedaphne calyculata*, *Myrica gale*, *Cephalanthus occidentalis*, Small Cranberry (*Vaccinium oxycoccos*) and its big-fruited cousin Large Cranberry (*Vaccinium macrocarpon*), along with stunted small saplings of Black Spruce (*Picea mariana*) and Tamarack (*Larix laricina*). Herbs were more diverse and included White Beaked-rush (*Rhynchospora alba*), Virginia Cotton-grass (*Eriophorum virginicum*), Swamp St. John's-wort (*Triadenum virginicum*), Bog Aster (*Aster nemoralis*), Grass Pink (*Calopogon tuberosus*) and the white-fringed orchid (*Platanthera blephariglottis*). Virginia Chain Fern (*Woodwardia virginica*), which was just beginning to yellow, formed attractive colonies with straight vertical fronds. Along the edges of the mat in small depressions we also found Water Bog-rush (*Cladium mariscoides*), Spatulate-leaved Sundew (*Drosera intermedia*) and *Utricularia purpurea*. This locality turned out to be the richest of the day.

Time becoming rather late, we took a bearing towards an exposed rocky shore, passing over more *Vallisneria* and *Nymphaea*, with occasional Water-shield (*Brasenia schreberi*) in the waters at the mouth of a creek. Then, after securing the canoes, we gathered for lunch in the shade of White Pines (*Pinus strobus*).



Alan Croxall, James Kamstra and Dirk Janas (left to right) caught in a moment of despair as they search for elusive Atlantic Coastal Plains disjuncts.

Photo: Mike McMurtry



Swamp St. John's-wort (*Triadenum virginicum*) in flower.
Photo: Mike McMurtry

Not more than a quarter of an hour passed when Dirk showed up carrying a white container with several aquatic plants fished out from the water by various people. With the help of James, we identified them as Floating Bur-reed (*Sparganium fluctuans*), *Vallisneria americana* (Dirk explained the morphological differences between the two species' leaves to help identify them in vegetative condition), Nuttall's Pondweed (*Potamogeton epihydrus*) and all of the species of bladderwort seen so far [greater (*Utricularia vulgaris*), flat-leaved (*U. intermedia*), horned (*U. cornuta*) and purple (*U. purpurea*)]. Just when we were about to board the boats, Broad-leaved Panic Grass (*Panicum latifolium*) and Douglas' Knotweed (*Polygonum douglasii*) were spotted growing side by side in shallow gravelly soil amongst Common Juniper (*Juniperus communis* var. *depressa*) and Common Hairgrass (*Deschampsia flexuosa*).

The next spot was a rocky jut that, although hardly big enough to accommodate the entire group, contained a rare species of panic grass (S2 in Ontario): Eaton's Panic Grass (*Panicum spretum*). The grass was all too inconspicuous growing in a bit of soil and likely persisting there because of constant disturbance and abrasion by waves and ice, which prevented other plants to outcompete it. Yet another disjunct was observed there—Small Waterwort (*Elatine minima*) which lived up to its name, growing on the sandy bottom under a few centimetres of water. So we finally saw it, after searching for it at all the other stops.

By then, the group had too much of rock-solid ground under their feet, so we again enjoyed instability by visiting another

floating mat. New species there included Pitcher-plant (*Sarracenia purpurea*), Bog Laurel (*Kalmia polifolia*) and new species of bladderwort—Humped Bladderwort (*Utricularia gibba*), which grew with *Drosera intermedia* in small shallow pools. Just as we were examining yellow-flowered *Utricularias*, a loud scream sent shivers through our crouched backs: the same person (no name shall be divulged) who only minutes earlier had marvelled at some spiders, spotted a snake resting on the *Sphagnum*. And then, oh yes, it was show time for Jim as he demonstrated how one is supposed to catch the wiggly beasts. With one burst of his long body he jumped over the thing thus overpowering the animal. After several photos of the Watersnake (*Nerodia sipedon*) were taken, it was set free, although it was initially hesitant to go and preferred to tickle Dirk's bare feet for a while. To finish off this zoological interlude, another snake, this time a Common Gartersnake (*Thamnophis sirtalis*), was also spotted. That was not all, though, as our stay on the mat ended with an excavation exercise: it happened that Bill Crowley's leg got stuck deep in the muck. This predicament proved at least two things: first, that the substrate was indeed inherently treacherous for man to walk on; second, that Bill surely fell into it because he must have been disconcerted by not carrying his trademark tripod on that trip.

Three o'clock in the afternoon was approaching by then and we only had time to land on another big, homogeneous *Sphagnum* mat. An interesting feature of its physiognomy was that the three dominant graminoids—*Rhynchospora alba*, *Cladium mariscoides* and Few-seeded Sedge (*Carex oligosperma*), formed a tall herb layer above the stunted shrubs—*Myrica* and *Chamaedaphne*. A second species of *Xyris*, Northern Yellow-eyed-grass (*Xyris montana*), was also seen there, that one with leaves narrower than *X. difformis*, which was observed throughout the day.

At this last stop Bill, speaking on behalf of all of us, thanked the two leaders for a wonderful adventure that we thoroughly enjoyed. He joked that the trip



James Kamstra and Alan Croxall examine Humped Bladderwort (*Utricularia gibba*).

Photo: Mike McMurtry

contained, as its major ingredient, lots of water, but it was the water under our feet and not the water falling as rain on our heads. Indeed, we all had a jolly good time on this early autumn day in beautiful Muskoka. ▲

Chris Zoladeski

Chapman, L.J. and D.F. Putnam. 1984. The Physiography of Southern Ontario. Ontario Geological Survey, Special Volume 2. 270pp.

Keddy, C.J. and M.J. Sharp. 1989. Atlantic Coastal Plain Flora Conservation in Ontario. Prepared for Natural Heritage League, World Wildlife Fund.

Letters

HAM Significant Plant Records Feedback

Dear Leslie,

Regarding my earlier letter, information from which appears under "Errata" in the Spring 2005 FBO Newsletter, and a related letter from Joan Crowe in the Summer 2005 newsletter.

Six species from my letter should have been stated (Spring 2005 newsletter) to be rare in southern Grey County (though most of them would be rare in Grey as a whole too).

"All the work I've ever done" in that letter became "...works..." in the Spring 2005 newsletter.

Here are the true reasons why I divided Grey-Bruce into three areas (rather than two) in my 1990 document for the Ontario Ministry of Natural Resources (from which the Grey-Bruce vascular plant checklist was overwhelmingly derived). For a very long time, there had been a great deal of interest in, and knowledge about, the flora of the Bruce Peninsula, compared with the rest of Grey and Bruce Counties. In 1969 the Federation of Ontario Naturalists (now Ontario Nature) published a vascular plant list for the Bruce Peninsula, which was considered to extend about as far south as various maps unconnected with plants have it. Since I arrived here in Wiarton in 1971, I've been studying the vascular flora of the peninsula, adding hundreds of species to it and judging degree of occurrence of species, using Highway 21 as the limit – following the FON list (more or less) and due to the fact that this puts lots of territory within the peninsula in all directions from my Wiarton home base. Some (at least) topographic maps have the words "Bruce Peninsula" in Grey County between Wiarton and the City of Owen Sound.

OMNR thought three areas would be okay, but that they shouldn't overlap. I'd wanted Grey County (all), Bruce County (all) and the peninsula.

It has become evident to me over the years that a number of people think that it is contradictory or illogical, or at least unreasonable or confusing, to have Grey County (political) and the Bruce Peninsula overlap. The land boundary (i.e. the south boundary) of the peninsula runs east and west; the county boundary (Bruce/Grey) runs north and south. They have nothing to do with one another; they cross each other and effectively divide the two counties into four sections (including the two county sections of the peninsula). If one defines the peninsula as extending south only to around Wiarton, as some local people and some others do, Grey County gets totally excluded and recognizing the peninsula merely splits one county, not both.

But I believe that the notion that the county must simply include the peninsula of the same name is not very logical.

Though the upper and lower case G's through the checklist do literally stand for "Grey", the introduction makes it clear they refer to southern Grey County, not "Grey County" as a whole. I think it's clear in the introduction that "Grey County excluding Keppel, Sarawak, and part of Derby Townships" (in association with a fairly small map) is exactly the same area as "Southern Grey County" (S.G.C.). In any case, I believe it's

illogical to regard "X excluding Y" in anything published or said as being that publication's or person's version of "X" (as opposed to the real, in this case the political, version). Though I know of at least one person (a person unconnected with the FBO) other than Carl Rothfels and Joan Crowe who made the same error regarding S.G.C. The term "Grey County", if used correctly, has to refer to the actual political county.

The checklist map is fairly accurate, enough so that it should appear likely to anyone viewing it who has been at the location, that the portion of the swamp where Carl cited plant records is on the Bruce Peninsula. It's hard to show at that scale exactly where the dividing line would be on a road map, but certainly it's reasonable to assume the site isn't on the peninsula.

Joe Johnson
Warton, Bruce Peninsula



Book Reviews

Orchids of Manitoba

Marilynn Murphy

On a recent trip to southern Manitoba, I was delighted to discover, hot off the press, *Orchids of Manitoba* by Doris Ames et al., published by Native Orchid Conservation Inc., 2005. This field guide covers 36 native orchids, all but one of which (*Platanthera praeclara*) occur in Ontario. As such it should be of interest to Ontario botanists.

This field guide features 220 stunning photographs, several for each species. These clearly depict overall views of the plant in its habitat, along with various stages, colour differences and flower close-ups. The book is easy to use with species accounts written in non-technical language as well as a key, glossary, index, Manitoba range maps, flowering time chart and essays on orchid biology, habitat and conservation. Throughout, the authors stress protection of native orchids and their habitat.

Some recent classification changes are recognized. Yellow Lady's-slippers, formerly considered varieties of *Cypripedium calceolus*, are here treated as *Cypripedium parviflorum* var. *makasin* and *Cypripedium parviflorum* var. *pubescens*. Two varieties of Tall Northern Green Orchid (*Platanthera hyperborea*) have been split into separate species: *Platanthera aquilonis* and *Platanthera huronensis*.

Paul Catling, co-author of *Orchids of Ontario* (1986) has written the Foreword in which he declares *Orchids of Manitoba* "one of the best orchid guides in North America, a blend of excellence, accuracy and quality." At \$17.95 this book is a bargain and a very welcome addition to my library. It can be purchased on line at www.mcnallyrobinson.com or check with your local bookseller or with the publisher at 117 Morier Ave, Winnipeg, Manitoba, R2M 0C8. ▲

Ames, Doris et al. 2005. *Orchids of Manitoba*. Native Orchid Conservation Inc. Winnipeg, Manitoba.

Books and Reviewers Needed

Leslie Collins

It has recently been drawn to my attention that the book review section of the newsletter has been non-existent since I took over the editorship. I hope to correct this oversight by encouraging members to volunteer their reviews of recent botanical and/or ecological releases in their possession, including:

Bull, J., R. Dickinson, T. Dickinson and D. Metsger. 2004. *The ROM Field Guide to Wildflowers of Ontario*. Royal Ontario Museum. Toronto, Ontario. 416 pp.

Please contact me at fbo@lesliec.com or at my home number (see page 2) if you are interested in reviewing this book or to bring other books and/or reviews to my attention for inclusion in subsequent newsletters.

In cases where more than one person expresses interest in reviewing a particular book, I will choose a reviewer using a name draw method unless an alternate arrangement can be agreed upon. ♣



Notices

Macrocarpaea pringleana Named

Bill McIlveen

A fellow FBO member, Dr. Jim Pringle, was recently honoured with the naming of an Ecuadorian tree. *Macrocarpaea pringleana* is a member of the Gentianaceae, a family on which Dr. Pringle is a world-renowned authority. Jim is the long-serving plant taxonomist at Royal Botanical Gardens. Along with his global expertise on the Gentianaceae, Jim is the world's leading expert on the history of Canadian botanical exploration, and one of the authors of *Flora of North America*. FBO would also like to offer congratulations to Jim on the recognition of his achievements and becoming 'latinized'.

The full story on the naming is provided on the Royal Botanical Gardens' website at <http://www.rbg.ca/newsletter/jimpringle.html>. ♣

2006 Annual General Meeting

Sarah Mainguy

The 2006 AGM will be held at the Alderville Community Centre in Roseneath, Ontario on September 16 and 17, 2006.

We hope to have field trips with elements of Rice Lake Plains, Oak Ridges Moraine and Lake Ontario shorelines, followed by a traditional First Nations buffet dinner with moose casserole and bannock, among other things. Keep your eyes open for more details in future issues! ♣

Trip Report Guidelines

Leslie Collins

There are several approaches to take when preparing a trip report and there are no steadfast rules. Typical approaches include, but are not limited to, the following:

- A general account of most or all species and habitats encountered during the trip.
- A more detailed review and comparison of a smaller number of species encountered during the trip, with details on field characteristics for differentiating similar species.
- A more detailed review and comparison of habitats, with a summary of key species in each habitat, where applicable.
- A leisurely account of the whole experience, including other organisms (ie. fauna) and/or landforms encountered during the trip.

Remember, it is not necessary to get every detail of the trip, but rather to record plants and highlights of particular interest to you.

Further details and advice on report writing and submission are provided below.

Writing the Report

- Include the date and the names of the trip leaders in your article.
- Write in whatever style you wish. Your trip account can be anecdotal, factual, humorous, or a mixture of these.
- Include scientific and common names for each plant listed. The FBO uses a standardized source for scientific names (Newmaster et al., 1998), but if you do not have access to this book, use whatever resources you can. The editor will verify and update scientific names when she receives the report. Please note that it is not necessary to include authors in the scientific names.

Submitting the Report:

- Submission of articles is possible via email and regular mail.
- If submitting a digital copy of your report (via email, CD or diskette), please note that the newsletter is prepared in Microsoft Word, using Times New Roman 10 point font.
- If submitting an original copy of your report, please note that submissions must be typed. Handwritten submissions will only be accepted under extenuating circumstances, as these are not easily converted to digital format.
- Illustrations are always welcome, as well as photographs, leaf rubbings, etc. For pen and ink drawings, a good, clean photocopy works well, so you need not send originals.
- Deadlines are published in each newsletter at the bottom of the inside cover. Submission by the deadline doesn't guarantee that a contributor's article will appear in that issue, but the submission will be used as space becomes available.

Material is required for the upcoming issue, so dust off those field notes, settle in at your computer with a hot cup of cocoa and create your masterpiece! ♣