Field Botanists of Ontario

Newsletter

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Red Cedar (*Juniperus virginiana*) at Massassauga Point. Photo by Leslie Collins.

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FIELD BOTANISTS of ONTARIO

FIELD BOTANISTS OF ONTARIO NEWSLETTER

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Standard source for scientific names and authorities of vascular plants:

Newmaster, S.G., A. Lehela, 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

Field Trip Reports

Massassauga Point Conservation Area

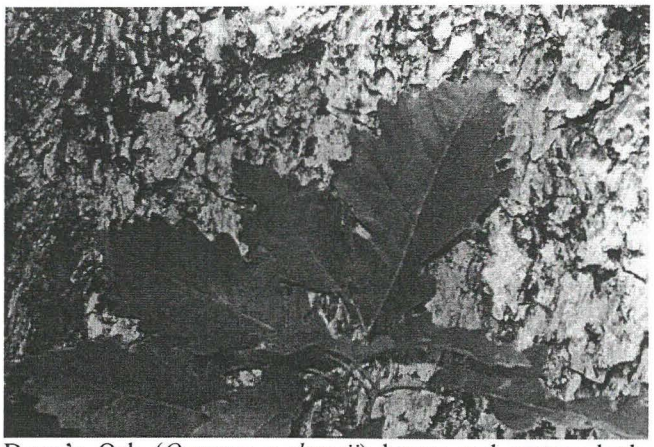
June 13, 2004.

It was a keen group of field botanists who set out bright and early, under the guidance of Terry Sprague and Ed Heuvel, to explore two interesting areas near Belleville, where savannah and alvar plants can be found, including some prairie disjunct rarities.

The first site was the Massassauga Point Conservation Area across the Bay of Quinte from Belleville. This area was originally a Bur Oak savannah (with a few small alvars) that the Quinte Conservation Authority is trying to restore. Savannahs are open parkland with 10 to 35 percent tree cover, kept this way traditionally by periodic fires, some occurring naturally, others regulated by the First Nations people. Such areas are disappearing in recent times because of our propensity to prevent all fires. Back in the days of boat travel, the area was the site of the Massassauga Park Hotel, a resort with accompanying dance hall. The buildings are long gone, but old pictures of the hotel show the very same trees, almost unchanged over more than a century.

Oak Savannah at Massassauga Point Conservation Area. Photo by Leslie Collins.

Ed pointed out a Red Cedar (*Juniperus virginiana*), perhaps twenty feet (~6.1 m) tall and a foot and a half (~46 cm) in diameter, and informed us that it was more than 200 years old (cover photo). We saw the distinctive long strips of shaggy bark on *Carya ovata*, and realised why this tree has the common name Shagbark Hickory. As well as Bur Oaks (*Quercus macrocarpa*), there were several other kinds of oak, and we were given a very helpful lesson in distinguishing the different species by their leaves. The pointed lobes of the Red Oak (*Q. rubra*) are distinctive. Although the Bur Oak leaves have rounded lobes like White Oak (*Q. alba*), they are hairy underneath. Deam's Oak (*Q.* x *deamii*) is a hybrid between Bur Oak and Chinquapin Oak (*Q. muehlenbergii*). It can be distinguished from Bur Oak by the presence of tiny points on the tips of the lobes, an inheritance from the parent Chinquapin, which has pointed lobes. We did not see any Chinquapins but as some of the Deam's Oaks were 300-400 years old, the parent species may well have died out in the intervening years.



Deam's Oak (*Quercus x deamii*) leaves and mature bark. Photo by Leslie Collins.

In the areas where the invasive Buckthorn (*Rhamnus cathartica*) and Prickly Ash (*Zanthoxylum americanum*) are being eradicated by controlled burns every 3-4 years, as well as by herbicides, the ground cover consists mostly of sedges and grasses. The Buckthorn is allelopathic – that is, it sends a chemical into its roots that kills other species, which is why little else grows in areas taken over by it. (Later on, we saw masses of tiny seedlings of an unusual shape, which we discovered were Buckthorn). We saw the large lobed leaves of Mayapple (*Podophyllum peltatum*), and were told that in the spring there are carpets of White Trout Lily (*Erythronium albidum*) on the savannah – a bit of Carolinian Canada. By mid-June of course, this spring ephemeral had pretty well finished its yearly cycle, and all that was to be seen of it were the ripe seed pods. Apparently, the seeds of White Trout Lily, as well as those of Bloodroot (*Sanguinaria canadensis*), which we saw too, have a white appendage which ants love. They cart the seeds off, and when they have finished eating they drop the seed, thereby helping the spread of the plants. In Wild Onion (*Allium canadense*), many or all of the flowers are replaced by sessile bulblets, and any flowers that develop rarely produce fruit. A few of the other plants we saw were Prairie Smoke (*Geum triflorum*), Cleavers (*Galium asprellum*), Finely-nerved Sedge (*Carex leptonervia*), Starry Solomon's Seal (*Smilacina stellata*) and Canada Avens (*Geum canadense*).

We learned that the term alvar is borrowed from the Baltic countries. It is flat limestone bedrock, either bare pavement, or with a thin layer of soil. Savannahs and alvars are similar, but savannahs have a greater depth of soil. Ed told us that in the spring there would have been a sea of Early Buttercup (*Ranunculus fascicularis*) here. I was delighted to come upon Small Skullcap (*Scutellaria parvula*), with such a tiny blue flower that I did not see the skullcap shape of it until I looked with a hand lens. Near an old limestone quarry we saw clumps of the soft hairy leaves of a rare grass, Side Oats Gramma (*Bouteloua curtipendula*). On the alvar, we saw flower buds of the toxic Eastern Death Camas (*Zigadenus elegans*), known from nowhere else in the county. Ed

explained that it is sometimes mistakenly identified as Wild Onion, and collected for food, causing poisoning. The Indians used to crush the bulblets and add sugar to it to attract and kill off biting insects.

Various other plants we found on the alvar included Narrow-leaved Vervain (*Verbena simplex*), Tall Cinquefoil (*Potentilla arguta*), which is a prairie-savannah species with pinnately compound leaves, Bluets (*Houstonia* sp.[1]), which has the charming folk name Quaker Ladies, and Small-flowered Cranesbill (*Geranium pusillum*).

After eating our lunch at the picnic tables in the Conservation Area, we formed a convoy of cars to proceed to our second site, a hydro corridor some distance north of Belleville. In spite of the herding efforts of our executive representative, Bill Crowley, three of the sheep went astray, blindly following one another past the turnoff. We eventually backtracked, found the others waiting for us and merrily continued on our way, oblivious to the fact that the shepherd had left the 99 and was still searching for us!

Bill caught up to us on the lane in to the Hydro corridor, where we had stopped to look at Poke Milkweed (*Asclepias exaltata*). Ed, a constant fountain of knowledge of Indian lore, demonstrated the strength of a last-year's stalk. The Indians used it for rope, braiding it with Indian Hemp (*Apocynum cannabinum*) or with the inner bark of Basswood (*Tilia americana*) to make it even stronger. Along the lane were growing Carrion Flowers (*Smilax herbacea*), and one whiff was more than enough to settle any questions about the origin of the common name. It seemed incredible that anyone would try eating such a thing, but the young shoots are supposed to be edible.

The hydro corridor is an open, sunny area bordered by a rich oak forest. A well-used path runs along under the hydro lines. It was interesting to note that although alien plants were plentiful right on the path, elsewhere the flora seemed to consist almost entirely of native species. A few passing, light showers did not deter us from enjoying the day and the wildflowers – Upright Bindweed (*Calystegia spithamaea*), which is a prairie species, Seneca Snakeroot (*Polygala senega*), Blue-eyed Grass (*Sisyrinchium montanum*), and Maple-leaved Viburnum (*Viburnum acerifolium*), among others. New Jersey Tea (*Ceanothus ovatus*) was in bud. Other noteworthy plants we found here were Round-headed Bush-clover (*Lespedeza capitata*) (another prairie species), and Thin-leaved Sunflower (*Helianthus decapetalus*).

Thank you to Terry and Ed for a most enjoyable outing.

Eleanor R. Thomson

Recolonization and Natural Regeneration of a Sandpit and Forest

August 27, 2004.

Todd Norris (OMNR) shared his recently purchased 100 acre property with us on one of the few really hot and muggy summer days we had this year (i.e. 2004). The sand pit is near Frontenac Provinical Park, which is all part of an extension of the Canadian Shield called the Frontenac axis. Therefore just under the sand and poking out of the sand in places were huge pieces of granite. Seven people came on the trip and thankfully Todd provided each of us with a list he has begun preparing of all the plant species on his property. The 20 to 30 acre sand pit is surrounded by a plantation of White and Red Pines (*Pinus strobus* and *P. resinosa*, respectively). We started at the sandpit and wandered slowly about, as botanists tend to do, with some guidance to various highlights throughout the area. Crickets and grasshoppers constantly serenaded us. The first thing we spotted as we left the cars was a Compass Goldenrod (*Solidago* nemoralis), which was pointing east. However we decided after looking at a large clump that most of them were pointing north-ish. The sand pit had clusters of various willows (*Salix* sp.). Up high on the banks were several Sandbar Willow (*Salix exigua*) with some Fleabane (*Erigeron annuus*), and a few Purple Loosestrife (*Lythrum salicaria*). The banks also had some stands of Cottonwood (*Populus deltoides*), Trembling Aspen (*Populus tremuloides*), and Balsam Poplar (*Populus balsamifera*). Earlier in the month there were blankets of Deptford Pinks (*Dianthus armeria*) as evidenced by the seed-laden plants everywhere.

We found interesting structures on some of the willows at the bottom of the sandpit, some large knarled black structures (about 12-15 cm) with a very light corky texture. Apparently they are caused by the plants reaction to aphids. In the same area there were several wet marshy depressions and a mound of sand with a few Tonka trucks. The plants we found at the bottom include: Boneset (*Eupatorium perfoliatum*), some Panic Grasses (*Panicum* sp.), Tamarack (*Larix laricina*), Joe Pye Weed (*Eupatorium maculatum*), the branched Water Horsetail (*Equisetum fluviatile*), St. John's Wort (*Hypericum perforatum*), Beggar Ticks (*Bidens cernua*), Marsh Fern (*Thelypteris palustris*), Sensitive Fern (*Onoclea sensibilis*), and a few Helleborine (*Epipactis helleborine*) in fruit. Almost everywhere there were Slender Ladies Tresses (*Spiranthes lacera*) in full bloom. The first large patch we found was amongst some Variegated Horsetail (*Equisetum variegatum*). A flock of about 30 American Robins flew over, two Praying Mantids were found amidst the low vegetation, and there were several butterflies around including: a Monarch Butterfly, a Striped Hairstreak Butterfly, a few Sulphur and Orange Sulphur Butterflies, and a Pearl Crescent butterfly on some Climbing Bittersweet (*Celastrus scandens*).

Todd has had the property for two years and has noticed some changes already. Some areas had been totally torn up by all terrain vehicles before that time. The Balsam Poplars along some of the old tracks are now three feet tall. Last year there had been quite a lot of Russian Thistle (*Amaranthus albus*) blowing about but none at all this year.

Up on the ridges in the sandpit there was a lot of White Sweet Clover (*Melilotus alba*), some Brome Grass (*Bromus inermis*), and about 50 plants of Upright Bindweed (*Calystegia spithamaea*) in short Bluegrass (*Poa* sp.). The uncommon Upright Bindweed was no longer flowering.

After we had finished at the sandpit we had our lunch on a mossy ridge by the cars then took off towards the cool shady woods, which were very welcome by that time of day. Before

[1] *Houstonia caerulea* was the species of Bluets indicated in the original text. *H. caerulea* is provincially rare and not known from Prince Edward County. It is likely the species seen at Massassauga Point was either *H. canadensis* or *H. longifolia* (M.J. Oldham, pers. comm.).

we got there we spotted a second species of *Spiranthes* with a short lower lip and a glabrous, yellow throat. It was in a drier, rocky field type habitat. In the same area and along the track were several plants of Cudweed (*Gnaphalium obtusifolium*).

Ladies' Tresses (*Spiranthes* sp.) in flower. Photo by Bill Crowley.

Along the trail into the mixed mature deciduous woods we found one flowering plant of Beechdrops (*Epifagus virginiana*) in full flower. Later we were to see several areas where there were masses of 100 plus plants of Beechdrops. There were several ferns and mushrooms and Canada Yew (*Taxus canadensis*) in this area. These species included: Lady Fern *(Athyrium filix-femina*), New York Fern (*Thelypteris noveboracensis*) with its shorter lobes at each end of a frond hence the descriptive "burning a candle at both ends", Oak Fern (*Gymnocarpium dryopteris*), Marginal Woodfern (*Dryopteris marginalis*), Interupted Fern (*Osmunda claytoniana*), Hay Scented Fern (*Dennstaedtia punctilobula*), Grape Fern (*Botrychium simplex*), Ostrich Fern (*Matteuccia struthiopteris*), Indian Tobacco (*Lobelia inflata*), Spiknard (*Aralia racemosa*), about five plants of Rattlesnake Root (*Prenanthes altissima*) just beginning to flower, mini-puffballs and a Giant Puffball (*Calvatia gigantea*) the size and roundness of a volleyball. The Hay Scented Ferns were in a group of around 50 plants and were identified by the finely tapered frond tips, round sori in the margins of tiny pinnules, which curl under to make the indusium.

After we left the first part of the deciduous wood we walked along a road for a while. It was along the edge of a deciduous treed swamp where Red Maples (*Acer rubrum*), Silver Maples (*A. saccharinum*) and Yellow Birch (*Betula alleghaniensis*) were dominant. There were tussocks of Ostrich Ferns above the water in many areas. In the ditch there was a huge diversity of moisture lovers including: Winterberry (*Ilex verticillata*), Spotted Joe Pye Weed (*Eupatorium maculatum*), Flat-topped Aster (*Aster umbellatus*), Marsh Aster (*A. puniceus*), Jewel Weed (*Impatiens capensis*), Royal Fern (*Osmunda regalis*), Stinging Nettle (*Urtica dioica*), Water Parsnip (*Sium suave*), Turtle Head (*Chelone glabra*), Hog Peanut (*Amphicarpaea bracteata*), Barnyard Grass (*Echinochloia microstachya*), Manna Grass (*Glyceria* sp.), Sorrel (*Oxalis* sp.), Red Clover (*Trifolium pratense*), Orchard Grass (*Dactylis glomerata*), Swamp Milkweed (*Asclepias incarnata*) in fruit, Helleborine and Woodruff (*Asperula odorata*).

Eventually we went back into the woods again. This time there was more Eastern White Cedar (*Thuja occidentalis*), Yellow Birch and Eastern Hemlock (*Tsuga canadensis*). Here we alarmed a Red-shouldered Hawk. Underfoot we found a mass of Golden Thread (*Coptis trifolia*), Partridge Berry (*Michella repens*), *Amanita flavocona* (yellow cone and yellow spots), a fawn yellow bolitus, Katherina moss, Rattlesnake Fern (*Botrychium virginianum*), Polypore and Oyster Mushrooms, Bladder Fern (*Cystopteris bulbifera*), Jelly Fungus, and Herb Robert (*Geranium robertianum*). Eventually we learned the botanical assets of various trip members. Sheila Thompson is a mycologist and the moist, cool weather we have been having is ideal for fungi growth.

We passed through a plantation of Norway Spruce (*Picea abies*) with a few very prickly Common Prickly Ash (*Zanthoxylum americanum*). From there we entered into a Red Pine plantation where there was a Rose-breasted Grosbeak and White-breasted Nuthatch. We eventually came back into a deciduous forest again with several Black Cherries (*Prunus serotina*) and White Oak (*Quercus alba*), more Beechdrops, and some Wild Gooseberry (*Ribes cynosbati*). We came out of the forest into an abandoned field with several Red Cedar (*Juniperus virginiana*) and Eastern White Cedar, Beaked Willow (*Salix bebbiana*), a boletus with red around the pores (not edible), Calvasia (skull shaped fungus), 15 more spiral *Spiranthes*. An American Toad hopped toward the cedars.

Oak Fern (*Gymnocarpium dryopteris*). Photo by Bill Crowley.

Todd ended the trip near his half-built house and we enjoyed some cool refreshing drinks from his very welcome cooler. It will be interesting to do another Field Botanists of Ontario trip in two to five years to see the changes in and around the sandpit.

Kim Sayers

Features

The Long Swamp

Joan Crowe

The Long Swamp is situated west of Owen Sound. It is about 7 km long and a kilometre wide. Almost certainly, in post-glacial times it was a shallow lake and has been drying up ever since, although the presence of Beaver would have considerably slowed this process. There is little open water. Most of it is a wooded swamp dominated by Eastern White Cedar (*Thuja occidentalis*), but also with White Pine (*Pinus strobus*), Tamarack (*Larix laricina*) and Red Maple (*Acer rubrum*). It is bounded by the Niagara Escarpment to the east and, like Shallow Lake just down the road, it is probably underlain by marl. There will be a high level of calcium ions so this by no means an acid swamp. Within the swamp there are drumlins - ridges of glacial deposits - oriented along the northeast to southwest line of glacial movement. These form islands of high ground. In places there are springs and water always moves through the swamp, sometimes forming small streams, and following the line of the drumlins from the escarpment towards the Pottawatomi River. Therefore, this wetland serves a very important function in purifying water and recycling nutrients.

The division of this area into 100 acre rectangles (approximately 1 km x 500 m) was totally artificial and bore no relation to topography whatsoever. We became interested in Concession A, Lot 21, when it came up for sale. It would have been possible to build one house on the drumlin where it was traversed by the town line. This would have involved cutting down mature trees including a magnificent American Beech (*Fagus grandifolia*) opposite our house, and trucking in fill. It would have been enormously destructive so we bought it for the price of a small car! We discovered that, while most of it is wet, there was part of another drumlin on the far end - divided between four owners! This high ground is an integral part of this ecosystem, providing refuge for wildlife such as White-tailed Deer. In order to be a viable nature reserve the whole area needs to come under protection. It is no good protecting one piece because it has "rare" plants on it if the rest of the area is open to exploitation. Even though the swamp is a provincially significant wetland, the drumlins are listed as "rural". Which means they can potentially be built on or grazed.

Over thirty years previously the Federation of Ontario Naturalists (now Ontario Nature), through the good offices of Mac Kirk, acquired a completely isolated 100 acre lot in the middle of the swamp, with no road access. Part of this lot is an open fen. The attraction was the array of unusual species with a high number of orchids, including Small Round Leaved Orchis (*Amerorchis rotundifolia*). A flourishing stand of this was discovered by Nels Maher many years ago and is still going strong. He has been exploring the swamp since he was a boy and probably knows it better than anyone. Unfortunately, the FON passed up the opportunity to purchase the next two lots, one of which had road access. However, after we bought our lot, the opportunity came up again and the Nature Conservancy of Canada bought the 200 acres which link our property (now deeded to NCC) with the Mac Kirk Nature Reserve. Since then the Escarpment Biosphere Conservancy under Bob Barnett has purchased a 50 acre triangle along Highway 6 and another substantial property on the other side of the Highway and we are hoping that it may be possible to purchase a section which would link up the EBC property with the FON/NCC complex.

Unfortunately the swamp has long been dissected by two highways, one of which recently underwent extensive reconstruction and certainly impedes the water flow. There are also a number of smaller roads which have been opened up and, in some cases, houses have been built on the drier areas. It was also traversed for some decades by snowmobile trails and this brought ATVs in their wake. Luckily, the snowmobile club, very responsibly, recognised the need to protect wetlands and closed the trails, and we have finally persuaded the ATVs that they are trespassing! The local Township of Georgian Bluffs, since the Walkerton tragedy, is also much more aware of the need to preserve wetlands.

The drumlins had been partially cleared for farming and probably grazed. They have also been logged for maple. The present stands are immature second growth and the ground flora is very depauperate - especially for ferns - because of these past activities. They are, however, beginning to recover and typical rich hardwood forest ferns such as Maidenhair Fern (*Adiantum pedatum*) are beginning to come back.

Much of the area is fairly dense cedar swamp with the mossy hummocks supporting a great variety of species, both of bryophytes and vasculars which are very reminiscent of the boreal forest. It had been continuously logged for cedar posts and for fuel up to about 40 years ago. The lot we bought had been owned by the local brickworks and, presumably, used for a fuel supply. There are the remains of logging roads crisscrossing the area where the ground has clearly sunk and water accumulates in wet seasons. There are enormous white pine stumps, especially along the eastern perimeter, and scattered white pine is regenerating slowly. In places it is a little drier and there are stands of White Birch (*Betula papyrifera*). There are some magnificent old American Beeches on the drier ground near the road and a few surviving Eastern Hemlock (*Tsuga canadensis*). Left to itself, of course, this has the potential to regenerate into the natural mix of species that would have been found here at first settlement approximately 150 years ago.

There are certainly White-tailed Deer within the swamp and they, of course, need the whole area. All the typical smaller mammals are present, Porcupines, Groundhogs, Eastern Cottontail Rabbits (*Sylvilagus floridanus*) and Snowshoe Hares, Red and Black Squirrels, Meadow Voles, bats, etc. Black Bear are definitely present. The smell of bear round the blackberry patch in fall is very pungent! Coyotes move through the area from time to time and Red Fox are also

present. Pileated Woodpeckers are heard, Ruffed Grouse are common, and Ravens are nesting. Great Gray Owls appear occasionally. Wood Thrush, Ovenbirds, Rose-breasted Grosbeaks, and Cardinals are among the nesting birds. Blue Jays abound, of course, but birds like House Sparrows, Starlings and Rock Doves are never seen, even though they are present at the farm just down the road. It is noticeable, too, that on the plant list (see below) there is a much smaller proportion of introduced plants in spite of the disturbance that has taken place over the last 150 years. This is an indication that this is still a relatively natural ecosystem that is not open to invasive introduced species.

Vascular Plants of the Long Swamp[2]

Joan Crowe

The following vascular plant list was complied by the author from material supplied by Ontario Nature and her own collections. Introduced species are prefaced with an asterisk (*).

CLUBMOSSES	
Lycopodium annotinum	Bristly Clubmoss
Lycopodium clavatum	Staghorn Clubmoss
Lycopodium obscurum	Ground Pine
FERNS	
Dennstaedtiaceae	
Pteridium aquilinum	Bracken
Dryopteridaceae	
Athyrium filix-femina	Lady Fern
Cystopteris bulbifera	Bulblet Fern
Dryopteris carthusiana	Spinulose Wood Fern
Dryopteris cristata	Crested Shield Fern
Dryopteris intermedia	Evergreen Wood Fern
Dryopteris marginalis	Marginal Shield Fern
Gymnocarpium dryopteris	Oak Fern
Matteuccia struthiopteris	Ostrich Fern
Onoclea sensibilis	Sensitive Fern
Polystichum lonchitis	Northern Holly Fern
Ophioglossaceae	
Botrychium virginianum	Rattlesnake Fern
Osmundaceae	
Osmunda cinnamomea	Cinnamon Fern
Osmunda regalis	Royal Fern
Pteridaceae	
Adiantum pedatum	Maidenhair Fern
Thelypteridaceae	
Thelypteris palustris	Marsh Fern
HORSETAILS	
Equisetum arvense	Field Horsetail
Equisetum fluviatile	Swamp Horsetail
Equisetum variegatum	Variegated Horsetail
CONIFERS	
Abies balsamea	Balsam Fir
Larix laricina	Tamarack
Picea glauca	White Spruce
Picea mariana	Black Spruce
Pinus strobus	White Pine
Taxus canadensis	Canada Yew
Thuja occidentalis	Eastern White Cedar
Tsuga canadensis	Eastern Hemlock
DICOTYLEDONS	
Aceraceae	
Acer rubrum	Red Maple
Acer saccharum	Sugar Maple
Acer spicatum	Mountain Maple
Anacardiaceae	
Rhus radicans	Poison Ivy
Rhus typhina	Staghorn Sumac
Apiaceae	
Cicuta bulbifera	Bulbous Water Hemlock
Osmorhiza claytonii	Sweet Cicely
Aquifoliaceae	
Ilex verticillata	Winterberry
Nemopanthus mucronatus	Mountain Holly
Araliaceae	
Aralia nudicaulis	Wild Sarsaparilla
Aristolochaceae	
Asarum canadense	Wild Ginger
Asclepiadaceae	
Asclepias incarnata	Swamp Milkweed
Asclepias syriaca	Common Milkweed
Asteraceae	
Achillea millefolium	Yarrow
**Arctium minus*	Burdock
Aster borealis	Rush Aster
Aster lateriflorus	Calico Aster
Aster puniceus	Purple Stemmed Aster
Aster umbellatus	Flat Topped White Aster
Bidens cernua	Nodding Bur Marigold
**Chrysanthemum leucanthemum*	Ox Eye Daisy
**Cichorium intybus*	Chicory
**Cirsium vulgare*	Bull Thistle
Erigeron annuus	Annual Daisy Fleabane
Erigeron philadelphicus	Philadelphia Fleabane
Erigeron strigosus	Rough Daisy Fleabane
Eupatorium maculatum	Spotted Joe Pye Weed
Eupatorium perfoliatum	Boneset
**Hieracium pilosella*	Mouse Ear Hawkweed
**Hieracium piloselloides*	King Devil
Lactuca canadensis	Canada Wild Lettuce
Petasites frigidus	Sweet Coltsfoot
Senecio aureus	Golden Ragwort
Solidago rugosa	Rough Stemmed Goldenrod
Solidago uliginosa	Bog Goldenrod
**Taraxacum officinale*	Dandelion
Balsaminaceae	
Impatiens capensis	Spotted Touch-me-not
Berberidaceae	
**Berberis vulgaris*	Common Barberry
Caulophyllum thalictroides	Blue Cohosh
Betulaceae	
Betula alleghaniensis	Yellow Birch
Betula papyrifera	Paper Birch

[2]Modified from Crowe, J. *Flora of the Long Swamp.*

Betula pumila	Swamp Birch
Carpinus caroliniana	Blue Beech
Ostrya virginiana	Hop Hornbeam
Brassicaceae	
Cardamine diphylla	Toothwort
Cardamine pratensis ssp. *angustifolia*	Cuckoo Flower
Campanulaceae	
Campanula aparinoides	Marsh Bellflower
Lobelia kalmii	Kalm's Lobelia
Caprifoliaceae	
Linnaea borealis	Twinflower
Lonicera canadensis	Canada Fly Honeysuckle
Lonicera dioica	Twining Honeysuckle
Lonicera oblongifolia	Swamp Fly Honeysuckle
Lonicera villosa	Mountain Fly Honeysuckle
Sambucus canadensis	Common Elder
Sambucus racemosa	Red Berried Elder
Triostemum aurantiacum	Horse Gentian
Viburnum lentago	Nannyberry
Viburnum trilobum	High Bush Cranberry
Clusiaceae	
**Hypericum perforatum*	Common St. Johnswort
Cornaceae	
Cornus alternifolia	Pagoda Dogwood
Cornus canadensis	Bunchberry
Cornus stolonifera	Red Osier Dogwood
Droseraceae	
Drosera rotundifolia	Round Leaved Sundew
Ericaceae	
Andromeda polifolia	Bog Rosemary
Arctostaphylos uva-ursi	Bear Berry
Chamaedaphne calyculata	Leatherleaf
Gaultheria hispidula	Creeping Snowberry
Gaultheria procumbens	Wintergreen
Kalmia angustifolia	Sheep Laurel
Kalmia polifolia	Bog Laurel
Ledum groenlandicum	Labrador Tea
Vaccinium myrtilloides	Velvet Leaf Blueberry
Vaccinium oxycoccus	Small Cranberry
Fagaceeae	
Fagus grandifolia	Beech
Fumariaceae	
Dicentra canadensis	Squirrel Corn
Grossulariaceae	
Ribes cynosbati	Prickly Gooseberry
Ribes glandulosum	Skunk Currant
Ribes hirtellum	Wild Gooseberry
Ribes lacustre	Bristly Black Currant
Ribes triste	Swamp Red Currant
Haloragaceae	
Proserpinaca palustris	Mermaid Weed
Hydrophyllaceae	
Hydrophyllum virginianum	Virginia Waterleaf
Juglandaceae	
Juglans cinerea	Butternut
Lamiaceae	
Clinopodium vulgare	Wild Basil
Lycopus americanus	Water Horehound
Lycopus uniflorus	Bugleweed
Prunella vulgaris	Heal All
Scutellaria lateriflora	Mad Dog Skullcap
Lauraceae	
Lindera benzoin	Spicebush
Menyanthaceae	
Meynanthes trifoliata	Buckbean
Myricaceae	
Myrica gale	Sweet Gale
Nymphaceae	
Nuphar variegatum	Yellow Water Lily
Nymphaea odorata	White Water Lily
Oleaceae	
Fraxinus americana	White Ash
Fraxinus nigra	Black Ash
Fraxinus pennsylvanica	Red Ash
Onagraceae	
Circaea alpina	Small Enchanter's Nightshade
Papaveraceae	
Sanguinaria canadensis	Bloodroot
Plantaginaceae	
**Plantago lanceolata*	Ribwort Plantain
Polygalaceae	
Polygala paucifolia	Gaywings, Fringed Polygala
Polygonaceae	
Polygonum lapathifolium	Pale Smartweed
Portulacaeae	
Claytonia caroliniana	Broad Leaved Spring Beauty
Primulaceae	
Lysimachia ciliata	Fringed Loosestrife
Lysimachia thyrsiflora	Tufted Loosestrife
Trientalis borealis	Starflower
Pyrolaceae	
Orthilia secunda	One Sided Pyrola
Pyrola asarifolia	Pink Pyrola
Pyrola chlorantha	Greenish Pyrola
Ranunculaceae	
Actaea pachypoda	White Baneberry
Actaea rubra	Red Baneberry
Caltha palustris	Marsh Marigold
Clematis virginiana	Virgin's Bower
Coptis trifolia	Goldthread
Ranunculus abortivus	Small Flowered Buttercup
Ranunculus acris	Common Buttercup
Thalictrum pubescens	Tall Meadow Rue
Rhamnaceae	
Rhamnus alnifolia	Alder Leaved Buckthorn
Rosaceae	
Agrimonia gryposepala	Agrimony
Amelanchier cfr. laevis	Smooth Serviceberry
Aronia melanocarpa	Black Chokeberry
Fragaria vesca	Woodland Strawberry
Fragaria virginiana	Wild Strawberry
Geum rivale	Purple or Water Avens
Potentilla fruticosa	Shrubby Cinquefoil
Potentilla palustris	Marsh Cinquefoil
Prunus serotina	Black Cherry

Prunus virginiana	Choke Cherry
Rosa palustris	Swamp Rose
Rubus allegheniensis	Common Blackberry
Rubus idaeus	Red Raspberry
Rubus pubescens	Dwarf Raspberry
Sorbus americana	Mountain Ash
Spiraea alba	Meadow Sweet
Rubiaceae	
Galium palustre	Marsh Bedstraw
Galium triflorum	Sweet Scented Bedstraw
Mitchella repens	Partridge Berry
Salicaceae	
Populus balsamifera	Balsam Poplar
Populus grandidentata	Big Toothed Aspen
Populus tremuloides	Trembling Aspen
Salix bebbiana	Beaked Willow
Salix candida	Hoary Willow
Salix discolor	Large Pussy Willow
Salix eriocephala	Diamond Willow
Salix pedicellaris	Bog Willow
Salix petiolaris	Slender Willow
Sarraceniaceae	
Sarracenia purpurea	Pitcher Plant
Saxifragaceae	
Mitella nuda	Naked Mitrewort
Parnassia glauca	Grass of Parnassus
Tiarella cordifolia	Foamflower
Tiliaceae	
Tila americana	Basswood
Ulmaceae	
Ulmus americana	American Elm
Urticaceae	
Laportea canadensis	Wood Nettle
Violaceae	
Viola blanda	Sweet White Violet
Viola canadensis	Canada Violet
Viola conspersa	Dog Violet
Viola cucullata	Blue Marsh Violet
Viola pubescens	Yellow Violet
Viola renifolia	Kidney Leaved Violet
Viola selkirkii	Great Spurred Violet
Vitaceae	
Parthenocissus inserta	Virginia Creeper
Vitis riparia	Frost Grape
MONOCOTYLEDONS	
Cyperaceae	
Carex aquatilis	Water Sedge
Carex arctata	Drooping Wood Sedge
Carex aurea	Golden Sedge
Carex castanea	Chestnut Sedge
Carex chordorrhiza	Creeping Sedge
Carex crinita	Fringed Sedge
Carex cristatella	Crested Sedge
Carex deweyana	Dewey's Sedge
Carex disperma	Soft-leaf Sedge
Carex echinata	Star (Prickly) Sedge
Carex exilis	Starved (Bog) Sedge
Carex flava	Yellow Sedge
Carex gracillima	Graceful Sedge
Carex interior	Inland Sedge
Carex intumescens	Bladder Sedge
Carex lasiocarpa	Slender Sedge
Carex leptalea	Bristly Stalked Sedge
Carex limosa	Mud Sedge
Carex livida	Lead-coloured Sedge
Carex magellanica	Quaking (Bog) Sedge
Carex pedunculata	Long-stalked Sedge
Carex pseudo-cyperus	Cyperus-like Sedge
Carex retrorsa	Retrorse Sedge
Carex rosea	Stellate Sedge
Carex stipata	Awl Fruited (Stipitate) Sedge
Carex tenera	Weak (Slender) Sedge
Carex trisperma	Three Seeded Sedge
Carex vulpinoidea	Fox Sedge
Cladium mariscoides	Twig Rush
Eleocharis elliptica	Elliptic Spike Rush
Eriophorum virginicum	Tawny Cottongrass
Eriphorum viridi-carinatum	Green Keeled Cottongrass
Rhynchospora alba	White Beakrush
Schoenoplectus acutus	Hardstem Bulrush
Scirpus atrovirens	Dark Green Bulrush
Scirpus cyperinus	Wool Grass
Trichophorum alpinum	Northern Club Rush
Trichophorum cespitosum	Tufted Club Rush
Iridaceae	
Iris versicolor	Blue Flag
Juncaceae	
Juncus canadensis	Canada Rush
Juncus effusus	Soft Rush
Juncaginaceae	
Triglochin maritimum	Seaside Arrow Grass
Liliaceae	
Allium triococcum	Wild Leek
Clintonia borealis	Blue Bead Lily
Erythronium americanum	Trout Lily
Lilium philadelphicum	Wood Lily
Maianthemum canadense	False Lily-of-the-Valley
Maianthemum stellatum	Starry False Solomon's Seal
Maianthemum trifolium	Three Leaved False Solomon's Seal
Medeola virginiana	Indian Cucumber Root
Polygonatum pubescens	Hairy Solomon's Seal
Streptopus roseus	Rose Twisted Stalk
Tofieldia glutinosa	Sticky False Asphodel
Trillium erectum	Red Trillium
Trillium grandiflorum	White Trillium
Orchidaceae	
Amerorchis rotundifolia	Small Round Leaved Orchis
Arethusa bulbosa	Arethusa, Dragon's Mouth
Calopogon tuberosus	Grass Pink
Coeloglossum viride	Long Bracted Green Orchid
Corallorhiza trifida	Early Coralroot
Cypripedium acaule	Pink Lady's Slipper
Cypripedium arietinum	Ram's head Lady's Slipper
Cypripedium calceolus	Yellow Lady's Slipper
Cypripedium reginae	Showy Lady's Slipper

**Epipactis helleborine*	Helleborine
Listera cordata	Heart Leaved Twayblade
Platanthera huronensis	Tall Whitish-green Orchid
Platanthera lacera	Ragged Fringed Orchid
Platanthera obtusata	Small Northern Bog Orchid
Platanthera psycodes	Small Purple Fringed Orchid
Spiranthes romanzoffiana	Hooded Ladies' Tresses
Poaceae	
Agrostis gigantea	Redtop
Calamagrostis canadensis	Bluejoint
Dactylis glomerata	Orchard Grass
Glyceria striata	Fowl Manna Grass
Leersia oryzoides	Rice Cut Grass
Muhlenbergia mexicana	Wirestem Muhly, Satin Grass
Oryzopsis asperifolia	Rough Leaved Rice Grass
Poa palustris	Fowl Meadow Grass
Poa pratensis	Kentucky Blue Grass
Schizachne purpurascens	False Melic Grass
Sphenopholis intermedia	Slender Wedge Grass
Typhaceae	
Typha latifolia	Common Cat Tail

Letters

HAM Significant Plant Records Feedback

Re. "Significant Plant Records from the Herbarium of the Royal Botanical Gardens (HAM): 2003" (Winter 2005, FBO Newsletter Vol. 17(2): 7-12).

Dear Leslie,

I would like to clarify further the apparent confusion created by the artificial divisions used in "The Checklist of Vascular Plants of Bruce and Grey Counties". This publication was based on a document produced by Joe Johnson for the Ministry of Natural Resources. It was his decision to divide the two counties into three areas. The logic behind this is that the Bruce Peninsula, being within the influence of both Georgian Bay and the main part of Lake Huron, has a somewhat different climate and conditions from the southern parts of Bruce and Grey counties. This accounts for the great variety of species and the number of endemics found there. It does, however, put part of Grey County in the Peninsula area. However, Carl Rothfels was correct when he stated some of the species he found were "rare" in Grey County. It all depends which set of boundaries you are looking at - political or otherwise!

There is a map and an explanation of this in the introduction to the book. The third edition was produced in 2003 and is still available ($5.00). All our publications cover both counties and all are still in print - the orchid book, fern book and rare species books are all $15.00, the Asters, Goldenrods and Fleabanes is $8.00. Your readers may also be interested to know that a new Geology Committee was created a few years ago and in 2004 produced "The Geology and Landforms of Bruce and Grey Counties" ($25.00), which is obtainable from the plant committee and is proving very popular. I should also mention that our fern book is being used as a text at Sault College.

I was interested in Carl's article as I realised that the species he cited as being found two kilometres south of Cruikshank were, in fact, in the Long Swamp in the 100 acre Mac Kirk Nature Reserve which has belonged to Ontario Nature since 1972. More recently, the Nature Conservancy of Canada has acquired 294 acres and the Escarpment Biosphere Conservancy an almost equal amount. There is, however, a great deal of this very large wetland complex still in private hands. It is not, in fact, possible to access the swamp from Cruikshank, which is simply a name on the map and not really a place at all. Permission would have to be obtained in order to visit these nature reserves.

I should explain that we live on the very edge of the swamp and have been heavily involved with its protection. I am enclosing a short article about the swamp and a plant list, which I have compiled from material supplied by Ontario Nature and my own collections.

Yours sincerely,
Joan Crowe
Bruce-Grey Plant Committee
crowe@log.on.ca

Joan,
Thank you for providing our readership with an expanded explanation of the Bruce-Grey boundaries presented in "The Checklist of Vascular Plants of Bruce and Grey Counties". Readers can find the Long Swamp article and associated plant list in the Features section of this newsletter.

-Leslie

Notices

FBO 2005 Annual General Meeting

September 17 and 18, 2005.

This year the annual general meeting will be held in Guelph at the Aberfoyle Mill. The guest speaker for Saturday evening will be Dan Kraus from the Nature Conservancy Canada. He will be giving a talk on the conservation of globally significant vascular plants and communities in Ontario.

Field trip leaders include Wasyl Bakowsky, Ken Ursic, Allan Anderson and Carl Rothfels.

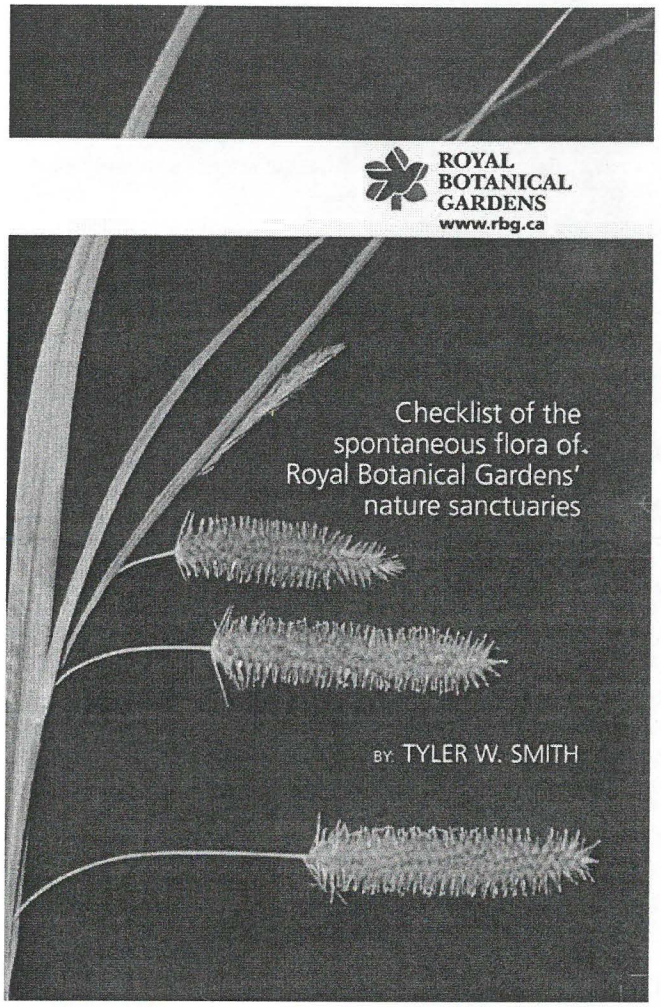
So reserve the dates in your planners, PDAs, calendars or tie a string around your finger, as this should be a great AGM!

Registration forms were scheduled to arrive in mailboxes for mid-August.

Mary Ann Johnson
Vice President
Field Botanists of Ontario

New Royal Botanical Gardens Checklist

Smith, Tyler. 2003. Checklist of the spontaneous flora of Royal Botanical Gardens' nature sanctuaries. Royal Botanical Gardens. Hamilton/Burlington. Contribution #113. 110 pp.



Royal Botanical Gardens is pleased to announce that our long-awaited updated checklist is now available in print! And long-awaited is no exaggeration – the recent checklist, by Tyler Smith, is the first since Jim Pringle's ground-breaking 1969 work, which has long served as the primary resource not just for RBG property, but for all of Hamilton and Halton.

Royal Botanical Gardens manages approximately 1,000 hectares of nature sanctuary in Hamilton and Halton regions, nestled between the western end of Lake Ontario and the Niagara Escarpment. This unique geography, combined with a long and extensive history of botanical exploration and documentation, results in a very rich flora: the new checklist contains 1,117 vascular plant taxa. This tally, impressive in itself, is all the more notable when compared to the tally for Halton Region (1,301 taxa – Varga et al. 2000) and Hamilton (1,430 taxa – Goodban 2003).

The checklist contains annotated entries for each species, detailing the RBG properties on which it has been found, as well as its local and provincial status, and including relevant additional notes where appropriate. This checklist will thus be invaluable not only to those naturalists visiting our properties, but to botanists working throughout Ontario – it contains information on the most significant populations of some Nationally Endangered species (including *Trichophorum planifolium*) as well as data on the providence, introduction and occurrence of certain particularly threatening invasive species (*Cynanchum rossicum*, *Petasites japonicus, Glyceria maxima*, etc.)

With the inclusion of an introduction and notes on the Gardens' properties, the history of botanical exploration of the area, and an overview of restoration and conservation work at the Gardens, this updated checklist is a fitting revision of Pringle's 1969 version. It is available through Royal Botanical Gardens for $5, and online at www.rbg.ca.

As always, checklists are works in progress. Please consult the checklist when visiting our properties, and let me know (crothfels@rbg.ca) of any interesting discoveries!

The printing of this checklist was made possible through the generosity of the Great Lakes Sustainability Fund of the Government of Canada.

Carl Rothfels

References

Goodban, Anthony G. 2003. The Vascular Plants of Hamilton, Ontario. In: *Nature Counts Project: Hamilton Natural Areas Inventory 2003 – Species Checklists* (Jill K. Dwyer ed.).

Pringle, J.S. 1969. Checklist of the spontaneous vascular flora of the Royal Botanical Gardens, Hamilton, Ontario, Canada. Royal Botanical Gardens Technical Bulletin #4. Royal Botanical Gardens, Hamilton, Ontario.

Varga, S., D. Leadbeater, J. Webber, J. Kaiser, B. Crins, J. Kamstra, D. Banville, E. Ashley, G. Miller, C. Kingsley, C. Jacobsen, K. Mewa, L. Tebby, E. Mosley and E. Zajc. 2000. Distribution and Status of the Vascular Plants of the Greater Toronto Area. Ontario Ministry of Natural Resources, Aurora District.

Society for Ecological Restoration (SER) Ontario Chapter

SER Ontario is part of an international organization committed to the ecologically sensitive repair and management of ecosystems. While the focus of the Chapter's efforts is the Ontario region, they strive to share ideas and initiatives across borders and around the globe.

The SER mission: To promote the practice of ecological restoration and provide educational opportunities and materials for members and for the community at large. SER Ontario, in collaboration with SER International, are committed to the development of ecological restoration as a science, art, and conservation strategy.

SER Ontario hosts field trips showcasing restoration projects throughout the field season. Interested parties are encouraged to visit www.serontario.org for more information regarding upcoming trip dates, fees and registration procedures.

Terrestrial Monitoring Volunteers Wanted

The Toronto and Region Conservation Authority is seeking volunteers for terrestrial monitoring within the Greater Toronto Area.

Interested volunteers will be assigned to a 10-hectare field site and will be asked to monitor the assigned site ten times/year (including two winter visits) for species of flora and fauna. Volunteers do not need any identification

experience as they are trained through the program. The only requirements are interest and enthusiasm for nature and environmental monitoring, willingness for longer-term commitment and a desire to learn. Some sites require the use of a car to access.

For further information, please contact:

Jennifer Skelton
Terrestrial Volunteer Coordinator
Toronto and Region Conservation
(416) 661-6600 Ext. 5658
jskelton@trca.on.ca

English Ivy Information Request

English Ivy (*Hedera* spp., Araliaceae) is recognized as a serious invader on the Pacific Coast. However, though it is anecdotally reported throughout North America, its distribution is poorly documented[3].

As part of my Ph.D. research at the University of Washington, I am constructing a distribution map of ivy so that the overall scope of invasion can be assessed. If you are aware of ivy populations that are invading natural areas anywhere in Ontario, I would love to know about them. Please include the location, a description of the ivy population, and details on the severity of invasion.

Tara Fletcher Ramsey
University of Washington
tsf@u.washington.edu

Harebell Seed Collection Request

Harebell (*Campanula rotundifolia*) seeds are being sought for use in an upcoming laboratory exercise.

If you have access to Harebell specimens in fruit and are willing to help, please get in touch with me obtain details on collection requirements.

Dirk Janas
President
Field Botanists of Ontario
djanas@gartnerlee.com

Newsletter Housekeeping

With the new field season well underway, I would like to take the opportunity to remind all field trip report authors to visit the Instructions for Authors page at www.trentu.ca/fbo for a myriad of helpful tips.

Material is required for the upcoming newsletter so send your contributions to fbo@lesliec.com as soon as you are able!

Leslie Collins
Editor
Field Botanists of Ontario

[3]Editor's Note: Tara has mentioned that there are likely two species of *Hedera* involved in the invasions in North America. Distinction between the two is not reliable in the field. We encourage FBO colleagues to support this interesting project by providing her with appropriate records.

Botanical Diversions

The Latin Name Game

I was first introduced to this game, as a pimply-faced teenager, by my mischievous[4] elder colleagues at the Algonquin Park Visitor Centre. I'm not sure where the game actually originated – its birth may be lost in the mist of time[5] - but as long as naturalists will be stuck together on long road trips, the game will continue! And the game is a great incentive, if nothing else, to work on remembering scientific names.

The rules are simple – one player supplies the clue, the other struggles for the answer. Reverse roles, and repeat. The clue has two parts. First is the scientific name for a genus (i.e. "*Aster*" or "*Geum*" or "*Botrychium*" or "*Schoenoplectus*"), and the second is an English word. The answer is the English translation of the genus name, and a synonym for the English part of the clue, which RHYME.

This may seem complicated, but once you try one, it'll all make sense. For example, a clue: "*Pinus* backbone." "*Pinus*" is the genus name, and "backbone" is the English word. The answer, of course, is "pine spine." Pine is the English version of *Pinus*, and spine is a synonym for backbone. Pine and spine rhyme. Case closed.

But that one was easy. Try these:

1. *Chrysanthemum* infatuated
2. *Acer* affixer
3. *Malus* pseudofruit beverage
4. *Vicia* dog game
5. *Carex* shelf
6. *Betula* stumble
7. *Tilia* hockey player
8. *Gentiana* support
9. *Kalmia* dispute
10. *Silene* conqueror

Or geekier versions:
11. *Bromus* fleshy-fruit

Or exotic versions:
12. *Phyllostachys* hair product

How did you do (answers below)? Ready for those road trips? Now that you've mastered the game, fame and wealth must be just around the corner, clearly. Enjoy!

Carl Rothfels

Answers:
1. Daisy crazy
2. Maple staple
3. Apple Snapple
4. Vetch fetch
5. Sedge ledge
6. Birch lurch
7. Linden (Trevor) Linden
8. Gentian pension
9. Laurel quarrel
10. Campion champion
11. Brome pome
12. Bamboo shampoo

[4]Note: A.k.a. "malicious".

[5]Note: If anyone knows the twisted soul that first devised the Latin Name Game, please let Carl Rothfels know.