NYFA New York Flora Association

Mitchelliana

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New York Flora Association Newsletter Fall 2024

Editor's Note: The Annual Meeting is over and field trips and workshops have pretty much wrapped up. There are quite a few of them to read about in this issue; it may make you wish you had been to more, and to think about where you would like to go next year. Also, take a look at the President's message for a brief recap of the recent Annual Meeting (a good time was had by all!). See photos and read more about it in the next issue. Hope to see you in the field!

Articles Inside:

New York Flora Association

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NYFA Mission:

To promote a greater appreciation and knowledge of the flora of New York through conservation, research, and public education and outreach.

Report from the NYFA Ward Pound Ridge Ramblers

by Patricia Butter, Mark Horton-Sacha and Mei Wu

When we scheduled the NYFA field trip to Ward Pound Ridge Reservation for mid-July in the hopes that we would catch blunt-leaved milkweed (*Asclepias amplexicaulis)* in bloom, we knew that the weather might pose a challenge, but we weren't quite prepared for the dire predictions that emerged from NOAA as the date approached: area-wide severe thunderstorms and flash floods. By playing it safe and switching our trip from Saturday to Sunday, we saved Westchester County from the predicted natural disaster, but sadly cut the number of folks who could attend the trip nearly in half. Gratefully, even with a smaller group we managed to make the most of the day and saw many wonderful plants.

In the course of conducting a multi-year flora survey at Ward Pound Ridge, trip leader Patricia Butter and her colleagues Devon Cummings and Daniel Atha have observed plant communities unique in the lower Hudson Valley. This trip was an opportunity to share these botanical wonders with friends and plant enthusiasts. Despite its location only 40 miles northeast of the New York Botanical Garden, one of the world's largest institutions for plant science, upper Westchester County appears to be remarkably understudied. By the second of three years of study, the flora project had documented 10 previously unknown populations of state listed rare plants (S1 to S3) and 25 plant species previously undocumented in the county. As of the date of the field trip, 574 species had been vouchered, 80% native and 20% non-native. These statistics highlight the importance of botanical field work in continuing to document the range and diversity of New York's plants. We are grateful to the Friends of Trailside Nature Museum for funding the flora project and their commitment to conservation.

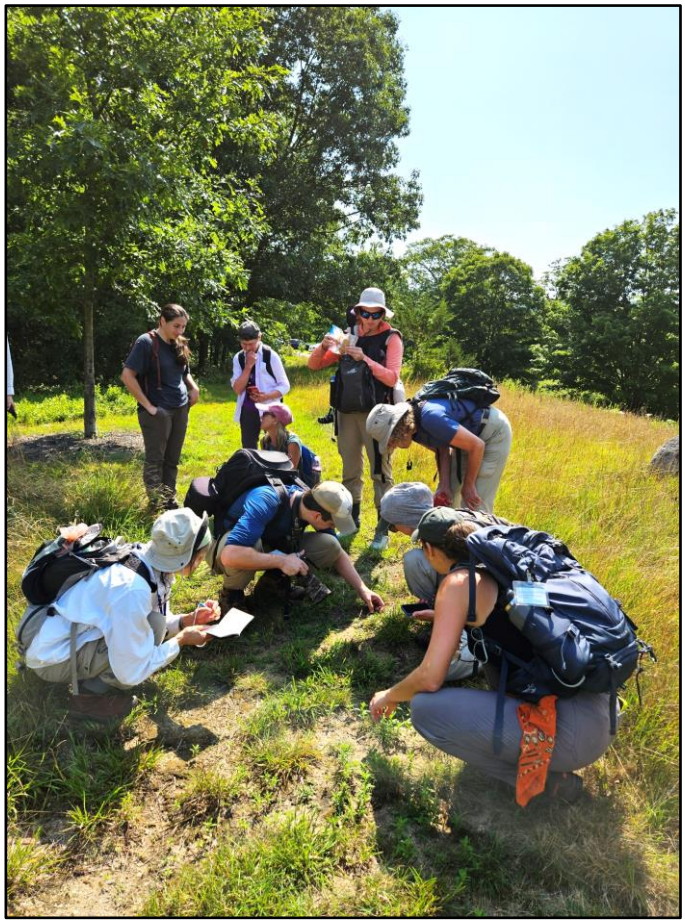
Ward Pound Ridge Reservation comprises around 4,300 acres of varied habitats from upland deciduous forests, lowland riparian swamps, beaver-flooded wetlands, meadows, and rocky ledges. The park is a rolling landscape bounded to the south and east by a high semicircular ridge of gneissic bedrock with a steep outer escarpment and a more gradual inner slope draining northwest into the valley of the Cross River. Sandy outwash deposits in the park's interior suggest that glacial floodwaters once flowed here, and were possibly impounded for a time below a retreating ice dam. Today these sandy sediments provide another layer of habitat complexity to an already rich matrix, and are hotspots of rare plant diversity.

Our first destination was one such site, home to an unusual community of sedges and other graminoids, including the rare Bush's sedge (*Carex bushii*, S3) and wildflowers, such as the state-critically endangered common rattlebox (*Crotalaria sagittalis*, S1). We worked our way across a series of meadows to a good population of blunt-leaved milkweed observing more sedges, herbs, and even a rock-wall-rooted marsh fern (*Thelypteris palustris*) along the way. The

NYFA group in the photo below illustrates the enthusiasm that was brought to studying even the tiniest of plants in our path. Little tufted hair sedge (*Bulbostylis capillaris)* and Virginia dwarf dandelion (*Krigia virginica*) are indeed delightful plants.

We looked at hurrah bead grass, (*Paspalum setaceum* var. *muhlenbergii)* in the field, but didn't get a chance to compare it to the rare field bead grass (*Paspalum laeve*, S3*)*, which is present at three locations within the park. These field bead grasses appear in disturbed areas along paths and in lawns and meadows in the Bronx and Westchester Counties.

We drove to the Kimberly Bridge picnic area for lunch by the banks of the Cross River. The group enjoyed spending the afternoon exploring the river floodplain, and then hiked to an upland swamp where we saw a colony of threatened swamp poplar (*Populus heterophylla*, S2). Climbing to a higher elevation, we visited a vernal pool and observed a population of the threatened false hop sedge (*Carex lupuliformis*, S2).



Taking a closer look at *Bulbostylis capillaris* and *Krigia virginica* in the path. Photo by Patricia Butter.

iNaturalist observations from our day can be viewed here:
https://www.inaturalist.org/observations?on=2024-07-14&place_id=48&project_id=ward-pound-ridge-reservation-biodiversity-club

Special thanks to: Kyle Webster, Taro Ietaka, and Lindsey Feinberg for making this field trip possible.

Next page: Plant list for NYFA field trip, Ward Pound Ridge Reservation, Cross River, NY, 7/14/2024. In chronological order:

Michigan Road parking lot/Sunny southwest facing slope, approx. 20% grade; likely glacial till
Bush's Sedge, *Carex bushii* S3
Hurrah Bead Grass, *Paspalum setaceum* var. *muhlenbergii*
Purple Love Grass, *Eragrostis spectabilis*
Common St. John's Wort, *Hypericum perforatum* ssp. *perforatum*
Deer-tongue Rosette Grass, *Dichanthelium clandestinum*
Upper parking lot, very sandy hillock, possible remnant of former ice dam:
Bayberry, *Morella caroliniensis*
Black Oak, *Quercus velutina*
Parasol Sedge, *Carex umbellata*
Tufted Hair Sedge, *Bulbostylis capillaris*
Path Rush, *Juncus tenuis*
Hard Fescue, *Festuca trachyphylla*
Virginia Dwarf Dandelion, *Krigia virginica*
Hawkweed sp., *Hieraceum* spp. (not in flower)
Eastern Flat Sedge, *Cyperus lupulinus* var. *macilentus*
Purple Lovegrass, *Eragrostis spectabilis*
Continuing down path:
Raspberry, *Rubus* ssp.
Little Bluestem, *Schizachyrium scoparium* var. *scoparium*
Round-headed Bush Clover, *Lespedeza capitata*
Canada Frostweed, *Crocanthemum canadense*
Common Bluecurls, *Trichostema dichotomum*
Rough Buttonweed, *Hexasepalum teres*
Wetter depression:
Common Scouring Rush, *Equisetum hyemale* var. *affinis*
Marsh Fern, *Thelypteris palustris* var. *palustris*
Common Rattlebox, *Crotalaria sagittalis* S1
Millpond: (opposite former CCC camp site)
Wild Sensitive Plant, *Chamaecrista nictitans* var. *nictitans*
Whorled Loosestrife, *Lysimachia quadrifolia*
Roadside, shady:
Oriental Redtip, *Pourthiaea villosa*
Downy Agrimony, *Agrimonia pubescens*
Canada Wild Lettuce, *Lactuca canadensis*
Roadside, sunny:
Common Winged Sumac, *Rhus copallinum* var. *copallinum*
Broad-leaved Meadowsweet, *Spiraea alba* var. *latifolia*
Toringo Crab Apple, *Malus toringo*
Outbuildings and former sugaring shed:
Black Maple, *Acer nigrum*
Open field:
Blunt-leaved Milkweed, *Asclepias amplexicaulis*
Yellow-fruited Sedge, *Carex annectens*
Swan's Sedge, *Carex swanii*
Steeplebush, *Spiraea tomentosa*
Roadside
Linden Viburnum, *Viburnum dilatatum*
Pointed-leaved Tick Trefoil, *Hylodesmum glutinosum*
Bladder Sedge, *Carex intumescens*
Return to upper parking lot:
Long-spined Sandbur, *Cenchrus longispinus*
Tufted Love Grass, *Eragrostis pectinacea* var. *pectinacea*

Kimberly Bridge picnic & parking lot: Stream-side and former beaver pond recently breached:
Common Wool Grass, *Scirpus cyperinus*
Common Soft Rush, *Juncus effusus* ssp. *solutus*
Brownish Beaked-Rush, *Rhynchospora capitellata*
Common Fringed Sedge, *Carex crinita* var. *crinita*
Marsh Bellflower, *Palustricodon aparinoides*
Carex Sect. Cyperoideae Section Cyperoideae
Sallow Sedge, *Carex lurida*
Common Liverwort, *Marchantia polymorpha*
Cardinal Flower, *Lobelia cardinalis*
Blue Vervain, *Verbena hastata*
Sharp-fruited Rush, *Juncus acuminatus*
Sharp-angled Spike Rush, *Eleocharis tenuis*
Stout Smartweed, *Persicaria robustior*
Three-way Sedge, *Dulichium arundinaceum* var. *arundinaceum*
Common Arrowhead, *Sagittaria latifolia*
Climbing Hempvine, *Mikania scandens*
Water Pimpernel, Brookweed, *Samolus valerandi*
Allegheny Monkey Flower, *Mimulus ringens*
Soft-stemmed Bulrush, *Schoenoplectus tabernaemontani*
American Bur-reed, *Sparganium americanum*
On opposite shore:
Buttonbush, *Cephalanthus occidentalis*
Path along floodplain:
Spotted Water Hemlock, *Cicuta maculata* var. *maculata*
Tall Meadow Rue, *Thalictrum pubescens*
Virgin's Bower, *Clematis virginiana*
Wild Yam, *Dioscorea villosa*
Spotted Jewelweed, *Impatiens capensis*
Tall Crowfoot, *Ranunculus acris*
Thin-leaved Sunflower, *Helianthus decapetalus*
Dodder, *Cuscuta* sp.
Common Greenbrier, *Smilax rotundifolia*
Black Chokeberry, *Aronia melanocarpa*
Into moist woods:
American Beech, *Fagus grandifolia*
American Self-heal, *Prunella vulgaris var. lanceolata*
Fringed Loosestrife, *Lysimachia ciliata*
Downy False Foxglove, *Aureolaria virginica*
Naked Tick Trefoil, *Hylodesmum nudiflorum*
Progressing higher:
Hillside Blueberry, *Vaccinium pallidum*
Yellow Star Grass, *Hypoxis hirsuta*
First upper swamp:
New York Fern, *Amauropelta noveboracensis*
Swamp Cottonwood, *Populus heterophylla* S2
Vernal pool:
False Hop Sedge, *Carex lupuliformis* S2
Sensitive Fern, *Onoclea sensibilis*
Bosc's Rosette Grass, *Dichanthelium boscii*
Palmate-leaved Violet, *Viola subsinuata*
Yellow Pinesap, *Hypopitys monotropa*
Ribbed Sedge, *Carex virescens*

Grass Workshop, 2024

by Jonathan Shaw

The NYFA early-season grass workshop was held Thursday to Sunday, June 13-16, with 13 participants. We met in Ithaca, with lab space provided by Cornell's Bailey Hortorium. The workshop featured a combination of field and laboratory time, with morning field trips to a variety of local sites (Friday-Sunday) followed by opportunities for microscopic examination in the lab. The workshop was led by David Werier with assistance from David DuBois. In addition to our own collections made during the field trips, David provided us with a broad diversity of identified and unidentified grass specimens to practice our newly developing identification skills in the classroom. Workshop participants included biologists/naturalists from governmental and private agencies, academics, and amateurs, including retirees who just wanted to learn grasses for fun!

We met first on Thursday evening for introductions, an overview of the workshop plan, and an introduction to grass morphology. David gave a useful lecture running though vegetative and flower morphology while we dissected and examined plants in the flesh. There are so many grass-specific structural nuances that this was extremely valuable for those of us with little or no prior experience identifying grasses. David walked us through his key to New York grasses to help us understand how he grouped species by commonalities in their morphology. Getting into the right "group" in the key is the first step. The diversity of grasses and their morphology were immediately apparent. It is amazing that grasses seem to have done just about everything possible within the limits of their basic grass structure – reduced or exaggerated pedicels, sterile florets mixed with fully functional structures, hairs, bristles, awns, and more!!

On an unseasonably warm Friday morning we met at the Eberhard Nature Preserve to begin our field reconnaissance. The beginning of the trail was in a sunny field and we first examined some widespread common species, including: sweet vernal grass (*Anthoxanthum odoratum*), orchard grass (*Dactylis glomerata*), reed canary grass (*Phalaris arundinacea*), and timothy (*Phleum pratense*), before continuing up the trail into more shaded habitats. David shared insights into how to distinguish growth forms that spread via more or less extensive rhizomes from those characterized by a more "clumped" form because they lack rhizomes.

After a field lunch the group headed back to Cornell to examine collections, but we first stopped along the roadside in Brooktondale to see slender false brome (*Brachypodium sylvaticum*), with leaves that are hairy and, if crushed, roots that smell like wintergreen (at least for some of us).

Friday late afternoon, back in the lab, we had time to examine our collections from the Eberhard Nature Preserve and delve more deeply into using the keys. Keys are such great tools for directing attention to the important traits on which to focus, and "forcing" known samples though the keys was a valuable mechanism to see how the wording in the key corresponds to the "right" choices at each key couplet. This is one time when "cheating" with known samples is a legitimate and effective educational strategy!

The whole group shared a tasty Thai dinner together on Friday night on the Ithaca Commons, though we couldn't resist a bit of urban botany along the way to stop for cheat grass (*Bromus tectorum*).

On Saturday morning we met at the South Hill Swamp. The trail started at the roadside where we examined velvetgrass (*Holcus lanatus).* We then took a few minutes to have a look at the gigantic nonnative plume grass (*Miscanthus* sp.) This was interesting since, because of its size, one typically identifies it from afar without intimate examination.

We then walked into a wet forest with low-lying spots covered by lovely colonies of peat mosses with grasses scattered among them. Here we examined *Calamagrostis canadensis* (Canada bluejoint grass, or sedge meadow grass) and noticed that the joints are slightly out of alignment with the leaves. We took a moment in the sun with the rosette grasses *Dichanthelium lanuginosum* and *D. linearifolium.*

A teaching moment at Six Mile Creek, photo by John Shaw.

Saturday afternoon we again had time to study our collections back in the lab before dinner. Some of us keyed collections from the morning, while others took advantage of the additional materials provided by David in the lab. Some of those materials extended beyond the local flora. It was interesting, for example, to closely compare the structure of *Triticum* (wheat) and *Secale* (rye), and see how the hybrid, *Triticosecale*, is intermediate in flower morphology (see photo below).

Secale (left), *Triticum* (right), and *Triticosecale* (center), photo by John Shaw.

Saturday evening featured another group dinner on the Ithaca Commons, this time at a local Mexican spot. We were able to sit outdoors and chat over a pleasant meal, and after dinner reconvened at Cornell for a lecture by Cornell Emeritus Professor Jerry Davis, a lifelong student of grass evolution and taxonomy. Jerry's lecture was a delightful summary of grass diversity, crop domestication, and cultural significance.

The last day of the workshop, on Sunday (Father's Day), we convened at Six Mile Creek Preserve in Ithaca. Our meanderings included valuable reviews of species we had seen elsewhere during the previous two days, and we examined the uncommon native species forest blue grass (*Poa sylvestris*) on a bluff above the river. This a species that may be more common than reported, as it is easily overlooked.

For those of us in New York, we learned of other additional species to look for because they have not been reported in the state, but may be present: reed manna grass (*Glyceria maxima*) which is distinctly bigger than American manna grass (*Glyceria grandis*), and Chapman's bluegrass (*Poa chapmaniana*). The latter is similar to annual blue grass (*P. annua*) but has webbed hairs on the lemma calluses.

All in all, the grass workshop was fantastic. It's a challenge to structure a workshop that simultaneously caters to enthusiasts with substantial background, as well as to beginners who have never looked closely at a grass before. David W. and David D. were very much up to this challenge and each of us benefited from their patience, knowledge, and enthusiasm. Some of us came away with specifics about species of interest and others might simply now See (with a capital "S") the wonderful diversity of grasses – they don't all look alike: quite the contrary!

Native Grasses observed during the workshop

Brachyelytrum aristosum	northern short husk
Brachyelytrum erectum	southern short husk
Bromus pubescens	Canada brome
Calamagrostis canadensis	Canada bluejoint grass
Danthonia compressa	northern oat grass
Danthonia spicata	poverty grass
Dichanthelium lanuginosum	woolly rosette grass
Dichanthelium linearifolium	Linear-leaved rosette grass
Elymus riparius	eastern riverbank wild rye
Festuca subverticillata	nodding fescue
Glyceria striata	fowl manna grass
Glyceria sp.	manna grass
Leersia virginica	white cut grass
Milium effusum	millet grass
Oryzopsis asperifolia	spreading white grass
Poa alsodes	grove blue grass
Poa sylvestris	forest blue grass
Sphenopholis intermedia	slender wedge grass
Sphenopholis nitida	shiny wedge grass

Non-native Grasses observed during the workshop

Alopecurus pratensis	meadow foxtail
Anthoxanthum odoratum	sweet vernal grass
Arrhenatherum elatius	tall oat grass
Brachypodium sylvaticum	slender false brome
Bromus tectorum	cheat grass
Bromus inermis	smooth brome
Dactylis glomerata	orchard grass
Elymus repens	quack grass
Festuca rubra ssp. rubra	red fescue
Holcus lanatus	velvet grass
Lolium perenne	perennial rye grass
Miscanthus sp. (cultivar)	miscanthus
Phalaris arundinacea	reed canary grass
Phleum pratense	common Timothy
Poa compressa	flat-stemmed blue grass
Poa nemoralis	woodland blue grass
Poa trivialis	rough-sheathed blue grass
Poa pratensis	Kentucky blue grass
Poa annua	annual blue grass
Puccinellia distans	European alkali grass
Schedonorus arundinaceus	tall rye grass

The workshop group: June 14, 2024, photo by John Shaw.

Spring Wildflowers at Chimney Bluffs, Wayne County

by Bruce Gilman

About two dozen field botanists met at the 597-acre Chimney Bluffs State Park in the Town of Huron along Lake Ontario on the afternoon of Sunday, May 26. The park is one of three documented Great Lakes Bluff natural communities in New York and boasts an S1 ranking by the Natural Heritage Program. Acquired by New York State in 1963, it remained undeveloped until 1999. There are two park entrances – we chose the easterly one for its quick access up a timber-framed "stairway" to the drumlin summit.

The bluff formed (and continues to form) by the natural erosion of a drumlin, but perhaps I'm getting ahead of the story. What are drumlins? The term was first used in Ireland and applied to elongate and smooth rounded hills in that country's landscape. Some describe their shape as an upside-down teaspoon. They are subglacial deposits of lodgment till, squeezed out beneath the advancing ice sheet and plastered to the landscape with tremendous pressure and are usually an unsorted mixture of sediment types and sizes. The long axis of the drumlin parallels the direction of the subglacial flow. They have a steeper slope facing the north (the origin of the ice sheet; the "snout"), and a gradually tapering slope in the opposite direction, the "tail." The interior of a drumlin is seldom seen in nature but is in full view at this State Park.

Chimney Bluffs is a truncated drumlin along the modern Lake Ontario shoreline. Rising water levels since the Admiralty Phase of the Lake (i.e., a proglacial lake 20 meters lower than the modern lake and dating back to the time when the St. Lawrence drainage channel was first free of continental ice sheet blockage) created wave erosion at the base of the drumlin that has successfully worn away much of the drumlin "snout" over thousands of years as the Ontario lake basin rebounded from the loss of the continental ice sheet mass. Ongoing wind erosion off the lake and water erosion down the exposed face contribute to the cathedral spires, chimneys, and summits revealed at water's edge. The continuously eroding landscape creates a "badlands" topography. Years ago I had the good fortune to accompany a local pilot and fly over Chimney Bluffs State Park, capturing this image:

We slowly botanized the drumlin forest, especially along the upper receding edge of the bluff. Restoration efforts such as fencing have successfully minimized haphazard human traffic and have allowed for the re-establishment of many native plant species. A slight depression along the drumlin's summit enhances soil moisture and creates a habitat for several wetland species. As the group returned to the eastern parking lot, several walked the shoreline along the exposed drumlin base. Plants tolerant of disturbed conditions grow

there but never in any abundance. Other members of our group ventured east of the parking lot and drumlin, entering a small coastal wetland community and adding to our species list for the day.

Fieldtrip checklist for visit to Chimney Bluffs State Park, Wayne County, 5/26/24:

Trees

Acer rubrum	red maple
Acer saccharum	sugar maple
Amelanchier cf. arborea	downy shadbush
Betula alleghaniensis	yellow birch
Betula papyrifera	paper birch
Carpinus caroliniana	musclewood
Carya cordiformis	bitternut hickory
Crataegus cf. coccinea	scarlet hawthorn
Fraxinus americana	white ash
Juglans nigra	black walnut
Ostrya virginiana	hop hornbeam
Populus tremuloides	quaking aspen
Prunus avium	sweet cherry
Prunus serotina	wild black cherry
Quercus rubra	northern red oak
Tilia americana	American basswood
Ulmus americana	American elm

Shrubs and Vines

Amorpha fruticosa	false indigo bush
Amphicarpaea bracteata	hog peanut
Berberis vulgaris	common barberry
Cornus alternifolia	pagoda dogwood
Cornus amomum	silky dogwood
Cornus rugosa	round-leaved dogwood
Cornus sericea	red-osier dogwood
Dirca palustris	eastern leatherwood
Elaeagnus umbellata	autumn olive
Ilex verticillata	common winterberry
Lonicera dioica	smooth-lvd honeysuckle
Lonicera morrowii	Morrow's honeysuckle
Menispermum canadense	moonseed
Parthenocissus inserta	thicket creeper
Parthenocissus quinquefolia	Virginia creeper
Rhus typhina	staghorn sumac
Ribes americanum	wild black currant
Ribes cynosbati	prickly gooseberry
Rosa multiflora	multiflora rose
Rubus idaeus	American red raspberry
Sambucus racemosa	red elderberry
Shepherdia canadensis	Canada buffalo berry
Solanum dulcamara	bitter-sweet nightshade
Toxicodendron radicans	midwestern poison ivy
Viburnum dentatum	smooth arrowwood
Viburnum lentago	nannyberry
Vincetoxicum rossicum	pale swallowwort
Vitis riparia	riverbank grape

Herbaceous plants

Achillea millefolium	common yarrow
Actaea pachypoda	white baneberry
Actaea rubra	red baneberry
Agrimonia gryposepala	common agrimony
Alliaria petiolata	garlic mustard
Allium tricoccum	common wild leeks
Anthoxanthum odoratum	sweet vernal grass
Antennaria plantaginifolia	plantain-leaved pussytoes
Aphyllon uniflorum	one-flowered broomrape
Aquilegia canadensis	wild columbine
Arabis pycnocarpa	hairy rock cress
Aralia nudicaulis	wild sarsaparilla
Arisaema triphyllum	common Jack-in-the-pulpit
Asclepias syriaca	common milkweed
Cardamine concatenata	cut-leaved toothwort
Cardamine diphylla	broad-leaved toothwort
Carex albursina	white bear sedge
Carex amphibola	ambiguous sedge
Carex appalachica	Appalachian sedge
Carex arctata	drooping wood sedge
Carex gracillima	graceful sedge
Carex granularis	limestone meadow sedge
Carex grisea	gray sedge
Carex laxiflora	loose-flowered sedge
Carex leptonervia	northern woodland sedge
Carex rosea	common upland star sedge
Caulophyllum giganteum	early blue cohosh
Circaea canadensis	eastern enchanter's nightshade
Claytonia caroliniana	Carolina spring beauty
Conopholis americana	squawroot, oakdrops
Dactylis glomerata	orchard grass
Dicentra cucullaria	Dutchman's breeches
Erigeron annuus	annual daisy fleabane
Erigeron philadelphicus	Philadelphia fleabane
Erythronium americanum	yellow trout lily
Fragaria virginiana	wild strawberry
Galium aparine	cleavers
Geranium robertianum	herb Robert
Geum urbanum	town avens
Hepatica acutiloba	sharp-lobed hepatica
Hydrophyllum canadense	Canada waterleaf
Hydrophyllum virginianum	Virginia waterleaf
Impatiens pallida	pale touch-me-not
Iris pseudacorus	yellow iris
Juncus effusus	common soft rush
Leucanthemum vulgare	oxeye daisy
Lycopus europaeus	European water horehound

Chimney Bluffs list continued:

Maianthemum canadense	Canada mayflower
Mitella diphylla	two-leaved mitrewort
Nabalus trifoliolatus	three-leaved rattlesnake root
Oenothera biennis	common evening primrose
Osmorhiza claytonia	bland sweet cicely
Pedicularis canadensis	wood betony
Podophyllum peltatum	may apple
Potentilla simplex	old field cinquefoil
Ranunculus abortivus	kidney-leaved buttercup
Ranunculus acris	tall buttercup
Saururus cernuus	lizard's tail
Scirpus cyperinus	common wool grass sedge
Sisyrinchium montanum	mountain blue-eyed grass
Solidago caesia	blue-stemmed goldenrod
Solidago flexicaulis	zig-zag goldenrod
Symphyotrichum cordifolium	heart-leaved aster
Taraxacum officinale	common dandelion
Thalictrum dioicum	early meadow rue
Trillium erectum	red trillium
Trillium grandiflorum	white trillium
Tussilago farfara	coltsfoot
Typha latifolia	wide-leaved cattail
Uvularia grandiflora	large-flowered bellwort
Viola canadensis	Canada violet
Viola eriocarpa	smooth yellow-stem violet

Ferns

Amauropelta noveboracensis	New York fern
Athyrium angustum	northern lady fern
Cystopteris fragilis	fragile fern
Deparia acrostichoides	silvery spleenwort
Dryopteris marginalis	marginal wood fern
Equisetum arvense	field horsetail
Matteuccia struthiopteris	ostrich fern
Onoclea sensibilis	sensitive fern
Polystichum acrostichoides	Christmas fern

Labrador Hollow Trip

by John Titus

On a sunny and warm Bastille Day (July 14) 2024, seven of the ten who had registered for the Labrador Hollow Unique Area field trip gathered to enjoy the able leadership of David Dubois, a botanist who lived up to his name (*editor's note:* can you tell the author of this article has French inclinations?).

"Unique Area" is a designated type of state forest defined by the DEC as "a parcel of land owned by the state, acquired due to its special natural beauty, wilderness character, or for its geological, ecological or historical significance for the state nature and historical preserve." This unique area preserves the biodiversity of an unusual mosaic of habitats, including some primary forest up the steep valley walls; on this day though, our focus was primarily on wetlands.

David's introduction helped us understand the place of Labrador Hollow within the framework of geological time – it sits quite near the height of land separating the St. Lawrence and Susquehanna River watersheds on a moraine deposited by the most recent glaciation. The pond and its neighboring area sit in a kettle hole filled with both wetlands and water.

Labrador Hollow Unique Area, photo by David Dubois.

We spent the majority of our time together on the very fine boardwalk trail – three cheers to the construction crew for an excellent job and to those who secured the funding for this project! Traipsing through the 0.4 mi boardwalk loop we averaged over 800 feet

per hour – quite a respectable pace for a troop of wandering botanists.

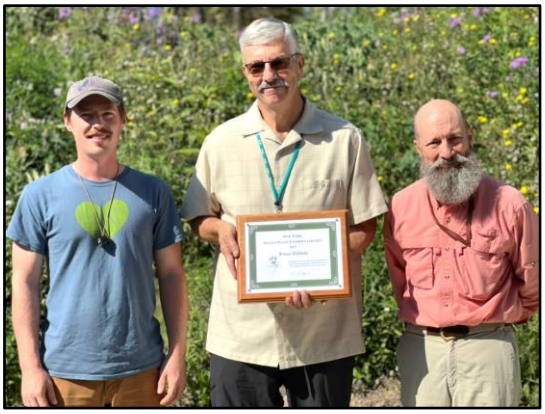
After lunch, a short drive gave us access through a patch of woods to a boardwalk-less swamp. The terrain there was less welcoming than was the accompanying sight of purple fringed orchid (*Platanthera psycodes*), blooms still lingering. The calcareous moraine surely lent its influence to the flora, most noticeably in some of the more minerotrophic areas than where *Sphagnum* peat had accumulated and generated a more acidic substrate. Perhaps the most notable find of the day was a chokeberry which appeared to be *Aronia prunifolia*, a species of hybrid origin between *Aronia arbutifolia* and *A. melanocarpa*, though also noteworthy were swamp Jack-in-the-pulpit (*Arisaema stewardsonii*), oakdrops (*Conopholis americana*), purple avens (*Geum rivale*), Labrador tea (*Rhododendron groenlandicum*), and poison sumac (*Toxicodendron vernix*), relatively rare sightings for some of us. An additional treat, thanks to Ruth Brooks, was a close look at a few tiny liverworts, which in the process caused us to reminisce fondly about Nancy Slack.

Toxicodendron vernix, photo by Elizabeth Clippard.

In toto, we spotted 49 herbaceous species and 45 woody species (and who knows how many bryophytes!).

Message from the President

Dear NYFA Members,
I just got back from the NYFA Annual Meeting held this year at the Ganondagan State Historic Site in Victor, NY. What a great meeting! There were so many highlights it's difficult to write them all down. During our business meeting we elected Patty Butter to the Board of Directors. Welcome Patty! We also honored Bruce Gilman, whose wealth of botanical knowledge is regularly shared with all through walks and lectures sponsored by many regional and state-wide organizations, with the Plant Conservationist of the Year award. Congratulations Bruce, well deserved! Nominations for next year's award are open now. Dick Cook treated all of us to ripe pawpaws (*Asimina triloba*); their smell was mouth-watering and their taste was delectable. Thanks Dick! Steve Young conducted his annual botanical quiz which I found personally very humbling. Thanks Steve! Our field excursion was amazing as well. We found nine species of aster (*Symphyotrichum* spp.). Continuing our day of native fruit feasting we also found and sampled the fruits of river grape (*Vitis riparia*), wild crab apple (*Malus coronaria*), and plum (*Prunus americana*); all delicious treats. One warning – don't bother trying Guelder rose (*Viburnum opulus* var. *opulus*); one of the most foul things I've ever tasted! Best of all was the socialization and camaraderie we all enjoyed. I hope you can make it next year! Botanically yours, Dan Spada.



Bruce displaying his award; see next issue for more about the annual meeting, photo by Victoria Bustamante.

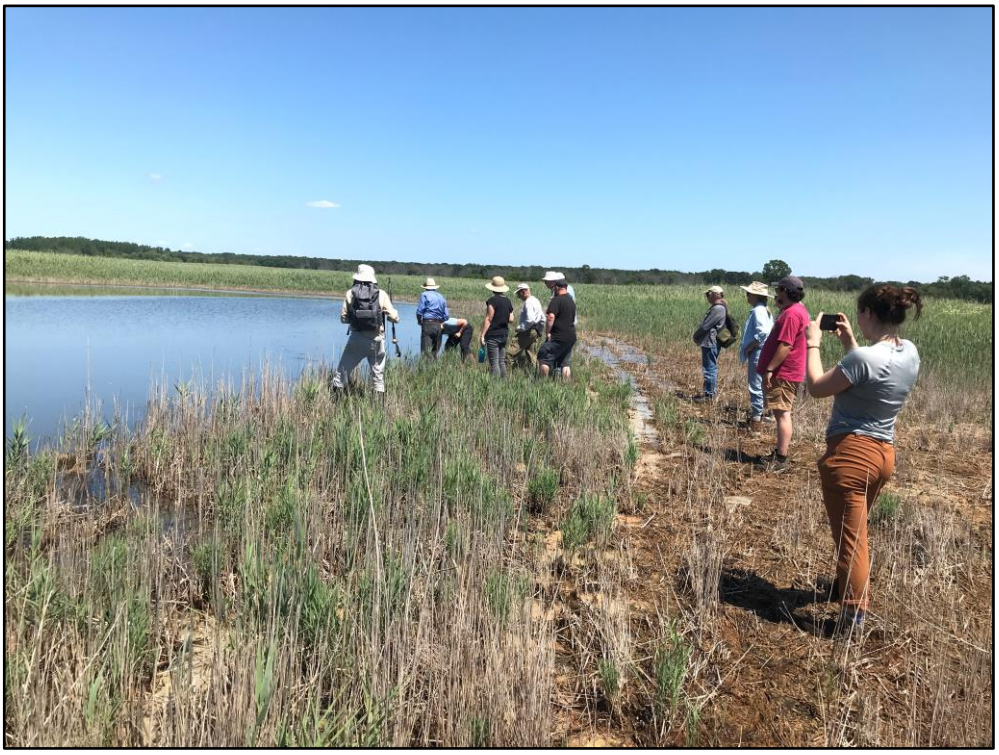
A Field Trip to Globally Rare Inland Salt Marshes.

by Norm Trigoboff, with photos by Fred Haynes

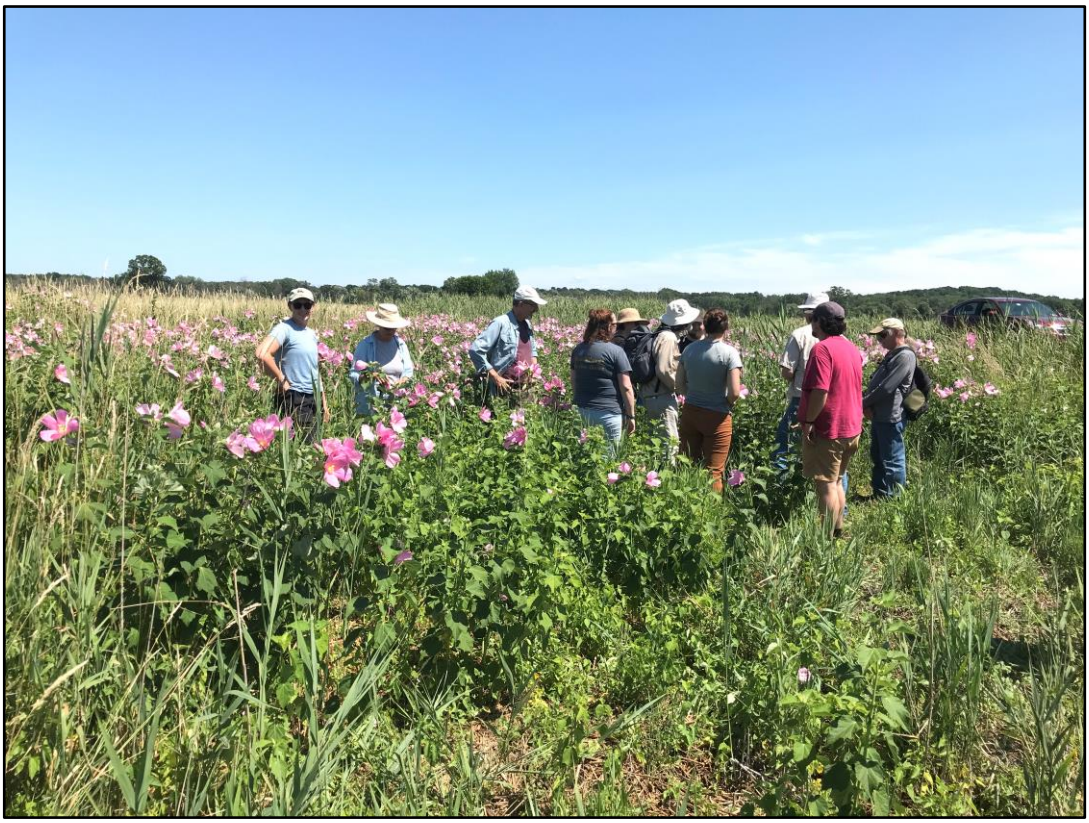
On July 20, 2024, Alex Petzke, a PhD student at SUNY ESF, led fourteen plant enthusiasts of varied backgrounds through three inland salt marshes in Cayuga and Wayne Counties. We met at the Howland's Island Parking Lot in the Northern Montezuma Wildlife Management Area of the Montezuma National Wildlife Refuge and then walked a mostly wooded dirt road about a mile and a half to a marsh where a band of firm mud surrounded a tiny bit of very shallow water. We looked at a variety of salt-tolerant plants there, then botanized back along the same road, had lunch by the cars (where we met refuge workers with two pickup truck loads full of *Trapa natans* they were on their way to dump); then drove two minutes to our next stop, a larger salt marsh with a bit more open water. Afterwards we stopped at Rose's Quick Stop in Savannah for a food and rest break that turned into a quick foray by the building drip line, which had a lush growth of the liverwort *Marchantia polymorpha*, a few mosses, a grass or two and the blue-green bacteria *Nostoc*. Our last stop, slightly east of the Montezuma refuge, was a well-hidden constructed globally rare inland salt marsh owned by The Wetland Trust.

For me, the most interesting part of the trip had to do with how we all looked at things differently. We had tasted a plant or two perched on top on the muck of our first stop to see if we could detect salt. Someone then asked if the dirt here tasted of salt as well, and the geology enthusiast in the group tasted a small bit of muck and said, "Yes, it's salty." This is a common test for a field geologist, though some of the botanists in the group felt that putting even a small bit of dirt in your mouth just for a moment was a bit much (after seeing the many snails and mats of blue-greens in the mud nearby). Our geologist said he felt safer tasting the dirt than the plants. While I sided with the botanists; he did have a point, if you're stronger in geology than in botany, tasting the dirt may be safer!

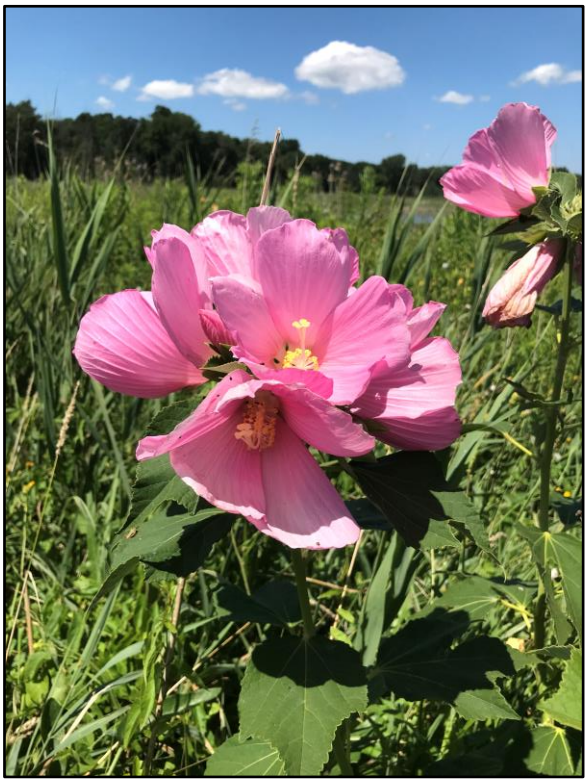
The photos below, taken by Fred Haynes, provide a quick look at the day and some of the trip's highlights.



The group perusing a salt pond.

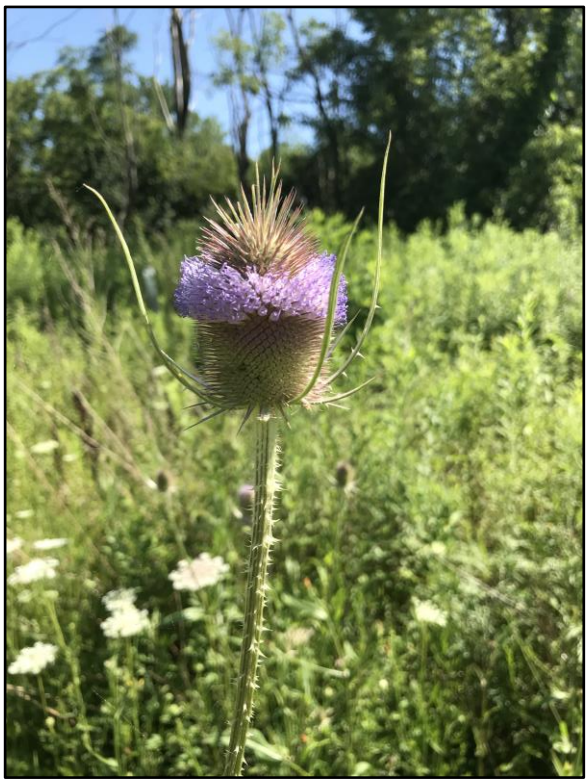


The group in a field of swamp rose mallow (*Hibiscus moscheutos* ssp. *moscheutos*).



Left, close up of the swamp rose mallow; and right, the parking lot liverwort, *Marchantia polymorpha*.

Here are some of the plants we saw:
Adiantum pedatum
Alisma subcordatum
Ambrosia psilostachya
Anemone canadense
Apocynum cannabinum
Asclepias incarnata
Asclepias syriaca
Atriplex prostrata
Bidens frondosa
Boehmeria cylindrica
Bolboschoenus maritimus ssp. paludosus
Bromus pubescens
Calystegia sepium
Carex cristatella
Carpinus caroliniana
Caulophyllum thalictroides
Cicuta maculata
Collinsonia canadensis
Cyperus esculentus
Cyperus strigosus
Diplachne fusca
Dipsacus fullonum
Dipsacus laciniatus
Distichlis spicata
Echinochloa crus-galli
Eleocharis obtusa
Eleocharis palustris
Eleocharis sp.
Epilobium parviflorum
Equisetum arvense
Equisetum hyemale
Erechtites hieraciifolius
Eutrochium maculatum
Fraxinus nigra
Heliopsis helianthoides
Hibiscus moscheutos
Hydrocharis morsus-ranae
Hylodesmum glutinosum
Impatiens capensis
Iris pseudacorus
Juncus gerardi
Leptochloa fusca ssp. fascicularis
Lobelia inflata
Lysimachia ciliata
Menispermum canadense
Peltandra virginica
Persicaria extremiorientalis
Persicaria virginiana
Phegopteris hexagonoptera
Phragmites australis
Phragmites australis ssp. americanus
Potamogeton sp.
Puccinellia distans
Quercus macrocarpa hybrid?
Quercus muehlenbergii
Rhus typhina
Rumex crispus
Ruppia maritima
Saururus cernuus
Schoenoplectus tabernaemontani
Scirpus spp.
Setaria faberi
Smilax herbacea
Solanum carolinense
Solidago sempervirens
Sonchus oleraceus
Spergularia marina
Spergularia media
Sporobolus michauxianus
Stachys sp. (palustris?)
Staphylea trifolia
Suaeda calceoliformis
Symphyotrichum subulatum
Thalictrum pubescens
Torilis japonica
Trapa natans
Typha angustifolia
Urtica gracilis
Verbena sp.
Xanthium strumarium
Zanthoxylum americanum

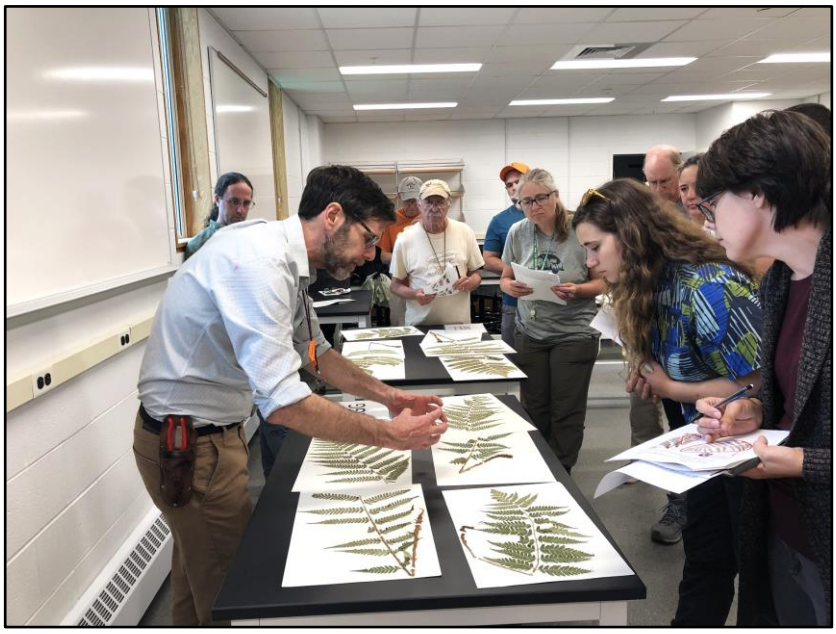


Two views of cut-leaved teasel (*Dipsacus lacinatus*).

NY Fern Identification Weekend Workshop – June 2024

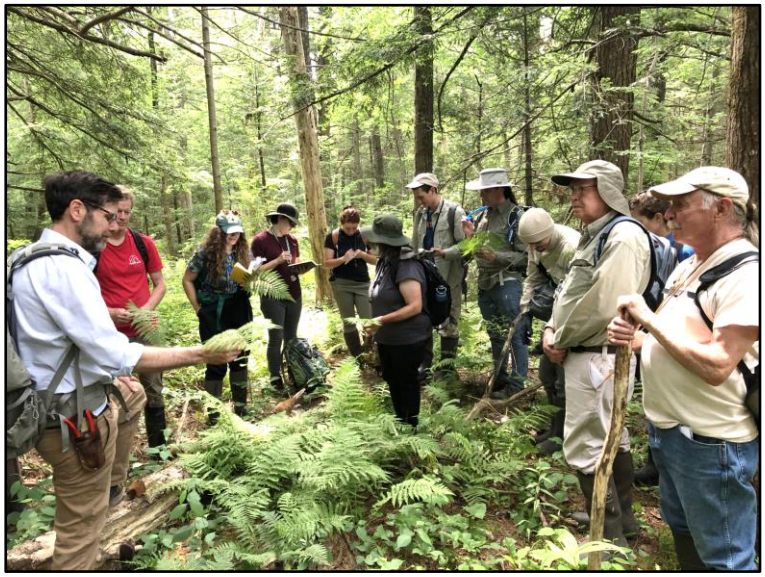
by Megan Wilckens

As with learning anything new, one starts with the basics, and our group of fern enthusiasts did just that. Our weekend course in late June, led by Dr. James (Eddie) Watkins, began in a lab at Colgate University going over fern life cycles and characteristics. From the moment the course started you could tell how passionate Eddie was about ferns, and that enthusiasm infected the rest of us. His multitude of fern puns brought smiles to everyone's faces, especially when he encouraged us to "frondle" the ferns. There was a wide range of fern knowledge and experience among the sixteen participants, from people who were just starting to delve into the world of ferns to experienced individuals who could rattle off genus and species names within seconds. Regardless of experience level, we were all mesmerized by the spores exploding out of sporangia under microscopes in the lab. We hadn't even stepped foot in the woods yet and we were already collectively geeking out over fern reproduction. After working with previously collected samples of ferns under the microscopes, we spent some time looking at herbarium specimens of even more ferns, mostly in the woodfern (*Dryopteris* spp.) complex, to learn about what we would be seeing in the field.



Eddie Watkins explaining characteristics for species in the *Dryopteris* complex, photo by Joe McMullen.

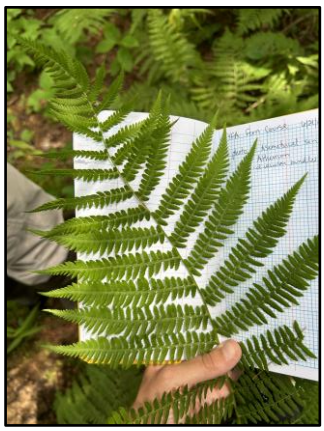
After spending the morning in the lab followed by a quick lunch, we headed out to Nelson Swamp to see how many species of ferns we could identify, but not before taking precautions for the mosquitos and ticks we would inevitably encounter once we entered the swamp. As someone who works in wetlands, I was more than excited to explore a swamp I'd never been to before and see what new ferns I would come across. Our group identified over 15 species of ferns on our jaunt through Nelson Swamp, including wetland classics, such as sensitive fern (*Onoclea sensibilis*) and cinnamon fern (*Osmundastrum cinnamomeum*), as well as my favorite of the day, the crested wood fern (*Dryopteris cristata*). We were able to incorporate what we learned in the lab to identify the different species in the field by looking at characteristics such as the number of vascular bundles, the shape of the sori, the absence or presence of hairs, and the divisions within the blade. The group took turns huddling around whichever species we were studying and passing bits of fern around so everyone could examine the samples and try to identify the species. We ended the afternoon with notebooks full of information and full of anticipation for the following day's excursion.



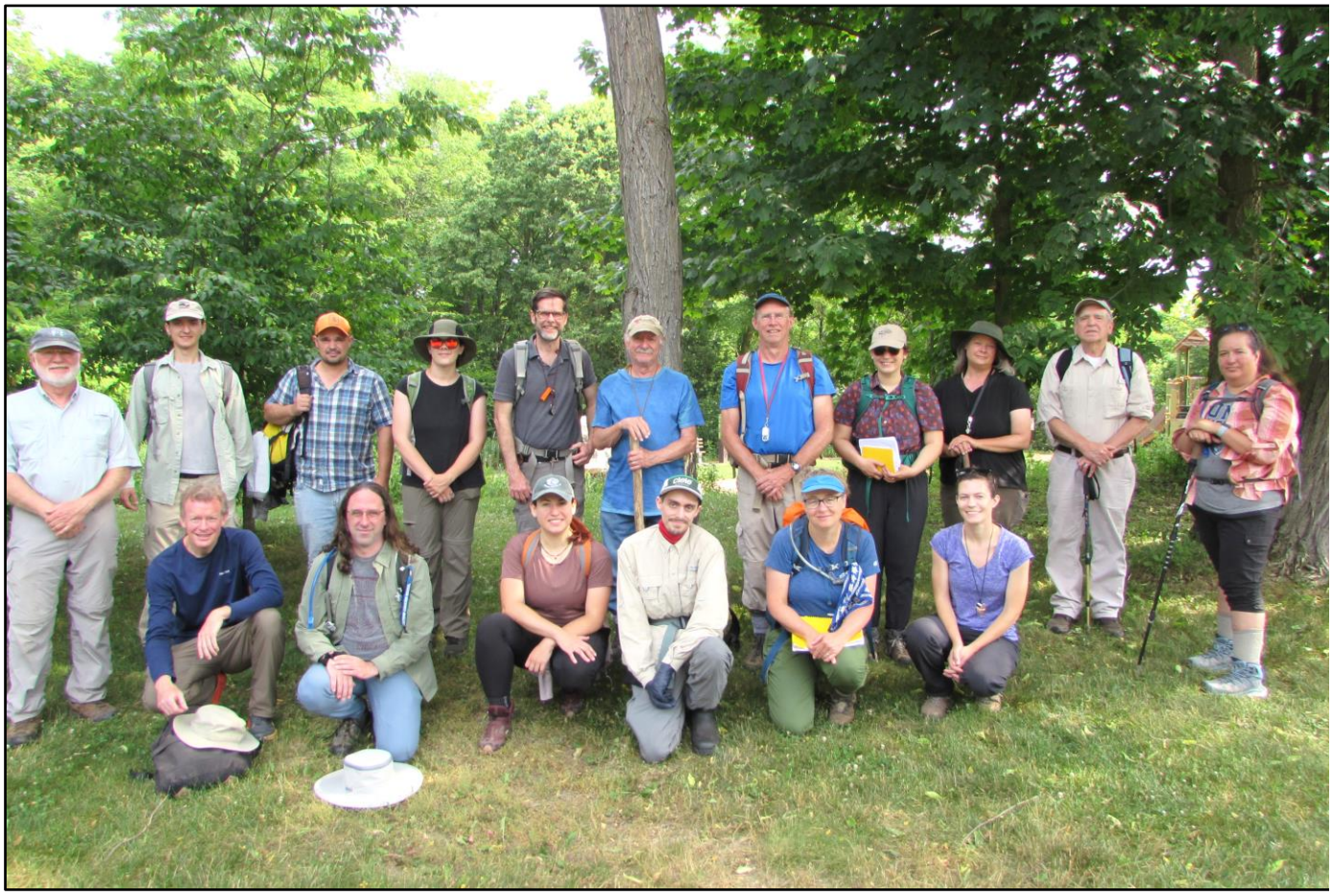
The group inspecting a clump of ferns trying to identify the species at Nelson Swamp, photo by Joe McMullen.

We began the second day of the course at Clark Reservation State Park where we were trying to squeeze as much field time in as we could before the weather turned and the storms hit. Clark Reservation has a little bit of everything, from a swampy lowland around meromictic Glacier Lake to limestone outcrops and upland forests. If ever there was a place to study ferns, it was this state park. Should you go, be prepared for some steep climbs, especially if you're planning on hiking the Swamp Trail; it's well worth the effort if you're a nature enthusiast. A couple of calcareous species we observed on the limestone outcrops included bulblet fern (*Cystopteris bulbifera*) and walking fern (*Asplenium rhizophyllum*), both of which have unique characteristics that help differentiate them from other species. Another standout among the 12+ species we identified at Clark Reservation was the Federal and State threatened American hart's tongue fern (*Asplenium scolopendrium* var. *americanum*). We were able to cover a lot of ground in the park, all the while sharing numerous anecdotes from each of our personal experiences.

Overall, it was a productive course and one I'd highly recommend for anyone interested in learning more about the fern species found in New York State. While the number of ferns in the wild can be overwhelming at first, once you learn the nuances for each species, it's exciting to finally be able to identify them.



Northern lady fern (*Athyrium angustum*), photo by Megan Wilckens.



Group photo: Left to right, back row: Joe McMullen, Juaquin Goodbar, Frank Parisio, Colleen Conway, Eddie Watkins, Joe O'Rourke, Tom Phillips, Catherine Spolarich, Marcie Finlay, Tim Tatakis, and Wendy Owens Rios, Front row: Tom Kluth, Dustin Mitchell, Lisa Davies, Kierin Bell, Sara Stebbins, and Megan Wilckens. Photo by Joe McMullen.

Ferns and Horsetails Identified – Nelson Swamp & Clark Reservation:

Adiantum pedatum, Maidenhair fern
Asplenium platyneuron, Ebony spleenwort
Asplenium rhizophyllum, Walking fern
Asplenium scolopendrium, American hart's tongue fern
Asplenium trichomanes, Maidenhair spleenwort
Athyrium angustum, Northern lady fern
Botrychium virginianum, Rattlesnake fern
Cystopteris bulbifera, Bulblet fragile fern
Dryopteris carthusiana, Spinulose wood fern
Dryopteris clintoniana, Clinton's wood fern
Dryopteris cristata, Crested wood fern
Dryopteris intermedia, Common wood fern
Dryopteris marginalis, Marginal wood fern
Dryopteris ×boottii, Boott's wood fern
Dryopteris ×neowherryi, Wherry's wood fern
Equisetum arvense, Field horsetail
Equisetum sylvaticum, Wood horsetail
Gymnocarpium dryopteris, Oak fern
Homalosorus pycnocarpos, Glade fern
Matteuccia struthiopteris var. pensylvanica, Ostrich fern
Onoclea sensibilis, Sensitive fern
Osmunda claytoniana, Interrupted fern
Osmunda regalis var. spectabilis, Royal fern
Osmundastrum cinnamomeum var. cinnamomeum, Cinnamon fern
Polypodium virginianum, Virginian rock polypody
Polystichum acrostichoides, Christmas fern
Dryopteris goldiana, Goldie's wood fern
Pteridium aquilinum ssp. latiusculum, Eastern bracken fern
Thelypteris palustris var. pubescens, Marsh fern

Camp Stonehaven Exploration, Sunday, June 23rd, 2024

by Ray Curran

Seven intrepid botanists braved the reports of torrential rains and high winds to venture out on June 23rd with our leader, Erik Danielsen, and were very pleasantly surprised by moderate temperatures and calm, dry conditions as well as a flora that was incredibly interesting.

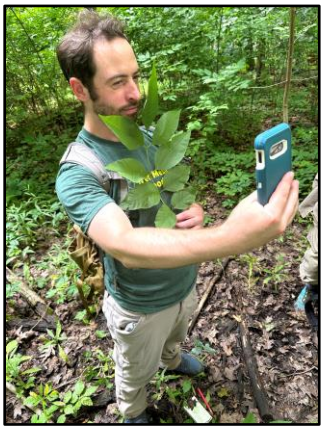
The purpose of this NYFA field trip was to explore the recently-opened 66-acre Camp Stonehaven, once a summer camp operated by the local Boy Scouts of America Council, now owned and maintained by the Town of Lewiston. The area, located in Niagara County, NY, is renowned for the rich herbaceous plant communities typical of the slopes and limestone outcrops of the Niagara Escarpment. Our trip leader was familiar with the site's vegetation from his previous work for the WNY Land Conservancy and was familiar with the ecological dynamics of the property.

The group met at 10:00 AM at the main parking lot at the end of Albright Rd in Ransomville, NY (43.186136, -78.912455) and covered a couple of miles on the mostly level site, but also a few short steep slopes with tricky footing in limestone talus areas. The route was chosen to maximize our exposure to the diverse plant communities, which included lush herbaceous vegetation and rare species. The group moved slowly to carefully observe and document the flora.

The exploration began with sightings of carpets of Canada waterleaf (*Hydrophyllum canadense*) and various sedges. Limestone outcrops provided a habitat for a number of scarce sedges and a few other rare species. We visited maple-basswood rich mesic forest and calcareous talus slope woodland plant community types. High points were sightings of green violet (*Cubelium concolor*) and goldenseal (*Hydrastis canadensis*).

Green Ash (*Fraxinus pennsylvanica*) was the dominant ash, though white and pumpkin ash (*F. americana* and *F. profunda*) were also present. It was notable that tulip tree (*Liriodendron tulipifera*) and bur oak (*Quercus macrocarpa*) were dominant in portions of the canopy, typical of lake plain forests in this area and indicating a more southern and midwestern ecological affinity (the presence of pumpkin ash is another such indicator). There were also very large (and possibly old) eastern hophornbeam (*Ostrya virginiana*) and sassafras (*Sassafras albidum*) trees present, although, as Erik readily pointed out, size is no indication of age. We also found several catalpa (*Catalpa* sp.) in the canopy. The NYFA atlas reports no vouchered specimens from western NY and both catalpa species (*C. speciosa* and *C. bignonioides*) are not native to New York.

The trip was definitely worth bucking the terrible weather forecast, and despite the small group of participants who ventured out, we found a large number of very cool plants! We observed a total of 138 vascular plant species plus 13 bryophytes (see below, an asterisk indicates a non-native species):



Erik Danielson taking a selfie with a pumpkin ash, photo by Ray Curran.

Acer negundo var. negundo, box elder, ash-leaved maple
Acer saccharum, sugar maple
Achillea millefolium, common yarrow
Actaea pachypoda, white baneberry, doll's eyes
*Aesculus hippocastanum, horse chestnut
Agrimonia gryposepala, common agrimony
*Alliaria petiolata, garlic mustard
Amphicarpaea bracteata, hog peanut
Anemone virginiana, tall anemone, thimbleweed
Apocynum cannabinum, Indian hemp
Aralia racemosa, spikenard
Arctium sp., burdock
Arisaema triphyllum, common Jack-in-the-pulpit
Asarum canadense, wild ginger
Asplenium platyneuron, ebony spleenwort
Betula sp., birch

Carex albursina, white bear sedge
Carex annectens, yellow-fruited sedge
Carex communis var. communis, common sedge
Carex granularis, limestone meadow sedge
Carex hitchcockiana, Hitchcock's sedge
Carex oligocarpa, few-fruited sedge
Carex pedunculata ssp. pedunculata, long-stalked sedge
Carya cordiformis, bitternut hickory
Carya ovata var. ovata, shagbark hickory
*Catalpa speciosa, northern catalpa
Caulophyllum sp., blue cohosh
Circaea canadensis, eastern enchanter's nightshade
*Cirsium arvense, creeping thistle, Canada thistle
Cornus alternifolia, pagoda dogwood, alternate-lvd dogwood
Cornus racemosa, gray dogwood, red-panicled dogwood
Cornus rugosa, round-leaved dogwood
Crataegus sp., hawthorn
Cubelium concolor, green violet
*Dactylis glomerata, orchard grass
*Dianthus armeria ssp. armeria, Deptford pink
Dryopteris carthusiana, spinulose wood fern
Dryopteris marginalis, marginal wood fern
*Elaeagnus umbellata, autumn olive
Elymus canadensis var. canadensis, Canada wild rye
Elymus hystrix var. bigelovianus, Bigelow's bottlebrush
*Elymus repens, quack grass
*Epipactis helleborine, helleborine, weed orchid
Equisetum arvense, field horsetail, common horsetail
Euonymus obovatus, running strawberry bush
Eupatorium perfoliatum, boneset
Eurybia macrophylla, large-leaved aster
Fragaria virginiana ssp. virginiana, common wild strawberry
*Frangula alnus, glossy buckthorn
Fraxinus americana, white ash
Fraxinus pennsylvanica, green ash
Fraxinus profunda, pumpkin ash
Geranium robertianum, herb Robert
Geum canadense, white avens
Glyceria canadensis, rattlesnake manna grass
Hepatica acutiloba, sharp-lobed hepatica
*Hesperis matronalis, dame's rocket
Hydrastis canadensis, goldenseal
Hydrophyllum canadense, Canada waterleaf
Hylodesmum glutinosum, pointed-leaved tick trefoil
*Hypericum perforatum ssp. perforatum, St. John's wort
Hypericum punctatum, spotted St. John's wort
Impatiens pallida, pale jewelweed, pale touch-me-not
Juglans nigra, black walnut
Laportea canadensis, wood nettle
*Lapsana communis, nipplewort
Leersia virginica, white cut grass
*Leonurus cardiaca, motherwort
Lindera benzoin, spicebush
Liriodendron tulipifera, tulip tree, tulip poplar, yellow poplar
*Lycopus americanus, bugleweed
Maianthemum racemosum, false Solomon's seal
Matteuccia struthiopteris var. pensylvanica, ostrich fern
*Melilotus albus, white sweet clover
Monotropa uniflora, Indian pipe
Morus sp., mulberry
Nabalus sp., rattlesnake root
Onoclea sensibilis, sensitive fern
Ostrya virginiana, hop hornbeam, ironwood
Oxalis sp., wood sorrel
Parthenocissus inserta, thicket creeper
Persicaria virginiana, jumpseed
*Phragmites australis, Old World reed grass
Phytolacca americana var. americana, pokeweed
*Picea abies, Norway spruce
Pinus strobus, white pine
*Pinus sylvestris, Scotch pine
*Plantago lanceolata, English plantain
*Plantago major, common plantain
Plantago rugelii, Rugel's plantain
Podophyllum peltatum, may apple
Polypodium sp., fern
Polystichum acrostichoides, Christmas fern
Populus deltoides, cottonwood
*Prunus avium, sweet cherry
Prunus serotina var. serotina, wild black cherry
Prunus virginiana var. virginiana, choke cherry
*Pyrus communis, common pear
Quercus macrocarpa, bur oak
Quercus rubra, northern red oak
Ranunculus abortivus, kidney-leaved buttercup
Ranunculus recurvatus var. recurvatus, hooked buttercup
Rhus typhina, staghorn sumac
Ribes cynosbati, prickly gooseberry, dogberry
*Rosa multiflora, multiflora rose
Rubus occidentalis, black raspberry
Rubus odoratus, purple-flowering raspberry
*Rumex obtusifolius ssp. obtusifolius, broad-leaved dock
Salix eriocephala, heart-leaved willow, Missouri willow
Salix interior, sandbar willow
Sambucus racemosa, red elderberry
Sanguinaria canadensis, bloodroot
Sassafras albidum, sassafras
Schizachne purpurascens, false melic grass
Scirpus pendulus, pendulous bulrush
Scirpus sp., bulrush
*Solanum dulcamara, bitter-sweet nightshade
Solidago caesia var. caesia, blue-stemmed goldenrod
Solidago flexicaulis, zigzag goldenrod
Staphylea trifolia, bladdernut
Symphyotrichum laeve var. laeve, smooth aster
*Taxus baccata, English yew
Thalictrum dioicum, early meadow rue
Tilia americana, basswood (variety not determined)
Toxicodendron radicans, poison ivy (variety not determined)
Trillium grandiflorum, white trillium
*Tussilago farfara, coltsfoot
Typha angustifolia, narrow-leaved cattail

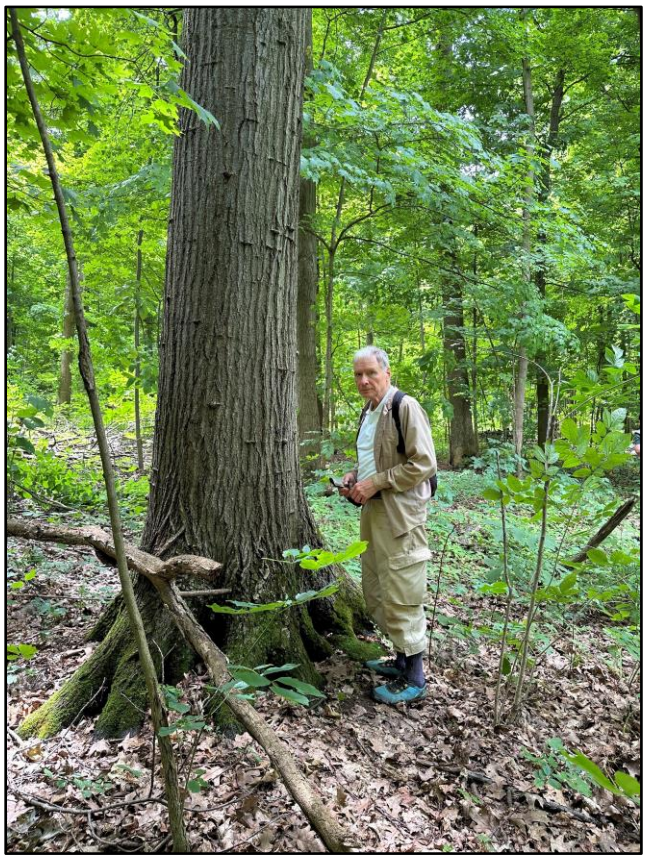
Ulmus rubra, slippery elm

Camp Stonehaven list, continued:

Urtica gracilis ssp. gracilis, American stinging nettle
Uvularia sessilifolia, wild oats, sessile-leaved bellwort
*Verbascum thapsus, common mullein
Verbena urticifolia, white vervain
*Viburnum opulus var. opulus, Guelder rose
*Vinca minor, common periwinkle, myrtle
Viola pubescens, downy yellow-stemmed violet
Viola sororia, common blue violet
Zanthoxylum americanum, prickly ash

Bryophytes

Anomodon rostratus, velvet tree-apron moss
Anomodon viticulosus, rambling-tail moss
Atrichum cf. altecristatum, star burst moss
Brachythecium laetum, yellow foxtail moss
Fissidens dubius, rock pocket moss
Geocalyx graveolens, Turps pouchwort
Hedwigia ciliata, Harry Potter moss
Orthotrichum strangulatum, limestone bristle moss
Plagiomnium cuspidatum, woodsy thyme-moss
Polytrichum sp., haircap mosses
Porella platyphylla, scalewort
Pseudanomodon attenuatus, tree skirt moss
Thamnobryum allegheniensis, Allegheny tree-moss



Ed Fuchs looking for mosses at a big oak, photo by Ray Curran.

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