NYFA New York Flora Association

Quarterly Newsletter

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New York Flora Association

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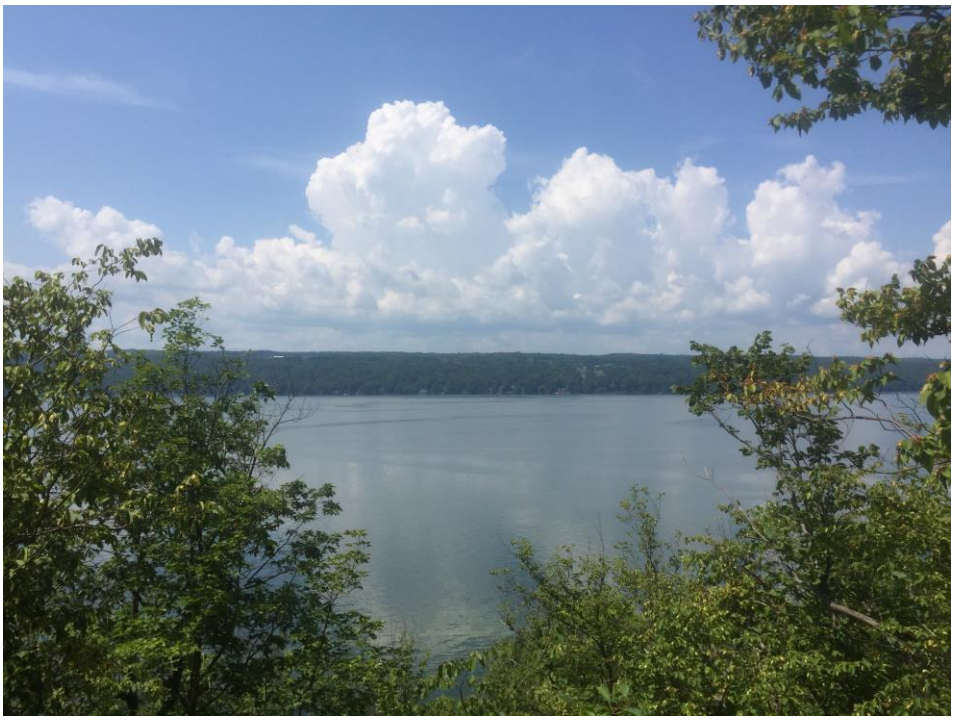
Editor's Note: The cooler temperatures in late September were very welcome after such a hot and humid summer, and now it is time to review what went on botanically this past field season. This issue recaps the highlights of some of this year's trips, with Steve Young being particularly prolific in that regard. Thanks to the others who took the time to do write-ups for the newsletter as well, and don't forget to check Facebook for more photos.

Articles Inside:

2018 Grass Identification Workshop

by Jasmine S. Peters

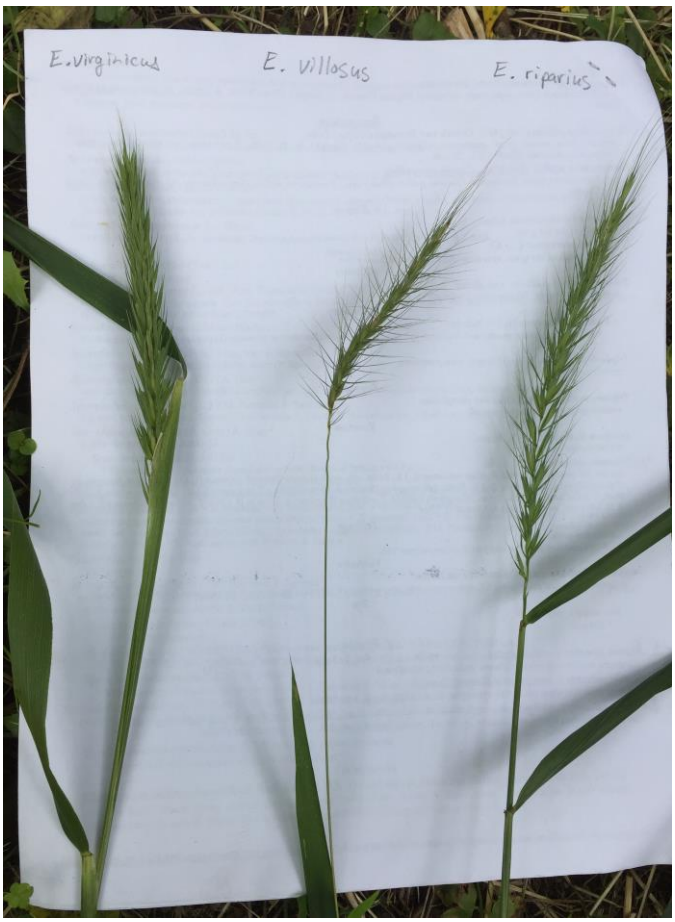
In late July, the New York Flora Association and Cornell's Bailey Hortorium hosted a grass identification workshop. David Werier led the workshop, with assistance from Anna Stalter. On Friday evening the class took advantage of lab space in the Hortorium for a review of grass morphology and identification characteristics, as well as to familiarize ourselves with keying out specimens. On Saturday the workshop shifted to field identification techniques. David encouraged the group to identify grasses using a variety of field methods as well as examination of diagnostic floral and vegetative structures with a hand lens. Habitat, as well as growth habit (solitary or patchy) and form (clumped, single, rhizomatous, stoloniferous) were important initial characteristics to consider. Many late season grasses are in full flower in July, and inflorescence shape and style (erect, drooping) combined with growth form were important in separating similar species or genera. Flowering phenology was also a key aspect in identifying some grasses to genera, and occasionally to species.



View from mature hardwood forest and lake cliffs habitat. Photo by Jasmine S. Peters

We first visited Edwards Lake Cliffs, a natural area in Lansing, NY, managed by Cornell Botanic Gardens. Here we examined grasses found in an old field habitat, as well as in successional and mature hardwood forests on the lake cliffs. The old field habitat at this site has a history of agriculture and

many species identified there were non-native, naturalized, or invasive species (ex. *Schedonorus arundinaceus* - tall rye grass, and *Dactylis glomerata* - orchard grass). However, we did identify a native bluegrass (*Poa palustris* - fowl bluegrass) in this habitat. The successional and mature hardwood forests at this site contained a number of charismatic native grasses such as *Elymus hystrix* (bottlebrush grass), *E. villosus* (downy wild rye), *Muhlenbergia sobolifera* (rock muhly), and *M. schreberi* (nimble Will).



Elymus species diversity at Buttermilk Falls State Park – Larch Meadow Trail. Photo by Brett Trowbridge

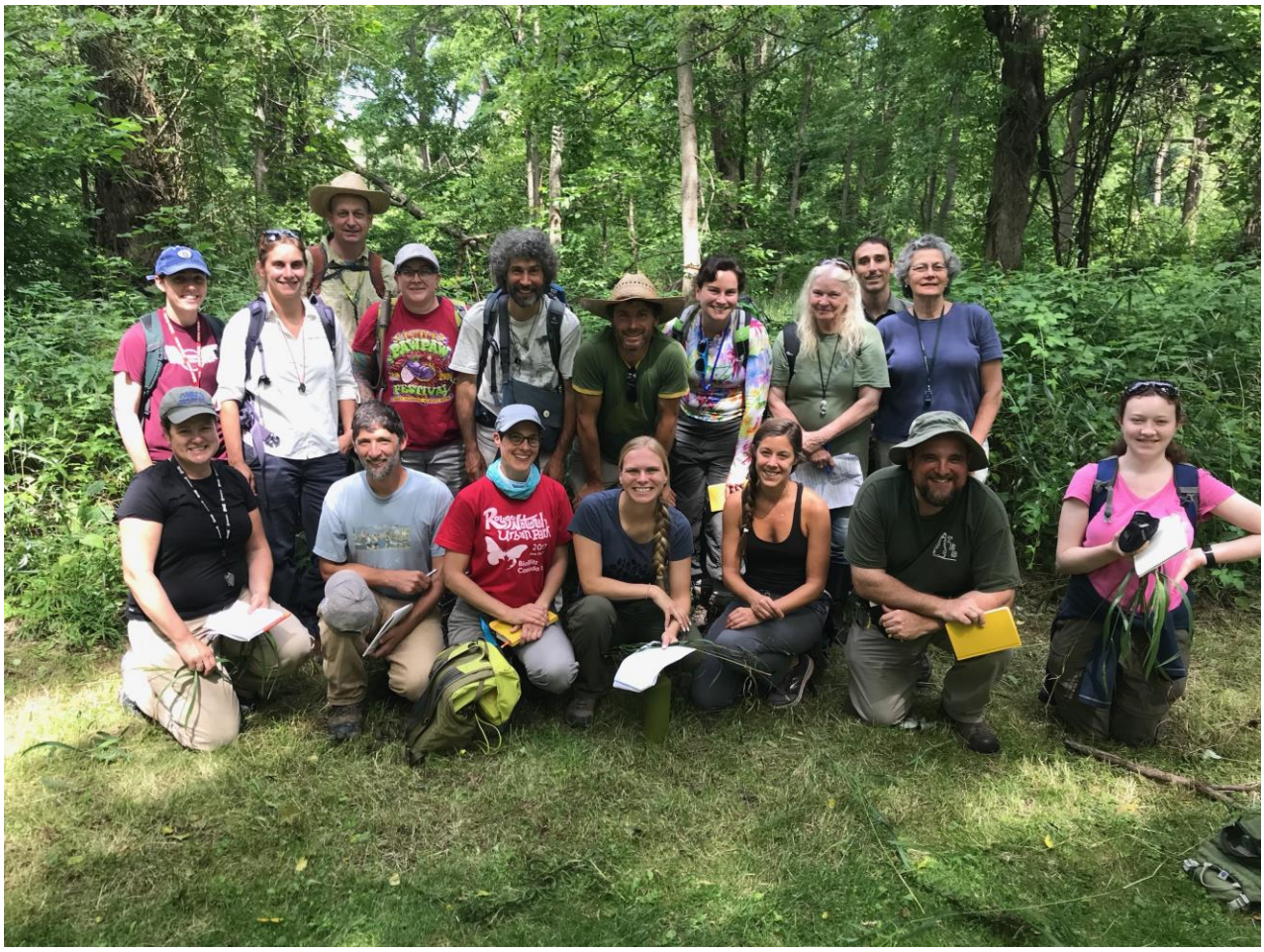
We continued the field portion of our workshop at the Salt Point Natural Area at the mouth of Salmon Creek in Lansing, NY. Our first stop was along a gravel/sand bar in the creek. This habitat experiences heavy disturbance both in the summer with flooding, as well as in the winter with ice scour. Here we found a diversity of introduced annual grasses including *Echinochloa crus-galli* (barnyard grass), *Setaria pumila* (yellow foxtail) and *S. viridis* (giant green foxtail). It was a good contrast to the previous site where we identified predominantly perennials in a low disturbance environment. We also had the opportunity to see two populations of native warm season bunchgrasses, which are uncommon and patchily distributed in the southern Finger Lakes region. A remnant population of *Sorghastrum nutans* (Indiangrass) and a planted population of *Andropogon gerardii* (big bluestem) were seen on Myers Road.

After a full day in the field we returned to Ithaca for an enjoyable group dinner. There was a wide range of expertise to be found in the workshop attendees, making for stimulating conversation. The group included ecological consultants, field botanists, horticultural experts, academics, and resource conservation specialists. We also took the opportunity to do some urban botanizing along Hudson Street. Here we revisited one of our hardy natives growing in the sidewalk (*Muhlenbergia schreberi* - nimble Will). We also identified the infamous crabgrass, (*Digitaria sanguinaria*) as well as another introduced annual, hooked foxtail (*Setaria verticillata*). The bristles on the inflorescence of this foxtail are made up of retrose hairs that allow it to stick to skin, clothes, and fur. This is presumably an effective adaptation for seed dispersal.

On Sunday, the group reconvened in the lab at the Bailey Hortorium. We used this time to key out grass species we had seen the previous day, or to try our hand at an unknown specimen from a collection curated by our instructors. We finished the day, and the workshop, with a trip to Buttermilk Falls State Park, in Ithaca, NY. We focused this trip on the Larch Meadows trail south of park. The habitat of this site is wetland and forest, with mature stands of black walnut (*Juglans nigra*) in the Enfield Creek floodplain. Here, a small patch of Japanese stiltgrass (*Microstegium vimineum*) was found along the creek bank. This species has superficial similarities to some of our native *Muhlenbergia* species; however, our instructor indicated that muhly species can be quickly identified by their vein morphology, which

makes small dots apparent on the leaves. Stiltgrass, in contrast, has a central vein and silver to glossy white hairs on the upper leaf surface. This species is an invasive of concern statewide in New York, but currently is found only in low densities in the Finger Lakes region. We also identified a number of attractive native *Bromus* (*B. latiglumis and B. nottowayanus*) and *Elymus* (*E. virginicus and E. riparius*) species that are common in wet habitat. Satin brome (*B. nottowayanus*) is of note because it has a wide range in the eastern United States, but only a few currently known populations in New York State. If found, the NY Natural Heritage Program encourages people to responsibly collect a specimen and report the observation using their Rare Species Reporting Form online (http://www.nynhp.org/report-rare). The species can be distinguished from *B. pubescens* by its later flowering time as well as the shiny satin sheen found on the undersurface of the leaf, which may appear as the upper side due to the twisted growth form of the leaf.

The grass identification workshop was an excellent introduction to many native and introduced grass species found in this region and beyond. The combination of lab work to key out dried specimens and review morphological terms, along with field botany techniques to understand growth form and habitat were very effective teaching tools. Many thanks to David and Anna for their exceptional instruction and leadership in this workshop. See the next page for a list of the grasses observed by site.



Front row (l to r): Elizabeth Marks, Brian Stoos, Lisa Riederer, Whitney Carleton, Jasmine Peters, Bruce Workman, Elizabeth MacEwan. Back row (l to r): Audrey Bowe, Katie Teale, Rich Ring, Nadia Cavallin, David Werier, Jed Jordan, Lorraine Adderley, Teresa Schwartz, Brett Trowbridge, Anna Stalter. Missing: Michael Parks, Jacob Brill. Photo: Brie Foltz.

Species list by site

* = non-native in NY, ** = both native and non-native populations in NY, NN = not naturalized in NY

Edwards Lake Cliffs, Lansing, NY: Habitat - old field, successional & mature hardwood forest.

Agrostis capillaris (Rhode Island bentgrass)*
Agrostis gigantea (redtop)*
Agrostis stolonifera (creeping bent)*
Bromus pubescens (Canada brome)
Dactylis glomerata (orchard grass)*
Elymus hystrix (bottlebrush grass)
Elymus villosus (downy wild rye)
Holcus lanatus (velvet grass)*
Muhlenbergia schreberi (nimble Will)
Muhlenbergia sobolifera (rock muhly)
Phalaris arundinacea (reed canary grass)**
Phleum pratense (common Timothy)*
Poa compressa (flat-stemmed blue grass)*
Poa palustris (fowl blue grass)
Poa pratensis (common Kentucky blue grass)*
Schedonorus arundinaceus (tall rye grass)*

Salt Point Natural Area, Lansing, NY: Habitat - Salmon Creek gravel/sand bar, road cuts.

Andropogon gerardii (big bluestem)
Echinochloa crus-galli (Eurasian barnyard grass)*
Echinochloa muricata (American barnyard grass)
Elymus repens (quack grass)*
Lolium perenne ssp. multiflorum (Italian rye grass)*
Lolium perenne ssp. perenne (perennial rye grass)*
Muhlenbergia frondosa (smooth wire-stemmed muhly)
Panicum capillare complex (common witch grass)
Secale cereale (rye)*NN
Setaria faberi (giant foxtail)*
Setaria pumila (yellow foxtail)*
Setaria viridis (giant green foxtail)*NN
Sorghastrum nutans (Indian grass)

Hudson Street, Ithaca, NY: Habitat - urban, hardscape.

Digitaria sanguinalis (northern crab grass)*
Poa pratensis (common Kentucky blue grass)*
Setaria verticillata (hooked foxtail)*
Muhlenbergia schreberi (nimble Will)

Buttermilk Falls State Park/Larch Meadow, Ithaca, NY: Habitat - wetland, floodplain forest.

Bromus inermis (smooth brome)*
Bromus latiglumis (flanged brome)
Bromus nottowayanus (satin brome)
Dichanthelium clandestinum (deer-tongue rosette grass)
Elymus repens (eastern riverbank wild rye)
Elymus virginicus (Virginia wild rye)
Glyceria striata (fowl manna grass)
Microstegium vimineum (Japanese stilt grass)*

Fun with Common Names

by Steve Young, NYFA Secretary

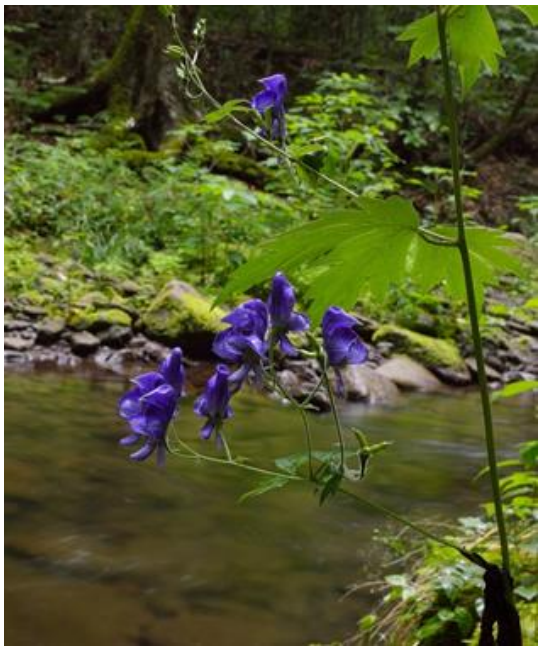
It is fun to think about how common names were derived. Recently I thought I would see how many common names in our flora contain the name New York. There are only six taxa with the name New York: New York hawthorn (*Crataegus irrasa*), narrow-leaved New York aster (*Symphyotrichum novi-belgii* var. *elodes*), common New York aster (*Symphyotrichum novi-belgii* var. *novi-belgii*), New York fern (*Thelypteris noveboracensis*), and New York ironweed (*Vernonia noveboracensis*). Northern monkshood (*Aconitum noveboracense*) has the secondary common name of New York monkshood (because its species name means New York). The common name New York is reflected in the species name *noveboracensis*, *noveboracense* and *novi-belgii*. The Latin *boracensis* comes from the Roman word for the city of York in England, *Eboracum*, which is, according to Wikipedia, derived from a common Britannic word that means "yew tree place". The Latin *novi-belgii* means New Belgium. The area from Virginia to New England, including New York, was known as New Belgium in the 1600's because it was settled by many people from that area of Europe (see http://www.newyorkfoundation.net/the_birth_of_new_york/the_birth_of_new_york.html). New York hawthorn is the exception with the species name *irrasa*, which means unshaven and refers to the hairs on the leaves and inflorescence. In the US it only occurs in New York but ranges north into Quebec.

Then I thought about how many other common names have the names of states (or Canada) and which ones might be the most common. Here is how it falls out in our flora:

Canada – 26	Kentucky – 2	Maine– 1
Virginia – 21	Texas – 2	Massachusetts – 1
Carolina – 10	Arkansas – 1	New Hampshire – 1
Pennsylvania – 7	Colorado – 1	New Jersey – 1
New York – 6	Florida – 1	Oregon – 1
Maryland – 5	Georgia – 1	Rhode Island – 1
California – 3	Illinois – 1	Washington – 1
Ohio – 3	Kansas – 1	Wisconsin – 1

I figured the first three might be the most common because of the history of their naming by Linnaeus but I thought there would be more plants named after Pennsylvania. Poor New Jersey has only one, New Jersey tea, which surprised me (but if you go to New Jersey you can find New Jersey rush, New Jersey muhly, and New Jersey blueberry). Connecticut, Vermont, and New Hampshire don't have any, but little Rhode Island does. What is interesting is that this ratio changes as you examine the floras of the other states. As you would imagine there are more plants named after Florida in Florida, especially since there are more endemics. There are actually 142 plants in the Florida plant atlas with the common name Florida in them and only one with New York (New York ironweed). There are probably more in places like California (299 according to USDA Plants) and Hawaii which have large floras and lots of endemics. It would be interesting to carry this on to all the states to see if there is some interesting pattern, like how a state name decreases as you move to states farther away, but it may take some time to do so.

I think my next challenge would be to see all the New York named plants in one season except for New York hawthorn, which was last seen in the 19-teens in the Adirondacks.

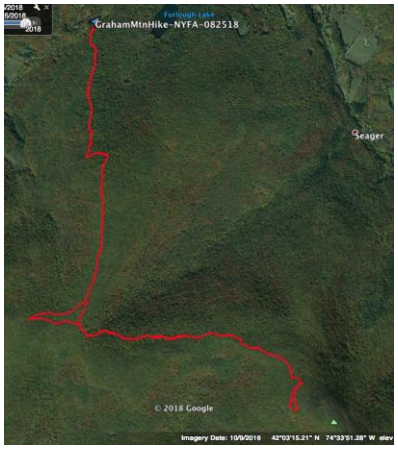


New York Monkshood, *Aconitum noveboracense*. Photo by Mike Adamovic

Graham Mountain Seep Field Trip

by Dan Spada

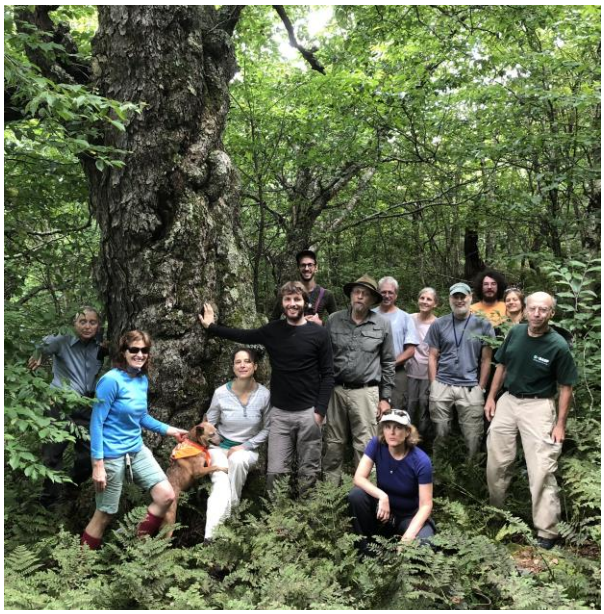
On August 25, 2018, fourteen botanists (Mike Kudish, Bob Plath, Ian Winick, George Moxham, Eileen and Neil Calvanese, Bruce Friedmann, Elizabeth Spencer, Denise Owens, Gregory Cerne, Nina Petrochka, Chris Graham, Annie Jacobs and me) assembled at the Balsam Lake Mountain - Graham Mountain trailhead to begin an eight mile round trip hike to visit a small but Aster-aphilic wetland on a bench just below the summit of Graham Mountain (see track of route below).



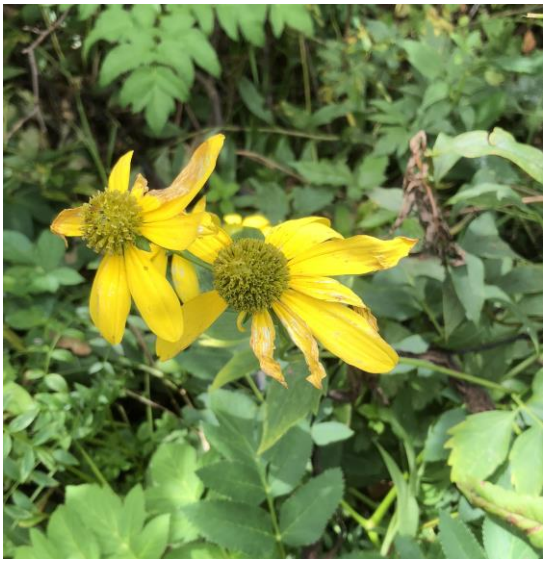
Those of you who know the Catskill Mountains recognize that the sedimentary nature of the bedrock often leads to slopes that are broken up into a series of flat, long, narrow benches or terraces running perpendicular to the slope. If water gathers on these benches in enough quantity and for long enough period of time, a wetland may develop. Some of these wetlands have organic soil deposits, others are on mineral soil. But I digress; the big fact is that all of these small, isolated wetlands are very cool botanical oases. The Graham Mountain Seep (GMS) was no exception.

We got the word from Mike Kudish at the beginning of the trip that because this was a long walk, the "no-botanizing" rule would be in effect until we got to the seep. You can imagine how well that worked. Although we were walking on private forested land that has been periodically logged for over 100 years, we still found some interesting plants - such as large-leaved goldenrod (*Solidago macrophylla*), and perhaps the largest diameter yellow birch (*Betula alleghaniensis*) I've ever seen. We didn't have a diameter tape with us, but it was easily over 4 feet in diameter and hollow.

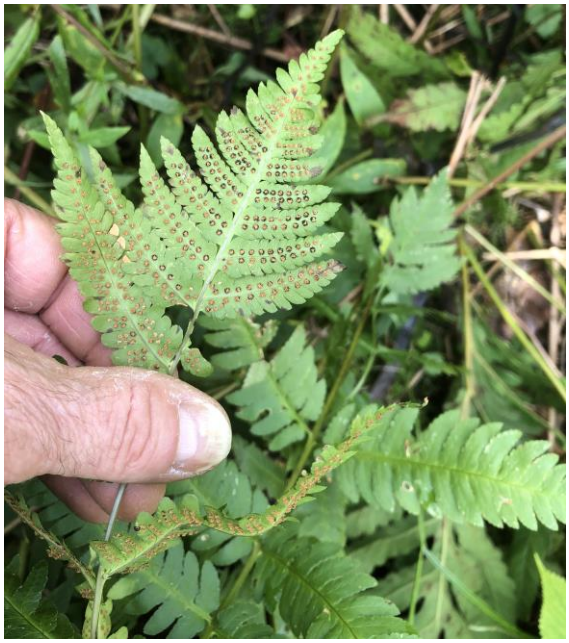
The tree was not very tall and was at a relatively high elevation. It provided a good stop for lunch and a photo op for the whole team.



As we approached to summit we veered to the southerly side of the trail and onto the terrace that contained the seep. Immediately we were plunged into a different world - very little overstory, wet soils, and standing pools of water. We found some plants that Mike had noticed on previous trips such as green-headed coneflower (*Rudbeckia laciniata*),



Jacob's ladder (*Polemonium vanbruntiae*), purple-stemmed angelica (*Angelica atropurpurea*) and cowparsnip (*Heracleum lanatum*). We also found one or two others not previously identified from this site: Goldie's wood fern (*Dryopteris goldiana*),



and purple giant hyssop (*Agastache scrophulariifolia*). While half the team explored the seep, the other half went up to the summit to visit the pygmy ridge hardwood forest. Our explorations done, we met back at the trail and headed down. Throughout the entire trip Mike had his Forest Historian hat on and kept us all amazed with his encyclopedic knowledge of Catskill forest history, discoursing on log road locations, the migration into region by balsam fir (*Abies balsamea*) after glaciation, high elevation farmsteads and their effect on vegetation, logging events, and, of course, why there are mountains tops in the Catskills that have fir while others in the same vicinity that do not. Ask him. It's a fascinating tale. Another good day in the field!

Our species list for the seep includes:

TREES AND SHRUBS
Sugar maple - *Acer saccharum*
American hornbeam - *Carpinus caroliniana* (record high elevation?)
Wild raisin - *Viburnum nudum var. cassinoides*
Beaked hazelnut - *Corylus cornuta*
American beech - *Fagus grandifolia*
Chokecherry - *Prunus virginiana*.

ASTERACEAE
Purple-stemmed aster - *Symphyotrichum puniceum*
Heart-leaved aster - *Symphyotrichum cordifolium*

Tall flat-topped white aster - *Doellingeria umbellata*
Common wrinkle-leaved goldenrod - *Solidago rugosa*
Zigzag goldenrod - *Solidago flexicaulis*
Large-leaved aster - *Solidago macrophylla*
Green-headed coneflower - *Rudbeckia laciniata*
Spotted Joe Pye weed - *Eutrochium maculatum*

DICOT HERBS OTHER THAN COMPOSITES
Dwarf St. John's wort - *Hypericum mutilum (?),*
Smooth white violet - *Viola pallens (?),*
Purple-stemmed angelica - *Angelica atropurpurea*
Cow parsnip - *Heracleum lanatum*
Van Brunt's Jacob's ladder - *Polemonium vanbruntiae*
Tall meadow rue - *Thalictrum pubescens*
Turtle head - *Chelone glabra*
Spotted jewelweed - *Impatiens capensis*
Wood nettle - *Laportea canadensis,*
Purple giant hyssop - *Agastache scrophulariifolia*
Blue cohosh - *Caulophyllum thalictroides*
Virginia waterleaf - *Hydrophyllum virginianum*
Foamflower - *Tiarella cordifolia*
Northern bugleweed - *Lycopus uniflorus (?)*
Northern three-petaled bedstraw - *Galium trifidum (?)*

MONOCOTS
Bottlebrush grass - *Elymus hystrix*
Bent grass - *Agrostis sp*.
Rattlesnake manna grass - *Glyceria canadensis*
Millet grass - *Milium effusum*
Narrow-panicled rush - *Juncus brevicaudatus*
Common wild leek - *Allium tricoccum*
Common fringed sedge - *Carex crinita*
Nodding sedge – *Carex gynandra*
Three-way sedge – *Dulichium arundinaceum*
Common carrion flower - *Smilax herbacea*
False hellebore - *Veratrum viride*
Rose twisted stalk - *Streptopus lanceolatus*

FERNS
Sensitive fern - *Onoclea sensibilis*
Lady fern - *Athyrium angustatum*
Silvery spleenwort - *Deparia acrostichoides*
Goldie's wood fern - *Dryopteris goldiana*
Cinnamon fern - *Osmundastrum cinnamomeum*

Botanical Notes

Hawthorn Valley Farmscape Ecology Program is happy to announce that an updated Checklist of Plants of Columbia County is now available on the Farmscape Ecology Program website. This checklist, which continues to be a work in progress, includes new plants discovered in the County since we first posted it in 2014, a re-evaluation of the rarity and invasiveness of plant species in the County, and an update of the nomenclature. We now know of more than 1,500 species of wild-growing plants in Columbia County, a quarter of which are plants that have been introduced from other continents (mostly Eurasia), or from southern or western regions of North America, and 64 of these non-native plants are classified as invasive in our region. We consider more than half of the native species rare or uncommon in the County. Please check them out, send us your questions, share your observations of rare or uncommon species, and let us know if you disagree with any of the information we provide. We would love to continue to learn together with you about the plants in our County!

If you haven't yet seen the spectacular photography of Jerry Jenkins, check the **Northern Forest Atlas** website (http://northernforestatlas.org/). Jerry has been touring the northern forest for quite a few years taking stacked photos of mosses, sedges, and woody plants found within that region. If you haven't seen stacked photos, you need to look! See the website for more detail; it is a real pleasure to peruse.

The Trouble With Milfoil

by Anne Johnson

This summer I ran into an issue with milfoil identification and was surprised to learn the troublesome milfoil we have in our lakes is likely a hybrid. I had wondered why I kept finding what I thought was *Myriophyllum sibiricum* (a purported native) behaving invasively, and why I seldom found what I could confidently label *Myriophyllum spicatum* (the Eurasian milfoil). The leaf segment count always pointed toward a *M. sibiricum* identification but the growth habit was like a *M. spicatum*. A concerned camp owner alerted me to the presence of a hybrid. The Catalog of Vascular Plants of NYS (Werier 2017) explains that while we have not yet verified the presence of the *M. spicatum* x *sibiricum* hybrid in NYS it is to be expected. I wondered if it would be possible to tell the difference by habit - we have some in a lake that grows sparsely and straight up and down and does not break the surface of the water, and we have some in the same lake that reaches the surface and form tangles of branches that impede boat (including kayak) traffic. I wondered also if it could be a water depth issue, but there did not seem to be a pattern in this lake or in other lakes I visited. I wrote to the authors of the paper by Moody and Les (2007) referenced in David's book to ask (among other things) if one could tell the difference solely by grown habitat or water depth when it was too early in the year to see turions. In response to my query, Dr. Michael Moody of the University of Texas at El Paso wrote the following:

> *I've seen it in dozens of lakes now from the west coast to the midwest and no specific growth patterns or form gives it away for sure. It is a very strong hint that you have hybrids when you do have the heavy branching and spreading with low leaflet count, but this too can vary a bit. I could often identify on sight based on those characteristics and be correct, I would say, about 80% of the time. There are no depth characteristics, etc. to make ID simple.*
>
> *The biggest issue is that there are multiple versions of hybrids out there with different genetic origins from the native ranges, and also there are different levels of backcrossing and/or introgression which are mixing up the genetics in these plants and making it unlikely that there is any ecological specificity of a "average hybrid". They are now widespread and likely when we identify 'pure' Eurasian using most techniques with genetics there is a good chance we are missing some level of past hybridization.*
>
> *One of the biggest issues with the hybrids is some genetic types studies are showing have more resistance to herbicides being used on them than 'pure' types. So something to keep in mind for management.*

References

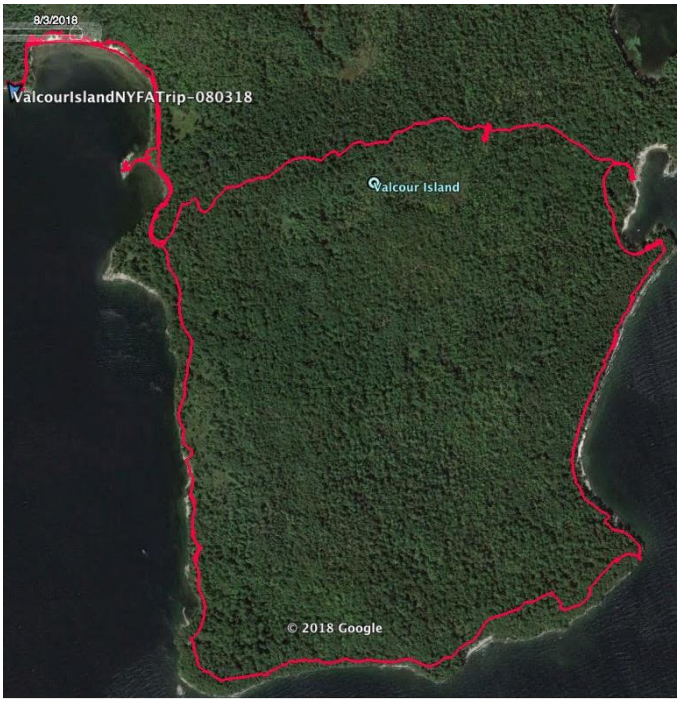
Werier, D. W. 2017. Catalogue of the Vascular Plants of New York State, Memoirs of the Torrey Botanical Society. Torrey Botanical Society, New York Botanical Gardens. 542 pages.

Moody, M. L.; Les, D. H. (2007). Geographic distribution and genotypic composition of invasive hybrid watermilfoil (Myriophyllum spicatum × M. sibiricum) populations in North America. Biological Invasions. 9: 559–570. doi:10.1007/s10530-006-9058-9.

Valcour Island Field Trip

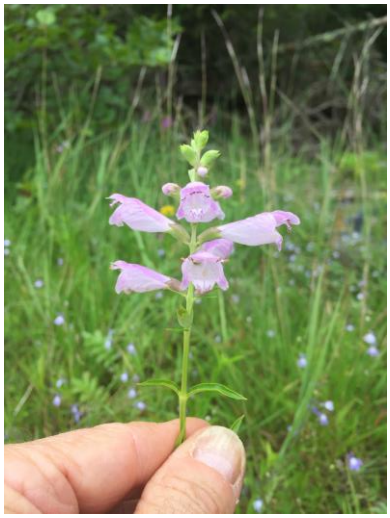
by Dan Spada

On August 3, 2018, 12 intrepid botanists journeyed to Valcour Island in Lake Champlain to spend a few hours exploring the southerly end of the island and to continue the documentation of its flora. In attendance were Neil and Ellen Calvanese, Kate and Konrad Kruesi, Robert Wesley, Tom Rawinski, Liz Thompson, Ken and Ginny West, Brian McAllister, Katherine Storms, and me. The water passage to the island was unusually smooth under overcast skies. Rain threatened but never materialized. We disembarked at around 9:30 and spent until 2:45 walking the central cross trail and the south shoreline trail (see map).

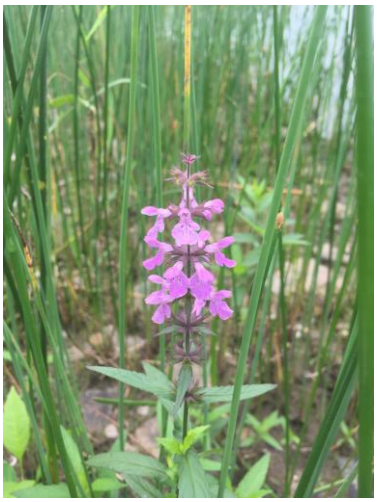


While on the island we hoped to see remnant ram's head lady's slipper (*Cypripedium arietinum*) but we were too late in the season. We did, however, find many specimens of northern hound's tongue, (*Andersonglossum boreale*, next photo), an S1/S2 species, in fruit. We may have inadvertently spread the plant to the mainland because of its very bristly nutlets. See: http://acris.nynhp.org/guide.php?id=8875&part=4.

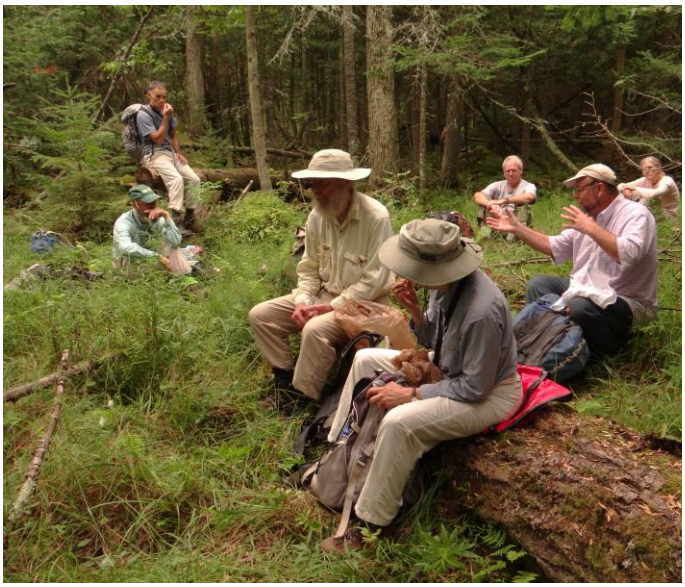
We also found several specimens of northern obedient plant (*Physostegia virginiana* ssp. *virginiana*)



and marsh woundwort (*Stachys palustris*).



We didn't make quick progress along our route in the morning; you all know how botanists hike. Lunch was spent in a small wetland on the central cross trail. This is a great spot that really hasn't been explored all that much. We found dwarf enchanter's nightshade (*Circaea alpina*) and western swamp milkweed (*Asclepias incarnata* ssp. *incarnata*) in this little unexplored gem of a wetland.



It was a real treat for me to have so many capable botanists scouring the landscape and discovering new species or re-locating previously reported species. Valcour Island is a botanical and geological paradise. Its bedrock is primarily fossil encrusted limestone. We had a few minutes waiting for our water taxi to pick us up and ferry us back to the mainland during which we were able to explore the exposed rock of the shoreline and find many interesting fossils.

Valcour Island has had many botanical excursions over the years, so its flora is fairly well documented and I won't include its extensive plant list here. However, we did find a few new plants that were not on the list, corrected some identifications, and verified many more.

All in all it was a great trip. Obviously, there is still quite a store of botanical treasures to discover on Valcour Island.

Photo credits: Robert Wesley and Dan Spada

The new species include the following:

Anemone cylindrica – long-headed anemone
Asclepias incarnata ssp. incarnata – western swamp milkweed
Astragalus canadensis – Canada milk vetch
Circaea alpina – dwarf enchanter's nightshade
Cirsium arvense – Canada thistle
Carex lupulina – hop sedge
Carex normalis – large straw sedge
Carex pellita – wooly sedge
Carex pseudocyperus – cyperus-like sedge
Dryopteris cristata – crested wood fern
Goodyera tesselata – checkered rattlesnake plantain
Helianthus decapetalus – thin-leaved sunflower
Hemerocallis fulva – orange day lily
Oxybasis glauca – oak-leaved goosefoot
Scirpus cyperinus – common wool grass
Securigera varia – crown vetch
Solidago arguta – cut-leaved goldenrod
Teucrium canadense – American germander
Triflorum aureum – large hop clover

Ausable River Delta Field Trip

by James Battaglia

The Ausable River enters Lake Champlain about 12 miles south of Plattsburgh in the town of Peru. Over thousands of years, the river has deposited material at the river's mouth creating a delta. The delta consists of fertile lowlands, large marshes, and sandy beaches and dunes. Used for agriculture and forestry for years, the area is now the 660 acre Ausable Marsh Wildlife Management Area and is managed for a variety of recreational and scientific purposes. On August 18, 2018, NYFA members and guests met at the state campground for a botanical field trip to the nearby sand beaches and dunes. David Werier organized and led the group.

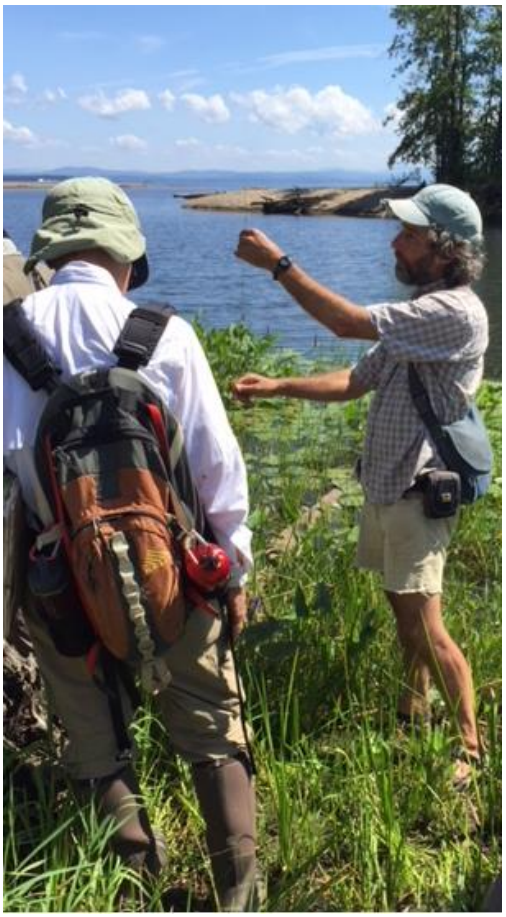
To begin, the participants boarded canoes and kayaks for a short trip to a sand beach across the Ausable River (after a brief examination of the flora at the boat launch, of course). As the group worked its way along beach, David pointed out various taxa growing in the sand beach and dunes and in the sand lake bottom left exposed by the late summer recession of the lake waters. Other participants found and identified plants as well.

After a time the group took to the water again and moved farther down to a cove facing Lake Champlain. Again, the group explored the sand beach and dune immediately adjacent. This environment hosts taxa adapted to high levels of disturbance from wave action, changes in water level, and ice scour, and thus are seen only infrequently, if at all, elsewhere. It was a fine day, but at 2:30, the heat and the need of many participants for time to drive home compelled a return to the campground. Much shoreline went unobserved; a second visit to this area would prove as rewarding as this one. Readers are encouraged to peruse the observations listed below; they testify to the richness and uniqueness of this area. Thanks to NYFA and David for conducting this rewarding visit to the beaches at the mouth of the Ausable River.

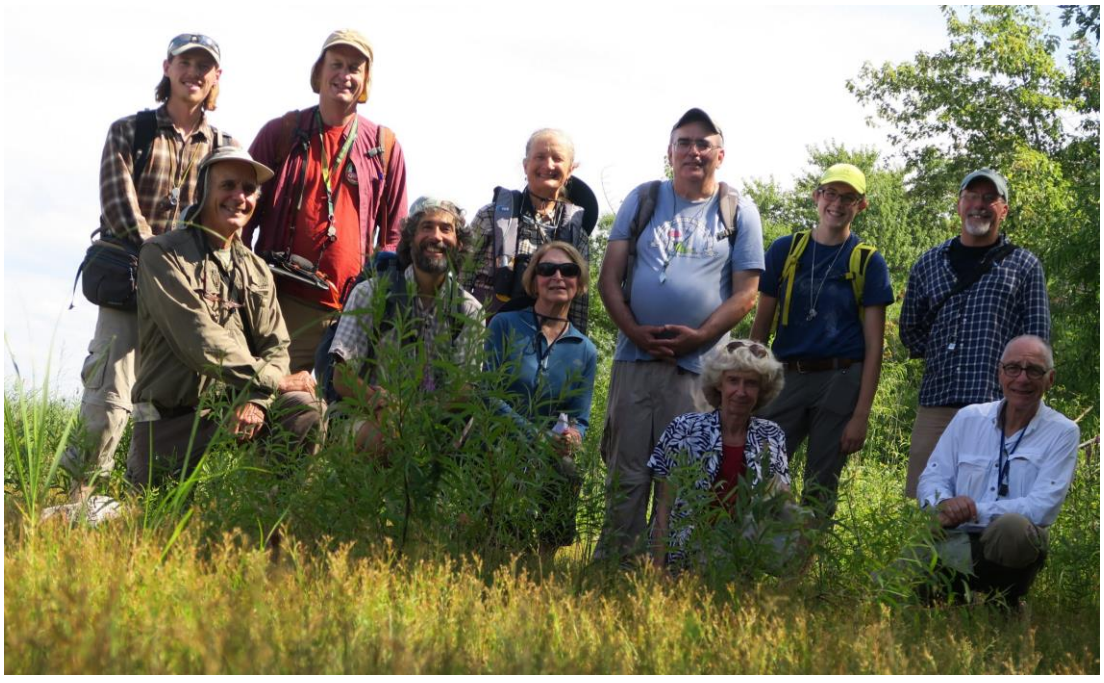
Observations: Ausable Marsh Wildlife Management Area, August 18, 2018

Acer ×freemanii
Acer saccharinum
Ageratina altissima
Agrostis perennans
Agrostis scabra
Alisma graminea
Alisma triviale
Ammophila breviligulata (champlainensis
Apios americana
Apocynum cannabinum
Avenella flexuosa
Bidens cernua
Bidens discoidea
Bidens frondosa
Bolboschoenus fluviatilis
Brasenia schreberi
Bromus latiglumis
Calamagrostis canadensis
Calystegia sepium
Campanula aparinoides
Carex lupulina
Centaurea stoebe ssp. micranthos
Cephalanthus occidentalis
Cyperus bipartitus
Cyperus dentatus
Cyperus lupulinus ssp. macilentus
Cyperus squarrosus
Cyperus strigosus
Dichanthelium clandestinum
Dulichium arundinaceum
Eleocharis acicularis
Eleocharis erythropoda
Eleocharis obtusa var. obtusa
Eleocharis ovata
Eleocharis palustris
Elodea canadensis
Elymus virginicus var. virginicus
Erechtites hieraciifolius
Eriocaulon aquaticum
Eupatorium perfoliatum
Euphorbia maculata
Euthamia graminifolia
Eutrochium maculatum var. maculatum
Frangula alnus
Fraxinus pennsylvanica
Gnaphalium uliginosum
Heteranthera dubia
Hypericum boreale
Hypericum ellipticum
Hypericum fraseri
Hypericum majus
Hypericum mutilum
Ilex verticillata
Juncus alpinoarticulatus ssp. americanus
Juncus brevicaudatus
Juncus filiformis
Juncus nodosus
Juncus pelocarpus
Juniperus communis
Lathyrus japonicus
Lindernia dubia var. dubia
Lobelia cardinalis
Lycopus americanus
Lycopus uniflorus
Lysimachia hybrida
Lysimachia terrestris
Lysimachia vulgaris
Lythrum salicaria
Maianthemum stellatum

Mimulus ringens
Mollugo verticillata
Myrica gale
Myriophyllum spicatum
Najas flexilis
Najas minor
Nymphaea odorata ssp. tuberosa
Oenothera oakesiana
Onoclea sensibilis
Osmunda regalis var. spectabilis
Persicaria coccinea
Persicaria lapathifolium
Phalaris arundinacea
Pinus rigida
Polanisia dodecandra
Pontederia cordata
Populus deltoides
Populus grandidentata
Potamogeton friesii
Potamogeton richardsonii
Potamogeton spirillus
Quercus macrocarpa
Quercus rubra
Ranunculus flammula var. reptans
Sagittaria graminea
Sagittaria latifolia
Salix eriocephala
Salix interior
Salix lucida
Salix nigra
Saponaria officinalis
Schoenoplectiella smithii var. smithii
Schoenoplectus heterochaetus x tabernaemontani?).
Schoenoplectus pungens var. pungens
Schoenoplectus torreyi
Scirpus cyperinus
Scirpus pedicellatus
Silene vulgaris
Sium suave
Sium suave
Sparganium americanum
Spiraea alba var. latifolia
Sporobolus michauxianus
Stachys hispida
Stachys pilosa
Symphyotrichum ontarionis
Thelypteris palustris
Toxicodendron radicans
Toxicodendron rydbergii
Typha latifolia
Vaccinium corymbosum
Vallisneria americana
Verbascum thapsus
Vitis riparia
Xanthium strumarium
Zizania palustris var. palustris



David discussing a plant. Photo by Carol Gates.

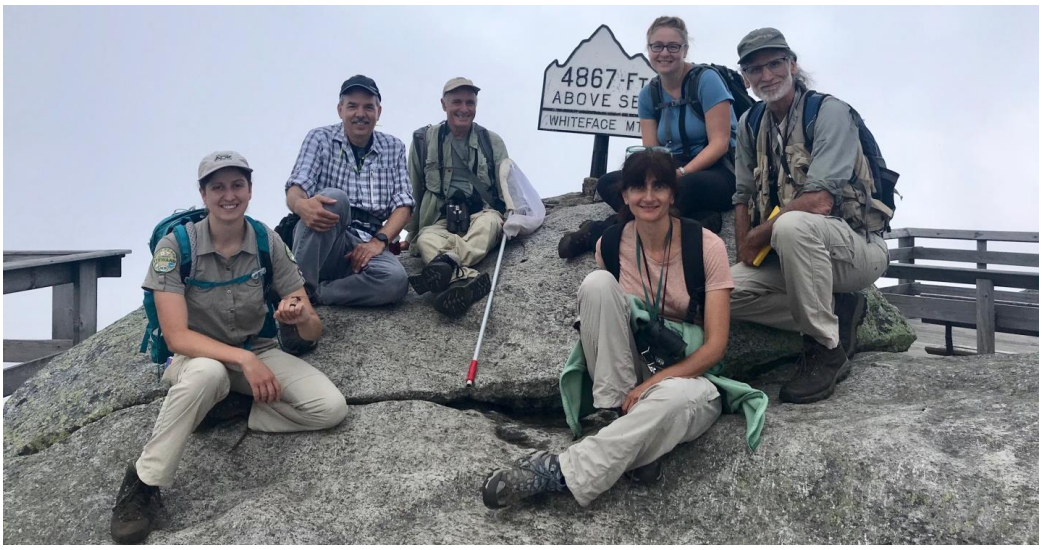


The group posing at the end of the trip. Photo by David Werier.

Whiteface Field Trip Report

by Steve Young, NYFA Secretary

Our August 4th trip started out in the clouds but as the day progressed the clouds lifted and we were afforded some spectacular views of the Whiteface area. Six of us headed up the stairs to the summit and examined the alpine species along the way, explaining to curious tourists why we were hanging over the railing looking at plants. We then headed down the hiking path to the road and ended our trip just before thunderstorms arrived. Our annual trip always seems to turn up new species for the mountain and this day was exceptional as the group found 13 new species for the summit, some exotic and brought in with the recent road work, and some native like Indian pipe (*Monotropa uniflora*), and twinflower (*Linnaea borealis* ssp. *longiflora*).

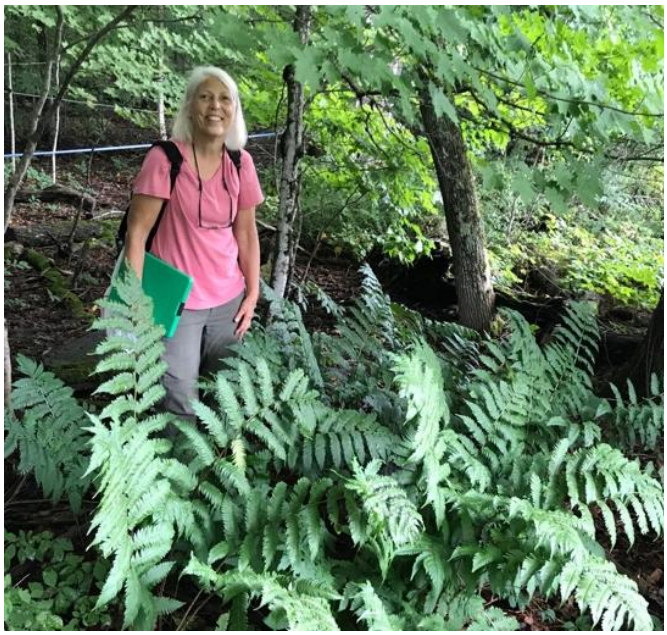


The group at the summit.

The 2018 NYFA Annual Meeting Report

by Steve Young, NYFA Secretary

The 2018 NYFA Annual meeting took place on August 12 at the SUNY Oneonta research station near Cooperstown and we had good attendance (17 people) in a beautiful setting. We started with a field trip to see the flora of the station. After our business meeting where we elected two new board members, Mike Adamovic and Kyle Webster, the 2017 Native Plant Conservation Award was presented to Connie Tedesco by Steve Young. Following a delicious lunch, we took the annual botany quiz (especially challenging this year) and then went outdoors for a last field trip. A great time was had by all!



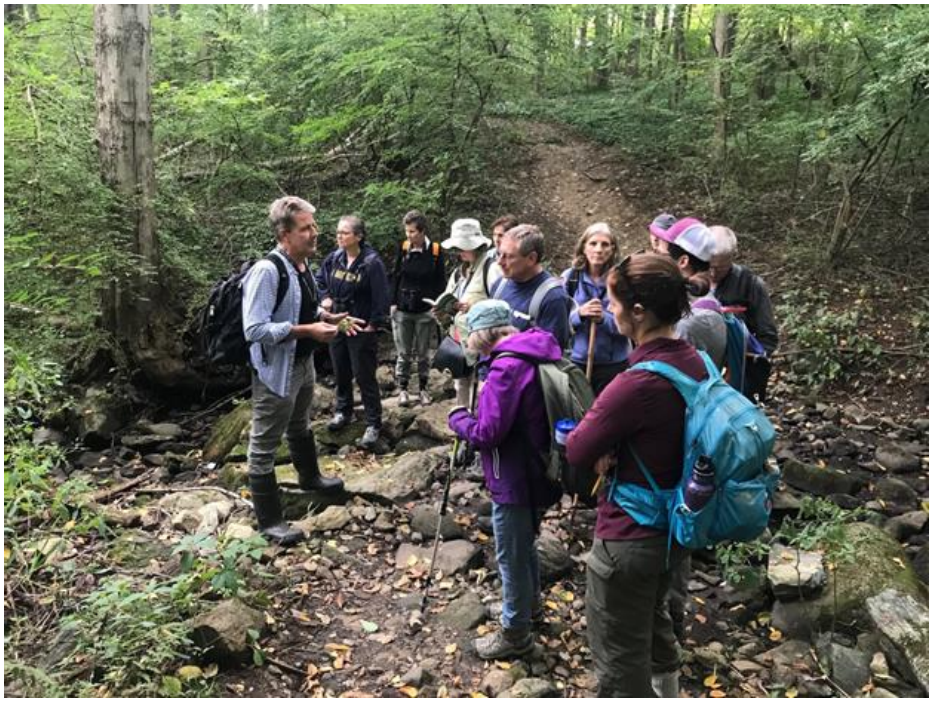
Connie Tedesco, Conservation Award winner, on the right, with Goldie's fern at the sugar bush. Photo by Steve Young.

Donna Vogler shows us the invasive marsh thistle, *Cirsium palustre* at the annual meeting. Photo Dave Turan.

Smartweeds of the Lower Hudson Region Field Trip Report

by Steve Young, NYFA Secretary

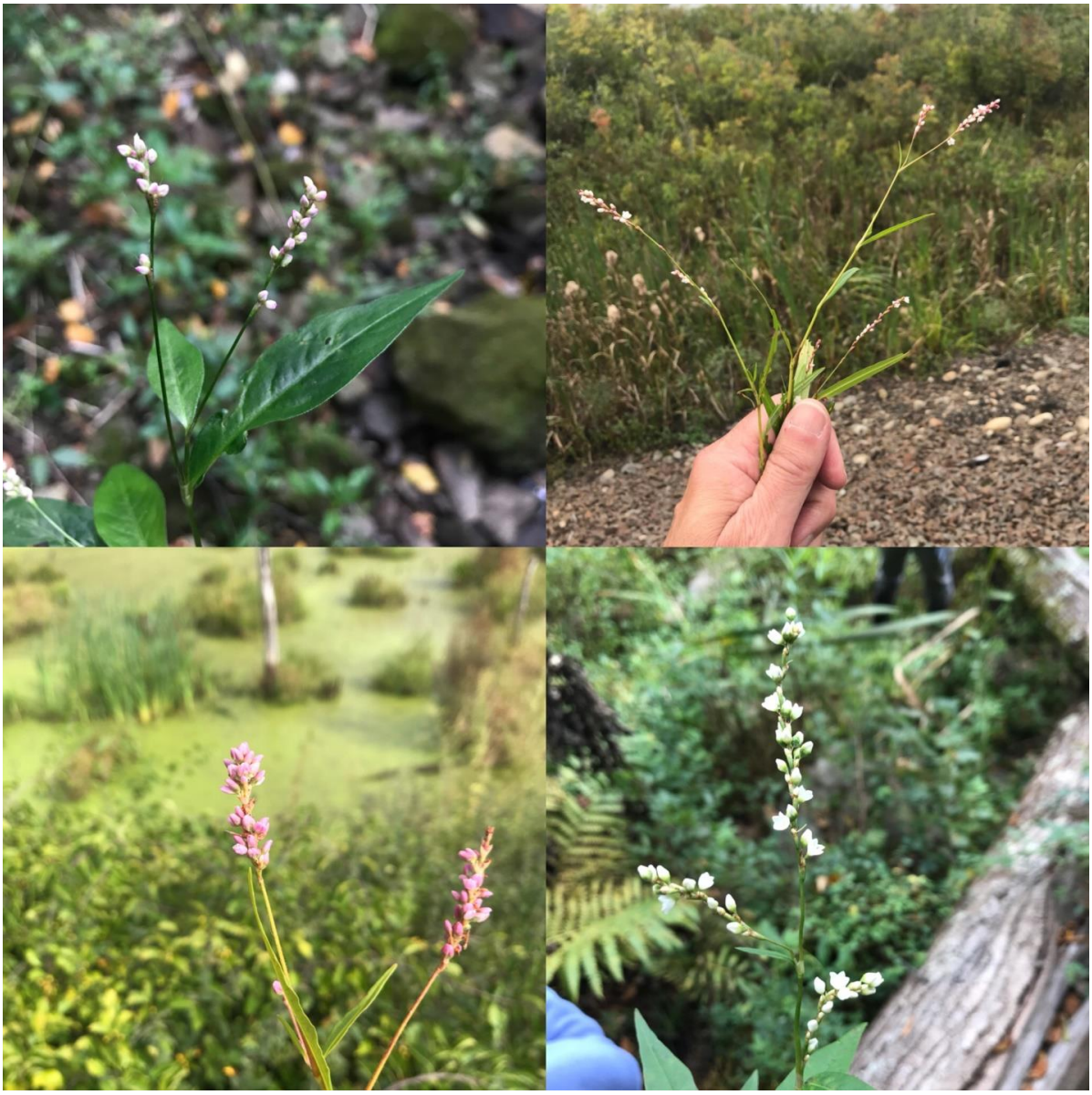
The last NYFA field trip of the season on September 22nd took us to Ice Pond Preserve in Putnam County to learn smartweeds from the North American expert, Daniel Atha, botanist at the NY Botanical Garden and NYFA board member. The group met at the beautiful Ice Pond Conservation Area where Daniel has been compiling a flora for many years. Nine species of smartweed were found at the preserve and are listed on the next page. A great time was had by all and we look forward to another trip to this interesting preserve in another season.



Daniel explains the characters that differentiate the smartweed species.

The nine species of smartweeds we saw:

Persicaria virginiana - Jumpseed
Persicaria longiseta - Low Smartweed
Persicaria robustior - Stout Smartweed
Persicaria hydropiperoides - Mild Water Pepper
Persicaria punctata - Dotted Smartweed
Persicaria pensylvanica - Pennsylvania Smartweed
Persicaria extremiorientalis - Far-eastern Smartweed
Persicaria sagittata - Arrow-leaved Tearthumb
Persicaria arifolia - Halberd-leaved Tearthumb



Four species of smartweed clockwise from upper left: *Persicaria longiseta*, *Persicaria hydropiperoides*, *Persicaria robustior*, *and Persicaria pensylvanica*.

Eastman Hill Flora Trip, Tompkins County 6/10/18

by Whitney Carleton

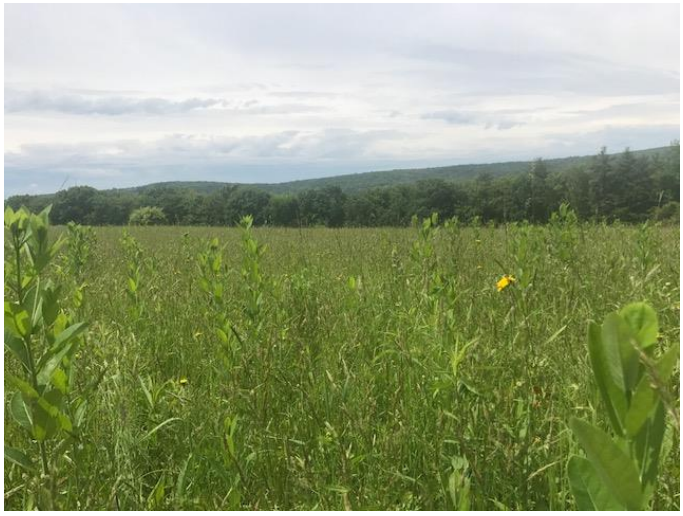
The Eastman Hill Flora trip (a joint trip with the Finger Lakes Native Plant Society) consisted of 16 people and was led by David Werier. The hike started slowly in a slightly acidic area where the group encountered multiple species with fragrance as key identifiers, like sweet fern (*Comptonia peregrina*). Numerous Carex species were also seen, such as fruiting *Carex pensylvanica*, which has a smaller beak and is found in less acidic environments than the similar *Carex lucorum*. Those allergic to poison ivy (*Toxicodendron radicans*) rejoiced as David explained that this acidic hilltop at the edge of Tompkins County would be too acidic for one of our least favorite native perennials.

Comptonia peregrina, Sweet Fern

The group then crossed a small creek to a richer area where the seep-loving sedges *Carex scabrata* and *C. prasina* were found. Some showy woodland understory plants, sweet-scented bedstraw (*Galium triflorum*) and dolls eyes (*Actaea pachypoda*), were also seen. David pointed out that *Actaea pachypoda* has hairs only on leaf veins, while the similar red baneberry (*Actaea rubra*) has hairs only between leaf veins.

Returning to a more acidic understory, the group discussed the diversity of ericaceous shrubs being found; black huckleberry (*Gaylussacia baccata*), early azalea (*Rhododendron prinophyllum*), and two blueberry species, *Vaccinium pallidum* and *V. angustifolium*. Black huckleberry has characteristic yellow glands on the underside of the leaves. The two blueberry species can be differentiated by slight variations in leaf shape.

The group then hiked up Eastman Hill, finding approximately 200+ year old chestnut oaks (*Quercus montana*), a recurring Cooper's hawk nesting area, and a native NY honeysuckle (*Lonicera canadensis*). Lunch was in a beautiful field to better enjoy the nice sunny day, and on the way out we identified one of our native NY thistles (*Cirsium pumilum*).



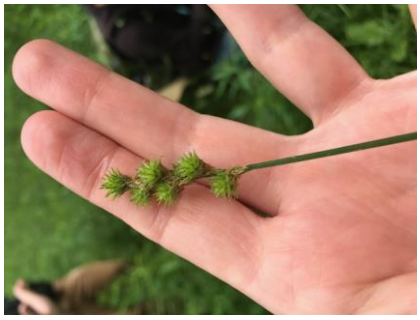
Back down the hill was a small patch of sweet gum (*Nyssa sylvatica*); David mentioned that this is the longest living hardwood in eastern North America. The group also paused to discuss, in detail, new findings in *Geum* hybridization. *Geum urbanum*, a non-native known also as town avens, has very large stipules at the base of the leaves, was found along the trail. In contrast, the white wood avens (*G. canadense*), a native, has very small stipules and its leaves are less fuzzy than its non-native counterpart. Both species grow in the same habitat, but their phenology differs, with *G. canadense* blooming later in the year. It has been determined that these two species hybridized to form a pale-yellow-flowered *Geum* whose bloom time falls between the two; it is referred to as *Geum* x *catlingii*. It can be difficult to spot and keep track of, as it is believed that the first generation produces

seed, but that a second generation is often sterile.

The group then visited an old home site on Finger Lakes Land Trust Property to see queen-of-the-meadow (*Filipendula ulmaria*), common in places with this former use. Following the Finger Lakes trail upslope, European ash (*Fraxinus excelsior*), cucumber magnolia (*Magnolia acuminata*), and a multitude of club mosses were found. The club mosses were coming up in a post-agriculture forest and the group discussed the extensive variety seen interwoven throughout this area.

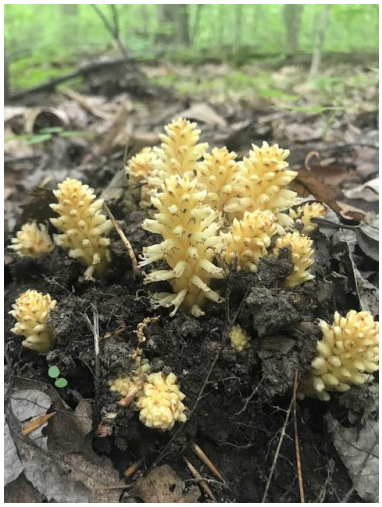
The hike concluded by following the cliffs of Eastman Hill, with talus slopes below curving through a hemlock hardwood forest. We spotted *Carex radiata* with its thin, long styles as well as a mating pair of *Cecropia* moths, found only a foot away from the female's chrysalis. A unique and pleasant journey was had by all, and the weather could not have been more perfect! See below for a species list by area.

Old Field
Anthoxanthum odoratum
Carex gracillima
Carex normalis
Carex pennsylvanica
Carex prasina
Carex scabrata
Comptonia peregrina
Onoclea sensibilis
Polygaloides paucifolia
Sisyrinchium angustifolium
Symphyotrichum undulatum



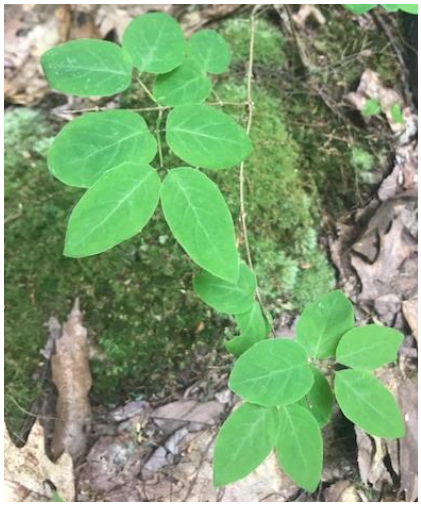
Carex normalis

Acid Woods
Anthoxanthum odoratum
Botrychium matricariifolium
Carex argyrantha
Carex gracillima
Carex hystericina
Carex lurida
Carex tonsa var. rugosperma
Castanea dentata
Cirsium pumilum
Collinsonia canadensis
Conopholis americana
Corylus americana
Dendrolycopodium hickeyi
Diphasiastrum digitatum
Epipactis helleborine
Filipendula ulmaria
Fraxinus excelsior
Galium lanceolatum
Galium triflorum
Gaylussacia baccata
Geum urbanum
Geum vernum
Hamamelis virginiana
Hylodesmum nudiflorum
Lactuca sp.
Lonicera canadensis
Lysimachia quadrifolia
Magnolia acuminata
Maianthemum racemosum
Melampyrum lineare
Nyssa sylvatica
Prunus cerasiformis
Pteridium aquilinum
Quercus alba
Quercus prinus
Quercus rubra
Rhododendron prinophyllum
Sassafras albidum
Sphagnum spp.
Spinulum annotinum
Thelypteris noveboracensis
Thelypteris noveboracensis
Uvularia perfoliata
Uvularia sessilifolia
Vaccinium angustifolium
Vaccinium pallidum
Vaccinium stamineum
Viburnum acerifolium

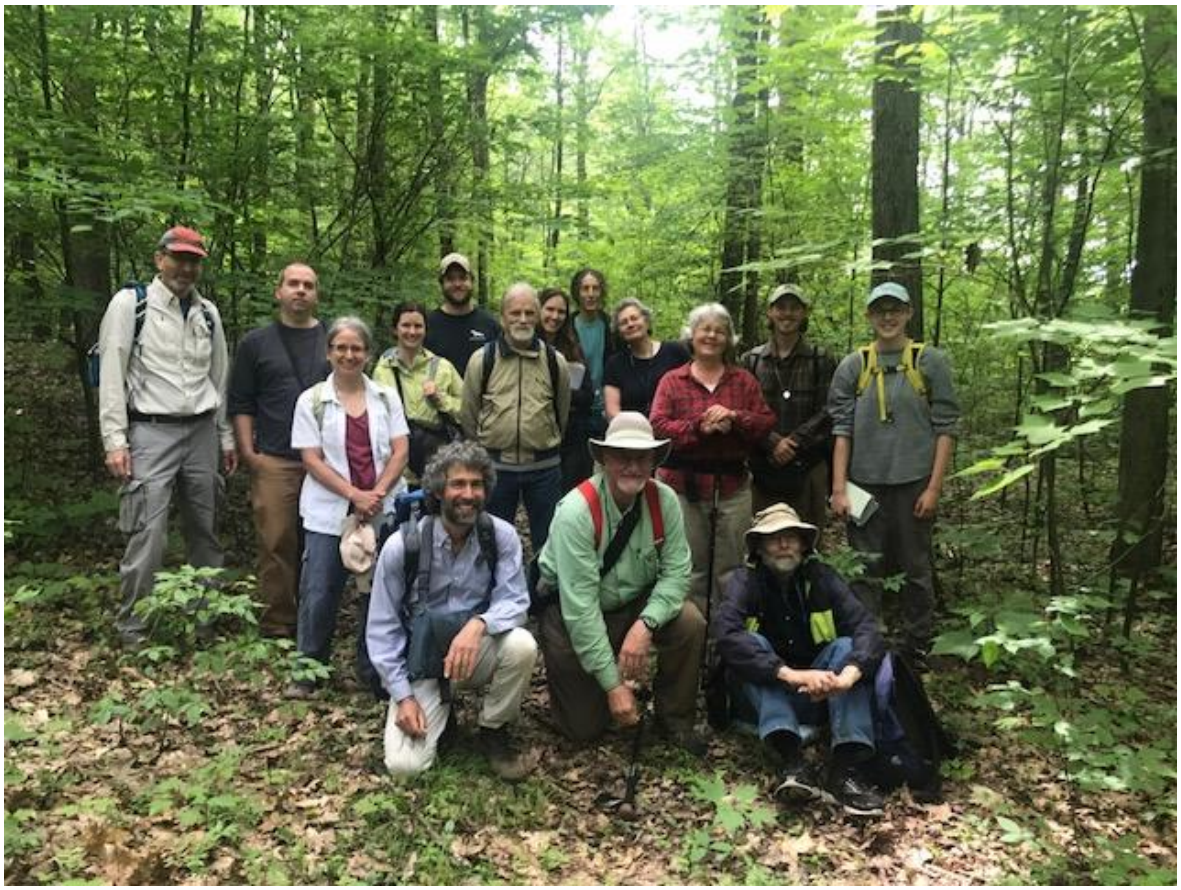


Conopholis americana

On Ridge
Arisaema triphyllum
Carex aestivalis
Carex appalachica
Carex lucorum
Carex virescens
Diervilla lonicera
Epigaea repens
Hylotelephium telephium
Lapsana communis
Leersia virginiana
Lobaria pulmonaria (lichen)
Mitchella repens
Oclemena acuminata
Polypodium appalachianum



Lonicera canadensis



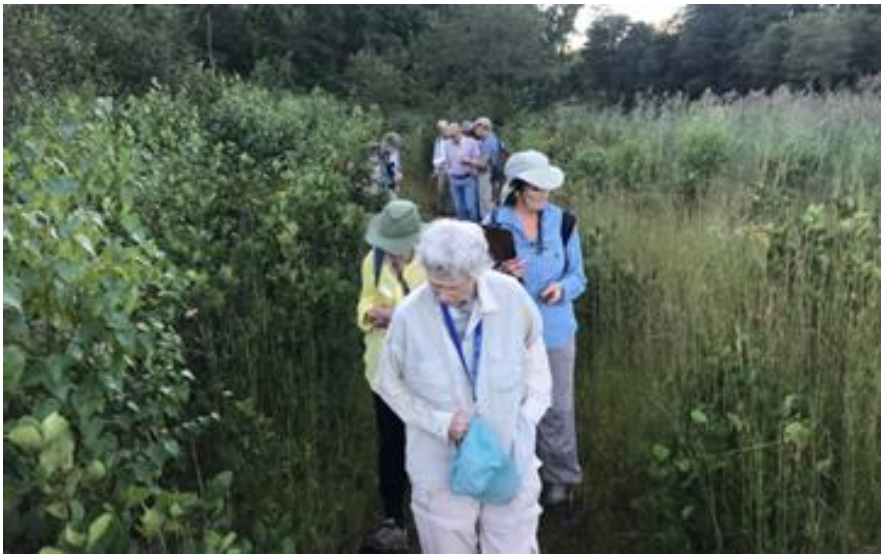
The group at the end of a good day botanizing.

Learn 10 Wetland Plants Trip Report, Woodlawn Preserve, Schenectady

by Steve Young, NYFA Secretary

The Woodlawn Preserve in the City of Schenectady hosted our Learn 10 Wetland Plants on September 14. This trip was in conjunction with the Capital District Friday Evening Field Group and was well attended. We tried to focus on 10 wetland species in this very diverse natural area but as the list below shows, all the wetland plants that were in the area were surveyed. There are a number of other wetlands, open and wooded, within this preserve, so we may have to have another trip here to see them all.

Alnus incana ssp. *rugosa* - Spotted Alder
Asclepias incarnata ssp. *incarnata* - Western Swamp Milkweed
Cyperus bipartitus - Shining Flat Sedge
Cyperus strigosus - False Yellow Nut Sedge
Equisetum variegatum - Variegated Scouring Rush
Euthamia graminifolia - Common Flat-topped Goldenrod
Fuirena autumnalis - Autumn Fimbry
Juncus dudleyi - Dudley's Rush
Juncus effusus var. *solutus* - Common Soft Rush
Lycopus uniflorus - Northern Bugleweed
Lysimachia ciliata - Fringed Loosestrife
Lythrum salicaria -Purple Loosestrife
Onoclea sensibilis - Sensitive Fern
Osmunda regalis - Royal Fern
Persicaria punctata - Spotted Smartweed
Persicaria sagittata- Arrow-leaved Tearthumb
Phragmites australis - European Phragmites
Schoenoplectus tabernaemontani - Soft-Stemmed Bulrush
Scirpus atrovirens - Dark Green Bulrush
Scirpus cyperinus - Common Wool Grass
Spiranthes cernua - Nodding Ladies' Tresses
Thelypteris palustris - Marsh Fern
Xanthium strumarium var. *canadense* - Canada Cocklebur

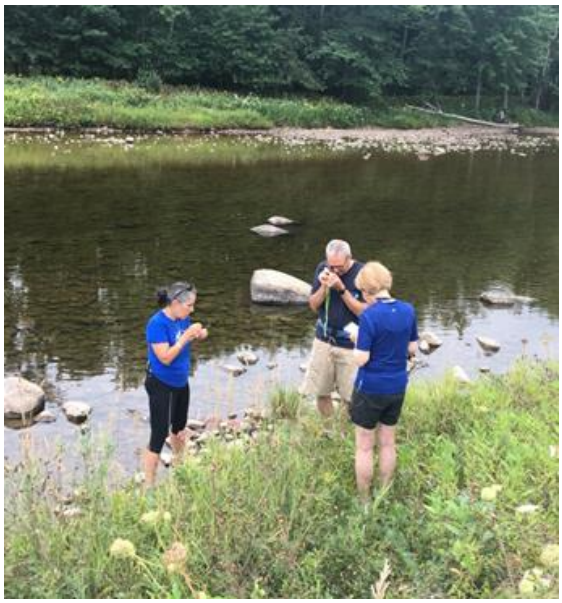


The group wending its way through the wetland.

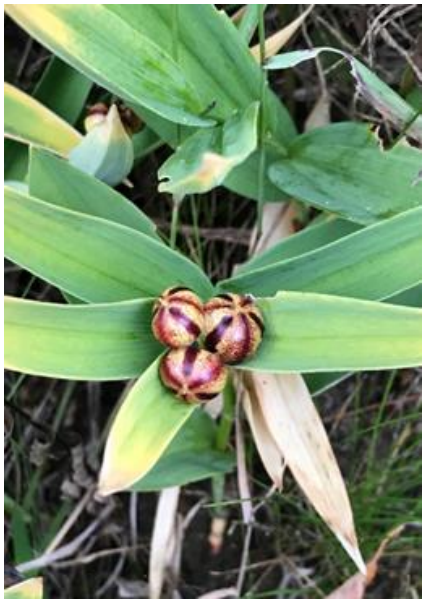
Petal Pedal along the Ausable River trip report

by Steve Young, NYFA Secretary

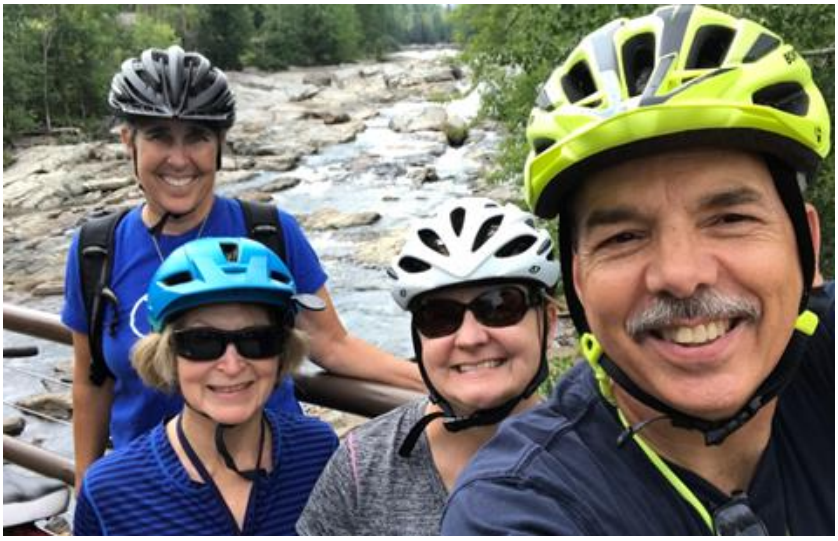
Four intrepid riders met at Upper Jay for a ride along Route 9N to the Village of Jay. We started out spending time off our bikes on the shoreline of the Ausable River in Upper Jay, where we found a large number of species and where we also spent time keying out some of the graminoids. A few showers came through early, but the rest of the trip was rain free and partly sunny. We ended up at the beautiful waterfalls at Jay, where we discovered some species that were new to us, like Canada hawkweed, *Hieracium kalmii*. The ride was a great way to cover a lot of ground in a day and see a good number of interesting sites. See the next page for a list of the species we saw.



Examining some of the graminoids along the Ausable.



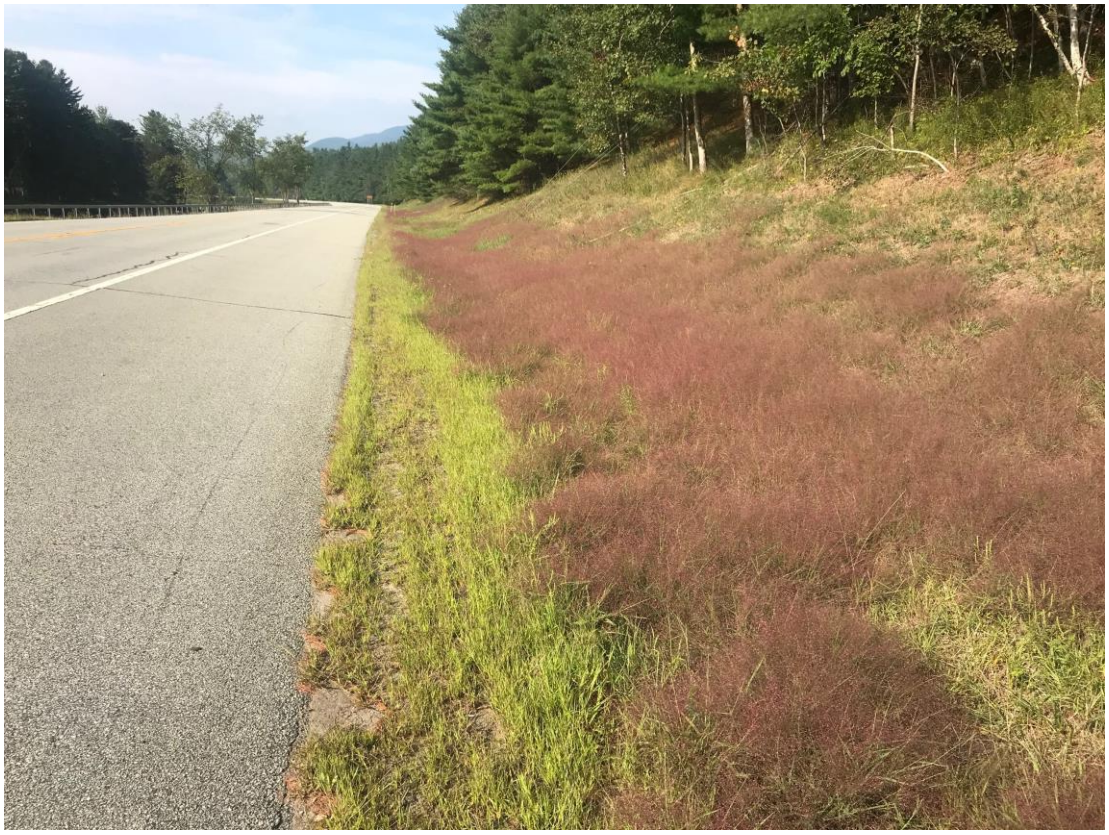
Starry Solomon's seal, *Maianthemum stellatum*



Bikers Elizbeth Lee, Carol Gates, Laura Lehtonen, and Steve Young at the falls at Jay.

Petal Pedal Plant List, 8/26/2018

Abies balsamea	balsam fir
Acer x freemanii	Freeman's red maple
Acer rubrum	red maple
Acer saccharum	sugar maple
Agrimonia striata	roadside agrimony
Agrostis stolonifera	creeping bent
Alisma triviale	northern water plantain
Alnus incana ssp. rugosa	spotted alder
Ambrosia artemisiifolia	ragweed
Anemone canadensis	Canada anemone
Antennaria neglecta	field pussytoes
Apocynum sp.	Dogbane
Artemisia vulgaris	common mugwort
Asclepias incarnata	swamp milkweed
Asclepias syriaca	common milkweed
Bidens frondosa	devil's beggar ticks
Boehmeria cylindrica	false nettle
Bromus inermis	smooth brome
Calamagrostis canadensis	Canada Bluejoint grass
Carex hystericina	porcupine sedge
Cuscuta gronovii	common dodder
Cyperus strigosus	false yellow nut sedge
Dichanthelium clandestinum	deer tongue grass
Digitaria cognata	fall witch grass
Doellingeria umbellata	tall white flat-topped aster
Dryopteris marginalis	marginal wood fern
Elymus repens	quack grass
Equisetum fluviatile	river horsetail
Eragrostis spectabilis	purple love grass
Erigeron annuus	annual fleabane
Euphorbia cyparissias	cypress spurge
Euthamia graminifolia	yellow flat-topped goldenrod
Eutrochium fistulosum	hollow Joe Pye weed - planted
Eutrochium maculatum	spotted Joe Pye weed
Helianthus decapetalus	thin-leaved sunflower
Hieracium kalmii	Canada hawkweed
Hieracium lachenalii	European hawkweed
Hieracium paniculatum	panicled hawkweed
Juncus alpinoartculatus ssp. americanus	alpine rush
Juncus dichotomus	forked rush
Juncus nodosus	knotted rush
Juniperus communis	common juniper
Juniperus virginianus	eastern red cedar
Lactuca canadensis	tall lettuce
Leersia oryzoides	rice cut grass
Lycopus americanus	American bugleweed
Lycopus uniflorus	northern bugleweed
Lysimachia ciliata	fringed loosestrife
Lysimachia terrestris	swamp candles
Maianthemum stellatum	starry Solomon's seal
Melilotus albus	white sweet clover
Mollugo verticillata	carpetweed
Muhlenbergia glomerata	spike muhly
Morella caroliniana	bayberry
Oenothera biennis	common evening primrose
Onoclea sensibilis	sensitive fern
Parthenocissus quinquefolia	Virginia creeper
Phalaris arundinacea	reed canary grass
Physalis heterophylla	clammy ground cherry
Physocarpus opulifolius	ninebark
Pilosella aurantiaca	orange hawkweed
Pinus resinosa	red pine
Pinus strobus	white pine
Pinus sylvestris	Scotch pine
Poa sp. (little tiny one)	
Polygonum aviculare	common knotweed
Populus tremuloides	trembling aspen
Prunella vulgaris	Eurasian selfheal
Quercus rubra	red oak
Rhamnus cathartica	European buckthorn
Rhus typhina	staghorn sumac
Rhynchospora capitellata	brownish beak sedge
Robinia pseudoacacia	black locust
Rosa blanda	smooth rose
Rubus pensylvanicus	Pennsylvania blackberry
Salix eriocephala	heart-leaved willow
Salix sp.	willow
Saponaria officinalis	bouncing bet
Scirpus atrovirens	dark-green bulrush
Scirpus cyperinus	wool grass
Scirpus microcarpus	barber-pole bulrush
Scirpus pendulus	pendulous bulrush
Scutellaria galericulata	marsh skullcap
Silphium perfoliatum	cup plant
Solidago caesia	blue-stemmed goldenrod
Solidago gigantea	swamp goldenrod
Solidago juncea	early goldenrod
Solidago nemoralis	gray goldenrod
Solidago rugosa	common wrinkle-leaved goldenrod
Spirea alba var. latifolia	broad-leaved meadowsweet
Symphyotrichum cordifolium	heart-leaved aster
Symphyotrichum novae-angliae	New England aster
Symphyotrichum puniceum	purple-stemmed aster
Thuja occidentalis	northern white cedar
Typha latifolia	wide-leaved cattail
Toxicodendron radicans	eastern poison ivy
Ulmus americana	American elm
Verbena hastata	blue vervain
Vernonia gigantea	tall ironweed – planted from Penn.
Vicia cracca	tufted vetch
Vitis riparia	river grape



Purple love grass, *Eragrostis spectabilis*, put on a show along the mowed shoulder of Route 9N.

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