

New York Flora Association Newsletter Summer 2024

Editor's Note: I'm sure many of you have noticed the little white curly stolons laying on top of leaf litter in late spring woods. Our first article, by Tom Yancey, discusses his thoughts and observations on these curious curls. If you too have some botanical musings that you would be willing to share, please let us know. Also in this issue are two field trip reports, and last (but not least), be sure to take a look at the president's message and the Annual Meeting announcement on page 10.

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NYFA Mission:

To help people enjoy and learn about the wild plants of New York State and promote the conservation of native species.

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Observations and Thoughts on the Spring Curls in a Hardwood Forest

by Tom Yancey

It's late spring again, and a walk to look at leafing trees and other plants in the woods took me along a dirt road through a sugar bush off the Fish Creek Road in Lewis County near Croghan. This wood lot has a long-established second growth forest with dominant sugar maple, beech, black cherry, and hemlock providing a closed canopy during the summer. The early spring flowers had completed their flowering cycle, so some violets were the only flowers encountered. However, the leaves of trout lily (*Erythronium americanum*) were still showing among their many spring curls (Figures 1 and 2) on the forest floor. Not flowers, of course, but I was delighted to see spring curls present in abundance in response to the extended spring. This very distinctive plant growth had puzzled me after first noticing it several years ago until they revealed themselves to be a post-flowering vegetative growth that produces bulblets (Figures 3 and 4); bulblets that grow into the next generation of trout lily, an observation described in a previous note in this newsletter (Yancey 2019).



Figure 1. Five spring curls arching above the leaf litter in a hardwood forest. Note that the spring curl in the upper left corner of the photo is arched up above the ground with a free end consisting of a swollen growing end larger than the strand. The swollen end is the beginning of bulblet growth and at this stage has a pointed tip that eases penetration into the ground. Spring curl strands are 2 mm in diameter.



Figure 2. Spring curls emerging from a moss-covered slope on the side of a roadway. Some withered trout lily leaves are present and a green leaf of a violet plant is present at top right.



Figure 3. A spring curl emergent from a patch of leaf litter in the midst of a group of fading leaves (brownish green) and still green leaves of trout lily *E. americanum*. Largest leaf is 2.5 cm wide at midpoint.



Figure 4. Spring curls emergent from a patch of leaf litter in the midst of a group of withered leaves (brown) and still green leaves of *E. americanum*. Green leaves are about 2 cm wide at midpoint.

Spring curls are the visible, although accidental, display of the vegetative reproduction phase of this multiannual species (lasting more than one year). As the flower fades, one to four narrow string-like strands of tissue grow laterally out from the basal bulb of the flowering plant. These strands are completely white and look like stout string or twine. The strands have a diameter of about 2 mm. After reaching a few inches of length the string grows a small bulblet and the strand connecting it to the parent bulb withers. As the bulblet on the end of the spring curl grows, the parent bulb, the flower stalk, and the string-like strand fade, wither, and crumble into dead tissue. The bulblets persist beneath the leaf litter and eventually grow as a surface plant the next spring. This process is very like that of *Allium canadense* (wild garlic) except that *A. canadense* does this entirely above ground, elevated and perched on the top of the flower stalk. When the *Allium* plant stalk withers, the bulblets fall to the ground. When the *Erythronium* plant withers, the bulblets are already covered by leaf litter and some soil.

The lateral strand growth of *E. americanum* bulblets usually follows the ground surface, separating the leaf litter from the mineral soil. They grow like roots, growing where penetration is easy. Sometimes that takes them upward and a strand will poke through the leaf litter, exposing it to the atmosphere. This exposed portion of the strand is the spring curl. Once exposed, they grow in loops and open circles on the ground until the growing tip lodges and the strand can grow back into the ground. However, growing upward exposes a one to three inch string-like strand that remains visible. By late spring the bulblet is set in a new location near the parent bulb and is independent. Lacking chlorophyll-bearing tissue at this stage, it is doubtful that the bulblet will continue growth during the summer. However, I wonder if the now separated bulblet puts out tissue filaments to take in some nutrients from the surrounding litter as well as to store water.

As noted in my 2019 discussion, each of the plants that produce bulblets generates multiple bulblets from the parent, from one to four bulblets



that remain in place until the next spring when each of them can grow and produce a surface plant and flower. If all the new bulblets grew flowers, there would be a tripling or more of flowers. That is not what happens; the actual show of flowers is little different from previous years. Non-survival of many bulblets probably accounts for much of the moderated show of flowers during the next spring, but the lower rate of flowering suggests the possibility of another yearly phase of growth where the bulblet grows into a larger bulb without flowering; a yearly phase that doesn't flower or produce bulblets. Bulbs that produce flowers are larger than the bulblets, so an additional year of spring growth would enable them to flower immediately at the beginning of spring the following year. This is speculative but is consistent with reports of multiyear life for plants of the species before producing seeds. Monitoring these plants in a natural setting to test this idea would be a years-long project involving relocating multiple tagged plants with no surface growth to make it simple.



Figure 5. Cluster of four spring curls of an *E. americanum* plant beside a birch root partly exposed on the cut bank of a road. One curl did not form a bulblet, two curls formed bulblets but failed to insert them into the ground, leaving the bulblets exposed at the surface, and one curl managed to insert enough to form a bulblet within the soil. The withered brown leaves are from nearby *E. americanum* plants.

If vegetative reproduction is so extensive, what about seed production to perpetuate the species?

My walk through the woods revealed many hundreds of fading leaves of *E. americanum*, but only seven seed capsules were noticed. They were still green, indicating seeds that had been produced this spring (Figure 6). Most plants produce only one leaf but the seed producers had two large leaves. From my observations, the ratio of vegetative plants to seed-producing plants was about 500 to 1 (or even more). Four of the seven seed capsules occurred close together in a small cluster of plants. This is unusual and I suspect all four grew from the same ancestor plant, growing through the generations simultaneously and reaching seed stage at the same time.



Figure 6. *E. americanum* with seed pod on flower stalk. Note the pair of large leaves that remain green as the seeds mature. Leaf is 2 cm wide at midpoint.

Despite the meager production of seed, trout lilies are common in this area of long established second growth tree coverage and they manage to get distributed into new areas. On a separate land parcel nearby some trout lilies occur on a dirt roadway that had been cleared 10-15 years ago before being left to nature's control. The adjoining woods do not contain notable populations of the species; apparently, they have not yet colonized this younger, second growth woodland. I suspect there is too much competition from other colonizing plants on this lot to provide the conditions and space needed by *E. americanum* to grow well. The roadway colonization might have occurred by bulblets being carried in dirt and deposited on the road, but it is more likely that it occurred by the distribution of seeds. Dirt roads,



especially those that remain unused after being made, are great places for species to colonize. They provide an area with good sunlight exposure and loose dirt on which to establish roots.

There is much to learn about trout lily reproduction in wild conditions, and these woods provide good study sites to gather that data. Gathering the seeds and planting them in a nursery setting is fine, but monitoring the wild growth would provide more useful data. That means tagging and following the generations of specific plants to determine survival rate and noting disruptions that are the norm in wild growth. A goal would be to record how many generations occur from seed-bearing to the next seed-bearing growth. Observational work like that is always enjoyable, although it is more challenging with plants that disappear in the ground for much of the year!

Reference:

Yancey, T. 2019. Trout Lily, *Erythronium americanum*, New York Flora Association Newsletter. 30 (2): 1-4.



Field Trip: Flora of Lorraine Gulf, May 19

by Siela Rae Zembsch, photos by Robert Wesley

On May 19th, ten plant enthusiasts gathered on the side of the road in the small town of Lorraine, decked in rubber boots and eager to begin exploring the botanical wonders of Lorraine Gulf. We were especially hoping to see bird's-eye primrose (*Primula mistassinica*) in bloom. This S2 species, listed as threatened in New York State, thrives on cool, calcareous, north-facing cliffs and is in its southernmost range in Lorraine. Seeing it would be a first for many of us. After a brief round of introductions, we climbed back into our cars and followed Robert Wesley, our trip leader, to a dead-end street to park and head in.

Following a short, steep descent, we found ourselves on the pebbly bank of Abijah Creek, in the refreshing shade of the gorge. Surprisingly clean-edged, stair-like rocks framed the edges of the water. Immediately, we began discussing almost every species we noticed – the beautiful green-and-black inflorescences of twisted sedge (*Carex torta*), the textured snakeskin liverwort (*Conocephalum salebrosum*) layered across the rocks, and the flowering fireworks show of miterwort (*Mitella diphylla*) under a hand lens.



As we inched along, assuming a standard botanist's pace, we began to encounter steeper, taller gorge walls. It was so easy to become enthralled by the details of the plants we were discussing, or to get lost in the microtopographies of the rock walls next to us, that looking up and refocusing on the larger landscape felt like a wonderful scale shock. Many times throughout the trip, we admired the way these sandstone/siltstone walls turned at nearly perfect right angles – and we were lucky enough to have a geologist, Fred Haynes, in our group to explain just how this was possible.



It was shortly after our brief geology lesson that we found an ideal lunch spot in one of the gorge's dramatic twists, on a wide swath of rocky bank. Many of us didn't stay seated for long. There was a lush wall of stairstep moss (*Hylocomium splendens*) to examine on the rock behind us, several jack-in-the-pulpits (*Arisaema triphyllum*) to admire, and a flowering plant on the slope ahead of us to identify through binoculars (we soon determined that it was large-leaved aster, or *Eurybia macrophylla*). And, of course, there was the promise of *Primula* ahead.

The remainder of our trek to *Primula* was filled with many insightful discussions and questions, more stream crossings than I can remember, a few plant tastings, and one particularly memorable mnemonic for bedstraw ("Sticks to your hiney? Must be *aparine*!"). Just around 2:30 PM, we reached a calcareous slope, slowly dripping with water, filled with fleabane (*Erigeron* sp.) and shrubby cinquefoil (*Dasiphora fruticosa*). And there, almost too small to see at first, were the delicate flowers of *Primula mistassinica*! Everyone took their turns admiring and photographing the species. As soon as we knew what to look for, we began spotting more and more on the slope. Although perhaps easy to miss from a distance, *Primula mistassinica* is radiant when viewed up close. Its tubular flowers consist of five notched lobes, positioned at the top of a naked stem. Though their color can vary, these flowers were light pink. They faded to white at their center, and a brilliant yellow ring surrounded the opening to the flowers' tubes.

After everyone had gotten their time with the flowers, we had a decision to make: even though it would mean getting back late, would we keep walking to find an even denser patch of *Primula*? Or was it time to turn around? Because of scheduling needs, we decided to start making our way back to the cars. We took a few final photos and started on our way, stopping every once and a while to examine species that we'd



overlooked on our first time through. Even though we'd only come about a mile (that botanist's pace!), we were all beginning to feel the fatigue of a successful day in the field.

Then, about 30 minutes into our walk back, we spotted something that picked our feet up again. On a tall, flat, seepy rock facade – one that we'd passed earlier, but apparently not paid enough attention to – was a familiar face: *Primula*! *Much* more *Primula*, in fact. We were in awe – everywhere we looked, another one! The entire rock face was spotted. Interestingly, these flowers were not light pink, but completely white. We lined up close to the rock, our noses nearly against it, admiring and photographing and discussing. How could we have missed these this first time? If we *had* spotted it, though, as one group member pointed out, we may have turned around before spotting our pink *Primula* flowers. We were lucky enough to see both.



We eventually managed to pull ourselves away from the wall and started heading back again. Before we knew it, we were back where we started. Re-emerging from the woods, to the sight of the road and our parked cars, felt a bit like stepping back into reality from some sort of magic portal. Lorraine Gulf, truly, is a magical place – a place where botanical and geologic wonder abound. Thank you, Robert, for sharing your wealth of knowledge with us on this trip, and to everyone who was able to come out and share a day of curiosity and discovery.

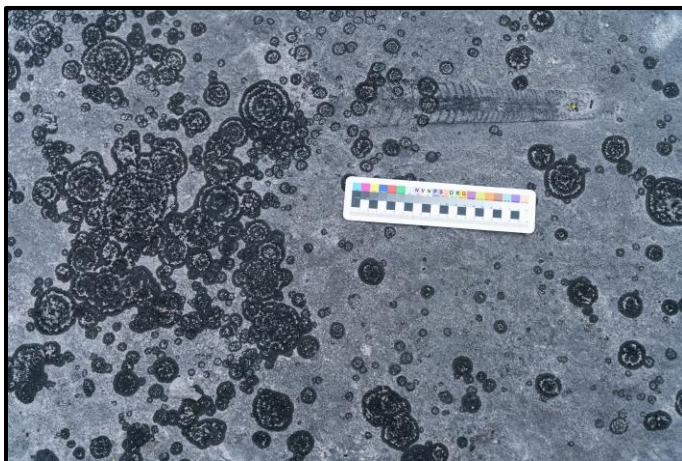


NYFA Trip to Three Mile Creek Barrens, June 8, 2024

by Bernie Carr

Four years ago, during “covid summer”, I visited this alvar with Steven Daniel, Anne Johnson, and some friends from Syracuse. I remembered seeing a few rare grasses, fragrant sumac (*Rhus aromatica*), New Jersey Tea (*Ceanothus herbaceus*), and Crawe’s sedge (*Carex crawei*), and was eager to revisit the site. I was lucky enough to move up on the waitlist for this field trip, as there were a number of last-minute cancellations; luckily for me, not everyone could drop everything and head up to Jefferson County on short notice.

We arrived at the alvar after two days of heavy rain; temperatures were cool and skies were overcast. If you are going to visit an open barrens habitat on limestone bedrock, this was the perfect weather to do so. Thirteen participants joined our leaders Steven Daniel and Anne Johnson. After getting out of our cars, Dr. Bruce Gilman gave us a quick introduction to alvars. They were scraped by glaciers and the soil removed down to the limestone bedrock. Since the glaciers retreat, only a very shallow layer of soil has accumulated on much of this community, leaving a landscape of pavement and deep crevasses (also known as grykes). Alvars are subject to extremes of wet and dry periods; big pools form after winter precipitation and heavy rains, and droughty conditions can set in during the intense summer heat. This type of alvar in New York is restricted to a limited area near Lake Ontario in northern Jefferson County.



The alvar also contained nice cephalopods. Photo by Mark Sascha.

Everyone was eager to get going to see some of the alvar plants. We didn’t get more than ten feet from the vehicles when we found our first state listed (S3) species, small skullcap (*Scutellaria parvula* var. *parvula*) in flower. There were so many interesting alvar species between the roadside and a wooded area that it took over a half an hour to move another ten feet and get into the woodland.

Of course, you also can’t move more than 100 feet on an alvar without questioning a sedge identification. Steven Daniel and others puzzled over clumps of rich woodland sedge (*Carex gracilescens*) as they did not exhibit the characteristic red at the base. Apparently, this specimen didn’t read the key, as its basal sheaths were more brown than they were red. Eventually, however, Steven did find some that clearly showed the red on the lower sheath. After this we then had a nice side-by-side comparison of Crawe’s sedge, a state threatened species (S2) that was quite abundant here, and the somewhat similar and more common limestone meadow sedge (*Carex granularis*).

Once again, we didn’t get terribly far when Bob Wesley stopped to ponder a heal-all (*Prunella vulgaris*), a common yard and roadside non-native. He pointed out that the specimens we were seeing didn’t conform to the typical non-native profile. The spacing of the leaves on the stalk and the narrow leaves were suggestive of the native variety, *Prunella vulgaris* var. *lanceolata*.



The *Prunella* in question. Photo by Robert Wesley.

Next was a quick look, with no disagreements, at broad-leaved witch-grass (*Dichanthelium latifolium*). Nearby were another two



Dichanthelium that we just walked past. The legend has it that noted agrostologists, A. S. Hitchcock and Agnes Chase, were credited with naming a new species of *Panicum* every day when they went to lunch.

A couple of participants who were peering closely at the ground spotted a minute thalloid liverwort in the genus *Riccia*. They called Adam Storey, a visiting bryologist from the Canadian Museum of Nature, over, and he discussed the finer points of identification and his ongoing search for other minute and overlooked bryophytes. After the trip, he provided us with a list of 66 bryophytes, 13 liverworts, nine lichens, an alga, and a cyanobacteria.



Studying a liverwort. Photo by River Santana.



The liverwort in question. Photo by Mark Sacha.

Luckily, we also had some nice showy herbaceous species to grab our attention. Most amazing was the large number of white death camas (*Anticlea elegans* var. *glauca*), a state threatened (S2) species in good flower. Wood lily (*Lilium philadelphicum*) was also quite abundant and in its full brilliance throughout the alvar.



Field full of *Anticlea*. Photo by Mark Sacha.



Anticlea inflorescence, photo by Robert Wesley.

What was most impressive to me was the knowledge and enthusiasm of the “young” botanists on the trip. We were lucky to have at least four young botanists: Adam Storey, Katie Beeles, Mark Sacha, and Sarah Stebbins, all of whom were enthusiastic participants and made great contributions.

We didn’t look just at plant life; Steven Daniel spotted the globally vulnerable (G3) and state rare (S1) mottled duskywing (*Erynnis martialis*) which here occurs with its host plant, the narrow leaved New Jersey tea. And there was a variety of bird



species including prairie warbler, field sparrow, brown thrasher, and Baltimore oriole.

The last state rare (S3) plant of the day was rock elm (*Ulmus thomasii*) spotted in the forest on the way out. The property we visited is owned by the Nature Conservancy and the neighboring property is fortunately protected by a conservation easement held by the OBI Land Trust. Special thanks to Lee Ellsworth, an OBI volunteer who monitors the property and accompanied us on the field trip. All in all, it was a great day, full of many things to explore and look at.



Mottled Duskywing. Photo by Steven Daniel.



Exploring a crevice. Photo by Sara Stebbins.



Some of the group taking a break in a crevice. Photo by Robert Wesley.



Three Mile species lists. An asterisk (*) indicates a non-native species. Not all species were seen on this field trip, some were recorded on previous visits to the site.

Ferns

Spleenwort, Ebony	<i>Asplenium platyneuron</i>
Spleenwort, Maidenhair	<i>Asplenium trichomanes</i> ssp. quadrivalens
Fern, Fragile	<i>Cystopteris fragilis</i>
Wood fern, Marginal	<i>Dryopteris marginalis</i>
Fern, Sensitive	<i>Onoclea sensibilis</i>
Polypody, Common	<i>Polypodium virginianum</i>
Fern, Marsh	<i>Thelypteris palustris</i> var. pubescens

Graminoids

*Redtop; Black bent	<i>Agrostis gigantea</i>
Bentgrass; Hairgrass	<i>Agrostis scabra</i>
Side Oats Grama	<i>Bouteloua curtipendula</i> S2
Brome, Fringed	<i>Bromus ciliatus</i>
*Brome, Smooth	<i>Bromus inermis</i>
*Brome, Japanese	<i>Bromus japonicus</i>
Chess, Wild	<i>Bromus kalmii</i>
Grass, Bluejoint	<i>Calamagrostis canadensis</i>
Sedge, White Bear	<i>Carex albursina</i>
Sedge, Golden	<i>Carex aurea</i>
Sedge, Back's	<i>Carex backii</i> S3
Sedge, Round-fruited	<i>Carex brevior</i>
Sedge, Oval Leaved	<i>Carex cephalophora</i>
Sedge, Cone-shaped	<i>Carex conoidea</i>
Sedge, Crawe's	<i>Carex crawei</i>
Sedge, Small-crested	<i>Carex cristatella</i>
Sedge, Ivory	<i>Carex eburnea</i>
Sedge, Slender	<i>Carex gracilescens</i>
Sedge, Graceful	<i>Carex gracillima</i>
Sedge, Granular	<i>Carex granularis</i>
Sedge, Spreading	<i>Carex laxiculmis</i> ssp. <i>laxiculmis</i>
Sedge, Troublesome	<i>Carex molesta</i> S4
Sedge, Peduncled	<i>Carex pedunculata</i>
Sedge, Woolly	<i>Carex pellita</i>
Sedge, Pennsylvania	<i>Carex pennsylvanica</i>
Sedge, Stellate	<i>Carex rosea</i>
Sedge, Slender	<i>Carex tenera</i> var. <i>tenera</i>
Sedge, Fox	<i>Carex vulpinoidea</i>
Woodreed, Drooping	<i>Cinna latifolia</i>
Poverty-grass	<i>Danthonia spicata</i>
Hairgrass, Tufted	<i>Deschampsia cespitosa</i>
Rosette Grass, Woolly	<i>Dichanthelium lanuginosum</i>
Witch Grass, Broad-lvd	<i>Dichanthelium latifolium</i>
Grass, Lindheimer's	<i>Dichanthelium lindheimeri</i>
Spikerush, Flat-stem	<i>Eleocharis compressa</i>
Wheatgrass, Slender	<i>Elymus trachycaulus</i>
*Fescue, Red	<i>Festuca rubra</i> ssp. <i>rubra</i>
Rush, Dudley's	<i>Juncus dudleyi</i>
Rush, Soft	<i>Juncus effusus</i> var. <i>solutus</i>
Rush, Secund	<i>Juncus secundus</i>
Woodrush, Field	<i>Luzula pallidula</i>
Ricegrass, Spreading	<i>Oryzopsis asperifolia</i>

Grass, Panic	<i>Panicum flexile</i>
*Timothy	<i>Phleum pratense</i>
*Bluegrass, Canada	<i>Poa compressa</i>
Bluegrass, Fowl	<i>Poa palustris</i>
*Bluegrass, Kentucky	<i>Poa pratensis</i> ssp. <i>pratensis</i>
Bluestem, Little	<i>Schizachyrium scoparium</i>
Woolgrass; Bulrush	<i>Scirpus cyperinus</i>
Grass, Indian	<i>Sorghastrum nutans</i>
Dropseed, Prairie	<i>Sporobolus heterolepis</i>
Poverty-grass	<i>Sporobolus vaginiflorus</i>

Herbaceous Plants

*Yarrow	<i>Achillea millefolium</i>
Chives, Wild	<i>Allium schoenoprasum</i>
Ragweed	<i>Ambrosia artemisiifolia</i>
Liverleaf	<i>Anemone americana</i>
Thimbleweed	<i>Anemone cylindrica</i>
Thimbleweed	<i>Anemone virginiana</i>
Pussytoes	<i>Antennaria howellii</i> ssp. <i>canadensis</i>
Pussytoes, Plantain-lvd	<i>Antennaria plantaginifolia</i>
Camas	<i>Anticlea elegans</i> var. <i>glauca</i> S2
Indian hemp, Dogbane	<i>Apocynum cannabinum</i>
Columbine, Red	<i>Aquilegia canadensis</i>
Rock-cress, Hairy	<i>Arabis pycnocarpa</i>
Sarsaparilla, Wild	<i>Aralia nudicaulis</i>
*Sandwort, Thyme-leaved	<i>Arenaria serpyllifolia</i>
Milkweed, Swamp	<i>Asclepias incarnata</i>
Milkweed, Common	<i>Asclepias syriaca</i>
*Gromwell, Corn	<i>Buglossoides arvensis</i>
Bluebell	<i>Campanula rotundifolia</i>
*Knapweed, Spotted	<i>Centaurea stoebe</i> ssp. <i>micranthos</i>
*Chickweed, Field	<i>Cerastium arvense</i>
*Chickweed, Mouse-ear	<i>Cerastium fontanum</i>
*Snapdragon, Dwarf	<i>Chaenorhinum minus</i>
Nightshade, Enchanters	<i>Circaea canadensis</i>
*Basil	<i>Clinopodium vulgare</i>
Toadflax, Bastard	<i>Comandra umbellata</i>
*Swallowwort	<i>Cynanchum</i> sp.
Ladyslipper, Yellow	<i>Cypripedium parviflorum</i> var. <i>pubescens</i>
*Queen Anne's lace	<i>Daucus carota</i>
Dragonhead, American	<i>Dracocephalum parviflorum</i> S1
Cinquefoil, Tall	<i>Dryocallis arguta</i>
*Vipers bugloss	<i>Echium vulgare</i>
Willow-herb	<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>
*Helleborine	<i>Epipactis helleborine</i>
Fleabane, Daisy	<i>Erigeron annuus</i>
Daisy fleabane	<i>Erigeron strigosus</i>
Aster, Big-leaved	<i>Eurybia macrophylla</i>
Strawberry, Wild	<i>Fragaria virginiana</i>



Licorice, Wild
 Geranium; Bicknell's
 *Herb-Robert
 Strawberry, Barren
 Sunflower, Woodland
 Bluets, Long-lvd
 *St. John's-wort
 *Peppergrass
 *Daisy, Ox-eye
 Lily, Wood
 *Bird's foot trefoil
 Horehound, Water
 Mayflower, Canada
 Solomon's-seal, Starry
 *Black medick
 *Sweet-clover, White
 Saxifrage, Early
 Partridge Berry
 Indian-pipe
 Forget-me-not, Spring
 Sundrops
 Goldenrod, Upland
 Groundsel, Balsam
 Ginseng, Dwarf
 Beard-tongue
 *King-devil, Glauous
 Orchid, Tubercled
 Snakeroot, Seneca
 *Cinquefoil, Ashy
 *Cinquefoil, Three-lvd
 *Cinquefoil, Rough-fruit
 Cinquefoil, Old-field
 Lion's Foot
 *Heal-all
 Shinleaf
 *Buttercup, Common
 Buttercup, Early
 Raspberry, Red
 Raspberry, Purple flr
 *Sheep sorrel
 Sandwort, Rock
 Sanicle
 Skullcap, Small
 Catchfly, Sleepy
 Blue-eyed grass
 *Nightshade, Deadly
 Goldenrod, Tall
 Goldenrod, Early
 Goldenrod, Rough
 Ladie's-tresses, Case's
 Starwort, Goldie's
 Aster, Heart-leaved
 Aster, Glossy-leaved
 Aster, New England
 Aster, Heath

Galium circaezans
 Geranium bicknellii
 Geranium robertianum
 Geum fragarioides
 Helianthus divaricatus
 Houstonia longifolia
 Hypericum perforatum
 Lepidium densiflorum
 Leucanthemum vulgare
 Lilium philadelphicum
 Lotus corniculatus
 Lycopus americanus
 Maianthemum canadense
 Maianthemum stellatum
 Medicago lupulina
 Melilotus albus
 Micranthes virginensis
 Mitchella repens
 Monotropa uniflora
 Myosotis verna
 Oenothera perennis
 Oligoneuron album **S3**
 Packera paupercula
 Panax trifolius
 Penstemon hirsutus
 Pilosella piloselloides
 Platanthera flava var. herbiola
 Polygala senega
 Potentilla inclinata
 Potentilla norvegica ssp.
 monspeliensis
 Potentilla recta
 Potentilla simplex
 Prenanthes sp.
 Prunella vulgaris
 Pyrola elliptica
 Ranunculus acris
 Ranunculus fascicularis
 Rubus idaeus ssp. strigosus
 Rubus odoratus
 Rumex acetosella ssp. pyrenaicus
 Sabulina michauxii
 Sanicula sp.
 Scutellaria parvula
 Silene antirrhina
 Sisyrinchium montanum
 Solanum dulcamara
 Solidago gigantea
 Solidago juncea
 Solidago nemoralis
 Spiranthes casei
 Stellaria longipes **S2**
 Symphyotrichum cordifolium
 Symphyotrichum firmum
 Symphyotrichum novae-angliae
 Symphyotrichum pilosum var.
 pringlei

Aster, Arrow-leaf
 Poison-ivy
 Pennyroyal, False
 *Clover, Alsike
 Gentian, Horse
 *Mullein
 *Speedwell, Corn
 *Speedwell
 *Vetch, Cow
 *Vetch, Lentil
 Golden Alexanders
Shrubs
 Juneberry, Low
 Bearberry
 Redroot, Prairie

Symphyotrichum urophyllum
 Toxicodendron radicans ssp.
 negundo
 Trichostema brachiatum
 Trifolium hybridum
 Triosteum aurantiacum
 Verbascum thapsus
 Veronica arvensis
 Veronica officinalis
 Vicia cracca
 Vicia tetrasperma
 Zizia aurea
 Amelanchier alnifolia
 Arctostaphylos uva-ursi
 Ceanothus herbaceus **S1**



Ceanothus herbaceus. Photo by Robert Wesley.

Dogwood, Silky
 Dogwood, Gray
 Honeysuckle, Bush
 Juniper, Pasture
 Honeysuckle, Fly
 Honeysuckle, Wild
 Honeysuckle, Hairy
 Cherry, Choke
 Buckthorn, Alder-leaved
 Sumac, Fragrant
 Sumac, Staghorn
 Rose, Smooth
 Willow, Bebb's
 Pussy-willow
 Willow, Slender
 Buffalo Berry
 Snowberry
 Arrowwood
 Nannyberry
 *Cranberry, Highbush
 Arrowwood, Downy
 Prickly ash
Trees
 Maple, Sugar
 Juneberry
 Birch, Gray

Cornus amomum ssp. amomum
 Cornus racemosa
 Diervilla lonicera
 Juniperus communis
 Lonicera canadensis
 Lonicera dioica
 Lonicera hirsuta
 Prunus virginiana
 Rhamnus alnifolia
 Rhus aromatica
 Rhus typhina
 Rosa blanda
 Salix bebbiana
 Salix discolor
 Salix petiolaris
 Shepherdia canadensis
 Symphoricarpos albus
 Viburnum dentatum var. lucidum
 Viburnum lentago
 Viburnum opulus var. opulus
 Viburnum rafinesqueanum
 Zanthoxylum americanum
 Acer saccharum
 Amelanchier sp.
 Betula populifolia



Hickory, Bitternut	<i>Carya cordiformis</i>	Oak, Bur	<i>Quercus macrocarpa</i>
Hickory, Shagbark	<i>Carya ovata</i>	*Buckthorn, Common	<i>Rhamnus cathartica</i>
Ash, White	<i>Fraxinus americana</i>	Cedar, White	<i>Thuja occidentalis</i>
Ash, Black	<i>Fraxinus nigra</i>	Basswood	<i>Tilia americana</i>
Ash, Green	<i>Fraxinus pennsylvanica</i>	Elm, American	<i>Ulmus americana</i>
Butternut	<i>Juglans cinerea</i>	Elm, Rock	<i>Ulmus thomasii</i> S3
Cedar, Red	<i>Juniperus virginiana</i>	Vines	
Hop hornbeam	<i>Ostrya virginiana</i>	Bittersweet	<i>Celastrus scandens</i> S4
Spruce, White	<i>Picea glauca</i>	Carrion-flower	<i>Smilax herbacea</i>
Pine, White	<i>Pinus strobus</i>	Grape, Wild	<i>Vitis riparia</i>
Aspen, Quaking	<i>Populus tremuloides</i>		

Bryophytes (with synonyms), lichens, and algae observed on 8 June. List kindly provided by Adam Storey.

<i>Abietinella abietina</i>	Wiry Fern Moss
<i>Amblystegiaceae</i> sp.	A Wetland Moss
<i>Anomodon minor</i>	Blunt-leaved <i>Anomodon</i>
<i>Atrichum angustatum</i>	Lesser Smoothcap Moss
<i>Aulacomnium palustre</i>	Ribbed Groove Moss
<i>Barbula unguiculata</i>	Prickly Beard Moss
<i>Brachythecium campestre</i>	Field Ragged Moss (<i>Brachythecium salebrosum</i>)
<i>Brachythecium rivulare</i>	River Ragged Moss
<i>Brachythecium</i> spp.	Ragged Mosses
<i>Brachythecium turgidum</i>	Thick Ragged Moss
<i>Bryum argenteum</i>	Silvery <i>Bryum</i>
<i>Callicladium haldanum</i>	Beautiful Branch Moss
<i>Calliergonella lindbergii</i>	Lindberg's Plait Moss (<i>Hypnum lindbergii</i>)
<i>Campyliadelphus chrysophyllus</i>	Bristle Star Moss (<i>Campylium chrysophyllum</i>)
<i>Campylium stellatum</i>	Yellow Star Moss
<i>Ceratodon purpureus</i>	Fire Moss
<i>Claopodium rostratum</i>	Long-beaked <i>Anomodon</i> (<i>Anomodon rostratus</i>)
<i>Climacium</i> sp.	Likely <i>C. dendroides</i> (Northern Tree Moss)
<i>Cololejeunea biddlecomiae</i>	Biddlecome's Pouncewort
<i>Conocephalum salebrosum</i>	Cat-tongue Liverwort
<i>Dicranum flagellare</i>	Whip Broom Moss
<i>Dicranum montanum</i>	Mountain Broom Moss
<i>Dicranum ontariense</i>	Ontario Broom Moss
<i>Dicranum polysetum</i>	Wavy-leaved Broom Moss
<i>Dicranum scoparium</i>	Common Broom Moss
<i>Dicranum viride</i>	Green Broom Moss
<i>Ditrichum pallidum</i>	Pale Cow-hair Moss
<i>Drepanocladus aduncus</i>	Knieff's Hook Moss
<i>Encalypta procera</i>	Spiral Extinguisher Moss
<i>Entodon seductrix</i>	Round-stemmed <i>Entodon</i> Moss
<i>Fissidens adianthoides</i>	Maidenhair Pocket Moss
<i>Fissidens bryoides</i>	Lesser Pocket Moss
<i>Fissidens taxifolius</i>	Yew-leaved Pocket Moss
<i>Flexitrichum flexicaule</i>	Flexible Cow-hair Moss (<i>Ditrichum flexicaule</i>)
<i>Frullania eboracensis</i>	New York Scalewort
<i>Geheebia ferruginea</i>	Rusty Beard Moss (<i>Didymodon ferrugineus</i>)
<i>Hedwigia ciliata</i>	Ciliate Hedwig's Moss
<i>Hedwigia filiformis</i>	Green Hedwig's Moss (<i>Hedwigia integrifolia</i>)
<i>Hygroamblystegium humile</i>	Constricted Feather Moss (<i>Hygroamblystegium varium</i> var. <i>humile</i>)
<i>Leucobryum glaucum</i>	White Pincushion Moss
<i>Lewinskya</i> cf. <i>speciosa</i>	Showy Bristle Moss (<i>Orthotrichum speciosum</i>)
<i>Lophocolea minor</i>	Lesser Crestwort



Mannia fragrans	Fragrant Macewort
Orthotrichum anomalum	Anomalous Bristle Moss
Orthotrichum cf. stellatum	Star Bristle Moss
Physcomitrium pyriforme	Pear-shaped Urn Moss
Plagiomnium cuspidatum	Woodsy Leafy Moss
Plagiomnium sp.	A Leafy Moss
Pleurozium schreberi	Red-stemmed Feather Moss
Polytrichum juniperinum	Juniper Haircap Moss
Polytrichum sp.	A Haircap Moss *Polytrichum-type with marginal teeth)
Porella platyphylla	Wall Scalewort
Pseudanomodon attenuatus	Slender Anomodon Anomodon attenuatus
Pseudoleskeella tectorum	Rooftop Leske's Moss
Ptilidium ciliare	Ciliated Fringewort
Ptilidium pulcherrimum	Tree Fringewort
Ptychostomum creberrimum	Tight-tufted Bryum (Bryum cuspidatum var. lisae)
Ptychostomum pseudotriquetrum	Tall Clustered Thread Moss (Bryum pseudotriquetrum)
Pylaisia sp.	A Pylaisia Moss
Radula complanata	Flat-leaved Scalewort
Reboulia hemisphaerica	Purple-margined Liverwort
Riccia beyrichiana	Purple Crystalwort
Riccia macallisteri	MacAllister's Crystalwort
Scapania sp.	An Earwort
Schistidium crassithecium	Thick-margin Bloom Moss (Male and Female plants!)
Schistidium viride	Dark-green Bloom Moss
Serpoleskea confervoides	Limestone Willow Moss (Platydictya confervoides)
Streblotrichum convolutum	Lesser Bird's-claw Beard Moss (Barbula convolute)
Syntrichia leptotricha	Fine Screw Moss (Barbula leptotricha)
Syntrichia ruralis var. ruralis	Hairy Screw Moss (Tortula ruralis)
Tetraphis pellucida	Common Four-toothed Moss
Thelia asprella	Rough Thelia
Thuidium recognitum	Hook-leaved Fern Moss
"Tortella ""commutata""	Short-leaved Frizzled Twisted Moss (T. tortuosa complex)
Tortella fragilis	Fragile Twisted Moss
Tortella humilis	Small Twisted Moss
Tortella rigens	Stiff Twisted Moss
Ulotia cf. crispula	A Pincushion Moss
Weissia controversa	Green-tufted Stubble Moss
Lichens	
Cetraria arenaria	Sand-loving Iceland Lichen
Cladonia rangiferina	Gray Reindeer Lichen
Cladonia stellaris	Star-tipped Reindeer Lichen
Cladonia spp.	A Reindeer Lichen
Dermatocarpon sp.	A Stippleback Lichen
Placynthium petersii	Peters' Blackthread Lichen
Sarcogyne sp.	A Cobblestone/Grain-spored Lichen
Scytinium lichenoides	Tattered Jellyskin
Thyrea confusa	Jelly-strap Lichen

Algae

Nostoc commune
Trentepohlia aurea



Riccia sp. Photo by Anne Johnson.



New York Flora Association 2024 Annual Meeting

Saturday, September 21, 10 am - 4 pm

<https://nyflora.org/events-directory/2024-nyfa-annual-meeting/>

"Save the Date! - **The New York Flora Association annual meeting** will be held on September 21st from 10am to 4pm at the Ganondagon State Historic Site. Please join us to honor our Native Plant Conservationist of the Year, Bruce Gilman. The meeting will also feature Steve Young's Plant quiz, lunch and plenty of botanizing! Additional details and RSVP will be sent in the coming months.



Message from the President

Dear NYFA Members and Friends,

I just attended a pollinator festival hosted by ADK Action on the Uihlein Foundation property in Lake Placid. Interest is growing quickly for more information about native plant species ecology, ecotypes, seed and other propagule sources, and their potential use in our landscaping plans. It's an exciting time for those of us trying to escape the tyranny of the lawn! NYFA is dedicated to helping people learn about the wild plants of NYS and to promoting the conservation of our native species. One way we do that is by maintaining the NYFA Atlas. It is the go-to place for information about plant distribution, nativity, ecology and rarity status in NYS.

For those interested in all aspects of native species, there has been a lot of discussion and confusion regarding ecoregions, ecosystems, ecotypes, etc. Steve Young sent me a couple of links that I share here with you that help answer some of those questions: <https://www.youtube.com/watch?v=B3RoYYd5Zk0>
<https://www.nativeplanttrust.org/northeast-seed-network/>

In closing, I hope you can take advantage of some of our field trips this summer and, as always, if you have any comments, suggestions or questions, please don't hesitate to contact me.

Yours botanically, Dan Spada

Support the Atlas



Support the NY Flora Atlas!

[Become an Atlas Sponsor](#)





The impressive landscape at Three Mile Alvar. Photo by Sara Stebbins.



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Check out what's on our website www.nyflora.org and blog: www.nyfablog.org



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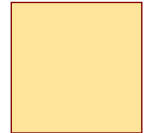
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We are only accepting credit card payments through PayPal at this time. If you would like to use a credit card, please use the link on our website: <http://www.nyflora.org/membership/>

If by check, mail with form to: Treasurer, NY Flora Association, 17 Quail Path, Liverpool, NY 13090

Thank you for supporting NYFA and the flora of New York State

**NY Flora Association
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