

**New York Flora
Association Newsletter
Fall 2025**

Editor's Note: NYFA had a busy summer field season with many well attended field trips and workshops this year. This issue of the newsletter contains reports on six of them, as well as a report on a project the Adirondack Botanical Society took on this past spring: checking some populations of blue cohosh in an attempt to determine the distribution of the two species in New York, and hoping that it encourages others to be ready to get out and look first thing in the spring and report what you find (via specimens, or on iNaturalist).

Articles Inside:

| | |
|---------------------|----|
| Sedge Workshop | 1 |
| President's Message | 2 |
| Inland Salt Marsh | 3 |
| Muller Pond Trip | 7 |
| Fern Workshop | 9 |
| Caulophyllum Report | 12 |
| Tug Hill Trip | 14 |

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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.

Sedge Workshop: June 12-15, 2025

by George Moxham, photos by Fred Haynes



In the field at German Cross Road.

This workshop was led by David Werier, with the capable assistance of Kyle Webster. Our group met in the evening of Thursday, June 12 at Cornell University's Bailey Hortorium in Ithaca. We were a mixed group of professional and amateur botanists. David first reviewed the terminology and classification of sedges, then guided us through his key with some selected specimens.

We were in the field all day Friday, since rain was expected for the rest of the weekend. We met at the Ithaca College Natural Lands in South Hill. The habitats in this area included meadows with shallow and deep soil, dry woods, and wooded and open wetlands. There was a corresponding variety of sedge species: *Eleocharis tenuis* in the shallow soil meadow, *Carex pensylvanica* and *C. grisea* in the dry woods, and more. After the field work, we met for a group dinner at a Thai restaurant, followed by a lab session to practice keying out species from the plentiful specimens provided, in addition to any we brought ourselves.



Carex grisea (left) and *Carex plantaginea* (right).

Saturday began in the lab, keying more species. We met for lunch at Jennings Pond in Danby. After lunch, field work began with the emergent species at the pond edge. We encountered two species of *Schoenoplectus* there, enabling us to compare the soft stem of *S. tabernaemontani* to the hard round stem of *S. acutus*. We followed the trail around the pond edge into a mature forest. There, we found woodland species including *Carex pedunculata*, *C. albursina*, *C. plantaginea*, and *C. hitchcockiana*. Closer to the pond, we saw wetland edge species like *Carex disperma*, and shallow water species such as *Dulichium arundinaceum* and *Carex laevivaginata*. After dinner at an Indian restaurant, we returned to the lab for more keying.

Sunday found us at Treman State Park in Ithaca, along with many runners participating in a race. We

saw an extensive patch of the non-native invasive *Carex hirta* as well as natives *Carex grayi* and *Scirpus atrovirens* in wet meadows in the park. We continued our field work at a private property on German Cross Road in Ithaca, studying several species in a rich forest, such as *Carex amphibola*, and in a wet meadow, such as *Carex granularis*. After lunch in the woods, we returned to the lab for another hour of independent work to conclude the workshop, with an optional field trip for a few more species.

Thanks to the untiring efforts of David and Kyle, we became acquainted with a number of sedge species, as well as the characters of the genus, subgenus and section, both in the lab and in the field. We visited a wide variety of interesting habitats. And we ate well!

The Sedges (Note: for species in the genus *Carex*, the section follows in parentheses.)

| | | |
|--|--|--|
| <i>Carex albursina</i> (Laxiflorae) | <i>Carex hirta</i> (Carex) | <i>Carex scoparia</i> (Cyperoideae) |
| <i>Carex amphibola</i> (Griseae) | <i>Carex hirtifolia</i> (Hirtifoliae) | <i>Carex sparganioides</i> |
| <i>Carex annectens</i> (Multiflorae) | <i>Carex hitchcockiana</i> (Griseae) | (Phaestoglochin) |
| <i>Carex atherodes</i> (Carex) | <i>Carex hystericina</i> (Vesicariae) | <i>Carex stipata</i> (Vulpinae) |
| <i>Carex atlantica</i> ssp. <i>atlantica</i> (Stellulatae) | <i>Carex intumescens</i> (Lupulinae) | <i>Carex swanii</i> (Porocystis) |
| <i>Carex blanda</i> (Laxiflorae) | <i>Carex lacustris</i> (Paludosae) | <i>Carex tenera</i> (Cyperoideae) |
| <i>Carex bromoides</i> (Deweyanae) | <i>Carex laevivaginata</i> (Vulpinae) | <i>Carex trichocarpa</i> (Carex) |
| <i>Carex brunnescens</i> (Glaeosae) | <i>Carex laxiflora</i> (Laxiflorae) | <i>Carex vulpinoidea</i> (Multiflorae) |
| <i>Carex careyana</i> (Careyanae) | <i>Carex laxiculmis</i> var. <i>laxiculmis</i> (Careyanae) | <i>Carex willdenowii</i> (Phyllostachys) |
| <i>Carex comosa</i> (Vesicariae) | <i>Carex leptalea</i> (Leptocephalae) | <i>Dulichium arundinaceum</i> var. |
| <i>Carex crinita</i> var. <i>crinita</i> (Phacocystis) | <i>Carex lucorum</i> (Acrocystis) | <i>arundinaceum</i> |
| <i>Carex diandra</i> (Heleoglochin) | <i>Carex lupulina</i> (Lupulinae) | <i>Eleocharis elliptica</i> |
| <i>Carex disperma</i> (Dispermae) | <i>Carex lurida</i> (Vesicariae) | <i>Eleocharis erythropoda</i> |
| <i>Carex flacca</i> (Thuringiaca) | <i>Carex normalis</i> (Cyperoideae) | <i>Eleocharis palustris</i> |
| <i>Carex flava</i> (Ceratocystis) | <i>Carex pedunculata</i> (Clandestinae) | <i>Schoenoplectus acutus</i> |
| <i>Carex folliculata</i> (Rostrales) | <i>Carex pennsylvanica</i> (Acrocystis) | <i>Schoenoplectus tabernaemontani</i> |
| <i>Carex glaucodea</i> (Griseae) | <i>Carex plantaginea</i> (Careyanae) | <i>Scirpus atrovirens</i> |
| <i>Carex gracillima</i> (Hymenochlaenae) | <i>Carex platyphylla</i> (Careyanae) | <i>Scirpus cyperinus</i> |
| <i>Carex granularis</i> (Granulares) | <i>Carex radiata</i> (Phaestoglochin) | <i>Scirpus hattorianus</i> |
| <i>Carex grayi</i> (Lupulinae) | <i>Carex retroflexa</i> (Phaestoglochin) | <i>Scirpus pendulus</i> |
| <i>Carex grisea</i> (Griseae) | <i>Carex rosea</i> (Phaestoglochin) | <i>Trichophorum planifolium</i> |
| <i>Carex hirsutella</i> (Porocystis) | <i>Carex scabrata</i> (Anomalae) | |

Message From the President – 9.16.25

Dear NYFA Members and Friends, I just got back from our annual meeting held on Saturday, September 13 at Black Rock Forest. It was a very fine event and I'm sorry that more of you could not join us. NYS is large and travel time from one end to the other is time consuming. That's why we try to move the meeting around the State from year to year. Dr. Linda Rohleder was honored with the Native Plant Conservationist of the Year award. Steve Young's famous botany quiz was delightful. But, to me, the best part of the day was to see how many young folks attended. Even more remarkable was their enthusiasm and botanical competence. Our science/passion is in good hands. I hope you can attend next year. YIB, Dan Spada



Inland Salt Marshes of Central New York Field Trip (July 26, 2025)

by Timothy Tatakis

A group of 14 eager participants explored three inland salt marsh sites in Central New York in late July. This field trip was led by Alex Petzke, a Ph.D. student at SUNY ESF who is studying inland salt marshes. It was a very hot, humid day and the weather, along with the plants seen on this field trip, provided a unique field experience for the trip participants.

The group met at the Howland Island parking lot to begin a hike to the first destination: an inland salt pan on Howland Island. The hike to the site began by walking along some agricultural fields into a mixed field and wooded habitat, then eventually into a nice rich woods habitat at which point the pace of the hike slowed noticeably and the botanizing began in earnest. Some of the interesting plants found in this rich woods included spicebush (*Lindera benzoin*; with at least two flying spicebush swallowtail butterflies noted), carrion flower (*Smilax herbacea*) in fruit (Photo 1), Indian tobacco (*Lobelia inflata*), bladdernut (*Staphylea trifolia*), and several fern species including some very attractive maidenhair fern (*Adiantum pedatum*).



Photo 1. *Smilax herbacea* with immature fruit. Photo by Tim Tatakis.

The group exited the woods and walked along a marsh heavily dominated by *Phragmites* and *Typha*, eventually reaching the first signs of the inland salt pan. Alex pointed out the first of several characteristic salt marsh plants we would be seeing: American salt marsh bulrush (*Bolboschoenus maritimus* ssp. *paludosus*), a rare plant in NY. Alex then pointed out salt-loving spike rush (*Eleocharis parvula*), a diminutive halophyte rarely seen outside of southeastern NY (Photo 2). We then entered a more expansive inland salt pan habitat with plenty of open area (Photo 3). Here Alex described the geology and historical factors that likely contributed to the formation of this very unique habitat. The group then spent some time examining the sparse



but very interesting plants found in the salt pan, which included the aforementioned halophytes along with bearded sprangletop (*Diplachne fusca* ssp. *fascicularis*), seaside orach (*Atriplex prostrata*), and lesser salt marsh sand spurry (*Spergularia marina*).



Photo 2. *Eleocharis parvula*, photo by Tim Tatakis.



Photo 3. Salt pan habitat (trip leader Alex Petzke walking toward camera). Photo by Tim Tatakis.

As we began to exit the salt pan area, small plants of native phragmites (*Phragmites americanus*) were found. The return walk to the parking lot was much slower for most, as fatigue from overheating became a factor. One of the participants proclaimed as we walked, “when you do the write-up for the newsletter, be sure to note that this was an arduous hike!” Arduous indeed, but with making frequent stops for heat



breaks and taking some time to talk botany as we did so, the group successfully completed the return journey to the parking lot.

The second site visited was a short drive to the Carncross Inland Salt Pond Preserve. Here the group was treated to a large population of swamp rose mallow (*Hibiscus moscheutos* ssp. *moscheutos*), with many in bloom (Photo 4). Alex mentioned that he could likely find some vegetative annual salt marsh aster (*Symphyotrichum subulatum* var. *subulatum*) growing in this particular site, but that we would likely see that plant at our third site (he was right!).



Photo 4. *Hibiscus moscheutos* ssp. *moscheutos*, photo by Tim Tatakis.

After a refreshing break in an air-conditioned convenience store in Savannah, a subset of the original group drove to the third and final site. This site was a “constructed inland salt marsh” located southeast of Savannah. Several years ago, a salt spring was discovered in this open field habitat and researchers, developed a project in which this habitat is intentionally flooded with salt water periodically. The result is a constructed salt marsh habitat, perhaps the first of its kind in the U.S. This project has been ongoing for several years, and during that time, researchers have planted some salt tolerant species there. Alex was keen to observe their progress as he led us through the habitat. Some of the plants observed included black grass (*Juncus gerardi*) along the path leading to the site and bearded sprangletop (*Diplachne fusca* ssp. *fascicularis*), salt marsh aster, salt grass (*Distichlis spicata*), and seaside goldenrod (*Solidago sempervirens*) in the constructed area. Interestingly, Alex noted that some salt tolerant plants have appeared in the habitat “on their own” (they were not planted). Perhaps the most notable species to do this was some salt marsh bulrush. How did it get there? We pondered that question as the field trip reached its end. It was a long, hot day, but well worth the effort to visit these globally rare habitats and to botanize with a terrific group of people.

The following page contains a list of plants observed throughout the day, including contributions sent in from several of the field trip participants after the trip:



- Actaea pachypoda* (white baneberry)
Actaea rubra (red baneberry)
Adiantum pedatum (maidenhair fern)
Agrostis stolonifera (creeping bent)
Alisma sp. (water plantain)
Amauropelta noveboracensis (New York fern)
Ambrosia artemisiifolia (common ragweed)
Ambrosia trifida (giant ragweed)
Amphicarpaea bracteata (hog peanut)
Anemone virginiana (tall anemone)
Asclepias incarnata (swamp milkweed)
Asclepias syriaca (common milkweed)
Atriplex prostrata (seaside orach)
Boehmeria cylindrica (false nettle)
Bolboschoenus maritimus ssp. *paludosus* (American saltmarsh bulrush)
Bromus pubescens (Canada brome)
Carya cordiformis (bitternut hickory)
Carya ovata var. *ovata* (shagbark hickory)
Caulophyllum thalictroides (blue cohosh)
Circaea canadensis (eastern enchanter's nightshade)
Clinopodium vulgare (wild basil)
Collinsonia canadensis (horsebalm)
Daucus carota (wild carrot)
Diplachne fusca ssp. *fascicularis* (bearded sprangletop)
Distichlis spicata (salt grass)
Echinochloa crus-galli (Eurasian barnyard grass)
Eleocharis parvula (salt-loving spike rush)
Equisetum arvense (field horsetail)
Equisetum hyemale ssp. *affine* (common scouring rush)
Fragaria vesca (woodland strawberry)
Fraxinus nigra (black ash)
Fraxinus pennsylvanica (green ash)
Galium album (hedge bedstraw)
Geranium robertianum (herb Robert)
Heliopsis helianthoides (oxeye)
Hibiscus moscheutos ssp. *moscheutos* (swamp rose mallow)
Hylodesmum glutinosum (pointed-leaved tick trefoil)
Hypericum punctatum (spotted St. John's wort)
Impatiens capensis (spotted jewelweed)
Juncus gerardi (black grass)
Lindera benzoin (spicebush)
Lobelia inflata (Indian tobacco)
- Lysimachia ciliata* (fringed loosestrife)
Matteuccia struthiopteris (ostrich fern)
Menispermum canadense (moonseed)
Microstegium vimineum (Japanese stilt grass)
Morus alba (white mulberry)
Onoclea sensibilis (sensitive fern)
Oxalis sp. (yellow wood sorrel)
Persicaria virginiana (jumpseed)
Phragmites americanus (American reed grass)
Phragmites australis (Old World reed grass)
Phytolacca americana (pokeweed)
Pilea sp. (clearweed)
Platanus occidentalis (eastern sycamore)
Podophyllum peltatum (may apple)
Polystichum acrostichoides (Christmas fern)
Prunella vulgaris (selfheal)
Puccinellia distans (European alkali grass)
Quercus muehlenbergii (chinquapin oak)
Rhus typhina (staghorn sumac)
Rosa multiflora (multiflora rose)
Saururus cernuus (lizard's tail)
Schoenoplectus acutus (hard-stemmed bulrush)
Smilax herbacea (common carrion flower)
Solidago gigantea (swamp goldenrod)
Solidago sempervirens (seaside goldenrod)
Spergularia marina (lesser saltmarsh sand spurry)
Spergularia media (greater saltmarsh sand spurry)
Sporobolus michauxianus (prairie cordgrass)
Stachys sp. (hedge nettle)
Staphylea trifolia (bladdernut)
Symphotrichum lateriflorum (calico aster)
Symphotrichum subulatum (annual saltmarsh aster)
Symplocarpus foetidus (skunk cabbage)
Teucrium canadense (American germander)
Thalictrum pubescens (tall meadow rue)
Torilis japonica (erect hedge parsley)
Trifolium pratense (red clover)
Triosteum sp. (horse gentian)
Typha angustifolia (narrow-leaved cattail)
Ulmus sp. (elm)
Vincetoxicum sp. (swallowwort)
Vitis riparia (river grape)
Xanthium strumarium (cocklebur)



The salt pan. Photo by Alex Petzke.



NY Flora Association – Muller Pond Trip (July 6, 2025)

by Mike Corey

It would be tough to come up with a better day than July 6 for a trip to a fine pond fringed by a boggy wetland with a pretty substantial bog mat. The day was warm and sunny, and the ten folks who took advantage of the weather had a good morning and early afternoon paddling Muller Pond (in the Town of Schroon, Essex County) in order to gain access to the bog mat and pond plants that live and thrive there.

After gathering at a common meeting place in Minerva, the group traveled northeasterly to find good parking off the road at a site that was a couple hundred yards from the pond put-in spot. Muller Pond is surrounded by NYS land, and lies near an Essex County road. Despite the nearness to that road and the houses not far away, you get the sense that you are a great distance from any sign of the hustle and bustle of human life.

The group took their lightweight vessels and paddled off to some of the fringy bog areas, then visited a pretty large mat located west (opposite) of the put-in location. There are streams that feed into Muller Pond, as well as an outlet, so the habitat could more properly be called a fen as opposed to a bog; the species of plants present here also indicate that the Muller Pond fringe wetland could be called a medium to poor fen.



Perusing the aquatics at Muller Pond.

In addition to a good diversity of *Sphagnum* species and other bryophytes, a great variety of vascular plants were found and documented on this trip, mostly of a typical bog mat nature, but other, a bit more unusual. The shallow waters around the pond also showed a great diversity of flowering plants. Meanwhile, critters were noted, including a pair of loons, and two flavors of frogs, green and mink, as well as a stunning leech. Note: leeches are recognized as an indicator of good water quality.





Exploring the mat.

After a period of getting wet while wandering around on the mat, the group met for lunch in their vessels in the shade of trees on a small island near the west side of the pond. All seemed to agree that it was a good trip. Thanks to all who came on the trip, and thanks to the folks familiar with the plants, who helped identify them for all.

The following is a list of the plants noted (and a few animals) in and around Muller Pond.

Mosses/Liverworts

Sphagnum spp., Peat mosses
Ptychostomum pseudotriquetrum, Long-leaved thread moss
Callicladium haldanianum, Yellow sword moss
Calliergon cordifolium, Heart-leaved spear moss
Fuscocephaloziopsis connivens, Liverwort
Lophozia sp., Liverwort
Pellia epiphylla, Ribbonwort
Pallavicina lyellii, Common Pellia liverwort

Lichens

Usnea sp., Beard lichen
Cladonia sp., British soldiers
Calicium sp., Stubble lichen

Animals

Gavia immer, Common loon
Ischnura verticalis, Eastern forktail damselfly
Leucorrhinia frigida, Frosted whiteface dragonfly
Lithobates clamitans, Green frog

Lithobates septentrionalis, Mink frog
Macrodella decora, North American medicinal leech
Tetragnatha elongata, Elongate stilt spider

Vascular Plants

Acer rubrum var. *rubrum*, Red maple
Alnus incana ssp. *rugosa*, Speckled alder
Andromeda polifolia var. *latifolia*, Bog rosemary
Brasenia schreberi, Water shield
Calopogon tuberosus var. *tuberosus*, Grass pink
Carex billingsii, Billings's sedge
Carex exilis, Meager sedge
Carex lasiocarpa ssp. *americana*, Woolly-fruited sedge
Carex magellanica ssp. *irrigua*, Bog sedge
Chamaedaphne calyculata, Leatherleaf
Comarum palustre, Marsh cinquefoil
Drosera intermedia, Spatulate-leaved sundew
Drosera rotundifolia, Round-leaved sundew
Dulichium arundinaceum, Three-way sedge
Eriophorum vaginatum, Tussock cotton grass



Eriophorum virginianum, Tawny cotton grass
Hypericum fraseri, Fraser’s marsh St. Johnswort
Hypericum cf. boreale, Northern St. Johnswort
Ilex verticillata, Winterberry holly
Kalmia angustifolia var. *angustifolia*, Sheep laurel
Larix laricina, Tamarack
Lobelia dortmanna, Water lobelia
Lysimachia terrestris, Swamp candles
Menyanthes trifoliata, Bog buckbean
Myrica gale, Sweetgale
Nuphar variegata, Common yellow pond lily
Nymphaea odorata, White water lily
Picea mariana, Black spruce
Pinus strobus, Eastern white pine
Platanthera blephariglottis, White-fringed orchid
Pogonia ophioglossoides, Rose pogonia
Pontederia cordata, Pickerelweed
Rhododendron groenlandicum, Labrador tea
Rubus hispidus, Swamp dewberry
Sarracenia purpurea, Pitcher plant
Vaccinium oxycoccos, Small cranberry



Sarracenia purpurea ssp. f. *heterophylla*, Pitcher plant – anthocyanin-free.

Fern Workshop, June 20 and 21, 2025

by Tom Kluth, photos by Joe McMullen



An enthusiastic group of aspiring fern botanists, ranging from beginners to advanced learners, gathered at the biology lab at Colgate University for a two-day fern identification workshop led by Dr. James (“Eddie”) Watkins.

The workshop began with a presentation on fern evolution and biology, with special attention to the unique reproduction cycle of ferns. We then moved into the lab for microscope activities highlighting fern reproductive structures and processes. Participants observed fern sori up close, witnessed spores being launched, and even saw eggs and sperm within a droplet of water. An interesting note is that in ferns, meiosis occurs in spore production, so all cells in the gametophyte produced from these spores are haploid.



Eddie Watkins pointing out the triangular pinna shape of crested fern (*Dryopteris cristata*).





Fern gametophyte with emerging sporophyte.

After lunch, we visited the Colgate herbarium to study specimens from the wood fern (*Dryopteris*) complex. We examined diagnostic traits, such as frond shape, hair and scale presence, and sori position. This hands-on review helped prepare us for field identification. Dr. Watkins explained how recognizing traits of sexual species aids in identifying sterile hybrids, which often combine features of both parents — for example, having sori positioned intermediate between the two species.

Later that afternoon, we explored the Colgate University woods and quarry to begin field identification. A major focus was placing ferns into genera based on the number of vascular bundles and arrangement and sori shape and position, typically located on the abaxial (underside) surface of the frond:

- Wood ferns (*Dryopteris* genus) – kidney-shaped indusium
- Spleenworts (*Asplenium* genus) – linear sori
- Northern lady fern (*Athyrium filix-femina* var. *angustum*) – elongated, curved (J-shaped) sori

We also noted examples of fertile–sterile frond dimorphism, such as in the cinnamon fern (*Osmundastrum cinnamomeum*).

The second day began at Clark Reservation State Park near Syracuse, a geologically unique site featuring glacial landforms and limestone cliffs that support diverse fern species. We descended long, steep stairs into the glacial plunge basin, encountering bulblet bladder ferns (*Cystopteris bulbifera*) and maidenhair spleenworts (*Asplenium trichomanes*) on the cliff faces.

The highlight was seeing the famous American hart's-tongue fern (*Asplenium scolopendrium* var. *americanum*), with Joe McMullen sharing the remarkable story of botanist Frederick Pursh's 1807 discovery of this species at Split Rock, just west of Syracuse — the first recorded finding in the United States.





Eddie pointing out traits of Goldie's fern (*Dryopteris goldieana*).

We concluded the workshop at Nelson Swamp, an area rich in both marsh and woodland habitats that encourage hybridization among wood ferns. We applied our herbarium training to identify several sterile *Dryopteris* hybrids in the field, including:

- Boott's wood fern (*Dryopteris* ×*boottii*)
- Triploid wood fern (*Dryopteris* ×*triploidea*)
- Wherry's wood fern (*Dryopteris* ×*neowherryi*)

Between Clark Reservation and Nelson Swamp, the group identified roughly 20 fern species — an inspiring diversity that showcased the richness of the region's habitats.

This workshop provided participants with both the scientific framework and practical skills to recognize fern genera, identify species, and understand the significance of hybridization. It was a rewarding experience that deepened our appreciation for the complexity and beauty of ferns in the wild.



Back row left to right: Tom Kluth, Skye Van Der Laan, George Moxham, Jeff Smith, Mike Oot, and Anthony Weisenbacher
Front row left to right: Joe McMullen, Kathryn Natale, Avalon Bunge, Julie Mundt, Susan Lerner, Jeff Maiorino, and Eddie Watkins. Missing was Sally Hartwick.



Adirondack Botanical Society Blue Cohosh Study

by Ray Curran

In North America, there are two recognized species of blue cohosh: *Caulophyllum thalictroides* (late blue cohosh) and the more recently distinguished *C. giganteum* (giant, or early, blue cohosh). The two species can be found in the same areas but are reproductively isolated by their different flowering times. When *Caulophyllum giganteum* was recognized, LeConte (1985) stated that “the two North American species are sympatrically distributed and reproductively isolated by staggered flowering times”. Reputedly, flowering in *C. giganteum* is “precocious”, that is, the flowers emerge before the leaves are unfolding. On the other hand, the flowering of *C. thalictroides* is “coetaneous”, coinciding with or following leaf development.

Since the distribution of these two species is not well known in the state, we felt additional identifications in our area would help fill this gap, as would an increased verification of already pressed specimens (see Steve Young’s short article in the Fall 2004 newsletter).

To create and test the identification guidelines, about a dozen Adirondack Botanical Society volunteers went to various sites, some reported to have both species, and took progressive measurements of the same plants over time. The observations took place between April 28th and August 5th, primarily in Essex and Franklin Counties in northern New York. Measurements were recorded in a spreadsheet and a collection of images was made for each plant. The study also involved looking at populations in Western New York and Maryland to compare parameters, though these were not part of the initial sampling scheme.

The study found significant variation in measurements, but it did appear that most, if not all, plants in the Adirondacks are the early blue cohosh, *Caulophyllum giganteum*. There was a four-week difference in phenology between the various sites sampled, which ranged from the Saratoga area to the shoulder of Whiteface Mountain. Often observers of the same plant could not agree, based on a single observation, if the flowering was “Pre” or “Co.”. Several plants in the Saratoga area may have resembled *C. thalictroides*, but more observations are necessary due to the large variation in parameters, even on a single site. We were only able to visit the Saratoga site once, so multiple observations of the same plants were not possible, and the observed measurements indicated either species as a possibility. While the group was not successful in locating a definite plant of *C. thalictroides*, we were able to document the variation in quite a few populations of *C. giganteum*.

Based on the study's observations and consultation with people who regularly see both species, the most useful characters for distinguishing between the two are:

- Size and shape of the style at the tip of the carpel: in the current study all were less than or equal to 1 mm. *C. giganteum* styles are reportedly longer (about 1–2 mm) whereas *C. thalictroides* styles are stubby (< 1 mm). See Figures 1 and 2.
- Color of the flowers: *C. thalictroides* tending to yellowish-green and *C. giganteum* to purple-brown (though some of our yellow flowered plants were likely *C. giganteum*, contrary to the species description).
- Number of leaflets on the terminal leaf: our study population was fairly consistent with nine leaflets in the terminal leaf, though with a tendency to form multiple-lobed leaflets which occasionally



developed into additional leaflets. *Caulophyllum* plants have multiple compound leaves, usually twice ternate in *C. giganteum*, with a tendency to thrice ternate in *C. thalictroides*. A typical twice ternate leaf would have nine leaflets (*C. giganteum*) and a thrice ternate plant would have 27 (*C. thalictroides*).



Figure 1, left: *C. giganteum* typical styles (photo by Steven Daniel), right: *C. thalictroides* typical styles after petal and sepal drop.

Other differences (not included in this current study) noted in the literature include: leaflet length, number of flowers in the inflorescence, length of peduncles or density of the inflorescence, and sepal length.

We encourage others to look at populations of *Caulophyllum* to aid in determining the distribution of the two species in New York. Our data sheets, summaries, and other background information (e.g. dichotomous keys) are available upon request should others wish to take up the effort in April 2026. Most of these characters can also be observed in carefully taken images with a scale, making the original goal of species determination from a photo "feasible," though it should be noted that the measurements on each plant changed considerably over the observation period. This study should be expanded to areas where both species are known or suspected to exist, for instance the Adirondack Foothills, the St. Lawrence Valley, Western New York, Central/Eastern Vermont, and Ontario. Sampling in areas of species overlap could help eliminate phenological development as an unknown factor.

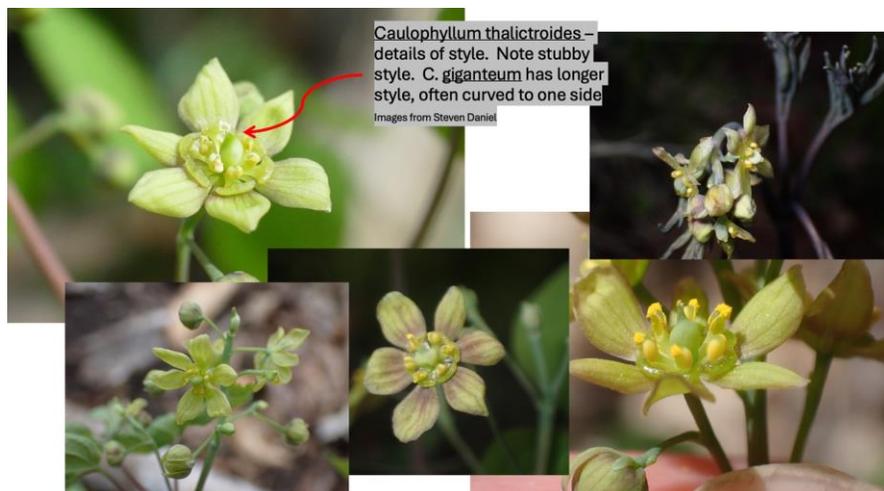


Figure 2. Compilation of *C. thalictroides*.

References

LeConte, H. and W. H. Blackwell. 1985. Intrageneric taxonomy of *Caulophyllum* (Berberidaceae). *Rhodora*. 87: 463-469.
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Field Trip: Revisiting Hotchkiss on the Tug Hill

by F. Robert Wesley

On June 21, 15 very eager botanists led by Steven Daniel and Anne Johnson went out to explore the interior of Tug Hill. We met at an out-of-the-way intersection then headed out to Monteola along an old railroad bed to explore a bog that Neil Hotchkiss had diagrammed and surveyed back in the 1930s. It appeared much as the diagram in his 1932 Tug Hill flora suggested (NYS Museum Bulletin 287), with a floating mat of low, open vegetation surrounding open water: a classic bog. The species composition was typical for that habitat and nothing rare or unusual was observed.

After exploring this spot, we visited another bog nearby, separated only by a small stretch of upland, where we saw *Amelanchier bartramiana* (mountain shadbush) in flower. The second bog was floristically quite similar to the first one, but lacked open water.

As we headed west along the old railroad, the roadsides provided the most exciting finds. We soon came to a small pond with floating rich fen mats. These harbored a variety of species, but most compelling was *Eriophorum tenellum* (slender cotton-grass). Norm Trigoboff was easily persuaded to venture out where no one was sure he could walk without sinking and grab a piece. Nearby, there was *Rhinanthus minor* ssp. *minor* (yellow-rattle) on the roadside, which we stopped at and enjoyed for a bit.



Rhinanthus minor.

A bit farther on, we observed some orchids in the ditch. Many large *Platanthera dilatata* (fragrant white bog orchid) in full bloom—quite showy—and a few *Platanthera aquilonis* (northern bog orchid) as well.



Platanthera dilatata.



Platanthera aquilonis.

We think we were able to find the “marsh meadow” that Hotchkiss referred to in his 1932 publication, but we did not find the *Carex buxbaumii* (Buxbaum’s sedge) that he had reported, nonetheless all seemed to enjoy the search.

After we decided it was time to head back, and had reversed direction, someone spotted some sweet grass (*Anthoxanthum hirtum*) on the roadside, making this the last stop of the day.





The group following in the footsteps of Hotchkiss.



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