NYFA New York Flora Association

Quarterly Newsletter

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New York Flora Association Newsletter Fall 2019

Editor's Note: Our fall issue contains field trip reports, miscellaneous notes of interest, and remembrances of former state botanist Dick Mitchell. I'll add my two cents to our lead article. Dick Mitchell certainly made Nancy Eldblom and me feel welcome as botanists, never treating us as mere dabblers in the field of botany, but always as individuals with much to offer, and always happy to see or hear from us. We spent time in his office perusing the museum cards to see what did and could occur in our county, and we enjoyed his wide ranging topics of conversation. We found him a great aid in our flora ventures in northern NYS. His enthusiasm, both in the herbarium and in the field, was infectious, and still inspires me to this day.

Articles Inside:

New York Flora Association

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Remembering Dick Mitchell

by Steve Young, Dan Spada, Bob Zaremba, and David Werier. Compiled by Steve Young.

This summer I received word that Dick Mitchell, the fourth State Botanist of New York and the co-founder of the New York Flora Association, had passed away in May, in Crystal Beach, Florida, where he had moved in 2003 after he retired.

Richard Sheppard Mitchell was born in the Midwest and grew up in North Carolina and Florida. He received his BS and MS degrees at Florida State University and his PhD in botany at UC Berkeley under Lincoln Constance. After teaching at Virginia Tech, he accepted the position of New York State Botanist in 1975. In his autobiography, My Life as I Choose to Remember It (available for free to read online at https://amzn.to/2lSVt77), Dick writes about his life from childhood (including an appearance on the Lawrence Welk Show!) to his retirement in Florida, with a section about his time as state botanist. One of his proudest moments was his involvement in the founding of the New York Flora Association and the great work NYFA has done to keep people interested in field botany at a time when academic botany went indoors to the laboratory. After a suggestion by Dr. Norton Miller of the state museum, Dick started NYFA along with Dr. Bob Zaremba of The Nature Conservancy, and was the newsletter editor for many years. His last article for NYFA (Vol. 26, Issue 3, Summer 2015) explained the history of the organization and his place in the short line of state botanists. He was very active in the association in the early years, but his participation decreased in later years until his retirement and his move to Florida.

Dick helped produce the first flora atlas, on paper, and began a comprehensive flora of the state, Contributions to a Flora of New York State (not completed before he left). He also headed up flora work in the Hudson Highlands and Sterling Forest, produced new checklists for the state in 1986, 1997, and the early 2000s (see David Werier's history of these in his Catalogue), and concentrated on plants in the Polygonaceae (his PhD treated aquatic smartweeds). He produced the first publication on rare plants for NY, and I worked with him on rare plants from 1990 to 2003. Dick was originally suspicious of my ability to take on the rare plant work for New York but over the years we developed a professional friendship that continued until his retirement. Unfortunately, I was only in the field with him twice, during a NYFA trip to the coastal plain ponds and to the Hudson River ice meadows in Warrensburg, but he was always gracious about my use of his office and

herbarium when I was doing rare plant work at the museum (especially if I had a question about Polygonums!).

From Dan Spada:

I first met Dick Mitchell when my major professor, Ed Ketchledge, introduced me to him around 1983. I was just a kid then and was a bit intimidated by the idea of meeting the New York State Botanist. I shouldn't have worried. Dick Mitchell immediately put me at ease and helped me access the State herbarium. Jeez, he was a good guy! In subsequent years after I graduated and went to work for the NYS Adirondack Park Agency, I had cause to remain in contact and often directed botanical questions directly to him and he always took the time to respond. We also found that we were both professional musicians. Not only did he inspire botanical confidence in me, but also musical confidence! I will miss him botanically, musically and personally.

From Bob Zaremba, cofounder of NYFA:

I was hired in 1984 to validate the active work of the two Long Island Nature Conservancy chapters in the new official TNC mandate to work on ecologically significant projects from the perspective of rare species and communities (the early Natural Heritage Program). I was supervised by botanist Beth Platt in Albany and ecologist Carol Reschke who were also working for TNC in this new program. Beth, Carol, and Chuck Bassett, State Director of TNC, suggested that I meet with Dick Mitchell to see if he could help set any direction for this one-year job. He was willing to meet with me in Albany where he and botany curator Chuck Sheviak had put out a booklet on rare plants in New York a few years earlier which was the basis of a rare plant list. During that first visit I learned about the species locational lists in the file cabinet in Dick's office. It was my understanding that those lists were a combination of actual specimen records and observations, mostly, but not exclusively, by Stanley Smith. Dick appeared to both dismiss and admire Stanley Smith for this work before Dick had arrived at the Museum. Stanley didn't have a PhD and was serving as an acting State Botanist after the retirement of the last state botanist, Eugene Ogden. Stanley was a brilliant plant identifier and a detailed note taker and had left tons of notes. He had the ability to visit a site and then go back to his car and make a species list in taxonomic order! Dick gave me access to the card files and the herbarium without restriction. I needed permission to enter the academic part of the Museum and I was often questioned about my legitimacy there by others, but once I got to Dick's office, I was welcome. I'm not sure Dick thought much of the budding Heritage Program, perhaps he didn't think it would last, but he was welcoming to me when he really didn't need to be, and he was very helpful getting me started. I provided Dick a copy of my weekly reports on activities and field finds, which he appreciated – and sometimes would question a few identifications.

Other botanists in New York were in the habit of talking to Dick and he began to introduce me to others doing field work. He was very generous in that sense. I invited Dick to numerous TNC gatherings and to LI. I began to like him and not feel as though I was imposing. Dick was aware that I was working on the development of a Long Island botany group and we discussed doing something similar for New York State. I don't recall the details of how that progressed, but over time we got a group together to discuss statewide botanical issues. I think there may have already been a statewide botany advisory group, but I think it was mainly taxonomic.

Over time, it became necessary for the State Museum to develop a broader constituency and the state natural history conference was developed, I think mainly by Norton Miller, but many or most of the presentations were botanical and usually based on TNC/Heritage work. Several times we called meetings of botanists to discuss common areas of interest, and the statewide field trips were born. I'm not sure of the timing of those trips, but they became two day, stay-overnight gatherings with species lists and dinners out. It was fun. I don't think Dick attended most of these, but I do remember him on a trip to Long Island when we visited coastal plain ponds. And, my most successful trip was to South of the Glen inviting all the state botanists from

neighboring states, Bruce Sorrie, Les Mehrhoff, Barre Hellquist, and I think Bill Brumbach. It was a great day for me. Dick seemed to have a great time; that alone was rewarding. Not sure when it happened, but Dick added the state and global ranks to species on his published checklist flora with some of us offering community information for species. I faded from regular involvement with Dick but remained friendly and saw him at the conferences. Personally, I was gratified that Dick came to appreciate the work of TNC and the Heritage Program and was willing to contribute to statewide botany/social gatherings. We were good colleagues and he played a significant part of my work in New York State and in the success of the early Natural Heritage Program.

Bob Zaremba and Dick botanizing at the Hempstead Plains.

From David Werier:

Unfortunately, I only got to know Dick towards the end of his tenure as the New York State Botanist. I had some interactions with him in the late 1990s, but it wasn't until 2002 (the year he retired) and 2003 that I was able to spend a good chunk of time with him. On June 9, 2001, during a NYFA field trip to the eastern edge of Lake Ontario, Dick asked me if I would be interested in doing some field work in 2002 for the New York State Museum Biological Survey in the Hudson Highlands of New York. Later (July 10, 2001), he emailed that the field work would be on Schunnemunk Mountain. He went on to say, "*It's a nasty old lump about nine miles long with few access roads and needs climbers stronger than I to do all the scouting. Of course, I'll be along a lot, but Spider Barbour and you would do some of the long treks in, climbing the talus and walking the ridge*." In 2002 I ended up spending many days on Schunnemunk Mountain. Dick would join us from time to time and sometimes the two of us would stay in a NYS Parks cabin on nearby Lake Tiorati.

In 2003, I continued doing work in the Hudson Highlands region for the NYS Museum. Dick had retired in December of 2002 and had moved to Florida to be closer to his mother. Still drawn by the Hudson Highlands, he worked to obtain funding to join us. In an email (June 7, 2003) to James "Spider" Barbour, who was also involved in the Hudson Highlands survey, Dick wrote, "*Senor El Espidero: Yes, money or not, here I come, leaving next Tuesday, to arrive Wednesday evening if all goes well. I will see you Thursday morning, raring to go, I hope. I will stay through about the first of July and come back in mid-Aug through Labor Day, if all goes well. Can't wait. Ricardo*." So again in 2003 Dick and I got to spend many days together in the field and some evenings in the Lake Tiorati cabin.

Dick was always very kind and supportive of me as my botanical career was still in its early years. He really appreciated those of us who spent time in the field with the plants. When he was out in field in the Hudson Highlands, he was like a child in a candy shop, excited at all that he saw. His fondness for the Hudson Highlands flora had almost a religious fervor to it. His holy grail was Virginia snakeroot (*Endodeca serpentaria*), a species which apparently had not been seen in the state for about a century before it was rediscovered by Spider Barbour during a NYS Museum Hudson Highlands survey (see Mitchell 1994 for more details).

After the Hudson Highlands work, I had sporadic communications with Dick via email. Mostly these emails centered around my attempts to understand the history of recent botanical work in the state. Dick didn't like the characterization that the online NY Flora Atlas (Weldy et al. 2019) was based on the hard copy 1990 NY Flora Atlas (New York Flora Association 1990). To set the

record straight, in my Catalogue of the Vascular Plants of New York State (Werier 2017), I attempted to detail how the online NY Flora Atlas was created. Some emails from Dick informed my writing. For example, Dick emailed (February 10, 2011) that, "*Despite whatever Troy [Troy Weldy] and Kartesz [John Kartesz] may have done in 2001 (I was almost retiring), your atlas [online NY Flora Atlas] was NOT derived from the NYFA atlas [hard copy 1990 NY Flora Atlas]*."

Also, Dick felt like the hard copy 1990 NY Flora Atlas was not his work. The author of the hard copy 1990 Atlas is the New York Flora Association and it says under acknowledgments, "*This atlas was compiled almost entirely by J. Kenneth Dean and Robert F. Trozzo. Mr. Trozzo, who is responsible for the layout, spent three months at the State Museum as a participant in the Internship Program at the State University of New York, Cobleskill. Our thanks to him and his supervisor Holly Emmons. Gordon Tucker and Richard Mitchell also assisted in data entry*." In the email mentioned above Dick also wrote, "*The NYFA Atlas [the hard copy 1990 NY Flora Atlas] was a mere afterthought, designed to get club [NY Flora Association] members to collect vouchers for the counties they collected in. It was supposed to be like a stamp album to be filled in and was mostly created as an inducement to join NYFA. I had Ken Dean do it with a volunteer, having no idea that people would take it seriously, like a scientific publication. The guys took their little pencil erasers and dipped them in ink, leafing through thousands of scribbled old maps and dotting the records that had vouchers. They used the 1986 checklist [Mitchell 1986] as a guide, but I furnished them updated synonymy from works in progress. I had hardly anything to do with it and considered it to be of little importance*."

I write all of this here because I know Dick would really have wanted us to get this right. Dick and his colleagues' produced several taxonomic treatments as Contributions towards a Flora of New York State (Mitchell 1978-1993). Dick was very proud of this new work, as he should have been. This start of this modern flora is really outstanding. In addition to his publications and his role in creating NYFA, one of the most important legacies I see Dick leaving behind is the numerous people, including myself, that he supported and encouraged in their studies of the flora of New York. Thanks Dick.

Literature Cited:

MITCHELL, R. S. (ED.). 1978–1993. Contributions to a flora of New York State. I–XI. New York State Museum Bulletin. The University of the State of New York, Albany, NY, USA.

MITCHELL, R. S. 1986. A checklist of New York State plants. New York State Museum Bulletin 458. The University of the State of New York, Albany, NY, USA.

MITCHELL, R. S. 1994. Virginia snakeroot (*Aristolochia serpentaria*) rediscovered in New York. New York Flora Association Newsletter 5: 1–2.

NEW YORK FLORA ASSOCIATION. 1990. Preliminary vouchered atlas of New York State flora. Albany, NY, USA.

WELDY, T., D. WERIER, AND A. NELSON. 2019. New York Flora Atlas. Retrieved September 9, 2019, from New York Flora Atlas. (S. M. Landry and K. N. Campbell [original application development], USF Water Institute. University of South Florida). New York Flora Association, Albany, NY, USA. <http://newyork.plantatlas.usf. edu/>.

WERIER, D. 2017. Catalogue of the vascular plants of New York State. Memoirs of the Torrey Botanical Society 27.

Dick Mitchell enjoying retirement in Florida.

The Mouth of Black Creek, Esopus NY

by Joe Bridges and Nava Tabak

Black Creek is part of the Black Creek Preserve, which is comprised of 130 acres of undeveloped upland hardwoods, streams, wetlands, and tidal wetlands associated with its mouth. The preserve is owned and managed by Scenic Hudson, who works to conserve it and has studied the resiliency of this and other tidal wetland communities to adapt to anticipated sea level rise.

Black Creek is the smallest of three major tributaries that discharge into the Hudson River in Ulster County. At low tide, the broad delta of braided stream channels coursing through the mudflats at the mouth of the creek is reminiscent of some of the dissected sandbars of small wild Alaskan rivers. Black Creek supports no less than five Natural Heritage Program rare communities. Rare communities usually support rare biota and the following plant species have been documented recently at or near the mouth of the creek: goldenclub (*Orontium aquaticum*), estuary beggar-ticks (*Bidens bidentoides*), awl-leaved arrowhead (*Sagittaria subulata*), mud plantain (*Heteranthera reniformis*), winged monkey flower (*Mimulus alatus*), and Provancher's fleabane (*Erigeron philadelphicus* var. *provancheri*). On July 6th, we explored the flora of the creek and adjacent environs and searched for rare and interesting species.

Mudflats at Low Tide in Black Creek (Joe Bridges).

On a sunny, sweltering, nearly windless day (the "feels like" air temperature topped out at 103 degrees!), we walked purposefully eastward along Winding Brook Road, stopping only briefly to examine plants -- nipplewort (*Lapsana communis*), horsebalm (*Collinsonia canadensis*), wineberry (*Rubus phoenicolasius*), lady fern (*Athyrium angustum*) and several others at roadside. Our fast approaching rendezvous with low tide kept us from dallying. We crossed Black Creek, dropped down into the brief shade of a swamp forest and emerged onto surprisingly firm mudflats, facing only calf-deep water in the narrow stream channels as a result of our well-timed arrival. In quick succession we found three of the targeted rarities - goldenclub (too late in the season to see its marvelous golden spike of flowers), awl-leaved arrowhead, and mud plantain.

Goldenclub on mudflat at mouth of Black Creek in early May 2019 (Joe Bridges).

We also found Allegheny monkey flower (*Mimulus ringens*), but the rare winged monkey flower eluded our search efforts. Extensive patches of silt-covered smartweeds (*Persicaria* spp.) and purple loosestrife (*Lythrum salicaria*) covered some of the isolated mudflats. Other plants found on mudflats on the southerly creek bank included: sallow sedge (*Carex lurida*), hop sedge (*Carex lupulina*), water speedwell (*Veronica anagallis-aquatica*), water forget-me-not (*Myosotis scorpioides*), spotted water hemlock (*Cicuta*

maculata), green arrow arum (*Peltandra virginica*), and yellow Iris (*Iris pseudacorus*). After slogging through the densely vegetated tidal marsh on the north side of the Creek for a while, we found scattered patches of marsh lousewort (*Pedicularis lanceolata*) amidst a dense cover of green arrow arum. Other plants found in the marsh included: common arrowhead (*Sagittaria latifolia*), three-square bulrush (*Schoenoplectus pungens*), pickerel weed (*Pontederia cordata*), sweetflag (*Acorus* sp.), swamp rose (*Rosa palustris*), fringed loosestrife (*Lysimachia ciliata*), tall meadow rue (*Thalictrum pubescens*), and fowl manna grass (*Glyceria striata*).

Leaving the Creek, we headed south above the Hudson River to a narrow cobble beach to observe modest patches of Provancher's fleabane flowering brilliantly on shale outcrops - a highlight of the trip! On the walk back to the parking lot, we continued to botanize at a leisurely pace. Noteworthy plants observed included: Gray's sedge (*Carex grayi*), ninebark (*Physocarpus opulifolius*), false indigo bush (*Amorpha fruticosa*), northern white cedar (*Thuja occidentalis*), an American chestnut (*Castanea dentata*) with a dbh of 5 inches, Canada anemone (*Anemone canadensis*), white baneberry (*Actaea pachypoda*), golden ragwort (*Packera aurea*), ragged robin (*Lychnis flos-cuculi*), and more *Carex* species.

Provancher's Fleabane (*Erigeron philadelphicus* var. *provancheri*) on cobble shore of Hudson River (Joe Bridges).

Plants Observed:

Ferns & Fern Allies
Athyrium angustum
Dennstaedtia punctilobula
Equisetum arvense
Onoclea sensibilis
Polypodium virginianum
Thelypteris noveboracensis
Thelypteris palustris

Grasses, Sedges & Rushes
Carex blanda
Carex cephalophora
Carex crinita
Carex granularis
Carex grayi
Carex lupulina
Carex lurida
Carex platyphylla
Carex radiata
Carex rosea
Carex squarrosa
Carex stipata
Carex swanii
Dichanthelium clandestinum
Elymus hystrix
Glyceria striata
Juncus sp.
Juncus tenuis
Leersia virginica
Microstegium vimineum
Schoenoplectus pungens

Herbs
Acorus sp.
Actaea pachypoda
Amphicarpaea bracteata
Anemone canadensis
Asclepias syriaca
Bidens sp.
Caltha palustris
Capnoides sempervirens
Cicuta maculata
Circaea canadensis
Collinsonia canadensis
Cryptotaenia canadensis
Dioscorea villosa
Epigaea repens
Erechtites hieracifolius
Erigeron annuus
Erigeron philadelphicus var. provancheri
Eutrochium sp.
Heteranthera reniformis
Iris pseudacorus
Lapsana communis
Lychnis flos-cuculi
Lycopus sp.
Lysimachia ciliata
Lysimachia nummularia
Lythrum salicaria
Melampyrum lineare
Mimulus ringens
Monotropa uniflora
Myosotis scorpioides
Myriophyllum spicatum
Orontium aquaticum
Packera aurea
Pedicularis lanceolata
Peltandra virginica
Persicaria maculosa
Persicaria spp.
Pilea sp.
Pontedaria cordata
Rubus phoenicolasius
Rudbeckia laciniata
Sagittaria latifolia
Sagittaria subulata
Sium suave
Symplocarpus foetidus
Thalictrum pubescens
Typha spp.
Veronica anagallis-aquatica

Shrubs & Vines
Alnus incana
Amorpha fruticosa
Cephalanthus occidentalis
Hamamelis virginiana
Ligustrum sp.
Lindera benzoin
Lonicera sp.
Physocarpus opulifolius
Rosa palustris
Salix sp.
Spiraea alba
Viburnum acerifolium
Viburnum dentatum
Viburnum lentago
Vitis riparia

Trees
Acer rubrum
Castanea dentata
Fraxinus americana
Ostrya virginiana
Pinus strobus
Platanus occidentalis
Quercus montana
Quercus rubra
Thuja occidentalis
Tsuga canadensis

Awl-leaved Arrowhead (*Sagittaria subulata*) upper left and Mud Plantain (*Heterathera reniformis*) on mudflat at mouth of Black Creek (Joe Bridges).

Marsh Lousewort (*Pedicularis lanceolata*) in Tidal Marsh at Mouth of Black Creek (Joe Bridges).

Botanizing the Mouth of Black Creek, L to R: George Moxham, Ruth Brooks, Nava Tabak, Dan Schniedewind, Claire Davis, Tom O'Dowd, Laura Heady, Chris Graham (Joe Bridges).

Valcour Island Adventure

by Dan Spada

On July 10, ten adventurous botanists were ferried out to Valcour Island courtesy of SUNY Plattsburgh. Attending were Nancy Slack, Gary Lee, Connie Tedesco, Jackie Donnelly, Dick Lighty, Ruth Brooks, Kelly McKean, Tierney Rosenstock, Steve Young, Dani Yashinovitz and myself. Mark Malchoff kayaked out and met us on the island.

The happy group on Valcour.

NYFA has been sponsoring field trips out to the island for several years with the goal of increasing the number of reported plant species, but also to re-document the many rarities that occur there. The island is part of an ancient reef whose limestone contains many fossils and has a richening effect on the soils. The immediate goal for this trip was to explore a small wetland that is located half-way across the island on the central cross trail. The day was hot and humid but we spent most of the time in the shade which was quite pleasant. Thanks to Nancy Slack we were able to add several bryophytes to the species list including:

Anomodon attenuatus – poodle moss
Aulacomnium palustre – ribbed bog moss
Climacium dendroides – palm tree moss
Dicranum polysetum – wrinkled broom moss
Drepanocladus polygamus – stiff star moss
Hylocomium splendens – stair-step moss
Hypnum imponens – brocade moss
Plagiomnium cilliare – saber tooth moss
Pleurozium schreberi – big red stem
Rhizomnium punctatum – red penny moss
Rhytidiadelphus triquetrus – shaggy mane moss
Sphagnum capillifolium – domed peat moss
Sphagnum warnstorfii – red-green peat moss
Tetraphis pellucida – four tooth moss
Thuidium delicatulum – mountain feather moss

Several new vascular plants were also added to the species list, including: swamp jack-in-the-pulpit (*Arisaema triphyllum* ssp. *stewardsonii*), Canada thistle (*Cirsium arvense*), Labrador bedstraw (*Galium labradoricum*), and yellow avens (*Geum aleppicum*).

It was good to see two old friends, swamp milkweed (*Asclepias incarnata*) and New Jersey tea (*Ceanothus americanus*).

Two species of special note that we were able to relocate were: Loesel's twayblade (*Liparis loeselii*) and tall hairy lettuce (*Lactuca hirsuta*).
The *Liparis* is just a very cool little orchid and the *Lactuca* is an S1 species.

New York Flora Atlas Interest and Use Continues

by Joe McMullen

The New York Flora Atlas continues to be a valuable resource for professional and amateur plant enthusiasts from New York, throughout the United States, and around the globe. Usage analytics for the recent quarter (July 1 to September 30, 2019) indicate that over 10,000 individuals used the Atlas in over 18,000 sessions during the period. Most of the Atlas visits were from NY, but numerous other states were represented. As shown in past analytics, users were from many foreign countries, with Canada, India, Indonesia, United Kingdom, and China topping the list during the period.

The NY Flora Atlas is a product of the NYFA and is a free on-line resource available at: newyork.plantatlas.usf.edu/. If you are interested in making a tax-deductible contribution to support the Atlas, see sponsorship details on the Atlas web site.

2019 Sedge Workshop Summary

by Jessica Ray

On June 14th, I traveled from New Jersey through Pennsylvania to beautiful Ithaca, NY. By the time I had arrived, the shadows were long, and the sights were getting lost in the darkness. I felt a pleasant cool breeze as I stepped out of the car, stretched, and made my way up to Cornell University Bailey Hortorium. I was welcomed by a room full of men and women botanists of all ages and, of course, instructor David Werier. Despite the long drives people had to make and the late-night meeting, everyone was happy to be there. We sat in front of dissecting scopes and the tables along the room were lined with dozens of *Carex* specimens waiting to be to be examined. We began by introducing ourselves to one another and then received a quick introduction to the genus *Carex* and David handed out a pictorial key to the different sections in the genus. Students were then free to more closely inspect specimens that they had brought or to view some of the many pressed specimens that surrounded us. Some of us were experienced and helped those around them as questions arose, and David offered individual help to everyone.

We met early in the morning the following day on the side of County Road 179 in South Hill. Once everyone had gathered, we visited a nice open wet field; when we had ventured only five meters in we were already surrounded by many different *Carex* spp. We examined several species that covered various sections, such as *Cyperoideae, Phaestoglochin, Porocystis,* and *Ceratocystis*. We also acknowledged some of the other genera, such as *Eleocharis, Scirpus,* and *Schoenoplectus,* though we did not focus on them. As we continued wandering into more wooded upland areas, we encountered species that superficially looked the same but could be distinguished by some distinct features, such as *C. pensylvanica* and *C. lucorum,* which were distinct because of the length of the beak on the perigynia, and *C. radiata* and *C. rosea*, which can be differentiated by the curling of the anthers and the density of the perigynia on the spikes. Other species were also present, such as *C. glaucodea* and *C. swanii* in the uplands and *C. crinita* var. *crinita* in wetter areas.

David Werier explains the difference between *C. pensylvanica* and *C. lucorum* as we inspect a specimen of *C. pensylvanica*.

We sat down amidst some patches of *C. rugosperma* where we were able to peel apart some of the lower leaf sheaths, observing that the flowering stem originates all the way down at the base. Sitting among the sedges, David shared with us the story of his fairly recent discovery of *C. reznicekii*. This inspiring story demonstrated how much more we can still learn about the flora that surrounds us simply by looking more

closely and asking questions. We then proceeded and encountered some pleasant-looking "wigs" along the forest floor: *Trichophorum planifolium*. Nearing the end, but driven by our love for sedges and the urge to cover a few more sections, we were able to squeeze in a few more species. We finished our day with a total count of 28 different species, covering 18 different sections. The beautiful June landscape and its various habitats served us well for looking at our genus of interest, as many plants were out and in fruit ready for us to identify, unlike other sedge genera that were only getting started. We made our way out of the woods, snapped a quick group photo, and went out to enjoy a pleasant dinner in Ithaca.

Top (left to right): Nicholas Filannino, Chenga Drury, Emma Kubinski, Robert Smith, Raven Larcom, Ed Fuchs, David Rutherford, Eileen Wierzbicki, Mark Bowers. Bottom (left to right): David Werier, Anna Stalter, Jessica Ray, Loree Speedy (Photo by Nicholas Filannino).

On Sunday, we met in the lab to recap the previous day and continue working on some of the many specimens that surrounded us. Many found the pictorial key much easier to use after spending a day in the field and becoming familiar with it and they were able to successfully identify species with greater ease. The rain that had persisted throughout the night and morning began to lighten up. Some stayed to continue lab work, while others went out in the field with David. We made our way to German Cross Rd. and entered a property that was owned by a friend of David's. We moved at a quicker pace due to our time constraints and examined species that we had seen the day before, as well as some new ones such as *C. digitalis and C. pedunculata*. We did slow down to spend some quality time with *C. laxiflora* and *C. blanda*, examining the differences and comparing the two species before moving into a power line cut. This area had some wet depressions favorable to species such as *C. gracillima, C. lurida*, and *C. hystericina*. As we looked around, we could see that we were surrounded by a tall, light blue green sedge, *C. flacca*. This is the only species we would see in the section *Thuringiaca* and not surprisingly, since it is the only species in that section that grows in North America. *Carex flacca* is native to Eurasia and had aggressively invaded the powerline cut where we were standing. We worked our way out and drove over to a calcareous marsh along Danby Creek for our final treat. A quick walk down a berm and though some vegetation took us out to an open marsh where hundreds of *C. atherodes* grew, a rarity in New York. It was a perfect ending to another successful sedge workshop.

Our trip ended with a total count of 43 different species, 38 of which were in the genus *Carex*, which

covered a total of 22 different sections. On behalf of everyone who attended, we would like to thank David for such a fun and insightful sedge workshop.

Main photo (left to right): Loree Speedy, Robert Smith, David Werier, Mark Bowers, Jessica Ray. Standing along the edge of a large *Carex atherodes* population (Photo by Bernie Carr). Lower Right: Up close picture of *C. atherodes* (Mark Bowers).

Species List Sorted Alphabetically by Section:

Acrocystis
Carex communis
Carex lucorum
Carex pensylvanica
Carex rugosperma

Carex
Carex atherodes

Careyanae
Carex digitalis
Carex laxiculmis var. *laxiculmis*
Carex platyphylla

Ceratocystis
Carex flava

Clandestinae
Carex pedunculata

Cyperoideae
Carex scoparia
Carex tenera

Glareosae
Carex canescens
ssp.*canescens*

Griseae
Carex glaucodea

Hymenochlaenae
Carex gracillima

Laxiflorae
Carex blanda
Carex laxiflora

Lupulinae
Carex intumescens
Carex lupulina

Multiflorae
Carex annectens
Carex vulpinoidea

Phacocystis
Carex crinita var. *crinita*

Phaestoglochin
Carex radiata
Carex retroflexa
Carex rosea

Phyllostachyae
Carex willdenowii

Porocystis
Carex hirsutella
Carex pallescens
Carex swanii
Carex virescens

Rostrales
Carex folliculata
Stellulatae
Carex atlantica ssp. *atlantica*

Thuringiaca
Carex flacca

Vesicariae
Carex hystericina
Carex lurida
Carex retrorsa

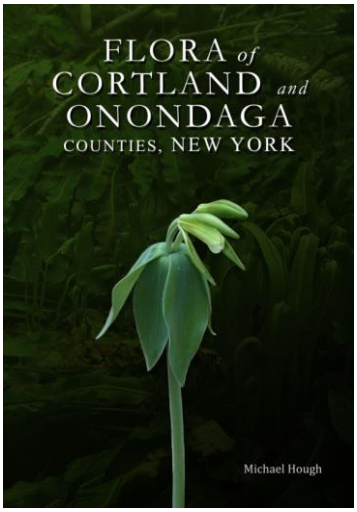
Vulpinae
Carex stipata

Species not in the genus Carex:
Eleocharis elliptica
Schoenoplectus tabernaemontani
Scirpus cyperinus
Scirpus hattorianus
Trichophorum planifolium

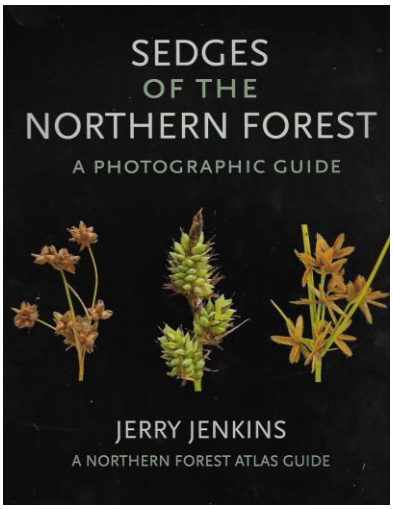
Botanical Notes:

We wanted to mention two publications of interest to botanists in NYS (as well as botanists in general):

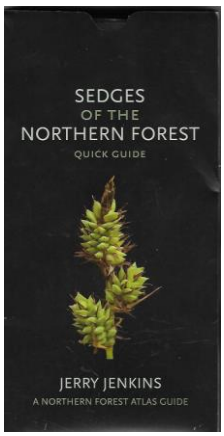
Michael Hough's **Flora of Cortland and Onondaga Counties, New York** recently became available. Michael Hough, who has written a number of informative and useful articles for this newsletter in the past, has compiled a complete and up-to-date reference for this region's non-cultivated vascular plants. Over half of the 3,524 species known to occur in the state have been documented in these two central New York counties and include 156 plant families, 712 genera, 1,898 species, and 1,952 total taxa. It is intended for use by skilled amateur and professional botanists, ecologists, and conservation biologists and includes taxonomic keys for identifying the plant families, genera, species, and lower taxa found in the region. It also includes detailed descriptions of each taxon including scientific name, origin, phenology, ecology, localities, synonyms, wetland indicator for Northeast Region 1, state legal status, state and global rarity rank, and coefficient of conservatism.



A useful addition to our arsenal of tools for sedge identification is Jerry Jenkin's **Sedges of the Northern Forest; A Photographic Guide**. This attractive book, full of his incredible photos (taken as stacked images), is a treat to peruse.



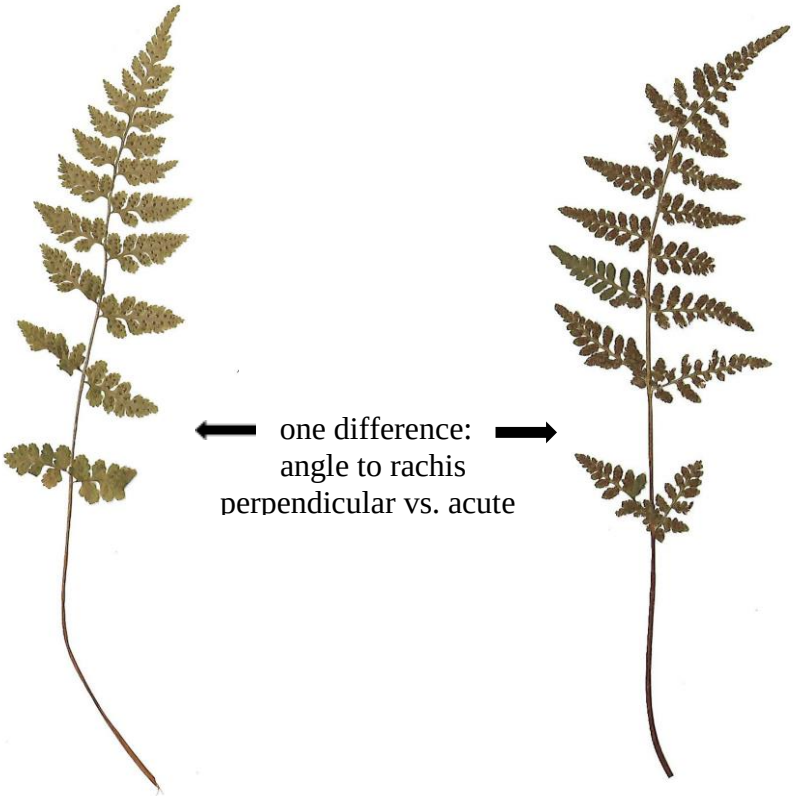
A handy fold-out field guide printed on water resistant paper is included with Jerry's book:



He also has a moss guide scheduled to come out in April. See the Northern Forest Atlas website (http://northernforestatlas.org) for these and other publications.

The field guide, being used in the field, as it was meant to be.

A comparison of two sometimes hard to distinguish plants:



Cystopteris fragilis *Cystopteris tenuis*

Botanical Notes, cont.

Daniel Atha, Director of Conservation Outreach at the New York Botanical Garden, was asked to explain types and typification to the NYFA board, and since it is of general interest, we reprint his useful explanation here. Thanks, Daniel!

It all started with Linnaeus. In his day, it was common practice to mount several specimens on a single sheet of paper. Sometimes each plant bit had a little slip of paper with a cryptic note about where it was collected, but not always. Linnaeus advocated that a single sheet should have a single specimen that was clearly labeled where it came from, thereby obviating his error in naming Asclepias syriaca *for example, which we all know is a North American native. Linnaeus pretty much put a stop to the practice of mounting multiple specimens per sheet, although it was sometimes still done to save money and space.*

One hundred fifty years later, Nathaniel Britton and others in North America proposed that every scientific name should be "typified" by a single herbarium specimen that serves as THE basis for that scientific name. Britton and his colleagues proposed changes to the International Code of Botanical Nomenclature in Berlin in 1905. The Europeans were not fans and it took another 30 years for it to become codified in the code (1935). Now it is universal, and uncontroversial, that every new species must have a single specimen that is the type specimen for that name so that if there are any questions about what that name really "means", one refers to the type specimen to find out. For plants named before 1935, botanists retroactively assign a type. And that's super crucial, for those older names that might only have a two word description. The process of assigning a type retroactively is called lectotypification and it is fairly straightforward. The specimen should have been seen by the author of the name and be publicly accessible. And hopefully is a decent specimen! There can be only one true type-- called a holotype. But there can be duplicates of the type. They are called isotypes.

NYBG has many, many type specimens, some of which have not even been identified as such and are still mixed in the general collection. This is an extremely fruitful area of botanical research. And it's a lot of fun as it involves the specimens themselves, geography, history, literature and even quirks of personalities. And we know botanists have those!

There are other complicating factors. But that's the gist.

A scan of the lectotype of Pteridium aquilinum var. pubescens. For this and other type specimens, see http://sweetgum.nybg.org/science/vh/type-specimen-index/

NYFA Annual Meeting, Letchworth State Park
August 4, 2019

recap by Anna Stalter

A beautiful summer day greeted the 20+ attendees to the 2019 NYFA Annual Meeting as they arrived at the Octagon Shelter in Letchworth State Park. The first order of "business" was botanizing along a nearby trail, and scanning the cliffs with binoculars for a glimpse of the three rarities in the park: *Pinguicula vulgaris, Saxifraga aizoides*, and *Primula mistassinica*.

2019 Annual Meeting attendees (all photos by Steve Young).

Following a delicious lunch and more socializing, the official business of the day was conducted: members voted to approve the slate of six board members, renewing their terms for another three years.

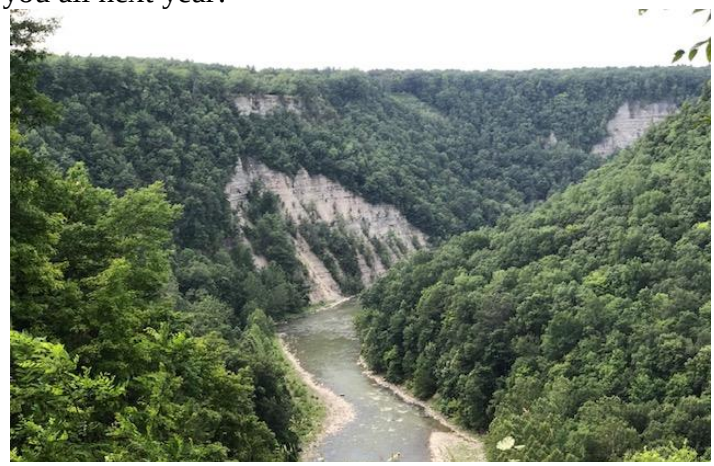
The highlight of the day was led by Ed Fuchs (who, for the first time in several years, was **not** the member who had traveled the farthest to attend the Annual Meeting) as he introduced Jon and Priscilla Titus, 2018 NYFA Plant Conservationist Awardees. Jon and Priscilla have been dedicated and tireless advocates for native plants and habitats in Western NY for many years. In his remarks, Ed touched on the many ways that Priscilla and Jon have made native plant conservation their life's work. With great enthusiasm and generosity they have shared their knowledge and passion with students, colleagues and conservationists. Jon and Priscilla are longstanding members of the New York Flora Association and the Niagara Frontier Botanical Society and have lent their professional expertise to the Chautauqua Watershed Conservancy and the Nature Sanctuary Society of Western New York. Champions of nature preserves and natural areas, they have conducted inventories, searched for rare species, removed invasive plants and contributed thousands of native plants for restoration of natural sites and to enhance public and private

gardens. Individually and as a team, Priscilla and Jon are truly the embodiment of the NYFA Plant Conservationist!

Jon and Priscilla Titus display their well-earned awards.

Another pleasant walk in the woods followed Steve Young's Plant Quiz, which caused much consternation and found many wishing they had perused their Gleason and Cronquist Manual beforehand. Daniel Atha (who was, this year, the member who had traveled the farthest to attend the meeting), compiled a list of several of the notable plants seen, which you can view here: https://www.inaturalist.org/observations?on=2019-08-04&place_id=any&user_id=danielatha&verifiable=any&view=species.

With one final glimpse at the majesty of Letchworth, and with thanks to all who contributed and attended, the 2019 NYFA Annual Meeting was concluded. See you all next year!



Day 2 of the Tongue Mountain Uplands and Wetlands Trip, June 29-30

by Rich Ring (Day 1 write-up will appear in the next issue)

After the previous day's glorious sunshine on the dry, open Tongue Mountain Range, most of the same crew paid a visit to Harris Bay Bog. Here we were greeted with a little rain and minor obstacles such as finding safe places to park and to cross the forested swamp separating the uplands from the bog. Our approach from the west had a fairly deep moat at the upland's edge, providing the typical team-building exercise of extraction from knee to waist-deep mineral muck.

Even those who didn't fall into the muck were soon able to tell that we were dealing with a minerotrophic or somewhat high pH muck, as evidenced by the high plant diversity and the conveniently spaced hand-holds of poison sumac (*Toxicodendron vernix).* Steven Daniel wandered away from the group briefly only to come back with news of the spare-flowered sedge (*Carex tenuiflora),* a state endangered species not previously known from the site. Several of us nearly stepped on a small twayblade in bloom, which we assumed to be Loesel's Twayblade (*Liparis loeselii*), the more typical species of such habitats; it was only upon reviewing some photos of it taken by Ruth Brooks later that it was correctly identified as the endangered lily-leaved twayblade (*Liparis liliifolia)*—often known from upland habitats, and another rarity not previously reported from the site.

As we moved closer to the bog itself, some changes were noticeable. We found more solid footing, smaller trees, and a somewhat more depauperate and acidophilic flora with tamarack (*Larix laricina),*

cinnamon fern (*Osmundastrum cinnamomeum var. cinnamomeum*) and three-fruited sedge (*Carex trisperma)* becoming dominant.

Finally we arrived at our main goal, the open bog itself. The sun obligingly emerged from behind the clouds about the same time we emerged from the forest. This area was reminiscent of some of the "mega-bogs" or large peatland complexes found much farther north in the heart of the Adirondacks, with its clearly "floating" saturated structure and a physiography dominated by a few dwarf shrubs and sedge species, along with a near-complete mat of Sphagnum mosses. A species list from the Harris Bay wetlands will appear in the next issue of the newsletter.

The open bog.

Ilex verticillata.

Modern day rock art, found in the woods off the beaten trail in St. Lawrence County.

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