

YFA Quarterly Newsletter

Fall 2016 Volume 27 Issue 4

New York Flora Association Newsletter Fall 2016

Editor's Note: Though field trips and workshops have wound up for the season, there are still botanical things to be thinking about: perhaps you came across a rare plant this summer (or before) and wish to report it to Steve Young now that he is "back on the job". Perhaps you came across some county records and collected voucher specimens and wish to get them deposited into an herbarium and entered into the NYFA atlas. Or perhaps you made lists of plants on field trips or elsewhere and would like them added to the NYFA geo-referenced plant list web page. Now that the weather has cooled down a bit, it is easier to tackle this sort of indoor work and I'm sure it will be appreciated by all.

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New York Flora Association

Address: P.O. Box 122 Albany, NY 12201 Phone: (518)250-6054 Email: editor@nyflora.org Website: www.nyflora.org Blog: www.nyfablog.org Twitter: @newyorkflora Editor: Anne Johnson

Joint Annual Meeting an Enjoyable Weekend

by Steve Young, NYFA Board

Mountain laurel was in full bloom when the joint annual meeting with the New England Botanical Club was held on Saturday, June 4 and Sunday, June 5. It was great to meet and talk to the fellow botanists from New England and to hear about their experiences with some of the same plants that also occur in New York, as well as showing them some plants that they hadn't seen before. On Saturday we had walks around Black Rock Forest, Sugarloaf Mountain in the Highlands, and Sterling Forest. We saw lots of interesting plants in a wide variety of habitats and some interesting animals too, like a rattlesnake! After our return to the headquarters at Black Rock Forest we had dinner, a plant identification session, and the annual plant quiz with some New England questions slipped in for our guests. Unfortunately our main speaker for the evening was not able to make it but that did not deter people from having a good time by delving into the small details of plant taxonomy, listening to stories about botanical trips and sites, or by listening to an accordion solo. On Sunday we awoke to rain and after a hearty breakfast some participants stayed to explore more of Black Rock Forest. All in all it was a very enjoyable meeting and we look forward to doing it again sometime with our New England plant compatriots.



Mountain laurel was in its prime.



We looked everywhere for new plants.



David Werier taught us some new plants at Sterling Forest.





We were lucky enough to see the leaves and flowers of the state-threatened Virginia snakeroot, *Endodeca serpentaria*. The fingers are pointing to the flowers that are just at ground level or in the leaf litter.



This rocky woodland is home to some very nice examples of four-leaved milkweed (Asclepias quadrifolia).



Name Changes in Newcomb's Wildflower Guide

We think Newcomb's is one of the best field guides for identifying wildflowers in New York. Unfortunately the scientific names have not been updated since it was published in 1977 and now just under 30% of them are out of date. Steve Young of the NY Natural Heritage Program has compiled a list of changes for each page of the guide. It is available at the following web site:

http://bit.ly/2bT8p5w

It will take an hour or so to write in the new names but it is worth the time to be up-to-date. Have fun in the field!



Garden Club of East Hampton receives 2015 Plant Conservationist Award

by Anna Stalter

NYFA held its Annual Meeting in conjunction with the joint NEBC/NYFA Botanical Retreat at Black Rock Forest in June, during which NYFA's President, Michael Burgess, announced the winner of the 2015 Plant Conservationist Award. The Garden Club of East Hampton was recognized for its efforts to conserve populations of yellow fringed orchid (*Platanthera ciliaris*), and sent the following announcement to its membership:

"On June 4th, the Garden Club of East Hampton received the New York Flora Association's 2015 New York Native Plant Conservationist Award for its GCA sponsored Partners for Plants project at Barnes Hole Road to revive the existing population of *Platanthera ciliaris*, the yellow-fringed orchid. The population, which was thriving as recently as 20 years ago, is the last known population in New York State and has been reduced to one blooming

plant.

The New York Flora Association (NYFA) was founded in 1990 with the goal of promoting field botany and a greater understanding of the plants that grow wild in New York State. NYFA has over 300 members and is the publisher of the NY Flora Atlas, an up to date source of information for the distribution of plants within the state, as well as information on plant habitats, associated ecological communities, and taxonomy. NYFA's Conservationist award is given "in recognition of outstanding contributions towards the conservation of New York's native flora." Outgoing NYFA president, Steve Young, who also serves as Chief Botanist for the New York Natural Heritage Program and was an early supporter of GCEH's program, nominated GCEH for this award.

GCEH's work at Barnes Hole Road is part of a multi-year project we undertook last year under the aegis of, and with funding from, the Garden Club of America's Partners For Plants (P4P) program. P4P is a joint program of GCA's Horticulture and Conservation Committees to monitor and conserve rare plants, restore native habitats, and remove invasive weeds on federal, state and local public lands. Since its founding in 1992, P4P has sponsored over 375 projects across the United States.

At the Barnes Hole Road site, GCEH is working in partnership with the Town of East Hampton, the Broadview Homeowner's Association, and The Nature Conservancy – the three landowners of the site in question. Last summer we protected the one blooming plant with a wire cage and placed chicken wire cloches over about 20 sterile leaves (a sterile leaf is an orchid plant that hasn't yet stored enough energy to bloom). This past March, a team of volunteers from GCEH, The Nature Conservancy, and the community, led by Dr. Eric Lamont, consulting botanist, cleared brush and overhanging limbs from the site in order to provide more sun to the forest floor. This will help the sterile leaves mature to the flowering stage. (See the East Hampton Star, April 21, 2016, "The Rare Orchid Emergency Squad"). Dr. Lamont is optimistic that our efforts will be successful if we continue



protecting individual plants from herbivory and maintain the clearings we created this past March. We, in turn, are optimistic that we'll succeed in providing the resources and resolve to maintain this site long term, given GCEH's extensive history maintaining community gardens in East Hampton since the 1930's."

Congratulations GCEH, and thanks to Julie Sakellariadis for sharing the club's announcement.

NYFA member Steve Young visited the Barnes Road site recently and took these photos of GCEH members in action.



Julie Sakellariadis (on the left), Mike Bottinii, and Leslie Clarke discussing the placement of protective cages on the orchids.



An orchid safe in its protective cage.

NYFA Aquatic Workshop August 12 - 14, 2016, co-sponsored by Bailey Hortorium

by Steven Daniel

Thirteen of us, ranging from a recent Cornell Natural Resources graduate to a retired botany professor, gathered at Cornell in mid-August for a workshop of study, fun, puzzlement, and surprises as we explored the world of aquatic plants under the expert guidance of David Werier. A little apprehension preceded the workshop, as the forecast had been for 100% chance of rain both weekend days, with severe thunderstorms. As our good fortune would have it, we ended with substantial field time on Saturday and Sunday, and no rain when we were in the field (there were some big downpours while we were in the lab, and driving to our field site!).

Friday evening we met in the lab where David provided a brief overview and showed us the plants he had collected throughout the state over the past month, and had kept alive in bins of water. If we spent the entire time in the lab we would have had ample fresh material to study! There were numerous species of *Potamogeton*, *Myriophyllum*, *Ceratophyllum*, *Utricularia*, *Ranunculus*, and several other genera - a large proportion of the aquatic plants found in New York! Thank you to David for the incredible amount of legwork in assembling those species for study in the lab. Mostly we worked individually, keying out the plants we chose, with David available to help interpret the morphology, as well as the keys.

On Saturday we met in a parking lot at Cornell at 7:00 am, more fitting for a group of birders than botanists! But our goal was to have time in the field if we could, as rain was predicted for late morning and midday. We spent the morning in canoes and kayaks at the north end of Cayuta Lake and in its inlet, where we studied in the field 7 species of *Potamogeton*, ranging from the deep water *P. praelongus* and *P. amplifolius* to the distinctive *P. nodosus* with its very long petioles on the submerged leaves. We compared the flat-leaved *P. zosteriformis* to the ubiquitous *Heteranthera dubia*,



with which it can be sometimes confused. David pointed numerous differences between water lilies (Nymphaea) and pond lily (Nuphar), such as the differences in the leaves (sharply angled by the sinus in Nymphaea, rounded in Nuphar), the flowers, and the amazing reptilian rhizome of Nuphar. We looked into the fine differences between those little floating leaves of water meal (Wolffia) compared to Spirodela and Lemna. It was a terrific outing, and the weather was amazingly cooperative - we were fortunate to have over 5 hours in the field, with sun and no rain at all. It was delightful - and anyone who needed a break could watch a good assortment of dragonflies that were hawking insects, laying eggs, and flying in tandem all around us.

After a break at Purity Ice Cream in Ithaca, many of us returned to the lab for more time keying and study. David had given each specimen a genus and species code, so we could check our answer with his cheat sheet. I found it very helpful to make mistakes keying - I think I finally figured out how to determine fibrous stipules, as well as adnate ones! David also demonstrated how to make a good aquatic plant herbarium specimen, as well as a novel method he learned from Daniel Brunton that preserves Isoetes megaspores for future study but avoids damaging the herbarium specimen to extract them. And as a nice diversion Wade and Audrey brought recently emerged dragonflies (Spot-winged gliders) that had emerged from their outdoor tanks where they are setting up experiments with *Trapa*, water chestnut.

In what has become a NYFA tradition, we had dinner together at an excellent Thai restaurant in town.

Sunday morning many in the group asked for more lab time - we spent a couple of hours further keying those pesky *Potamogetons* as well as other aquatics. Then we headed to Bear Swamp Creek in Sempronius, northeast of Ithaca, where we looked closely at *Najas* and had good comparisons between *Potamogeton hillii* and *P. foliosus*. It was a beautiful spot to end the weekend. And as we were back at the cars saying our goodbyes, with an eye for hybrids that only David has, he pointed out a hybrid (over 6' tall!) - of *Verbena hastata* and *V. urticifolia*.

Thanks to David for extraordinary instruction, and to the fabulous group of participants who were a pleasure to spend a weekend with.



Perusing some of the many samples David brought.



David with a hybrid Verbena hastata x urticifolia; showing hybrid vigor. V. urticifolia is in his right hand.





The group having a lesson in the water.



The aquatic workshop participants on land. Front row, left to right: Lorraine Adderley, David Werier, Steven Daniel; back row, left to right: Larry Klotz, Anna Stalter, Ed Fuchs, Aissa Feldman, Rich Kelly, Jon Titus, Mike Feder, John Lang, Aaron Iverson, Wade Simmons. Not present: Audrey Bowe. Photos by Jon Titus.





Altona and Clintonville Trip July 30 and 31.

by Anne Johnson

The Altona Flat Rock is a huge expanse of sandstone pavement barrens and stunted jack pine forest in Clinton County owned mostly by Miner Institute and New York State. On (thank goodness) a relatively cool day in what has been a very hot and dry summer in Northern NY, we set out across the Flat Rock from the village of Altona and meandered our way to the Dead Sea. The way to the Dead Sea proceeds over a path of (mostly) bare glacially scoured rock through a landscape of stunted jack pines interrupted in places by depressions filled with water (in wetter years), Sphagnum, and a smattering of wetland plants. We stopped to peruse one or two of these dry wetlands where we were pleased to see lots of Carey's smartweed (*Persicaria careyi*) coming up in the dried and drying Sphagnum of the substantial draw-down areas, as well as some clumps of balsam willow (*Salix pyrifolia*). Our goal, the Dead Sea, was formed when a waterfall on its western end was created during the torrential flow of water released from glacial Lake Iroquois many thousands of years ago. After we enjoyed a leisurely lunch while sitting at the top of the thirty foot cliffs bordering the sea, we made our way to its dried bottom at the eastern (outlet) end where we walked over masses of crunchy dried Sphagnum and then proceeded down the spillway to the marshy source of the Cold Brook (mostly by somewhat strenuous bushwhacking, though once we arrived, we discovered we could have taken a trail the whole way).

We returned to our cars by heading north up the state forest boundary, passing over Horseshoe Hill, a large pile of glacially deposited rocks (see photo), and on to the vicinity of the Basin (the site of a previous NYFA trip). From there we headed west and back to the cars via a more northern route. Some of us availed ourselves to the pleasant accommodations at the Miner Institute dorms overnight, after which we all met at our second very dry habitat – the Clintonville Pine Barrens, a TNC property. There we found many exciting and interesting sand plants, including prairie redroot, pitch pine, sweet fern, pinweed, and bearberry (see following list).



The group atop Horseshoe Hill on the Altona Flat Rock. From left to right are Steven Daniel, Kyle Webster, Brigitte Wierzbicki, Tom Phillips, Amanda Post, and Anne Johnson. Missing is David Werier, who took the picture from the bottom of the hill, and Carol Gates.



List of plants seen at Clintonville Barrens on 31 July. An asterisk (*) indicates a non-native species.

Ferns	and	Fern	Allie	c
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Diphasiastrum tristachyum Lycopodium clavatum Pteridium aquilinum Spinulum annotinum

Ground cedar Clubmoss, Staghorn Fern, Bracken; Bracken Clubmoss, Bristly

Redtop; Black bent

Brome, Fringed

Brome, Smooth

Sedge, Shorter

Sedge, Shaved

Poverty-grass

Sedge, Pennsylvania

Sedge, Dry-spiked

Cyperus; Flat sedge

Cyperus; Flat sedge

Hairgrass, Common

Sand-rush

Grasses, Sedges, and Rushes

*Agrostis gigantea Bromus ciliatus *Bromus inermis Bulbostylis capillaris Carex brevior Carex pensylvanica or lucorum

Carex siccata Carex tonsa var. tonsa Cyperus houghtonii Cyperus lupulinus ssp. macilentus

Danthonia spicata

Deschampsia flexuosa Dichanthelium columbianum

Dichanthelium lineariifolium or depauperatum Grass, Panic

Dichanthelium xanthophysum *Festuca rubra ssp. rubra Juncus tenuis Muhlenbergia mexicana Oryzopsis asperifolia Piptatheropsis pungens *Poa compressa

Schizachyrium scoparium

*Achillea millefolium

*Linaria vulgaris

Lysimachia quadrifolia Maianthemum canadense

Melampyrum lineare

Grass, Panic Grass, Panic

Fescue, Red Rush, Path

Satin-grass; Muhly Ricegrass, Spreading Ricegrass, Small Bluegrass, Canada Blue-stem, Little

Herbs

Ambrosia artemisiifolia Apocynum androsaemifolium Aquilegia canadensis Aralia nudicaulis Asclepias syriaca Campanula rotundifolia *Centaurea stoebe ssp. micranthos Chimaphila umbellata Comandra umbellata ssp. umbellata Toadflax, Bastard Comptonia peregrina Erigeron strigosus var. strigosus *Fallopia convolvulus Fragaria virginiana *Hypericum perforatum Hypericum punctatum Lechea sp. *Leucanthemum vulgare

Yarrow Ragweed Dogbane, Rosy Columbine, Red Sarsaparilla, Wild Milkweed, Common Harebell; Bluebell Knapweed, Bushy Pipsissewa, Prince's pine Sweet-fern Daisy fleabane Bindweed, Black Strawberry, Wild St. John's-wort St. John's-wort Pinweed, Legget's Daisy, Ox-eye Butter-and-eggs Loosestrife, Whorled Canada Mayflower Cow-wheat

Nabalus trifoliolatus Rattlesnake-root Oenothera biennis Evening-primrose Oxalis stricta Lady's sorrel King-devil, Glaucous *Pilosella piloselloides Polygonum articulata Jointweed Potentilla simplex Cinquefoil, Old-field Pyrola americana Pyrola, Round-leaved Blackberry, Common Rubus allegheniensis Rubus idaeus ssp. strigosus Raspberry, Red Bladder-campion *Silene vulgaris Solidago juncea Goldenrod, Early Solidago nemoralis Goldenrod, Gray Solidago rugosa Goldenrod, Rough-leaf Spiranthes lacera var. lacera Lady's-tresses, Slender Symphyotrichum undulatum Aster, Wavy-leaved *Trifolium arvense Clover, Rabbit's foot *Trifolium aureum Clover, Yellow hop *Verbascum thapsus Mullein *Vicia cracca ssp. cracca Vetch, Cow Viola adunca var. adunca Violet, Hookspur

Shrubs

Amelanchier humilis Ceanothus herbacea Corylus cornuta ssp. cornuta Diervilla lonicera Epigaea repens Gaultheria procumbens Gaylussacia baccata Kalmia angustifolia Prunus susquehanae Prunus virginiana Rosa blanda Salix humilis var. humilis Vaccinium angustifolium Vaccinium myrtilloides Vaccinium pallidum

Trees

Acer rubrum var. rubrum Amelanchier arborea Betula populifolia Crataegus sp. Fagus grandifolia Pinus rigida Pinus strobus Ouercus alba Quercus rubra

Juneberry, Bush or Low Prairie Redroot Hazelnut, Beaked: Hazel Honeysuckle, Bush Trailing arbutus Wintergreen Huckleberry, Black Laurel, Sheep Cherry, Appalachian Cherry, Choke Rose, Smooth Willow, Prairie or Gray

Blueberry, Lowbush Blueberry, Velvetleaf Blueberry, Early Lowbush

Maple, Red Shadbush, Juneberry Birch, Gray Hawthorn Beech, American Pine, Pitch Pine, White Oak, White Oak, Northern red





Whiteface Mountain Field Trip

by Steve Young, NYFA Board

On Saturday, August 6, six hardy souls gathered at the top of Whiteface Mountain in the fog to explore the krummholz and alpine areas for rare plants. We started out from the castle parking lot and climbed the stairs to the top while stopping to look at the rare plants arctic rush, *Oreojuncus trifidus*, single-spike sedge, *Carex scirpoidea*, bearberry willow, *Salix uva-ursi*, and alpine goldenrod, *Solidago leiocarpa*. At the top there was a crowd of tourists gathering despite the fog and we walked around them looking down at more rare plants like Bigelow's sedge, *Carex bigelowii*, Boott's rattlesnake root, *Nabalus boottii*, and Appalachia firmoss, *Huperzia appressa*. From the top we took the hiking trail down to the Wilmington turn and during our descent the clouds parted, it warmed up, and we saw some spectacular views of the ski slope and surrounding countryside. Here we saw rare plants like alpine sweetgrass, *Anthoxanthum monticola*, high mountain blueberry, *Vaccinium boreale*, black crowberry, *Empetrum nigrum* and deer's hair sedge, *Trichophorum cespitosum*. While we added a few native plants to the list, we also discovered new exotic weeds that were brought in by the road construction and which will have to be dealt with. Our last rare plant was the only population of snowline wintergreen, *Pyrola minor*, in the state. As we got back to our cars the sky opened up and the rain poured down. Great timing! Thanks to those who came and made it an enjoyable time. We will do it again next year on the first Saturday in August so keep it in mind if you would like to join in the fun!



The clouds parted and we saw the Adirondacks spread out before us.





The globally rare Boott's rattlesnake root is able to survive despite the artificial conditions of the parking lot.



One of the new plants we added to the list was *Streptopus amplexicaulis* or clasping leaved twisted stalk, a plant of cool coniferous forests.





Along the roadside on the way down the mountain from the parking lot are lots of narrow-leaved gentians, Gentiana linearis.



One of the most beautiful plants along the roadside is fireweed, *Chamerion angustifolium* ssp. *circumvagum*.





In the krummholz on the trail down from the summit.



At the foggy summit with Steve Young, Carol Gates, Bob Wesley, Barbara McIlvoy, Meagan Clark, and Mike Adamovic.



Editor's Note: Do you ever wonder how non-botanists spend their time while out in the field with slow-moving botanists? One example is provided here by Joan Zeller, who submitted the following piece. (And if you think she is the only one interested in such an esoteric topic, see: http://www.horg.com/horg/)

Wild Occlupanids by Joan Zeller



June 15, 2016 Fullerville, St. Lawrence Co., NY; beach on the West Branch of the Oswegatchie*







August 27, 2016 Axton Landing, Franklin Co., NY; boat launch/beach



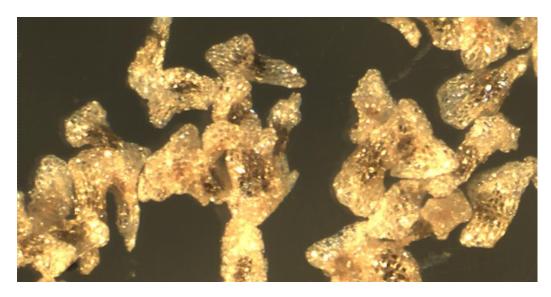
September 1, 2016 Talcville, St. Lawrence Co., NY; injured occlupanid at Huckleberry Lake beach lean-to

Disclaimer: In the interest of full disclosure, although I have never had any financial support from the ORC (Occlupanid Research Council) or ACP (Association of Citrus Packers), I do occasionally eat English muffins and oranges.



^{*} Note: I have found occlupanids twice on Fullerville Beach and suspect they may be breeding.

Botanical Note from Steven Daniel



Seeds of Spiranthes lucida, growing along the Grasse River, St. Lawrence County in June 2016, 30x.

Orchids have the smallest seeds of any flowering plant. They have no endosperm and need fungal hyphae to provide nutrients for the developing seedling. According to Nelson and Lamont (2012), Orchids of New England and New York, some species of Spiranthes release their seeds soon after fertilization and don't develop a woody seed capsule. These seeds (dark spots in the center of the golden net-like covering) are only 0.2 mm long.



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