

# Long Island Botanical Society

Vol. 31 No. 3

The Quarterly Newsletter

Summer 2021

## Plum Island — a Plum of an Island — gets a Second Chance!

John L. Turner

Co-Chair, LIBS Conservation Committee

Situated a mile east of Orient Point, the eastern tip of Long Island's North Fork and separated from it by Plum Gut, lies Plum Island, an 822-acre pork chop shaped island (Fig. 1) that is owned by you and me, being the federal taxpayers that we are! Probably, the island's most well-known feature is the Plum Island Animal Disease Center (PIADC), situated in the northwestern corner of the property, but Plum Island is so much more. The historic Plum Island lighthouse, built in 1869 to warn mariners of the treacherous currents of Plum Gut, is perched above the island's rocky western coast. On the eastern half is the brooding presence of Fort Terry, a relict of the Spanish-American War, with scattered evidence in the form of barracks, gun batteries, and the tiny tracks of a toy gage railroad once used to move cannon shells from storage to the concrete batteries (the cannons never fired except during drills).

And then there's the stuff that excites naturalists:

- The largest seal haul-out site in southern New England and New York located at the eastern tip of the island where throngs of harbor and grey seals swim along the rocky coastline or bask, like fat sausages, on the off-shore rocks that punctuate the surface of the water;



Figure 1. Aerial view of pork chop shaped Plum Island surrounded by Long Island Sound to the north and west, Gardiners Bay to the south, Block Island Sound to the east, and Plum Gut to the southwest. Photo courtesy of the Preserve Plum Island Coalition.

- Dozens of rare and protected plants that flourish in the island's forests, thickets, meadows, and shorelines including native orchids (*Platanthera lacera*, *Spiranthes cernua*, *S. lacera* var. *gracilis*, and *S. vernalis*), carnivorous plants (*Drosera intermedia*), wild lilies (*Lilium superbum*), and numerous rare sedges (*Carex hormathodes*, *Cyperus erythrorhizos*, *C. lupulinus* subsp. *lupulinus*, *C. polystachyos*, *C. retrorsus*, *Eleocharis ambigens*, and *E. uniglumis*);

- The more than 225 different bird species, one-quarter of all the species

found in North America, that breed here (like the bank swallows that excavate burrows in the bluff face on the south side of the island), or pass through on their seasonal migratory journeys, or overwinter;

- A large freshwater pond in the southwestern section of the island that adds visual delight and biological diversity to the island;
- And, of course, the ubiquitous beach plums (*Prunus maritima*) that gave the island its name!

For members of the Long Island Botanical Society (LIBS) who presumably have the greatest interest in Plum Island's flora, the work of LIBS President Eric Lamont reveals the island's botanical richness. According to a 2013 paper published by Eric and Richard Stalter in the Journal of the Torrey Botanical Society (vol. 140), 414 plant species were

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## Long Island Botanical Society

Founded: 1986 • Incorporated: 1989

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

Visit the Society's Web site  
[www.libotanical.org](http://www.libotanical.org)

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## Society News

**LIBS and Covid.** Will LIBS ever resume its regular schedule of monthly meetings at Muttontown Preserve? Will we ever have another annual BBQ? The answer is, no one knows. Change is in the air. But several things remain the same for LIBS. Members continue to get out in the field and make important botanical discoveries which continue to be published in the LIBS Newsletter. LIBS has documented 35 consecutive years of plant observations on Long Island. Thus far in 2021 the Newsletter has featured 20 reports on noteworthy plants from Long Island ranging from rare mushrooms to rare orchids. Another part of LIBS that has not changed is interest in the field trips which has become as much a social event as botanical during the Covid Era. But change is in the air. Other local botanical societies are also experiencing change. The Torrey Botanical Society established a Social Media Committee in 2021 and more people than ever are attending lectures and other programs via Zoom. Have in-person meetings become a thing of the past? We'll just have to wait and see.

**Correction:** In the last issue of the LIBS Newsletter (Vol. 31, No. 2, pp. 16, 17) the year of publication was incorrectly cited in two references to Carol Gracie's book "*Spring Wildflowers of the Northeast: A Natural History*" (Princeton University Press). The correct year of publication is 2012. See page 27 of this issue for a write-up on four of Carol's botany books.



## PLANT SIGHTINGS

**A rare member of the Gentian Family,  
*Bartonia paniculata* subsp. *paniculata*,  
rediscovered in Nassau County, Long Island**

Robby Levy

In August 2020 Robby Levy found a population of green screwstem (aka twining screwstem, *Bartonia paniculata* subsp. *paniculata*) at Mill Pond Preserve, Wantagh, Nassau Co. Photographs were taken and submitted to iNaturalist.org. The plants grow in a small open marshy area with Virginia meadow beauty (*Rhexia mariana* var. *mariana*), spatulate-leaved sundew (*Drosera intermedia*), white beak sedge (*Rhynchospora alba*), and other herbs and graminoids. In New York this species is restricted to Long Island (NY Flora Atlas, 2021) and is listed as Endangered (S1). The last report of green screwstem from Nassau County was in 1929 when William Ferguson collected it from Freeport (voucher at The New York Botanical Garden herbarium). This species is probably extirpated from Kings and Queens counties and is extant in Suffolk Co. Gentians are among the showiest wildflowers. Historically, 11 species of native gentians have been reported from Long Island; today five of them are considered extirpated. The screwstems (*Bartonia*) are a small group of three species in the Gentian Family. Two of the species occur on Long Island (*B. paniculata* subsp. *paniculata* and *B. virginica*) and unlike most gentians they are small and inconspicuous plants with scale-like leaves and small, white to pale yellowish flowers.

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(Plum Island, continued from cover page)

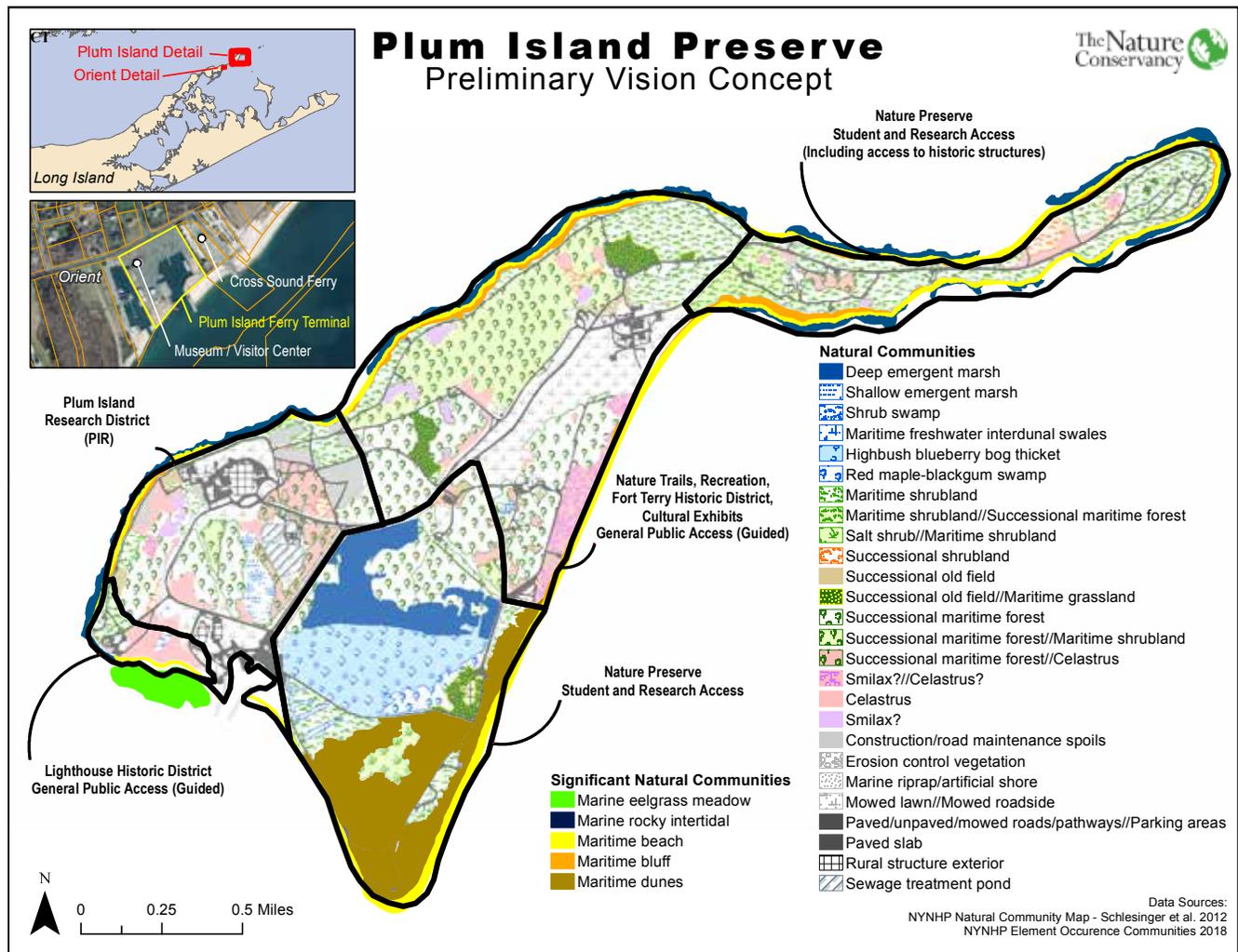


Figure 2. Ecological communities of Plum Island, New York. Map data courtesy of the New York Natural Heritage Program.

identified on Plum Island including 266 that are native. Seventeen species of rare plants currently occur on the island in addition to six rare plants that are thought to be extirpated.

These plant species are components of a diverse set of natural communities existing on Plum Island (Figs. 2 and 3), ranging from the rocky intertidal marine communities to various wetland and upland grassland and woodland communities. Some of these natural communities are rare, like the maritime dunes and healthlands, and exist in just a handful of places in New York. A rare Atlantic White Cedar swamp once occurred in the southwestern part of the island but was destroyed; perhaps if the island is preserved one of the ecological restoration projects can be the re-establishment of the cedar population.

For the past decade a struggle has ensued to make right what many individuals, organizations of all sorts (including the more than 120-member Preserve Plum Island Coalition of which the Long Island Botanical Society is a member), and many public officials consider a significant wrong — Congress's order to sell Plum Island to the highest bidder, losing it forever as a public space. This ill-conceived mandate requiring the auctioning of the island was set in motion by a half-page paragraph buried in a several thousand page bill to fund government agencies in 2009.

Fortunately, this struggle has been won — the wrong has been righted — as language included in the recently adopted 2021 budget bill for the federal government repeals the mandate requiring the General Services Administration to sell the island. While this victory is a vital and necessary

(continued on next page)

*(Plum Island, continued from page 23)*

step to ultimately protect Plum Island, it is a temporary and incomplete one since the island can still be sold to a private party through the normal federal land disposition process if no government agency at the federal, state, or local level steps up to take title to the island. The Coalition's next task, then, is to ensure that a federal agency such as the National Park Service (National Monument?), US Fish & Wildlife Service (National Wildlife Refuge?) or the state of New York (New York State Park Preserve?) expresses a willingness to accept stewardship of this magnificent island, since they get first dibs on the island if they want it. A key enticement toward this end is the inclusion in the federal budget of an \$18.9 million commitment to clean up the few contaminated spots on the island.

Why the sale in the first place? Since 1956, PIADC has been conducting top level research on highly communicable animal diseases such as foot-and-mouth disease. To this end, several

years ago staff developed a vaccine for this highly contagious disease that holds great promise in controlling the disease globally. Despite this successful research, Congress determined the facility was obsolete and should be replaced by a new state-of-the-art facility known as the National Bio and Agro-Defense Facility (NBAF), to be located on the campus of Kansas State University in Manhattan, Kansas. The construction of NBAF is now complete and will soon be fully operational so as a result PIADC on Plum Island is no longer needed. PIADC is expected to transfer all operations to Kansas and close for good in 2023.

Plum Island is a unique place, a remarkable asset that holds the promise of enriching Long Islanders' lives — your family's lives — if we can keep it in public ownership. The Preserve Plum Island Coalition, with input from hundreds of Long Islanders during two visioning workshops, has painted a vision for the island.....so, imagine throwing binoculars, camera,



Figure 3. South shore of Plum Island looking west from just east of Fort Terry (center left in the far distance). Significant ecological communities include the maritime beach, maritime bluff, and just offshore is marine rocky intertidal habitat for the largest seal haul-out in southern New England and New York. Photo by Greg Edinger, New York Natural Heritage Program.

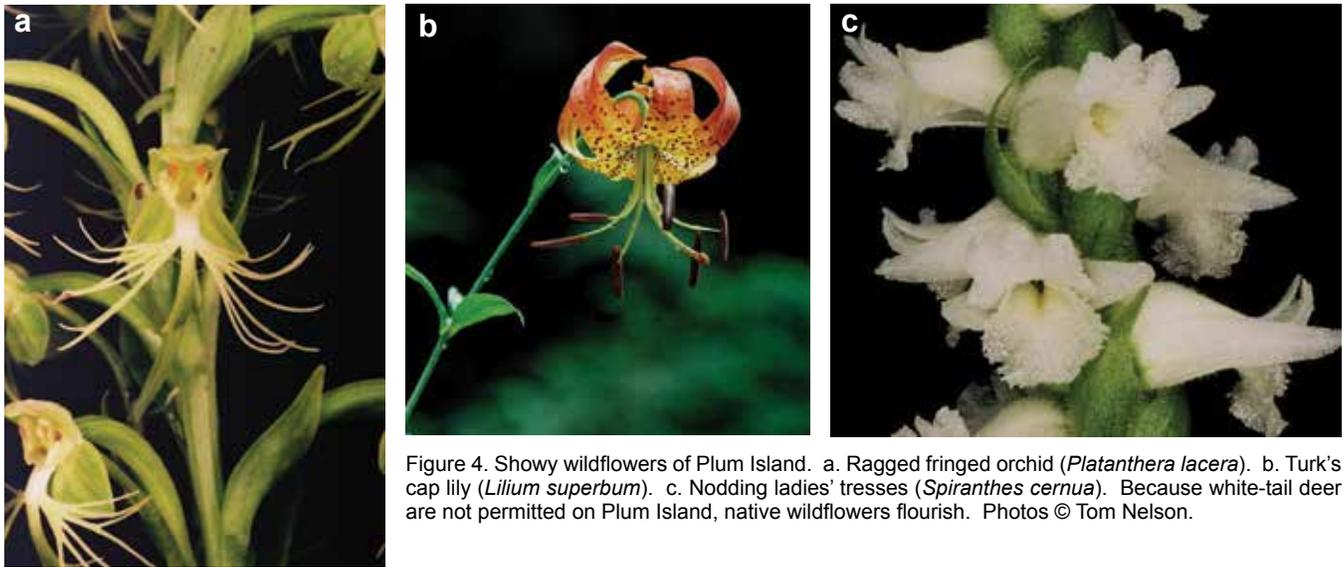


Figure 4. Showy wildflowers of Plum Island. a. Ragged fringed orchid (*Platanthera lacera*). b. Turk's cap lily (*Lilium superbum*). c. Nodding ladies' tresses (*Spiranthes cernua*). Because white-tail deer are not permitted on Plum Island, native wildflowers flourish. Photos © Tom Nelson.

and a packed lunch enough for you and your family into your backpack and participating in this realized vision by:

-Taking a ferry to Plum Island, debarking to orient your island adventure by visiting a museum interpreting the island's cultural and natural riches and fascinating history before wandering for countless hours experiencing the island's wild wonders.

-Making a most worthwhile stop at the island's eastern tip where, through a wildlife blind, you enjoy watching dozens of bobbing grey and harbor seals dotting the water amidst the many partially submerged boulders or basking on them looking like fat sausages.

-Standing on the edge of the large tree-edged pond watching basking turtles, wading birds, and dragonflies flitting over the water's surface.

-Birdwatching on the wooded trails and bluff tops to view songbirds, shorebirds, ospreys and other birds-of-prey, swallows, sea ducks, and so many other species. Perhaps you'll see a peregrine falcon zipping by during fall migration, sending flocks of shorebirds scurrying away as fast as their streamlined wings can take them.

-Botanizing to your heart's content throughout the island's rich and diverse natural communities, photographing showy wildflowers in the midst of spectacular scenery (Fig. 4).

-Strolling along the island's eight miles of undisturbed coastline, with the beauty of eastern Long Island before you, offering distant views of Great Gull Island, Little Gull Island, Gardiners Island, Montauk Point, and the Connecticut and Rhode Island coastlines.

-Lodging at the Plum Island lighthouse, converted into a Bed & Breakfast and enjoying a glass of wine as the sun sets over Plum Gut and Orient Point.

-Learning about the role Fort Terry played in protecting the United States and the port of New York City as you explore the fort barracks where soldiers stayed and the gun batteries that once housed cannons angled skyward to repel a foreign attack.

-At the end of day, if you don't stay over, taking the ferry back to the mainland of the North Fork, tired after miles of hiking in the invigorating salt air, and stopping at a North Fork restaurant to share a chat among friends and family about the memories you've just created and what you've just learned about this fascinating island.

The repeal language in the federal budget has given Plum Island (based on the above, perhaps we should call it Treasure Island!) a second chance and has given us an opportunity to achieve this vision. But this law is only the first step. We need to take the vital second step of new ownership and management in the public interest if all of the above adventures are to become realities. We collectively need to tell the elected officials who represent us, and who can make a difference in determining the island's fate, that we want Plum Island protected in perpetuity and the opportunity for its many wonders to become interwoven into the fabric of life on Long Island.

Go to [www.preserveplumisland.org](http://www.preserveplumisland.org) to learn more about the Coalition, receive updates, and what you can do to help. Best yet, let your Congressional representative and NY Senators Gillibrand and Schumer know of your support for protecting Plum Island - its but a ten-second phone call or five-minute letter writing exercise!

## Sleuthing for rare plants at Mill Pond, Nassau County, Long Island<sup>1</sup>

Robby Levy

Massapequa High School, Long Island, New York

Mill Pond is a preserve and pond in Wantagh, Nassau County that provides habitat for many species of plants. More than 220 species have been reported from the area and as of September 2020 I have found more than 150.

The preserve borders Wantagh State Parkway which causes noise pollution and disrupts the local environment. The preserve is heavily trafficked with hundreds of visitors every day and is choked by invasives. In spite of these negative impacts, there are many secrets lying within this pond and preserve.

One secret was discovered this past July when I found a remarkable plant, humped bladderwort (*Utricularia gibba*), a carnivorous plant that captures small organisms by means of bladder-like traps. Other meat eating plants hidden in the preserve include spatulate-leaved sundew (*Drosera intermedia*) and round-leaved sundew (*D. rotundifolia*). Charles Darwin (1809-1882) spent years studying the genus *Drosera*, which means dewy in Latin in reference to the glistening stalked glands on the leaf margins. In an 1860 letter Darwin wrote, "At the present moment, I care more about *Drosera* than the origin of all the species in the world."

*Drosera rotundifolia* is rare in Nassau County; most of the historical populations have been lost due to destruction of habitat by humans. Eastern Long Island still has suitable habitat and provides a refuge for this species. At Mill Pond Preserve, there are twenty-seven plants (at the last count) restricted to a very small boggy area dominated by *Sphagnum girgenhsonii*.

Another interesting find of mine is Nuttall's milkwort (*Polygala nuttallii*). This milkwort is a rare species (S2,

Imperiled) in New York and is extremely rare in Nassau County. It is named for botanist Thomas Nuttall (1786-1859) who first recognized its distinctiveness from other milkworts. The population at Mill Pond Preserve is restricted to a 50 by 25 foot open area and consists of just two plants. These two plants grow right next to a patch of Virginia meadow beauty (*Rhexia virginica*, Fig. 1), green screwstem (*Bartonia paniculata* subsp. *paniculata*, S1, Endangered), spatulate-leaved sundew (*Drosera intermedia*), and white beak sedge (*Rhynchospora alba*).



Figure 1. Virginia meadow beauty (*Rhexia virginica*), a member of the Melastome Family (Melastomataceae). Of the more than 5000 species in this mostly tropical family, *Rhexia virginica* is the only one that currently extends as far north as New York. Note the long, curved, bright yellow anthers. Photo by Eric Lamont.

The preserve is home to many other species of native wildflowers including purple agalinis (*Agalinis purpurea*), groundnut (*Apios americana*), three species of milkweed (*Asclepias incarnata* subsp. *pulchra*, *A. syriaca*, and *A. verticillata*), two species of Joe Pye weed (*Eutrochium fistulosum* and *E. purpureum*), yellow star grass (*Hypoxis hirsuta*), blue flag (*Iris versicolor*), ghost pipes (also known as Indian pipe, *Monotropa uniflora*), and pickerel weed (*Pontederia cordata*).

Among the ten native tree species growing at Mill Pond Preserve are two that are uncommon on Long Island: sweetgum (*Liquidambar styraciflua*) and eastern sycamore (*Platanus occidentalis*). I've also identified six ferns and 12 sedges.

In some parts of the preserve invasive species are abundant. Characteristic species include porcelain berry (*Ampelopsis glandulosa*), Oriental bittersweet (*Celastrus orbiculatus*), autumn olive (*Elaeagnus umbellata*), Japanese stilt grass (*Microstegium vimineum*), old world reed grass (*Phragmites australis*), multiflora rose (*Rosa multiflora*), and water chestnut (*Trapa natans*). A new invasive, sacred lotus (*Nelumbo nucifera*), has choked up Mill Pond and a nonnative orchid, broad-leaved helleborine (*Epipactis helleborine*), adorns the edges of some trails.

I really hope that other rare and noteworthy plants are still hiding at Mill Pond Preserve and someday I'll find them.

<sup>1</sup>Editor's note: Robby is the youngest author to contribute an article to the LIBS Newsletter. He submitted this article in September 2020 at the age of 14.

## Carol Gracie's Botany Books

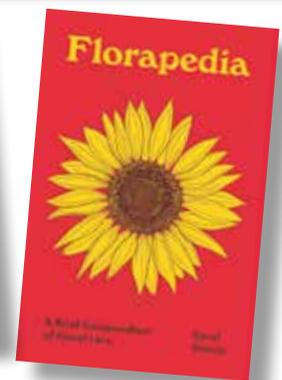
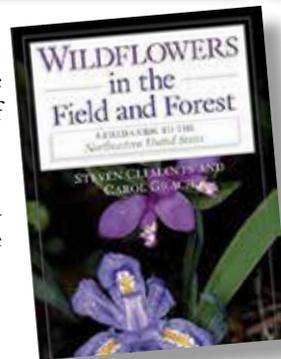
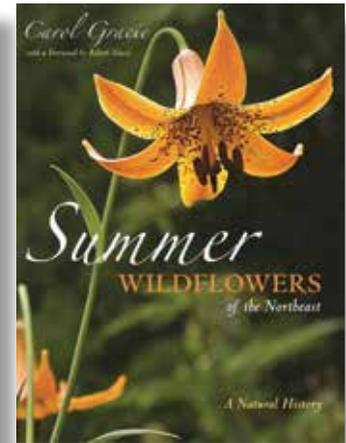
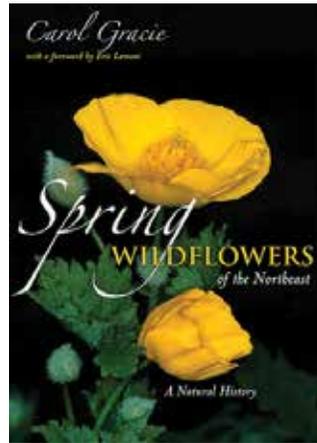
LIBS member Carol Gracie is a botanist, naturalist, photographer, author, explorer, conservationist, and educator. She has had a long affiliation with The New York Botanical Garden dating back to the 1980s when the late Joe Beitel (Past Vice-President of LIBS) studied there.

Carol's 2-volumes on *Spring and Summer Wildflowers of the Northeast* are ideal for wildflower lovers, outdoor enthusiasts, naturalists, scholars, students, and others. Published by Princeton University Press. *Spring Wildflowers* (2012), 272 pages; *Summer Wildflowers* (2020), 372 pages.

In 2006 Carol co-authored with the late Steven Clemants (Past Vice-President of LIBS) *Wildflowers in the Field and Forest*, including more than 1,400 species descriptions, nearly all with beautiful color plates. Published by Oxford University Press, 445 pages.

*Florapedia* is a delightful A to Z collection of botanical lore. With more than 100 entries this collection is a captivating journey into the realm of botany. Published by Princeton University Press (2021), 189 pages.

"Carol Gracie has an exquisite talent for presenting the beauty, biology, and ethnobotany of wild plants in a most engaging way." –Robert Naczi, The New York Botanical Garden.



*(Plant Sightings, continued from page 22)*

### Update on the status of noteworthy plants at Freeman Avenue, Islip, Long Island

John Turner

As members of the Long Island Botanical Society are aware, the Freeman Avenue site in Islip is of great interest due to the presence and abundance of a number of rare plant species. For background information on the site see Stephen Young and John Turner's 2019 article, "Back from the Dead: The Rare Plants at Freeman Avenue, Islip" (LIBS Newsletter vol. 29, pp. 1, 3-5).

During the 2021 field season I made several visits to the property to determine the status of a few plant species. It was an interesting year. The pyxie moss (*Pyxidanthera barbulata*), the best population of the two occurring on Long Island, had a down year with fewer blossoms than in the past few years. In New York pyxie moss is known only from Suffolk

County and is listed as Endangered (S1). Orange milkwort (*Polygala lutea*), also listed as Endangered (S1), is doing fine with several hundred plants flowering throughout the middle of the property. On a recent trip to check on the status of white-fringed orchids (*Platanthera blephariglottis*) I found 11 in bloom. This represents a significant reduction from last year when I counted 77 blooming orchids. Unfortunately, this population was mowed at an inopportune time in 2020 which may account for this year's reduction. However, I was delighted to find 145 individual little ladies' tresses (*Spiranthes tuberosa*) while looking for the white-fringed!

The Seatuck Environmental Association and the Long Island Botanical Society have made the current property owner, a radio tower company, aware of the site's botanical richness and are discussing ways with the owner to better safeguard the plants. Fortunately and appreciatively, the owner is receptive to exploring efforts to better protect the site. We'll provide greater details about these efforts as they occur. Stay tuned!

## FIELD TRIPS

**(Note: Due to Covid-19 protocols, registration is limited and required on all trips; please contact the Trip Leader for information and to pre-register)**

### **October 2, 2021 (Saturday) 9am to 2pm**

*Greentree, Nassau County, NY*

Trip Leaders: Stéphane Perreault and Jim Stevenson-Mathews

Email: [sperreault@greentreefdn.org](mailto:sperreault@greentreefdn.org) / cell: 516-423-0947

Expect to walk 4-5 miles on the 400 acre Greentree property (former Whitney Estate). Only those registered will be admitted on the property (contact Stéphane Perreault). Registration is limited to 10 LIBS members.

The primary habitat is a mature broadleaf deciduous forest (covering 180 acres) featuring a nice diversity of tree species. Biodiversity in the forest has not been well characterized and includes the usual plethora of invasive species. Areas with moist soils showcase American witch-hazel, American hornbeam, sweet pepperbush, sweetgum, and at least 8 species of ferns. The property features 4 species of native parasitic plants. There are 50 acres of meadows and grass areas; native species in-

clude nodding ladies'-tresses, seedbox, Virginia meadow beauty, white turtlehead, green milkweed, golden aster, and New York ironweed. The former estate also showcases well-maintained ornamental trees, a chestnut arboretum, and several gardens.

Directions: 220 Community Drive, Manhasset, Nassau County. The only access is from Community Drive, regardless of what your GPS device might tell you. Take Community Drive from the LIE (I-495) North Service Road (exit 33 Eastbound, exit 33 or 34 Westbound). Entrance is on Community Drive immediately after the hospital, on the right side as you go downhill. The correct entrance is the one with the somewhat inconspicuous "Greentree Foundation" signs. Take the driveway to the security gate.

Special instructions: There will be short breaks but no lunch. Bring snacks. No bathroom available. Dress appropriately, prepare for poison ivy and ticks.

## UPCOMING PROGRAMS

**Due to Covid-19 restrictions, monthly meetings at Muttontown Preserve are postponed until further notice.**