Lesser Purple Fringed Orchid (*Platanthera psycodes*)
Rediscovered on Long Island

Taylor J. Sturm

On April 22, 2023, I spent my morning looking for goldenclub (*Orontium aquaticum*) in the Town of Smithtown, Suffolk County. In my pursuits, I traipsed into an obscure, unnamed wetland within the headwaters of the Nissequogue River. There, a convergence of numerous groundwater seeps trickle through an *Acer* and *Nyssa*-dominated swamp and feed the river. I did not find any goldenclub that day, but I did notice at least a dozen *Platanthera* orchids (I did not keep count) in early-spring growth, just emerging from the mossy edges of the water.

I revisited the location in May and June to look for sedges (*Carex* spp.) as well as other wetland plants which would likely be supported by such a habitat. During these visits, I continuously checked in on the orchids, but they were still not ready to flower. I did notice that the number of visible plants was increasing and, by my June 19 visit, many were developing inflorescences. There were also many sterile leaves present; just tongue-shaped singles and doubles barely visible through the skunk cabbage (*Symplocarpus foetidus*) and royal fern (*Osmunda regalis*). (continued on page 23)
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

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Society News

LIBS Election Results. At the June 2023 meeting, LIBS members elected the following officers to serve two-year terms: President – Eric Lamont, Vice-President – Andrew Greller, Treasurer – Kathleen Gaffney, Recording Secretary – Sue Avery, Corresponding Secretary – John Potente.

LIBS welcomes new members: Joanne Cardinali, Laura Juszczak, and Julie Seghrouchni. All three attended the LIBS BBQ in June 2023 and look forward to getting together again at the October 2023 members meeting at Syosset Library (see page 28 of this issue).

LIBS members Bill and Dot Titus celebrate 70th Wedding Anniversary. Holy Cow! Congratulations Bill and Dot on this momentous occasion. Please tell the rest of us how you accomplished this milestone. Best of luck for many more years to come!

LIBS member Tom Stock publishes 3rd book of poems. The title of Tom’s most recent book is BUFFET, published by Pegasus, $9.99 (ISBN: 9781800166226). These poems show how deeply imbedded Tom is in the natural world. The work is unique, passionate, and intimate. Tom is a Long Island naturalist, teacher, author, and artist and has had a long affiliation with LIBS spanning the course of three decades.

12 orchid species in a day on LI. On Saturday, August 12, 2023 Taylor Sturm and Pete Morris implemented a popular birding methodology (a “big day” in birding terms) and tried to see how many orchids they could find in one day. Here's what they found: Calopogon tuberosus var. tuberosus (seed head, Napeague), Cypripedium acaule (leaves only, Napeague), Goodyera pubescens (Prestons Pond complex), Platanthera blephariglottis var. blephariglottis (Quogue), Platanthera ciliaris (Barnes Hole), Platanthera clavellata (seed head, Smithtown), Platanthera pallida (Napeague), Platanthera psycodes (withered almost to seed, Smithtown), Pogonia ophioglossoides (seed head, Quogue), Spiranthes lacera var. gracilis (flowering, Napeague), Spiranthes tuberosa (several places; Dave LaMagna found a field in Medford with over 1,000 plants last week), and Spiranthes vernalis (Commack).

LIBS pleased with passage of Birds and Bees Protection Act. The first issue of the 2023 LIBS Newsletter (vol. 33, no 1, p. 2) mentioned pending state legislation to limit use of neonicotinoid pesticides, known as the Birds and Bees Protection Act (A7640/S1856A). These widely used chemicals are a risk to birds and pollinators alike and are documented as present in ground and surface waters. Through a broad coalition of conservationists, including LIBS, the bill did pass the State Senate and Assembly. The bill bans the harmful and unnecessary uses which account for 80-90% of the neonic entering the state’s environment every year (largely agricultural and commercial). LIBS is not entirely satisfied with the Act because it doesn’t totally (100%) ban the use of neonics in New York.

Mike Feder leading LIBS field trip to Forest Park, Queens Co.; photo by Daniel Atha, June 3, 2023.
On July 7, Dave LaMagna and I revisited the site. During this visit, we noticed that many of the orchids were only days away from blooming, with fully developed inflorescences about to burst. Astoundingly, we also noticed that some of the more developed orchids had turned a colorful pink-purple hue in their lower buds. While the notion of lesser purple fringed orchid (*Platanthera psycodes*) being a possibility had crossed my mind many times, it was never more than just a fantasy. However, the first bud opened on July 9 (per LaMagna) and I visited the site again on July 10, where I was finally rewarded after almost 3 months of waiting. There, standing in ankle-high water, I was face-to-face with an orchid that hadn't been seen on Long Island in over thirty years: *Platanthera psycodes* (Fig. 1).

*Platanthera psycodes* has never been common or abundant on Long Island as far as the botanical record can show. Eric Lamont’s *Atlas of the Orchids of Long Island, New York* shows only 7 stations for this species from Brooklyn to Montauk (though none within the Town of Smithtown), found between 1863 and 1927 (Lamont 1996). Six of the historic populations on western Long Island were certainly lost to habitat destruction, herbivory, invasive species introduction, or other anthropogenic impacts. By the end of the 1980s, Lamont wrote “only one extant population of *Platanthera psycodes* is known from Long Island, growing in swampy woods at Montauk.” Roy Latham (1940) also reported only one Long Island station for *P. psycodes* (Montauk), adding “there was a second station on the western part of the island which has been destroyed.” While conducting botanical inventories for Suffolk County Dept. of Parks in 1974, *P. psycodes* was relocated in Montauk by Joe Beitel in swampy woods bordering Big Reed Pond (Lamont et al. 1988). The population was regularly monitored until 1992 when it was last observed by Jim Ash and Lamont; at that time the orchids were being decimated by deer browsing despite efforts to protect them with an exclosure (Lamont, pers. comm.). Many Long Island botanists (me included) have regularly checked the Montauk locality in the intervening decades with hopes of re-finding this species, without success (Taft, pers. comm.). Thus, this “new” population in Smithtown not only represents a new station for this species on Long Island, but the only locality on the island where this orchid is presently known to grow.

After thoroughly documenting this new population through photography (to rule out the similar-looking *P. grandiflora* and hybrid *Platanthera* taxa), I revisited the site once more on July 14, this time with Dave Taft. The main purpose of this visit was, in part, to get an understanding of the size of this new population. After over two hours of searching, we came up with an impressive 186 individuals: 94 flowering plants (or attempting to flower) and 92 sterile leaves. Also of note were at least two individuals with flowers that were entirely white; an uncommon color morph known as *Platanthera psycodes* forma *albiflora* (Brown and Folsom 1997, Fig. 2).

Dave Taft and I noticed that the plants seemed to favor edges of the cool, spring-fed streams that were measured between ±59 and 67°F; a strong contrast to the spate of 80-90°F weather during July of 2023. This water was also tested with a wide-range pH test kit and was found to be somewhat acidic (pH = ±6.0). These stream edge habitats also tended to be slightly more “open” than the *Clethra*-dominated shrublands just beyond them. Interestingly, this wetland also receives periodic tidal inundation from the Nissequogue River which may provide some additional benefit to this species. Salinity measurements showed that even during daily high water, the salt content in the water was no higher than 0.1 parts per thousand (i.e., a negligible amount of salinity). However, during extreme tides, greater saline content likely makes it further upriver. Extreme tides and general flooding certainly do affect this location, as indicated by sediment deposits over 1-foot above ordinary high water.

The discovery of this population should certainly be encouraging to Long Island botanists, beyond the “good news” that this species is still thriving in Suffolk County. This hopefully demonstrates that there are still populations of rare plants to be found (even species as conspicuous as a 2-foot-high purple orchid) on our otherwise heavily developed island. That said, there are still conservation concerns regarding this population of *P. psycodes*. While relatively undisturbed, this wetland does host several invasive species such as Japanese knotweed (*Reynoutria japonica*), Japanese barberry (*Berberis*),...
Noteworthy Plants Reported from the South Fork of Long Island
Victoria Bustamante

During the past decade I have been studying the flora of the Montauk Peninsula and adjacent regions; this study has included field work, collecting voucher specimens, literature searches, and research on historical plant collections from Montauk. A major goal of the study is to compare the current flora of Montauk with the flora reported 100 years ago by Norman Taylor (1923). Voucher collections have been deposited at the New York Botanical Garden herbarium (NY) with some duplicates at NYS and BH. Nomenclature in this paper follows Werier (2017) and rarity status follows Young (2020).

Claytonia perfoliata, miner’s lettuce (Montiaceae, the Montia Family). Non-native. (Fig. 1).

New record for New York. *Claytonia perfoliata* is reported here as the first naturalized occurrence in New York; it has not previously been reported for the state (Miller and Chambers 2006, Werier 2017, Werier et al. 2023, USDA 2023). This spring, at an agricultural tree farm in eastern Southampton Township a small population (3 individuals) of *C. perfoliata* was discovered growing in a production area under some benches in a hoop house topped with mesh shade cloth and open sides to the elements. Voucher: New York. Suffolk Co., Southampton Township, growing at an agricultural tree farm, 18 May 2023, V. Bustamante 2097 (NY). This species, with its bizarre upper leaves, is native to western North America, Mexico, and Central America where it prefers shady, moist habitats. It is introduced in the eastern United States, South America, Europe, Asia, (continued on next page)

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thunbergii), multiflora rose (*Rosa multiflora*), and yellow iris (*Iris pseudacorus*). It is not clear how long these exotic species have persisted at this location, or how great a threat they currently pose to this population. Further, after returning to the site in late July, I was dismayed to find many (though not all) of the flowering orchids had been browsed by deer. Continued monitoring of the site will certainly inform us, as a community, if any action needs to be taken to protect this last hope for *P. psycodes* on Long Island.

I extend my gratitude to Dave LaMagna and Dave Taft for joining me in the field and taking part in monitoring this population. Further, thank you to Eric Lamont for providing editorial remarks regarding this article and the contextual history of the Montauk population. Lastly, I would like to thank the Long Island Botanical Society for allowing me the opportunity to write this article.

Literature Cited


and New Zealand (Miller and Chambers 2006). Weakley et al. (2023) considered it a “waif” in North Carolina, Georgia, Arkansas, and Missouri, and USDA (2023) listed it as non-native in New Hampshire. In the eastern States it grows in “disturbed areas, lawns, gardens, rarely rock outcrops” (Weakley et al. 2023). The plant’s common name dates back to the mid-1800s, when miners ate this Vitamin-C rich plant to help prevent scurvy during the California Gold Rush, and it was used by the indigenous Cahuilla Indians long before the gold rush era (Bean and Saubel 1969). Miner’s lettuce has been described as “one of the most tasty wild edible greens you’ll ever try!” (Nyerges 2016). Not long ago, the genus Claytonia and its relatives were included in the Purslane Family, Portulacaceae (Gleason and Cronquist 1991).

**Clerodendrum trichotomum**, harlequin glorybower (Lamiaceae, the Mint Family). Non-native.

New record for New York. Voucher: New York. Suffolk Co., Southampton Township, North Haven Village, on the Bluffs Road, roadside escapee (41.03068N, 072.33020W), 28 Jul 2021, V. Bustamante 1941 (NY). This shrub is native to China and Japan and is used as a landscape ornamental due to its attractive, fragrant flowers and showy deep blue berries surrounded by the bright red calyx. Although it is presumed to have been originally planted it is now seen naturalizing in a few areas of The Bluffs in North Haven, Sag Harbor.

**Elymus glabriflorus var. australis**, hairy southeastern wild rye (Poaceae, the Grass Family). Native.

Rare plant in New York (state rank: SH, before this report). Voucher (determined by David Werier): New York. Suffolk Co., East Hampton Township, Montauk, 17 July 2022, V. Bustamante 2053 (NY). This rare, native grass reaches the northern edge of its range on Long Island and in southern New England where it inhabits shallow soils of dry to moist oak (*Quercus*) and hickory (*Carya*) forests. Before this report, *E. glabriflorus var. australis* had not been collected in New York in 85 years (Suffolk Co., Flanders Bay, 20 Aug 1938, W.C. Muenscher & O.F. Curtis Jr. 7829, NYS), and the only other collections from New York (both from Long Island) are from more than 100 years ago (Nassau Co., 26 July 1903, Bicknell 9960, NY; Queens Co., 30 July 1904, Bicknell s.n., NYS). In 2022, under a coastal oak-hickory forest over-story in Hither Woods State Park, Montauk approximately 200 individuals of this rare grass were observed growing near the edge of a cliff top facing Napeague Bay under the harsh influence of strong sea winds and salt spray.

**Galium sherardia**, field-madder (Rubiaceae, the Madder Family). Non-native.

New record for Suffolk County. Voucher: New York. Suffolk Co., East Hampton Township, hamlet of Montauk, 6 Deer Way, lawn weed, 25 May 2020, V. Bustamante 1679 (NY). The small, pinkish-blue flowers of this delicate annual of the Old World are delightful to see. Unlike most wildflowers of New York, the flowers of field-madder have 4 petals and 4 sepals, a characteristic of the family. The Rubiaceae is a large family of about 6500 species (including *Coffea arabica*, the source of coffee); the vast majority of species occur in the tropics, but a few, about 40 (more than half in the genus *Galium*) can be found in New York.

**Lithospermum officinale**, European gromwell (Boraginaceae, the Borage Family). Non-native.

New record for Suffolk County. Voucher: New York. Suffolk Co., East Hampton Township, hamlet of Montauk, Montauk County Park, Paumanok Path behind Star Top (41.06126N, 071.90094W), 28 Nov 2020, V. Bustamante 1861 (NY). Before this report, *L. officinale* had been collected only once before on Long Island more than 100 years ago (Queens Co., ca. 1890, Hulst s.n., BKL). Of the 23 species in the Borage Family documented (with voucher collections) from Long Island, 17 are non-native. The Borage family is especially well developed in the Mediterranean region and in western North America, and many species with showy flowers are common garden plants on Long Island.

**Onopordum acanthium subsp. acanthium**, Scotch thistle (Asteraceae, the Aster Family). Non-native. (Fig. 2).

First report from Montauk in over 100 years, only known extant population on Long Island. Voucher: New York. Suffolk Co., East Hampton Township, hamlet of Montauk, Montauk County Park, Third House along Deep Hollow Ranch fence line (41.05562N, 071.89940W), 30 June 2022, V. Bustamante 2037 (NY). Before this report Scotch thistle had been collected 6 times on Long Island, twice on Gardiners Island (1914, 1977), and once on Fishers Island (1932). On Long Island it has been collected in Kings Co. (1883), Queens Co. (1886), and the North and South Forks of eastern Suffolk Co. (1874, 1914, 1919, 1934). William Ferguson last collected it in Montauk 103 years ago in 1919 (Fig. 3). In the late 19th century, it was introduced (from Europe) to temperate regions of North America, South America, and Australia as an ornamental plant, and is now considered a major agricultural and wildland noxious weed. It is difficult to eradicate because...
of its drought resistance. Scotch thistle can grow upwards of 12’ tall, has attractive silvery tomentose leaves, broadly winged stems, extremely sharp prickles, and classic thistle flowers which are purple and visited by many pollinators.

**Persicaria filiformis**, Asian jumpseed (Polygonaceae, the Buckwheat Family). Non-native.

New record for Long Island. Daniel Atha gave a talk to LIBS members on November 12, 2019 entitled “New York’s worst invasives no one has ever heard of.” *Persicaria filiformis*, one of the 11 species discussed, had recently been discovered in New York City and Daniel predicted it would soon colonize new localities in the region. Well, he was right! In November 2020 I found a roadside population of *P. filiformis* growing on Laurel Drive in Montauk and another small population nearby in Hither Woods State Park. Voucher: New York. Suffolk Co., East Hampton Township, hamlet of Montauk, Hither Woods area (41.02041N, 071.99266W), 11 Nov 2020, V. Bustamante 1858 (NY). As per Daniel’s discussion at the LIBS meeting: *Persicaria filiformis*, Asian jumpseed is sister to the American jumpseed, *P. virginiana*. They may share a common ancestor, but millennia of isolation, drifting continents, and changing vegetation patterns caused the two species to diverge genetically, anatomically, and chemically. Morphologically, *P. filiformis* can be distinguished by the elliptic leaves that are widest at or above the middle and with persistent purple markings, whereas *P. virginiana* has ovate leaves, widest below the middle and purple markings only on young leaves. Additionally, *P. filiformis* has pink flowers while *P. virginiana* has whitish-green flowers.

**Petunia integrifolia**, violet petunia (Solanaceae, the Potato Family). Non-native. (Fig. 4).

New record (vouchered) for Long Island. Werier et al. (2023) did not include Long Island within the range of *P. integrifolia* in New York because no voucher collection could be found from the island. The species had been historically observed and reported (but not collected) from three localities in Suffolk County (NY State Museum Cards, Albany): northern Brookhaven Town (Stanley Smith, 1962), western Southampton Town (Stanley Smith,

*Primula japonica,* Japanese primrose (Primulaceae, the Primrose Family). Non-native. (Fig. 5).

New record for Suffolk County. This perennial (native to Japan) has colonized the banks of Hook Pond Dreen in the East Hampton Village Nature Trail and Wildlife Sanctuary. It was likely introduced in the beginning of the 20th century by the owner who maintained it at that time as a Japanese garden. Voucher: New York. Suffolk Co., East Hampton Township, Village of East Hampton, Davids Lane Nature Trails, red maple swamp community, grown in association with *Symlocarpus foetidus* & *Acer rubrum,* on the banks of Hook Pond Dreen (40.96072N, 072.17838W), 10 May 2019, *V. Bustamante, H. Garneau, M. Junemann, M. Mamay 013* (NY).

*Quercus xfernowii* [= *Q. alba* × *Q. stellata*], Fernow’s oak (Fagaceae, the Beech Family). Native.


*Quercus xstelloides* [= *Q. prinoides* × *Q. stellata*], oak hybrid (Fagaceae, the Beech Family). Native.


*Viola xgrandis* [= *V. communis* × *V. sororia*], violet hybrid (Violaceae, the Violet Family). Native.


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**Figure 5.** *Primula japonica* (Japanese primrose) from Suffolk County, NY. Photo by Victoria Bustamante, 2019.

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**Literature Cited**


September 23, 2023 (Saturday) 10am  
Field Trip to Oyster Pond, Montauk Point State Park, Suffolk Co.  
Trip Leader: Victoria Bustamante  
Joint field trip with the New York Flora Association

Oyster Pond is the largest and highest quality example of a coastal salt pond community in New York State. The pond lies mostly in Montauk Point State Park within a completely undeveloped watershed. Due to its proximity to the shoreline, it periodically opens to Block Island Sound by natural processes making it brackish. Oyster Pond is host to many rare and unusual plants which have adapted to survive in this habitat including *Sesuvium maritimum*, *Chenopodium berlandieri* var. *macrocalycium*, *Eupatorium torreyanum*, *Eleocharis parvula*, *Glyceria obtusa*, *Polygala cruciata*, *Juncus brachycarpus*, *Limosella australis*, *Viburnum dentatum* var. *venosum*, *Ptilimnium capillaceum*, and *Carex mitchelliana*.

Sturdy walking shoes/boots are recommended, preferably waterproof, as we will be navigating through some wet areas and puddles and shoreline; optional: walking sticks, binocular, water, and snack (or lunch), tick protection. Register with Vicki Bustamante (vickibustamante@gmail.com) and more details about the trip and directions to the meeting place will be sent.

October 12, 2023 (Thursday) 6-9pm  
1st post-Covid LIBS Member’s Meeting  
Speaker: Dave Taft  
Topic: Wild Orchids of Long Island  
Meeting Place: Syosset Public Library, 225 South Oyster Bay Road, Syosset NY 11753

From 6:15 to 6:45 we will have social time followed by a short business meeting. The talk is scheduled to begin at 7pm. The library was so pleased to host LIBS that the talk will be open to all residents of the Syosset school district and will be presented in the auditorium.

The unsurpassed beauty and exotic allure of many orchid species has fascinated mankind for centuries. All orchids are considered threatened or endangered throughout some part of their range. Climate change, invasive species, habitat loss, and excessive herbivory are several reasons for orchid decimation in our country. Long Island is no exception. There have been 38 species of orchids documented from the island, but only 24 are currently extant. Of those that are still around, about 10 species have few populations, in some cases only one. Dave Taft is an authority on the orchids of Long Island and has spent decades in the field studying these fascinating wildflowers.