LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

July - Aug 1993 Vol. 3, No. 4

In This Issue

Celia and **Julius Hastings** have submitted an article on two new species of orchid for Long Island. The species are *Platanthera pallida* P. M. Brown and *Malaxis bayardii* Fern. For more information on the endangerment of L.I. Orchids see the Society News. p. 25.

Thomas Allen Stock of Smithtown sent a very interesting article about the Garlic Mustard (*Alliaria officinalis*) a plant many of us would rather not see. But after reading this article you will see it with new eyes. p. 26.

I have included the first part of an article written in 1936 by **H. K. Svenson**. I will complete the article in subsequent issues. This article recounts the early vegetation of Long Island. I would be interested in additional articles that have appeared in the past but are out of print or published in less commonly known publications. p. 27

H. David Ritchie wrote a wonderful artist's statement about life on Long Island Sound. **Dave** and his wife **Jane** live on the Sound in Northville, Long Island. Jane's paintings, shown in East Hampton and Boston, Mass., are included in numerous corporate and private collections. p. 30.

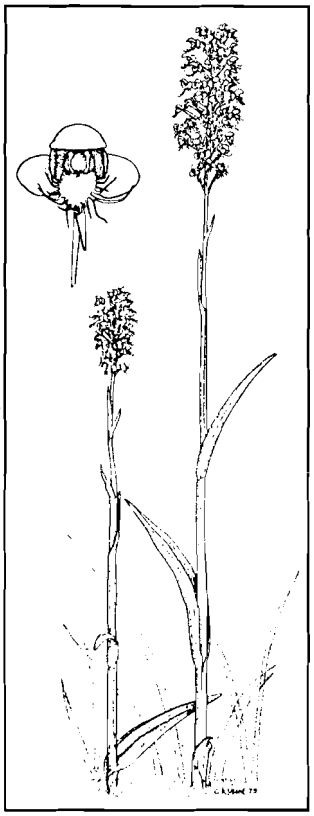
The nominations committee is requesting nominations for officers. If you or anyone you know are interested please feel free to nominate them. See more info in the Society News.

PROGRAMS

No evening programs have been scheduled for July and August; programs will resume in September.

ORCHID ENTHUSIASTS CELEBRATE

1992 was a banner year for orchids on Long Island. Two new species were added to the impressive list (Latham 1940; Lamont et al. 1988) already available. Of the two, the "pale fringed orchis," *Platanthera pallida*, has the more extended history beginning with the description of a "pale cristata" discovered in East Hampton by Roy Latham in 1926. The pale color, as compared with the rather intense orange of the typical *P. cristata*, attracted the attention of a number of observers who, however, followed R. Latham's original classification. One of the observers, Charles Bryan, an orchid devotee (and, I note, a chemist) kept meticulous notes of his botanical forays, including two visits (1939 and 1948), to Napeague Harbor where he saw the orchid with the "dingy sulphur color". His notebooks were subsequently loaned to Paul Martin Brown, a botanist and teacher who works closely with the New England Wild Flower Society and led to his awareness of these plants. Brown first visited the Long Island sites in 1986 and joined the ranks of puzzled observers of the "pale" *P. cristata*. He returned for several visits in 1991 and made a series of meticulous field measurements together with habitat descriptions. These observations culminated in a publication in NOVON (Missouri Botanical Garden) Vol. 2, No. 4



Platanthera pallida P. M. Brown from Mitchell & Sheviak, Bull. NYS Museum 445. 1981

Orchid enthusiasts celebrate cont'd

(1992) in which a new species of fringed orchis, *Platanthera pallida*, (Orchidaceae) was announced.

The other addition to the Long Island list of orchids involves a less conspicuous, one might almost say insignificant, member of the *Malaxis unifolia* group, i.e. *Malaxis bayardii*, first reported by Fernald (1936). The new species was controversial and consequently ignored by most of the leading authorities. In 1991, Catling (1991), in a characteristically thorough study, undertook to determine whether *M. bayardii* is a distinct taxon. The major tool used was the analysis of lip shape in 143 carefully selected flowers chosen to represent variation in the *M. unifolia* group in North America. Secondary characteristics such as preferred habitat and shape of the inflorescence were noted. Catling concluded the "*M. bayardii* is to be recognized as a distinct taxon worthy of specific rank. Differences between *M. unifolia* and *M. bayardii* may be difficult for some to assess, but as with many species their recognition becomes easier with increasing familiarity." The reclassification of the *Malaxis* plants growing along a roadside in Manorville was made by P. M. Brown, S. Young, E. Lamont and F. Knapp (see LIBS Newsletter 2(1): 3.) in 1992, a year to be remembered.--**Celia and Julius Hastings**

Latham, R. A. 1940. Distribution of Wild Orchids on Long Island. L. I. Forum 3: 103.

Lamont, E. E., J. M. Beitel, and R. E. Zaremba. 1988. Current status of orchids on Long Island, New York. Bull. Torrey Bot. Col. 115: 113.

Fernald, M. L. 1936. Plants from the outer coastal plain of Virginia. *Malaxis bayardii* Fern. Rhodora 38: 402-404.

Catling, P. M. 1991. Systematics of Malaxis bayardii and M. unifolia. Lindleyana 6: 3-23.

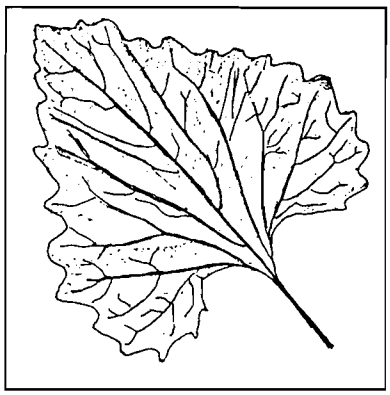
New Members

Lance Biechle, Princess Anne, MD
Dr. Erica Brendel, Philadelphia, PA
Gary Chatten, Miller Place
Jean Held, New York City
David G. Hinchliffe, Huntington
Carol Lemmon, Branford, CT
Virginia L. Magee, Uncasville, CT
Dr. Margery Oldfield, Seatuck Foundation, Islip
Cal Snyder, AMNH, New York City
Ellen Talmage, Riverhead
Richard Valchich, Brooklyn
Jane Weissman, New York City

Alliaria officinalis

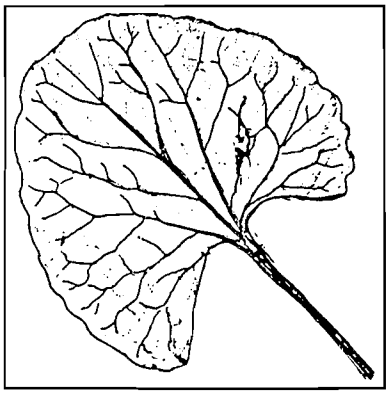
Gray's Botany says garlic mustard can be found along roadsides and near habitations. Aside from a chock of botanical vocabulary, Gray's book hardly tells you anything about the personality of this herb.

In winter, I found it's deeply incised, heart-shaped leaves close to the ground. They manage to survive freezing weather unscathed. They do not have the fuzz that several other species have, so I do not know what adaptation the leaves have for cold. Perhaps it's ethylene glycol antifreeze.



Upper Leaf of Garlic Mustard. Rubbing.

Garlic mustard waits patiently for spring. Then some plant growth hormone kicks in and this second stringer suddenly makes it's move. It comes off the bench and begins to spurt upward. By early May, it is shooting up like a gangly teenager. One who who suddenly undergoes a growth spurt. It blossoms when two feet high.



Lower Basal Leaf of Garlic Mustard. Rubbing.

The flower of this plant has four tiny white petals that look like the prop of an airplane. The seed pods are long candlelike spurs that remind me of saguaro cactus plants. It's basal leaves are rather oval, while upper leaves are more triangular. Crushing an upper leaf causes the smell and taste of garlic to be discernible.

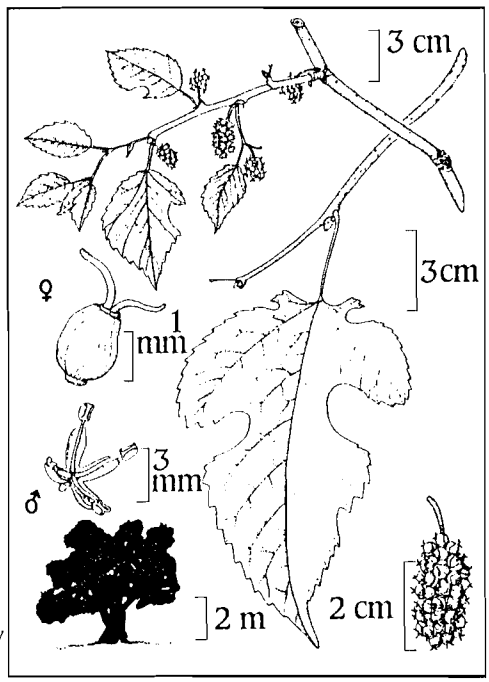
By June, garlic mustard is on the wane. It is beginning to dry out and die, it's seed pods filled with tiny black, elongated seeds. The life cycle now begins anew and the seeds fall to the earth and sprout in the fall, just in time to withstand the rigors of winter.

It's nice to have such friendly greenery to greet us as we hike along trails or roadsides. Look for it the next time you're outdoors.--**Thomas Allen Stock**

The Early Vegetation of Long Island

[Editor's Note. The following is an excerpt from an article published by **H. K. Svenson** in the Brooklyn Botanic Garden Record 25: 207-227. 1936. I will be reprinting portions of this article and others as space permits]

On colonial Long Island, as in other lands under colonization in the seventeenth century, the task of obtaining food and conquering the aborigines seems to have been time-absorbing. Therefore, few observations on the early appearance of the vegetation of Long Island have come down to us, and these observations tend to be generalized and often contradictory, or have the soaring exuberance of the real-estate salesman of that day. Perhaps some of the earliest explorers such as Verrazano touched upon the shores of Long Island, but the first descriptions, and they are meager, appear to be those of Henry Hudson, who anchored at the western shores of Long Island in September, 1609. Here "they found the soil of white sand, and a vast number of plum trees loaded with fruit, many of them covered with grape vines of different kinds." Some of his men, landing near Gravesend on September 4th, came back to the ship charmed with their glimpse of the new country and described it as "full of great tall oaks, and the land as pleasant to see, with grass and flowers, as they had ever seen." According to Daniel Denton, who lived at Hempstead in 1670, "The fruits natural to the Island are Mulberries, Poisimons, Grapes, great and small. Plumbs of several sorts and Strawberries of such abundance, that in Spring the fields are died red...." A footnote by Miss Flint identifies the mulberry as *Morus rubra*, a native species well developed in the interior, but known only from a few specimens and reaching only a small size of Long Island. It is more than probable that these trees were the white mulberry, *Morus alba*, which was extensively planted in the early days for silkworm culture, some of the early land grants along the Atlantic coast even making obligatory, the planting of a certain number of mulberry trees on each partition of land. The extent of mulberry-tree plantings may be estimated by the following excerpts quoted by L. H. Bailey, *Evolution of Our Native Fruits*, p. 145. "If all the highways in country towns were ornamented with a row of mulberry trees, on each side, half a rod apart, each mile would contain 1380 trees, the income of which, after seven years, would probably pay for repairing all the highways and the expenses of the public schools, if the inhabitants would retrain their cattle and sheep from going at large" [Cobb, J. H. *Manual of the Mulberry Tree.* Boston, 1831], and



Morus alba from Mitchell. 1988. Bull. NYS Museum 464.

In Spring our trees the Caterpillars reare;
Their trees likewise these noble creatures beare,
. . . . . .
They feed not only on the Mulberry
Which in our World sole food is held to be
For all such precious Worms of that degree:
But Poplar, Plum, Crab, Oake, and Apple tree,
Yea Cherry, and tree called Pohickery.
[Samual Hartlib. *The Reformed Virginian Silkworm.* 1655]

Some of the early Long Island nurseries were instrumental in fostering a revival of mulberry-growing for the production of silk, during the period from 1830 to 1840, a venture based this time on the much-extolled *Morus multicaulis*, but ending in a sudden collapse of the mulberry boom and bankruptcy of a large number of horticultural firms and land owners.

To return to Denton's description of the countryside, "The greatest part of the Island is very full of timber, as oaks white and red, walnut trees, chestnut trees which yield store of mast for swine, also red maples, cedars, sarsifrage [?sassafras], Beach, Holly, Hazel with many more ... in May you should see the Woods and Fields so curiously bedeckt with Roses and an innumerable multitude of delightful Flowers not only pleasing to the eye but smell .... That you may behold Nature contending With Art and striving to equal if not exceed many Gardens in England .... One may drive for hours through embowered lanes, between thickets of alder and sumach, overhung with chestnut and oak and pine, or through groves gleaming in spring with the white bloom of the dogwood, glowing in fall with liquidambar and peperidge, with sassafras, and the yellow light of the smooth-shafted tulip tree."

The Early Vegetation of Long Island cont'd

These accounts by Denton give a general idea of the vegetation of Long Island, although there is a great variation in the different parts. Long Island is dominated by the great moraine left by the ice sheet of the Wisconsin period, extending from Montauk to Brooklyn. On the moraine and northward to Long Island Sound the island, especially the western part, was undoubtedly heavily wooded with large timber of an aspect similar to the forests of the Connecticut coast. South of the moraine the hugh outwash plain of sand and gravel provided only the most sterile types of soil and was covered mostly with the pitch pine, forming a continuation of the pine barrens of New Jersey. According to reports by Mather and Brockett, the soil of Kings County was more fertile than other parts of the Island: thus "the soil of this county possessed of greater natural fertility, than that of the other portions of the Island, and it is highly cultivated. It is well adapted to horticulture, and flowers arrive at great perfection. The grape is extensively cultivated throughout the county. Little timber is found." According to Stiles the earliest recorded grant in the County of Kings was made in June, 1636, to Jacob Van Corlaer, who purchased from the Indians a flat of land between the North River and the East River. These "flats" which upon cultivation were incorporated into the village of "New Amersfoort" in the Flatlands, were according to Stiles, "miniature prairies, devoid of trees, and having a dark-colored surface soil; and having undergone a certain rude culture by the Indians, were ready, without much previous toil, for the plough. On this account they were most sought for, and first purchased by the original settlers, who being natives of the low and level lands of Holland and Belgium, were inexperienced in the clearing of forests." As to the kings of trees which were on these lands, we have only occasional surveyors' reports such as the following [Stiles, p. 51]: "I have surveyed [9th January, 1895] for Adrian Bennett a certain parcel of land ... it runs alongst the said land and markt trees to a certain chestnut standing on the top of the hill with three notches, and thence to a black oak standing on the south side of said hill." In commenting on the early names of Long Island (Mectowacks, Seawanhacky, etc., all meaning "Island of Shells"), Thompson mentions that "the land was in most places destitute of timber."

The vegetation of Queens County, as stated by Mather and Brockett was "principally oak, hickory, chestnut and locust[1] in great abundance. In the northern part, the apple, pear, peach, cherry &c., thrive well. Wheat, corn, and grass, are also favorite crops."

Farther to the eastward, where the suburban developments of Garden City, Hempstead, and Mineola now spread themselves out, there can be seen portions of the Hempstead Plain, a treeless area of natural prairie originally sixteen miles in length and covering sixty thousand acres. The soil, as described by Flint was "too porous to be plowed," and "no attempt was made at cultivation until within a hundred years, when it was first enclosed as farms." "The grass formerly grew to the height of five or six feet, but the earliest variety--Secretary grass--was short and fine, making a very thick, tough sod, which required two yokes of oxen in breaking it up." For a long time these plains were common pasturage, and they became not only the center of the wool-raising industry on Long Island, but also, from the earliest times, due to their level stoneless expanse, they were a meeting ground for horse-racing. Daniel M. Tredwell (*Reminences of Long Island*, p. 91. Brooklyn. 1912.) describes the plains as a "territory reserved by the original, or in the original grants or patents, to the inhabitants of the town for pasturage of cattle and sheep, and in the early days of the colony thousands of cattle and sheep were pastured there. The further privilege was granted to every freeholder of cutting grass on said plains. The commissioners of highways were required to keep open the means of access to the public watering places, and for the purpose of looking after the interest of freeholders who patronized the public lands...."

These plains are to the present day covered by an exceedingly hard turf of beard grass (*Andropogon scoparius*), the firmness of which has probably been to a large extent instrumental in preventing the growth of trees. Where this turf has been broken through, young black cherries and poplars often put in their appearance. In the spring great areas of these plains have a blue tinge due to the flowers of *Viola pedata*; with these are often associated the pink polygala (*Polygala polygama*), blue-eyed-grass (*Sisyrinchium*), and the basal rosettes of *Aletris farinosa*. Clumps of wild indigo (*Baptisia tinctoria*) and the dwarf willow (*Salix tristis*), stand out as knob-like projections on these plains. These species have been discussed in some detail in the study of the Hempstead Plains by Henry Hicks, who stated that the grass was probably very much taller originally than at present, this contention being expressed by such phrases as "a man

[1] The locust tree is not native to Long Island, but according to reports, was brought from Virgina as an early date. It has established itself exceedingly well, spreading into dense thickets which have the appearance of a native growth.

might miss his way in the tall grass" and "cattle lying down in the grass were lost to sight." Vertical sections of the pains show "first a thick and firm turf in black soil over a layer of yellow loam, underlain to great depths by quartz gravel and sand disposed in small and thin strata, as if deposited by rapid currents. ...Through this material the water of rainfall rapidly descends to the spring level.... This perfect drainage together with the thinness of the surface soil and the general climate largely determines the character of the flora on the Plains and the Pine-barrens to the eastward."

The Plains have been more recently discussed by Roland M. Harper. "The prairie," he says, "known locally as the 'Hempstead Plains,' is mentioned in a few historical and descriptive works, but long before geography became a science it had ceased to excite the wonder of the inhabitants, few of whom at the present time realize that there is not another place exactly like it in the world.... The upland vegetation of the Plains comprises about four species of trees, a dozen shrubs, sixty herbs, and a few mosses, lichen and fungi.... Our prairie is subject to a good deal of grazing, frequent fires, strong wind, and excessive evaporation, like the western ones, but these factors are the result rather than the cause of treelessness, so that they could hardly have determined the prairie in the beginning nor fixed its present boundaries.... Even if no more of this land were taken up in farms, the continued growth of New York City is bound to cover it all with houses sooner or later."

East of the Hempstead Plains and covering the larger part of the island stretches a great waste of pine-covered barren, interrupted here and there by solid and impenetrable thickets of dwarf oak (*Quercus ilicifolia, Q. prinoides*), scarcely more than knee high; at intervals, as in the region south of Port Jefferson there are openings of clean white sand, inhabited by the blue lupine, clumps of yellow *Hudsonia*, and trailing vines of "deer food" (*Arctostaphylos Uva-ursi*); an area comparatively recently described by Thompson as "almost entirely in its wild native state and not house or hut is to be seen for many miles." There barrens, extending eastward until they meet the open downs of the seacoast, have an appearance identical with the wilderness surrounding the Pilgrim settlements at Plymouth, and as in the Plymouth wilderness, they are dotted with clear sandy rimmed ponds. For the largest of these (Lake Ronkonkoma) "the Indians had a most superstitious reverence." Bailey, in describing the cranberry-growing region of Plymouth County, so clearly depicts an area similar to that of eastern Long Island that I have included here a part of this description.

"This Cape Cod region is but a part of the sandy waste which stretches westward through Nantucket, along the north shore of the Sound and throughout a large part of Long Island; and essentially the same formation is continued along the Jersey seaboard. Here the sea-coast vegetation meets the thickets of alder and bayberry and sweet fern, with their dashes of wild roses and viburnums. And in sheltered ponds the sweet water-lily grows with rushes and pondweeds in the most delightful abandoned. In the warm and sandy glades two kinds of dwarf oak grow in profusion, bearing their multitude of acorns upon bushes scarcely as high as one's head.... But while we are busy with our expectations, we are plunging into a wilderness,-- not a second growth, half-civilized forest, but a primitive waste of sand and pitch-pines and oaks!"

The Long Island pine barrens extend eastwardly to the windswept Shinnecock Hills which "assume some permanence of form, held together by a coarse, wiry grass, but sustaining only the stunted bayberry, the beach plum and the dwarfed red cedar," and James Truslow Adams, has unearthed some older descriptions of these hills "composed almost entirely of fine sand, ... cept extensive patches of whortle berry, bay berry and other small shrubs. A succession of ... sand hills, like the ground mentioned in the description of Cape Cod, ... exhibit a desolate and melancholy aspect."

To be continued.

1993 Rare Plant Status List Update.

Stephen Young from the New York Natural Heritage Program has updated the New York Rare Plant Status List. He stated that a total of 115 taxa were updated. He wrote "This year was an especially big year for changes because of two factors: 1) intensive and successful field work in 1992 discovered many historical species and new sites which resulted in many rank changes and new county occurrences and 2) a meeting with the State Museum, the DEC and The Nature Conservancy was held to reevaluate the protected status of all rare plants in the state. This resulted in more rank changes and changes in tracking status."

If you want more information about this list contact **Stephen M. Young**, New York Natural Heritage Program, 700 Troy-Schenectady Road, Latham, New York, 12110-2400.

MY OUTSIDE WORLD
The Long Island Experience

AN ARTIST'S STATEMENT...

In Brooklyn growing up my outside world was bricks and steps and riding my bike two blocks to the Parade Grounds on the edge of Prospect Park, and the walks with my mother and my sisters to the Botanic Garden.

On Long Island Sound the summers were all outside things between different skies and textures of water, dark and light cliffs and green and living things in nature and in glass bottles or stuck with pins. A sense of place and forms and angles of nature has been my life. There is no finer place than the one I see. Landscape is continuing time. I paint where I am, working through middle ground to a place beyond. The bright present leads to an open place in the future. The far shore and infinite horizon occur later on, as the sound to a hearer who has already seen the bell struck.

In those young summers I tried to paint the hint of more points, more sea cliffs beyond the two I could see from out porch. I knew they were there because we walked past those two points to Penny's Rock, and went once in the boat past the sunken freighters and nun's place all the way to the cold spring. It took us three hours down and four hours back. There were other points of land, different cliffs.

Except for thunder I loved the rain and storms and wet colors with edges sharp as lightning. I loved the water trying to look like the sky, and the black leaves in the yellow light. The Long Island experience for me then was almost completely diurnal, opening like a flower in the morning and closing up around me at sunset when I had to be in. Moving through that ephemeral time the sun set in the water almost every night as we looked westward over a boundless "sea," limited only by a low smoky line of shore on the Connecticut side on clear days, and a blinking light some nights.

Scale was magnified, a flat landscape of potato fields and sentinel cedars against a superdome sky; a sea that began at my feet and rolled back to the same open sky, melding hue and texture.

I liked what we found, the pignuts and sassafras, joe-pye weed; Saint-John's-wort, wild cherries and sour-grass; Concord grapes, specimen creatures; and finally, the big tree. Our tree with smooth bark and long cradling arms and trunk with all our names on it.

It was dark and cool underneath, and the earth was patted down around it under our bare feet.

Later, we found the private preserves and old Indian lands, with tender heather on the floor of the marshes and undiscovered inland streams between the mounds and necks of grasses.

It's a living changing time and place, newly made each day and hour; darker, lighter; quieter, noisier; tender, tougher; resilient, stiffer; hot and icy.

It's my outside world.--**H. David Ritchie**

SOCIETY NEWS

May Meeting--May 11

Skip and **Jane Blanchard** reported that they found seedling *Magnolia tripetala* at the south end of Blydenburgh Park near Veterans Highway. It is also known to be seeding into Shu Swamp. Barbara Conolly reported finding it that morning in St. John's Pond woods in Cold Spring Harbor.

Gary Kennear reported a small white violet in a muddy place in Westhampton, and it was adjudged to be *Viola blanda* or *V. pallida*, with the latter more likely.

Eric Lamont found *Viola primulifolia* in Moore's Woods, Greenport and *Ranunculus micrantha* on a ridge in Hook Mt. on May 8th.

Eric Lamont reported on the field trip he led to Shinnecock Hills on April 24th. There was a good turnout from the South Fork Naturalists group, and mention was made of four kinds of *Amelanchier* plus *Poa bulbosa* and *Epigaea repens* in the open.

Betty Lotowycz brought in *Poa bulbosa* from Rte. 97 nr Stony Brook, and Indian Strawberry, *Duchesnia.*

Bob Laskowski brought in Sand Cherry, *Prunus pumila* from the Edwards property in Islip.

Paul Teese, a graduate student at SUNY, spoke on the evolution of a Photo-synthetic Pathway - especially in the Asteraceae. We learned that plants have three ways of assembling and operating their photosynthetic machinery - C3, C4 and CAM. He is concerned with a southern Goldenrod, *Flaveria linearis*, which is a C4, and outlined his experiments which lean toward the theory that C4s evolved to cope with heat.

June Meeting- Jun 8

Skip Blanchard, Barbara Conolly and **Betty Lotowycz** reported on the NYFA field trip to Valcour Island in Lake Champlain. They had a marvelous time and saw lots of Ram's-head Ladyslipper (*Cypripedium*

arietinum).

Steve Clemants reported finding Opium Poppy (*Papaver somniferum*) outside the Brooklyn Botanic Garden.

Skip Blanchard presented a seminar on his research into the chromosomes of *Kosteletzkya* (Malvaceae). He presented evidence that the African species have crossed and that allopolyploidy events occurred to produce several of the species now found in Africa. He also presented evidence that all the American species are closely related and probably more recent than the African species. His talk was illustrated with many slides of his travels to Africa and Mexico to search for species of *Kosteletzkya*.

Report of the Nominating Committee

The Nominating Committee, chaired by **Betty Lotowycz**, is in the process of finalizing a slate of potential officers for 1994-1995, and is now accepting nominations from the membership. A final slate of nominees will be presented to the membership in the September/October issue of the LIBS newsletter, and elections will be held at our monthly meeting in November, 1993. If you would like to nominate someone (including yourself) for an office or standing committee please contact Betty at 676-2047.

Report from the Education Committee

The educational display of LIBS was exhibited at the Earth Day Spring Festival at Heckscher State Park on April 24th. Over 13,000 visitors attended the festival. The main goals of the display are to educate the public and promote botany of Long Island. Plans are currently being made to exhibit the display at the 1993 Fall Flower show at Planting Fields Arboretum and at the 1993 Theodore Roosevelt Sanctuary Fair. If you can donate a few hours to help man the exhibit at either of these events please call **Mary Laura Lamont** at 722-5542.

The education committee has also initiated botany programs at some local school districts. This past spring, programs were given at Aquebogue elementary school and at Shoreham-Wading River High School.

Executive Board Meeting

On 25 May 1993, officers of the Long Island Botanical Society gathered for the spring board meeting. Anyone interested in receiving a copy of the minutes from the meeting should contact **Barbara Conolly** at 922-5935.

Orchid Taskforce

Dorothy & Moreno Tagliapietra-Cherbavaz have begun compiling information on the threat to orchids along roadsides in East Hampton. They have already compiled a large file of newspaper clippings, letters and articles. If you have information that might be pertinent or wish to help with this project please contact **Eric Lamont**.

Programs

No programs have been scheduled for July and August; programs will resume in September.

Field Trips

July 11, Sun, 10:30 A.M., Plants and butterflies at the Edgewood Oak Brush Plains. **Skip Blanchard**, who did some Natural Heritage Program work at this interesting site in summer '92, will talk about and point out butterfly-plant relationships. Participants may want to bring lunch or a snack. Canceled if raining. Directions: from LIE Exit 52 or Northern State Parkway exit 43 go south on Commack Road (rte. 4) about 2 or 3 miles, respectively, to the entrance to the site on the left. There is no sign, but there is a gate to a dirt parking lot surrounded by an earthen embankment. Contact Skip at (home) (516) 421-5619. Participants should bring short focal length field glasses for looking at butterflies

Aug 7, Sat., 10:00 AM. Al Lindberg will give a tour of Wertheim National Wildlife Refuge. Meet at the Refuge gate. Call Al in advance to reserve a space (Al at work 516-922-3123, home 516-922-0903). We will gain an overview of the refuge including it's pine-barrens, uplands, marshes and swamps. We will visit Carmans River and Yapahank Creek. Bring a lunch.

Aug 21, Sat. 9:30 AM. Bob Laskowski will direct a tour of the FAA Property in West Sayville. Meet at the intersection of Montauk Highway and Cherry Ave. near the West Sayville Fire Department. No advance registration is needed, however, you may call Bob at 516-277-0527 if necessary.

Sept. 11, Sat, 9:30 AM. John Turner will lead a Tour of Long Island's White Cedar Communities. More information will be present in the August Newsletter.

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.

President	Eric Lamont
Vice President	Chris Mangels
Treasurer	Carol Johnston
Recrd Sec'y	Barbara Conolly
Cor'sp Sec'y	Jane Blanchard
Local Flora	Skip Blanchard
Field Trip	Glenn Richard
Membership	Lois Lindberg
Conservation	Louise Harrison
	John Turner
	Margaret Conover
Education	Mary Laura Lamont
Hospitality	Nancy Smith
	Joanne Tow
Program	Eric Lamont
Editor	Steven Clemants

Membership

Membership is open to all, and we welcome new members. Annual dues are $10. For membership, make your check payable to LONG ISLAND BOTANICAL SOCIETY and mail to: Lois Lindberg, Membership Chairperson, 45 Sandy Hill Rd., Oyster Bay, NY 11771.

LONG ISLAND BOTANICAL SOCIETY
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LEVITTOWN, NY 11756

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LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

September - October 1993 Vol. 3, No. 5

In This Issue

Bob Laskowski has written an article about the Sayville Grasslands. He has been studying these grasslands for almost 20 years and has a wealth of information on this rare community. Page 32.

Steve Jay Sanford of the New York State Department of Environmental Conservation has submitted a Conservation Column on New York's Freshwater Wetlands and the No Net Loss Concept. Steve manages the Freshwater Wetlands and Protection of Waters program here on Long Island. Trained as a wildlife biologist, he has worked for DEC's Division of Fish and Wildlife since 1978. Page 34.

Please note that the **election** of officers will take place at the November Meeting.

PROGRAM NOTE: The programs for September and October are special. Both programs are workshops and have field trips at later dates associated with the talk. For instance you can attend Eric Lamont's talk on Sept. 14 and then go on the joint LIBS/Torrey Botanical Club Field Trip on Sept. 25.

PROGRAMS

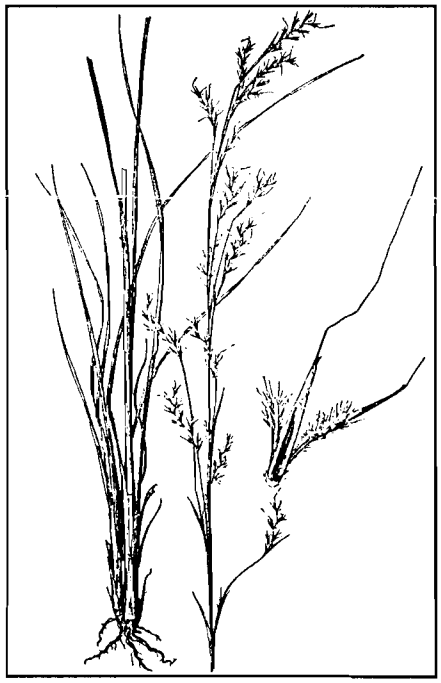
14 Sep. 1993 - 7:30 pm*, Eric Lamont, "Goldenrods of Long Island;" Uplands Farm Nature Center, Cold Spring Harbor.

12 Oct. 1993 - 7:30 pm*, Horst Welzel, "Mushrooms of Long Island;" Uplands Farm Nature Center, Cold Spring Harbor.

* Refreshments are available starting at 7:30 pm, the meeting begins at 8 pm.

The Sayville Grasslands of Long Island

My first observation of the Sayville Grasslands occurred in the 1970's while I was working on the Breeding Bird Atlas for the N.Y.S. Federation of Bird Clubs and the Department of Environmental Conservation. I was able to confirm over 30 species of birds that used the 100+ acres of grassland for nesting and foraging -- high diversity for an area that contains no wetlands.



Little Bluestem, Schizachyrium scoparium

My botanical inclinations were stimulated while looking at the birds. The landscape, dominated by little bluestem and Indian grass, reminded me of the Hempstead Plains. Not only were many of the plant species between the two grassland sites similar, but the overall structure of the two communities also resembled each other. At the Sayville Grasslands I noticed open gaps of sparse vegetation between the sea of tall grasses. The open gaps were heavy with lichen growth and plants typical of dry, xeric, prairie conditions. My thoughts immediately drifted back to the late 1930's when I attended a Torrey Botanical Club field trip to the Hempstead Plains. Stanley Cain, botanist at the Cold Spring Harbor Laboratory, was the field trip leader. Well do I remember the feel of the

Sayville Grassland Cont'd

ground beneath my feet; on the right kind of day (not moist, but dry) the ground feels different under your feet. I know it sounds funny talking about the "feel of the ground," but it's true. That was virgin soil under foot at the Hempstead Plains, it had never been touched by a plow. Dr. Cain had pointed out steel rimmed wagon wheels that had cut through the prairie, and a whole different array of plants were growing in the disturbed tracks of soil. Once you break up the virgin soil of a prairie the path is open for the invasion of non-prairie plants. Back in the 1970's, when I first walked the grasslands at Sayville, the ground had that same feel underfoot as at the Hempstead Plains. I firmly believe that portions of the Sayville Grasslands have never been touched by a plow, it is virgin soil.

Let me cite Stanley Cain's own words, describing the vegetation of the Hempstead Plains: "However, the unbroken sod is easily recognizable. In places where the sod has been broken and the land allowed to lie fallow for several years there is a slow reversion to grassland. Such communities are marked by the addition of certain weed species and other changes in structure which distinguish them as secondary. Otherwise open ground in the virgin grassland is covered with rootstocks of *Andropogon scoparius* (now called *Schizachyrium scoparius*), the dominant, or with crustose and fruticose lichens, and mosses. This crust, together with the strong root-competition, make it practically impossible for plants not native to the association to establish propagules. The two factors just named may also help account for the almost complete absence of trees." (Cain, 1937)

The vegetation of the Sayville Grasslands is dominated by grasses and herbs, with widely scattered shrubs and dwarf trees. Growing with the little bluestem and Indian grass is switch grass, poverty grass, big bluestem, and broomsedge (not a real sedge, but a true grass). Fire sedge (*Carex pensylvanica*) occurs in small areas throughout the grassland. Characteristic herbs include wild indigo, butterfly weed, showy aster, slender fragrant goldenrod, blue-eyed grass, and old field toadflax. Two species of dwarf willow (*Salix tristis* and *Salix humilis*) and a dwarf shadbush (*Amelanchier stolonifera*) occur at the grassland. The grassland is slowly reverting back to a Pitch Pine/Oak forest. Pines and Oaks are especially reclaiming the perimeter of the grassland.

The list of rare plants at the Sayville Grasslands is impressive. Ten species of rare plants can be found at the grassland, and in 1989 The New York Times newspaper did an article on the rarest of these rare plants -- sandplain gerardia (*Agalinis acuta*). Sandplain gerardia is listed as a Federally Endangered plant species and is, globally, a rare species. Only about 10 populations of this rare plant occur on earth; one population occurs at the Sayville Grasslands. In 1986, the Agalinis population at the Sayville Grasslands was the largest known population on earth!

New England blazing star (*Liatris scariosa* var. *novae-angliae*) is another rare plant that can be found in abundance at the Sayville Grasslands. During autumn, the brilliant rose-purple flowers offer a striking contrast with the straw colored stems of grasses. A careful search of some of the openings between grasses will reveal a rare lady's-tress orchid (*Spiranthes vernalis*). Other rarities include southern yellow flax (*Linum medium* var. *texanum*), sandplain wild flax (*Linum intercursum*), Stueve's bush clover (*Lespedeza stuevii*), fewflower nutrush (*Scleria pauciflora* var. *caroliniana*), slender pinweed (*Lechea tenuifolia*), flax-leaf aster (*Aster solidagineus*), and colic root (*Aletris farinosa*).

The relationship between plants and insects is well known and it should not be surprising to learn that several rare butterflies and moths also occur at Sayville Grasslands, including: buckmoth (*Hemileuca maia*), Edward's hairstreak butterfly (*Satyrium edwardsii*), and herodias underwing moth (*Catocala herodias gerhardi*). An active Butterfly Club from New York City regularly visits the Sayville Grasslands.

The future of the Sayville Grasslands appears to be in good hands. Originally, portions of the site were developed by Kaiser Wilhelm in 1911 for cross Atlantic radio transmissions. President Wilson had the United States marines seize the station in World War I after the Lusitania was sunk. The land has been in Federal hands since. In 1953 the Federal Government erected a FAA Central Air Control Center on the site, but after the Center was relocated to New Jersey the government considered selling the site as surplus land in 1990. After many negotiations, an Act of Congress approved the preservation of the Sayville Grasslands.

Note: Sayville Grasslands is not open to the public.--**Robert Laskowski**

Cain, S. A., M. Nelson & W. McLean. 1937. Andropogonetum Hempsteadii: a Long Island grassland vegetation type. American Midland Naturalist 18: 334-350.

Outdoor Education Conference

The New York State Outdoor Education Association is holding its annual fall Conference Oct. 21-24 at the Roaring Brook Resort, Lake George. For a conference catalog, write to Al Mapes, 5 Rivers Environmental Education Center, Game Farm Road, Delmar, NY 12054; or call 518-475-0291. Its a super event!

New York's Freshwater Wetlands & No Net Loss

"No net loss of wetlands". It sounds quite clear, doesn't it? A lucid statement of policy to be implemented by government and applauded by both the environmental and land-owning publics? In the mid-1980's wetlands conservationists first uttered this cry. George Bush used it to rally the masses during his 1988 Presidential campaign. Governor Cuomo adopted it as policy in his 1990 State Address. Is it happening? Do we now enjoy no net loss of wetlands in New York? The answers are not simple.

First, what do the words mean? "No" and "loss" are clear enough; there is little room for argument or misinterpretation. "Net" is a key ingredient in this phrase, however. The difference between "no loss of wetlands" and "no *net* loss of wetlands" carries the unequivocal implication that at least some losses can be expected. As with a balanced bank account, though, the "net" means that any losses must be offset by gains. This is the world of mitigation and compensation. It is an issue large, complex and controversial enough to warrant treatment in a separate essay.

Presently, the obvious question is: "No net loss *of what?*" "No net loss of wetlands" does not specify *which* wetland resource we are to protect. It does not tell us *whether* we can accept losses of the upland "adjacent areas" around wetlands. It does not tell us *how* losses or gains should be measured. I do not intend herein to answer all of these questions. Instead, I hope I will show you that the questions are not simple. I am confident you will find that the regulatory world can be accurately described not as a perfect creation of modern civilization but as a collision between the natural world and the needs of the human species.

Earlier this year, the Department of Environmental Conservation convened several "no net loss" meetings around the state. Environmentalists, landowners, developers, local government officials and others talked about "no net loss". These "roundtable" discussions were intended to give us some information as to what New York's interested populace was expecting from both the "no net loss" policy and the wetlands programs in general. At the session here on Long Island, one of the first topics was the wetland resource itself. In essence, the group gave their thoughts on which resource should be established as a base against which we should measure the losses. Some felt that we should use the wetlands which exist today as the zero point. Others would prefer to hark back to pre-Columbian levels. Another voice suggested the early 1970's.

It is believed that New York State once had over 4 million acres of wetlands. We now have about 2.2 million acres of freshwater wetlands and over 25 thousand acres of tidal wetlands. The New York State Freshwater Wetlands Act protects over two-thirds of our freshwater wetlands; the Tidal Wetlands Act protects all of the saltwater wetlands. Both do so by regulating development activities not only in the wetlands themselves but also in nearby uplands. The freshwater law exempts most wetlands smaller than 12.4 acres in size. This is not the case here on Long Island, however. Here we have asserted jurisdiction over hundreds of smaller wetlands. Nevertheless, many unregulated wetlands do exist, especially on a statewide basis. Does "no net loss" really mean "no net loss of currently regulated wetlands?"

Should we try to get back the wetlands we have lost? Should we try to expand the wetland resource over and above existing levels? At first glance, this proposal possesses an undeniable charm. Wetlands are good. The more wetlands the better. Let's make more! But, as Will Rogers once observed, no one's making any more real estate. Notwithstanding Mr. Rogers' apparent ignorance of the Netherlands, it remains that you cannot make wetlands without converting some uplands. Should we be converting uplands to wetlands? Restoring filled marshes or reflooding drained farm fields is probably a safe bet. But, should we destroy a fully functioning oak-pine woods for the sake of more red maple-tupelo swamp? Does not society have the stewardship responsibility for *all* of our landscape? What ecosystems are we willing to sacrifice in order to reclaim the wetland abundance of four centuries ago?

Should we regulate *all* freshwater wetlands? A basic premise of the Freshwater Wetlands Act is that, while all wetlands provide benefits to one degree or another, we do not need to save every last one. The people's interests can be adequately served by preserving the benefits associated with the lion's share of the resource. Given society's other needs for "the general welfare and beneficial economic, social and agricultural development of the state", the legislature and the Act recognized that *all* of the wetlands which existed in 1975 (when the Act became effective) could not be preserved.

The current regulatory program protects those *regulated* freshwater wetlands, and their so-called "adjacent areas", which have existed since about 1975. How well does it work? With respect to the permitting side of regulation, it does quite well. Here in DEC's

Long Island Plant Records

Two plant species from Long Island have recently been added to the flora of New York. In 1992, **Richard Stalter** (Professor of Botany, St. John's University) was botanizing at Gateway National Recreation Area and collected a sedge in the genus *Cyperus* that he had never seen before. He sent the specimen to **Gordon Tucker** at the State Museum in Albany for identification. The determination was *Cyperus brevifolioides* Thieret & Delahoussaye, a southern species that occurs from Alabama to the Delaware embayment; a disjunct historical population was once known from Greenwich, Connecticut. Also in 1992, **Robert Zaremba** from the Nature Conservancy collected an unknown grass from the South Fork. He gave the specimen to **David Hunt** who determined it to be peanutgrass, *Amphicarpium purshii* Kunth. Peanutgrass occurs in damp, sandy pinelands from Georgia to New Jersey, with a disjunct population on eastern Long Island.

Report from the field

In early July, 1993, **Lucy Miller** and **Peter Whan** of The Nature Conservancy joined me on a hike through the Walking Dunes of Napeague. The view of the Atlantic Ocean and of Napeague Bay is spectacular from the crest of these wild-blown sand dunes. The wet swales and depressions between the dunes support an interesting array of plant life. In past years, I have seen these swales aflame with literally 1000's of Rose Pogonia orchids. This year, much to the dismay of these three hikers, not one flowering Rose Pogonia could be found in my favorite swale; instead suspicious holes, like craters on a battle field, dotted the area where the orchids once grew.--**Ted Griffin**, Sagaponack

Long Island Orchid Atlas

The finishing touches are being made on an atlas of [illegible]nd orchids, by **Eric Lamont**. It has become [illegible]te collections exist for the only [illegible]ion native orchid of our flora, the helleborine orchid (*Epipactus helleborine* (L.) Crantz), also known as the weed-orchid. The first L.I. collection was in 1962 by **Roy Latham**. If you know of a location for this species and would like to contribute to the atlas, please contact Eric at 516-722-5542; your assistance will be acknowledged in the final publication. To date, collections are known from: East Hampton, Greenport, Jamaica Estates, Lloyd's Neck, Oyster Bay, Prospect Park, Queens Village, Sag Harbor, and Smithtown.

Programs

14 September 1993 - 7:30 pm, **Eric Lamont** will present a workshop on "Goldenrods of Long Island." The Program will be at Uplands Farm Nature Center. There will be a slide presentation as well as live and pressed plant material for you to work with. The field trip on Sept. 25 is a continuation of this workshop.

12 October 1993 - 7:30 pm, **Horst Welzel** will present a workshop on "Mushrooms of Long Island." The program will be at Uplands Farm Nature Center. There will be a slide presentation on common mushrooms of Long Island and how to recognize them. The field trip on Oct. 17 is a continuation of this workshop.

Field Trips

11 September 1993, Sat, 9:30 am.- "Long Island's White Cedar Communities. **John Turner** will lead this trip to Cranberry Bog County Park, Sear's Bellows County Park and other localities in eastern Long Island. Additional western Suffolk and Nassau sites are optional. Meet at the County Center in Riverhead. Wear old sneakers. If you plan to come please call John by Sept. 8 at 516-797-9786.

25 September 1993, Sat.-"Goldenrods, Asters and general fall botany." **Eric Lamont** will lead this joint LIBS/Torrey Botanical Club field trip to Caumsett State Park. Meet either at 10 am at the Cold Spring Harbor LIRR Station (the train from NYC arrives at 9:45) or meet at Caumsett at 10:15. Bring lunch and a beverage. If you plan to come please call Eric by Sep. 20 at 516-722-5542.

17 October 1993, Sun., 2 pm-"Mushroom Day." **Horst Welzel** will lead this joint LIBS/New York Mycological Club trip to Planting Fields Arboretum. Meet inside the gate at 2 pm. We will collect specimens and bring these back to the lab for identification. We plan to end about at 4:30.

Volunteers Needed

The Education Committee will be exhibiting the LIBS display at the 89th Fall Flower and Landscape Show, October 1-11, at Planting Fields Arboretum. Volunteers are certainly needed. If you can spare a few hours to help man the booth please contact Mary Laura Lamont at 516-722-5542.

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.

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	Joanne Tow . . . . .
Program	Eric Lamont . . . . .
Editor	Steven Clemants . . . .

Membership

Membership is open to all, and we welcome new members. Annual dues are $10. For membership, make your check payable to LONG ISLAND BOTANICAL SOCIETY and mail to: Lois Lindberg, Membership Chairperson, 45 Sandy Hill Rd., Oyster Bay, NY 11771-3111

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LEVITTOWN, NY 11756

LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

November - December 1993 Vol. 3, No. 6

In This Issue

John Turner has written on the newly passed "**Pine Barrens Protection Act**". This act seeks to protect a large portion of the Pine Barrens through creation of two development zones.

Lance Biechele has submitted an in depth account of a group of plants, in the broad sense, the myxobacteriales, which are generally over looked.

Mary Laura Lamont has written of her days as a naturalist at West Hills County Park. She describes finding several rare or unusual plants for Long Island at the site.

If you have ever experienced the pleasure of splitting oak logs you will want to read **Thomas Allen Stock**'s article about splitting oak.

The Education Committee received an award for their display at the Fall Flowers and Landscape Show at Planting Fields Arboretum.

DON'T FORGET THE ELECTION. The November meeting is when officers will be elected for the 1994-1995 period. You must be present to vote.

PROGRAMS

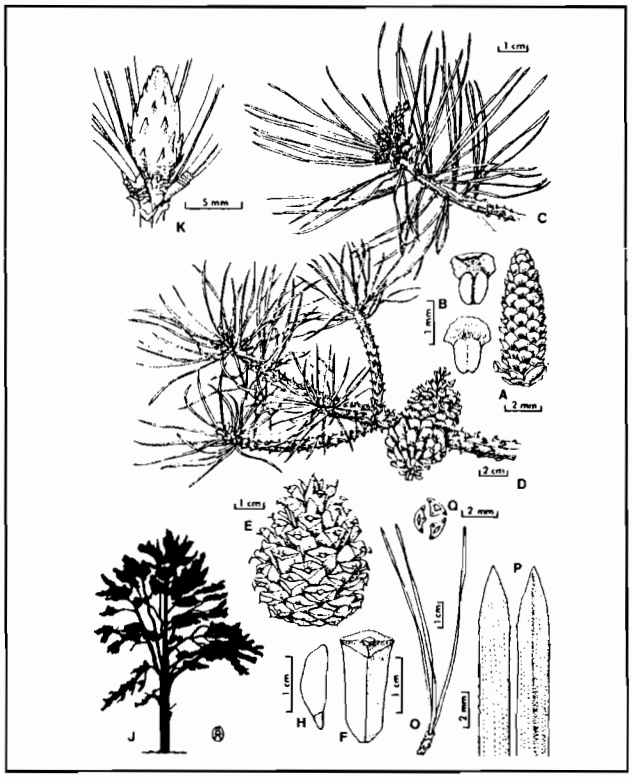
9 Nov. 1993 - 7:30 pm*, Paul Martin Brown, "The Fringed Orchids & Their Allies;" Planting Fields Arboretum (The Haybarn), Oyster Bay. For directions to PFA call: 516-922-9200.

14 Dec. 1993 - 7:30 pm*, Stephen Young, "The Rarest Plants of New York:" Uplands Farm Nature Center, Cold Spring Harbor.

* Refreshments are available starting at 7:30 pm, the meeting begins at 8 pm.

Pine Barrens Protection Act

The 1993 session of the State Legislature, if not the most productive for environmental protection measures ever held, certainly rates near the top. Passed during the session included the Pine Barrens Protection Act, the Environmental Protection Act (a.k.a. The Environmental Trust Fund), a bill to establish a Biodiversity Institute, a bill implementing the federal Clean Air Act, and legislation dedicating the two large DEC managed Pine Barrens parcels to the State's Nature Preserve system.



Pinus rigida Miller. From Cope, E. A. 1992. Pinophyta (Gymnosperms) of New York State. NYS Mus. Bull. 483.

The Pine Barrens Protection Act is the culmination of four years of legal action between the environmental and development communities regarding the fate of the Pine Barrens. And as you might expect in any compromise both sides had to give a little.

The legislation establishes a 50,000 acre core area where development is excluded, surrounded by a 50,000

acre Compatible Growth Area where limited development may be allowed. Land protection strategies for the core area and allowable land uses and development densities for the compatible growth area will be detailed in a comprehensive management plan. The plan will be prepared under the aegis of a five member Pine Barrens Commission consisting of the County Executive, the three affected town supervisors (Brookhaven, Riverhead, Southampton) and a Governor's appointee. The plan must be completed within eighteen months.

A twenty-eight member advisory committee to provide advice to the Commission is established. Representatives from the environmental community, civic groups, and business and development interests serve on the committee.

Transfer of development rights, also known as TDR, will probably be the most widely used land protection technique to protect land within the core area. Under TDR a landowner in the core or "sending zone" can see his rights to develop his land to an owner in the "receiving zone". Portions of the compatible growth area will likely be targeted for some of this redirected development. Direct acquisition will also play an important role in preserving privately-owned parcels situated within the core area.

Of particular interest to members of the Long Island Botanical Society is a requirement for the plan to include a plan to implement a prescribed burn regimen; inclusion reflects the historical importance fire has played in shaping the communities and landscapes of the Pine Barrens.

To date, the Commission has formally adopted a map depicting the two zones, established a schedule for meetings, and adopted interim rules and regulations to guide development that is grandfathered pursuant to the legislation.

Coastal Plain Pondshore Publication

Many of us know that the coastal plain pondshores of Long Island support one of the highest concentrations of rare plants in New York. But the last detailed publications of the community appeared in the literature about 50 years ago. The Torrey Botanical Club has recently published: "The status of the Coastal Plain Pondshore community in New York," by Robert Zaremba and Eric Lamont. The article includes discussion on the community's general characteristics, vegetation zones, rare plants, threats, and protection. Free reprints are available from either Bob (518-869-6959) or Eric (516-722-5542).

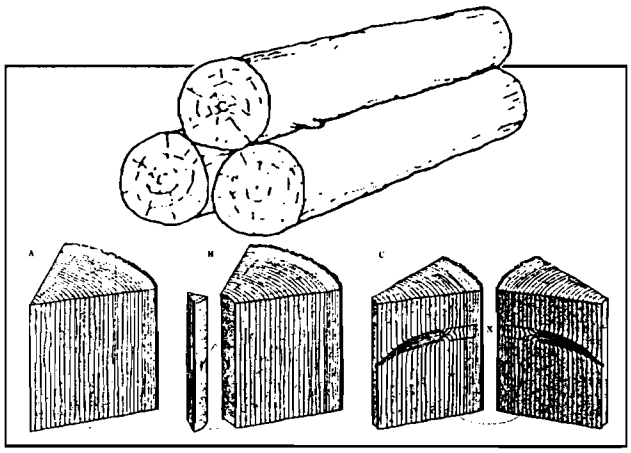
Splitting Oak

How satisfying it is to split chunks of solid oak. To see the pieces fall away under the wedge; to smell the tannic acid released. The odor alone is worth the effort of hefting the heavy sledge, hoisting it over my shoulder and coming down squarely on the head of the wedge. To hear the ping of a solid hit and feel it bite into the grain and begin the separation. The second hit, if solid, begins to release the tension of the fibers, held together for fifty or more years. The sound of the tearing fibers is yet another satisfaction.

I have to remove my sweatshirt as the perspiration begins to bead upon my forehead and I feel the heat beneath it. The joy comes from not only a well-placed hit, but also from a single blow that cleanly severs the one piece into two. The bark falls away and I throw it on a separate pile as a place for the sow bugs to congregate as well as a few centipedes. To feel the heat in a wedge quickly removed from a piece that resists the several blows I have to apply, ah, that's the joy of splitting oak.

Sometimes I have to reposition the wood to get a better aim on it. Sometimes I have to brace the piece so it can't fall over with the strike.

I throw the new pieces in a pile and smell the air-filled tannic acid. I stack it on the wheelbarrow and lug it to the pile. I pull off the cover and discover a small garter snake that has made it's home in the woodpile. Oh, how many pleasures there are to splitting and stacking wood. It is my form of insurance, for I bank the impressions and write them here. Surely I've gotten heat out the wood thrice; once in splitting, once in exercise, and finally on the hearth.--**Thomas Allen Stock**

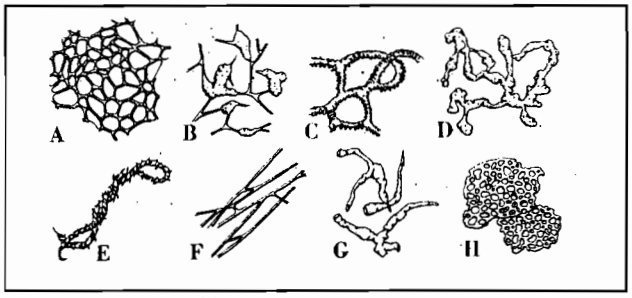


Myxobacteriales are not slime molds

Every now and then, I suppose, even the most ardent mycologist or botanist is at a loss for words upon finding an old log that seems to sparkle in the morning sun with many different and colorful species of myxomycete. On this particular July morning, we find such an entity and reach for our hand-lens to have a closer look at these 'micro-gems.' Here scattered across this decaying log are maroon colored baskets resembling Japanese lanterns; "hundreds of coral-red, cotton-candy structures and numerous yellow 'globes' mounted on tiny black stalks. But, our attention is drawn to those brackets of "turkey-tail" fungi (*Trametes versicicolor*), aglow with a profusion of tiny, orange-colored dots. What strange, new species of slime molds are these?

Somewhere, in the universal relationship of all living things, three interesting and rather unique groups of organisms developed similar life histories. These organisms, however, which include the fungi, protozoa and bacteria, did not develop from any common ancestor!

The first group are the familiar myxomycetes or slime molds. In their life cycle, swarm cells released by the spores, lose their flagella and fuse into a large, multinucleated mass called a plasmodium. During the formation of the fruiting structures, **diploid** nuclei in the plasmodium undergo meiosis (or reduction) forming **haploid** spores which are embedded in the capillitium of the sporangia. Herein is your first lesson into the sexual world of the fungi.



Several types of capillitium. A. *Stemonitis*, B. *Physarum*, C. *Arcyria*, D. *Badhamia*, E. *Trichia*, F. *Didymium*, G. *Lycogala*, H. *Reticularia*

In the second group of organisms, the "cellular slime molds," or Acrasiales, the swarm cells are released from the spores without flagella and they are referred to as myxoamoebae. Unlike the 'true slime molds,' they form a slug-like pseudoplasmodium (or false plasmodium) wherein the cells never fuse and remain **haploid**. They also develop a fruiting structure and although it closely resembles the sporangia of the myxomycetes the stalk and sorocarp are composed of individual cells which do not form any capillitium. In fact, many modern biology books rightfully refer to these organisms as complex protozoa. So within the world of both animals and fungi there has evolved a similar, although totally independent life-history.

Now, lets get back to those orange dots on that polypore. These are **bacteria**, the third and last group of organisms having a life-history that closely parallels that of the 'slime molds.'

In 1892, Dr. Thaxter wrote about a phenomenon that he found among a group of bacteria that move by gliding; they are 'social' organisms producing a fruiting body with spectacular beauty. The fruiting structures are, however, inherently small, requiring a microscope to observe any detail, but are generally produced in such large numbers that they are easily conspicuous to the naked eye. In the vegetative stage, the rods swarm within a matrix composed of slime. During the formation of the fruiting bodies, the cells aggregate upon the slime stalk, on which the vegetative cells (or rods) are converted into resting cells (myxospores) within the walls of sporangia-like bodies called sporangioles. The fruiting body, however, has **no sexual function** and the organism retains its bacterial (or prokaryote) cellular structure.

Stigmatella aurantiaca is a common species of 'slime-bacteria' occurring frequently on wood and having the appearance of miniature 'treelets' each little stalk containing clusters of sporangioles. Their taxonomy is based upon the characteristics of their fruiting structures and unlike other bacteria species, these specimens can also be air-dried and mounded in small boxes.

In summary, I hope that I have at least sparked a new awareness for these fascinating and colorful organisms that are generally overlooked by most students. I wish you successful hunting on those old, rotten logs and lichen covered trees during your woodland walks this summer.--**Lance T. Biechele**, 14011 Cooley Road, Princess Anne, Maryland 21853

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McCurdy, H. D. 1974. Myxobacteriales. In Buchanan, R. E., Gibbons, N. E. (eds.). Bergey's Manual of Determinative Bateriology. 8th ed. Williams & Wilkins, Baltimore.

Reichenbach, H. & M. Dworkin. 1981. The order Myxobacteriales. In the Prokaryotes (vol. 1). Starr, et al. (eds.) Springer Verlag, NY.

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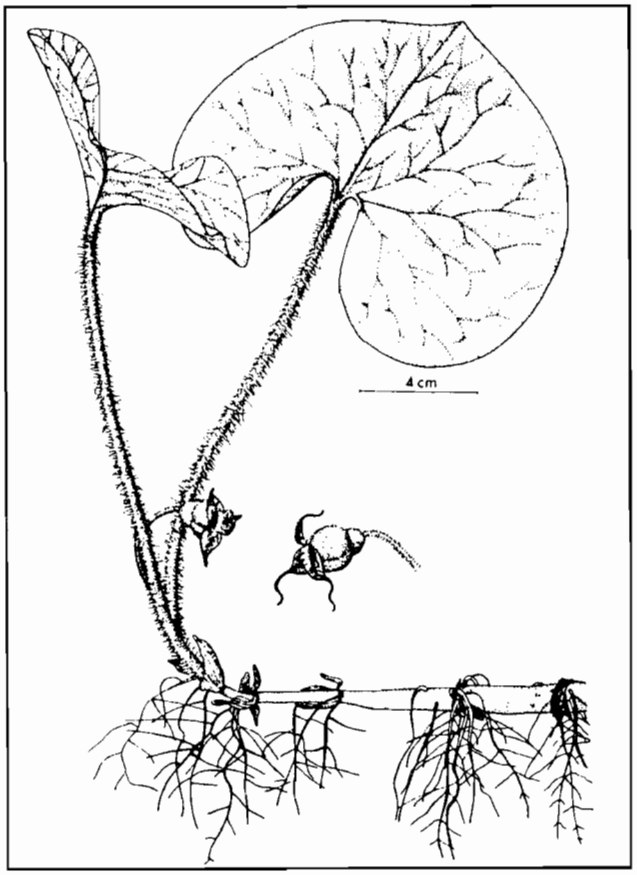
Ramblings of a Naturalist

Back in the 1970's when I was young, had energy, and was recently out of college, I worked as a naturalist (the County called us "environmental guides") for the Suffolk County Department of Parks and Recreation. The County had many lands under their protection, and some of them were and still remain gems of open space. One of the nicest parks, and least used, was West Hills County Park and its surrounding hills.



Asarum canadense L. From Mitchell, R. S. & E. O. Beal. 1979. Magnoliaceae through Ceratophyllaceae of New York State. NY Mus. Bull. 435.

We naturalists were sometimes allowed to roam through the woods of West Hills and add to the Park inventory lists which were then almost non-existent. While hiking along some horsetrails in an "unexplored" part of the Park, I was astonished to come across Wild Ginger (*Asarum canadense* L.). I had not known it to occur on Long Island, and this species seemed far from its natural range. Several feet down the trail I couldn't believe my eyes when I came across two plants of Galax, also known as Beetleweed (*Galax aphylla* L.). I had previously known the plant from hiking in the Great Smoky Mountains, and had learned that it was a southern plant just extending north to the mountains of western Maryland, West Virginia, and Kentucky. The West Hills population was over 300 miles disjunct from the next nearest population. "What a find," I thought. Several hundred feet away from the Galax was a large population of Greater Coreopsis (*Coreopsis major* Walt.). This population was also hundreds of miles away from the next nearest population in southern Pennsylvania.

I surmised that seeds of these three species were introduced to West Hills one way or another by the horses that traveled the paths, either in horsefeed, horse droppings, or whatever. Another possibility was that the plants were introduced by someone - perhaps this part was near the site of an old homestead.

I returned to my supervisor and told of my discovery. He couldn't believe it, and told me to prove it. So I did, with photographs, and then he believed! I've been using the slides in lectures for almost 20 years. I never knew until recently that these plants were records for the area and/or New York State. I told several people about it but no one ever suggested that they might be State records, and back in the mid-1970's I didn't know what channels to use to report these rare plant findings. Anyhow, it was a nice find for me and one that I won't forget. It was all part of a day's work roaming the West Hills.--**Mary Laura Lamont**

Editors Note: The preceding paper was submitted this summer. I was unable to put it in the September issue because of space constraints. Just before it was received **Andy Greller** and I submitted a paper to the New York Flora Association on the same subject. Andy and I have been studying West Hills County Park for the past several years and were unaware that others were familiar with the species at this site.

For those interested in this site our paper will be appearing in the next NYFA newsletter. We identify several rare or unusual species in addition to those mentioned by **Mary Laura Lamont.--Steven Clemants**

The New York Natural History Conference

The third New York Natural History Conference will be held April 13-15, 1994, at the New York State Museum, Albany, NY.

This conference provides a forum for current research on the natural history of New York. This year for the first time there will also be a series of workshops on identification of selected groups. Including **Pollen & Mold Identification** and **Orchid Identification**. For information please contact the New York Biological Survey or call (518) 474-5812.

SOCIETY NEWS

September Meeting--Sept. 14

Max Wheat talked about the 1994 Fall Festival being sponsored by the New York State Tourism Bureau. Part of the I Love NY campaign. In 1994 it will be hosted on Long Island. LIBS has been asked to participate. More details will follow.

Eric Lamont reported Sea-purslane, *Sesuvium maritimum* (Walt.) BSP. on Gardners Island.

Skip Blanchard and Al Lindberg found *Heracleum mantegazzianum* Somm. & Lev., the Giant Hogweed, on Long Island.

Eric Lamont led the society through the intricacies of Goldenrod identification. He presented a slide lecture on the characters used in identification of goldenrods then he presented live material and had the members practice using keys he published in the LIBS newsletter last year. The identifications were graded and all passed.

October Meeting--Oct. 12

Horst Welzel presented a very thorough and informative slide lecture on the Mushrooms of Long Island. It was apparent to all present that **Horst** knows and loves mushrooms and has been studying them for many years.

Executive Board Meeting

A meeting of the Executive Board will be held on 23 November 1993 at 7:00 pm (before the Flora Committee meeting), at the Planting Fields Arboretum Library. All members are welcome to attend.

Election of Officers

Voting for new officers will take place on 9 November 1993, 7:30 pm, at the monthly meeting. The proposed slate is as follows:

President . . . . . Eric Lamont
Vice President . . . . . Steven Clemants
Treasurer . . . . . Carol Johnston
Recording Secretary . . . . . Barbara Conolly
Corresponding Secretary . . . . . Jane Blanchard

Special Publication: The Long Pond Greenbelt

The South Fork Natural History Society has just released a 48 page publication on the Long Pond Greenbelt of Southampton Township. The publication includes over 30 articles: 9 articles on Social History (including topics such as native American settlements, and excerpts (1885-1894) from the diary of Annie Cooper), 14 articles on Natural History (vegetation, mushrooms, hydrology, geology, birds, Poxabogue Pond, mammals, otters, fish, turtles, snakes, frogs & toads, salamanders, butterflies, and dragonflies), and 4 articles on Preservation. Also included are several maps (historical and current hiking trails), and over 50 paintings. The publication is free for members of the Society; for information please call Carol Crasson at 516-267-7944.

Education Committee News

LIBS exhibited two display tables at the week long Fall Flower and Landscape Show at Planting Fields Arboretum. Mary Laura Lamont gratefully acknowledges the volunteers who gave their valuable time and energy to staffing the display: **Joanne Tow, Zu Proly, Robert Laskowski,** and **William Titus.** The display was seen and enjoyed by several thousand people and the Planting Fields Show Committee gave our Society an Exhibitors Award, picutured below.-- **Mary Laura Lamont**

LIBS also wants to acknowledge **Mary Laura Lamont** for all her efforts on behalf of the society.


Friends of Planting Fields
Exhibitor Award
Presented to
Long Island Botanical Society
In grateful appreciation for your contribution to the advancement of horticultural awareness, on the occasion of the
1993 Annual Fall Flower & Landscape Show
"Plant Your Parndise"
Planting Fields Arboretum

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.

President	Eric Lamont . . . . .
Vice President	Chris Mangels . . . . .
Treasurer	Carol Johnston . . . . .
Recrd Sec'y	Barbara Conolly . . . . .
Cor'sp Sec'y	Jane Blanchard . . . . .
Local Flora	Skip Blanchard . . . . .
Field Trip	Glenn Richard . . . . .
Membership	Lois Lindberg . . . . .
Conservation	Louise Harrison . . . . .
	John Turner . . . . .
Education	Margaret Conover . . .
	Mary Laura Lamont . .
Hospitality	Nancy Smith . . . . .
	Joanne Tow . . . . .
Program	Eric Lamont . . . . .
Editor	Steven Clemants . . . .

Membership

Membership is open to all, and we welcome new members. Annual dues are $10. For membership, make your check payable to LONG ISLAND BOTANICAL SOCIETY and mail to: Lois Lindberg, Membership Chairperson, 45 Sandy Hill Rd., Oyster Bay, NY 11771-3111

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