

Long Island Botanical Society
Muttontown Preserve
Muttontown Lane
East Norwich, New York 11732

Programs

January 8, 2002* Tuesday, 7:30 PM

Members Night: Members are welcome to bring slides, stories, specimens, and tales of peculiar sightings of favorite plants. A great opportunity to show what you have found while exploring and crawling around Long Island or elsewhere. Please call Rich Kelly (516-354-6506) in advance to advise as to the approximate number of slides that you would like to show. Thanks.

Location: Bill Paterson Nature Center,
Muttontown Preserve, East Norwich

February 12, 2002* Tuesday, 7:30 PM

Otto Heck: Otto will take us on a tour through New Jersey's pine barrens, savannas, and cedar swamps, sharing with us his decades of experience ranging from fire ecology to orchids to snakes, as he speaks on **"The Ecology and Natural History of the New Jersey Pine Barrens."** Otto, formerly from Long Island, is well known to many for his extensive knowledge of herps, owls, and ferns, having led LIBS members on three recent and fascinating fern trips in New Jersey.

Location: Bill Paterson Nature Center,
Muttontown Preserve, East Norwich

March 12, 2002* Tuesday, 7:30 PM

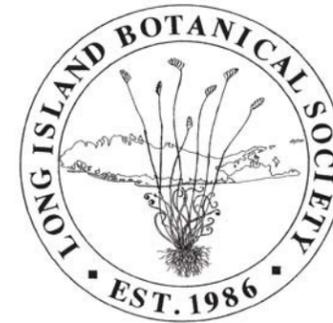
Eric Morgan: Take a break from the winter doldrums with **"The Flora of Amazonian Peru."** Eric is Director of the Town of North Hempstead's Clark Botanic Garden in Albertson.

Location: Bill Paterson Nature Center,
Muttontown Preserve, East Norwich

*Refreshments and informal talk begin at 7:30.

Formal meeting starts at 8:00 PM.

Directions: 516-571-8500



LONG ISLAND BOTANICAL SOCIETY

Vol. 12, No.1

The Quarterly Newsletter

Jan.-Mar.

2002

Preliminary Atlas of the Betulaceae through Cactaceae of Long Island, New York

The Flora Committee
Long Island Botanical Society

This contribution to an atlas of Long Island plants treats the five families from Betulaceae through Cactaceae. These families are as follows: Betulaceae, the Birch Family (14 species); Phytolaccaceae, the Pokeweed Family (1 species); Nyctaginaceae, the Four-o'clock Family (5 species); Aizoaceae, the Fig-marigold Family (1 species); and Cactaceae, the Cactus Family (1 species). Of the 22 species represented, 15 are native and 7 are alien.

The most common species in this group is Pokeweed, *Phytolacca americana*. It has been documented with either specimens or reports from every township on Long Island. Although all parts of the plant are poisonous to some degree, the young shoots and leaves have been safely eaten when cooked properly. The vivid purple berries have been used in dyes and food coloring.

At the other extreme, this treatment also includes a New York State endangered species. *Sesuvium maritimum*, or Sea Purslane, is at the northernmost edge of its distribution range. It occurs only in limited populations of eastern Long Island.

The Birch Family is the largest of the group, encompassing Alders, Hazelnuts and Hornbeams as well as our more familiar Birch trees. Of the usually shrubby Alders, only the nonnative *Alnus glutinosa* reaches tree size. It occurs as a naturalized species along streambanks in New York. Hazelnuts, related to the domestic Filbert,

provide important cover and food for wildlife. *Corylus americana* is far more frequent than the Beaked Hazelnut, *C. cornuta*. American Hornbeam, *Carpinus caroliniana*, and Hop Hornbeam, *Ostrya virginiana*, suffer from an identity crisis with similar names. To add to the confusion, both are also called Ironwood for their extremely heavy wood. American Hornbeam has a crooked trunk with unmistakable irregular, sinewy bark, thus earning the nickname "Musclewood". Hop Hornbeam, with a straight trunk and ragged bark, has fruits in papery bladders reminiscent of the fruiting bracts of hops.

None of the species in the Four-o'clock Family are native to Long Island. The cultivated *Mirabilis jalapa* is a rare garden escape; the others, native to the central and western U.S., have migrated into New York. *M. nyctaginea* has established itself here and can become weedy.

To the uninitiated, learning that Long Island is home to a species of cactus may come as a revelation. The Prickly-Pear, *Opuntia humifusa* occurs in dry, sandy soil, usually in full sun. The plant is sometimes cultivated, producing striking yellow flowers in June. (Maps on pages 5-7)



Illustration: Audrey Watson-Wigley
Pokeweed or Pokeberry (*Phytolacca americana*)

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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Article & News Submissions

Long Island Botanical Society

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Society News

In the Interest of Conflict: Howard Blankman, who acted as public relations representative for the Ward Melville Heritage Organization during its controversial bulldozing operation of the buffer woodland area of the Stony Brook Forest in Suffolk County is also doubling as Director of the Nassau County Planning Commission.

In November, 2001, he presided over the hearing of a development project adjacent to Middle Run Stream in Locust Valley. The proposed subdivision of seven houses on 2.8 acres abuts the spring-fed stream which courses through Shu Swamp and into Beaver Dam. (Somehow, a waiver was granted by the Nassau County Department of Health allowing seven houses to be built in a Special Groundwater Protection Area.) Blankman interrupted and chastised the local citizens who opposed the project throughout the course of their presentations.

Maintaining Momentum: In late November, 2001, attention resurfaced over the acquisition of the Chandler Estate in Miller Place. The Suffolk County Director of the Division of Real Estate, Allan Grecco, who had extraneous business dealings with the developer possessing the 40-acre estate, negotiated the deal. In the midst of the controversy, Grecco resigned.

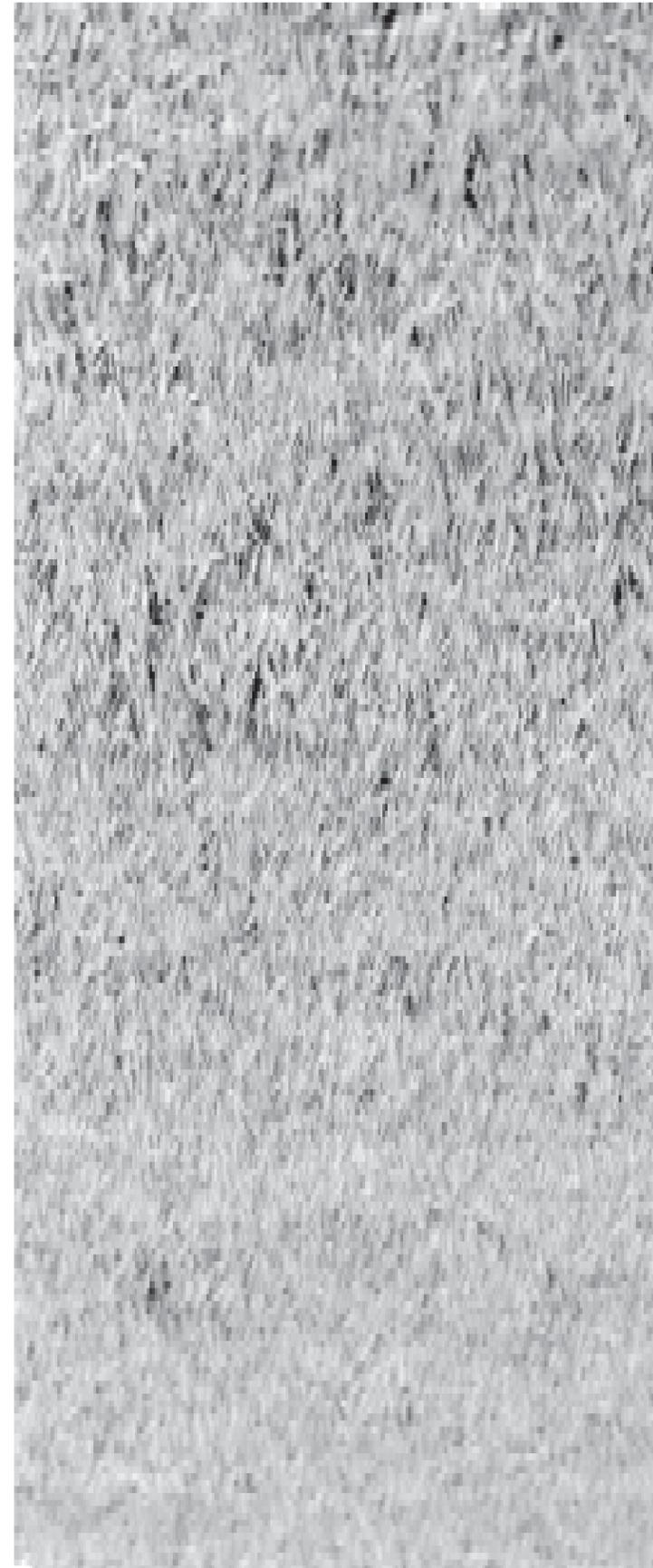
Unfortunately, the movement to preserve the Hauppauge Springs had been progressing with much time and effort vested in Allan Grecco. The Hauppauge Springs Coalition will reposition itself with other county staff members sympathetic to the cause.

Election Tally: Unlike the federal elections, the slate for the Long Island Botanical Society was approved, unopposed, and passed unanimously on Tuesday, November 13, 2001. Eric Lamont will lead on for another year as president, Skip Blanchard will maintain his monopoly on vice presidency, Carol Johnston will continue to count as treasurer, Barbara Conolly will stay to scribe as recording secretary, and John Potente will carry on as corresponding secretary.

In memory: It is with sadness that LIBS reflects over the loss of longtime member Nancy Smith. Nancy had been at the June barbeque and had frequently attended field trips as well as assisting LIBS as co-chairperson of the Refreshment Committee. Nancy passed away on September 24, 2001.

Plants in the News

Second Thoughts: Autumn Olive (*Elaeagnus umbellata*), promoted by the USDA and NYSDEC for controlling soil erosion and touted by Audubon groups for its value to birds, has become a menace. Reproducing prolifically and overwhelming fields and meadows, this shrub is now considered one of the top twenty most invasive plants in New York State. However, in a report in the October issue of American Society for Horticultural Science, its red berries are found to be rich in an antioxidant, lycopene, which is believed to prevent prostate cancer. Perhaps male restorationists should be eating their way through the invasives.



My Lawn

Look at how each blade of grass
stands at attention.
My lawn is my opportunity
to control nature.

I've got each blade of grass
trained to stand tall and parallel.
This took
a lot of effort.

I have a lawn mower,
edger, trimmer, spreader,
hose, sprinkler, fertilizer, pesticides
and lots of time.

But it's worth it
to just see how I created
this sea of green,
this sea of sameness.

And. Someday, my son
is going to follow in my footsteps
and have a lawn
just like mine.

What a wonderful way
to spend Saturday mornings.
And look at my garage....
it's full of lawn equipment!

---Tom Stock

**Classification for Mature Forests and Related Woody Vegetation on Long Island:
Second Approximation, By Andrew M. Greller, Ph. D., Research Associate, Brooklyn Botanic Garden**
(Continued from LIBS Newsletter Volume 11, Number 3, page 33)

III. Coastal Variants of Upland Forests

A. Black Oak Series

1. Black Oak-Beech/American Holly Association
ex., Suffolk: Montauk Point State Park
2. Black Oak-Scarlet Oak/American Holly/Mountain Laurel Association
ex., Suffolk: Montauk Point State Park
3. Black Oak/Vines Association
ex. Suffolk: "Fly Island", Caumsett State Park, Lloyd Neck; Jessup's Neck (Morton NWR), Noyac

B. Hickory Series

4. Hickory (Pignut, Mockernut, Shagbark)-Oaks (Black, White) Association
ex., Suffolk: Caumsett State Park, Lloyd Neck; Heckscher State Park, Great River; Ridge/Whiskey Road

C. White Pine Series

5. White Pine [-Oak] Association ex., Suffolk: Northwest Harbor, East Hampton; Greenport, Southold
6. White Pine-Oak-mixed hardwoods Association ex., Suffolk: Northwest Harbor, East Hampton
7. White Pine-Scarlet Oak-White Oak/Heaths Association ex., Suffolk: Northwest Harbor, East Hampton
8. White Pine-Pitch Pine-Scarlet Oak-White Oak/Heaths Association
ex., Suffolk: Northwest Harbor, East Hampton

IV. Maritime Forests and Shrublands

A. Beech Series

1. Dwarfed Beech shrubland Association ex., Suffolk: Friar's Head (on "Grandifolia Sandhills"), Riverhead

B. Red Cedar Series

2. Red Cedar woodland Association
 - a. Red Cedar woodland Facies ex., Suffolk: Orient Beach State Park
 - b. Red Cedar-Post Oak forest Facies ex., Suffolk: Orient Beach State Park

C. Post Oak Series

3. Post Oak-mixed oaks (White, Scarlet, Blackjack, Black, Saul?) woodland Association
ex., Nassau: Mill Neck Preserve
4. Dwarfed Post Oak-Black Oak-Basswood shrubland Association
ex., Suffolk: Peconic dunes (ref.: Lamont, E. 1997. LIBS Newsletter 7(5): 27-28.)

D. Blackjack Oak Series

5. Dwarfed Blackjack Oak (Post Oak, Shadbush, Red Cedar, Wild Black Cherry) low woodland Association
ex., Suffolk: Sunken Meadow State Park (old dunes).

E. American Holly Series

6. American Holly-Shadbush-Sassafras-Sourgum Association
ex., Suffolk: "Sunken Forest", Fire Island National Seashore

Key: Slashes are placed between dominants in different strata.
Dashes are placed between co-dominants of the same stratum.
This conforms to USDAFS format.

Editor's Note: While this is the final installment of the classification, the author considers this a work in progress and seeks comments from the many field botanists on Long Island.
Contact: agreller2@erols.com

Plant Sightings

Sedge: Skip Blanchard reported a find of Yellow Flat Sedge (*Cyperus flavescens*) at Massapequa Preserve.

Autumn Coralroot: Skip noted that the Autumn Coralroot Orchid (*Corallorhiza odontorhiza*) was up and in flower in October and Eric Lamont added that he and Mary Laura Lamont had counted them and came up with 657 individual plants.

Sesuvium maritimum: Eric and Mary Laura found *Sesuvium maritimum* at Orient Beach State park this summer. There are three known populations in New York State: one in Montauk, one on Gardiner's Island, and now this one in Orient for the first time since 1912. Skip mentioned seeing it around Oyster Pond in Montauk.

Parrot's Feather: Eric Morgan reported Parrot's Feather (*Myriophyllum aquaticum*) and Water Hyacinth (*Eichhornia crassipes*) in the railroad tunnel at Shu Swamp. Zu Proly added that the latter was also in Scudder's Pond. The Hyacinth will not overwinter, but the Parrot's Feather is a problem.

Plantago: Rich Kelly found *Plantago maritima juncooides* on Shelter Island at the ferry slip. Eric Lamont has seen the plant at Hubbard Creek and Orient Beach State Park.

Seabeach Amaranth: An estimated total of about 180,000 plants of Seabeach Amaranth, a federally threatened and state endangered plant were counted on Long Island beaches this year. Steve Young reports that annual counts have taken place on Long Island since 1990 when the plant was rediscovered after a 40 year hiatus. This year's count is the highest ever, surpassing even the 138,000 plants in 2000. Most plants are concentrated at four sites in eastern and central Suffolk, western Nassau and eastern Queens

counties. Almost all concentrations of plants were within string fencing that protect rare shore birds and this protection certainly has been a factor in increasing the numbers of plants. Many sites had dramatic increases from last year and there are more plants than can be counted easily. In 1994, 182 were counted islandwide. Next year a search will take place on beaches outside the normal range of the plant to see if its range is expanding. Monitoring of germination, growth rate and senescence of selected plants will also continue to get a better idea of how to manage for optimum protection.

Conifers: Roaming the grounds of William Cullen Bryant Preserve at the Nassau County Museum of Art in Roslyn Harbor, Andrew Greller found the following conifers escaping from cultivation as numerous seedlings and saplings, some producing cones (male). They were: *Torreya nucifera* (Taxaceae: Japanese torreya) and *Cephalotaxus fortunei* (Cephalotaxaceae: Chinese plum yew; with male cones). In 35 years of looking, he has only in one year seen these taxa produce seeds, much less successfully reproduce. He considers it another indication the climate is changing and becoming milder in the winter.

Late flowerings: While walking the boardwalk at Jones Beach State Park on November 25, 2001, Andrew Greller noted the following plants in flower. He questions whether such a large number of plants flowering at this late date is unusual:
Sweet Alyssum (*Alyssum alyssoides*)
Groundsel-tree (*Baccharis halimifolia*)
Shepherd's Purse (*Capsella bursa-pastoris*)
Seaside Spurge (*Chamaesyce polygonifolia*)
Goosefoot (*Chenopodium album*)
Storksbill (*Erodium cicutarium*)
Cat's-ear (*Hypochaeris radicata*)
Pepper-grass (*Lepidium virginicum*)
Montauk Daisy (*Leucanthemum japonicum*)
Common Mallow (*Malva neglecta*)
Knotweed (*Polygonum arenastrum*)
Seaside Goldenrod (*Solidago sempervirens*)
Red Sand-spurry (*Spergularia rubra*)
White Clover (*Trifolium repens*)

Ecological Impacts of Invasive Species

Marilyn Jordan

Thousands of nonnative plant species have been transported by humans into new environments. Of these introduced, nonnative species, about 400-800 have become invasive wildland weeds in the United States; about 30 of these invasive species are a problem in New York. These invasive weeds spread into natural areas, outcompete, damage and often eliminate native plant populations, and sometimes change fundamental ecosystem processes such as nutrient cycling, availability of water or frequency of wildfires.

Invasive, nonnative species are a major cause, or contributing factor, in the decline of 42% of the United States species federally listed as threatened or endangered. Invasive species are second only to outright habitat destruction as a threat to the ecological health of our forests, grasslands and waterways.

About half of the introduced, nonnative plants in the United States were brought here to beautify our yards and gardens; the other half were accidental introductions. The top 20 worst weeds in New York have been identified by the New York Invasive Plant Council (IPC).

The homeowner, gardener and nurseryman can help limit the introduction and spread of these invasive plants by refusing to purchase, distribute or grow and plant on the list, and by removing any of these plants already in their gardens.

Most of the commercially available ornamental plants not included on the IPC list probably do not pose an ecological threat in New York, and are likely safe to grow. However, new species are continually being introduced and their threat may not yet be recognized.

Once a species has been widely planted and shows some signs of invasiveness, it may be too late to prevent its escape into our wild and natural areas. Therefore, it is advisable to avoid or remove any new ornamental that matures quickly, produces large quantities of small seeds, has seeds that are readily dispersed by wind or fire and self-sows and rapidly spreads in your garden and beyond.

The Top Twenty Invasive Plant Species in New York State

New York Invasive Plant Council

1. Norway Maple (*Acer platanoides*)
2. Garlic Mustard (*Alliaria petiolata*)
3. Porcelain-berry (*Ampelopsis brevipedunculata*)
4. Japanese Barberry (*Berberis thunbergii*)
5. Oriental Bittersweet (*Celastrus orbiculata*)
6. Spotted Knapweed (*Centaurea maculosa*)
7. Elaeagnus species:
 - Russian Olive (*Elaeagnus angustifolia*)
 - Autumn Olive (*Elaeagnus umbellata*)
8. Japanese Honeysuckle (*Lonicera japonica*)
9. Alien Shrub Honeysuckle:
 - Fly Honeysuckle (*Lonicera morrowii*)
 - Tartarian Honeysuckle (*Lonicera tatarica*)
 - Bell's Honeysuckle (*Lonicera x bella*)
 - Amur Honeysuckle (*Lonicera* "Rem Red")
10. Purple Loosestrife (*Lythrum salicaria*)
11. Japanese Stilt Grass (*Microstegium vimineum*)
12. Eurasian Water Milfoil (*Myriophyllum spicatum*)
13. Common Reed Grass (*Phragmites australis*)
14. Japanese Knotweed (*Polygonum cuspidatum*)
15. Curly Pondweed (*Potamogeton crispus*)
16. Alien *Rhamnus* species:
 - Common Buckthorn (*Rhamnus cathartica*)
 - Smooth Buckthorn (*Rhamnus frangula*)
17. Black Locust (*Robinia pseudoacacia*)
18. Multiflora Rose (*Rosa multiflora*)
19. Water Chestnut (*Trapa natans*)
20. *Vincetoxicum* species:
 - Black Swallow-wort (*Vincetoxicum nigrum* & *Vincetoxicum rossicum*)

Additional Invasive Species on Long Island

Bentgrass (*Agrostis alba*)
Cypress Spurge (*Euphorbia cyparissias*)
Chinese Lespedeza (*Lespedeza cuneata*)

Potential Problem Species

Eulalia (*Miscanthus sinensis*)
Mile-A-Minute Vine (*Polygonum perfoliatum*)
Kudzu (*Pueraria montana* var. *lobata*)

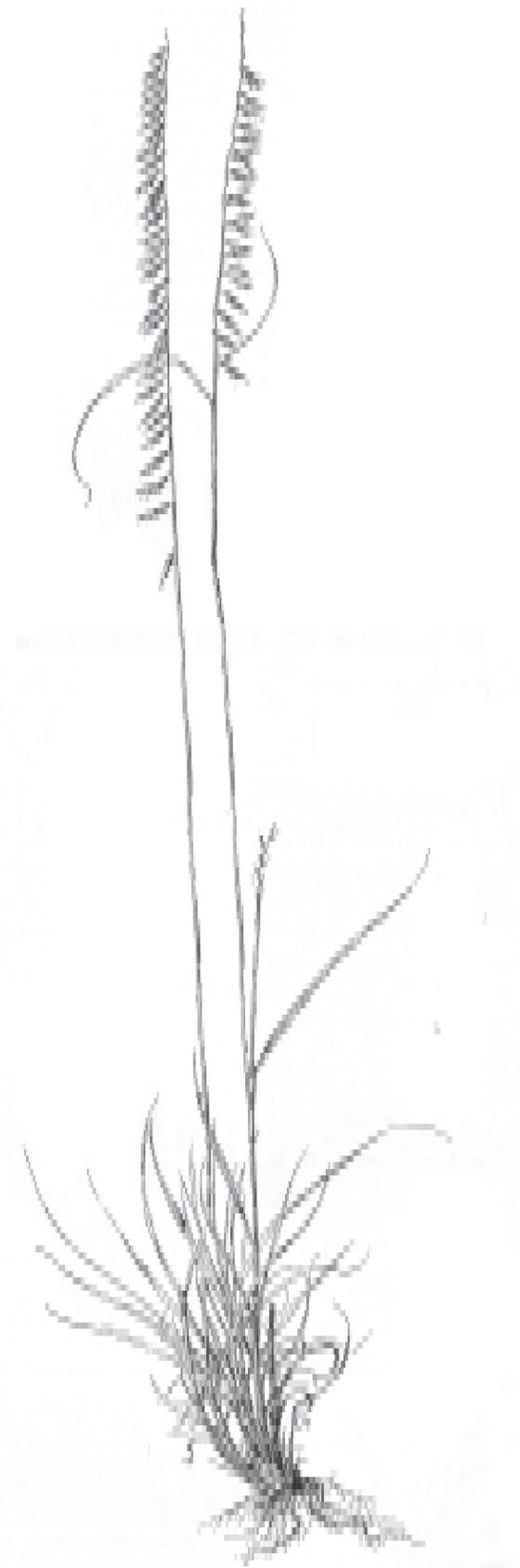
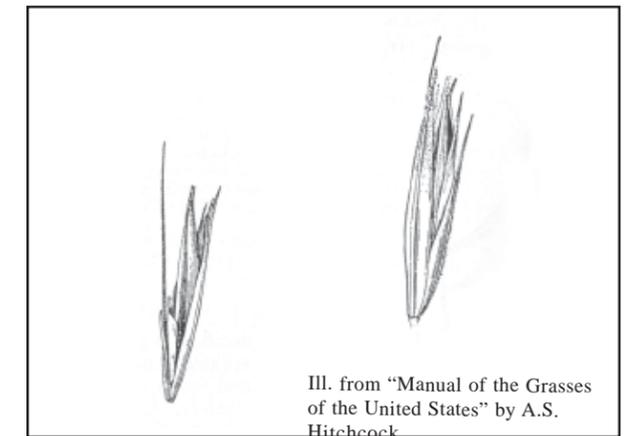


Illustration adapted from "Manual of the Grasses of the United States" by A.S. Hitchcock

Side-Oats Grama-Grass (*Bouteloua curtipendula*)



Ill. from "Manual of the Grasses of the United States" by A.S. Hitchcock
Florets of Side-Oats Grama

References:

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Troy Weldy is the Associate Botanist at the New York Natural Heritage Program. His surveys are mainly within the Hudson Valley and on state park properties throughout New York. To learn more about the New York Natural Heritage Program, visit their website at: www.nynhp.org

Bouteloua curtipendula rediscovered on Long Island

Troy Weldy

Side-oats grama-grass (*Bouteloua curtipendula*) is one of my favorite plants for two reasons. First, I simply like saying the scientific name (Boo-tah-loo-a curt-i-pend-u-la). Second, is the fact that this is one of the easiest grasses to identify. Each stem is up to 1 meter tall with 10-50 spikes distinctly reflexed in one plane, often only on one side of the stem.

This grass is common in the midwestern and western states, but less common eastward. In the eastern portion of the range, it is found on serpentine barrens, dry calcareous clearings and bluffs, dry woods and other dry, rocky or sandy sites (Rhodes and Block 2000; Gleason and Cronquist 1991). In the west, it is found in dry prairies, sand-hills and grazing lands, but as a livestock favorite, this plant survives as only a small fraction of its original population (Jacobs 1992). The plant is certainly not a global rarity, but is considered rare within many states and provinces. It is listed rare in Connecticut, Florida, Georgia, Illinois, Kentucky, Louisiana, Maryland, Michigan, New Jersey, New York, Pennsylvania, West Virginia, Wyoming, Manitoba, Ontario, and Saskatchewan (NatureServe Explorer 2001).

Within New York, *Bouteloua* is found along the bluffs above the Mohawk River in Schenectady County, alvar grasslands in Jefferson County, and a calcareous grassland at Nellie Hill (a TNC Preserve in Dutchess County). There are additional historical records of the plant growing around Rochester, along the Mohawk River, on the calcareous hills around Olana (Columbia County), on limestone near Poughkeepsie, on the dry summit of Durland Hill (Orange County), on the calcareous knobs within the Harlem Valley (Dutchess County), and in Suffolk County where Roy Latham collected it on 12 July 1920 from “dry woods, Sound Ave.” Based on files located at the NY Natural Heritage Program, this was the only known Long Island collection of *Bouteloua*.

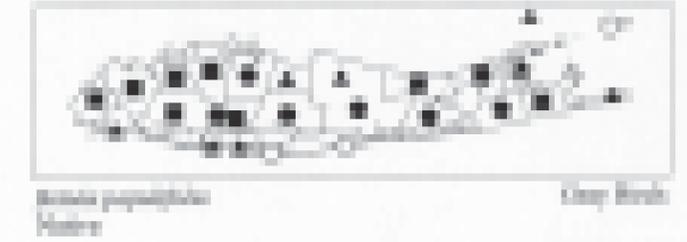
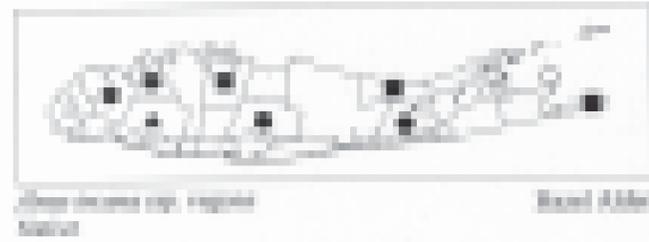
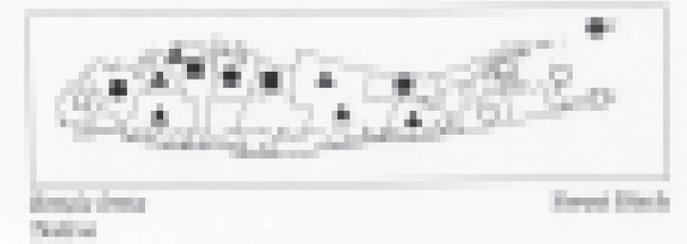
Nearly 81 years to the day, *Bouteloua* was rediscovered on Long Island, but this time in Queens. The discovery was by complete chance as I was mis-directed to Bayswater State Park by the New York City 5 Borough Atlas (Hagstrom 2001). My goal was to survey Bayswater State Park for rare plant species. While the map printed from our office files indicated that this park was located at Mott Point, the Hagstrom map located the park at the southeastern corner of Norton Basin near Edgemere. Not knowing the area well, I decided to visit both places.

Parking at a dead end along the east end of Healy Ave., located a short distance off 32nd St. just north of Edgemere, I entered through an open fence. This area was a flat sandy area grading down towards the water of Norton Basin. While writing notes on the condition of the area and the plants present, my eyes were drawn toward a grass that I at first thought was *Chasmanthium laxum*. Not having seen *Chasmanthium* since my days in Virginia, I stopped taking notes and excitedly approached this grass. As I moved closer, I realized that it was not *Chasmanthium* but instead *Bouteloua*. As I often talk to plants when I’m in the field alone, I asked aloud “What are you doing here?!?” Approximately 100 plants were found on the dry sands between the residential areas and marsh. The other associates included: *Ammophila breviligulata*, *Bromus* sp., *Cakile edentula*, *Centaurea* sp., *Cyperus* spp., *Dactylis glomerata*, *Daucus carota*, *Lathyrus japonicus*, *Lepidium* cf. *virginicum*, *Lolium perenne*, *Melilotus alba*, *Panicum virgatum*, *Phleum pratense*, *Prunus maritima*, *Solidago sempervirens*, *Trifolium arvense*, *Trifolium pratense*, and *Vicia* sp. Full Natural Heritage documentation was completed, along with two specimen collections. These specimens will be deposited at the New York State Museum (NYS) and the Brooklyn Botanic Garden (BKL) herbaria. Compared to the other six New York populations, this population is rather small; however, this is our first record indicating that *Bouteloua* is able to survive on Long Island’s beaches and dunes. Based on this new information, we hope to discover additional Long Island populations.

While I later learned that the area where I found *Bouteloua* was not a part of the state park, I was happy that Hagstrom thought otherwise.

MAPS

BETULACEAE



MAPS



Carex complanata Hempstead
Native



Carex americana Brooklyn
Native



Carex curvata Rockland Forest
Native



Carex virginiana Hempstead
Native

PHYTOLACACEAE



Phytolacca americana Fulton
Native

NYCTAGINACEAE



Mirabilis alba



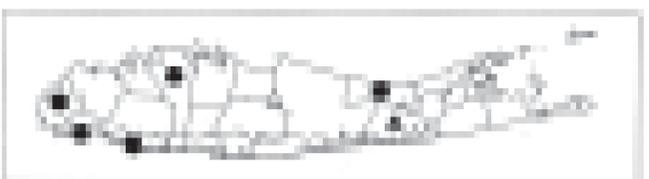
Mirabilis alba King's, Underhill, West
Alba



Mirabilis jalapa Four-Of-Clubs
Alba



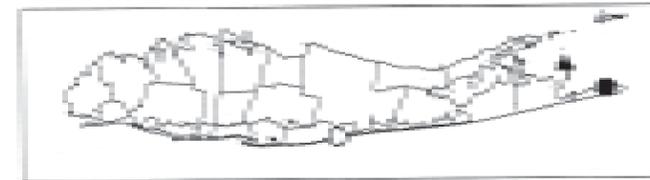
Mirabilis laevis Underhill, West
Alba



Mirabilis sparganiana Brooklyn, Underhill, West
Alba

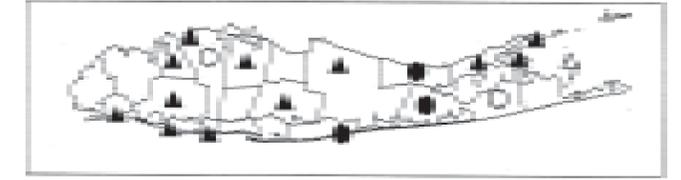
MAPS

AIZOACEAE



Sarcocolla occidentalis Sea Paradise
Native

CACTACEAE



Opuntia acanthocarpa Eastern Paddy-Field
Native

The Preliminary Atlas

The preliminary atlas is an initial compilation and publication of the plants of Long Island. It is the most ambitious, cooperative effort, thus far, to gather information and document the locations of plant species within the townships of the island. Some species have been observed throughout Long Island history, some are newly discovered and others are only noted historically.

You can help the flora committee by sending your observations to either:
Steve Clemants: (718) 623-7309 or
Skip Blanchard: (631) 421-5619

Key to Symbols

Several symbols were used to indicate different types of data. These symbols were placed in a county or town. In places where we felt that more detail was warranted the symbols were placed in portions of towns (such as Fishers Island, Gardiners Island, Montauk Pt, E & W Southampton, N & S Brookhaven, etc.).

Open symbols were used to indicate that the species was only known from before 1980, closed symbols were used to indicate that the species is known from after 1980. Circles were used to indicate a specimen was seen, triangles to indicate a report is known and a square to indicate that an old specimen is known and a recent report is known.

open symbols
(no data since 1980)

- - a specimen is known from the county, town, etc.
- △ - a report is known from the county, town, etc.

closed symbols
(data since 1980)

- - a specimen is known from the town
- ▲ - a report is known from the town
- - a pre-1980 specimen is known and a post-1980 report is known from the town

Map of the counties, towns and other regions of Long Island

