

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

## Programs

**October 10, 2000\*** Tuesday, 7:30 PM

**Glenn Richard:** Glenn Richard, of SUNY Stony Brook will give a slide presentation of the flora of the beautiful Adirondack mountains of upstate New York. The slide tour will take you to the **“Vegetation of the Adirondacks: Summits and Lowlands”**

Location: Earth and Space Science Center, State University of New York at Stony Brook

**November 14, 2000\*** Tuesday, 7:30 PM

**Margaret Conover:** One of the founding members of LIBS, Margaret Conover, will give a presentation on botany education entitled: **“Botany teaching from Kindergarten to 12<sup>th</sup> Grade”** Executive Board Meeting at 6:15 PM (prior to general meeting) All members welcome.

Location: Earth and Space Science Center, State University New York at Stony Brook

**December 12, 2000\*** Tuesday, 7:30 PM

**Bob DeCandido:** Coming out to the island from the city, Bob Dicandido will give a slide presentation: **“Fauna and Flora of Pelham Bay”** Location: Bill Paterson Nature Center, Muttontown Preserve, East Norwich

\*Refreshments and informal talk begin at 7:30.  
Formal meeting starts at 8:00 PM.  
For directions call: 516-571-8500

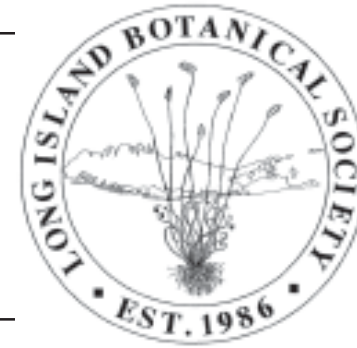
## New Members

Michael J. Parsons, England  
Barbara & Eric Lindemann, Yapank  
Mary Beth Donohue, Oyster Bay  
Frank Hurley, Oyster Bay  
Edward C. Small, Baldwin  
Phoebe Tanner, Oakland, CA



Donald House

LIBS on the March



# LONG ISLAND BOTANICAL SOCIETY

Vol. 10, No.4  
2000

The Quarterly Newsletter

Oct.-Dec.

## Long Island's South Fork

### Larry Penny

Long Island's present forest covering derives from the southern Appalachians and the Middle Atlantic states. There seem to be two distinct elements: trees that prefer moister, richer soils and those that tolerate droughty soils and droughty weather.

The second group includes some of the premier "pioneer" trees: species that capitalize on land vacated by burns and die-offs from diseases or powerful windstorms. The two primary conifers in this group are the eastern red cedar, or juniper, and the pitch pine. Chief among the deciduous trees are scarlet oak (*Quercus coccinea*), black oak (*Quercus velutina*), white oak (*Quercus alba*) and, to a much lesser degree, post oak (*Quercus stellata*), a tree which has generally remained aloof from the others.

The pitch pine and the three common oaks are the most common tree species in what we loosely refer to as "pine barrens". The same three oaks made it to Montauk Point and, in fact, to every other point on Long Island, including the major islands approximate to both the North and South Forks. They are Long Island's most common oaks, very possibly its most common native trees.

The post oak made it east to Napeague, but preferred the shore and hummocks of bays where the soil is more alkaline. The red cedar barely made it to Montauk, and it has never been common there.

The pitch pine has been the tardiest of this last group of southern invaders; it barely made it to the east side of Napeague where it is bivouacked in the Walking Dunes. It didn't make it to North Haven, Shelter Island, Robins Island, or Gardiners Island. Montauk awaits its coming.

**Pitch Pine-Oak Barrens:** The pitch pine-oak pine barren complex of the South Fork covers the thin, sandy soils of the Shinnecock Hills: to the east it runs along the south rim of the terminal moraine, north of the farmland and south of the older hardwood forest on the north side of the moraine. It widens out when it reaches the lowlands south of Sag Harbor and continues to expand north and south as it courses through Wainscott. Here it is at its widest on the South Fork, reaching south to the middle of Georgica Pond and north all the way to Sag Harbor and the foot of Northwest Creek. There it encamps, trying to get the upper hand in a battle with the tough white pine forest, impressive stands of which command both sides of the creek. For hundreds of years, as far as one can determine, it's been a stalemate between these two great forest types.

(continued on page 40)

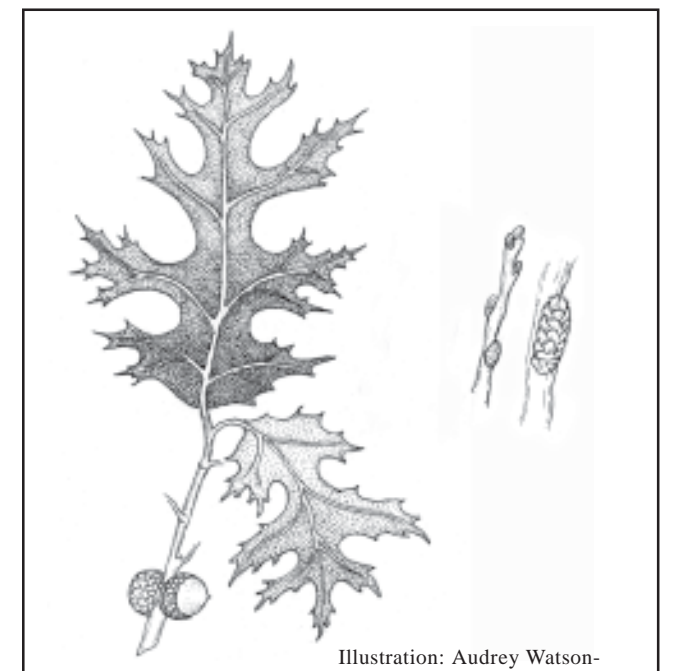


Illustration: Audrey Watson-Wigley

Scarlet Oak (*Quercus coccinea*)

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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Annual Dues of \$15 payable to:  
Long Island Botanical Society

Mail to:

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#### Article & News Submissions

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## Society News

**Atlas Influx:** The funds from a New York State grant for the Long Island Botanical Society have begun arriving. Assemblyman Steven Englebright was instrumental in securing the grant. The \$2,500 will go towards the production of an atlas of Long Island plants.

**Keeping Carya:** The status of Shagbark Hickory site near Whiskey Road and William Floyd Parkway is still under question. Those wishing to help should contact the Ridge Civic Association or the Open Space Council.

**DEC on ATV:** The NYS Department of Environmental Conservation is proposing to build an 80 to 100 mile system of ATV (off road vehicle) and dirt bike trails in the Treaty Line State Forests. This is an 18,000 acre tract of public lands located in Broome, Chenango and Delaware Counties. If enacted, this would be the first time such access would be permitted in a New York State forest by recreational vehicles. Comments may be directed to: NYS DEC, 2715 State Highway 80, Shelburne, New York 13460; fax (607) 674-9034 or email to: rgpancoe@gw.dec.state.ny.us.

**Investigating the Invasives:** Hudsonia, a nonprofit institute operating out of Bard College, is conducting a research project on the ecology of invasive plants. Their emphasis will be on phragmites and purple loosestrife and will take place in Westchester County and New York City. A Volunteer Observer Network (VON) of professional and amateur naturalists has been established. To assist in this program contact Hudsonia/Bard College, ATTN: Volunteer Observer Network, P.O. Box 5000, Annandale, New York 12504-5000 or call (914) 758-7274. You may email to: heady@bard.edu

**Seeing the Forest for the Trees:** Thanks to the Coalition for the Future of Stony Brook Village (co-chaired by Louise Harrison and Cynthia Barnes), a new Suffolk County Park Preserve has been born. The resolution forwarded by County Legislator Vivian Fisher was signed by the county executive. Funding for 36 of the forest's 43 acres was obtained through the Suffolk County Drinking Water Protection Program. The other 7 acres remain in contention.

## News of the Future

**September 18, 2010:** After thirty years of a well-disciplined roadside regimen, the highway department of the east end town of Hamden Hills was alarmed to find out that a specimen of the Yellow-fringed Orchid has resurfaced. The twelve inch tall paper thin stalk with a feather-like flowering head had been an historic menace to local traffic safety causing innumerable massive pileups and fatal head-on collisions. The highway supervisor was quick to assign emergency crews to overtime for around-the-clock mowing until this renegade orchid succumbs once and for all. Those wishing to volunteer to help supply Michelob and chips to the hard-working gangmower operators, are asked to drive carefully when approaching the dangerous orchid.

## Highlights of Recent Field Trips

Barbara Conolly

### Orient Beach State Park July 22, 2000

Mary Laura Lamont led us first to the oak woods east of the parking lot to see blackjack oak (*Quercus marilandica*), black oak (*Quercus velutina*) and the rare hybrid of the two, *Quercus x bushii*. Then, heading west down the spit, we spied seaside sparrows in the interior marshes, sand spurrey (*Spergularia rubra*), the S3 ranked seaside knotweed (*Polygonum glaucum*), a good stand of horn poppy (*Glaucium flavum*), sporting its enormous sickle-shaped pods, and a large bed of bassia (*Bassia hirsuta*). A special thrill was to see the handsome green olive hairstreak butterfly resting on wild parsnip (*Pastinaca sativa*). Gratefully accepting a lift across a deep tidal inlet from trespassing kayakers, we made it back for a late and well-deserved lunch at 3 o'clock.

### Devil's Den, Weston, Conn. Aug. 19, 2000

Muriel Stoker led us on a delightful walk through a rich New England forest, abounding in beautiful mushrooms, due to recent rains. The first thing we noted was an eye-catching clump of bright yellow *Cantharellaceae* mushrooms, followed by several species of coral mushrooms and one stunning pine cone mushroom. In addition to these, we identified in quick succession four hickories (*Carya cordiformis*, *Carya glabra*, *Carya ovalis*, and *Carya tomentosa*). The little fragrant bedstraw (*Galium triflorum*) was present as were two hawkweeds (*Hieracium paniculatum* and *Hieracium venosum*). But a tiny mint which gave off a strong peppermint aroma was the hit of the day. It was American pennyroyal (*Hebeoma pulegioides*). Mad-dog skullcap (*Scutellaria laterifolia*), hop hornbeam (*Ostrya virginiana*), downy rattlesnake plantain (*Goodyera pubescens*) and a beautiful clump of cardinal flower (*Lobelia cardinalis*) rounded out the list.

### Heckscher State Park, Sept. 9, 2000

Fifteen people set off under the guidance of Chris Mangels, happy to have him back on Long Island for a visit. He first showed us a few large specimens of post oak (*Quercus stellata*) and then two species of bead grass, one of which (*Paspalum laeve*) is a New York State element. In a field lush with slender fragrant goldenrod (*Euthamia tenuifolia*), sheep's bit (*Jasione montana*) showed up along with orange grass (*Hypericum gentianoides*), not to mention ten kinds of butterflies. But the gem of the day was the northern tickseed sunflower (*Bidens coronata*) growing up to four feet tall out in the fen - a freshwater narrow-leaved cattail marsh adjacent to a salt marsh. Also growing there were cross-leaved milkwort (*Polygala cruciata*), cotton grass (*Eriophorum virginicum*), freshwater cordgrass (*Spartina pectinata*) and meadow beauty (*Rhexia virginica*).



Northern Tickseed Sunflower



Northern Tickseed Sunflower

## Stump Stories

### Tom Stock

I am fond of old stumps and often look at them as I tramp through the woods. They are what is left of once magnificent trees. They are remnants of the shade that spread over the area created by the tree that once stood there. Like old photos they bring back memories.

Stumps are created by cutting or chopping. Beaver-gnawed stumps are natural. So are those created by a wind that snaps the tree off near its base. Others are created by men.

Stumps are often considered unsightly. They are often removed by a technology known as a stump remover which grinds them down at a high cost. In earlier days, stumps were pulled out by teams of oxen. I once visited a stump fence along a property line in upstate New York. The stumps were lined up side by side forming a ragged yet solid barrier to cattle that one roamed the pasture there.

In the suburbs, stumps are eradicated more than in rural areas. In national forests, clear cutting produces a stubble of stumps that leaves us with a devastated scene of destruction.

Old stumps usually decay much slower than the tree trunk that came from it. All the strains and forces of supporting tons of woody material above them have made them tougher.

Old stumps are squat, shortened by age, weathered and forgotten. They are history books as well. Surrounded by a growing forest, they are the remnants of an earlier time.

I marvel at stumps that have been extracted from the ground. Their roots are tangled masses of confusion having been ripped from the soil like a molar from its jawbone.

I once came across a pitch pine stump in a pine barren in Selden. I guessed that the tree had been cut many years ago for the concentric growth rings were conspicuous by weathering. British soldier and reindeer moss lichens grew atop these ridges. Although this stump sat tired, lonely and forgotten, it had set a handsome table for the banquet of nature.

Stumps are also pedestals for watchful animals. I've often found shells of acorns on stumps attesting to the fact that squirrels use them as feeding tables while perched on these lookouts.

Older, partly rotted stumps can be a hibernaculum. I once reached into the cavity of an old maple stump and brought out a handful of black, rich rotted soil. It was, in fact, the decayed matter of the tree. I flaked it apart and discovered a sleepy wood frog inside. It had passed the winter in the security of the broken down heartwood of the old maple.

Decaying stumps are also showcases for other species. Bracket fungi align themselves along the side. Mosses and lichens can cover the top and create a texture to gaze upon and touch.

One famous stump on Long Island is in Caleb Smith State Park in Smithtown. The stump sticks up through the floor of the front porch of the main building. A mighty 150 year old black walnut tree once extended through the roof of the former clubhouse of the Wyandanch Club in Smithtown. When the tree became diseased, it was cut down for fear that the huge, heavy overhanging limbs would fall on the historic building. Today, the stump, sanded smooth and varnished, gives a history lesson of important dates at the site.

The next time you discover a stump in the woods, stop and admire it. Each is a unique and noble reminder of a trees' life history that has reached a conclusion.



## Letters to the Editor

Dear Editor,

June 29, 2000

This article appeared fifty years ago in the Long Island Forum. I think the readers of the Long Island Botanical Society newsletter would enjoy a reprinting of it.

-Louise Harrison

Editor's Note: The following contains excerpts from the article that appeared in October, 1950.

### "Unnative Plants on Jones Beach"

Julian Denton Smith

Every time I make up my mind that I have heard everything, a new experience forces me to concede I "ain't heard nothin' yet"!

One day this August I stood admiring a beautifully grown bed of giant-flowering zinnias against the south side of the West Bathhouse at Jones Beach. Two women bent over the blossoms. Finally one of them filtered back, "Sea anemones. Has to be sea anemones". This incident demonstrates, in a most extreme manner, the general lack of knowledge concerning seaside flora.

At this date a confusion exists regarding native plants on Jones Beach - plants indigenous to the beach, plants which grew there before the coming of the park, before the first house on High Hill, before the earliest life saving station.

The confusion is a natural one because over the last three generations soil from the mainland has been transported to the Jones Beach area by boats and, more recently, by truck. Seeds arrived in the soil. They germinated, and the resulting plants thrived and reproduced their own kind.

Then, too, some of the owners of summer cottages on High Hill - the section of beach between parking fields 6 and 9 - brought down flowering plants, garden seeds, and fruit vines for their properties. Blackberries were set out. These have multiplied tremendously and now cover acres northeast of the site of the old Savage's Pavilion.

It is little wonder that upland wild flowers are appearing on Jones Beach.

...in due time a complete list of native beach plants in our locality will be available.

## Plant Sightings

**Skeleton Weed:** Rich Kelly came upon skeleton weed (*Chondrilla juncea*) at the end of July at Floyd Bennett Field.

**Verbena:** Skip Blanchard found a verbena (*Verbena bracteata*) that was new to him in Otsego Park on the west side of Edgewood. It had a broad spike of flowers and was well trampled.

**Mile-a-Minute:** Al Lindberg found the mile-a-minute- vine (*Polygonum perfoliatum*) at Tiffany Creek. This is a very aggressive climbing scraggly vine. Even though it is an annual it is an overpowering invasive. It was first sighted in New York State in the early 1990's. Rich Kelly and Skip Blanchard commented that they had found it at Caumsett. Steve Glenn also collected it at Orient.

**Crane Fly Orchid:** Eric Lamont reported that this year he could not find a single crane fly orchid (*Tipularia discolor*) at the usual location in Moores Woods, Greenport. He had been routinely censusing it. Eric Morgan said that while there have been twenty-five of them at the Clark Preserve, none came up this year. Apparently, this year's conditions didn't agree with them.

**Ladies' Tresses:** Barbara Conolly reported finding five specimens of *Spiranthes tuberosa* just west of Muttontown Preserve recently. Skip Blanchard added that he and Rich Kelly had found 289 specimens of the plant at the Moriches-Riverhead Road east of 111, near the Stargazer sculpture.

**Suaeda linearis:** Eric Morgan discovered *Suaeda linearis* at the Hempstead Harbor shore restoration.

## Long Island's South Fork (Continued)

**Napeague's niche:** Farther to the east we find a different kind of pine barrens, one invested in stabilized dune sands between Gardiners Bay and the ocean. It runs from Hook Pond in Amagansett to Hither Hills State Park in Montauk. It is thickest and widest in the region between Napeague Harbor and Beach Hampton. Here it is roughly three miles long and a mile wide and is dominated by almost 100 per cent pitch pine.

Judging from a United States Coast Survey map dated 1838, this same area was only lightly dotted with trees and was almost entirely unforested dune-land 160 years ago. A lot has happened.

**Puzzlements:** The presence of some tree species is harder to account for. The alternate-leaved dogwoods in the Montauk Point Forest west of Camp Hero have been an enigma ever since Peter Whan discovered them in 1995.

The persimmon stand in the county park identified by Bill Miller in 1989 couldn't have been started from a carelessly thrown, half-eaten persimmon... could it?

Bald cypresses grow out east, at least four of which are around Long Pond in Bridgehampton and a few are around Kellis Pond. Did they volunteer from a cultivar or were cypress seeds dropped by a passing bird?

Then there are those hackberries from the midwest that dot the shores of Northwest Harbor and Gardiners Bay. They're on Robins Island, Shelter Island, and Gardiners Island in the same situation. The hackberry is the only tree on Hicks Island at the top of Napeague Harbor.

There are a few stands of quaking aspens around, one of which is in a thickety copse on Lazy Point in Napeague, where the water table reaches the surface. Another is at the edge of the Montauk Airport. Is this species coming or going? The biggest one on the South Fork is in Amagansett, east of Old Stone Highway and north of Quality Row. It's a monster. As beech and sassafras do, it spreads by underground stems. Just one quaking aspen can make a forest.

Trees disappear due to different reasons. It may get too warm, they may have been lumbered off, or they may have been taken by disease.

Several Appalachian trees were decimated by disease. The most famous of these, of course, is the America chestnut, which since the early 1900's has been plagued by the chestnut blight.

Dutch elm disease wasted the elm. Anthracnose fungi are threatening to do away with native sycamores, only a few wild ones of which have been left standing.

Six years ago, the writer found a single redbud tree on Gardiner's Island. Will it be able to beget others?

**Atlantic White Cedar:** The Atlantic white cedar gets the writer's vote for the most interesting South Fork tree, and the most venerable. It has been written that some individuals have reached 1,000 years in age! It ranges in interrupted pockets from Maine to North Carolina and along the north edge of the Gulf Coast.

It's as if this species once occupied a wider, nearly continuous, swampy belt behind the sea, when it was scores of feet lower than it is today and the entire coastal plain was a giant freshwater mire. When the sea rose, the belt was interrupted in hundreds of places, pinching off bogs of Atlantic white cedar.

Its easterly migration on Long Island took it as far as Sag Swamp on the south and Fish Cove at the North Sea on the north.

**Botanical Montauk:** Botanically, Montauk is the most interesting area on Long Island. The heathland forest of dwarfish aspect popularly known as the Montauk Moorlands is frequented by a strange combination of shads and American hollies. It is as thick as a jungle, and covers most of the area behind the ocean bluffs between the lighthouse and Ditch Plains. There's no other forest like it in New York State.

Montauk continues to be invaded by species that are not found elsewhere on the island. Lately the southern red oak seems to have found a niche in Montauk, a very special one where not much else grows. It selected a few of those cavernous hollows, "interglacial fossae" as Fuller dubbed them, nested in rows in Hither Hills. One called Devil's Cradle has a fine lot of them.

So it is, with each new tree, a different tale. There are a lot of trees, there are a lot of tales.

Interestingly, the Stony Brook *Araucaria* tree (Silba B-102) on the property of the late H. Patterson is quite different in appearance than that of the older tree on Shelter Island. Despite the fact that G. Peters (1972) records these two trees as having the same tree diameter in 1972, the tree in Stony Brook currently (June 2000) has a trunk diameter about half the size of the Shelter Island tree. The Stony Brook tree was observed by J. Silba as having a dark cinnamon-brown, deeply furrowed bark, the trunk being unusually twisted and gnarled. Also, the Stony Brook tree has more compact foliage, the branches are more displaced horizontally than upright and the lower part of the trunk is mostly barren of branches. Furthermore, the Stony Brook tree did not appear to have any male or female strobili and appeared to be sterile. This could represent a distinct undescribed subspecies of *Araucaria araucana*, perhaps limited in its occurrence in Chile and/or Argentina.

Other trees of notable age, being 25 years of age or less exist in a few scattered areas on Long Island. A tree ca. 20-25 years old or less exists at the residence of Mr. B. Milligan on Carlton Drive in Massapequa Park. Another young tree exists on the property of Mrs. P. Reiss in Lloyd Neck (per Dr. G. Brown, SUNY, Farmingdale, personal observation). Further, a young tree 15-20 feet tall exists on Van Buren Street in Babylon. Other trees ca. 20 feet tall have been reported in North Sea and Southampton by horticulturists at Marder's Nursery.

### References

GORDON, G. 1875. *The Pinetum*. H. Bohn Publication, London

MITCHELL, A. 1974. *Trees of Britain*. Houghton Mifflin Company, Boston



Monkey-puzzle tree on Erland Avenue, Stony Brook as it appeared in *Newsday*, 1967. By 1999 the same tree had lost most of its lower branches and its crown was nearly flat-topped.

## Monkey-Puzzle on Long Island

John Silba

Department of Horticulture

SUNY at Farmingdale, NY

A rare conifer native to the Andes Mountains of South America and known by the common name "monkey-puzzletree" is unusually cold-hardy on Long Island. The name "monkey-puzzle tree" may have a few different meanings and it has been suggested that this name refers to the thick and coarse appearance of the branches which resemble monkey tails. The tree is called "pehuen" by the people of Chile and no animal, including monkeys, is known to actually climb the trees (Gordon, 1875).

The genus *Araucaria* consists of some 20 species, most of which are native to warm subtropical areas. However, the species from Chile is likely the most cold-hardy species of the genus. Interestingly, this species, *Araucaria araucana*, also grows near the snow line in adjacent parts of the Andes in western Argentina. Local Indian people, known as the Araucano Indians in Chile, eat the seed of the tree as either fresh, boiled or roasted nuts. Moreover, the tree is uniquely cultivated on Long Island because it is probably the most northerly location in the United States where this species will survive. I do not know of any records of the tree north of Long Island being successful. Seedlings have been tried in Boston at the Arnold Arboretum but have not been hardy there. Thus the two old trees on Long Island at Stony Brook and Shelter Island represent a unique scientific accomplishment. In fact, if viable seed were produced from the Long Island trees this may be a more cold-hardy progeny than the parents and thus extremely valuable to horticulture. Mitchell (1974) states that the monkey-puzzle tree is cultivated and hardy in Great Britain as far north as Argyll, Scotland. While some regions of Great Britain may get as cold as Long Island in the winter, the average climate for most of Britain is moist and mild throughout the year.

One large tree planted ca. 1939 in the village of Old Stony Brook in a private estate still thrives today. Another, planted on Shelter Island in 1920 still exists today, in the year 2000. The Stony Brook tree, growing in a protected area, sheltered by other trees, has lost most of its lower branches, and was not observed having any male or female strobili on it. The Shelter Island tree was observed by J. Silba, along with M. Collins and J. Leone several years ago as having basal "suckers" occurring along the main trunk of the tree and being quite green and healthy in color. It is noteworthy that these trees have withstood winter temperatures of less than zero degrees Fahrenheit (USDA hardiness zone 7) with little or no damage and show the adaptability of the species.

The Shelter Island *Araucaria* tree measured 2 feet 5 inches in trunk girth (dbh) in 1972. It has nearly doubled this size since then. J. Silba collected foliage and cone samples of this tree for the New York Botanical Garden herbarium recently (Silba B-101). This tree is located on 151 North Ferry Road, on the former Griffing Estate. Its current owners are Mr. J. Lauro and Mrs. Edwards. The tree was observed to have a relatively thick smooth bark with the branches curving upward on the upper portion of the tree. Numerous cones were seen by J. Silba in June 2000, yet an examination of seed revealed that most were sterile. Other younger cultivated *Araucaria* trees exist on Shelter Island; one at Green Apple Farms (also located on Route 114, but south). Another tree ca. 20-25 years old exists on a private residence in Dearingwood. The Town Horticulturist, Mr. Jerry Siller who resides at 158 North Ferry Road, has records of these and other localities of cultivated trees. A local horticultural society, Friends of Shelter Island, has records of these on file for those who are interested.

## Knotweed Notes

John Black

Although Japanese knotweed (*Polygonum cuspidatum*) is considered to be extremely invasive, observations of a number of knotweed populations indicate that this is not necessarily the case. Populations of knotweed in disturbed areas adjacent to the dwarf pine plains, as well as a mesic beech-oak forest and a pine-oak woodland show no knotweed intrusion. The only area observed where knotweed is invading a natural ecosystem is the Cedar Beach Bay mouth bar at Mount Sinai Harbor.

The knotweed adjacent to the dwarf pines is found in disturbed areas immediately adjacent to these woodlands. It is believed that the knotweed was initially introduced as an ornamental planted on property presently occupied by the USDA Plant Protection and Quarantine Facility. The seeds blew onto an adjacent disturbed area and the knotweed has been moving toward the pines via rhizomes. The spread, however, stops several meters from the pine woodland due, presumably, to root competition with the native species. A similar situation is found in the knotweed populations adjacent to the beech-oak woodland noted previously.

This is also true of a knotweed population adjacent to a pine-oak woodland. In this area knotweed was first noted in the spring of 1995. Presumably knotweed seeds were present in sand deposited as a berm to block vehicular traffic. The undisturbed woodland is intersected by firebreaks, pathways providing access for monitoring wells, etc. Although the knotweed is not invading the undisturbed woodland it is moving onto the firebreaks, presumably by seed, and onto disturbed areas immediately adjacent to the site of initial introduction by rhizomes. Its failure to invade the undisturbed woodland is due to root competition which hinders population expansion by rhizomes and to the plant material covering the forest floor which prevents the germination of knotweed seeds<sup>1</sup>. Thus, only disturbed areas are vulnerable.

The only undisturbed community invaded by Japanese knotweed is found at the bay mouth bar

at Cedar Beach. Although the source of the initial introduction is unknown the initial population, first noted in the early 1990's appeared at the westernmost tip of the bay mouth bar. Since that time it has been spreading rapidly eastward by seed and much less rapidly by rhizomes. Presumably beach traffic in the immediate vicinity of the initial introduction hinders the spread by rhizomes. Observations over a four year period suggest that the knotweed will continue to expand its range and will become a major threat to the natural communities on the bay mouth bar. It is believed that this is due to the fact that such coastal communities are composed of sand which most closely approximates disturbed areas. In addition, the population density of the indigenous beach communities is low and the vegetative cover is minimal. All of these factors favor the spread of Japanese knotweed.

Thus, it is probable that knotweed will invade disturbed areas where there is little, if any, root competition and ground cover, but will be outcompeted in undisturbed woodlands. The only natural ecosystem likely to be impacted are barrier beaches where the substrate most closely approximates disturbed areas.



the major factors to prevent USDA seed germination and other cause could be the possible self-incompatibility of the clones, leading to the production of nonviable seed.

### References

Invasive Plant Council News, April 1999. 1

SELVAGGIO, A.M. 2000. Geobotanical constraints on the range expansion of Japanese knotweed. Geology of Long Island and Metropolitan New York

As suburban sprawl compromised away natural habitat,  
the last unprotected forested area in Stony Brook  
was purchased for preservation by Suffolk County in July, 2000  
(Forested area above the dotted line)

The Ward Melville Heritage Organization (directed by Gloria Rocchio)  
would like to continue to compromise away the forest  
for more buildings, tarred parking lots,  
and an education center where children can  
learn about harm being done to the environment.  
(Forested area below dotted line)

