

Long Island Botanical Society

Vol. 15 No. 4

The Quarterly Newsletter

Fall 2005

The Hauppauge Spring

John E. Potente

The oppressive weight of the ice mountains kept the earth crouched beneath. The imprisoned soils lay bare and soundless looking up at the white darkness above. On occasion, when sunlight was able, it found weakness in the towering ices and sent rivers of cold water running through and below its bellies. And, in time, visiting warmth convinced the mighty circumpolar mass of arctic advance to retreat. On the eastern shelf of North America, on the debris remains that was to become Long Island, floodwaters ran in haste.

Initially, the shouldering moraines dammed the glacial meltwaters helping to form giant Lake Connecticut just north of Long Island. During the glacial retreat, the sea level was 300 feet lower than present and the leveed water north of Long Island was 30 feet lower than present. But as the water torrents became too great, about 18,000 years ago, the morainal land bridge that connected Long Island to Rhode Island was breached out near Block Island and the lake drained onto the exposed continental shelf. This lake bottom land between Long Island and Connecticut then became dry for a few thousand years. Once again, the rising sea level brought the Atlantic to wet Long Island shores, and its salty water invited itself into the dry lake to our north. The expired lake became a sound and then abided by the rules of the oceans.

The glacial outflow waters also rushed and routed the northern Harbor Hills Moraine and the central Ronkonkoma Moraine. As they pierced through, a valley was born that cradled a water pathway for subsequent south-flowing currents. Eventually, the surfeit of water receded and the valley became the home for the south-flowing Connetquot River and the north-flowing Nissequogue. And so, as present-day tidewaters course south up the Nissequogue and impart brininess halfway up its length, the north-flowing freshwater now acts to fill the Nissequogue while also serving to flush the salt from its upper reaches.

As scores of centuries wore on, waters draining



Photo by John E. Potente
Aerial view of Hauppauge Springs (within black line) looking north towards Long Island Sound.

from a wide area of central Long Island found their way into the accepting river of Nissequogue. During heavy rains, the waters ran off the southern slope of the Ronkonkoma and meandered through ephemeral streams to find Nissequogue. All the while, the underground water table shuttled freshwater through upwelling springs to join the wealthy Nissequogue River. Aboveground streamlets from present-day Commack, Smithtown, Kings Park, San Remo, Village of the Branch, and Head of the River all lent their waters to freshen this docile, yet inspiring river. And at its most southern reaches Hauppauge faithfully, to this day, faucets water to the surface to wet the land and meld into the headwaters.

Hauppauge, "Land of Sweet Waters," is named after the plentiful and pleasant-tasting water that sits at eye level with the ground, often surfacing and encouraging small streams. The freshwater springs are in abundance here and have been the lifeline for wildlife for millennia. Mastodons stomped Hauppauge long before

(Continued on page 31)

Long Island Botanical Society

Founded: 1986 Incorporated: 1989

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

Visit the Society's Web site
www.libotanical.org

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Society News

The LIBS Executive Board will meet at Muttontown, 6:15 p.m., Nov. 8, 2005. All members are welcome to attend. Elections will also be held at the regular meeting following the Executive Board meeting.

LIBS Corresponding Secretary, John Potente, has been appointed to the Environmental Review Board of Suffolk County.

In celebration of its 20-year Anniversary, LIBS is hosting a 10-day trip to Newfoundland next summer. The trip, which will be led by expert field botanist Karl Anderson, runs from July 5 to July 15, 2006. The cost is approximately \$1000 plus meals and airfare. Reservations are now being accepted. Contact Eric Lamont for more information.

PLANT SIGHTINGS

Colin Rathje reports that mile-a-minute weed, *Polygonum perfoliatum*, has been growing along a creek in Malverne at Whelan Field since at least October 2004.

Barbara Conolly comments that mile-a-minute weed is not as thick at the Piping Rock Club dump as it was last year, but the Planting Fields Arboretum dump lane is all but impassable because of the massive overgrowth.

Ray Welch has the dubious honor of reporting the first sighting of mile-a-minute weed in the Town of Brookhaven. The location is on a roadside chain link fence in East Moriches.

John Potente reports that he came across *Lespedeza intermedia* (wandlike bush clover) and *Aureolaria pedicularia* (fern-leaved false foxglove) at the Oak Brush Plains in Brentwood.

The Van Cortlandt Park trip on August 6 was a joint trip with Torrey Botanical Society and was well attended by about 30 people. We observed a good-sized wetland there full of arrow arum, *Peltandra virginica*, and lizard's-tail, *Saururus cernuus*. On the uplands, showy tick-trefoil, *Desmodium canadense*, was outstanding.

The North Patchogue trip on August 14 was a nice representation of pine barrens plants, with some wetlands, producing poison sumac, *Toxicodendron vernix*, and downy false foxglove, *Aureolaria virginica*.

Carol Johnston volunteered that the *Quercus marilandica*, blackjack oak, in Shu Swamp has resurrected after being cut down by maintenance crews.

Betty Lotowycz, Carol Johnston, Barbara Conolly, and Zu Proly were walking in Shu Swamp on August 1, when Zu spied the saprophyte, pinesap, *Monotropa hypopithys* flowering under sweet pepperbushes ... after an absence of at least 10 years!

Barbara Conolly reported the *Geranium sibiricum*—Siberian cranesbill—was in bloom in Coffin Preserve in Locust Valley, blooming on September 1. Rich Kelly has seen it at Old Westbury Gardens, and Skip Blanchard has found it in Oyster Bay Cove.

Skip Blanchard saw two species this summer that the LIBS (draft) Atlas says are either poorly known, or not recently recorded, or both. They are hoary vervain (*Verbena stricta*), at Brookhaven National Laboratory on August 12, and bulb-bearing water-hemlock (*Cicuta bulbifera*) south of Swan Pond near Calverton, on July 26. The vervain is apparently native further west, but introduced and naturalized here in the east.

(Continued from page 29)

the springwater began welling to the surface. However, whitetail deer, black bear, mink, fox, mountain lion, beaver, fishers, raccoons, herons, falcons, tanagers, muskrat and warblers have stooped to quench their thirst here. Brook trout still swim in the shrub-sheltered waters and Atlantic white cedars arch over the cool nascent streams. Native Americans cupped their hands, reaching down to capture refreshing water to wipe summer sweat from their faces. And early English settlers paused to dip their flasks into the springs after toiling on the land.

Roads entered Hauppauge, the springs were transected and isolated. Partitions, tunnels, and “water rights-of-way” were made to accommodate the waters’ determined path to merge with the Nissequogue. Today, the Hauppauge Springs, extending about two kilometers from Old Willets Path to Brooksite Drive and south to the LIPA power line, is a tattered remnant of a once lush landscape.

In the 1960s, Suffolk County Executive John Klein flew over the county to find a home for the county offices. From the air, the river headwaters area in Hauppauge appeared expansive and available. On the ground some farming was done in the area and the many ponds were used for local fishing and ice skating. Klein pointed to this centrally located area and chose it. And thus the footings for the building named after his friend, H. Lee Dennison, were set. However, due to the wetland geology, many of the footings never reached solid ground. The New York State Building construction was accompanied by sprawling parking lots. And so the heart of the headwaters were bulldozed, filled, and developed with two of the highest buildings in Suffolk County. On wet land. Today, that wetland still remains about and beneath the buildings and the Dennison Building now leans slightly to one side, slowly sinking into the wetland earth beneath as it looks north to the shining Nissequogue.

On either side of the Dennison Building, are remnant wetland corridors. When Veterans Memorial Highway was paved with blacktop just after World War II, large cement cylinders, called culverts, were placed in bypass trenches under the road, to allow the water to pass and travel north. This was not a nicety for the river water, for the dark, musty, underground cement tunnels are far from complimentary. Rather, it was necessary to prevent constant flooding of the highway above. On this south side of Veterans Highway, the wetlands are segregated into corridors sandwiched between the state- and county-owned property. But a large contiguous tract still remains at the southeast corner of Veterans Memorial Highway and Old Willets Path. This is the last



Photo by John E. Potente

View of the Hauppauge Springs fronting Veterans Memorial Highway looking eastward.

undeveloped area that feeds the Nissequogue. Here, in 2005, while the springs of Hauppauge are strewn throughout the town, this forgotten area is now referred to as the “Hauppauge Springs.” And herein lies the southern beginnings of the Nissequogue River. The waters join other tributaries in Blydenburgh County Park and Caleb Smith State Park, and the river then courses under Route 25 in Smithtown. It is at that point where canoes are racked for those who want to paddle the rest of the way north to Long Island Sound.

As elected officials and political appointees chat in the hallways of Islip Town Hall and Smithtown offices, the fate of the last large source of the Nissequogue sits and waits. Environmentalists urge the protection of its purity and developers vie for its intrinsic monetary value. In the 1980s, the Town of Smithtown acquired land along Old Willets Path that abutted the springs. This land was put into Smithtown “park inventory,” a very vague and unprotective category. Former Democratic Suffolk County legislator, William Holtz, made a motion to salvage the remainder of the Hauppauge Springs. His focus was on the western portion of the springs just east of Old Willets Path and south of Route 454 (Veterans Memorial Highway). He introduced acquisition legislation and his proposals were approved.

My interest in the springs grew when I moved to Hauppauge in 1990. As I walked the perimeters and hopped the hummocks, I was overtaken by its quiet beauty. Only the gurgling of rolling waters and waking warblers could be heard in the interior portion a short distance from the Long Island Expressway and Veterans Memorial Highway. But to preserve the springs’ in-

(Continued on page 32)

(Continued from page 31)

tegrity, the bordering uplands needed to be included in any preservation effort. In 1999, John Black and I met with former Republican Suffolk County Legislator Andrew Crecca to urge the inclusion of an undeveloped upland buffer zone for the springs. With surprising acceptance and speed, the proposal was written, reviewed, presented before the legislature, and passed unanimously. This authorized permission for the Suffolk County Department of Real Estate to approach the owners and purchase the land. That was six years ago.

In early 2000, a dozen of us met at the New York State DEC facility in Setauket to formulate an approach to attain the goal of protecting the remainder of undeveloped land comprising and abutting the Hauppauge Springs. The largest portion lay on the Old Willets Path–Veterans Memorial Highway corner. Forty acres of it were parceled into four private land holdings and two town holdings. It became our aim to have these six parcels protected as a passive preserve either in town or county possession. At the end of the meeting we organized as the Hauppauge Springs Coalition with six member environmental organizations, one of which was the Long Island Botanical Society. Today, five years later, there are 25 member organizations and although there have been no official land transfers, there has been much publicity in the local papers and the coalition has been responsible for sustaining meetings, appraisals, and negotiations between Suffolk County and the owners.

In the autumn of 2001, I led a walk through the spring for the Long Island Botanical Society, at which time the society performed an inventory of plants of the area. Hugging the ground and decorating spring-wet soil was ebony spleenwort (*Asplenium platyneuron*), lady fern (*Athyrium filix-femina*), field horsetail (*Equisetum arvense*), tree clubmoss (*Lycopodium obscurum*), and knee high curtains of Solomon's seal (*Polygonatum biflorum*).

Woody wetlanders waving hello were sweet pepperbush (*Clethra alnifolia*), spicebush (*Lindera benzoin*), and autumn ruby red maple (*Acer rubrum*). Penetrating the borders were the usual invasives [garlic mustard (*Allium alliaria*), mugwort (*Artemisia vulgaris*), Japanese knotweed (*Polygonatum biflorum*) and, of course, the omnipresent oriental bittersweet (*Celastrus orbiculata*)]. Except for the upland buffer area, all the plants had their roots within a few paces of water.

The private land owners seem willing to sell their land for preservation, with one stipulation: price. And as the negotiations drag on, the price of real estate here in the middle of Long Island does not seem to be waiting around. As we remain optimistic that the goal of a passive preserve is still feasible, we cannot help but to look to the next step to encourage the potential new government caretakers to maintain the tranquility and purity of the site. ❧

John E. Potente is director of the Hauppauge Springs Coalition, director of Native America, and executive board member of the Long Island Botanical Society.

a.k.a. "orbiculata"

Ray Welch

One of Long Island's most despicable alien species is, of course, oriental bittersweet, *Celastrus orbiculatus*. And I will say that I have just been, and in public, politically incorrect (in some eyes) by my use of the common name. "Oriental" is deemed pejorative (by some) and Western hegemonic. So, folks, in the future (some say) its common name should be "Asiatic bittersweet." Make a note and make your choice.

Asiatic bittersweet ramps through woodlands, weighing down and smothering trees, in almost every community type of Long Island, but I have never seen *American* bittersweet, *C. scandens*, anywhere, and even if it were here and there, I'd likely not have noted it among the billowing seas of the *C. orbiculata* phytostorm.

What has happened to our native species of bittersweet? Was it always uncommon before the advent in the latter part of the 19th century of this alien from Asia? No, the waning of the native species is genuine,

and its decline in the metro area is well known and can be well seen in the accompanying maps (Clemants, 1999).

A thorough review of the natural history of *Celastrus orbiculata* is provided by Dreyer (2003) and the conclusions of Steward, Clemants, and Moore (2003) imply that "*C. orbiculatus* is a better competitor than *C. scandens*," and they discuss literature stating that *C. orbiculatus* is a more fecund reproducer, has more vigorous growth, and has better viability of pollen and seeds than does *C. scandens*.

I could not find, however, any papers or data in which direct population interactions between the two species were observed or discussed. The species appear long lived. Any Long Island field botanist has seen stout vines of *C. orbiculatus*, as thick as your arm,

(Continued on page 33)

(Continued from page 32)

wrapped around some trees, and that did not happen over only a few years. Vines of that heft are surely decades old. And that's the "problem with the problem." Time. The competitive processes between these two perennial vines that led to the population decline of the native bittersweet and the ubiquity of the alien seem to me very obscure. I expect any interactions would be subtle, manifold, and slow-acting—and so, difficult to tease out from the "noise" of other manifold natural processes that all communities have. But the waning of *C. scandens* is incontestable.

Alert readers will have noted that the binomial for Asiatic bittersweet shows up in two forms in this article: as "*C. orbiculatus*," and as "*C. orbiculata*." And so it appears in the recent literature. Some use "*orbiculata*" (Clemants, 1999) and some use "*orbiculatus*" (Steward, Clemants, and Moore, 2003). Why the indecision?

Levels of fussiness appear to vary among the sciences, but botanical taxonomists seem to me the fussiest, with dedicated organizations and journals devoted solely to proper nomenclature. Now that the Catholic Church has caved in to the vernacular, taxonomists appear to be the last functioning practical Latinists on earth.

Apparently Linnaeus (Saint Linnaeus) got the gender of *Celastrus* wrong, deeming it masculine, and thus "*C. orbiculatus*." A recent taxonomic fussbudget (Palct, 1998) reviewed the rules that—to date, despite some unease—kept it "*orbiculatus*," but pointed out that

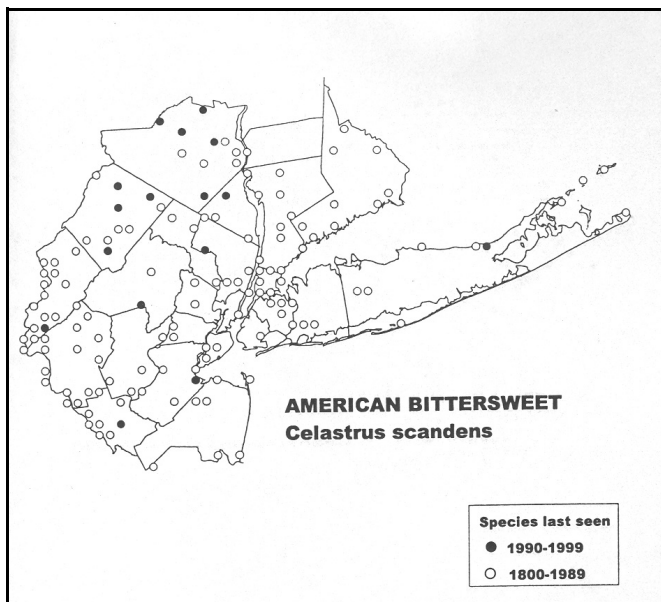


Bittersweet berries

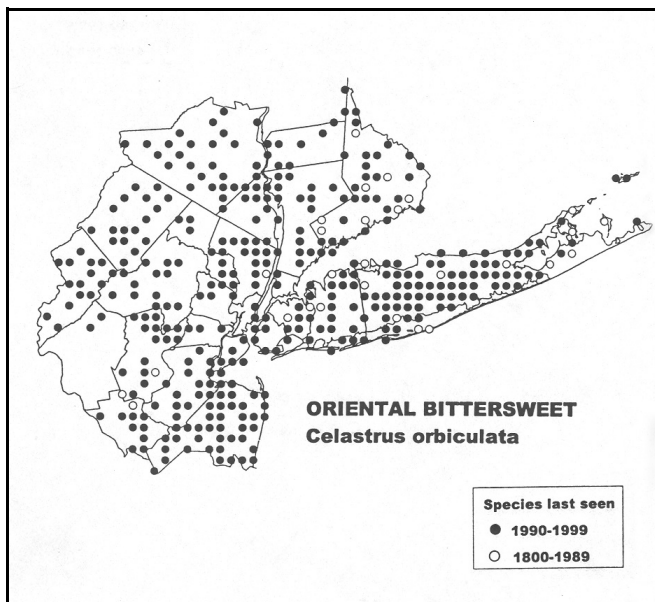
Photo by Ray Welch

the derivation of *Celastrus* is from the Greek "*kelastros*," a feminine noun. He thus proposes to "establish, by conservation, the classically correct feminine usage." Such matters, apparently, can be mooted to the botanical cognoscenti and a vote taken. A later issue of the same journal (*Taxon*—you can see where its interests lie) gave results as 5 to 6 with 1 abstention—and the matter was judged "unresolved." I doubt if the Supreme Court is interested. So apparently one might stick with "*orbiculatus*." However, I note that the New York Flora Web site (<http://atlas.nyflora.org/>) plumps for "*orbiculata*." I guess at least New York botanists are

(Continued on page 34)



Decline of American bittersweet (*Celastrus scandens*) (Clemants, 1999).



Growth of oriental bittersweet (*Celastrus orbiculata*) (Clemants, 1999).

(Continued from page 33)

feminists at heart.

The tweaking and adjusting of botanical names for what seem, to all nontaxonomists, arcane reasons is, well, vexing to many others. When a long-established genus gets hacked into new genera (“Goodbye, *Solidago*; hello, *Euthamia!*”), however justified by the rules of the taxonomic priesthood, it can irk the botanical laity. And apparently create schisms. To some radicals the Linnaean cathedral needs razing, and a new edifice built. A recent proposal junking traditional ideas of classification for a novel scheme is called “Phylocode,” too technical to review here (Google it if you wish). It is concisely discussed (and dissed) on the Web by Benton (2000).

Whatever its gender, however, *Celastrus orbiculata*/*us* is still a nasty weed, and we are hopelessly beset with it until ... the next Ice Age, I imagine. Oh, and *Euonymus* is now feminine, too. It's *E. americana*, etc. Correct all your field guides, OK? Everybody happy? ❧

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Water Chestnut and Eurasian Watermilfoil Found in Nassau County

Kathy Schwager and Marilyn Jordan
The Nature Conservancy

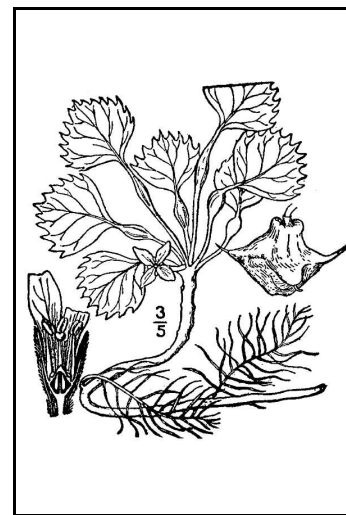
In 2004, Scott Kishbaugh (DEC Albany) found one plant of water chestnut (*Trapa natans*) at the outlet of Mill Pond in Wantagh—the first recorded occurrence of water chestnut on Long Island.

On July 20, 2005 we accompanied Scott to search the pond more thoroughly. We explored by canoe and kayak among the extensive clumps of spatterdock (*Nuphar lutea*). We found two isolated plants, and several small patches of water chestnut in open water among the spatterdock. The total area of water chestnut is about 50 m². We are unsure how water chestnut got there as boating is not permitted on this lake. Scott suggested perhaps waterfowl carried seeds. Eradication is a very high priority, since we do not want it to spread to other ponds. Water chestnut has a reputation for aggressive growth, crowding out native species, and

depleting oxygen levels.

Nassau County Parks and The Nature Conservancy plan to remove the water chestnut early next summer, before it sets seed. We need help, especially from those who can bring a canoe, kayak or rowboat. To volunteer, please contact Al Lindberg at Nassau County Parks, or Kathy at TNC.

Upstream from Mill Pond are two lakes in Twin Lakes Preserve (Town of Hempstead) which we were able to search only at their outlet to Mill Pond. We did not find water chestnut, but we did find Eurasian watermilfoil (*Myriophyllum spicatum*), another notorious invasive now confirmed for the first time on Long Island. It is not feasible to eradicate any of the milfoils, unfortunately. A more extensive search for water chestnut in Twin Lakes will be done next spring. ❧



Trapa natans L. water chestnut

USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 2: 612.



Photo by Paul Russo

LIBS member Ann Johnson and a big sweetbay (*Magnolia virginiana*) in the hydric hammocks at St. Marks National Wildlife Refuge south of Tallahassee, FL. The camera used can meld several photos together to make one panoramic view.



Upcoming Programs

October 11, 2005*

Tuesday, 7:30 p.m.

BRIAN FEIL: "OUR WOODLAND HERITAGE"

This will be a discussion of native trees and their relationships to our nation's history and development. Brian has a degree in horticulture from Farmingdale, has been director at the Clark Garden, and has now been at the Bayard Cutting Arboretum for 29 years, the last seven as director.

Location: Museum of Long Island Natural Sciences
Earth and Space Science Building
Gil Hanson Room (Room 123)
SUNY at Stony Brook, Stony Brook

November 8, 2005*

Tuesday, 7:30 p.m.

RICK CECH: "BUTTERFLY FOOD PLANTS"

Rick is the vice president of the New York City Butterfly Club and a past president of the Linnaean Society of New York. A major area of interest for him is the larval food plants of butterflies. He is an accomplished photographer, and the co-author of *Butterflies of the East Coast* (2005).

Location: Bill Paterson Nature Center
Muttontown Preserve, East Norwich

December 13, 2005*

Tuesday, 7:30 p.m.

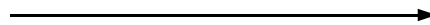
ANDREW GRELLER:

"TEMPERATE EVERGREEN FORESTS OF THE SOUTHEASTERN U.S. AND MEXICO"

This program will cover the distribution of the evergreen species of oaks, palms, magnolias, and hollies. Andy is Professor Emeritus at Queens College where he taught biology for 30 years. He specializes in vegetative geography and is very knowledgeable about local vegetation and the vegetation of Florida.

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

More Programs



January 10, 2006*

Tuesday, 7:30 p.m.

MEMBERS NIGHT:

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

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

* Refreshments and informal talk begin at 7:30 p.m.
Formal meeting starts at 8:00 p.m.



Field Trips

SATURDAY, OCTOBER 29, 2005, 10 A.M.

*Brookhaven National Laboratory, "The Gamma Forest,"
Upton, New York*

Trip Leaders: Ray Welch, Tim Green (of BNL)
During the 1960s and '70s an oak-pine site at Brookhaven National Laboratory was irradiated for a considerable time to investigate the effects of varied levels of ionizing radiation on a terrestrial community. Although the experiment has been concluded for a quarter-century, the site still shows clear-cut patterns of altered community structure from the experiment. This field trip is less for botanical identification than as an opportunity to view an interesting example of succession following a nearly unique disturbance. Attendance is limited to fifteen. First come, first served. Your name needs to be in to BNL well in advance to allow access to the Lab grounds. Participants must be U.S. citizens and have a photo I.D. to show at the entrance gate. Call Ray Welch (631-981-5852) before October 15.

Directions: Brookhaven National Laboratory is located on William Floyd Parkway (County Road 46), 1½ miles north of Exit 68 of the Long Island Expressway. The entrance is on the right. After registering at the gate, proceed to Berkner Hall and meet in the parking lot there.

Information Requested

I am compiling a survey and would like information about *Metasequoia glyptostroboides* cultivated on Long Island, including those specimens in gardens, arboreta, parks, and private collections; the records can pertain to either a single tree or numerous individuals on a plantation.

Please include tree height, circumference or DBH. Provide the date of cultivation and source (where it came from) if available, as well as detailed locality.

This information will be combined into a final report of a worldwide survey, and will also be recorded in the natural history of *Metasequoia glyptostroboides*.

Comments or suggestions will be much appreciated.

Thank you for your help.

Please e-mail me at jinshuangma@bbg.org

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