

LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

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Rare Plant Fossil Discovered at Montauk

As Jay Schneiderman walked with a group of Ross School students along the oceanside cliffs in Montauk last spring [1997], he had no idea that the unusual rock he'd found might turn out to be a fossil of an extinct tropical plant, perhaps as much as 65 to 120 million years old.

Mr. Schneiderman, who lives in Montauk, was teaching sixth-graders from the private East Hampton school about erosion and showing them how rain "carves out these incredible shapes in the cliffs there," he recalled this week.

He was pointing out evidence of erosion all around them, even on rocks worn smooth by the sea, when "all of a sudden I looked down at a rock that didn't look like the others.....It was quite heavy. It was hard for me to pick up."

He lugged the 50-pound object up to the school bus and used a screwdriver to break it open along a thin fracture line.

The surface bore impressions from shells and debris, indicating the possibility of the presence of a fossil, Mr. Schneiderman said, but he wasn't expecting what he found inside: a "beautifully intact impression of a leaf." It turned out to be possibly as old or older than a dinosaur.

Photographs of the fossil — of a cycadeoid leaf about 4 inches long and 1/2-inch wide — were eventually sent to Paul Olsen, a paleozoologist at the Lamont-Doherty

Earth Observatory of Columbia University in Palisades, N.Y., who made the identification.

Though he cautioned that his expertise was not in botany and said a paleobotanist should verify the plant, Dr. Olsen said this week "it was fairly easy" to identify the fossil.

Cycadeoids were tropical, non-flowering plants with very firm green leaves extending from a short trunk, like palm trees, though much smaller. Superficially, they looked like today's cycads, which include not uncommon house plants such as *zamia* and *cycas*, said Dr. Olsen.

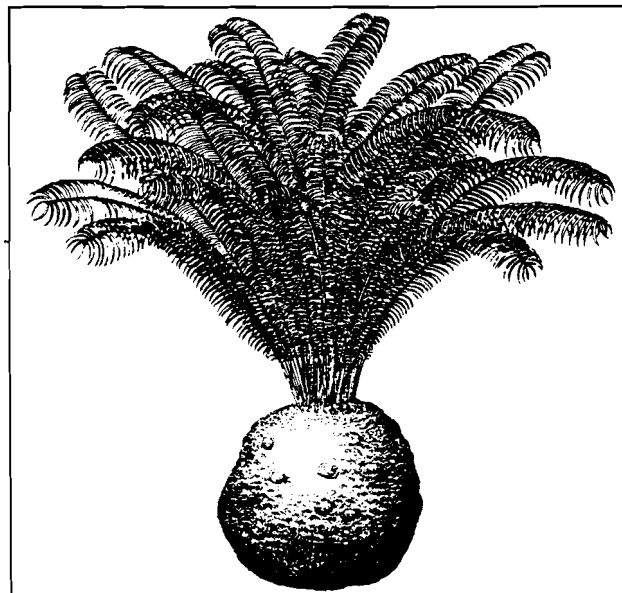
He based his opinion on the appearance of the extinct plant, the appearance of the rock it was fossilized in, and the place where it was found, said Dr. Olsen, a professor of earth and environmental science at Columbia.

Cycadeoids were found in tropical areas, which, during the cretaceous period 65 to 120 million years ago, included much of North America.

That was before the Ice Age. The fossilized plant could not be less than 35 million years old, Dr. Olsen said, since only then did North America begin to cool off.

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Cycadeoidea marylandica, the first described American cycadeoid, collected between Baltimore and Washington, D.C. Illustration from Bold (1957).

This plant would have seen dinosaurs roaming," said the scientist.

Though it wound up in Montauk, the plant probably originated to the north and was carried along with the southward advance of glaciers as ice caps spread. The glaciers carried rock and other materials across the bed of Long Island Sound that eventually formed Long Island itself.

The shape of the rock and its brownish-red color indicate that it is unlikely to be of another age group, Dr. Olsen said.

From the photographs he saw, the rock appeared to be silt stone — nothing unusual, said Dr. Olsen, but probably part of the big delta system that entered the Atlantic at the time.

It will take a specialist to say with certainty just what Mr. Schneiderman's fossil is, which will determine just how significant a find it may be. In any event, said Dr. Olsen, it is the only object of its kind he knows of from eastern Long Island.

Andrew Greller, a Queens College biology professor who is currently preparing an exhibit of Long Island cretaceous fossils, agreed that a botanist would have to study the find to know for sure what it is.

But if it is what Dr. Olsen believes it to be, a fossil from the cretaceous period, "then it's a rare find for Long Island," said Dr. Greller.

Larry Penny, director of East Hampton's Natural Resources Department, was the first person with scientific expertise to look at Mr. Schneiderman's fossil. He too identified it as a cycadeoid.

Mr. Penny and others said fossilized wood and whalebones have been found around Amagansett and Montauk before, but no one remembers anything matching the potential age of Mr. Schneiderman's find.

Unless a plant specialist deems the fossil to be a previously unidentified plant, it will not add to the body of paleontologic knowledge, Dr. Olsen said.

It will, however, reinforce what is known, he said, and, more important, point to the possibility of other fossils, particularly of animal remains, in the general area.

"I'm sure there will be other fossils," Dr. Olsen said this week. "I'm certain."

However, he said there was no reason to believe more fossils would turn up where Mr. Schneiderman found his (a location The Star agreed not to disclose).

"It could be in a sand pit, or a house excavation," Dr. Olsen said. "not necessarily on the beach."

Mr. Schneiderman, who teaches science, math, and music at Ross and is the chairman of the Town Zoning Board of Appeals, plans to donate the fossil to a museum — possibly Yale University's Peabody Museum — but said the other half would stay on the South Fork, perhaps

in a local nature center.

In the past, he has advocated building such a center at the county park in Montauk. "That I think would be the best spot," he said this week.

Michelle Napoli, The East Hampton Star

[This article is reprinted with permission from the 25 December 1997 issue of The East Hampton Star.]

In The Field With Roy Latham, #4

Prologue. The following three letters from Roy Latham (1881-1979) to Henry Bookout not only document a wealth of botanical information, they also provide insight into Roy's brilliance and depth of natural history experiences.

During the past decade I have read several hundred letters written by Roy Latham. Almost invariably he modestly begins by stating that he probably can't be of much help, and he often ends with an apology. After all, as he himself states: "When one is 90 it is not easy to write anymore or remember plants and where one has seen them.....I can hardly read the maps with my poor eyes.....It is six years since I have been out tramping for plants.....All my notes and records went to Albany and I have nothing here to [refresh my memory]." And then the flood gates open wide, and a brilliant mind is revealed. Without notes he amazingly recalls the minute details of a lifetime of natural history study. An astounding wealth of information flows with remarkable clarity.

Appreciation is expressed to Henry Bookout for sharing the following three letters.

Note: The common names of plants referred to in Roy Latham's letters are listed on page 10.

Eric Lamont, Riverhead

20 August 1970

Dear Mr. Bookout: I cannot help you much in locating the *Schizaea* in the Napeague beach area. It was fifteen years ago that I last saw it, and I could not find it myself now. When one gets to be 90 and has been in so many places and collected so many things it is not easy to check

them on a map. I will give directions as best I can. I used to take the first lane to the ocean beach east of Napeague Harbor, I think it is called the Napeague Lane. I left my car on that lane and walked east perhaps a mile. It is a considerable area with wet, sandy bogs full of cranberry plants and small plots of pines in wet sandy ground. It was along the edge of these pine stands that I found two small colonies of the *Schizaea pusilla*, not together. Both colonies were west of the next lane to the ocean, east of the Napeague Lane. But what has been done there since my collecting days, I have no knowledge now. I was more interested in collecting insects and fungi at the time. I took a few specimens of the curly-grass from each colony. I think they went to Albany with all my notes and records and I have nothing here to work on. I used to go to that area the year around and was interested in so many subjects. I was collecting mosses, lichens, shells, insects from ants to butterflies, as well as rocks and plants, snakes and turtles and algae.

I cannot do any better with the *Isoetes* plants, so far as the maps are concerned. I can hardly read the maps with my poor eyes and it is not easy for me to write anymore. The *Isoetes* I found in the Peconic River was about midway between Riverhead and Calverton on the north side. I am unable to check it on the map you sent. It was about 12 years ago when I was doing a lot of collecting in the Riverhead-Calverton region. I also found it somewhere in Grassy Pond. I think I called this last one *Isoetes braunii*, but my own determination may be wrong. I thought the one in Peconic River was *I. tuckermani*, but I am uncertain now about the names. I found remains of *Isoetes* plants in a large pond north of Riverhead, which I called Block Pond, as it was near the cauliflower block. I also collected a *Wolffia* which I called *columbiana* in that pond. I was much interested in the *Sphagnums* and *Lycopodiums*. I collected *L. lucidulum* near Riverhead and Greenport and some other good records of mosses. *Selaginella rupestris* used to be common on Long Beach in Orient before the hurricanes and some may be there now. All my records are gone.

On dry sandy ground near the *Schizaea pusilla* I discovered the largest stand of *Cladonia alpestris* ever found on the Island. It was a great area for lichens.

I am sorry I cannot help you more, but it is six years since I have been out tramping for plants. I did a lot of it for 50 and more years.

Sincerely yours,

Roy Latham

12 September 1970

Dear Mr. Bookout: Thank you for the photo of *Schizaea*. I am pleased that you discovered it there. I thought that it was scattered all over that area and

especially north and west of Fresh Pond where the *Habenaria cristata* is so common.

I have found *Bartonia* in many places from Orient and Montauk to Riverhead. Mostly as *virginica*, but some as *paniculata*.

The big colony of *Gentiana crinita* at Montauk was on the west side of Oyster Pond, beautiful big plants right on the beach. In the moist sandy soil further west I found gentians with small flowers like *crinita* with leaves as you described them. I had decided they were seedlings of weak growth, as I saw them right in a colony of the fringed gentians. I could well be wrong about them, however. I had seven stations for *crinita*, six of them east of Riverhead. The finest was a big colony between Sag Harbor and Three Mile Harbor. Another was at Sagg, near the ocean. One was on the Indian grounds at Shinnecock.

Lycopodium alopecuroides is common in all the sandy bogs throughout and west to Sag Harbor. I have also recorded *L. carolinianum*.

Arenaria caroliniana grows throughout most of Montauk and Napeague, and west to the Shinnecock Hills and at Three Mile Harbor; but not on the north shore of the Island.

I used to consider the interrupted fern was found in all localities from Orient west and east to Montauk. As I recall it was more common than the cinnamon fern in the Greenport woods in places. *Woodsia obtusa* used to be near Greenport, but the spot was destroyed during the World War; I had a specimen in my collection, now in Albany. *Adiantum* was the rare one on the east end, I collected it from Southold, Sag Harbor and Shelter Island. I had four stations for *Ophioglossum vulgatum*: one at



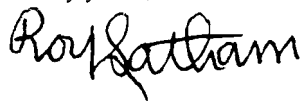
Roy Latham collected Fringed Gentian, *Gentianopsis crinita* (left) and Buckbean, *Menyanthes trifoliata* var. *minor*, from Oyster Pond at Montauk. No populations of either species are currently known from Long Island.

North Sea, north Southampton, one at Calverton, and one at Montauk but not on the beach area. I had a colony of about 30 plants of *Botrychium matricarifolium* at Sweezy Pond west of Riverhead, and one record for *B. virginianum*. I had *Selaginella apoda* from Fresh Meadow, Three Mile Harbor in a dark clearing. *Selaginella rupestris* grows on dry sandy sea beaches in Orient. It was real common before the 1938 hurricane; it grows among *Cladonia* lichens.

Near the Gentians at Oyster Pond I found a clump of buckbean, *Menyanthes trifoliata*, the only record I have for it on Long Island. And not far away on moist hillsides grew *Pycnanthemum verticillatum*, the only place I have seen it. During April and May, *Erythronium* is common in that section of Montauk. *Tipularia* is in the region east of Oyster Pond. There was a beautiful colony of *Habenaria psycodes* at Reed Pond, some plants shoulder high. Some fellow in East Hampton cleaned them all out for his garden. The last time I was there, about 1960, I saw two young plants that may have been *psycodes*. I have not been there since. In the 1920's *Trilliums* were common there in the deep blackish mud, and the moist hillsides were red with the wood lilies, which are still there in places.

When one is 90 it is not easy to write or remember plants and where one has seen all of them. This is just to thank you for the photo.

With all best wishes, sincerely yours,



14 September 1972

Dear Mr. Bookout: Thanks for your kind letter. I cannot give much attention to botany right now because another member of the family is in the hospital for a major operation. I just wanted to say a word about the club mosses. I remember the *Lycopodium carolinianum* as being near the edge of a white cedar bog on a wet sandy clearing. It was back in the 1950's, I think, and I have not been there to check if it is still there. We may have a different cedar bog in mind as there are several of them around Riverhead. I recall when I found the club moss that a sharp-shinned hawk had a nest of young birds in a cedar 12 feet above the nest and I was really more interested in the hawk than the plant, for it was only the third time that I had found this hawk nesting on Long Island. A few years later in the same cedar swamp I found a beautiful colony of about 25 plants of *Lycopodium lucidulum* near the center of the bog. The colony covered about 3 by 3 feet and they were in fine condition. I was more interested in them than the *carolinianum*, and called it the third station on Long Island for this club-moss. I knew that there was one report for it farther west on the Island, and I found a few plants near Greenport way back in about 1915, but never could relocate them,

only a few plants in a thick swampy woodland.

If you are interested in *lucidulum*. I feel sure you can find it by searching deep in the cedar swamp which is west of the road to Riverhead. I used to park the car on that road and walk west. I am now too near a hundred to take long all day tramps. I have gone all over that region many times, when my eyes were keen and missed very little that grows there.

Sincerely yours,



Common Names of Plants Referred to in Roy Latham's Letters

<i>Adiantum pedatum</i>	Maidenhair Fern
* <i>Arenaria caroliniana</i>	Pine Barren Sandwort
* <i>Bartonia paniculata</i>	Screw-stem (Gentian Family)
<i>Bartonia virginica</i>	Bartonia (Gentian family)
<i>Botrychium matricarifolium</i>	Daisy-leaf Grape Fern
<i>Botrychium virginianum</i>	Rattlesnake Fern
<i>Cladonia alpestrus</i>	Alpine Reindeer Lichen
<i>Erythronium americanum</i>	Troutlily
<i>Gentiana crinita</i>	Fringed Gentian
* <i>Habenaria cristata</i>	Crested Fringed Orchid
<i>Habenaria psycodes</i>	Purple Fringed Orchid
<i>Isoetes braunii</i>	Spiny-spored Quillwort
<i>Isoetes tuckermanii</i>	Tuckerman's Quillwort
<i>Lycopodium alopecuroides</i>	Foxtail Clubmoss
* <i>Lycopodium caroliniana</i>	Carolina Clubmoss
<i>Lycopodium lucidulum</i>	Shining Fir Clubmoss
<i>Menyanthes trifoliata</i>	Buckbean
<i>Ophioglossum vulgatum</i>	Northern Adder's Tongue
* <i>Pycnanthemum verticillatum</i>	Mountain Mint
* <i>Schizaea pusilla</i>	Curly-grass Fern
<i>Selaginella apoda</i>	Creeping Spikemoss
<i>Selaginella rupestris</i>	Rock Spikemoss
* <i>Tipularia discolor</i>	Crane-fly Orchid
<i>Wolffia columbiana</i>	Watermeal
<i>Woodsia obtusa</i>	Blunt-lobed Woodsia

* = Listed as rare in New York



Conservation News

Globally Rare Ecosystem Threatened With Development

One of Long Island's great natural wonders will be destroyed and developed into a golf resort, hotel, and "amenities" if developers have their way. Included in the development proposal are the areas previously referred to as the "Maritime Beech Forest" and "Dwarf Beech Forest" on and near Friars Head in the Town of Riverhead. New York State has declared this area a globally rare ecological community.

LIBS will publish a special issue of the Newsletter this March, devoted solely to this fragile ecosystem and its massive dune formations overlooking Long Island Sound.

Plans Resurface to Develop Camp Hero at Montauk Point

A complicated series of land transfers between the federal government and New York State took place in 1974, 1982 and 1984, resulting in the State taking ownership of the Camp Hero property at Montauk Point. The original agreement maintained that the site would be used for passive recreation.

Recently, N.Y.S. Department of Parks & Recreation petitioned the Federal Government for a "change in land use" at Camp Hero; specifically, the State wanted to develop the land into a golf course. The request was denied by the National Park Service.

But now the National Park Service is reconsidering the request for a change in land use, and an Advisory Committee has been established composed largely of special interest groups. Numerous environmental groups have called attention to the significant ecological sensitivity at the site.

LIBS has accepted an invitation to be represented on the State's Advisory Committee. **Skip Blanchard** attended the first meeting, held at Montauk Downs State Park on 23 February 1998. Skip will present a report to the membership at the 10 March 1998 monthly meeting, and will request feedback and input.

Open Space Council Prevails

Karen Blumer reported that the Open Space Council has prevailed at the Appellate Court level in a recent lawsuit against Wilbur Breslin's Mall, proposed as Long Island's second largest mall on a 150-acre parcel of pine barrens at the northwest corner of William Floyd Parkway and the LIE in Yaphank. The victory gives the Council "standing" to bring suit against the mall, a critical issue for not-

for-profit groups these days. It is unlikely that Breslin will appeal this decision, as it was unanimous among the four voting judges. Now the substance of the case is to be argued, and if the Council ultimately prevails, the developer may have to restore to its natural setting the 60+ acres already bulldozed.

Society News

LIBS Assists Volunteers for Wildlife

Volunteers for Wildlife, a non-profit organization headquartered at Caumsett State Park in Lloyd Harbor, is currently in the process of completing a new Wildlife Display Center which will include flight aviaries for permanent resident birds of prey which will be open for the enjoyment and education of Long Island's communities.

An important part of the Wildlife Display Center will be a garden consisting solely of plant life native to Long Island and favored by various wildlife species of Long Island. LIBS has been asked to help with the planning and design of the wildlife garden.

Toward this end, **Mary Laura Lamont** and LIBS member **James Grimes** of Montauk have been working on the project with staff from Volunteers. Further updates will follow.

Treasurer's Report — 1997

Opening Balance (1 Jan. 1997)	6,553.26
Income Total	2,265.35
Expenses Total	1,969.74
Net Gain	295.61
Closing Balance (31 Dec. 1997)	\$6,848.87

Respectfully submitted: **Carol Johnston**
Treasurer

New Members

The Long Island Botanical Society is pleased to welcome the following new members:

Michael Fleming, Brooklyn Botanic Garden; **Joe Heidecker**, Brookhaven; **Bill Jacobs**, Wading River; **Richard & Patricia Kelly**, New Hyde Park; **Louise Lamont**, Old Bethpage; **Frank Meadows**, Wantagh; **Wayne Morris**, Brooklyn Botanic Garden; **Dr. Robert Parris**, Wertheim NWR; **Christopher Pickerell**, Southold; **George Rowsom**, Orient; **Vincent Simeone**, Planting Fields Arboretum; **Marc Weinberger**, New Rochelle.

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	Skip Blanchard
Treasurer	Carol Johnston
Rec'd Sec'y	Barbara Conolly
Cor'sp Sec'y	John Potente
Local Flora	Steven Clemants
Field Trip	Allan Lindberg Tom Meoli
Program	Skip Blanchard
Membership	Lois Lindberg
Conservation	John Turner Karen Blumer
Education	Mary Laura Lamont Thomas Allen Stock
Hospitality	Betty Lotowycz Jane Blanchard
Editor	Eric Lamont

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 Road, Oyster Bay, NY 11771-3111

PROGRAMS

10 March 1998 - 7:30 pm*

Dr. Orland (Skip) Blanchard

(Long Island University,
Vice President, LIBS)

"The Anatomy of Plant Adaptations"

A slide show illustrating how plants & especially their leaves show features at the tissue and cell levels that reflect the environment in which they live.

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

14 April 1998

Margery Daughtrey

(L.I. Horticultural Research Laboratory)

"Dogwood Anthracnose & Powdery Mildew:

**New Disease Challenges
for a Beloved Ornamental"**

Location: Museum of L.I. Natural Sciences,
Room 137, SUNY at Stony Brook.

*Refreshments & informal talk begin at 7:30pm, the meeting starts at 8pm. For directions to 1) Muttontown Preserve call 516/571-8500; 2) MOLINS call 516/632-8230

LONG ISLAND BOTANICAL SOCIETY

c/o Muttontown Preserve

Muttontown Lane

East Norwich, New York 11732

