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# NYFA Newsletter

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New York Flora Association  
of the New York State Museum Institute

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New York State Museum    The Nature Conservancy  
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## Floristic Eye on the Hudson Highlands -

by Richard Mitchell

My first encounter with mountainous terrain in New York State was a magnificent drive up the Thruway through the Hudson Highlands. The hills were aflame with color in mid-October of 1975, as I migrated to Albany from Virginia. Since I had only flown over the area previously, I was sure I was in the famous Catskills, and I vowed that my first field trip out of the State Museum the following spring would take me directly back to that area. On my first spring in the Northeast, naively I set out for the lower Hudson Valley in mid-April, where the botany, needless to say, left much to be desired. I quickly learned colt's-foot (*Tussilago farfara*), gathered poet's narcissus from a refuse heap, and headed home to warm my feet. Even so, my enthusiasm for the place is just as great seventeen years later. After a memorable field season in the West Point - Bear Mountain area in 1992, I can hardly wait for spring, though I'll put off the first trip until May this time.

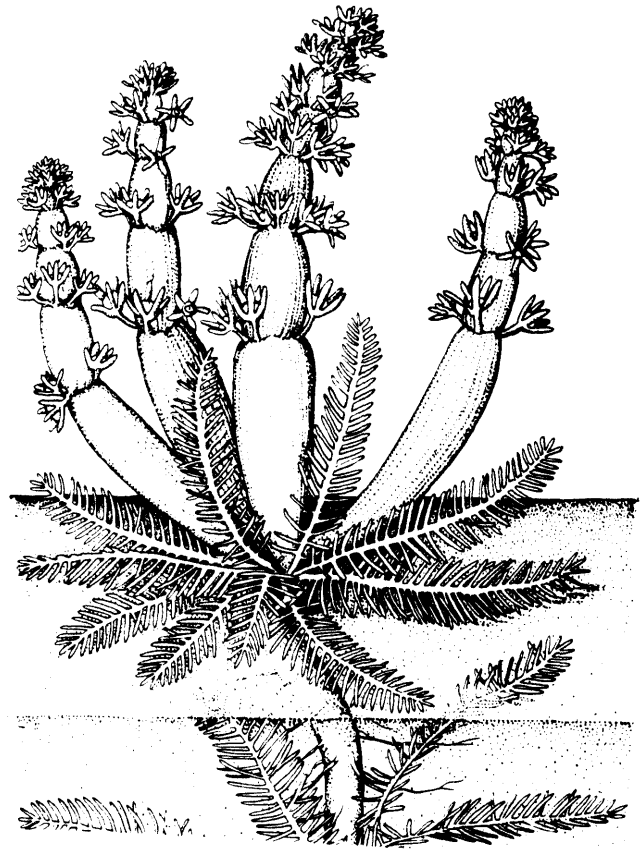
The highlands are far less sterile botanically than some would have us believe, and the potential for rare plant finds is great, as has been shown recently by renewed botanical exploration in the area. Various initiatives are bringing the highlands into prominence as a floristic study area. As early as the mid-1930s, Hugh Raup carried out a floristic and ecological study of Black Rock Forest that Kerry Barringer and Steve Clemants (BKL) are now bringing up to date. Ongoing biological studies in the nearby Shawangunk Mountains by the Mohonk Preserve staff (especially by Paul Huth) and The Nature Conservancy in conjunction with Minnewaska State Park bode well for an ever-increasing knowledge of the biota on that side of the river as well.

**West Point 1990** - The Brooklyn Botanic Garden was contracted to carry out a floristic survey of the West Point Military Academy Reservation. Steve and Kerry cataloged ca. 570 species, among which eight were state rarities. The most notable plant found in 1990 was *Tillaea aquatica*, a small, aquatic saxifrage that is ranked S1 by the Natural Heritage Program. This was an excellent find, and not a likely one, since the tiny

plants grow on a rocky island shore in the intertidal zone of the Hudson River.

**West Point 1992** - During the past season, the New York State Museum was under contract to the army engineers to continue botanical studies at West Point. The botany team included Gordon Tucker, Spider Barbour and me (Dick Mitchell). Over a period of six months, we added 463 species to the West Point list, of which 19 were State rarities.

**Rare Plants Found at West Point (1992):** Species listed rare by the New York Natural Heritage Program follow. See Young (1992) for a complete explanation of rarity codes (cited on p. 9).



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***Hottonia inflata*** - The featherfoil is a bizarre, aquatic annual with inflated stems. It is ephemeral in quiet fresh waters, and its life cycle may be interrupted by water level fluctuations. It is ranked by the NYNHP as S1 with an NYS status of T (Threatened).

*Callitriche terrestris* - These minute plants are moss-like and easily overlooked. The species is listed by NYNHP as SH (historical). Its discovery at West Point will mean a state rank of S1 and E (endangered) status in under amended legislation.

*Carex emmonsii* - This sedge is listed by NYNHP as S1 and has a NYS status of R (rare).

*Carex seorsa* - This sedge is listed by NYNHP as S1 with a NYS status of R (rare).

*Chenopodium standleyanum* - This slender native goosefoot is listed by NYNHP as historical G5 SH without current State protection (U).

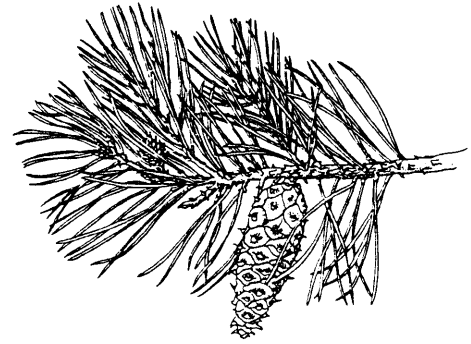
*Cyperus erythrorhizos* - This flatsedge is listed by NYNHP as S2 with a NYS rarity status of R (rare).

*Cyperus odoratus* - This flatsedge is listed by NYNHP as S2 without NYS status (U).

*Digitaria filiformis* - The slender crabgrass is rare, listed by NYNHP as S1S2, with a state protection status of R.

*Linum medium* var. *texanum* is a wild flax, listed by NYNHP as Threatened, with a State rank of S1.

*Pilea fontana* - This clearweed has long been misunderstood taxonomically, due to errors in the keys of older manuals; it is now being found in estuarine and riverine situations along the Hudson River and in the St. Lawrence Lowlands. Although its status may change, it is now listed by NYNHP as S2S3, without NYS protection under law.



Virginia pine, *Pinus virginiana* L., a great rarity this far north, discovered growing as a native on a bare rock outcrop at West Point Military Academy; Rank: NYS E (Endangered) S1.

*Podostemum ceratophyllum* - The riverweed is a submerged aquatic, found only in well-oxygenated water of flowing streams and rivers, listed by NYNHP as S2 with a NYS status of R (rare).

*Polygonum careyi* - This smartweed is the rarer of two native annual species in the State. It is listed by NYNHP as SH (historical) without status. Its rediscovery should lead to protection under law.

*Polygonum tenue* - This knotweed is primarily western North American in distribution, listed by NYNHP as S2S3, R (rare).

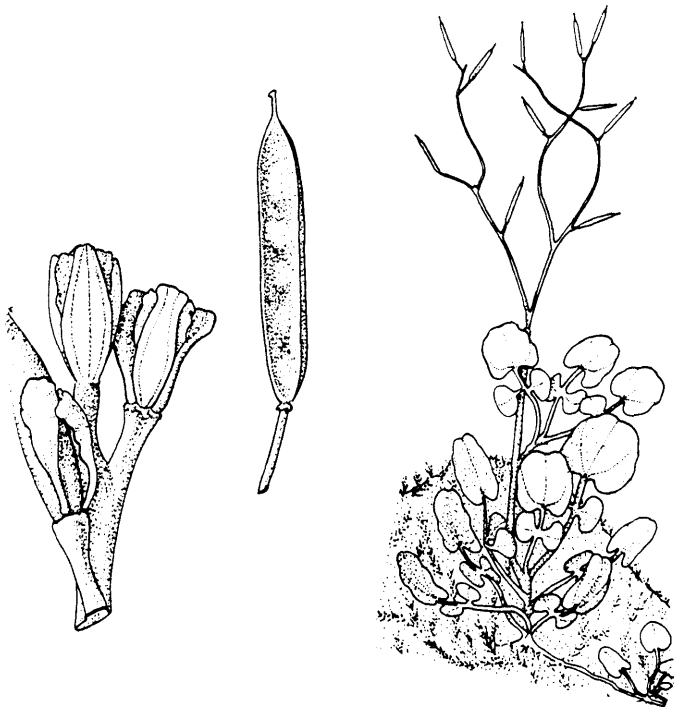
*Potamogeton pulcher* - This pondweed is a Coastal Plain species, formerly known from Long Island and the Ontario Lake Plain; it is ranked SH (historical) by NYNHP without State protection (U).

*Ranunculus micranthus* - This small buttercup is listed by NYNHP as S1, currently without NYS protection status (U).

*Scirpus georgianus* - This tall sedge is listed by NYNHP as S1 without NYS protection status (U).

*Utricularia biflora* - This small, insectivorous, aquatic herb is listed by NYNHP as S1, R (rare).

**West Point 1993** - The State Museum will be under contract once more to refine and add to the flora of Military Academy lands, which comprise about 17,000 acres. The habitat-diversity within the study area is surprisingly great, ranging from the estuarine Hudson River through a variety of wetlands, forested slopes and cliffs to the bleak "Crow's Nest." Although some areas are off-limits to biologists because of summer training maneuvers, shelling and the danger of unexploded charges in the soil, most of the area has now been explored, due to excellent cooperation and special assistance from the Forestry and Wildlife staff at the reservation. The total number of species known from the area should climb again this year, possibly to over 1,100, as the reservation becomes one of the better-known botanical areas in the state.



*Cardamine longii* - This very rare cress has a federal status of 3C and is listed by NYNHP as S1, currently without NYS legal protection status. Its discovery at West Point and rediscovery elsewhere on L. I. and along the Hudson River removed it from historical status, and will lead to its protection under state law.

## State Botanist's Office to Study the Flora of Bear Mountain and Harriman State Parks -

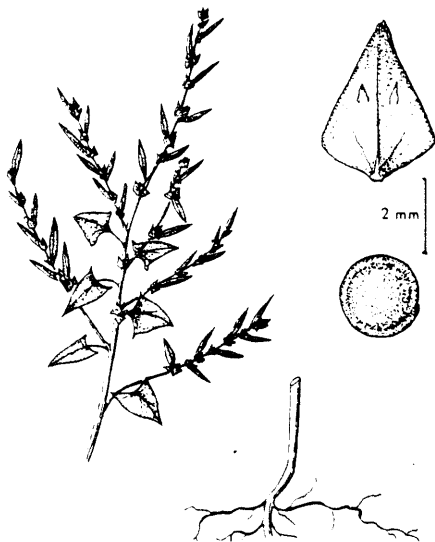
Under a three-year, \$60,000 contract from the Palisade Park Commission, botanists of the New York State Museum will carry out botanical exploration of two large parks, covering over 52,000 acres. The project is a joint effort between the Park Commission and the State Museum. The principal investigators are Richard Mitchell and Gordon Tucker, with additional field botany to be carried out by J. G. Spider Barbour. The 1993 season will be coordinated with an additional contract to finish up work at the West Point Military Academy Reservation. Jack Focht, Director of the Trailside Museum at Bear Mountain, has shown great enthusiasm for the project, and is largely responsible for its coming into being. He has offered his help in the field and to coordinate his summer volunteers to aid in the effort.

## Significant Botanical Discoveries of 1992' -

by Steve Young (compiled from NYNHP records)

This past year set a record in the number of historical taxa discovered in the field or identified from recent pressed specimens (31 in all!). Seven SH species (not documented in over 15 years) were seen by more than one individual in different parts of the state and there were three new species records for the state. Congratulations to all the successful plant explorers. We hope 1993 will turn out to be as productive as 1992! (State ranks are those assigned to the taxon at the beginning of the 1992 field season.)

\*See the West Point story for additional 1992 rarities.



*Atriplex glabriuscula* Edmondston G4 (new species to New York State, now ranked S1)

Reported from near Onondaga Lake in 1960, but incorrectly identified and later removed from the state list. In 1990, Gordon Tucker found the real thing on Fishers Island, and it is being tracked once again.

## *Ammophila champlainensis* Seymour G1Q S1

Brett Engstrom, Heritage contractor, extended and delimited one of two known populations in the state, in Clinton Co. The species was first described in 1966.

## *Amphicarpum purshii* Kunth G4 (new to NYS, now S1)

Discovered by Bob Zaremba on a botanical field trip to a coastal plain pond in Suffolk County. More common from New Jersey south along the coast.

## *Callitriche terrestris* Raf. G5 SH

A difficult species to see, this occurrence was found by Joe Deschenes with Mitchell & Tucker at West Pt. Last seen in 1945 by Roy Latham on Long Island.

## *Carex atherodes* Spreng. G5 SH

Bob Wesley found this sedge during a survey of DEC Wildlife Management Areas in Jefferson County. Last seen by Homer House in 1936 in Columbia Co.

## *Carex frankii* Kunth G5 SH

Discovered by Erik Kiviat during a survey in Ulster County in September and independently at another site in the county by Gretchen Stevens and Spider Barbour. Last seen in 1943 in Oneida County.

## *Carex jamesii* Schwein. G5 SH

Al Schotz, during contract work for the Heritage Program, picked up this species at five different sites in western New York. Last documented at Bergen Swamp in 1948.

## *Carex livida* (Wahl.) Willd. var. *radicalis* Paine G5T5 SH

Kathleen Strakosch, Heritage Ecologist/Botanist, and Steve Young documented the occurrence of this sedge at 2 fens in Oswego and Jefferson counties. There had been no confirmed occurrences since 1917.

## *Chenopodium rubrum* L. G5 SH

Found by Susan Antenen of the Long Island Nature Conservancy on the Atlantic beaches of Suffolk County and by Gordon Tucker and Ed Horning on Fishers Island. Last seen in 1948 near the Whitestone Bridge and in a salt pond in Western New York.

## *Chenopodium standleyanum* Aellen G5 SH

Found by Dick Mitchell during the State Museum's 1992 survey of West Point, Orange Co. Also collected in Rensselaer Co. by Chuck Sheviak, 1990.

## *Cyperus flavescens* L. var. *poaeformis* (Pursh) Fern. G5TU SH

Chris Mangels discovered this variety in a Long Island park. Last seen in the Bronx in 1938.

## *Desmodium obtusum* (Muhl. ex Willd.) DC. G4G5 SH

Documentation received from Bob Zaremba from a discovery in Monroe County in 1991 and from a collection in Suffolk County in 1985.

## *Diplachne maritima* Bickn. G5T4 (added to Heritage list in 1992 as an S1)

Documented by Gordon Tucker & Ed Horning on Fishers Island in 1990 and in 1992 by Bob Zaremba on beaches in Suffolk Co. and in a salt pond in Central NY. Old records from the 1920s exist from the New York City area and central New York.

***Eupatorium hyssopifolium* L. var. *laciniatum* Gray**

G5T? (added to the Heritage list in 1991, now S1)

A rare variety that was first collected in the 1920s and recently observed in Queens in 1988 by Skip Blanchard and Chris Mangels. Documented from Staten Island and Long Island by Bob Zaremba in 1989 and 1992.

***Geum vernum* (Raf.) Torr. & Gray G5 SH**

Found by Paul Huth of the Mohonk Preserve along a road near the Mohonk Mountain House in Ulster County. Last seen in Tompkins County in 1956.

***Geum virginianum* L. G5 SH**

Sandy Bonanno of SUNY ESF found this species during her graduate work along Lake Ontario shores, and Al Schotz found it at two sites in Livingston County. Our last documented collection was from Suffolk County in 1974.

***Hippuris vulgaris* L. G5 SH**

A rare aquatic plant found during a canoe survey by Jerry Jenkins in a Lewis County lake. Last seen in 1944 in the same area.

***Isoetes riparia* Engelm. ex A. Br. var. *riparia* G4T? SH**

Our first well-documented occurrence was discovered by Dick Mitchell, while exploring the Delaware River shore with Ken Dean in Sullivan County (1992). Also seen by Steve Young and Brenda Hunt at a site described by McVaugh in Columbia Co., and last seen by him in 1938 in Columbia Co.

***Lathyrus venosus* L. var. *intonsus* (Butters & St. John) Hitchc. (new species for the state, now an S1)**

Al Schotz collected this plant from an Appalachian oak-hickory forest in Livingston County and found out it was new to the state. Its native range is from Central Canada south to Missouri.

***Linum medium* (Planch.) Fern. var. *medium* G5T? SH**

Al Schotz found this rare variety in two locations in Chautauqua County in 1992. Last collected in 1927 in Erie County.

***Littorella americana* Fern. G5 SH**

A 1984 discovery by Peter Zika that was not documented until this year. Found in northern Clinton County. Last seen in 1949 on Valcour Island.

***Lycopodium complanatum* L. G5 SH**

Found during a survey along the Schroon River in Essex County by Steve Young and Laura Lehtonen. Last collected in 1961 on Pitchoff Mountain.

***Panicum leibergii* (Vasey) Scribn. G5 SH**

Documented from a cemetery in Rensselaer County by Robert P. Ingalls. One other collection in the state, from the head of Seneca Lake in Schuyler County, was made many years ago.

***Paspalum laeve* Michx. var. *circularae* (Nash) Fern. G5TU SH**

Found by Gordon Tucker & Ed Horning during a survey of Fishers Island. Last seen in the Bronx in 1962 but very few occurrences have ever been recorded in New York State.

***Physalis pubescens* L. var. *integrifolia* (Dunal) Waterfall G5T?Q SH**

Found by Erik Kiviat of Hudsonia in Dutchess Co. Only one other population known from the state, a 1976 specimen from Erie County.

***Pinus virginiana* Mill. G5 S1**

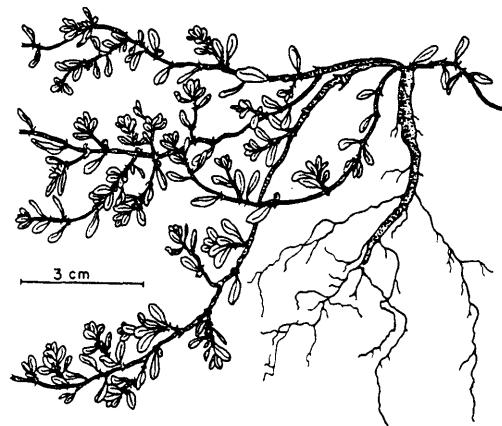
The first extant native population north of New York City was found by Gordon Tucker and Dick Mitchell at West Point. The only other native stand in New York is on Staten Island.

***Poa fernaldiana* Nannf. G3 SH**

One population rediscovered by Peter Zika in the Adirondack high peaks in 1990 and documented in 1992. Last collected there in 1954.

***Poa sylvestris* Gray G5 SH**

Kathleen Strakosch and Bob Wesley found this grass in a rich woodland in southern Jefferson County. This delicate plant of Central and Western New York was last seen in Wyoming Co. at an Audubon sanctuary near Java.



***Polygonum buxiforme* Small G5 SH**

Al Schotz found this rarity along Lake Erie in Chautauqua Co. It was also found by Chris Mangels in Suffolk Co. and by Gordon Tucker & Ed Horning on South Dumpling near Fishers Island. Last reported in 1976 from Suffolk and Schenectady Counties.

***Polygonum careyi* Olney G4 SH**

Both Bob Zaremba and Dick Mitchell collected this species in 1992, Bob in Suffolk County and Dick in Orange County. Stanley Smith and Dick Andrus had last collected it in Warren County in 1971.

***Polygonum opelousanum* Ridd. ex Small G5 SH**

Bob Zaremba figured if he really started to zero in on this species he would find it often on Long Island and he did. At least seven sites there were documented in 1992, and it is probably much more common. The last collection was from Montauk Point in 1976 by Dick Mitchell and Ken Dean.

***Polygonum setaceum* Baldw. ex Ell. var. *interjectum*  
Fern. G5T4 SH**

Another Bob Zaremba find from Long Island. Last collected in 1976 by Mitchell and Dean and observed again in 1979 by Dean.

***Potamogeton pulcher* Tuckerm. G5 SH**

Gordon Tucker found this species both at Fishers Island and in Orange County. Last collected in 1977 by Dick Mitchell near Oswego, this rare aquatic has numerous pre-1940 Long Island records.

***Prunus pumila* L. var. *pumila* G5T? S1**

A Jefferson County population formerly described as var. *depressa* was studied and determined to be var. *pumila* by Kathleen Strakosch. It is now the largest by far of the three extant populations of this variety in the state.

***Pyrola asarifolia* Michx. var. *asarifolia* G5T4 SH**

A population of this species, usually found in cedar swamps, was found along the Schroon River, under white pines by Steve Young and Laura Lehtonen. Last seen: Cedarville, Montgomery County, in 1958.

***Ranunculus hispidus* Michx. var. *nitidus* (Muhl. ex Ell.)**

**Duncan G5T5 SH**

Found by Ken Dean during a survey of a Wildlife Management Area in Sullivan County. Last seen by Robert Clausen in 1947 in Tompkins County.

***Sagina decumbens* (Ell.) Torr. & Gray G5 SH**

Chris Mangels collected this diminutive species on Long Island. A look-alike to *Sagina japonica*, it was last seen by Roy Latham on the island in 1946.

***Scutellaria integrifolia* L. G5 SH**

Last seen on Long Island in 1929, this species was collected in the town of Olive in the Catskills in 1973. The Olive Natural Heritage Society found a new and separate occurrence in the town in 1992.

***Sisyrinchium mucronatum* Michx. G5 S1**

Marilyn Jordan, ecologist at the Long Island Nature Conservancy, found this species near Montauk, the first collection from Long Island. Bob Zaremba had rediscovered it in 1991 at a site in Chemung County, and there is a 1980 collection by R.A. Klips from Erie County.

***Suaeda rolandii* Bassett & Crompton G1G2Q (added to the Heritage list in 92 as an S1)**

Steve Clemants located our first extant population on the edge of a landfill in Brooklyn. This species was described in 1978.

***Valerianella chenopodiifolia* (Pursh) DC. G5 SH**

Found by Al Schotz on moist rocky soil in a limestone forest in Monroe County. Last collected in 1956 by Stanley J. Smith near Lockport.

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**Forget your Dues?** Many of us did, including temporarily anonymous council members. Please Check! You're paid up through the year printed above your name on the envelope.

**Botanizing the Zoar Valley of Western New York --**

**by Alfred Schotz, Wilson, NY**

One of western New York's greatest spectacles, the magnificence of Zoar Valley, is centered on the Cattaraugus Creek Gorge, whose vertical walls tower up to 300 feet above the bouldery creek below. Originating in the highlands of Wyoming County, Cattaraugus Creek begins its westward journey as a placid stream, gently meandering through pastoral farmlands and rural villages, to an area just east of Springville, where, for several miles and thousands of years, it has chiseled and carved its way through a series of shales and sandstones. The rugged scene - with its deep canyon and precipitous cliffs - provides a striking contrast with the rolling topography of the surrounding Appalachian Plateau, lending depth, tone and color to the landscape. Though restricted in area, the flora of this habitat is rich and varied.

On exploring the crest of the gorge, one will become acquainted with an interesting assemblage of plants able to withstand well-drained conditions. Here, an open canopy of red pine (*Pinus resinosa*), white pine (*Pinus strobus*) and various oaks (*Quercus* spp.) furnishes shelter for an understory of shrubs consisting largely of black huckleberry (*Gaylussacia baccata*), lowbush blueberry (*Vaccinium pallidum*) and maple-leaf viburnum (*Viburnum acerifolium*). While the acidic soils preclude the establishment of many species, some of the region's most highly prized wildflowers, such as trailing arbutus (*Epigaea repens*), early azalea (*Rhododendron prinophyllum*), moccasin-flower (*Cypripedium acaule*) and wood lily (*Lilium philadelphicum*) are to be found. Where the soils are sufficiently deep, a hemlock-northern hardwood community is amply represented. This association is well established along the bottom of the gorge, and, at intervals, it reaches the crest and beyond. Owing to its relative inaccessibility to timber operations, isolated portions of Zoar Valley remain enshrouded in a primeval atmosphere. Here, well-hidden from the impacts of mankind, beneath a cathedral of towering hemlocks and northern hardwoods are some of New York's most sought-after and cherished wildflowers, including: goldenseal (*Hydrastis canadensis*), showy orchis (*Galearis spectabilis*), yellow lady's-slipper (*Cypripedium calceolus* var. *pubescens*), nodding pogonia (*Triphora trianthophora*) and mountain watercress (*Cardamine rotundifolia*).

While the steeper cliffs are generally devoid of vegetation, some truly fascinating plants, like the buffalo-berry (*Shepherdia canadensis*) and American bittersweet (*Celastrus scandens*) have found lodgement, tenaciously clinging to life among the cracks and crevices. Furthermore, seepage areas issuing highly

alkaline groundwater from the shaly cliffs are not infrequent. Such an environment provides a congenial habitat for species preferring moist, calcareous, open conditions, namely grass-of-parnassus (*Parnassia glauca*), brook lobelia (*Lobelia kalmii*) and golden sedge (*Carex aurea*).

The botanical richness present at Zoar Valley invites further documentation, since much of the area remains relatively unexplored. Currently, efforts are being directed toward identifying and cataloging areas potentially harboring the greatest natural diversity. The preservation of key sites along the Cattaraugus Creek Gorge and similar streams will hopefully protect vital biotic resources and permit sojourns by generations of botanists to come.

### A New Species of Orchid from Eastern Long Island-

by Paul Martin Brown

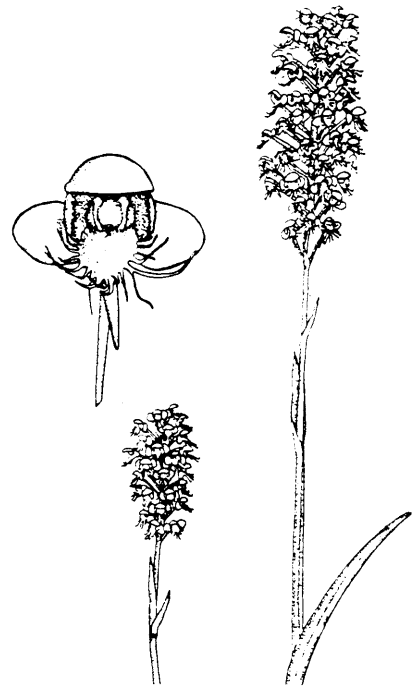
(This article is reprinted with permission from the Newsletter of the Friends of Planting Fields; Volume 21, Number 1; pp. 16-18.)

Growing among the pitch pine, in interdunal hollows on eastern Long Island, is a fringed orchis (*Platanthera*) with small flowers, a short spur and a superficial resemblance to the orange-crested orchis, *P. cristata*. The first and most obvious difference between *P. cristata* and the plants under discussion is that these orchids, usually referred to as a color form of *P. cristata*, are of a uniform pale cream color and, unlike orange-crested orchid in the north, they are locally abundant. If we go beyond these differences and start looking closely at the plants and their habitats, several other dissimilarities become apparent.

An observer is immediately struck by the curious habitat of this orchid. Unlike most orchid sites, which are swales, swamps and wet meadows, these pale-fringed orchis substrates appear to be very dry much of the time, with none of the associated moisture-demanding species one usually finds in a wetland. Adjacent to areas where the pale orchises grow are numerous moist interdunal swale areas that support typical bog vegetation, yet none of the pale-fringed orchises are to be found in these areas. They appear to be very habitat specific, growing under and among mature pitch pines, with a good cover of duff and few inches of humus, although occasional plants are found in the arid white sands of the dunes.

The lip of the pale-fringed orchis, unlike that of the crested orchis, is strongly recurved or, less often, simply descending; lateral sepals are reflexed and the dorsal sepal entire. It was these observations that initially led me to surmise that these plants were something other than just a pale form of *P. cristata*.

The earliest recorded observations of these plants appear to have been by Roy Latham in 1926. Charles



*Platanthera pallida* P. M. Brown, a newly described species endemic to Long Island. It was long thought to be a color form of *P. cristata*.

Bryan, a retired chemist and orchid enthusiast from Rhode Island, visited the site east of Napeague Harbor in 1939 and again in 1948. He kept meticulous notebooks covering all of his botanical journeys and on both occasions on Long Island specifically detailed the location of the plants and took particular notice of the "dingy sulphur color". Other collectors fortunately also noticed the color, but none happened to note other differences. Subsequently, two locations were visited by many orchid enthusiasts from Planting Fields Arboretum, the State Museum, The Nature Conservancy and the Long Island Botanical Society.

The presence of a new species in such a well-known and popular genus from such an equally well-botanized and popular area as eastern Long Island may come as a surprise to many. I first became aware of these plants when I was loaned Charles Bryan's notebooks. His reference to the "dingy sulphur color" was in direct contrast to plants from sites in southern New Jersey where crested-fringed orchis plants had bright orange flowers. When Joann Knapp first led me to the Long Island plants in 1986, I accepted the idea that they were orange-crested orchises, but left the area seriously questioning that fact. Upon returning home, I reviewed the many photographs that I had taken of *P. cristata* in New Jersey and compared them with photos of the Montauk plants, a comparison that only reinforced my doubts.

A return trip in 1991 afforded me an opportunity to re-examine the plants in the field. This trip included examination of a Long Island population of the true *P. cristata* (intermixed with *P. x canbyi*, its hybrid with

the white-fringed orchis, *P. blephariglottis*) several miles away, in more typical fringed orchid habitat. During several return visits that August, I was able to take down a series of field measurements and habitat data. The more I made comparisons with similar data from *P. cristata*, the more apparent it became that the plants in question were not the same, and that a new species was involved.

Pale-fringed orchis, *Platanthera pallida*, occurs in three sites in two areas in the town of East Hampton, near Montauk. Two distinct populations occur at Roy Latham's initial 1926 site, adjacent but separated by nearly 1/4 mile of dunelands. At each of these areas, the plants are widespread and somewhat scattered, but they retain their habitat preference. Adjacent to areas that support the pale-fringed orchis are numerous swales and bogs. If typical orange-crested orchis were present, it would be found in these wetter areas, as it is in the Pinelands of New Jersey and elsewhere on Long Island, in areas of similar topography.

At the other site, plants are concentrated in a much smaller area and in a larger numbers. A single specimen collected by Latham in 1928 may be from this site, but it was not until 1975 that Betty Lotowycz found the current site and made her first collection, labeled *P. cristata*, for the Planting Fields Arboretum. Again, swales and small bogs are nearby, but no other *Platantheras* are to be found. One observation that appears to hold true at all times is that the pale-fringed orchis is restricted to the oldest, most stable, pitch pine stands within the dunelands. The presence of *P. pallida* on these sites in New York appears to represent the only known occurrences of this species.

#### ***Lathyrus venosus* var. *intonsus* in New York** by Alfred Schotz, Wilson, New York

The rolling topography surrounding the Livingston County village of Geneseo is blessed with scenic gorges and elegant waterfalls, undoubtedly making this one of the more beautiful areas in New York State. While exploring a woodland remnant along the rim of one such ravine during the summer of 1992, I encountered a vetch-like plant that seemed familiar from observations I had made in Texas and Tennessee. While the identity of *Lathyrus venosus* var. *intonsus* was readily apparent to me, its rarity status in New York was not. As stated in Britton & Brown (1962) and Fernald (1950), this perennial is widely distributed in the southern Appalachians, as well as the midwestern states, extending as far east as southern Ontario and Michigan, with one disjunct population in eastern Quebec. However, there are no publications citing its occurrence in New York.

Presently, several hundred plants inhabit well-drained, shaly soils under an open canopy of red oak (*Quercus rubra*), white oak (*Quercus alba*), shagbark hickory (*Carya ovata*) and hop hornbeam (*Ostrya*

*virginiana*). Further exploration of the adjoining oak-hickory woodland revealed additional state rarities as well, including the handsome sedge (*Carex formosa*), rough avens (*Geum virginianum*), violet bush-clover (*Lespedeza violacea*), and green gentian (*Frasera caroliniensis*).

Despite the lack of documentation of a New York occurrence in the literature or Heritage records, this species had been collected at the same site in 1969. According to Dr. Richard Mitchell of the New York State Museum, *Lathyrus venosus* var. *intonsus* was discovered by Herman Forrester *et al.*, and a voucher specimen deposited at the State Museum (NYS).

#### **Information Needed on Exotic Species --** by Steve Young

Invasive exotic plant species are a major problem in natural areas throughout New York. Some aggressive species form dense stands that reduce or eliminate habitat for rare native plants; others alter the structure of natural communities, changing processes and thereby reducing habitat diversity. Unfortunately, some invasive species continue to be sold by Soil and Water Conservation Districts and by our own Department of Environmental Conservation, not to mention private nurseries. Many of these exotics were originally introduced as wildlife food or for erosion control without the knowledge of the trouble they would cause. Since there has been no coordinated effort in New York to promote the planting of native plants, and no legislation regulating the use of exotics, agencies continue to distribute certain problem plants. I would like to provide evidence to these agencies of the environmental damage caused by these plants, to encourage reduction of their propagation and distribution. I request any information from NYFA members about specific problems encountered with the following plants:

crown vetch  
Russian and autumn olive  
multiflora rose  
Japanese honeysuckle  
Tatarian honeysuckle  
Asiatic bittersweet  
Toringo crabapple  
Arnot bristly locust  
purple loosestrife  
Japanese black pine  
barberries  
strawberry-bush  
black locust

These are some of the worst offenders used for landscaping that are presently being grown and distributed by government agencies. I need information on the extent of the problems they cause, how and when they started, if they continue and what native species have been eliminated. The more

evidence I have, the easier (I hope) it will be to convince propagators to eliminate these plants from distribution programs. My ultimate goal is for DEC to educate the public concerning the problems these exotics cause and to encourage landscaping and soil stabilization directors to work more closely with conservation biologists to preserve our native plant communities. Please send your information to: **Steve Young, New York Natural Heritage Program, NYS-DEC, 700 Troy-Schenectady Road, Latham, NY 12110-2400.**

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### Concern for Golden Club-

by Steve Young

Erik Kiviat of Hudsonia recently brought to my attention the severe decline that golden club (*Orontium aquaticum* L.) has suffered along the Hudson River. An article he wrote on the subject in 1976 states, "In the Hudson River, a combination of water pollution, dumping of garbage and dredge spoil, and possible salt intrusion and other factors have severely damaged three stands of golden club and probably extirpated two of them (there were 13 sites in total). Local damage to water quality and sediments from dumping, pollution, highway salting, and oil spills could threaten the remaining Hudson River stands. Golden club is more abundant and perhaps more resilient ecologically on the Coastal Plain. But urbanization and industrialization of East Coast estuaries, with increased salt intrusion due to water withdrawal, drought, and the rising sea may well

threaten most estuarine populations."

Besides the Hudson River populations, golden club has been found on eastern and western Long Island, along the Chenango and Susquehanna Rivers, in ponds in south-central New York and interior Sullivan and Orange counties. No recent information has been gathered about the status of populations outside of the Hudson River in New York State. Most of the collections at the NY State Museum date from before the 1960s. We are concerned that the plant may be suffering a statewide decline.

Presently golden club is on the Heritage Program Watch List but may be elevated to the Active Inventory List if its abundance state-wide proves to be declining. If you know of any extant populations of golden club outside the Hudson River Estuary, please send the location (preferably a dot with coordinates on a map), population size, date you last saw the plant, habitat and any other pertinent information to: **Steve Young, New York Natural Heritage Program, NYS-DEC, 700 Troy Schenectady Road, Latham, NY 12110-2400.**

### Flora of the Lake Ontario Eastern Shore Dunes-

by Sandy Bonanno

The 27 km freshwater dune-barrier on the eastern shore of Lake Ontario has been relatively unexamined botanically until recently. I have been doing an inventory of the flora as part of my M.S. work at SUNY College of Environmental Science & Forestry, and have found both the physiography and the flora quite different from that of east coast and upper Great Lakes dunes (Bonanno, 1992). Published floras from these areas share less than half their species with the flora of the eastern shore of Lake Ontario (see Dowhan and Rozsa, 1989 [Fire Island, NY, 24%]; Dunlop *et al.*, 1983 [Seabrook Dunes, NH, 44%]; Hazlett, 1986 [Nordhouse Dunes, MI, 36%]; Olson, 1958 [eastern shore of Lake Michigan, 40%]).

The eastern shore barrier of Lake Ontario measures only 100 to 500 m from lake shore to marsh or open water. Beaches are narrow, ranging from steep, sand-starved gravel and cobbles to flat expanses of white sand about 20 m wide. Beach annuals are mostly the common *Xanthium strumarium* var. *canadense*, and *Cakile edentula* ssp. *lacustris* -- which is very uncommon. Vegetation on the foredunes, swales, and lower secondary dunes is ground-layer dominated. *Ammophila breviligulata* is the primary colonizer, along with *Artemisia campestris* ssp. *caudata* and *Populus deltoides*. Two species restricted in distribution in New York to the Great Lakes shoreline are part of the colonizing vegetation; these are *Salix cordata* ("*S. syrticola*") and *Prunus pumila* var. *pumila*. Both are very rare in the state (ranked S1, Young



the foredunes, swales, and low secondary dunes. *Prunus pumila* var. *pumila*, on the other hand, has only one healthy population on the eastern shore. Secondary colonizers *Calamovilfa longifolia* and *Schizachyrium scoparium*, usually common in the upper Great Lakes (Hazlett 1986, Olson 1958), are absent. *Populus tremuloides*, while common in the surrounding uplands, does not occur on the dunes.

Secondary successional pine and heath communities often found in various upper lakes and east coast dunes (Dowhan and Rozsa, 1989; Hazlett, 1986; Olson, 1958; Stalter and Lamont, 1990) are absent as well, as is *Opuntia humifusa*. The secondary community is, instead, dominated by *Toxicodendron radicans* and *Vitis riparia*. The canopy consists of clumps of *Populus deltoides* atop low secondary dunes, and shrubs include *Prunus virginiana* and several *Salix* species. The Salicaceae are much more prominent in the eastern shore flora (19 spp.) than on the east coast or Lake Michigan (Dowhan and Rozsa, 1989; Hazlett, 1986; Olson, 1958; Dunlop *et al.*, 1983). *Salix x rubens* is common (specimens determined by Dr. George Argus). Ground layer species include *Rubus idaeus*, *Centaurea maculosa* and *Saponaria officinalis* plus a variety of common grasses and goldenrods. *Cyperus filiculmis* var. *macilentus* and *Sporobolus cryptandrus* are distinctive associates.

Swales on the eastern shore are generally dry, but occasional damp pockets occur, particularly in recently stabilized areas. These pockets support interesting species assemblages, tending to be shrub-dominated, with canopies of *Alnus incana* ssp. *rugosa*, *Betula populifolia*, or *Salix* spp. The ground layer has 100% cover, with a variety of common grasses and *Juncus balticus* var. *littoralis*. Surprises found hidden in this dense sward include: *Amorpha fruticosa*, *Carex aurea*, *Spiranthes cernua*, *Coeloglossom viride*, *Agalinis paupercula* var. *paupercula* and *Botrychium dissectum* f. *obliquum* (determined by Dr. W.H. Wagner).

The age of the barrier (about 5000 years) is inferred by Sutton *et al.* (1972) from the presence of five discrete fragments of high dunes (to 21 m) that could not have formed under current water levels. These high dunes are but one ridge wide and support a *Quercus rubra* - *Acer rubrum* forest on their lee sides. *Quercus velutina*, common on Lake Michigan (Hazlett, 1986; Olson, 1958), is all but absent. *Acer saccharum* and *Fagus grandifolia* contribute to these forest canopies as well. *Amelanchier* spp. and *Acer pensylvanicum* join the omnipresent *Prunus virginiana* in the shrub layer, and *Aralia nudicaulis* and *Rubus idaeus* are dominant on the ground. Graminoids in these woods include *Festuca ovina*, *F. obtusa*, *Deschampsia flexuosa*, *Elymus canadensis*, *E. hystrix* var. *hystrix*, *Carex blanda*, *C. lanuginosa*, *C. ormostachya*, and *C. sprengei*.

The dune/marsh ecotone consists of dense shrub

thickets, dominated by either *A. incana* ssp. *rugosa* or a mixture of *Ilex verticillata*, *Viburnum lentago*, and *V. recognitum*. Tree canopy is sparse, composed of *Salix x rubens* and *Fraxinus pennsylvanica*. The ground layer is a patchy mixture of *R. idaeus*, *Phalaris arundinacea*, *Glyceria striata*, and a scattering of other common minerotrophic forbs and graminoids. *Pilea fontana* (ranked S2-S3 by Young, 1992) occurs with *P. pumila* on shrub hummocks near the wet end of the ecotone.

To date I have identified 316 species in the Lake Ontario eastern shore dune flora (Bonanno, 1992). The inventory will continue, particularly at Sandy Pond, which is not included in the current list.

#### Literature Cited

- Bonanno, S.E. 1992. Vegetation of a Lake Ontario dune barrier, Oswego and Jefferson Counties, NY, under high and low recreation pressure. MS Thesis, SUNY College of Environmental Science and Forestry, Syracuse, NY. 80 p.
- Dowhan, J.J. and R. Rozsa. 1989. Flora of Fire Island, Suffolk County, New York. Bull. Torrey Bot. Club 116:265-282.
- Dunlop, D.A., G.E. Crow, and T.J. Bertrand. 1983. Coastal endangered plant inventory: a report on the Seabrook Dunes, its vegetation and flora. University of New Hampshire, Durham, NH. 34 p.
- Hazlett, B.T. 1986. The vegetation and flora of the Nordhouse Dunes, Manistee National Forest, Mason County, Michigan. II. Catalogue of vascular plants. Mich. Bot. 25:125-139.
- Olson, J.S. 1958. Rates of succession and soil changes on southern Lake Michigan dunes. Bot. Gaz. 119:125-170.
- Sutton, R.G., T.L. Lewis, and D.L. Woodrow. 1972. Post Iroquios lake stages and shoreline sedimentation in eastern Ontario basin. J. Geol. 80:346-356.
- Young, S.M. 1992. New York Natural Heritage Program New York rare plant status list. New York Natural Heritage Program, Latham, NY. 78 p.

#### Recent and Upcoming Contributions to the Flora of New York State --

- [AVAILABLE FROM NY STATE MUSEUM PUBLICATIONS, CULTURAL EDUCATION CENTER, ALBANY, NY 12230]
- Cope, E. A. 1992. Pinophyta (Gymnosperms) of New York State. Contr. to a Flora of New York State IX. New York State Mus. Bull. 483. 80 pp. (\$8.50)
- Clemants, S. E. 1992. Chenopodiaceae and Amaranthaceae of New York State. Contr. to a Flora of New York State X. New York State Mus. Bull. 485. 100 pp. (\$10.00)
- Mitchell, R. S. 1993. Portulacaceae through Caryophyllaceae of New York State. Contr. to a Flora of New York State XI. New York State Mus. Bull. (in preparation) about 120 pp. (available in late 1993? ca. \$12)

## Hudsonia - Natural History Courses (1993) -

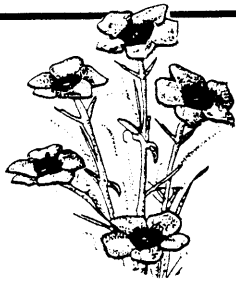
For further information call (914) 758-1881

- June 2 - Wetland Delineation - Gretchen Stevens
- June 12 - Turtles of the Hudson Valley - Erik Kiviat
- June 26 - Ticks, Mosquitos as Vectors - Durland Fish
- July 10 - Hudson River Fishes - C. Lavett Smith
- July 17 - Wetland Delineation - Gretchen Stevens
- July 24 - Sedges - Jerry Jenkins
- Aug. 7 - Archeological Methods - Chris Lindner
- Aug. 21 - Aquatic Mollusks - David Strayer
- Sept. 11 - Grasses - Jerry Jenkins

Division of Lands and Forests

### New York State Rare Plant Status List

August 1992



### Now Available from the Heritage Program: The 1992 N. Y. State Rare Plant Status List.

This all new and expanded list contains all rare plants in New York State with rarity rankings, protection status and counties of occurrence. Phenology list and family list also included. Order at no charge by sending name and address to Rare Plant List, c/o Steve Young, NY Natural Heritage Program, 700 Troy Schenectady Rd., Latham, NY 12110-2400. Have your copy on hand for the start of the next field season!

## Call for Research Proposals

The Council of the New York Flora Association seeks proposals for floristic studies and research on specific taxonomic problems that pertain to New York vascular plants. Proposals should be less than two pages long and include a statement of goals, methods, a schedule, budget, and expected product of the research. Grants will be in amounts of \$100 to \$500, but proposals of \$250 or less will be given strongest consideration. In 1992, two grants were awarded. Award winners are expected to write a report for publication in the NYFA Newsletter; duplicates of all specimens collected must be donated to the New York State Museum.

Send proposals to Gordon C. Tucker, Secretary, NYFA, N. Y. State Museum, 3132 CEC, Albany, NY 12230. Deadline May 15, 1993. Recipients will be notified June 15, 1993.

## Upcoming Field Trips:

**June 5, 1993. Valcour Island.** The early summer 1993 NYFA field trip will be to Valcour Island in northern Lake Champlain. Famous for battles and botany, Valcour consists of a huge block of limestone surrounded by alkaline cobble shores. Much of the island is post-agricultural with limestone woods and small northern white cedar swamps. There are also graminoid cobble shores and limy cliffs. *Calypso bulbosa* was last collected on Valcour in 1947 and has not been seen since in the state. Other unusual rarities include *Cypripedium arietinum*, *Draba glabella*, and *Cynoglossum boreale*. Join us for the day (Saturday) or for the weekend camping on the island. You must call ahead so that arrangements can be made for boats to the island. We will be meeting on the island at about 10:30 am. For information, call Bob Zaremba at (518) 869-6959 by May 20.

### Joint Field Trip with the Connecticut Botanical Society:

**Bear Mountain and Harriman State Parks,  
New York -- July 31, 1993 - 10 a.m.**

#### Co-Leaders:

Dr. Gordon C. Tucker, Biological Survey, New York State Museum, Albany NY 12230 - work phones: (518) 474-5812; 486-2026.

Jack Focht, Director, Trailside Museum, Bear Mountain, NY - work phone (914) 786-2701.

**Directions:** New York State Thruway (I-87) to Harriman Exit (16). East on U.S. Route 6 to Bear Mountain traffic circle (ca. 6 mi.), then south on Route 9W about 1.5 (one and one-half) miles to entrance to Iona Island on your left. Signs will be posted to indicate parking.

We will visit Iona Island marshes along the Hudson and Island Pond, at 1300 feet, one of the highest bodies of water in the Hudson Highlands.

### August 28, 1993. Niagara Gorge and Goat Island --

**AT LAST**, a trip to the far west: the frontier no less! The late summer NYFA field trip will visit a dramatic landscape with many unusual plants, some of which are to be seen nowhere else in New York State. We will hike down the Niagara Gorge to see *Liatrix cylindracea* and *Aster oolentangiensis*, and scan the wet cliffs for *Gentianopsis procera*. We will meet at the Goat Island Parking Lot and assemble at the first bridge to the Three Sisters Islands. Please contact Bob Zaremba if you plan to attend (518) 869-6959.