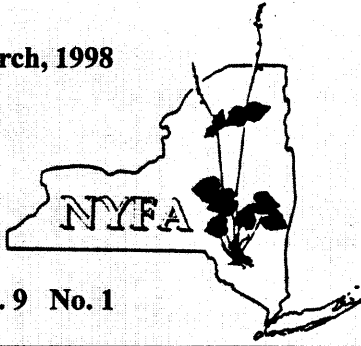


March, 1998



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NYFA Newsletter

New York Flora Association
of the New York State Museum Associates

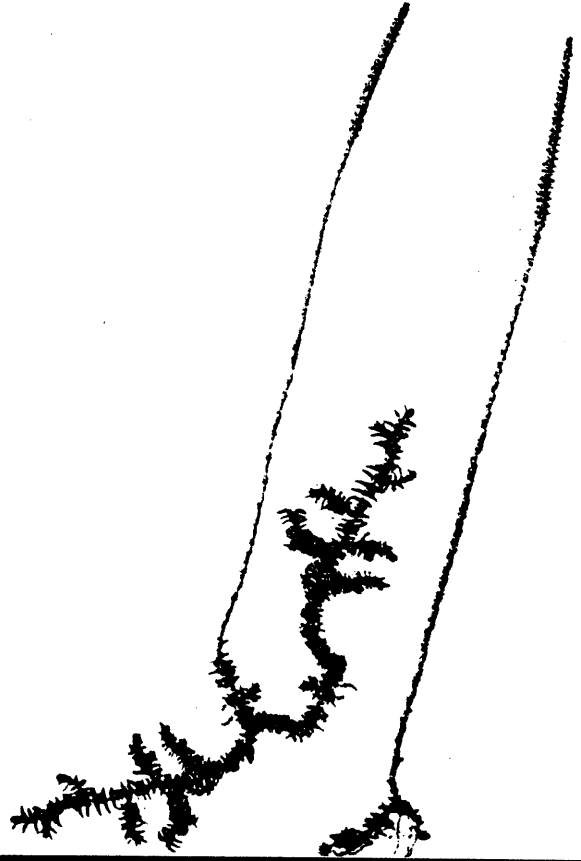
Richard S. Mitchell, Editor, New York State Museum
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This Issue: Attack of the Southern Disjuncts

A New, Disjunct Northern Range Extension for Carolina Clubmoss, *Lycopodiella caroliniana* (L.) Pichi Sermolli by Michael Corey, N. Y. Dept. of State

It's always a pleasure to find a plant growing in a place where it's not supposed to be. I've only had that experience a few times, but the expectation of potential new surprises always encourages me to be on the lookout, and it keeps my botanical interest high. In the spring and summer of 1996, I was fortunate to participate in a New York Natural Heritage Program field survey to document examples of the best occurrences of natural communities in the Adirondack Region. I think this type of work is great, for a number of reasons, not the least of which is the increased opportunity to find "neat stuff" when you least expect it.

In July of 1996, I was exploring the Dunham Bay Marsh complex at the south end of Lake George, when I came across what looked like some bizarre hybrid between a spikemoss and a clubmoss. Small, light green, more-or-less flattened sprigs of *Selaginella*-like stems tightly hugged the saturated, peaty substrate of an open, acidic mat (pH 4.8). Scattered, erect, fertile branches were found, exhibiting the morphology of a *Lycopodium* species (in the broad sense); however, closer inspection showed that it was not the bog clubmoss, *Lycopodiella inundata* (L.) Holub, that I might have expected to find there. Rather, it seemed to be *Lycopodiella caroliniana* (L.) Pichi Sermolli -- a species whose range was then known to extend from Louisiana northeastward along the Atlantic Coast to Long Island, but no further north.



Lycopodiella caroliniana (L.) Pichi Sermolli, a Coastal Plain species recently discovered well-established at Lake George, Warren County, NY, c. 200 miles north and inland from its previously known range-limits on Long Island.

I sent specimens for verification to Dr. Richard Mitchell at the State Museum, and he agreed with my identification, but then sent them to Dr. John Mickel, a pteridologist at the New York Botanical Gardens, for expert confirmation. I was pleased to learn that I had indeed discovered a population of *L. caroliniana* 200 miles inland, significantly

disjunct from of its northernmost previously-known occurrence.

Delving into the manuals and fern books, I was able to recover the following information: Fernald (1950) gives the habitat of Carolina clubmoss as wet pine barrens or damp peats and sands of the Coastal Plain; Wherry's (1961) fern guide places it in sandy flats and sphagnous meadows, in intensely acid soils. Gleason (1952) describes the typical habitat as bogs and sandy barrens in acidic soils, while Cobb's (1956) field guide lists an even greater diversity of habitats, from wooded bogs to a range of open, moist, grassy places.

Small's *Ferns of the Vicinity of New York* (1935) gave further background:

- 1) the species was first found in the Carolinas and named in the early 18th Century
- 2) it was not discovered on Long Island, NY, until 1921 [Note: amend to 1919, collected by Ferguson (Editor)]
- 3) it sometimes grows in association with the rare curlygrass fern (*Schizaea pusilla* Pursh), notably in the New Jersey Pine Barrens.

Carolina clubmoss is a very rare plant in the northeastern United States. On the Coastal Plain of Long Island, it has been found in only a couple of sites, in interdunal swales and coastal ponds. It is listed endangered by the New York Natural Heritage Program and has been assigned the most critical state rarity rank of S1.

My find raised some questions very quickly: Why is this Coastal Plain dweller growing in a shoreline wetland in Warren County, NY, and how long has it been there? How did it get established at a site that appears to be off the beaten path of boats of the fishermen and tourists who frequent Lake George? Why was it growing more vigorously than one would expect, for a plant so far out of its range and typical habitat? I continued to ponder these questions, and again visited the site in October of 1996, this time with fellow botanists Evelyn Greene and Bob Duncan. We found the plant still thriving, bearing numerous strobili that

passed puffs of spores into the air upon receiving only slight taps of the finger. We felt a compulsion to look for curlygrass fern as well, but, of course, without success. The season was late, but curlygrass fern has been reported to thrive under the ice during the early spring on Long Island, so you never know.

This unique field experience has given me renewed energy and an increased desire to find plant species out-of-place. It can be fun to up-end the conventional wisdom once in a while, and I highly recommend it to all.

Editor's Note:

This is a case of a totally unexpected find in an area that had been very carefully surveyed for aquatic plants in the 1970s. I have spoken with both Eugene Ogden and Ken Dean, co-authors of the widely-used *Field Guide to the Aquatic Plants of Lake George, New York* (1976), and they assured me that the site of this recent discovery was well-searched in the past. They are confident that their botany team would have found the plants if they had been there 25 years ago. This leads me to believe that the population found by Micheal Corey represents a recent invasion of upstate New York by Carolina clubmoss.

R. Mitchell

Literature Cited:

- Cobb, B. 1956. A Field Guide to the Ferns. Houghton Mifflin Co., Boston.
- Fernald, M. 1950. Gray's Manual of Botany, ed. VIII. American Book Co.
- Ogden, E., J. Dean, C. Boylan & R. Sheldon. 1976. Field Guide to the Aquatic Plants of Lake George, New York. N. Y. State Mus. Bull. 426.
- Small, J. 1935. Ferns of the Vicinity of New York. Dover Publ. Edition. New York.
- Wherry, E. 1961. The Fern Guide. Doubleday & Company. Garden City, NJ.

Note: some illustrations used in the newsletter have been modified from Gleason, 1952, N. Y. Botanical Garden.

***Hydrocotyle ranunculoides* L. f., a New
Native Species for New York -
by Ted Grisez, Warren, PA.**

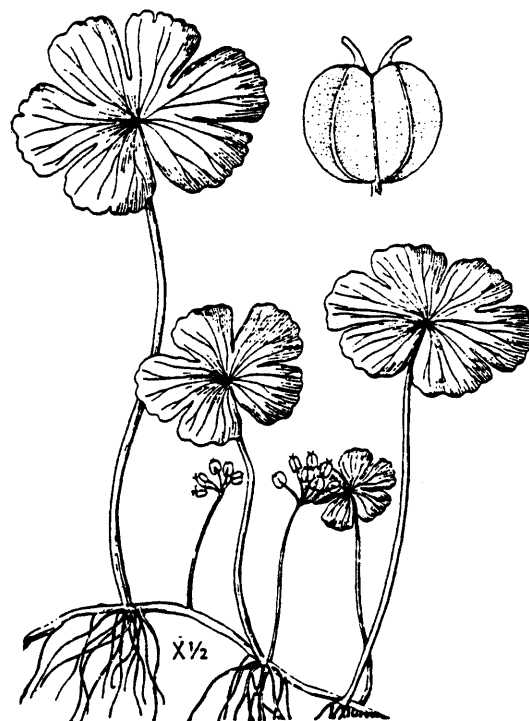
Last year (1997) I discovered *Hydrocotyle ranunculoides* L. f., BUTTERCUP PENNYWORT, in the James Audubon Society's Burgeson Sanctuary in Chautauqua County. It was not represented in the NYFA Atlas (1990), and has now been confirmed to be a new state record for New York.

In August of 1981, I had found a population of this species in Akeley Swamp (State Game Lands 282) in Warren County, Pennsylvania, just a mile from the New York state line. It was growing in a shrub-dominated swamp at the base of an abandoned railroad grade. Since that time, it has appeared in three other wetlands in the area, where I had not seen it before. Surprisingly, the nearest location on record in Pennsylvania at that time was in Franklin County, about 150 miles distant, in the south-central part of the state.

When, in September of '97, I located the plants in New York, they occurred in an eight by four-foot stand in Big Pond in the Audubon Sanctuary. This location is less than three miles from the nearest Akeley site in PA, and all populations found by me occur in the broad valley of the Conewango Creek.

The New York plants were rooted on a large, submerged stump base and the dead roots surrounding it, about six feet out in the open water from the dam and kettle. Most of the plants were emergent, but some leaves were floating. No flowers or fruits were to be seen. Since the water was deep, I waited to return on September 29 with a long stick fitted with a hook to retrieve specimens.

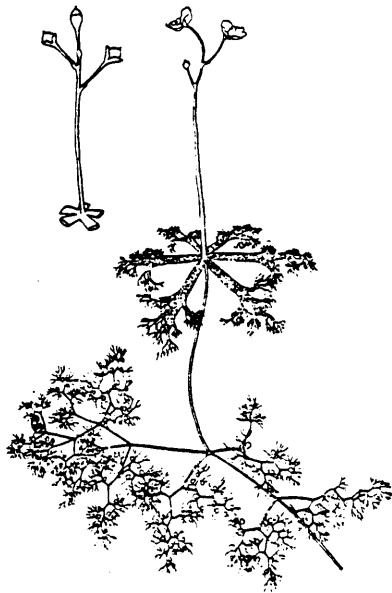
Hydrocotyle ranunculoides is distinctive, differing from *H. americana* L. in its more robust habit, and flower clusters borne on long peduncles (up to 6 cm.). It is usually an emergent or floating-leaved aquatic, while *H. americana* is a more delicate plant, found on the mud of springs and seeps in the area. Like the leaves of *H. americana*, those of *H. ranuncu-*



***Hydrocotyle ranunculoides* L. f.
BUTTERCUP PENNYWORT, new to New York
State, was recently found in Chautauqua
County. It is widespread to our south and
west, ranging to South America and North
America's Pacific Coast.**

loides are not peltate, but they are deeply divided, with more of the appearance of a buttercup.

Water levels fluctuate in Big Pond as well as the Akeley Swamp sites in Pennsylvania. Some populations in the Akeley area have come and gone. Since the New York population showed no fruit production during the year I found it, we will have to wait and see what happens. I will be checking on it again in the 1998 season.



***Utricularia radiata* Small, a Floating
Bladderwort, Disjunct in the Southern
Adirondacks -
by Evelyn Greene**

On October 13, 1997, I carried my 13 pound Hornbeck canoe a couple of miles into Bennett Lake, a 32-acre pond (elevation of 1,162 ft) near Wells, NY (Hamilton County), in the southern Adirondacks. I propel the nine-foot Kevlar vessel with a kayak paddle, which makes it very maneuverable -- great for exploring the edges of backwoods ponds, beaver flows and boggy channels.

All this season, I've been using a Cornell pH kit to test various waters, partly to develop a technique that might predict where orchids will occur. Bennett Lake tested at pH 5.8.

With my canoe in the water, I headed to the right of the point where the trail comes in, and I was soon confronted with a small, unfamiliar bladderwort whose yellow-flowered stalks floated on rings of pontoon-like bladders. It grew in shallow water with a yellow-eyed grass (*Xyris montana* Ries). I took a few plants (there were about 100) and showed them to a couple of local families, who were quite amazed to see a real carnivorous plant.

Then I carried my canoe another mile, to Middle Lake, which is the very same size as Lake Bennett, though a little higher (1,495 ft).

The pH measured the same. Having seen a lot of yellow-eyed grass there earlier, I hoped to find the bladderwort again, but, canoeing all around the lake, yielded none.

The plants I had found turned out to be *Utricularia radiata* Small. No wonder they were new to me. I botanize the Adirondacks, and this species had not been found in New York north of the Hudson Highlands in Orange County, some 200 miles to the south. I've been on many dozens of ponds around here, and never seen this puzzling disjunct before.

Editor's Note:

The other populations of this species north of the Coastal Plain are in the vicinity of West Point (Orange County). The lakes where they occur have an oligotrophic, northern aspect. I wonder if this little bladderwort has found a brand new niche to which it was somehow preadapted? Its sister species (*U. inflata*), as most of you know, has only recently been found in New York (nearby in the Hudson Highlands) and in Massachusetts. Are both on a northward trek? It will be interesting to see if more confirming evidence accumulates.

**Significant Botanical Discoveries of 1997 -
Compiled from information received at
the New York Natural Heritage Program.
by Steve Young**

Three species ranked SH (historical, not documented in over 15 years) were reported or discovered in the field in 1997. That keeps our record going for finding at least one SH species in each of the last eight years. Other significant discoveries added a plant species new to the state, new records for species with one known extant occurrence in the state, and some interesting disjunct range extensions. Unfortunately there was also one loss to report. There is a great deal of botanical work going on in New York, and I expect that such discoveries will continue in 1998. Congratulations to all the successful explorers. (State ranks listed here are those assigned to the taxon at the beginning of the 1997 field season.)

***Poa glauca* Vahl G5 SH**

There were only two historical records for this rare grass from the Adirondacks, both from the tops of talus slopes. Both localities were searched but plants relocated by the author at only one of the sites where they had not been documented since 1956. The second site was not fully searched and will be resurveyed this year.

***Pyrola minor* L. G5 SH**

There were two historical localities for this plant in the Adirondacks as well, one last documented on Whiteface in 1962 (seen subsequent to this year but identified as another species) and the other near Wilmington Notch in 1958. Both sites were relocated and surveyed by the author (Steve Young).

***Strophostyles umbellata* (Muhl. ex Willd.)**

Britt. ex Britt. & Brown G5 SH

Information was received from Ray Mattarazzo on the discovery of this plant on the SW side of Staten Island in 1995. It had not been seen on the island since the early 1900s and was considered extirpated.

***Hydrocotyle ranunculoides* L. f. G5 S1**

A new species for the state, found in southwestern New York (Chautauqua County) by Ted Grisez of Warren, PA.

***Atriplex glabriuscula* Edmondston G4 S1**

Information was received from Chris Mangels that confirmed the second occurrence of this rare beach plant in New York and the first for Long Island, on the north fork. The other occurrence is not far away on Fishers Island.

***Carex tenuiflora* Wahl. G5 S1**

David Hunt and Anne Johnson found the second state occurrence for this sedge in a large swamp in Saint Lawrence county.

***Diarrhena obovata* (Gleason) Brandenb.**

G4G5 S1

Information provided by Spider Barbour has documented a second state occurrence for this rare grass, this time in the Wallkill valley. The only other New York site for this species was also discovered by him in Ulster County.

***Gaylussacia dumosa* (Andr.) Torr. & Gray
G5 S1**

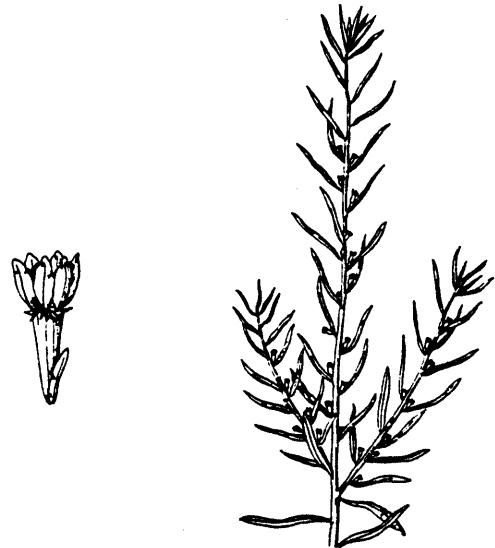
Two new records were added to the single state occurrence for the dwarf huckleberry. Adele Olivero found the first upstate record in Putnam county during a survey of the Great Swamp and Dana MacDonald found another large occurrence SE of Riverhead where it was last documented in 1920.

***Lycopodiella caroliniana* (L.) Picchi-Sermolli G5 S1**

Two new discoveries now add to the one extant population known from the state. Bob Zaremba found plants on a NYFA field trip to the Montauk area (Suffolk County) and Michael Corey found a disjunct population in a marsh at the south end of Lake George (Warren, County).

***Lythrum hyssopifolia* L. G5 SX**

Troy Weldy and Richard Lynch confirmed that the only currently-known state occurrence, four plants on Staten Island, was destroyed by a housing development. Richard attempted to



***Lythrum hyssopifolia* L., an annual loosestrife, distributed from Maine to Ohio, was formerly known in New York State on Staten Island only. A recent rescue attempt was not successful, and it may be extirpated.**

rescue the plants by transplanting them, but he was not successful. There is only one other known historical record, from New Dorp, Staten Island, which is probably also extirpated.

***Paspalum laeve* Michx. var. *circulare* (Nash)
Fern. G4TU S1**

Information received from **Chris Mangels** confirms the second state occurrence of this rare grass. It was found in a wetland in the town of Islip, Long Island (Suffolk County) in the vicinity of a location where plants had been collected in 1929.

***Smilax pulverulenta* Michx. G4G5 S1**

The second, and now the largest, state occurrence was found by **Troy Weldy** on Staten Island where the only other populations occur. Over 50 plants were found along a stream in rich woods.

***Utricularia radiata* Small G4 S2**

This species was known previously from only Suffolk and Orange Counties, until a disjunct population was found by **Evelyn Green** in a pond near Wells in the southern Adirondacks (Hamilton County).

Book Review:

Orchids of the Northeast (A Field Guide)

by **William K. Chapman**

Syracuse Univ. Press (1997), 200 pp., 60 photos. Paperback: \$17.95

This volume is a welcome surprise, since simple, clear writing, excellent organization of subject matter and good photography are seldom found together in a single book, especially in a field guide. First of all, it was written with a clear purpose in mind -- to provide an enjoyable and aesthetically pleasing way to identify wild orchids in the Northeast. The author dispenses with the verbiage, tells you what you need to know about the plants in order to identify and understand them and gets on with it.

There is a brief section called "What is an Orchid," and a cursory illustrated key that takes you to page numbers of orchid groups or to additional keys. These are also illustrated, and generally do not belabor the obscure technical characters. The author is wise enough to know that we will be using the pictures to identify many of the obscure species anyway. It's not the exact technique used by Newcomb's wildflower guide,

but close enough to bring accolades in this review.

The genera are organized into logical groups: slipper-flowers, lady's-tresses, etc., and each species and variety is illustrated by a color photo taken by the author or a contributor. Most of the photos are quite well-focused, with good color balance and depth-of-field. All are adequate, and some are simply breath-taking.

Information about each species is organized into a sequence of paragraphs on subjects ranging from etymology to a brief morphological description. "Flowering season" refers to the bloom-time within the geographical range covered by the book, mercifully leaving out February flowering times for species that range into Mexico and Florida. The distribution ranges are described briefly, in a generalized way, and no attempt is made at mapping -- again a relief.

I find this book useful on several levels, but I would buy it, if for no other reason than this: the author knows us (the users) well. He very rightly surmises the following about me: I am interested in the group, but I am no expert. The most frequent reason for me to consult his book, either in the field or at home, is that I hold in my hand (or memory) an orchid that I want to know more about. He helps me identify it and shows me what it looks like. He does not get preachy or high-handed with me, but explains things carefully and simply, occasionally adding a pertinent anecdote. That's what a good teacher does. Add to this the glossy beauty of the book and you have a winner.

Richard S. Mitchell, NY State Museum

-- Share With Us --

Do you have field botany stories, suggestions for field trips, botanical discoveries, observations or almost anything interesting to share with the NYFA membership? I welcome articles, letters to the editor and all comments, positive or negative. We don't accept payment to advertise products, but if you have recently published a book, monograph or pamphlet, and want us to review it here, send a copy. Don't be shy. My mailing address is on the banner, and my e-mail is: rmitch3@mail.nysed.gov (Editor)

The New York State Museum invites you to

THE NEW YORK



NATURAL HISTORY CONFERENCE V

October 14 -17, 1998

A Forum for Current Research

The University of the State of New York
The State Education Department

The New York Natural History Conference is a forum for researchers to present current information on natural history in New York State and northeastern North America and for identifying critical research needs. Furthermore, it fosters friendships and rekindles interests in natural history by bringing together researchers in all related disciplines.

There is one major change in the conference this year. Instead of focusing only on the biological aspects of natural history, Conference V will broaden its focus to include other areas of research as they relate to the subject of natural history, including anthropology, geology and history. Here is an opportunity to include researchers in a truly interdisciplinary approach to the subject of the natural history of New York. But also it is an opportunity to bring together in the audience groups of people that will profit from a mixing of the disciplines.

The program includes a conference speaker, workshops, paper sessions, poster sessions, field trips, illustrators' gallery, book market, and one dinner. All sessions will be open to contributed papers and the number of concurrent sessions will be minimized to reduce conflicts.

WORKSHOPS AND FIELD TRIPS

Wednesday and
Saturday, October 14
and 17

Special feature of this conference will be natural history workshops and field trips for educators, students,

researchers, and others. The list of workshops and field trips is not final. Potential organizers should narrow the subject matter of their workshop or field trip so that it can be successfully completed in the time frame of the course, organize the material for a multi-disciplinary audience and expect to devote 4-6 in-class hours for the workshops and 6-10 hours for field trips. Please browse our web page for additional information.

SCIENTIFIC PAPERS AND POSTERS

Thursday and Friday,
October 15 and 16

All sessions will accommodate contributed papers. Twenty-minute oral presentations will be arranged in sessions. Sessions will be organized to focus on a topic rather than

just a discipline. Suggestions for sessions are welcome. Participants are encouraged to consider poster presentations. Posters will be displayed in a prominent location, and time will be scheduled for discussions with the authors that will not conflict with concurrent sessions. Abstracts of all presentations will be published in the conference program. Student presentations are encouraged. Researchers interested in organizing symposia are encouraged to submit their proposal to the organizing committee. Please examine our web page.

ILLUSTRATORS' GALLERY

An exhibit of natural history illustrations will showcase the best works of natural history illustrators and cartographers.

SCHEDULE

Wednesday, October 14
Natural history workshops will be taught during the day, and annual meetings of other natural history associations will be held in the evening. Registration will be available.

Thursday, October 15
Conference registration will be available until 5:00 p.m., posters will be set up from 8:00 to 12:00, and contributed papers will begin in the morning. The dinner and special lecture will be held in the evening.

Friday, October 16
Contributed sessions will continue from 8:00 a.m. to 5:00 p.m. Posters and vending booths will remain until noon.

Saturday, October 17
Workshops and field trips are planned.

The schedule is subject to change. Final details of the meeting and a formal call for papers will appear in a second circular. The deadline for receipt of abstracts is August 15, 1998. If you are interested in attending the conference or receiving further information, please return the form below or call (518) 474-5812 or e-mail smurphy@mail.nysed.gov. Check our web page for information updates.

www.nysm.nysed.gov/

When available, forms can be downloaded from the web page.

The New York State Museum is a program of The University of the State of New York/The State Education Department.

NYFA Field Trips for 1998

Trip 1: Back by popular demand: join us on a tour of the **Ice Meadows South of the Glen** and on the botanically unique summit of **Whiteface Mountain: June 27 - 28** We will stay Saturday night near Plattsburgh, and also visit areas damaged by the recent ice storm. Come one day or both.

Trip 2: The Western Adirondack Wilderness: August 29 - 30 Led by David Hunt, we will visit Spring Pond Bog, old-growth forest areas, and communities damaged by the 1995 blowdown.

Details: contact **Bob Zaremba** at (518) 273-9408 ext. 226 (Home: 274-7419) e-mail: rzaremba@tnc.org

The New York Botanical Garden to Hold a Symposium on Northeastern Flora

The New York Botanical Garden will sponsor a one-day event entitled "The Vascular Plants of the Northeastern United States Symposium" on Saturday, April 18, 1998.

Inquiries directed to Dr. Scott A. Mori, The New York Botanical Garden, Bronx, NY 10458-5126

e-mail: scharles@nybg.org. Also, you might want to ask about their new volumes of illustrations, recently produced to supplement the Gleason & Cronquist manual.

Northeastern Fern Identifier Now Available on CD-Rom

For a limited time, you may purchase the new CD-Rom fern identifier at a reduced price of \$14.95. This so-called pre-release edition will be identical to the final product except for the cover design. It is issued **only on CD-Rom disc, for IBM compatible SVGA-monitor machines**. Almost all machines sold since 1992 are of this type. We have heard that some so-called "SuperMac" machines from Apple will also run it, but only if they are 100% IBM-compatible.

Features:

- Point and click identification, providing the user with a random choice of character-screens
- Full color photos, in their native habitats, of all 70 fern species native to the northeastern U.S. and eastern Canada, from Maryland to Newfoundland
- Photo blow-ups of fertile fronds, scanned from living materials and herbarium specimens
- Name-search and slide-show options
- Text on ecology, variation, similar species, synonymy, common names and geographic distributions.

How to Order: Make out a check to N.Y. State Museum Pubs. for \$14.95 + \$4.00 shipping & handling (NY residents add appropriate sales tax for your local area)

Request: Northeastern Fern Identifier (CD-Rom, Pre-Release Edition) by R. Mitchell & L. Danaher

Publication Sales

**New York State Museum
Cultural Education Center
Albany, NY 12230**

Note: For orders received after April 30, 1998, the price will be \$19.95 + tax & shipping.

