NYFA Newsletter

New York Flora Association
of the New York State Museum Institute

Vol. 5, No. 4 Co-Editors: Richard S. Mitchell Robert E. Zaremba December - 1994
New York State Museum The Nature Conservancy
ADDRESS ALL CORRESPONDENCE TO NYFA, 3140 CEC, ALBANY, NY 12230 - DUES $10 PER YEAR

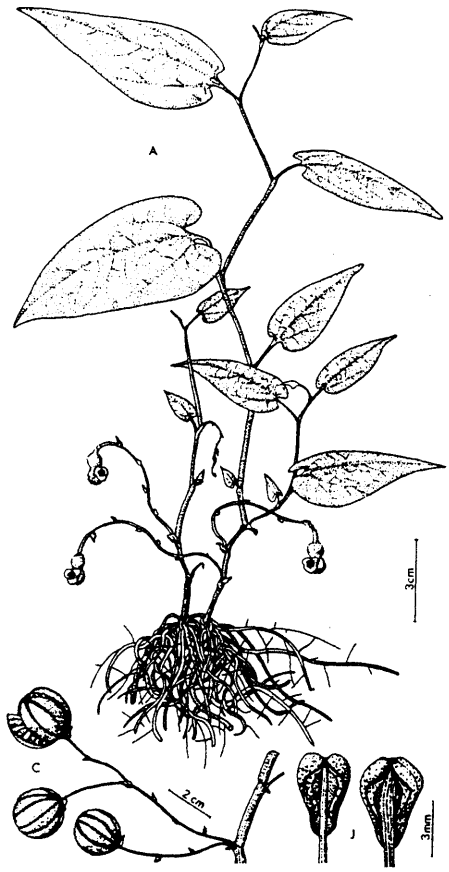
Virginia Snakeroot (*Aristolochia serpentaria*) Rediscovered in New York -

by Richard Mitchell

To me, one of the more fascinating rarities reported historically for New York State has always been Virginia snakeroot (*Aristolochia serpentaria* L.), a southern plant, unusual in appearance and long-fabled for its mysterious qualities, poisonous nature and uses in folk medicine. When I first came to the State Museum nearly twenty years ago, Stanley J. Smith, the very knowledgeable botany curator at the time, told me of seeing a tiny sprig of what he thought to be snakeroot in Ulster County in 1960, but said he did not collect it for fear that he might extirpate a pioneering colony. Other than his tentative field identification of a single plant, the species had not been reported for New York State (according to our records) since 1895. Stanley suggested that I carry out further searches in the southern reaches of the state, but warned me not to look for snakeroot in river floodplain habitats where I had seen the plants in Florida.

So, I was intrigued (and, I must admit, a little dubious) when in the field with Spider Barbour in Harriman Park this past summer, he said to me, "Dick, guess what I think I found over by Spruce Pond? I didn't get any, because there wasn't much of it, and I didn't see any flowers. Maybe you and Jack Focht and I should go back over there and check it out today." At this, I started bouncing around in my Jeep seat, asking: what about the habitat, and did he look under the leaf litter, because that's where the odd little plants bear their flowers and fruit.

The site we visited that afternoon looked very uninviting and totally unlike snakeroot habitat in my opinion, but the words of Stanley Smith kept ringing in my ears from 18 years before: "Don't look for it in the lowland river bottoms in the northeastern United States." After we'd climbed several very steep slopes and scoured the bases of precipitous calcium-rich cliffs for about forty five minutes, Spider finally called out from the very top of the slope above me that he had relocated the plants.



Aristolochia serpentaria L. **Virginia snakeroot or serpentary, rediscovered in New York State after not being collected here for 99 years.**

They were found growing in dark, water-saturated soil near the apex of a steep talus slope in full sun, and they were in fruit at the time they were collected. The site is in Orange County, near Spruce Pond -- probably **not** coincidentally the area where we found *Utricularia inflata* Walt. in New York State for the first time last season.

Later in the summer of 1994, Spider Barbour and Jack Focht located a second population of snakeroot, this time on limy ridge just outside Harriman State park.

For a number of reasons, Virginia snakeroot is a welcome return to the known New York flora, after going nearly a century uncollected. It carried a rarity status of SH (historical), and will now be reclassified by the Natural Heritage Program as E (endangered) with an S1, the highest priority code for state rarities. It is a member of a fascinating pantropical family, mostly of vines, whose specialized flower structure and stem anatomy are often taught in botany classes. My own first exposure to plant stem structure in a general botany class involved a thin-cut cross-section of an *Aristolochia* vine under the microscope, and I suspect that some of you had the same experience.

Virginia snakeroot is one of the few *Aristolochia* species that are not called "pipe-vine." Its wiry, sprawling stems are somewhat vine-like, but they tend to sprawl under the leaf-litter, where the purplish, contorted, tubes of their small flowers are hidden from all but small beetles, who probably aid in their pollination.

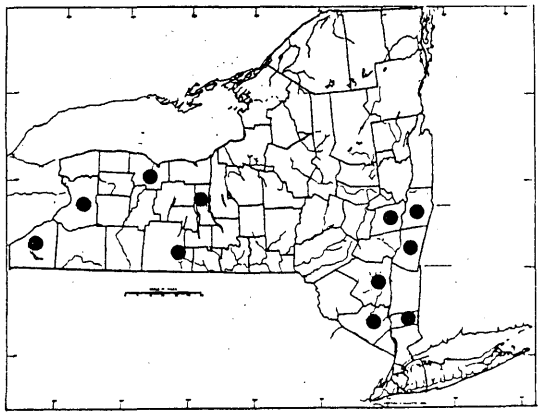
The plant is also known as "serpentary" in folk medicine, where dilute concoctions have been used as a remedy for a number of ailments from fevers to typhoid and dyspepsia, but with questionable results. Once included as a critical ingredient in the so-called "snake medicines" of past centuries, the extract of this plant is now in general disuse. Two applications that apparently have had some beneficial effects were as a gastric stimulant and a fever-retardant after snake bite. Snakeroot is a very dangerous plant if ingested in any quantity, with documented cases of poisoning in both livestock and humans, so I do not recommend its use.

Those of you living from Ulster County south will want to keep an eye out for this rarity, since we know now that it still lurks about.

Two Galloping Grasses -

by Gordon Tucker, New York State Museum

This is an update on the status of two of our graminoid invaders that have recently become far more widespread than the literature would indicate:



***Diplachne acuminata* Nash - Sprangletop**

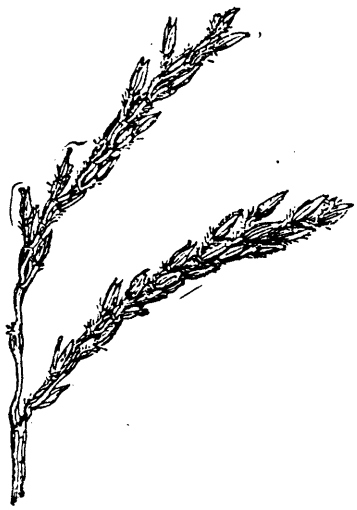
This European species was listed in Mitchell's 1986 checklist as a "rare introduction" in New York State. In 1990, the NYFA Atlas had no counties dotted, and there was no card for the species in Master File of Plant Distributions at New York State Museum botany Office. This grass is often historically listed as *Leptochloa acuminata* or treated as a variety of *D. fascicularis* (see Dore & NcNeill's Grasses of Ontario, 1980).

It appears that *Diplachne acuminata* was first collected in New York State in recent times by Bill Crins and Ken Dean at the Port of Albany in 1989. My first encounter with it was near Brewster, Putnam County, on Friday, August 13, 1993. [A good day for botany, but lousy for driving: on the way home, in Dutchess County, I was side-swiped by a pickup that kept going.] In 1990, Alison Cusick collected it in Chautauqua, Erie, Monroe, and Seneca counties, and I have now collected it in 1993 and 1994 in Albany, Ulster, Orange, Putnam, Columbia, and Rensselaer

Diplachne acuminata Nash SPRANGLETOP

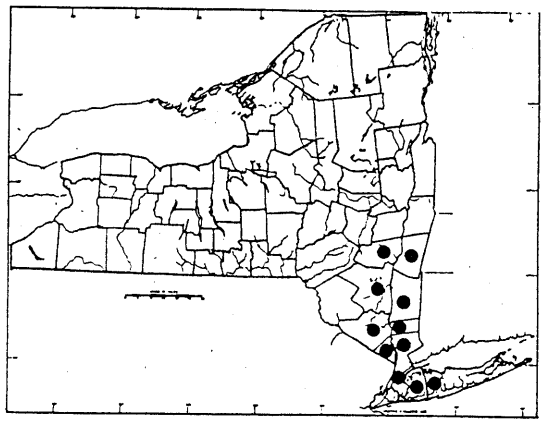
Counties. We currently have specimens from 11 counties at the New York State Museum (see map).

It is frequent along the Thruway from Albany south to Exit 16 (Harriman, Orange Co.), which is as far south as I regularly go. Typically it grows at the edge of the pavement, often where water stands in puddles for a day or two after rain. The soils tend to be silty to sandy rather than gravelly. It resembles *Panicum dichotomiflorum*, which grows in similar places, but *Diplachne* has spikelets of several florets and the lemmas are short-awned. Living plants are often tinted with reddish-pink, with some of the stems procumbent (the appearance of a clump reminds me a giant, pinkish stellate hair). I have looked for it along Route 30 from Schoharie to Hamilton counties, but I've not seen it there yet. In the recent Pennsylvania atlas (Rhoads & Klein, 1993, The Vascular Flora of Pennsylvania), it is recorded in Erie County, PA, and also in a string of sites suggesting migration along Interstate 76 (The Pennsylvania Turnpike). I propose the common name, "Turnpike Sprangletop," for this rapidly-spreading, exotic grass. Ed Cope of Cornell informs me that there are no New York specimens of it at the Bailey Hortorium.



Microstegium vimineum (Trin.) A. Camus
JAPANESE STILT-GRASS.

This grass, originally introduced from Asia to the southeastern United States, spread northward since the 1930s, and has now become a noxious roadside and open-forest invader in the areas where it has been found in the Hudson Valley. It was also not listed in the NYFA Atlas, or state checklist. Its presence in New York was brought to our attention by Bob Zaremba in the late 1980s, who, with David Hunt,



subsequently reported it from Dutchess and Rockland counties (Rhodora 94: 167-170. 1992). It was first collected at Iona Island in 1987 by Zaremba, where Jack Focht (Director of the Trailside Museum, Bear Mtn. State Park) had noted it in the mid-seventies, but was not sure what it was. It is now widespread and abundant throughout most of Harriman and Bear Mountain State Parks, as well as adjacent West Point, including Constitution Island on the east side of the Hudson River in Putnam County. Spider Barbour has collected it at two sites in Ulster County, and Gretchen Stevens has seen it in Westchester County. Michael Nee collected it at The New York Botanical Garden, Bronx County, in 1991, the same year Bob Zaremba added it to the Nassau County flora. Steve Clemants then found it in western Suffolk County in 1992. At West Point, it occurs in several sites above 1000 feet in elevation, suggesting a possible potential to grow farther north along the Hudson. I visited several sites along the river in Greene County with no success until late October, 1994, when I found it at the boat launch at the mouth of Murderers Creek in Athens, right along the shore of the Hudson. Spider Barbour has not found it at Tivoli Bays in northern Dutchess County, or at Stockport Creek in Columbia County, areas where he has conducted extensive field work. When I checked with him recently, he had found it in Columbia County, at Rogers Island by the Rip Van Winkle Bridge, just a few miles south of Athens.

If you find this, or the preceding species in your area, please send a specimen to me, Gordon Tucker, at the New York State Museum in Albany (e-mail address: gtucker@museum.nysed.gov).

We seek your input. Please send articles or letters to the editor to NYFA, c/o Richard S. Mitchell, 3140 CEC, Albany, NY 12230.

Staten Island NYFA Field Trip Report -

by David Hunt, The Nature Conservancy, New York Regional Office.

On Saturday, August 27, thirteen participants attended a field trip to four botanical sites on Staten Island. The trip was led by Dick Buegler, president of Staten Island's Protectors of Pine-Oak Woods. The seven-hour trip took us from the Serpentine Art and Nature Commons, in the north-central part of the island, to Clay Pit Ponds State Park in the southwest. In addition to a rich wooded stream ravine we explored serpentine barrens and sandy blackjack oak-post oak barrens. These two community types are essentially restricted, in New York State, to Staten Island. Highlights of the trip included the flora at Grymes Hill and Seaview, growing on shallow serpentine bedrock, high in magnesium, nickel and chromium. At Grymes Hill, two state rarities, *Asclepias viridiflora* and *Polygonum tenue*, were observed growing among other plants characteristic of the area, including: *Rhus aromatica*, *Solidago nemoralis*, *Andropogon gerardii* and *Polygala verticillata*, as well as aggressive, exotic species like *Robinia pseudo-acacia*, *Ailanthus altissima* and *Lonicera japonica*.

Asclepias viridiflora **Raf.** GREEN MILKWEED

At Seaview, the state rarities: *Asclepias viridiflora*, *Agalinis virgata* (and possibly *Hypericum dissimulatum*, which may be a hybrid) were observed, along with more frequent plants such as *Myrica pensylvanica*, *Solidago nemoralis*, *Andropogon gerardii*, *Sorghastrum nutans* and *Bartonia virginica*. The rich wooded stream ravine of "Bloodroot Valley" offered a flora more characteristics of upstate New York. We saw: *Tilia americana*, *Kalmia latifolia*, *Hydrophyllum virginianum*, *Collinsonia canadensis*, *Sanguinaria canadensis*, *Caulophyllum thalictroides*, *Heuchera americana*, *Actaea pachypoda* and *Adiantum pedatum*. The ravine bordered an unusual forest type for New York, dominated by *Liquidambar styraciflua*, with occasional *Liriodendron tulipifera* and prolific populations of the state rarity *Smilax pulverulenta*. Finally, we observed the floristic assemblages of the sandy blackjack oak-post oak barrens of Clay Pits Pond State Park. This area is characterized by deep, exposed xeric sands, underlain with iron-rich soils representing unglaciated Cretaceous marine deposits historically known as the "Sandy Grounds." The visit to these barrens was highlighted by observations of state rarities: *Pinus virginiana*, *Quercus marilandica*, *Eupatorium hyssopifolium* var. *laciniatum* and *Eupatorium serotinum* (which Eric Lamont argues grows naturally here). Other characteristic taxa included: *Quercus stellata*, *Carya tomentosa*, *Sassafras albidum*, stunted *Fagus grandifolia*, *Panicum virgatum* and *P. oligosanthes*. Nearby wetlands also harbored interesting plants, such as *Saururus cernuus* and *Vernonia noveboracensis*. Great thanks and appreciation to our leader, Dick Buegler, who is a virtual encyclopedia of Staten Island botanical and conservation history. It is hard to believe that such a wealth of native plant diversity remains within a densely inhabited borough of New York City.

Seeking Information on Blackjack Oak and Willow Oak --

I have been compiling information on the natural distribution of *Quercus marilandica* (blackjack oak) and *Quercus phellos* (willow oak) in New York. Currently, I am aware of about 30 populations of *Q. marilandica* and one of *Q. phellos*, all from downstate New York. If anyone knows of populations of these species of which I may not be aware, I would appreciate receiving information. Either write to me **David Hunt, The Nature Conservancy, 91 Broadway, Albany, New York 12204 or call evenings or weekends 518-279-4124.**

DUES - 1995 dues are now requested; please check the newsletter envelope. The number above your name indicates the last year you paid dues. Even if it's 1992, $20 will reinstate you. If you have already discarded the envelope, wait until you receive a more intense dues request in early 1995.

Please note that you have received four newsletters in 1994, and we plan to continue this practice in 1995. Happy New Year!