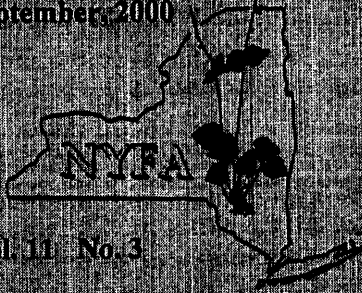


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NYFA Newsletter

New York Flora Association
of the New York State Museum Association

Richard S. Mitchell, Editor, New York State Museum
Correspondence to NYFA - 5140 CEC, Albany, NY 12230
email: rmitch8@ecdom.ecdom Join \$15 - Dues \$10

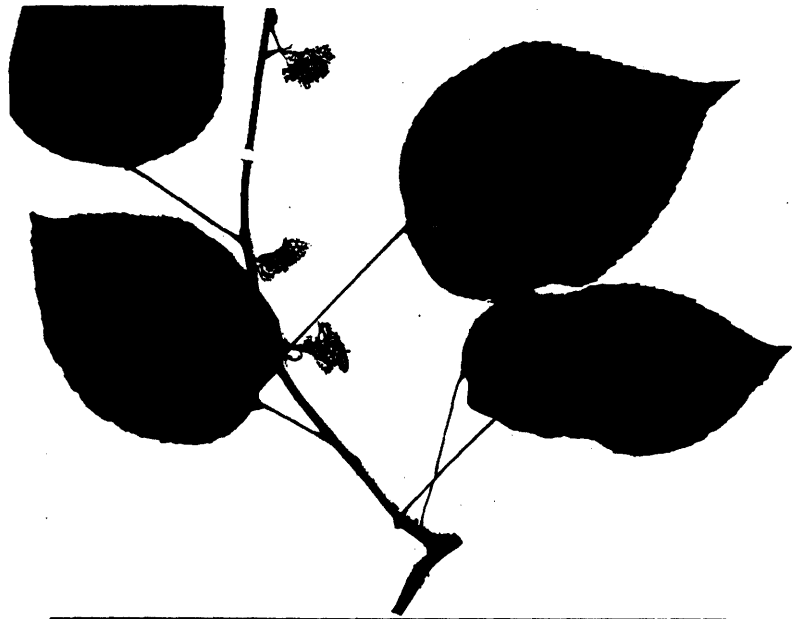
Silver Vine, an Oriental Kiwi Berry, Found Escaping Cultivation in Sterling Forest by Richard S. Mitchell

Yes, we're out there again – those semi-courageous codgers of Highland botany, still pursuing the Hudson Valley flora, its rarities and botanical oddities, this time on a renewed grant through the N.Y. Biodiversity Research Institute and PIPC.

How would you like to find a wild-growing kiwi way up here in the north? I was out in the field with Jack Focht and John Yrizarry on July 5, (Spider Barbour had strained his back), and I decided that we should re-investigate Southfield Furnace, a historical site that has been restored by "Scenic Hudson" on lands soon to be included within Sterling Forest State Park. The week before, we had found an odd honeysuckle (*Lonicera xylostium*) and the European barberry (*Berberis vulgaris*, not *B. thunbergii*) on old railroad beds nearby, so we returned in quest of more garden escapes or unusual weeds.

The furnace is a fine looking (1805) structure, stories tall, with stone arches, rebuilt and cabled. There is a chain link fence to discourage campers and picnickers. While Jack and John went upstream past the furnace, I stayed on state lands along a wooded stream at the periphery of the property, where I searched a substrate of limestone and slag from the furnace, which has offered some interesting calcium-loving native species, such as *Osmorhiza longistylis*, *Phryma leptostachya* and introduced *Pachysandra terminalis*, all of which were new to our Sterling Forest list.

Of even more interest was a massive, kudzu-like vine, thoroughly mixed in with the invasive oriental bittersweet (*Celastris orbiculata*), seeming to surpass it in vigor in many places (which is hard to do). The plant was either an escape from a former planting near the furnace or a possible hitchhiker on fill dirt. It has spread widely into the woods and rocky stream course, and now occupies hundreds of



Silver Vine, *Actinidia polygama* (Sieb. & Zucc.) Maxim. – a kiwi found escaping around an old coke furnace in Sterling Forest (Orange County, NY)

yards of space. It is barren of fruits at this site, but extremely efficient as a vegetative reproducer.

The vine was completely unknown to me or either of my two companions, who had also found it on their foray past the furnace. It is a large plant, vining up to 50 feet, with heart-shaped leaves much like Japanese bamboo, but larger creamy flowers, up to 3/4 of an inch across, in leaf axils, with copious golden stamens like mock orange! In addition, some of the mature leaves are pure white, lacking chlorophyll except at the margins.

When I brought specimens back to the museum, Chuck Sheviak was also dumbfounded, until I mentioned the white leaves. He said that it could be some kind of kiwi, but it seemed far too north. So I checked the books and determined it to be an *Actinidia*, native to Asia and hardy up to Zone 5. Chuck now remembers seeing a similar species of vine, probably *A. kolomikta*, in Russia.

It is the first member of its family to be reported from the state. I searched the population in July, August and September, but found no fruits. The plants all seem to be male, and perhaps represent a single vegetative clone. We will try to determine its potential to become an invasive weed in New York some time in the future. A distinct, but related species, *A. arguta*, has been reported by Pamela Weatherbee as an escape in western Massachusetts.

***Iris virginica* L., Southern Blue Flag,
Restored to the Flora of New York State
by P. M. Eckel, Buffalo Museum of Science,
& J. Bissell, The Cleveland Museum of
Natural History**

In early spring of 1999 the first author was informed that a native species of *Iris* new to our region had been discovered by the second author along the Niagara River on Strawberry Island and Beaver Island State Park, New York. She immediately sent a recently collected specimen of *Iris* from Buckhorn Island State Park, in a marsh adjacent to the Niagara River, and the second author verified it also as *Iris virginica*.

The only *Iris* in the Rare Plant Status List for New York (Young 1997) was *Iris prismatica* Pursh, concentrated near the coast in eastern New York state. On the other hand, Mitchell and Tucker (1997) reported *Iris virginica* var. *shrevei* (Small) Anders. in the state checklist, as endangered, indicating that no known extant sites occur in the state (that is, it was considered extirpated).

Iris virginica var. *virginica* occurs on the southern coastal plain, and the var. *shrevei* is a name used for plants of inland stations. The only other native *Iris* reported for the western New York counties has been *Iris versicolor* L., although *I. virginica* (without variety) was noted for the Province of Ontario by Morton and Venn (1984). Voss (1972) reported *Iris virginica* [= var. *shrevei*] as very common throughout Michigan south of the Northern Peninsula. *Iris versicolor* has fewer records, and these are from the central to northern part of that state, suggesting a northern affinity.

The second author had previously found *Iris virginica* in the early 1990s within riverine wetlands along Lake Erie, in Pennsylvania, where he reported it from Presque Isle as new to that state in 1993. In subsequent years, he found it at additional stations in Pennsylvania and inland along the Conneaut Creek. The plant becomes common inland west of Cleveland, but is generally restricted

to Lake Erie marshes east of that city. Records now occur for every northern Ohio county including wetlands associated with Lake Erie. He also was aware of its occurrence at Long Point in the Regional Municipality of Norfolk-Haldimand (Reznicek & Catling 1989).

Although these are areas mostly adjacent to Lake Erie, Voss' Michigan maps (1972) indicate inland stations in nearly every county in "Ponds and lake shores, marshes and swales, ditches, stream sides, riverbanks and thickets, swamp forests, and rarely bogs," suggesting that perhaps some inland reports of *Iris versicolor* in western New York and the Regional Municipality of Niagara may be *Iris virginica* instead. The marshes along the Niagara River are similar to those at Long Point and Presque Isle, strongly indicating the likelihood of *Iris virginica* occurring there.

Iris virginica is rather tricky to identify, especially from herbarium material. The best character to use in distinguishing it from *I. versicolor* is the length of the ovary, and some of us may be confused as to where this ovary is on our specimens. The 6 tepals (petals and sepals) in the genus *Iris* are attached [near] the mouth of the ovary, so the ovary is beneath the petals (epigynous). The ovary length is the length of this spindle-like structure from beneath the petals to a constriction just above the stalk on which the ovary develops (it is good to have a specimen to look at to see this). The ovary is large in *I. virginica* (1.8-3 cm), and smaller in *I. versicolor* (1-2 cm). The other good character is the nature of the colored spot on the sepal: see below. With some experience in the field, it will be noted that *Iris virginica* is a much more robust plant than is *Iris versicolor*.

***Iris virginica*:** OVARIES AT FLOWERING TIME (before fruit set) 1.8-3 cm LONG; base of expanded portion of SEPAL WITH A BRIGHT (not dull) YELLOW SPOT, FINELY PUBESCENT (not only papillate). Later in the year seeds round to D-shaped, irregularly and variously shallowly to deeply pitted.

***Iris versicolor*:** OVARIES AT FLOWERING TIME SMALLER, 1-2 cm LONG; base of expanded portion of SEPAL WITH DULL, GREENISH-YELLOW SPOT (not bright yellow), the shallow papillae shorter than the thickness of the sepal (not pubescent). Seeds D-shaped, with a more or less regularly pitted surface.

Voucher specimens of *Iris virginica* are deposited in the herbaria of the Buffalo Museum of Science (BUF) and the Cleveland Museum of Natural History (CLM).



***Iris virginica* L. var. *schrevei* (Small) Anders.
Southern Blue Flag, thought, until recently to be
extirpated from New York State.**

We encourage members of the Botanical Society to pay particular attention to stream-side blue irises in the coming field season. Local reports and specimens can be mailed or dropped off for verification or deposit in the herbarium at the Buffalo Museum of Science, attn. Botany Division.

ACKNOWLEDGMENT:

The authors would like to thank Paul Leuchner of the Army Corps of Engineers for information provided in support of this discovery.

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Editor's Note:

In the NY state checklist (Mitchell & Tucker, 1997), we were ambiguous in our treatment of *Iris virginica* var. *schrevei*, listing it both in the body of the text and under "excluded species." This was done because I knew of existing NY specimens misidentified as *I. virginica*, but was still convinced that the species had been collected in western New York historically.

New York State Herbarium (NYS) Suspends Acquisitions

The herbarium at the State Museum has now suspended most routine acquisitions. This follows the loss of its Collections Manager, Christine Tempe. Chris was forced to leave as a result of complications from the 'sick building syndrome' that has plagued the institution since the collection moved to its present location in 1979. Her departure is a major loss to the collection and to the institution.

Chris cannot be readily replaced, in either administrative or personal contexts. She was responsible for all processing of incoming materials, and without someone to physically inventory, record, database, mount, and insert specimens, the herbarium cannot continue to accept routine collections. Consequently, only collections of extraordinary significance, such as state records, type specimens, perhaps collections of species not seen in the state for 50 years, etc., will be accepted. Collectors who have material they wish to have considered for accession should contact the curator, Chuck Sheviak: csheviak@mail.nysed.gov or 518:474-5800 (don't leave voice mail; it doesn't work). We will notify you in this newsletter if the situation should change and allow us to accept your collections again.

Book Review

The Plants of Pennsylvania: An Illustrated Manual. Ann Fowler Rhoads & Timothy A. Block. 2000. Univ. of Pennsylvania Press, Philadelphia. 1062 pp.

ISBN 0-8122-3535-5 (Cloth, \$65.00)

Review by: Richard Mitchell, NY State Museum

Pennsylvania has long been ahead of most northeastern states in the overall number of completed works treating the state and regional flora. The most recent atlas of Pennsylvania vascular plants (Rhoads & Klein, 1993) has now been augmented by the publication of a handsome manual that is unusual, both in its simplicity of purpose and care of preparation.

The authors consulted an editorial board of knowledgeable Pennsylvania botanists when defining the scope of the book and setting standards for botanical treatments. The experts also contributed and edited text, and were aided by many other participants, who also reviewed keys and manuscripts. I emphasize this aspect of the project because the book I reviewed in the last issue of the NYFA Newsletter was a disaster, due to the lack of such a professional approach.

Classification: The only botanical system of classification employed in the book is an oddly convenient arrangement, listing vascular plants in four groups: 1) ferns and "fern allies;" 2) gymnosperms; 3) dicots; and 4) monocots, in that order. The families, genera and species within these major categories are otherwise arranged alphabetically. This a format that is usually found in flora lists for journal articles. I found myself flipping all over the place, looking for related groups, but that's just because I was suckled on floristic manuals that were based on morphological and phylogenetic classification systems. I am sure that students will find this arrangement very useful, once they have learned the plant families by name.

Illustrations: The illustrations are by Anna Anisko, a well-trained artist whose works are generally consistent, pleasant and botanically correct. They are only rarely ambiguous or

mis-labeled (as on p. 587, where staminate and pistillate flowers are reversed). The choices of plants to illustrate seem to have been wisely based on showing maximum diversity and representing most of the "different-looking" entities within families and genera.

The page margins of the book are wide, to accommodate illustrations, but I was a little disappointed to see a lot of space left blank. Although the book looks very classy and balanced with its bleak approach, I feel that most users would have preferred many more illustrations to help with identification.

Symbols & Abbreviations: Finally, we have a book that doesn't overdo this. Regions of the state, fruiting/flowering times and USFWS wetland codes are marked with easily-learned combinations of letters, with a single symbol for state rarity. That's it. No constant flipping back and forth to check the meanings of symbols.

Origin, Distribution & Ecology: Non-native plants are noted, along with their continental origin, but geographic distributions of native plants are discussed primarily on the basis of rarity or unusual habitat preferences. Common Pennsylvania habitats for species are given, but these were not intended to be exhaustive.

Descriptions: All plant families and species are provided technical descriptions. These may be brief, but they are relatively consistent and often diagnostic. Descriptions are also provided for genera that have more than one species represented in the flora.

Taxonomy: The new Pennsylvania manual is totally individual – apparently representing taxonomic agreement between the two authors, supplemented by input from members of their advisory board. This is as it should be. For persons producing field trip notes, local flora lists and ecology studies, I usually recommend strict adherence to the nomenclature of a single, pre-designated publication (*ie.* Kartesz, 1994, or a recent state checklist). But, when producing a manual such as the one reviewed here, the authors often have more knowledge of the plant groups in their region than any compiler could

have, and they should freely use their expertise to reflect the flora they know well in the most accurate way possible.

In my opinion, Rhoads and Block are to be congratulated for not splitting such groups as asters and panic grasses, thereby discouraging a trend set by some recent authors, whose eagerness to obfuscate the obvious exceeds their taxonomic evidence at the generic level.

On the other hand, the Pennsylvania authors' relatively conservative treatment sometimes lumps taxa in cases where recent, careful, biosystematic and morphological studies strongly support the recognition of distinct species and varieties. Two examples are: 1) the treatment of all northeastern *Nuphar* as a single species without infraspecific taxa; this ignores the very wide latitude of discontinuous variation in a polymorphic complex that Crow and Hellquist (2000) treat as three species and a well-defined hybrid in their volumes on aquatic plants; and 2) treatment of North American *Cypripedium parviflorum* and its three well-defined varieties as synonyms of *C. calceolus*, an exclusively Eurasian species (see Sheviak, 1994-1995).

Setting aside the occasional eccentricity, I consider this manual to be a modern work that is quite useful overall. It is intended primarily to provide a means for the identification of Pennsylvania plants, and it accomplishes that task admirably. Every state should have such a work. I look forward to using it in my studies in southeastern New York, as a valuable source book that treats an adjacent regional flora.

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Letters to the Editor

From Mike Corey:

"I read your review of the Magee-Ahles northeastern flora - yowch! Although I did not undertake a serious review of the volume, I did purchase it, and did spend a bit of time looking it over. I really enjoyed Dennis Magee's earlier books (tidal freshwater wetlands books that are easy on the eyes), and was looking for something similar.

I know nothing about writing floras, but I agree with you that it is disappointing that Magee did not seek consultation with many botanists and herbaria outside Massachusetts. Seems odd. I also wondered, like you about how decisions were made to illustrate particular species. It all seemed pretty arbitrary.

I was a little annoyed about the limited treatment given to some species, especially in terms of native vs. introduced, e.g. *Phragmites australis*. The tiny infobit gives one the impression that the species is definitely a native. I think this [situation] is much more complicated. Thanks for a thoughtful (if scathing) review."

Mike:

You make very good points. I would only disagree with your phrasing, when you say the author didn't consult botanists and herbaria outside Mass. He apparently didn't consult botanists IN Mass. except to request very preliminary suggestions and map data. (Editor)

From Bruce Sorrie:

I much enjoyed your review of Magee/Ahles "New England" flora. I have not obtained a copy. I knew it was not going to be worth the \$\$, and I couldn't stand seeing all the mistakes. You are mostly right-on in your critique, so far as I am aware of the book's contents. Dennis hardly ever came to New England Botanical Club meetings and didn't consult with those of us who were active in the field or herbarium. Some botanists can do good work and publications in isolation; [some can't].

However, to put all the blame at Dennis' doorstep is not fair. Harry (Ahles) had enough peculiarities, *re* taxonomy, format of the book, geographical scope (I still disagree over including s.e. New York), key characters, and nomenclature (I seriously doubt that Harry would have adopted most of Kartesz' revisions in his 1994 checklist). Also there were constraints placed on whomever was to succeed Harry – restrictions insisted upon by his family that were to carry through to publication. I don't know the details, but I do know that they revolved around keeping the book as faithful to Harry's plan as possible.

To be sure, the book we now see is an unfit tribute to the man whom we loved dearly. If he'd lived to see it through, it would have been a much better publication than Magee's, but I believe it would have been flawed too.

So we still lack a comprehensive flora of New England. Too bad.

I am personally embarrassed and disappointed, since I put in a tremendous amount of time cleaning up the status of MA plants. Did you know that Seymour, for all his good work, didn't go through GH? [Harvard's major vascular plant herbarium] -- "too much overlap," as he and others mistakenly believed. I found otherwise -- dozens of species, albeit mostly alien, not in NEBC. [*sic*]

Bruce:

Thank you for your good letter. You are certainly correct that all the blame should not be placed on Mr. Magee. The publishers should have known better. And your speculations about the fate of the book, should Harry Ahles have lived to see it published, have some credence. Indeed, Harry, and all of us, have had our eccentricities and blind spots. I have come to understand this particularly well in dealing with many welcome corrections to my own works.

The Dumbing of Systematic Biology

While I embrace all techniques that add to the body of taxonomic knowledge, I believe universities have been led down a slippery path by those who prefer to crunch numbers and dabble in chemistry and genetics, calling themselves modern systematists. These specialists often know one small group of organisms, and do not have adequate understanding of overall biological variation to make sound taxonomic judgments.

After 30+ years in the profession, I am constantly learning new things every time I go in the field or look through a microscope. Perennially amazed at what I don't know, I will always consider myself to be an apprentice systematist. It takes far less time and effort to become a competent heart surgeon – one reason why almost no scholarly systematists are being trained in universities today.

We should fear an era (which may have already arrived) in which the traditions and centuries of hard-won biological knowledge are sacrificed – a time when all our talk about biodiversity resounds with deep hypocrisy. The attitudes that fuel the "dumbing movement" are now deeply imbedded in our institutions, which are neglecting and abandoning their biological collections – replacing their taxonomists with something else. The task then falls to business people to produce the baseline floristic lists and manuals critical to the fields of ecology and conservation. The full, bitter impact of this legacy on our biological heritage and the education of our children has yet to be felt. (Richard Mitchell)

Disagree? I thought you might. Send all comments, articles and letters to me by email or at the mailing address on the banner.

DUES? Check your envelope above your address to see the last time you paid up.