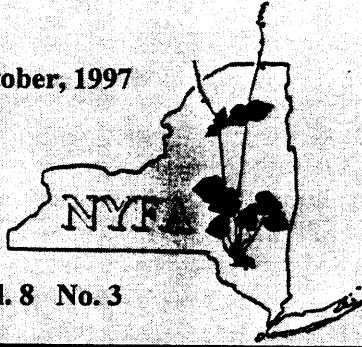


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# NYFA Newsletter

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of the New York State Museum Associates

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Dues \$10

## Oakwood Cemetery: Botanical Oddities and a Forgotten Violet -

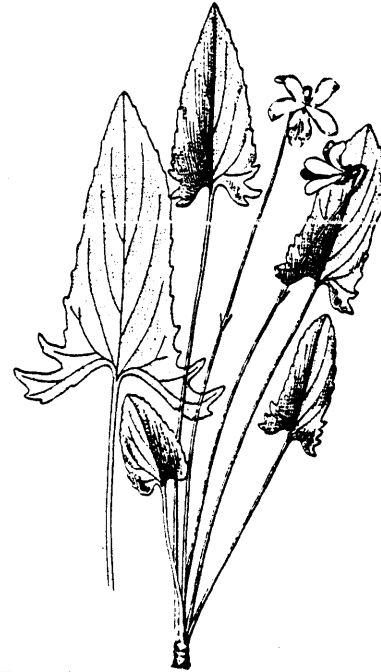
by Warren F. Broderick, State Archives

Historic Oakwood Cemetery, established in 1849 and situated east of Lansingburgh on the escarpment overlooking the Hudson River Valley, is possibly the most botanically diverse locality in Rensselaer County. Within the cemetery boundaries are grassy, exposed rocky ridges with expanses of prairie-like conditions, deep shale ravines, cut by falling streams and bordered by steep cliffs, and rich oak/hickory and beech/maple mesic forest communities reminiscent of the Appalachians. The Rensselaer-Taconic Land Conservancy has been involved in studying both the historic landscape and Oakwood's unusual and varied flora.

A number of unusual native and alien plants are found there, including: *Amelanchier humilis*, *Aster infirmus*, *A. patens*, *Bouteloua curtipendula*, *Carex bicknellii*, *Calystegia spithamea*, *Clematis occidentalis*, *Hieracium* × *fuscatum*, *H. murorum*, *Pellea atropurpurea*, *Quercus prinoides* and *Trichostema brachiatum*. The cemetery contains some apparently disjunct populations of more western and southern species, in particular: *Helenium flexuosum*, *Hydrangea arborescens* and *Panicum liebergii*.

In the century and a half since ornamentals were first planted in this landscaped rural cemetery, a number of unusual garden escapes have become naturalized in adjacent lawns and wild areas. Some of these are: *Chionodoxa lucileae*, *Hosta lancifolia*, *H. ventricosa*, *Hydrangea paniculata* and *Melissa officinalis*. Discovering the unusual here has now become a routine event.

In a small isolated island section known as the "baby plot", growing in grass under *Tsuga canadensis* and *Quercus rubra*, with *Phlox subulata* and a *Viola sagittata* that we had formerly identified as *V. fimbriatula*, I discovered a puzzling group of small



### ***Viola sagittata* Ait.**

**ARROWLEAF VIOLET, is sometimes found with white flowers and purple veins on the lip.**

white violets in early May of this year. The five plants had a typical "fimbriatula" appearance, but the flowers were white, with distinctive purple veins on the lower petal and a bit of purple on the spur tip. I showed Chuck Sheviak of the New York State Museum a specimen, and we began the task of determining its identity.

This variant, as it turns out, was first named *Viola fimbriatula* Sm. forma *albescens* by Oliver Farwell in 1928. His may have been the first discovery of the form, as it is not mentioned in Brainerd (1921) or any other literature that I consulted. Farwell described the plants as being like *Viola fimbriatula*, "but the flowers are white except for the spur tip and purple veins of the lower petals." His original collection was labelled "Erie, No. 7860, May 5th." Then, in 1930, Farwell

transferred the plants to *Viola sagittata* Ait. var. *subsagittata* (Greene) Farwell forma *albescens* (Farwell) Farwell.

Gleason (1951) listed the name *Viola fimbriatula* Sm. forma *albescens* Farw., commenting that such plants were "to be expected to be with the species." Gleason & Cronquist (1991), however, combined *Viola fimbriatula* with *Viola sagittata* and dropped any mention of the form.

I am interested in knowing if anyone has seen this form of *Viola sagittata* elsewhere in New York State, and whether it is mentioned in any other botanical literature. Any such information is welcomed can be directed to me via the editor.

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- Gleason, H. A. 1952. The New Britton & Brown Illustrated Flora of the United States and Adjacent Canada.. Hafner Press, New York.
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### **A Rare Moss, *Aulacomnium turgidum*, Rediscovered in the Adirondacks - by Norton G. Miller, Biological Survey, New York State Museum, Albany**

New York's 32 or so hectares of alpine mountain summit, centered on the eastern Adirondack High Peaks, harbor a number of mosses and hepatics that reach their southern distributional limits in or near this small area of bare rock and tundra vegetation. Many of the species are rare or so infrequently encountered that the status of some of them in the flora of New York has been uncertain for much of the 20th century. The most significant of these are the mosses *Arctoa fulvella* (Dicks.) B.S.G., *Aulacomnium turgidum* (Wahlenb.) Schwaegr., *Dicranum elongatum* Schwaegr., *Grimmia affinis* Hornsch., *Kiaeria blyttii* (Schimp.) Broth., *Sarmenthyrium sarmentosum* (Wahlenb.) Tuom. & T. Kop., the hepatics *Chandonanthus setiformis* (Ehrh.) Lindb., *Pleuroclada albescens* (Hook.) Spruce, and perhaps others yet to be discovered. Localities closest to New

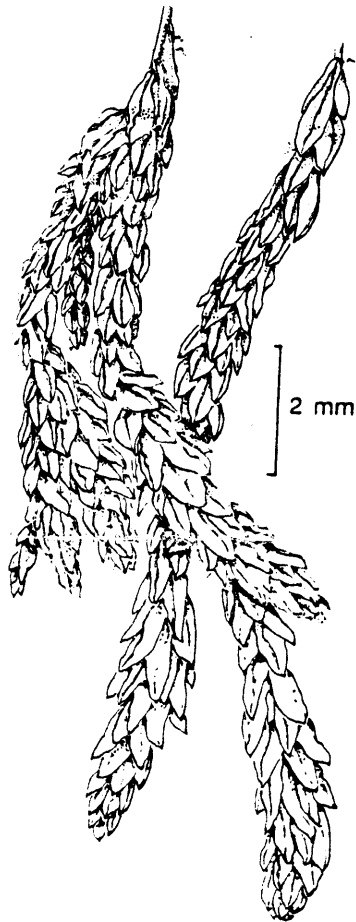
York State for these and other noteworthy arctic plants are alpine areas in New Hampshire and Maine or in mountain regions farther north.

A moss of special interest in this regard is *Aulacomnium turgidum*, which was reported as having been collected by the eminent bryologist Leo Lesquereux from "bogs near the top of Mount Marcy," (C. H. Peck, 19th Ann. Rept. Regents Univ. State New York Cabinet Nat. Hist., p. 54, 1866). No voucher specimen for this collection has been located, but the report was doubtless correct, as the species is credited to the Adirondack Mountains in Lesquereux and T. P. James's *Manual of the Mosses of North America* (1884). Moreover, Charles H. Peck, New York's first State Botanist also found *A. turgidum* on Mount Marcy at least twice in the latter half of the 1800s, although I do not know precisely when or exactly where on Marcy he gathered it, because these details are not recorded on the specimen labels that accompany Peck's specimens in the Bryophyte Herbarium of the New York State Museum, his home institution.

It is unfortunate that Peck did not provide more details about where he found *A. turgidum*, but the High Peaks region was remote, the maps poor, and the trail network sparse when he botanized in the Adirondacks. However, W. R. Dudley of Cornell University gathered specimens of *A. turgidum* from Mt. Marcy on the 11th and 14th of July 1884, the last time this plant appears to have been observed in New York State.

While bryologists, including my associates and I, have searched for *Aulacomnium turgidum* on Mount Marcy for many years without success, I can now report its discovery on Gothics, a mountain in the Great Range, 5.5 km east-northeast of Marcy. Surprisingly, it was not growing in the small area of shrub tundra and bare rock at and on the west side of the summit, but at a lower elevation in a small area of *Abies balsamea* krummholz at the edge of an old slide on the western flank of the mountain, about 0.5 km from its top. Three populations were found at different elevations, among more abundant *Polytrichum juniperinum*, *P. strictum*, *Calliergon stramineum*, *Pohlia* sp., and *Sphagnum* sp. The plants of *A. turgidum* were on peat of variable thickness over bedrock. The sites were not wet when discovered in mid-summer. At the lowest elevation site, plants of the alpine bilberry, *Vaccinium uliginosum*, were present, and a small stand of *Alnus viridis* grew nearby.

Collections and associated date are: New York State, Essex County. Town of Keene. West side of Gothics.



***Aulacomnium turgidum* (Wahlenb.) Schwaegr.**

Great Range, ca. 8 km southwest of Saint Huberts, 44°7'35"N, 73°51'47"W, *N. G. Miller* 12032 (with *A. D. Miller*), 8 Aug 1997, exposed peat over bedrock, near sparse *krummholz*, 4380 ft elev; same, *N. G. Miller* 12037 (with *A. D. Miller*), 4490 ft elev; same, *N. G. Miller* 12038 (with *A. D. Miller*), 4500 ft elev (all NYS); summit of Mt. Marcy [ca. 13 km southwest of Saint Huberts], *W. R. Dudley*, 11 Jul 1884 (BH); top of Mt. Marcy, *W. R. Dudley* 34, 14 Jul 1884 (NY).

*Aulacomnium turgidum* is distinguished from *A. palustre* (a common lowland plant of similar size that sometimes also is found in the alpine zone) by its rounded, hooded leaf apices (vs. attenuate in *A. palustre*) and the turgid, terete habit of the plants, with the leaves overlapping and not contorted when dry. While *A. turgidum* is now primarily an arctic alpine moss, late-Pleistocene fossils of it from New York-New England show that it occurred widely in

the lowlands with various other northern mosses and vascular plants during the time before spruce and associated trees arrived on those previously glaciated areas. Contemporary high-elevation alpine populations of it in New York are perhaps remnants of a wider late-Pleistocene distribution of tundra vegetation.

It is not certain how common *A. turgidum* will prove to be in the High Peaks region, but the newly-discovered stations for it on Gothics indicate that it may not be strictly a summit species, but rather one of subalpine areas, associated with landslide-exposed, high-elevation bedrock, which is common in the Adirondack High Peaks. Other stations for it may be discovered as we continue to inventory the Adirondack alpine bryoflora. The history, rarity and unusual habitat of this plant make it significant to our state's heritage and worthy of continued attention.

### Book Review

**Forests and Trees of the Adirondack High Peaks Region, ed. 3, by E. H. Ketchledge. 163 pp. Illustrated. Paperback. 1996. ISBN 0-935272-49-6. Adirondack Mountain Club, Inc., 814 Goggins Road, Lake George, NY 12845-4117. \$8.95.**

The publication of this third edition of a popular hand book, subtitled "A Hiker's Guide," is a happy event for the many visitors to the high mountain Adirondacks who have a desire to learn about the forests that surround them. Edition three represents a thorough reworking of the previous publication issued in 1979. The core of the book offers a key for identifications, species descriptions, and photographs of leaves, bark, and sometimes silhouettes of 34 species deemed frequent in the High Peaks region.

Included are Scots Pine and Norway Spruce, two widely planted and conspicuous exotic trees, and 32 natives, some of which: Tamarack, Black Spruce, White Spruce, Balsam Fir, and Black Ash, are primarily boreal plants, reaching their greatest frequency and dominance north of New York State. By contrast, certain deciduous hardwoods that are treated here (eg. American Beech, Sugar Maple and Northern Red Oak) are near their northern distributional limits in the Adirondacks, but are otherwise common trees across a broad geographic area southward. Altogether, the species listed

represent about half of the 80 or so trees known to be native or naturalized in New York State. For each of the 34, a one- or two-page narrative presents a wealth of information pertaining to the natural history of the species in the high Adirondacks.

An introductory chapter consolidates published information on the composition, origin, history of High Peak forests, including important recent studies of tree migration, using the occurrence and age of fossil pollen and other parts of trees recovered from ancient and contemporary lake sediments. Five site-type forests are described along an elevational gradient.

In giving historical perspective on the region, the author writes that, "80 to 85 percent of the forested landscape has experienced one or more impacts from human activities," principally logging and fire. As a result of these factors, plus other disruptions (eg. recent widespread dieback of Red Spruce and wave-patterned Balsam Fir blowdown), present-day Adirondack high-elevation tree communities are in a state of long-term flux. This ongoing change is reflected in part by what has been learned about the ancient forests of the region through paleobotanical and ecological research.

The author's skillful communication of fact and concept adds to the usefulness of the guide to the reader, whether the goal is to identify a mystery tree or to gain ecological insight. This small book is in a sense a distillation of the author's half-century of study into Adirondack forests. He has observed Adirondack trees and forest landscapes in all seasons, and undoubtedly holds the record (by far) for the greatest number of miles tread by any contemporary botanist in the pursuit of information and new discoveries in the High Peaks region.

*Thanks, Ketch, for continuing to share with us what you have learned.* — Norton G. Miller, Biological Survey, New York State Museum, Albany, NY 12230.

### Re: "Natives" – a Letter to the Editor

Because all of New York, except for the Allegheny region, was covered by ice as recently as 10-12,000 years ago, every plant and animal that is here today is an immigrant. There are no "natives." After the glaciers retreated, different species invaded our

state at different times. We only quibble about when. The European starling and purple loosestrife are as much native New Yorkers as are the Iroquois, the American robin and the New York fern. We just got here after they did ... late arrivals.

Donald Windsor, Norwich, NY

*Some of our readers may find your view a bit extreme, but you make a good point about migrations. They are ongoing processes that should be viewed in perspective with the geological time-scale, rather than as clips from the History Channel. Some people draw the line delimiting "native" and "exotic" species at the point where humans are known to have intervened. (Editor)*

### Dues –

Be sure to check your envelope, which will tell you the last year you paid annual dues. Remember that you can always reinstate yourself for \$20. Your support of the organization is much appreciated.

### Floristic Work Sometimes Pays off in Unexpected Ways –

by Richard Mitchell, N. Y. State Museum

I recently met with the Commissioner of the Palisade Interstate Parks Commission, Mr. Robert Binnewies. He has been an extremely insightful administrator, spearheading efforts to encourage and fund biological survey work in the parks. He wanted to tell me that our floristic work in the Hudson Highlands specifically aided him in obtaining funding for a five million dollar purchase of the Cedar Pond area of Sterling Forest. When questioned by a representative of the funding foundation about the commitment of the commission to environmental issues, he was able to quote directly from recent botanical surveys, clinching the deal.

### In the Next Issue -

Yes, there will be a December issue. I was slowed down by a complete upgrade of my state computer software, and, as with all things that pass for progress nowadays, it curtailed productivity. Next time, read all about "Yankee Plants in the South," a first-hand perspective on disjunction of northern plants to the Carolinas by Bruce Sorrie, who has moved to North Carolina, and is a sort of disjunct himself. (Editor)