

Mountain Spleenwort



Scientific Name *Asplenium montanum*
Willd.

Family Name Aspleniaceae
Spleenwort Family

Did you know?

This fern was first discovered in New York in the Mohonk Lake area in the 1870s. It seems restricted to the white conglomerate rock of the Shawangunk Mountains where the largest group in New York was found in 2003.

Summary

Protection Threatened in New York State, not listed federally.

This level of state protection means: listed species are those with: 1) 6 to fewer than 20 extant sites, or 2) 1,000 to fewer than 3,000 individuals, or 3) restricted to not less than 4 or more than 7 U.S.G.S. 7 ½ minute topographical maps, or 4) listed as threatened by U.S. Department of Interior.

Rarity G5, S2S3

A global rarity rank of G5 means: This species is demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

A state rarity rank of S2S3 means: Imperiled or Vulnerable in New York - Very vulnerable to disappearing from New York, or vulnerable to becoming imperiled in New York, due to rarity or other factors; typically 6 to 80 populations or locations in New York, few individuals, restricted range, few remaining acres (or miles of stream), and/or recent and widespread declines. More information is needed to assign a single conservation status.

Conservation Status in New York

This fern is relatively common within the small confines of the Shawangunk Mountains. There are at least 12 known populations within the Shawangunks and few threats except for unscrupulous climbing. As more populations are found, this plant may eventually be moved to the watch list. Arguably, the Shawangunk populations may represent one or only a few meta-populations with multiple sub-populations.

Short-term Trends

Many individuals are scattered in places within the Shawangunk Mountains that are difficult to access. These populations are typically not highly concentrated. Their numbers seem stable except in a few places where they may have been affected by rock climbers.

Long-term Trends

For the most part, this plant has always been limited to cliff-faces of the Shawangunk Mountains. The long-term trend has been stable overall but some local populations may have declined from rock climbing activity.

Conservation and Management

Threats

The impact of rock climbers may be a problem in some areas but not to the population as a whole.

Conservation Strategies and Management Practices

Most of the known sites are within protected landscapes, and these populations are located in areas that need little management. In a few locals, management plans may be needed to limit damage from rock climbers.

Research Needs

Research to study the impacts of rock climbing on this fern would assist land managers in determining where rock climbing can occur to best avoid negative impacts.

Habitat

A fern of silurian conglomerate cliffs and outcrops along the Shawangunk Ridge, particularly on ledges, cliffs, and cracks and fissures of rock faces. These areas usually have a slight amount of moisture in the rock cracks, but the cliff face is relatively unvegetated (New York Natural Heritage Program 2004). Cliff-crevices in noncalcareous rocks (Gleason and Cronquist 1991). In shaded and sheltered crevices of sandstone, gneiss, and shale, where there are tiny pockets of acid soil (Cobb 1984). Shaded or sheltered crevices of chiefly non-calcareous rock (Fernald 1970).

Associated Ecological Communities

Cliff Community

A community that occurs on vertical exposures of resistant, non-calcareous bedrock (such as quartzite, sandstone, or schist) or consolidated material; these cliffs often include ledges and small areas of talus.

Associated Species

Gray Birch (*Betula populifolia*)
Brittle Bladderfern (*Cystopteris fragilis*)
Flattened Oatgrass (*Danthonia compressa*)
Tufted Hairgrass (*Deschampsia cespitosa*)
Mountain Laurel (*Kalmia latifolia*)
Chestnut Oak (*Quercus montana*)
Red Oak (*Quercus rubra*)
Eastern Hemlock (*Tsuga canadensis*)

Identification Comments

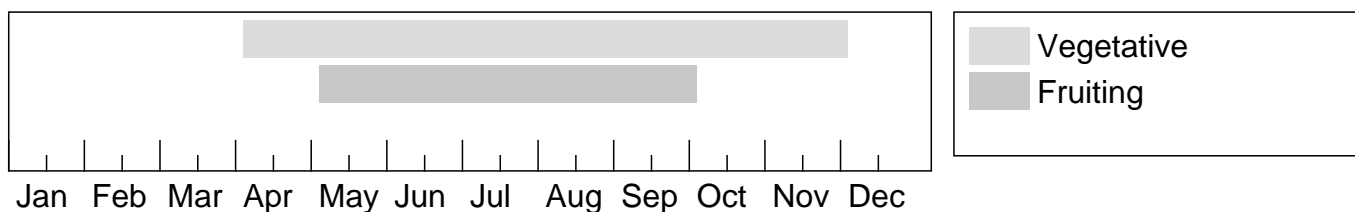
A small, delicate, bluish-green fern which grows in drooping tufts within the crevices of overhanging white-conglomerate rocks. The abundant evergreen leaves are divided into six or more pairs of leaflets which are divided again into smaller segments with small lobes. The lowest pair are the largest and the leaflets rapidly diminish in size toward the tip of the leaf. The leaf stalk is brown at the base and green above.

Best Life Stage for Identifying This Species

To properly identify this plant, one needs mature fronds including leaves, rachis, and stipe. If only a picture is taken, some sort of scale reference should be provided within the picture to allow for verification.

The Best Time to See

While remnants of this plant are visible year-round, the fronds brown considerably after frost. The result is diminished or even missing plants until new fronds appear in spring. Some plants will remain green year-round though. Surveys for this plant should occur between May and October.



The time of year you would expect to find Mountain Spleenwort in New York.

Similar Species

Bradley's spleenwort (*Asplenium bradleyi*) very closely resembles mountain spleenwort (*A. montanum*) and may reflect a hybridization of *A. montanum* and *A. platyneuron*. Bradley's spleenwort will have a blade that is oblong with nearly parallel sides. The blade of mountain spleenwort is much more triangular in shape, tapering to the apex.

Taxonomy

Kingdom Plantae

└ **Phylum** Filicinophyta

└ **Class** Ferns (Filicopsida)

└ **Order** Filicales

└ **Family** Aspleniaceae (Spleenwort Family)

Additional Common Names

Single-sorus Spleenwort

Additional Resources

Links

New York Flora Atlas

<http://www.newyork.plantatlas.usf.edu/Plant.aspx?id=173>

Flora of North America

http://efloras.org/florataxon.aspx?flora_id=1&taxon_id=200004144

USDA Plants Database

<http://plants.usda.gov/java/nameSearch?mode=sciname&keywordquery=ASPLENIUM+MONTANUM>

NatureServe Explorer

<http://natureserve.org/explorer/servlet/NatureServe?searchName=ASPLENIUM+MONTANUM>

Google Images

<http://images.google.com/images?q=ASPLENIUM+MONTANUM>

Best Identification Reference

Gleason, Henry A. and A. Cronquist. 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York. 910 pp.

References

Cobb, Boughton. 1984. A field guide to ferns and their related families. 281 pp.. Houghton Mifflin Co., Boston, New York. The Peterson Field Guide Series.

Fernald, M.L. 1950. Gray's manual of botany. 8th edition. D. Van Nostrand, New York. 1632 pp.

Holmgren, Noel. 1998. The Illustrated Companion to Gleason and Cronquist's Manual. Illustrations

of the Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York.

- Keys, Jr., J.; Carpenter, C.; Hooks, S.; Koenig, F.; McNab, W.H.; Russell, W.; Smith, M.L. 1995. Ecological units of the eastern United States - first approximation (cd-rom), Atlanta, GA: U.S. Department of Agriculture, Forest Service. GIS coverage in ARC/INFO format, selected imagery, and map unit tables.
- Mitchell, Richard S. and Gordon C. Tucker. 1997. Revised Checklist of New York State Plants. Contributions to a Flora of New York State. Checklist IV. Bulletin No. 490. New York State Museum. Albany, NY. 400 pp.
- NatureServe. 2005. NatureServe Central Databases. Arlington, Virginia. USA
- New York Natural Heritage Program. 2010. Biotics database. New York Natural Heritage Program. New York State Department of Environmental Conservation. Albany, NY.
- Reschke, Carol. 1990. Ecological communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation. Latham, NY. 96 pp. plus xi.
- Weldy, T. and D. Werier. 2010. New York flora atlas. [S.M. Landry, K.N. Campbell, and L.D. Mabe (original application development), Florida Center for Community Design and Research <http://www.fccdr.usf.edu/>. University of South Florida <http://www.usf.edu/>]. New York Flora Association <http://www.nyflora.org/>, Albany, New York

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This project is made possible with funding from:

- New York State Department of Environmental Conservation Hudson River Estuary Program
- Division of Lands & Forests, Department of Environmental Conservation
- New York State Office of Parks, Recreation and Historic Preservation

Information for this guide was last updated on Aug 10, 2017

This guide was authored by