

Rock Clubmoss

Huperzia porophila

Description

Rock Clubmoss is a fern relative, and belongs to the group of evergreen plants known as “ground-pine” or “running-pine” that have been utilized for making Christmas wreaths. Rock Clubmoss is an ascending or upright small plant with stems up to 6 inches (15 cm) in height, but is usually shorter. The leaves are spirally arranged, spreading, somewhat needle-like, ¼ inch (3-8 mm) in length, and form a dense covering on the stem. The species does not produce flowers, but reproduces itself by microscopic spores that are produced from small sacs located at the base of some leaves, as well as by asexual buds that can grow into new plants. This species greatly resembles Shining Clubmoss (*Huperzia lucidula*), which in Pennsylvania is a frequent and widespread species that grows in moist woods. Rock Clubmoss is a plant of smaller stature, with smaller and less lustrous leaves, and has a much more restricted habitat (rock surfaces near waterfalls) and distribution.



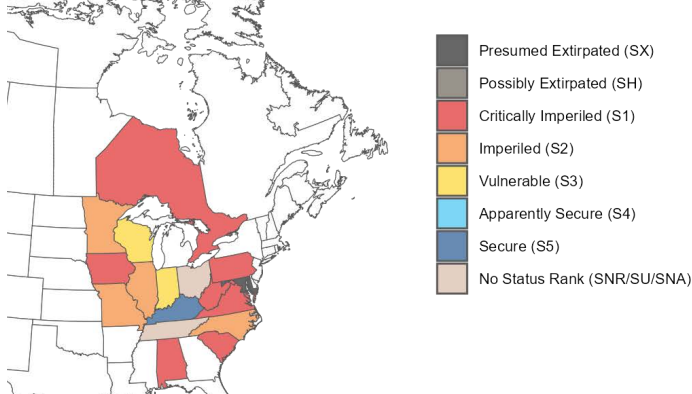
Photo source: B. Eugene Wofford, University of Tennessee Herbarium

Distribution & Habitat

Rock Clubmoss ranges from Ontario and Saskatchewan south into Georgia, Alabama, and Missouri. In Pennsylvania, it has been documented historically in a few northeastern counties. The species grows on exposed rocks and cliffs in vicinity of waterfalls, where the environment remains cool and humid.

North American State/Province Conservation Status

Map by NatureServe 2025



Conservation Considerations

The few known populations of Rock Clubmoss are located at relatively protected sites, but the potential loss of hemlock (*Tsuga canadensis*) at these locations due to the hemlock wooly adelgid (*Adelges tsugae*) represents a threat. It is also uncertain if Rock Clubmoss is successfully reproducing itself at the known sites, which is critical because of the already small population sizes.

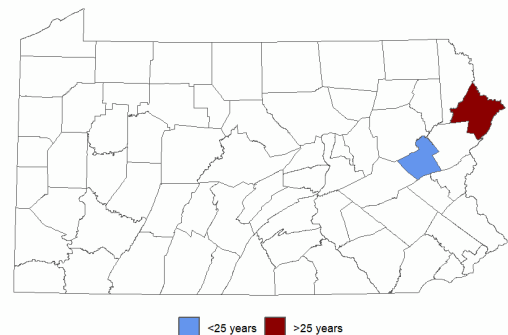
NatureServe conservation status ranks

G4 – Apparently globally secure; S1 – Critically imperiled in Pennsylvania

Current State Status

The PA Biological Survey (PABS) considers Rock Clubmoss to be a species of special concern, based on the very few locations that have been recently confirmed, the very small population sizes, and the specialized habitat. It has a PA legal rarity status and a PABS suggested rarity status of Endangered.

Rock Clubmoss (*Huperzia porophila*)



References

- NatureServe. 2025. NatureServe Explorer [web application] NatureServe, Arlington, Virginia. Available at <https://explorer.natureserve.org> (Accessed: May 8, 2025)
- Pennsylvania Natural Heritage Program. 2025.
- Rhoads, A.F. and W.M. Klein, Jr. 1993. The Vascular Flora of Pennsylvania. American Philosophical Society, Philadelphia, Pennsylvania.
- Rhoads, A.F. and T.A. Block. 2007. The Plants of Pennsylvania: An Illustrated Manual. 2nd edition. University of Pennsylvania Press, Philadelphia, Pennsylvania.