

Species: Bog-rosemary (*Andromeda polifolia*)
Global Rank: G5
State Rank: S3
Climate Change Vulnerability Index: Extremely Vulnerable
Confidence: Very High

Habitat:

Bog-rosemary is often found in open peatlands dominated by leatherleaf, sedges, and sphagnum mosses (Rhoads and Klein 1993; Rhoads and Block 2007). Soils are deep, saturated organic and water is nutrient poor and acidic.

Current Threats:

Peatlands, where bog-rosemary occurs, are threatened by beaver activity and subsequent flooding. Formerly, these peatlands in Pennsylvania were subject to peat mining further isolating the wetlands from one another.

Main Factors Contributing to Vulnerability Rank:

Distribution relative to natural topographic or geographic habitat barriers: Bog-rosemary is limited to high elevation wetlands in the northern tier of Pennsylvania (Allegheny Plateau) where it represents the southern edge of its range.

Dispersal ability: Bog-rosemary produces seeds that may be either wind or water dispersed but dispersal distance is limited thus somewhat increasing its vulnerability. Peatlands, where this species occurs, are often isolated from each other making colonization to a new area difficult.

Predicted micro sensitivity to changes in temperature: This species is found in cool, high elevation wetlands that may be reduced or altered as a result of climate change.

Predicted micro sensitivity to changes in precipitation, hydrology, or moisture regime: This species is moderately dependent on a wetland habitat and moisture regime that is highly vulnerable to loss or reduction with climate change and the expected direction of moisture change is likely to reduce the species' distribution, abundance, or habitat quality.

Interspecific interactions: Reliance on a mycorrhizal symbiont somewhat increases the vulnerability of bog-rosemary to climate change effects.

Additional Information:

The northern tier of Pennsylvania represents the southern end of bog-rosemary's range. It is possible that the species may retreat northward.

References:

NatureServe. 2011. NatureServe Central Databases. Arlington, Virginia. USA.

Rhoads, A. and T. Block. 2007. The plants of Pennsylvania. 2nd Edition. Philadelphia. University of Pennsylvania Press.

Rhoads, A. and W.M. Klein. 1993. The vascular flora of Pennsylvania annotated checklist and atlas. American Philosophical Society, Philadelphia, PA.