Species: Bunchberry (*Cornus canadensis*)
Global Rank: G5
State Rank: SNR
Climate Change Vulnerability Index: Moderately Vulnerable
Confidence: Moderate

Habitat:

The global range of bunchberry extends from Greenland across North America to northeast Asia. In the United States, bunchberry occupies the northern tier states and extends south into West Virginia and Virginia in the northeast (NatureServe 2011). In Pennsylvania, bunchberry is found occasionally in cool, damp woods, bogs, and swamp edges mostly in the northern tier of the state and at higher elevations along the Allegheny Front (Rhoads and Klein 1993; Rhoads and Block 2007).

Current Threats:

Land-use conversion, habitat fragmentation, and forest management practices are low level threats to this species (Southern Appalachian Species Viability Project 2002; NatureServe 2011).

Main Factors Contributing to Vulnerability Rank:

Distribution relative to natural topographic or geographic habitat barriers: Bunchberry is mostly limited to bogs and swamps in the northern tier of Pennsylvania and at higher elevations along the Allegheny Front. These semi-aquatic/aquatic habitats are often isolated from one another by extensive upland forests that could make movement to a new site difficult.

Predicted micro sensitivity changes in temperature: In Pennsylvania, bunchberry occurs mostly in the cooler portions of the state. The species is found in the northern tier and at higher elevations along the Allegheny Front (Rhoads and Block 2007).

Predicted macro sensitivity to changes in precipitation, hydrology, or moisture regime: Considering the range of mean annual precipitation across the current range of bunchberry in Pennsylvania, the species has experienced slightly lower than average precipitation variation in the past 50 years.

Predicted micro sensitivity to changes in precipitation, hydrology, or moisture regime: Bunchberry is somewhat dependent on a moisture regime that is most likely vulnerable to alteration as a result of climate change and the expected direction of moisture change is likely to reduce the species' distribution, abundance, or habitat quality.

Interspecific interactions: Bunchberry forms mycorrhizal associations that could somewhat increase it's vulnerability to climate change (Summerbell 1989).

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.

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Summerbell, R.C. 1989. Microfungi associated with the mycorrhizal mantle and adjacent microhabitats within the rhizosphere of black spruce. Canadian Journal of Botany 64: 1085-1095.