

Species: Cranberry (*Vaccinium macrocarpon*)
Global Rank: G4
State Rank: SNR
Climate Change Vulnerability Index: Highly Vulnerable
Confidence: Very High

Habitat:

Cranberry is scattered across Pennsylvania and occurs in bogs, peaty wetlands, and seepy areas (Rhoads and Klein 1993; Rhoads and Block 2007). Cranberry occupies a large range in northeast North America from Newfoundland to southern Ontario and Central Minnesota to northern Illinois, and in the Appalachian Mountains and along the coastal plain south to North Carolina (NatureServe 2011).

Current Threats:

Cranberry occurs in some very sensitive habitats, making it especially vulnerable to land-use conversion and habitat fragmentation, particularly the conversion of wetlands and bogs (NatureServe 2011).

Main Factors Contributing to Vulnerability Rank:

Distribution relative to natural topographic or geographic habitat barriers: Within the northern tier of Pennsylvania, cranberry is more limited to isolated wetlands surrounded by extensive forests that form potential natural barriers for dispersal of a wetland plant.

Predicted micro sensitivity to changes in temperature: Cranberry often occurs in microsites/microhabitats towards the cooler end of the spectrum, but is not limited to only cooler conditions.

Predicted macro sensitivity to changes in precipitation, hydrology, or moisture regime: Within the species range in Pennsylvania, the species has experienced a less than average precipitation variation in the past 50 years.

Predicted micro sensitivity to changes in precipitation, hydrology, or moisture regime: Cranberry is somewhat dependent on a 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.

Forms part of a mutualism: Reliance on a mycorrhizal symbiont somewhat increases the vulnerability of cranberry to climate change effects (Largent et al. 2006).

References:

Campbell, D.R., L. Rochefort, and C. Lavoie. 2003. Determining the immigration potential of plants colonizing disturbed environments: the case of milled peatlands in Quebec. *Journal of Applied Ecology* 40(1): 78-91.

Largent, D.L., N. Sugihara, and C. Wishner. 2006. Occurrence of mycorrhizae on ericaceous and pyrolaceous plants in northern California. *Canadian Journal of Botany* 58(21): 2274-2279.

NatureServe. 2011. NatureServe Central Databases. Arlington, VA.

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.