

Species: Small Cranberry (*Vaccinium oxycoccos*)

Global Rank: G5

State Rank: SNR

Climate Change Vulnerability Index: Highly Vulnerable

Confidence: Moderate

Habitat:

Although small cranberry occurs in scattered patches across Pennsylvania, most occurrences are documented in the northeastern portion of the state (Rhoads and Klein 1993). Small cranberry can be found in bogs and peaty wetlands (Rhoads and Block 2007). Small cranberry is widespread in boreal North America (NatureServe 2011).

Current Threats:

Small 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:

Dispersal and movement: Small cranberry seeds are bird and small mammal dispersed (Campbell et al. 2003) and probably mostly limited to dispersal within the site.

Predicted micro sensitivity to changes in temperature: Small cranberry occurs in microsites/microhabitats towards the cool or cold end of the spectrum.

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: Small cranberry is almost completely 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 small 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.