

Species: Eastern sand cherry (*Prunus pumila* var. *depressa*)

Global Rank: G5T5

State Rank: S1

Climate Change Vulnerability Index: Extremely Vulnerable

Confidence: Very High

Habitat:

Eastern sand cherry occurs from Kentucky and Pennsylvania to Canada (NatureServe 2010). In Pennsylvania, this species occurs in cobbly/sandy riverine prairies (Rhoads and Block 2007) along the Delaware and Susquehanna rivers.

Threats:

Eastern sand cherry is threatened by alterations to hydrologic regime and displacement by exotic plant species.

Main Factors Contributing to Vulnerability Rank:

Predicted macro sensitivity to changes in precipitation, hydrology, or moisture regime: Considering the range of the mean annual precipitation across the species' range in Pennsylvania, the species has experienced a small precipitation variation in the past 50 years.

Predicted micro sensitivity to changes in precipitation, hydrology, or moisture regime: Climate models suggest a likely increase in precipitation amount and patterns for Pennsylvania that will likely have a negative impact on the species' habitat quality.

Dependence on a specific disturbance regime likely to be impacted by climate change: Climate models predict a likely increase in temperature and precipitation for Pennsylvania, which will likely alter the flooding regime that creates habitat for this species.

Dependence on ice, ice-edge, or snow covered habitat: Climate models predict a likely increase in temperature and precipitation for Pennsylvania, which will likely alter the ice scour regime that creates habitat for this species along portions of the Delaware River.

Physical habitat specificity: The species is restricted to sandy/cobbly riverine prairies. Such habitat is fairly rare in Pennsylvania and only a small number of examples occur within the state.

Literature Cited:

NatureServe. 2010. NatureServe Central Databases. Arlington, Virginia. USA.

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