

Species: Meadow Willow (*Salix petiolaris*)

Global Rank: G5

State Rank: S4

Climate Change Vulnerability Index: Not Vulnerable/Presumed Stable

Confidence: Very High

Habitat:

The range of meadow willow extends from Colorado and New Jersey to northern Canada (NatureServe 2010). The species occurs in wet meadows, fens, along stream banks and lakeshores, and in forest clearings (Rhoads and Block 2007). The species requires direct sunlight and will grow in a variety of moist soil conditions. It is associated with disturbed and early successional habitat.

Current Threats:

Meadow willow is threatened by deer herbivory and displacement by exotic plant species.

Main Factors Contributing to Vulnerability Rank:

Although meadow willow is at its southern range limit in Pennsylvania and requires a localized hydrological regime that may experience some drying due to climate change, its CCVI rank suggests that the species is Not Vulnerable/Presumed Stable. Available evidence does not suggest that the abundance and/or range extent within Pennsylvania will change (increase/decrease) substantially by 2050. However, actual range boundaries may change. Longer distance dispersal and the ability to grow in moist conditions in a variety of soil conditions are characteristics that contribute to the short-term climate change resilience indicated by the CCVI. However, additional stressors that may affect the species are not considered in the CCVI and should also be evaluated when planning conservation related activities.

References:

Gage, E.A. and D.J. Cooper. 2005. Patterns of willow seed dispersal, seed entrapment, and seedling establishment in a heavily browsed montane riparian ecosystem. *Canadian Journal of Botany* 83:678-687.

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.

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