

Species: Twining screwstem (*Bartonia paniculata*)
Global Rank: G5T5
State Rank: S3
Climate Change Vulnerability Index: Moderately Vulnerable
Confidence: Low

Habitat:

Twining screwstem is an obligate wetland species that occurs from New England and Ontario, Canada to Texas and Florida (NatureServe 2010). In Pennsylvania, this species is found in bogs, swamps, and wet meadows.

Threats:

Twining screwstem is threatened by alterations to wetland hydrology 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.

Forms of mutualism: Twining screwstem utilizes one or several mycorrhizal associates (Hill 2003); however more research is needed on this subject to determine the level of specificity.

Literature Cited:

Hill, S.R. 2003. Conservation assessment for twining screwstem (*Bartonia paniculata*) (Michx.) Muhl. USDA Forest Service. Milwaukee, Wisconsin. USA.

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