

Species: Willow oak (*Quercus phellos*)

Global Rank: G5

State Rank: S2

Climate Change Vulnerability Index: Highly Vulnerable

Confidence: Very High

Habitat:

Willow oak occurs from Illinois and New York to Texas and Florida (NatureServe 2010).

The natural habitat for willow oak consists primarily of bottomland forests along the Coastal Plain physiographic province in Pennsylvania but the species is occasionally planted as an ornamental tree throughout the state.

Threats:

Willow oak is threatened by deer herbivory and displacement by exotic plant species.

Main Factors Contributing to Vulnerability Rank:

Exposure to sea level: Willow oak's natural habitat along the Coastal Plain in Pennsylvania is predominately under threat from rising sea levels.

Distribution relative to anthropogenic factors: The migration of willow oak in Pennsylvania is restricted by heavy development along the Coastal Plain.

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.

Literature Cited:

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