

Species: Bog Sedge (*Carex paupercula*)
Global Rank: G5
State Rank: S3
Climate Change Vulnerability Index: Highly Vulnerable
Confidence: Very High

Habitat:

Bog sedge is a species of glacial bogs and peatlands. Bog sedge grows in sphagnum and hemlock dominated depressions in a mosaic of drier upland forest on the terminal moraine of the Wisconsin glaciation. In eastern North America, its range extends south to Minnesota, Michigan, Pennsylvania, and New Jersey. In Pennsylvania, it is found at scattered sites in the northeastern and northwestern portions of the state (PNHP 2010).

Current Threats:

The high moisture level, low nutrient status, and extreme acidity of the habitat in which bog sedge grows protect it from most types of disturbance (PNHP 2010). Anthropogenic activities such as logging and road construction that alter the hydrological regime may threaten this species. Beaver activity also alters habitat hydrology. There is no evidence of impact by invasive species. However, browsing by deer may be a problem (PNHP 2010).

Main Factors Contributing to Vulnerability Rank:

Distribution relative to natural barriers: Bog sedge is limited to high elevation wetlands in the northern tier of Pennsylvania that are often isolated by extensive forests that may form barriers against northward movement.

Predicted micro sensitivity to changes in temperature: Bog sedge is found in cooler microsites/microhabitats in northeast and northwest Pennsylvania.

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: Bog sedge is dependent on wetland habitat that is highly vulnerable to loss or reduction with climate change and the expected direction of precipitation change is likely to reduce the species' distribution, abundance, or habitat quality.

References:

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