

Species: Labrador-tea (*Rhododendron groenlandicum*)
Global Rank: G5
State Rank: S3
Climate Change Vulnerability Index: Extremely Vulnerable
Confidence: Very High

Habitat:

Labrador-tea grows in unflooded bogs and peaty wetlands (Rhoads and Block 2007). Labrador-tea is widely distributed in the more northern and cooler portions of North America. It occurs locally in northern, mostly northeastern Pennsylvania (PNHP 2010).

Threats:

The species may be threatened by loss of habitat and hydrological alteration of wetlands.

Main Factors Contributing to Vulnerability Rank:

Predicted micro sensitivity to changes in temperature: Labrador-tea occurs in the coolest of local microsites/microhabitats. Labrador-tea is found in the northern tier portion of Pennsylvania, mostly northeastern Pennsylvania.

Predicted macro sensitivity to changes in precipitation, hydrology, or moisture regime: Within 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: Labrador-tea is dependent on high elevation wetland habitat that is likely to be 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.

Physical habitat specificity: Labrador-tea is highly specialized in its habitat requirements. The species is found in wetlands with low pH, low nutrients, and organic, poorly drained soils.

Additional Information:

Pennsylvania represents the southern edge of range for Labrador-tea. Depending on species ability to disperse to suitable habitat, the species may migrate northward in response to changes in temperature and precipitation due to climate change.

Literature Cited:

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

Pennsylvania Natural Heritage Program. 2010. PNHP fact Sheet – Labrador-tea.

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