Species: False Solomon's-seal (*Maianthemum trifolium*)
Global Rank: G5
State Rank: S4
Climate Change Vulnerability Index: Extremely Vulnerable
Confidence: Moderate

Habitat:

False Solomon's-seal is widely distributed throughout Canada from British Columbia and Yukon Territory in the west to Newfoundland and New Brunswick in the east. In the United States, the species is found in Montana, Minnesota, Wisconsin, Michigan, and the New England States and extends as far south as Pennsylvania and New Jersey (NatureServe 2011). In Pennsylvania, false Solomon's-seal is infrequently found in cool bogs and wetlands with peat soils that occur mostly in the northern tier of the state (Rhoads and Block 2007; Rhoads and Klein 1993).

Current Threats:

Drainage and conversion of wetlands are threats to this species.

Main Factors Contributing to Vulnerability Rank:

Distribution relative to natural barriers: False Solomon's-seal occurs in isolated, high elevation wetlands bordered by extensive forests that may form barriers against northward movement.

Predicted micro sensitivity to changes in temperature: False Solomon's-seal occurs in microsites/microhabitats towards the cooler end of the spectrum.

Predicted macro sensitivity to changes in precipitation, hydrology, or moisture regime: Within the species range in Pennsylvania, the species has experienced a slightly below average precipitation variation in the past 50 years.

Predicted micro sensitivity to changes in precipitation, hydrology, or moisture regime: False Solomon's-seal is a wetland obligate species and is dependent on a moisture regime that is highly vulnerable to loss or reduction with climate change and the expected direction of moisture change is likely to reduce the species' distribution, abundance, or habitat quality.

Forms part of a mutulism: Reliance on a mycorrhizal symbiont somewhat increases the vulnerability of false Solomon's-seal to climate change effects.

References:

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