

Species: White trout lily (*Erythronium albidum*)  
Global Rank: G5  
State Rank: S3  
Climate Change Vulnerability Index: Moderately Vulnerable  
Confidence: Moderate

Habitat:

White trout lily occurs from Minnesota and Canada south to Texas and Georgia (NatureServe 2010). In Pennsylvania, this species occurs in mesic and floodplain forests on calcareous soils (Rhoads and Block 2007).

Threats:

White trout lily is threatened by deer herbivory and displacement from 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.

Dependence on a specific disturbance regime likely to be impacted by climate change: Climate models predict a likely increase in temperature and precipitation for Pennsylvania, which will likely alter the flooding regime that creates habitat for this species. .

Physical habitat specificity: The species is restricted to mesic calcareous forests in Pennsylvania. Such habitat is fairly uncommon in Pennsylvania

Dependence on other species for propagule dispersal: While vegetative reproduction can be high in white trout lily (Muller 1979, Morley 1992); seeds are specifically designed for ant dispersal (Thompson 1981).

Literature Cited:

Morley, T. 1982. Flowering frequency and vegetative reproduction in *Erythronium albidum* and *E. propullens*, and related observations. Bulletin of the Torrey Botanical Club 109: 169-176.

Muller, R.N. 1979. Biomass accumulation and reproduction in *Erythronium albidum*. Bulletin of the Torrey Botanical Club 106:276-283.

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

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

Thompson, J.N. 1981. Elaiosomes and fleshy fruits: phenology and selection pressures for ant-dispersed seeds. *American Naturalist* 117: 104-108.