

Species: Wild limestone petunia (*Ruellia strepens*)
Global Rank: G4G5
State Rank: S2
Climate Change Vulnerability Index: Moderately Vulnerable
Confidence: Moderate

Habitat:

The range of the wild limestone petunia extends south from Pennsylvania, Michigan and Nebraska to Florida and Texas (NatureServe 2010). It occurs at the northern tier of its range in Pennsylvania but is restricted to mesic forests, bluffs, and roadsides on calcareous soils in the southern third of Pennsylvania (Rhoads and Block 2007).

Threats:

The wild limestone petunia is threatened by deforestation, displacement by exotic plant species, and deer herbivory.

Main Factors Contributing to Vulnerability Rank:

Predicted impact of land use changes designed to mitigate against climate change:
The rich soils where the species occurs may be attractive for plantation development for bio-diesel farms.

Dispersal ability: Seeds are most likely dispersed ballistically for short distances.

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.

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

Literature Cited:

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.