

Species: Jeweled shooting star (*Dodecatheon radicum*)  
Global Rank: GNR  
State Rank: S2  
Climate Change Vulnerability Index: Extremely Vulnerable  
Confidence: Very high

Habitat:

Jeweled shooting star grows on moist, shaded areas of east and north facing limestone outcrops and river bluffs. The plant often occurs on rock ledges that receive dripping water or along wet cliffs, but are also known from dry to moist alkaline bluffs (PNHP 2007). In Pennsylvania, known populations are limited to the watersheds of the Susquehanna and Potomac Rivers.

Threats:

Few known populations exist in Pennsylvania. Some historic populations were lost to development and railroad line blasting. Limestone mining and development continue to threaten some populations. Plants growing near railroads may be threatened by herbicides used to keep tracks clear of weeds (PNHP 2007).

Main Factors Contributing to Vulnerability Rank:

Dispersal ability: Dispersal mechanisms for jeweled shooting star are not clearly understood but other members within this genus are gravity dispersed or could conceivably be carried via wind or water but probably only disperse short distances.

Predicted macro sensitivity to changes in precipitation, hydrology, or moisture: Within the species range in Pennsylvania, the species has experienced a very small variation in precipitation over the last 50 years.

Predicted micro sensitivity to changes in precipitation, hydrology, or moisture: Jeweled shooting star is mostly limited to moist microsites.

Physical habitat specificity: Jeweled shooting star is highly specialized in its habitat requirements, occupying mostly moist, limestone outcrops.

Additional Information:

This species' taxonomy is in a state of flux hence the global rank of GNR. Some populations may be *D. amethystinum*, which would make the eastern populations disjunct from the remainder of the populations in the Midwest.

Literature Cited:

Pennsylvania Natural Heritage Program. 2007. PNHP Fact Sheet – Jeweled Shooting Star.