

Heritage Rank Status Factors

Elcode PMORC0Q060
Gname CYPRIPEDIUM FASCICULATUM
Gcomname Clustered lady's-slipper

Number of Occurrences

E = >300

Comments Of the 8 states where this species is reported, only one, California, does not actively computer track occurrences. Three states give it a state rank of "S3", four give it an "S2" and one an "S1". There are over 300 occurrences reported from Oregon (ORNHIC 2002). In 1997, 36 precise locations were documented in 7 counties in Colorado.

Number of Occurrences with Good Viability

E = Many (41-125) occurrences with good viability

Comments In Oregon, there are 10 occurrences with 100 or 100+ plants noted. Wyoming notes that most populations contain relatively few plants, but there is one with 1000 (WYNHP 2002). It is assumed that among the 5 other states, not including Utah, that there will be a total of at least 30 more populations with 100+ plants.

Population Size

F = 10,000-100,000 individuals

Comments As of 1997, the estimated total number of individuals in Colorado was 10,000. Populations in Wyoming tend to contain relatively few individuals (Fertig 2000). Oregon's plant numbers are around 4500. No plant numbers are known for California, Idaho, Montana, Utah, and Washington.

Range Extent

G = 200,000-2,500,000 km² (about 80,000-1,000,000 square miles)

Comments *Cypripedium fasciculatum* is found in Washington to central California, and scattered throughout the Rocky Mountains in Idaho, Montana, Wyoming, Utah, and Colorado (Camon and Arnett 1991). It is reported to occur in southern British Columbia, but apparently no longer occurs there, or was incorrectly reported as having occurred there (Brownell & Catling 1987).

Area of Occupancy

U = Unknown

LU = Unknown

Comments Unknown

Long-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

D = Moderate Decline (decline of 25-50%)

Comments Plants in Wyoming are possibly decreasing, due to loss of habitat caused by logging. Recent findings may suggest that the species is more widespread in Wyoming than previously considered

(Fertig 2000).

Short-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

D = Declining. Decline of 10-30% in population, range, area occupied, and/or number or condition of occurrences

Comments Plants in Wyoming are possibly decreasing, due to loss of habitat caused by logging. Recent findings may suggest that the species is more widespread in Wyoming than previously considered (Fertig 2000).

Threats

B = Moderate and imminent threat. Threat is moderate to severe and imminent for a significant proportion (20-60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a moderate area, either causing irreversible damage or requiring a long-term recovery.

Scope Moderate **Severity** Moderate **Immediacy** Moderate

Comments This species is threatened by timbering, road construction, development, fire suppression, and collecting (Fertig 2000). Surface disturbances and canopy elimination may also negatively affect this species.

Number of Appropriately Protected and Managed Occurrences

D = Many (13-40) occurrences appropriately protected and managed

E = Very many (>40) occurrences appropriately protected and managed

Comments It is estimated that at least 20 occurrences in Oregon, Washington and California are in protected areas (ORNHIC 2002, ISMS 2002), and another 40 are in riparian buffer zones, which limits logging activities. Populations in the riparian buffer zones will have some protection from timber harvest activities, but not from grazing, if that is a specific threat.

Intrinsic Vulnerability

A = Highly Vulnerable. Species is slow to mature, reproduces infrequently, and/or has low fecundity such that populations are very slow (> 20 years or 5 generations) to recover from decreases in abundance; or species has low dispersal capability such that extirpated populations are unlikely to become reestablished through natural recolonization (unaided by humans). Ecological community occurrences are highly susceptible to changes in composition and structure that rarely if ever are reversed through natural processes even over substantial time periods (> 100 years).

Comments

Environmental Specificity

C = Moderate. Generalist or community with some key requirements scarce.

Comments It has been hypothesized that a species of fungus associated with deer or elk feces is required for seed germination. *Cyripedium fasciculatum* occurs in habitats that burn with some regularity (at least historically). The taxon may be able to survive a low intensity underburn, but not high intensity fires in areas where fuel loading is unnaturally high as a result of decades of fire suppression (WANHP 2002).

Other Considerations

NRANK: N4

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Greasons

The species' overall range and the number of known populations suggest that the taxon is not in immediate danger. However, the small size of most populations, their isolated nature, and the presence of conflicting land uses warrant concern for the species' long-term survival throughout its range (Camon and Arnett 1991).

BCD Sources

New Sources

Interagency Species Management System. November 20002. ISMS data set. ISMS BLM and USFS, Portland, OR.

Oregon Natural Heritage Information Center. 2002. Oregon Natural Heritage Program data set. Oregon Natural Heritage Information Center, Portland, OR.

Washington Natural Heritage Program. 2002. WA Rare Plant Field Guide, *Cypripedium fasciculatum*.

http://www.wa.gov/dnr/htdocs/fr/nhp/refdesk/fguide/htm/fsp_cyfa.htm

Wyoming Natural Heritage Program. 2002. State Species Abstract, 2000, *Cypripedium fasciculatum*.

http://uwadmnweb.uwyo.edu/WYNDD/PDF_files/Plant_Summaries/C/Cypripedium%20fasciculatum.pdf