

Heritage Rank Status Factors

Elcode PMORC0Q080
Gname CYPRIPEDIUM MONTANUM
Gcomname Mountain lady's slipper

Number of Occurrences

E = >300

Comments Common to occasional in appropriate habitat. Described as "infrequent in and east of the Coast-Cascade Mountains [in British Columbia], rare northwards" (Douglas et al. 2001). An estimate of occurrences in eastern Oregon is approximately 200 (personal communication, J. Kagan 2001), and another 100 in western Oregon (personal communication, Vrillakas 2002). From the ISMS data set, it is estimated to have 60 occurrences in northern California and 50 in western Washington (ISMS 2002). The state of California does not keep track of occurrences.

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments Unknown

Population Size

G = 100,000-1,000,000 individuals

Comments In Wyoming, population sizes are variable, with from as few as 50 to as many as over 500 individuals (Fertig 2000).

Range Extent

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

Comments The range for this species is southeastern Alaska south to California and east to Saskatchewan, Montana and Wyoming.

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

C = Substantial Decline (decline of 50-75%)

Comments This species is reportedly declining slowly, due to fire suppression and perhaps also due to harvesting of wild plants (personal communication, J. Kagan, December 2002). Seevers and Lang (1998) mention examples of severe damage to populations on logged areas in Oregon and California. In Alberta, where *C. montanum* is only found in the southwestern part of the province, estimated overall population decline is 20 percent over the past 10 years (Ksenija Vujnovic, personal communication 2002).

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

Threats

D = Moderate, non-imminent threat. Threat is moderate to severe but not imminent for a significant portion of the population, occurrences, or area.

Scope Moderate Severity Moderate Immediacy Low

Comments Habitat loss, such as logging, fire suppression, and harvesting of wild plants threaten this species (personal communication, J. Kagan, December 2001). Grazing has also been cited as a threat (Fertig 2000, Ksenija Vujnovic, personal communication, 2002). Other threats include park and campground maintenance, road construction, and herbicide spraying (Washington Natural Heritage Program 1981). In addition, disturbances caused by the collection of other species, such as mushrooms or medicinal plants, may damage habitat (Seevers and Lang 1998). *Cypripedium montanum* is advertised by several distributors as available laboratory-propagated. Fire suppression may be the largest threat to the many populations located in developed/developing areas.

Number of Appropriately Protected and Managed Occurrences

C = Several (4-12) occurrences appropriately protected and managed

Comments At least 13 populations rangewide occur on public lands and one on an easement administered by The Nature Conservancy (Fertig 2000). Some protected populations on Forest Service land are not reproducing (Skinner and Pavlik 2001). Eight populations are located in Waterton Lakes National Park (Canada) and 2 in provincial parks in Alberta (Ksenija Vujnovic, personal communication, 2002), but these still subject to flower picking and high intensity fires resulting from long-term fire suppression.

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 Requires mycorrhizal fungal associate, can have long dormancy, pollinator dependent,

Environmental Specificity

D = Broad. Generalist or community with all key requirements common.

Comments

Other Considerations

NRANK: N4

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Greasons

Occasional in western North America, with thousands of occurrences, but many of those with few plants. Occurs in a wide variety of habitats, from full sun on eastern mountain slopes, to full shade in moist wooded valleys (Luer 1975). Threatened by habitat loss or alteration. The main concern for this species is that present day botanists are observing and hearing anecdotal accounts of population loss. Although populations are known to be declining significantly, there are still abundant enough numbers of plants and populations.

BCD Sources

New Sources

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