

Heritage Rank Status Factors

Elcode PPOPH010K0
Gname BOTRYCHIUM MONTANUM
Gcomname Mountain grapefern

Number of Occurrences

D = 81 - 300

Comments Total world-wide occurrences is approximated at 200. Montana and Oregon have about 50 occurrences each, Washington 100, Idaho 13, British Columbia 5, and California 1.

Number of Occurrences with Good Viability

C = Few (4-12) occurrences with good viability

Comments Oregon has 2 occurrences with 100+ plants, and 3 with 50+ plants. Information on occurrences in other states is unknown.

Population Size

E = 2,500-10,000 individuals

Comments Total plant numbers are probably greater than 2500, but less than 10,000.

Range Extent

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

Comments Botrychium montanum is found in western North America, British Columbia, Washington, Oregon, northern California, northern Idaho and northwestern Montana. Most of the known occurrences have been reported from Oregon, Montana, and Washington and to a lesser extent in Idaho, British Columbia and California, where it is known from one location.

Area of Occupancy

D = 20-100 km² (about 5,000-25,000 acres)

E = 100-500 km² (about 25,000-125,000 acres)

LD = 200-1,000 km (about 125-620 miles)

LE = 1,000-5,000 km (about 620-3,000 miles)

Comments Total occupancy acreage is from 5,000 to 125,000 acres.

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

E = Relatively Stable ($\pm 25\%$ change)

Comments

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

E = Stable. Population, range, area occupied, and/or number or condition of occurrences unchanged or remaining within $\pm 10\%$ fluctuation

Comments

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

Number of Appropriately Protected and Managed Occurrences

B = Few (1-3) occurrences appropriately protected and managed
C = Several (4-12) occurrences appropriately protected and managed
D = Many (13-40) occurrences appropriately protected and managed

Comments Many occurrences are located along streams and creeks and would probably be protected from logging activities, though grazing may still be a threat.

Intrinsic Vulnerability

B = Moderately Vulnerable. Species exhibits moderate age of maturity, frequency of reproduction, and/or fecundity such that populations generally tend to recover from decreases in abundance over a period of several years (on the order of 5-20 years or 2-5 generations); or species has moderate dispersal capability such that extirpated populations generally become reestablished through natural recolonization (unaided by humans). Ecological community occurrences may be susceptible to changes in composition and structure but tend to recover through natural processes given reasonable time (10-100 years).

Comments

Environmental Specificity

B = Narrow. Specialist or community with key requirements common.
C = Moderate. Generalist or community with some key requirements scarce.

Comments This species grows in wet areas, riparian corridors and seeps. In parts of its range, Idaho and Montana, it appears to be closely associated with mature to old-growth western red cedar.

Other Considerations

NRANK: N3N4

Edition Edauthor Vrilakas, Sue

Grank G3G4 Grank Date 11/15/2002

Reasons

Although the number of occurrences is high (about 100-200), the total number of plants is rather low, from 2500 to 10,000 individuals. Many of the populations may be protected from logging because they are located within riparian buffer zones, although grazing would still be a threat.

BCD Sources

New Sources

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