Washington Status Factors

Elcode NLSM000008

Gname LEPTOGIUM RIVALE

Gcomname

Number of Occurrences

A = 1 - 5
B = 6 - 20

Comments 4 sites; possibly 11 small populations.

Number of Occurrences with Good Viability

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

Comments Since the 11 sites show up as 4 on the map (not cited), each of the 4 may be large (more than 10 thalli per site).

Population Size

B = 50-250 individuals
C = 250-1,000 individuals

Comments 40 individuals is probably a minimum estimation.

Range Extent

D = 1,000-5,000 km2 (about 400-2,000 square miles)

Comments Mountain streams in the Cascades. WA range is approximately 1,500 square miles.

Area of Occupancy

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

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

Comments In WA, the total area of the Mountain ranges is about 400 square miles; the streams within occupy far less area.

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

E = Relatively Stable (±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 ±10% fluctuation

Comments

Threats

H = Unthreatened. Threats if any, when considered in comparison with natural fluctuation and change, are minimal or very localized, not leading to significant loss or degradation of populations, occurrences, or area even over a few decades' time. (Severity, scope, and/or immediacy of threat considered Insignificant.)

Scope Insignificant Severity Insignificant Immediacy Insignificant

Comments Change in water level and water pollution are threats, including acid rain and eutrophicaton. The species' mountain habitat probably makes it less susceptible to threats than lowland species.

Number of Appropriately Protected and Managed Occurrences

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

Comments WA has 4 protected sites.

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).
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 Slow growers.

Environmental Specificity

A = Very Narrow. Specialist or community with key requirements scarce.

Comments More-or-less submerged in cold, clear mountain streams or lakes. This specialized habitat certainly accounts for the few collections (Jorgensen 1994).

Other Considerations

Water temperature, water level, and chemical pollution severely affect this species.

Edition 2/20/2003 **Edauthor** Daphne Stone

Grank S1 **Grank Date** 11/30/2002

Greasons

Known from only 4 locations in Washington.

BCD Sources

New Sources

Brodo, Irwin M., Sharnoff, Sylvia D. and Stephen Sharnoff. 2001. Lichens of North America. Yale University Press. New Haven and London. 795 pp.
McCune, B. and L. Geiser. 1997. Macrolichens of the Pacific Northwest. Oregon State University Press,

Corvallis, Oregon. A co-publication with the U.S. Department of Agriculture Forest Service. 386 pp.