Heritage Rank Status Factors

Elcode NLTEST5460

Gname BRYORIA SPIRALIFERA

Gcomname

Number of Occurrences

A = 1 - 5

Comments About 6 occurrences--5 located in CA: one large occurrence in Lanphere dunes; one at Lake Earl; one in San Luis Obispo; possibly one in Monterey, possibly one in Point Arena. Point Arena area was searched recently for populations, but none were found (Glavich, personal communication, 2002). One occurrence located in Oregon.

Number of Occurrences with Good Viability

B = Very few (1-3) occurrences with good viability

Comments

Population Size

Comments Most individuals are part of a single large population at Lanphere Dune, California. Other populations are small.

Range Extent

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

Comments Known from Humboldt, San Luis Obispo, Monterey, and Sonoma counties in California, and from coastal Oregon (Coos Bay) (Brodo & Hawksw 1977, Riefner 1995, McCune and Geiser 1997, McCune 1997). Two sites reported in the Cascades and one in Willamette Valley are mistakes. Total range is only about 700 miles, from Coos Bay, OR to San Luis Obispo, CA.

Area of Occupancy

B = 0.4-4 km2 (about 100-1,000 acres)

LB = 4-40 km (about 2.5-25 miles)

Comments

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

U = Unknown. Long-term trend in population, range, area occupied, or number or condition of occurrences unknown

Comments Increases are artificial; new populations are being found.

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

U = Unknown. Short-term trend in population, range, area occupied, and number and condition of occurrences unknown.

Comments Increases are artificial; new populations are being found.

Threats

A = Substantial, imminent threat. Threat is moderate to severe and imminent for most (> 60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a widespread area, either causing irreversible damage or requiring long term recovery

Scope High Severity High Immediacy High

Comments Disturbance of any of the small populations could lead to that population's extinction. Bryoria tends to be sensitive to air pollution.

Number of Appropriately Protected and Managed Occurrences

B = Few (1-3) occurrences appropriately protected and managed

Comments Of the 6 populations known, 1 has adequate protection. Others are in state or other parks but do not have specific protection.

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 "Perhaps B. spiralifera is more sensitive to small-scale climatic differences and/or is more dispersal limited [than B. pseudocapillaris]" (Glavich et al., 2002 unpublished).

Environmental Specificity

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

Comments Sand dune predictor, old dune forests, high dew point, immediate coast areas.

Other Considerations

NRANK - N1.

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

Grank G1 **Grank Date** 11/30/2002

Greasons

Known from only 6 populations, only one of them large, and restricted to a 700 mile-long area immediately adjacent to the coast, from southern Oregon to southern California.

BCD Sources

New Sources

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.

McCune, B. 1997. June-last update. Errata: Macrolichens of the Pacific Northwest. Online. Available: http://ucs.orst.edu/~mccuneb/errpnw.htm. Accessed 1999, January 22.
Riefner, R.E., Jr., P.A. Bowler, and B.D. Ryan. 1995. New and interesting records of lichens from California. Bulletin of the California Lichen Society 2(2) Winter 1995. Online. Available: http://ucjeps.herb.berkeley.edu/rlmoe/cals2_2.html. Accessed 1999, January 25.
Brodo IM and DL Hawksworth. 1977. Alectoria and allied genera in North America. Opera Botanica 42: 1-164
Glavich, D, Geiser LH, and Mikulun A. 2002 unpubl. Assessment of the old-growth forest association and habitat requirements of federally listed coastal lichens from northern California, Oregon and Washington, USA. USDA-Forest Service