

Washington Status Factors

Elcode NBHEP2U010
Gname PTILIDIUM CALIFORNICUM
Gcomname LIVERWORT

Number of Occurrences

E = >300

Comments The ISMS database contains records for about 178 sites in Washington.

Number of Occurrences with Good Viability

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

Comments Estimated 100 occurrences in Washington with good viability.

Population Size

F = 10,000-100,000 individuals

Comments Estimated 20,000 individuals in Washington.

Range Extent

F = 20,000-200,000 km² (about 8,000-80,000 square miles)

Comments Estimated range is 20,000 square miles in Washington. Known from the Cascade Range and Olympic Mountains. Probably in southwestern Washington also.

Area of Occupancy

B = 0.4-4 km² (about 100-1,000 acres)

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

Comments Estimated area of occupancy is 200 acres in Washington.

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 Moderate long-term decline of 25-50% in Washington. Local impacts from logging.

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 Short-term decline of 10-30% in Washington, for reasons cited above.

Threats

G = Slightly threatened. Threats, while recognizable, are of low severity, or affecting only a small portion of the population, occurrences, or area. Ecological community occurrences may be altered in minor parts of range or degree of alteration falls within the natural variation of the type.

Scope Low

Severity Low

Immediacy Low

Comments Slightly threatened in Washington. Logging is primary threat.

Number of Appropriately Protected and Managed Occurrences

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

Comments Estimated 34 protected areas in Washington.

Intrinsic Vulnerability

C = Not Intrinsically Vulnerable. Species matures quickly, reproduces frequently, and/or has high fecundity such that populations recover quickly (< 5 years or 2 generations) from decreases in abundance; or species has high dispersal capability such that extirpated populations soon become reestablished through natural recolonization (unaided by humans). Ecological community occurrences are resilient or resistant to irreversible changes in composition and structure and quickly recover (within 10 years).

Comments Not intrinsically vulnerable. Plants are small and fragile, but reproduce readily by spores and fragmentation of gametophytes. Plants will recolonize sites when suitable habitat and substrate are present, but this depends on the availability of inoculum from nearby populations.

Environmental Specificity

B = Narrow. Specialist or community with key requirements common.

Comments Narrow environmental specificity. Located on bark at the base of standing trees or recently fallen logs, rarely on other organic substrates. At the southern end of its range (Oregon and California), this species is distinctly restricted to middle elevation forests in the *Abies amabilis* zone (between 3000 and 5000 feet elevation), where it is one of the dominants of the cryptogam community.

Other Considerations

Edition 2/20/2003 **Edauthor** John A. Christy

Grank S4 **Grank Date** 11/25/2002

Reasons

About 178 sites in Washington. Estimated 100 occurrences in Washington with good viability. Estimated 20,000 individuals in Washington. Estimated range is 20,000 square miles in Washington. Estimated area of occupancy is 200 acres in Washington. Moderate long-term decline of 25-50% in Washington. Short-term decline of 10-30% in Washington. Slightly threatened in Washington. Estimated 34 protected areas in Washington. Not intrinsically vulnerable. Narrow environmental specificity.

BCD Sources

New Sources

USDA Forest Service, USDI Bureau of Land Management, USDI Fish and Wildlife Service. 2002. Interagency Species Management System [ISMS] database. Portland, Oregon.
Christy, J.A. & D.H. Wagner. 1996. Guide for the identification of rare, threatened or sensitive bryophytes in the

range of the northern spotted owl, western Washington, western Oregon, and northwestern California. USDI Bureau of Land Management. 200 pp.

University of Alberta. 2002. Devonian Botanic Garden bryophyte database. Edmonton, Alberta. <<http://www.devonian.ualberta.ca/devonian/bryosearch.cfm>>.