

Washington Status Factors

Elcode NBHEP1K010

Gname HERBERTUS ADUNCUS

Gcomname LIVERWORT

Number of Occurrences

A = 1 - 5

Comments About 4 occurrences are known in Washington.

Number of Occurrences with Good Viability

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

Comments Estimated 2 occurrences in Washington with good viability.

Population Size

B = 50-250 individuals

Comments Estimated 200 individuals in Washington.

Range Extent

H = > 2,500,000 km² (greater than 1,000,000 square miles)

Comments Estimated range is 21,000 square miles in Washington, based on geographic spread of historic sites south to northern Oregon. Known from the Cascade Range and Olympic Mountains. Probably also in Willapa Hills area.

Area of Occupancy

A = <0.4 km² (less than about 100 acres)

LA = <4 km (less than about 2.5 miles)

Comments Estimated area of occupancy is 10 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. Climate change is a potential threat at the southern edge of the species' range.

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, due to logging in coastal forests.

Threats

E = Localized substantial threat. Threat is moderate to severe for a small but significant proportion of the population, occurrences, or area. Ecological community occurrences are directly impacted over a small area, or in a small portion of their range, but threats require a long-term recovery.

Scope Low

Severity Moderate

Immediacy Moderate

Comments Localized substantial threat at southern edge of range, but secure farther north. Logging of coastal forests is primary threat.

Number of Appropriately Protected and Managed Occurrences

A = None. No occurrences appropriately protected and managed

Comments Apparently no protected occurrences in Washington.

Intrinsic Vulnerability

C = Not Intrinsicly 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 wet rocks, cliffs, and trees. Requires high humidity and perennially cool temperatures. Not restricted to old growth forests.

Other Considerations

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

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Greasons

About 4 occurrences are known in Washington. Estimated 2 occurrences in Washington with good viability. Estimated 200 individuals in Washington. Estimated range is 21,000 square miles in Washington. Estimated area of occupancy is 10 acres in Washington. Moderate long-term decline of 25-50% in Washington. Short-term decline of 10-30% in Washington. Localized substantial threat at southern edge of range. Apparently no protected occurrences 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

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