

# Washington Status Factors

**Elcode** NBMUS99010  
**Gname** IWATSUKIELLA LEUCOTRICHA  
**Gcomname** MOSS

## Number of Occurrences

B = 6 - 20

**Comments** Seven occurrences are known in Washington, none of which are in the ISMS database.

## Number of Occurrences with Good Viability

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

**Comments** Estimated 4 occurrences with good viability in Washington.

## Population Size

A = 1-50 individuals

**Comments** Estimated less than 50 individuals in Washington.

## Range Extent

D = 1,000-5,000 km<sup>2</sup> (about 400-2,000 square miles)

**Comments** Estimated range is 2000 square miles in Washington. Known from Willapa Hills and the Olympic Peninsula. Most occurrences restricted to immediate coast.

## Area of Occupancy

A = <0.4 km<sup>2</sup> (less than about 100 acres)

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

**Comments** Estimated area of occupancy is less than 100 acres in Washington.

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

C = Substantial Decline (decline of 50-75%)

**Comments** Substantial long-term decline of 50-75%. Logging of coastal forests in Washington has presumably decimated populations.

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

C = Rapidly Declining. Decline of 30-50% in population, range, area occupied, and/or number or condition of occurrences

**Comments** Rapid short-term decline of 30-50% of populations, caused by factors cited above.

## 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** Moderate and imminent threat. Roding and logging in Washington has presumably decimated populations in some areas. Air pollution from pulp mills and urban areas is a potential threat. Overcollecting is a threat, because known populations there are highly restricted, and the species is a sought-after rarity.

## Number of Appropriately Protected and Managed Occurrences

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

**Comments** Only one site protected and managed appropriately in Washington, in a state Natural Area Preserve.

## 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** Moderately vulnerable. Plants are small and fragile, but reproduce readily by fragmentation of gametophytes. Their epiphytic habit makes them vulnerable to logging. Sporophytes are unknown for most North American populations.

## Environmental Specificity

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

**Comments** Narrow environmental specificity. Forms thin mats on twigs and bark of conifers, cottonwoods, and alders, often along ridges subject to fog penetration, mostly along the immediate coast. At the southern end of its range in Washington and Oregon, it is restricted to silver fir forests at or above 3000 feet elevation.

## Other Considerations

**Edition** 2/20/2003      **Edauthor** John A. Christy and Judith Harpel

**Grank** S2      **Grank Date** 1/13/2003

## Greasons

Seven occurrences are known in Washington. Estimated 5 occurrences with good viability. Estimated less than 50 individuals in Washington. Estimated range is 2000 square miles. Estimated area of occupancy is less than 100 acres in Washington. Substantial long-term decline of 50-75%. Rapid short-term decline of 30-50%. Moderate and imminent threat. One site protected and managed appropriately. Moderately vulnerable. Narrow environmental specificity.

## BCD Sources

## **New Sources**

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.

USDA Forest Service, USDI Bureau of Land Management, USDI Fish and Wildlife Service. 2002. Interagency Species Management System [ISMS] database. Portland, Oregon.