

Washington Status Factors

Elcode NBHEP3C020
Gname TRITOMARIA EXSECTIFORMIS
Gcomname LIVERWORT

Number of Occurrences

B = 6 - 20

Comments The ISMS database contains records from about 6 sites in Washington.

Number of Occurrences with Good Viability

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

Comments Estimated 3 occurrences in Washington with good viability.

Population Size

B = 50-250 individuals

Comments Estimated 200 individuals in Washington.

Range Extent

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

Comments Estimated range is about 10,000 square miles in Washington. Known from the Cascade Range. Known sites, all near or east of the Cascade crest, suggest an interior/continental distribution.

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 20 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. Associated with permanent, cold-water streams representing refugia that are less abundant now than in previous times. Dispersal is thus inhibited and less likely over time. Long term viability is dependent on longevity of populations at established sites.

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

F = Widespread, low-severity threat. Threat is of low severity but affects (or would affect) most or a significant portion of the population, occurrences, or area. Ecological community occurrences are not threatened severely, with changes reversible and recovery moderately rapid.

Scope Moderate Severity Low Immediacy Moderate

Comments Widespread low-severity threat at southern edge of range, but secure farther north. Logging and stream degradation are ongoing threats. Acid rain and climate change are potential threats.

Number of Appropriately Protected and Managed Occurrences

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

Comments One protected occurrence 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. Closely associated with permanent, cold-water streams. Located on peaty or humic soil and rotting wood, often on creek banks where perpetually shady, cool and moist.

Other Considerations

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

Grank S2 **Grank Date** 11/25/2002

Reasons

About 6 sites in Washington. Estimated 3 occurrences in Washington with good viability. Estimated 200 individuals in Washington. Estimated range is about 10,000 square miles in Washington. Estimated area of occupancy is 20 acres in Washington. Moderate long-term decline of 25-50% in Washington. Short-term decline of 10-30% in Washington. Widespread, low-severity threat at southern edge of range. One protected occurrence 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.