

Washington Status Factors

Elcode NBMUS7B010
Gname TETRAPHIS GENICULATA
Gcomname MOSS

Number of Occurrences

C = 21- 80

Comments Estimated 40 occurrences in Washington. The ISMS database contains about 114 records for the state, representing about 30 sites. Plants are usually intermixed with much more common *Tetraphis pellucida*, and presumably this species is somewhat more widespread than numbers indicate.

Number of Occurrences with Good Viability

D = Some (13-40) occurrences with good viability

Comments Estimated 15 occurrences in Washington with good viability.

Population Size

C = 250-1,000 individuals

Comments Estimated 250-1000 individuals in Washington.

Range Extent

E = 5,000-20,000 km² (about 2,000-8,000 square miles)

Comments Estimated range is 8,000 square miles in Washington. Known from the Olympic Peninsula, southwestern Washington, and Cascade Range. Absent from Puget Trough.

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 Long-term trend is a moderate decline of 25-50%. Logging and subsequent drying of the understory, coupled with long-term loss of large woody debris in various decay classes and diameters, has reduced the abundance of this species and other more common taxa associated with rotting wood.

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% of population may be ongoing, because of reasons cited above.

Threats

D = Moderate, non-imminent threat. Threat is moderate to severe but not imminent for a significant portion of the population, occurrences, or area.

Scope Moderate **Severity** Moderate **Immediacy** Low

Comments Moderate, non-imminent threat. Logging and subsequent drying of the understory, coupled with long-term loss of large woody debris in various decay classes and diameters, has reduced the abundance of this species and other more common taxa associated with rotting wood.

Number of Appropriately Protected and Managed Occurrences

C = Several (4-12) occurrences appropriately protected and managed

Comments Four occurrences protected in Washington and managed accordingly.

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 but reproduce readily by spores, gemmae, and fragmentation of gametophytes. They are limited by their dependence on wood substrate of various decay classes and diameters that have become scarce in managed forests.

Environmental Specificity

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

Comments Narrow environmental specificity. Habitat is well-rotted stumps and logs (rarely on rocks) in shaded, humid locations at low to middle elevations. It is almost always associated with the common *Tetraphis pellucida*. Associated bryophyte species are typical of rotting wood in cool, shaded and moist habitats, especially on stream terraces and floodplains. It is likely that they have mycorrhizal associations with decomposer fungi in the rotting wood, and play a key role in nutrient cycling in forest ecosystems.

Other Considerations

Plants are usually intermixed with much more common *Tetraphis pellucida*, and presumably this species is somewhat more widespread than numbers indicate.

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Grank S3 **Grank Date** 1/13/2003

Reasons

Estimated 40 occurrences in Washington. Estimated 15 occurrences in Washington with good viability. Estimated 250-1000 individuals in Washington. Estimated range is 8,000 square miles in Washington. Estimated area of occupancy is 200 acres in Washington. Long-term trend is a moderate decline of 25-50%, short-term decline of 10-30%. Moderate, non-imminent threat. Four occurrences protected in Washington. 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.

Crum, H. & L.E. Anderson. 1981. Mosses of Eastern North America. 2 vols. Columbia University Press, New York. 1328 pp.

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

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

New York Botanical Garden. 2002. Catalog of American bryophytes database. New York, NY.
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