

## Heritage Rank Status Factors

**Elcode** NBHEP15010  
**Gname** DIPLOPHYLLUM ALBICANS  
**Gcomname** LIVERWORT

### Number of Occurrences

E = >300

**Comments** Estimated 1500 occurrences worldwide. The University of Alberta database has the most complete listing, with 720 records worldwide. The ISMS database contains 90 records, representing about 92 sites.

### Number of Occurrences with Good Viability

F = Very many (>125) occurrences with good viability

**Comments** Estimated 300 occurrences worldwide with good viability.

### Population Size

G = 100,000-1,000,000 individuals

**Comments** Estimated more than 100,000-1,000,000 individuals worldwide.

### Range Extent

H = > 2,500,000 km<sup>2</sup> (greater than 1,000,000 square miles)

**Comments** Estimated range greater than 1,000,000 square miles worldwide. Circumboreal distribution, mostly maritime, but some populations inland. Canada (British Columbia, Yukon, Qubec, Maritime provinces), northern US states (Alaska, Washington, Oregon, Maine, probably others), Greenland, UK, Scandinavia, Europe, Russian far east, China, Japan, Korea, Taiwan.

### Area of Occupancy

C = 4-20 km<sup>2</sup> (about 1,000-5,000 acres)

LC = 40-200 km (about 25-125 miles)

**Comments** Estimated area of occupancy 1000 acres worldwide.

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

E = Relatively Stable ( $\pm 25\%$  change)

**Comments** Long-term trend relatively stable--in some regions possibly increased because of ability to grow on disturbed soil.

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

E = Stable. Population, range, area occupied, and/or number or condition of occurrences unchanged or remaining within  $\pm 10\%$  fluctuation

**Comments** Short-term trend stable.

## Threats

H = Unthreatened. Threats if any, when considered in comparison with natural fluctuation and change, are minimal or very localized, not leading to significant loss or degradation of populations, occurrences, or area even over a few decades' time. (Severity, scope, and/or immediacy of threat considered Insignificant.)

**Scope** Insignificant      **Severity** Insignificant      **Immediacy** Insignificant

**Comments** Unthreatened, as far as is known. Local threats from logging. In addition to forest habitat, this species also grows on road cuts and is not dependent on old growth forests. This species is likely to persist as long as there are shady, cool and moist habitats.

## Number of Appropriately Protected and Managed Occurrences

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

**Comments** Estimated at least 75 protected occurrences worldwide.

## 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

C = Moderate. Generalist or community with some key requirements scarce.

**Comments** Narrow to generalist environmental specificity. Located on rotting logs, bark, wet rocks and mineral soil, mostly in maritime regions. Also found in organic substrates in late successional forests and on soil on streambanks and road cuts.

## Other Considerations

NRANK - N4.

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

**Grank** G5      **Grank Date** 11/21/2002

## Reasons

Estimated 1500 occurrences worldwide. Estimated 300 occurrences worldwide with good viability. Estimated 100,000-1,000,000 individuals worldwide. Estimated range greater than 1,000,000 square miles worldwide. Estimated area of occupancy is 1000 acres worldwide. Long-term and short-term trends are relatively stable. Unthreatened, as far as is known. Estimated at least 75 protected occurrences worldwide. Not intrinsically vulnerable. Narrow to generalist environmental specificity.

## BCD Sources

Hong, W.S. 1980. A study of the distribution of Diplophyllum in western North America. The Bryologist 83(4):497-504.

Schuster, R.M. 1974. The Hepaticae and Anthocerotae of North America East of the Hundredth Meridian. Volume III. Columbia University, New York.

Schuster, R.M. 1988. The Hepaticae of South Greenland. J. Cramer. Berlin and Stuttgart, Germany. 255 pp.

### **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.