

Washington Status Factors

Elcode NF00CHAL23
Gname CHOIROMYCES ALVEOLATUS
Gcomname

Number of Occurrences

A = 1 - 5

Comments A truffle whose fruiting bodies may be up to 5 cm in diam, this species was described from California. In Washington it is known from a single locality in Mt. Rainier National Park.

Number of Occurrences with Good Viability

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

Comments The known site is in a protected area so there is a good chance that mycelium (or those mycelia) have good viability.

Population Size

U = Unknown

Comments This can not be determined; records reflect only species presence.

Range Extent

A = <100 km² (less than about 40 square miles)

Comments In Washington known only from one site in Mt. Rainier National Park.

Area of Occupancy

Comments Although the fruiting bodies of this species are relatively large for a truffle and it occurs in areas that have been intensively searched for true and false truffles, relatively few sites for it are known. Short of using molecular tools on soil samples and roots of host plants for mycorrhizal species there is no way to evaluate this factor.

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

U = Unknown. Long-term trend in population, range, area occupied, or number or condition of occurrences unknown

Comments insufficient data to evaluate this factor;

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

U = Unknown. Short-term trend in population, range, area occupied, and number and condition of occurrences unknown.

Comments insufficient data to evaluate this factor;

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 This site in a National Park is not likely to be logged, but trail-building and trail maintenance activities might affect it.

Number of Appropriately Protected and Managed Occurrences

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

Comments One site (Mt. Rainier National Park) is protected at the G1/2 level in Washington.

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 Because of the apparently limited number of sites for this species and the fact that only one area is securely protected from ground disturbing activities, this species is very vulnerable. It is probably mycorrhizal with conifers and dependent on them for energy-rich compounds; thus anything that affects the vigor or persistence of the photosynthetic partner may affect the fungus as well. Dispersal likely by small mammals over relatively short distances, population fluctuations in the mammalian population could impact dispersal and spore germination.

Environmental Specificity

B = Narrow. Specialist or community with key requirements common.
C = Moderate. Generalist or community with some key requirements scarce.

Comments It occurs in coniferous forests above 1300 m in elevation.

Other Considerations

This species is at the northern extreme of its known range in Mt. Rainier National Park. I

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Reasons

A sizeable truffle, up to 5 cm in diam, is easy, as truffles go, to find; however, only one collection of it is one record from Washington since the species was described over 100 years ago. It is truly rare in this state.

BCD Sources

New Sources

Castellano, M.A., Smith, J.A., O'Dell, T., Cazares, E., and Nugent, S. 1999. Handbook to Strategy 1 Fungal Species in the Northwest Forest Plan. Portland, Oregon: USDA Forest Service, PNWRS PNW-GTR-476.