Oregon Status Factors

Elcode NF00CHAL23

Gname CHOIROMYCES ALVEOLATUS

Gcomname

Number of Occurrences

B = 6 - 20

Comments A truffle whose fruiting bodies may be up to 5 cm in diam, this species wast described from California. In Oregon it is known from Douglas, Jackson, Jefferson, Linn, Yamhill, and Clackamas Counties in a total 6 of sites (Castellano et a. 1999).

Number of Occurrences with Good Viability

A = No (A- or B- ranked) occurrences with good viability

Comments Three site are LSRs, at present protected but probably not permanently; the others are not protected and thus probably the viability is not good.

Population Size

A = 1-50 individuals

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

Range Extent

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

Comments In Oregon it is a been found in the McKenzie Resource Area and the Rogue River, Willamette, Deschutes, and Mt. Hood National Forests (all single collections). One collection listed in ISMS as Known Sites Data, is N. W. of Salem.

Area of Occupancy

U = Unknown

LU = Unknown

Comments Short of using molecular tools 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; species does not fruit regularly and its distribution is patchy

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; species does not fruit regularly and its distribution is patchy

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 Because of the apparently limited number of sites for this species and the low level of protection the sites have, if any, this species is threatened by ground disturbing activites, e.g., logging, mining, construction. A significant portion of the known sites could be adversely affected by human activity in the foreseeable future.

Number of Appropriately Protected and Managed Occurrences

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

Comments Three sites are currently protected in LSRs in Oregon but the future of such sites is uncertain. One is in Matrix land.

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 none of them are 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.

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

Other Considerations

ORNHIC List 3. This species is known occur in Oregon in the Cascadaes and one site NW of Salem, apparently in the northern Coast Range.

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Greasons

A sizeable truffle, up to 5 cm in diam, is easy, as truffles go, to find; however, only roughly a dozen collections of this species have been made since it was described in 1899 (Gilkey 1939). Of those, only about 5 are from Oregon. The species occupies a narrow band along the spine of the Cascades with an outlier in Oregon's Coast Range. No sites in Oregon are permanently protected.

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.