

California Status Factors

Elcode NF00CHVE12
Gname CHOIROMYCES VENOSUS
Gcomname

Number of Occurrences

A = 1 - 5

Comments In California known from a single site (Castellano et al. 1999).

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments Of the North American collections, one came from a site in California that is protected at the G1/2 level and thus may be viable in the long term.

Population Size

A = 1-50 individuals

Comments Single population vouchered from California.

Range Extent

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

Comments In California vouchered only from King Range National Conservation area in Humboldt Co.

Area of Occupancy

A = <0.4 km² (less than about 100 acres)

LA = <4 km (less than about 2.5 miles)

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 with a single data point trends can not be discerned

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

Comments with a single data point trends can not be discerned

Threats

C = Substantial, non-imminent threat. Threat is moderate to severe but not imminent (> 10 years) for most of the population, occurrences, or area.

Scope High Severity High Immediacy Low

Comments It appears to be at risk in North America and definitely in California, as there is only a single documented site. It is more than likely mycorrhizal with forest trees, and thus threats to the vigor or existence of the partner trees also are threats to the associated fungi. Other threats include wildfire, severe wind damage, or severe insect damage to living trees.

Number of Appropriately Protected and Managed Occurrences

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

Comments The King Range National Conservation area is protected.

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 If the forest in which it was found is decimated this species might be eliminated from California.

Environmental Specificity

A = Very Narrow. Specialist or community with key requirements scarce.

Comments The paucity of collections for a large, conspicuous truffle indicates the species may have narrow requirements for the microclimates it can inhabit in North America and that they are seldom met.

Other Considerations

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Reasons

On a world basis this species is probably in good shape; the story is quite different in North America where it has only been collected a few times, and only once in California. The three North American sites are probably effectively isolated from the European ones and from one another and may be experiencing different selective pressures that could lead to at least cryptic speciation.

BCD Sources

New Sources

Castellano et al. 1999. 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.

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<http://www.fs.fed.us/pnw/mycology/publications/data.html>.

Pegler, D.N., B.M. Spooner and T.W.K. Young. 1993. British Truffles. A revision of British hypogeous fungi. Kew: Royal Botanic Gardens. 216 pp.