

California Status Factors

Elcode NF000BANI6

Gname BALSAMIA NIGRENS

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Number of Occurrences

A = 1 - 5

Comments Truffles have been studied in western North America for over a hundred years. however fewer than a dozen collections have been documented of it; even among truffles in general this species is not commom although it may be more abundant than data indicates. This species was described from California (Harkness 1899). From California Castellano et al. (1999) report one historic site from outside the range of the northern spotted owl. FSL (n.d.) has records of four additional localities in California outside the range of northern spotted owl. ISMS does not list any collections or sites from California.

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

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

Population Size

Z = Zero, no individuals known extant

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 ICastellano et al. (1999) reported the (historic) type locality in Placer Co., Californnia. The FSL web site (FSL n.d.) mentions two collections from Fresno County an one each from Los Angeles, Stanislaus, and Mariposa counties.

Area of Occupancy

B = 0.4-4 km² (about 100-1,000 acres)

LB = 4-40 km (about 2.5-25 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 insufficient information

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 information

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 While these are guesses, the fungus is mycorrhizal and thus likely dependent on the survival of the surrounding trees for its survival. Fire, logging, and development that result in disturbance of the forests are definite threats over much of its range.

Number of Appropriately Protected and Managed Occurrences

A = None. No occurrences appropriately protected and managed

Comments None of the known locations in California appear to be 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 Fire, logging, mining, and development could damage the habitats.

Environmental Specificity

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

Comments Originally found near *Ceanothus* near Auburn, CA; elsewhere reported from undie *Pseudotsuga* (both species), *Quercus* ssp., *Pinus jeffreyi*, *P. sabiana*, and *Lithocarpus*, etc.

Other Considerations

Has also been called *Balsamia nigra*. In spite of over a century of hunting truffles in California only six collections of it were mentioned in the sources checked,. The type collection was made in the 1800s, not in the range of the northern spotted owl.

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Grank S2 **Grank Date** 11/14/2002

Reasons

This species apparently was found for over 60 years between the time the type was collected and the 1960s, a period during which a lot of work has been done on California truffles. Specimens are not easy to find even for a truffle due to its black color and relatively (to other truffles) small size. More information is needed to be sure about the status of this specis. It may not occur within the range of the spotted owl in California.

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.

FSL n.d. FSL Mycology Research Herbarium. Retrieved 2002.11 from <http://www.mgd.nacse.org/fsl>.

Harkness, H.W. 1899. Californian hypogeous fungi. Proc. Calif. Acad. Sci. Third series 1(8): 241-292.