

California Status Factors

Elcode NF000DEFU2

Gname DESTUNTZIA FUSCA

Gcomname

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 made of this species. Compared to other truffles, this one is rare. It is known from four sites in California, two of which are within the range of the northern spotted owl (Castellano et al. 1999, OSC n.d.).

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments No sites are protected; repeated visits have been made to some of the general localities where this species was found, but apparently without finding it; however, many fungi fruit sporadically and detection is always a problem with truffles.

Population Size

U = Unknown

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 This species was described from Mendocino Co., CA (Fogel and Trappe 1985). Its range extends from the San Jacinto Mtns. in San Bernadino Co. to Sierra Co. and Mendocino Co.

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 too little data to draw any conclusions

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 too little data to draw any conclusions

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 Most truffles are thought to be mycorrhizal, depended on photosynthetic vascular plants for engery sources and other compounds; events and activities that reduce the vigor or eliminate the vascular plant partner(s) will have a negative impact on these fungi. Furthermore the spores of many/most truffles are dispersed by small mammals, arthropods, snails, slugs, etc. so again activites that impact these organisms will impact the fungi. Logging and development are the principal threats.

Number of Appropriately Protected and Managed Occurrences

A = None. No occurrences appropriately protected and managed

Comments none of the sites listed in the ISMS data are 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 A fungus with a patchy distribution and that is rare within its range, even though it has a sizeable range, at risk.

Environmental Specificity

B = Narrow. Specialist or community with key requirements common.

Comments The known sites are varied: two are in the coastal fog belt, and two are in drier habitats in the central Sierra Nevada and San Jacinto Mtns. Just what factors are important for this species remains to be discovered.

Other Considerations

This genus is known so far only from North America; four of five species occur in western North America and two of those species occur within the range of the northern spotted owl. However, in spite of many years of truffling, very few specimens of either species have been found.

Edition 11/19/2002 **Edauthor** Nancy S. Weber

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Greasons

This truffle is endemic to California and Oregon. Although it fruits in a wide variety of habitats it has been collected very rarely. Of the four California sites, two are in the range of the northern spotted owl. No sites are protected but those in San Bernadino and Sierra Co. are the most likely to be threatened by fire, logging, or development. The species needs to be watched and known populations need to be conserved.

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.

Fogel, R., and Trappe, J.M. 1985. *Destuntzia*, a new genus in the Hymenogastraceae (Basidiomycotina). *Mycologia* 77: 732- 742.

OSC n.d. Mycological Collections Oregon State University. Retrieved 2002.11. from <http://ocid.nacse.org/research/herbarium/myco/index.html>.