

Heritage Rank Status Factors

Elcode NF000TUPA4
Gname TUBER PACIFICUM
Gcomname

Number of Occurrences

A = 1 - 5
B = 6 - 20

Comments Although finding truffles can be challenging many are sufficiently common to be known from hundreds of collections. The species was described from Oregon (Trappe and Castellano 2000) and is known only from that state within the range of the northern spotted owl. Eight locations are in the in the summary Count of Locations; this number could not be correlated with known collections. Two sites are mentioned on the Buffer/Survey/Manage data base, and 4 collections representing three sites are listed in the ISMS specimen list. Castellano et al. (1999) listed two sites, A record in the FSL (n.d) web site lists an additional site in Coos Co.

Number of Occurrences with Good Viability

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

Comments One site is in a protected area (Wilderness) and specimens have been collected at that site in two different years. (FSL n.d.).

Population Size

U = Unknown

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

Range Extent

E = 5,000-20,000 km² (about 2,000-8,000 square miles)

Comments The known range as reported in Castellano et al.(1999) and ISMS extends from the Van Duzer Corridor in Polk Co., OR south to the Cummins Creek Wilderness Area in Lane Co., OR. An additional collection is listed on the FSL (n.d.) web site from Coos Co., south of Bandon.

Area of Occupancy

U = Unknown

LU = Unknown

Comments Short of using molecular tools there is no way to evaluate occupancy.

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 Without data showing if the different collections came from different years but in the same site, these factors can not be evaluated.

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 Without data showing if the different collections came from different years but in the same site, these factors can not be evaluated.

Threats

A = Substantial, imminent threat. Threat is moderate to severe and imminent for most (> 60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a widespread area, either causing irreversible damage or requiring long term recovery

Scope High **Severity** High **Immediacy** Moderate

Comments This species appears to be endemic to the coastal or near-coastal low elevation moist coniferous forests of the central coast of Oregon. Primary threats are those that would reduce the vigor or kill the photosynthetic partners (likely trees) and include logging and development.

Number of Appropriately Protected and Managed Occurrences

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

Comments One site, presumably the Cummings Creek Wilderness trailhead, is protected as a G1/2 locality, the other rated site is not protected. No data on the landownership was given for the Coos Co. collection.

Intrinsic Vulnerability

A = Highly Vulnerable. Species is slow to mature, reproduces infrequently, and/or has low fecundity such that populations are very slow (> 20 years or 5 generations) to recover from decreases in abundance; or species has low dispersal capability such that extirpated populations are unlikely to become reestablished through natural recolonization (unaided by humans). Ecological community occurrences are highly susceptible to changes in composition and structure that rarely if ever are reversed through natural processes even over substantial time periods (> 100 years).

Comments The survival of the species is probably dependent in large part on the survival and vigor of the photosynthetic partner. Thus events and activities that impact the photosynthetic partner (air pollution, logging, landslides, development, etc.) are likely to impact the species. Without suitable agents of dispersal (primarily small mammals most likely) dispersal of spores and thus opportunities to colonize new habitats will be severely curtailed.

Environmental Specificity

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

Comments

Other Considerations

NRANK - N2.

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Grank G2 **Grank Date** 11/20/2002

Reasons

This truffle is endemic to Oregon where it has been found in low elevation forests of the central Oregon coast

and nearby--at least that is what the available data indicate. This habitat, which in places approaches the condition of temperate rain forests, is shrinking due to pressures for development and logging. More information is needed on this species; it may well be a species of late successional forests.

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.) USDA Forest Service Forest Mycology Team Databases. Retrieved 2002.11. from <http://www.fs.fed.us/pnw/mycology/publications/data.html>.

Trappe, J.M., and Castellano, M.A. 2000. New sequestrate Ascomycota and Basidiomycota covered by the Northwest Forest Plan. *Mycotaxon* 75: 153-179.