

Heritage Rank Status Factors

Elcode NF0000TUAS

Gname TUBER ASA

Gcomname

Number of Occurrences

B = 6 - 20

Comments Although finding truffles can be challenging, many are sufficiently common to be known from hundreds of collections. The species has been reported from France, Italy, Nebraska (FSL n.d.) and from 3 collections from Oregon and California (ISMS, Castellano et al. 1999).

Number of Occurrences with Good Viability

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

Comments Two of the North American occurrences are in G1/2 protected areas, one each in Oregon and California. Only populations in protected areas have any chance of being viable for an extended period of time.

Population Size

U = Unknown

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

Range Extent

G = 200,000-2,500,000 km² (about 80,000-1,000,000 square miles)

Comments Europe and North America from Oregon, California, and Nebraska.

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 Little data for North American sites, none found on European populations.

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 Little data for North American sites, none found on European populations.

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 On a world basis the European populations are probably larger than the American ones. Tubers are known to be mycorrhizal, and usually associated with the roots of woody plants, thus threats to the photosynthetic member of the partnership resulting in decline in vigor to death also will affect the fungus. Obvious threats are logging and development.

Number of Appropriately Protected and Managed Occurrences

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

Comments The only ones I know of are those in G1/2 areas, one each in California and Oregon, and one site in Oregon in a LSR which also counts as protected at least for the time being.

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 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 Little information on its ecology was available.

Other Considerations

NRANK - N3.

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Grank G3 **Grank Date** 11/20/2002

Reasons

This truffle is rare on a world basis even for truffles; its range includes Europe and central and western North America. Destruction of known sites simultaneously is unlikely although the species is locally rare.

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>.