

Heritage Rank Status Factors

Elcode NF000HYIN8
Gname HYDNOTRYA INORDINATA

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. However, fewer than a half dozen collections of this species have been documented. The species was described from Oregon (Trappe and Castellano 2000). Castellano et al. (1999) list four sites from Oregon for this species; the BufferSurveyManage table includes two sites from Oregon and one from California, and the ISMS list of collections includes one site in California and two in Oregon. The FSL (n.d.) web site lists seven collections from four sites. From the data at hand I could not figure out if there are four sites total or up to nine sites. My suspicion is that the number is probably on the order 5-7 localities. Some collections date to the 1960s so it is debatable whether they should be included in these calculations or considered only as historic collections. I did not find any data on the California site other than that in ISMS.

Number of Occurrences with Good Viability

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

Comments One site in Oregon is rated G1/2 and is protected thus ensuring habitat for the fungus.

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 has a range that extends south from Clackamas Co., OR along the Cascades of Oregon to somewhere in the Six Rivers National Forest in CA

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 insufficient information to evaluate these factors

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

Comments insufficient information to evaluate these factors

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	High	Immediacy	High
--------------	----------	-----------------	------	------------------	------

Comments This truffle may form mycorrhizae with various conifers and if so any factors that diminish the vitality of the trees or result in substantial alterations to the site, e.g., logging, development, also threaten this species. Changes in land management practices could have a negative impact on this species.

Number of Appropriately Protected and Managed Occurrences

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

Comments The ISMS data shows one site on Matrix land in California so it is not protected; for Oregon one G 1/2 site is reported and one Matrix site so only one ISMS site is protected. I'd like to know if it is the Mt. Jefferson Wilderness; if not then a second site would count as protected.

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 This species is probably dependent on mature to old trees and with few protected sites, the species' area of suitable habitat could be severely reduced.

Environmental Specificity

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

Comments This species is known primarily from mesic coniferous forests on sites between 1000 and 2000 m in elevation.

Other Considerations

NRANK - N2.

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

Grank	G2	Grank Date	11/19/2002
--------------	----	-------------------	------------

Reasons

This species is rare for a truffle with about 5-7 known sites. It has been reported only from the Oregon Cascades and one site in northern California. It occurs in mountainous areas, in Oregon between about 1100 and 2000 m in elevation, a zone that is slower to recover from disturbance than are the lower elevations.

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.

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