

Conservation Status Assessment

Scientific Name: *Tuber asa*

Classification: Fungus

Assessment area: Global

Heritage Rank: **G2**

Rank Date: 1/17/2017

Assigned Rank Comments: None.

Range Extent: H = >2,500,000 sq km (> 1,000,000 sq mi)

Comments: There are two sites in the agency database, one in Benton County Oregon and the other in Lane County Oregon. There is one site in the mycoportal.org database from Vancouver Island, British Columbia. Castellano, et al. (1999) mentions another Oregon site at the summit of Hwy 101 in Cascade Head Experimental Forest in Tillamook County Oregon. The Mycoportal.org website has two collections of Tuber from the Cascade Head Summit (*T. gibbisum* and *T. oregonense*). Castellano et al. (1999) also mentions a collection from Nebraska. That record appears to be from Cass county and is currently (2017) recorded as *Tuber* sp. and is in the Duke Herbarium. Castellano, et al. (1999) also mentions sites from France and Italy, but I wasn't able to locate herbarium collections of *T. asa* from Europe. In the 2002 ranking, N. Weber mentions a site in the Shasta-Trinity National Forest that is recorded in the Agency database, but it is not mentioned in Castellano, et al. (1999). The 2016 download of the agency databases do not contain a record of *T. asa* from California. The Oregon and British Columbia range is 18,150 sq. km. Including the California site would increase it to around 50,000 sq. km and including all of the records would put it above 2.5 million sq. km. (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.)

Population Size: Not assessed

Comments: None

Number of Occurrences: B = 6 - 20

Comments: The total number of occurrences of this species in North America is between 3 and 6 depending whether you include only the sites documented in agency or herbarium databases as *T. asa* or whether you also include the sites mentioned in Castellano, et al. (1999) and the 2002 ranking. If there are sites in both France and Italy, there would be at least 2 more. (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.)

Area of Occupancy: D = 6-25 4-km² grid cells

Comments: The total number of grid squares occupied by this species in North Americas between 3 and 6 depending whether you include only the sites documented in agency or herbarium databases as *T. asa* or whether you also include all of sites mentioned in Castellano, et al. (1999) and the 2002 ranking. If there are sites in both France and Italy, there would be at least 2 more. (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.)

Good Viability: A = No occurrences with excellent or good (A or B) viability or ecological integrity

Comments: None of the occurrences are in permanently protected areas.

Environmental Sensitivity: B = Narrow. Specialist or community with key requirements common

Comments: A hypogenous, mycorrhizal, truffle species.

Short Term Trends: Not Evaluated

Comments: None

Long Term Trends: Not Evaluated

Comments: None

Threat Impact: C = Medium

Comments:
Tuber are highly sought after edible species (Truffles). Harvesting based on the best management practices is expected to have minimal negative effect on the long term survival of the organism. However some harvesters use a raking method that is thought to damage the mycelium and could threaten the survival of this species. All of the sites could be threatened by improper harvesting methods. All of the sites could be threatened by timber harvest as well.

Intrinsic Vulnerability: Not Evaluated

Comments: None

Calculated Rank: G2

Rank Author: Michael Russell

Rank Reviewer: Michael Russell

References:
No additional references listed.

Definitions and Resources:

Rank Prefixes	
G	Global rank, applied to taxon's full geographic range
S	State rank, applied to taxon's range within the designated state
Rank Values	
1	Critically imperiled
2	Imperiled
3	Vulnerable
4	Apparently secure, uncommon but not rare
5	Secure, common, abundant, and widespread

Suggested citation:
Oregon Biodiversity Information Center. 2017. Fungi Conservation Status Assessments. Institute for Natural Resources, Portland State University and Oregon State University. Portland, Oregon and Corvallis, Oregon.

More assessments available at <http://inr.oregonstate.edu/orbic/rare-species/ranking-documentation>

Element rank calculator resources at <http://www.natureserve.org/conservation-tools/conservation-rank-calculator>

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