

Heritage Rank Status Factors

Elcode NF000ELAN4
Gname ELAPHOMYCES ANTHRACINUS

Gcomname

Number of Occurrences

U = Unknown

Comments A truffle with black, hypogeous fruiting bodies about 2-3 cm broad. In spite of over 100 years of work on truffles of western North America only a few collections are known. Reported from one site within the range of the northern spotted owl in Jefferson Co., Oregon (Castellano et al. 1999). Also reported from Idaho (Castellano et al. 1999). FSL (n.d.) includes data on collections from Italy, France, and Sweden. Pegler et al. (1993) cite a number of collections from England, some from the 1840s but report that it has a restricted distribution and has not been collected since about 1954 although they say it is "widespread" in Europe. It is rated as an R species on both the red lists for Norway (Bendiksen et al. N.d.) and Denmark (Danish Conservation Committee n.d), as VU on Sweden's list (Samuelsson n.d.) and NT on Finland's list (Rassi et al. 2001)

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments Given the spotty distribution of the species and the fact that the fruiting bodies are hypogeous and black, it is unlikely that there will be good information on the viability of this species in the near future.

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 Known from Europe and two sites in western North America, one each in Oregon and Idaho (Castellano et al. 1999)

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 data to evaluate this factor; species does not fruit regularly and its distribution is patchy

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 insufficient data to evaluate this factor; species does not fruit regularly and its distribution is patchy

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 The fact that this species appears not to have been collected since about 1954 in England indicates that more than the demographics of mycologists is at work here and that species is vulnerable over at least part of its range. With so few known sites for the species in North America, its survival may hinge on what changes occur in those habitats.

Number of Appropriately Protected and Managed Occurrences

Comments The one site in the region of the northern spotted owl is in a campground;

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 appears to be rare throughout its range. It is listed on Red Lists of fungi from Scandinavia as "R" in Denmark (Danish Conservation Committee n.d.) and Norway (Bendiksen et al. n.d.), "VU" in Sweden (Samuelsson n.d.) and "NT" for Finland(Rassi et al. 2001). The fact that this species appears not to have been collected since about 1954 in England indicates that more than the demographics of mycologists is at work here and that species is vulnerable over at least part of its range. With so few known sites for the species in North America, its survival may hinge on what changes occur in those habitats.

Environmental Specificity

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

Comments Unidentified environmental parameters may be important in maintaining the spotty distribution of this species; if it were a generalist and tolerant of a wide range of conditions, it seems likely that more collections of it would be on record.

Other Considerations

NRANK - N3. As of 1993 (Pegler et al.) this species had not been found in England since about 1954 in spite of that period being one of active truffle hunting in England (Pegler et al. 1993) indicates that more than the demographics of mycologists is at work here and that species is vulnerable over at least part of its range. I know one of the people who collected this species in England and she was a vigorous collector well after 1954. Thus the species may be loosing ground in Britain and Europe. With only two records of the species from North America, that population is extremely vulnerable as well.

Edition 11/13/2002 **Edauthor** Nancy S. Weber

Grank G3 **Grank Date** 11/24/2002

Greasons

This species appears to be rare throughout its range. It is listed on Red Lists for several countries and is known from two collections, in different states in North America.

BCD Sources

New Sources

Bendiksen, E., Hoiland, K., Brandrud, T.E., and Jorda, J.B. n.d. Red List of Threatened Fungi in Norway. Retrieved 2002.11.07 from <http://www.toyen.uio.no/botanisk/bot-mus/sopp/>

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.

Danish Conservation Committee n.d. The red list data of fungi in Denmark. Conservation committee. Retrieved 2002.11.05 from <http://192.38.37.132:591/Taxon/search.htm>.

FSL Mycology Research Herbarium. Retrieved 2002.11 from <http://www.mgd.nacse.org/fsl>.

Rassi, P., Alanen, A., Kanerva, T., and Mannerkoski, E. (eds.) 2001. The 2000 Red List of Finnish species. Net version updated 30 November 2001. Retrieved 2002.11. from <http://.vyh.fi/eng/environ/naturcon/threat/2000/2000.htm>.

Samuelsson, J. (compiler). n.d. Swedish Species Information Centre. Retrieved 2002.11. from <http://www.artdata.slu.se/home.htm>.