

Heritage Rank Status Factors

Elcode NF0000GYCA
Gname GYROMITRA CALIFORNICA

Gcomname

Number of Occurrences

Comments This species produces handsome medium to large (the size of a man's head) fruiting bodies with a strongly fluted, cream-colored stalk sometimes with dull rose tints at the base, and a thin, irregularly convex, thin-fleshed head with a brownish gray/grayish brown upper (spore-producing) surface. Twenty-five sites in the ISMS data; Abbott and Currah (1997) cite perhaps 60-90 collections, but several herbaria with collections of this species were not included in their study, e.g., SFSU, OSC.

Number of Occurrences with Good Viability

C = Few (4-12) occurrences with good viability

Comments In the ISMS data, 7 collections are from protected areas. Outside the range of the northern spotted owl, the national parks in Wyoming might be considered protected, and several historic collections at BPI (Farr et al. n.d.) are from national parks in California. Collections in these protected areas have the best chance of be viable.

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)

H = > 2,500,000 km² (greater than 1,000,000 square miles)

Comments Its reported distribution includes British Columbia in Canada, and California, Oregon, Washington, Idaho, western Montana, and Grand Teton and Yellowstone National Parks in Wyoming in the United States (Abbott and Currah 1997, Fogel n.d., Farr et al. n.d.). The specimen reported from the San Juan Mtns. of Colorado (Larsen and Denison 1978, Farr et al. n.d.) needs to be re-examined because no sign of this species has been reported in Colorado for 70-80 years. Twenty-five collections are listed in the ISMS data and Abbott and Currah cite perhaps 60-90 collections, but several herbaria with collections of this species were not included in their study, e.g., SFSU, OSC. The absence of collections from Alaska is significant because some collectors in that state had a special interest in this group of fungi.

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 The available data in ISMS do not give dates when collections were made so one can not tell if multiple collections from the same site were made the same year or in different years.

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 The available data in ISMS do not give dates when collections were made so one can not tell if multiple collections from the same site were made the same year or in different years.

Threats

E = Localized substantial threat. Threat is moderate to severe for a small but significant proportion of the population, occurrences, or area. Ecological community occurrences are directly impacted over a small area, or in a small portion of their range, but threats require a long-term recovery.

Scope Low **Severity** Moderate **Immediacy** Moderate

Comments This species fruits in moist coniferous forests with a variety of mature trees. The specimens are often found on, or associated with, decaying wood, often in seeps or along small streams, or other very damp areas. Land management practices that result in greatly reducing the amount of coarse woody debris, that change the canopy such that the understory is significantly drier or that remove the trees completely could adversely impact this species. Logging and development are the main threats.

Number of Appropriately Protected and Managed Occurrences

C = Several (4-12) occurrences appropriately protected and managed

Comments This is the number of protected sites in ISMS, others may be, but I'm not clear as to whether we are to consider historic sites or ones not in the range of the northern spotted owl.

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 This species fruits in sites with diverse mature trees and seeps and trickles or small streams where rotting wood is plentiful. If the trees are removed and the soil dries out and the humidity falls, the survival of this species is in doubt.

Environmental Specificity

A = Very Narrow. Specialist or community with key requirements scarce.

Comments The relative paucity of specimens of this conspicuous fungus even from suitable habitats indicates it tolerates a very narrow set of environmental parameters.

Other Considerations

NRANK - N4. The preferred name for this species is *Pseudorhizina californica* (W. Phillips) Harmaja as was suggested in Weber (2002). For discussions of the change and some of the reasoning behind recognizing *Pseudorhizina* consult Harmaja (1974), Abbott and Currah (1997), and O'Donnell et al. (1997).

Edition 11/23/2002 **Edauthor** Nancy S. Weber

Grank G4 **Grank Date** 11/13/2002

Reasons

This species is known only from western North America. The relatively low number of collections is significant because these fruiting bodies are easy to spot and identify to genus. Given the apparent narrowness of the environmental parameters in which this species fruits and the environmental vagaries that affect the timing of fruiting and maturation of fruiting body, initial numbers of documented occurrences are likely to remain relatively low. At present the species is in decent shape, but changes in Land Management policies and practices could quickly change the picture.

BCD Sources

New Sources

Abbott, S.P., and Currah, R.S. 1997. The Helvellaceae: Systematic revision and occurrence in northern and northwestern North America. *Mycotaxon* 62: 1-125.

Farr, D.F., Rossman, A.Y., Palm, M.E., and McCray, E.B. n.d. Fungal Databases, Systematic Botany & Mycology Laboratory, ARS, USDA. Retrieved 2002.11. from <http://nt.ars-grin.gov/fungaldatabases/>

Fogel, R. n.d. MICH Fungal Bioinformatics Project. Retrieved 2002.11 from <http://www.herb.lsa.umich.edu/Bioinformatics.htm>.

Harmaja, H. 1974. Two new families of the Pezizales: Karstenellaceae and Pseudorhizinaceae. *Karstenia* 14: 109-112.

Larsen, H.J., and Denison, W.C. 1978. A checklist of the operculate cup-fungi (Pezizales) of North America west of the Great Plains. *Mycotaxon* 7: 68-90.

O'Donnell, K.L., Cigelnik, E., Weber, N.S., Trappe, J.M. 1997. Phylogenetic relationships among ascomycetous truffles and the true and false morels inferred from 18S and 28S ribosomal DNA sequence analysis. *Mycologia* 89: 48-65.

Weber, N.S. 2002. Report on selected Pezizales and *Cudonia monticola* listed in the Record of Decision. Submitted to the US Forest Service. 492 pp.