

Heritage Rank Status Factors

Elcode NF000CUMO2
Gname CUDONIA MONTICOLA
Gcomname

Number of Occurrences

Comments These fruiting bodies resemble small, tough/fibrous, pinkish tan to grayish brown misshapen mushroom buttons; the spores are produced on the surface of the irregularly hemispherical head (not a true cap) and not on gills. etc. This species was described from material collected on the Olympic Peninsula and is known only from western North America including British Columbia (Callan et al. n.d.) and several states, e.g., Washington, Oregon, California, Arizona, Idaho, Wyoming (Mains 1956, FSL n.d., Fogel n.d., Farr et al. n.d., OSC n.d., ISMS). Seventeen occurrences are tabulated on the ISMS Buffer sheet and about 20 collections are listed in the data base. A complete account of the number of sites in other areas is impossible to estimate accurately, I found references to at least seven more and many herbaria are not digitized so the information is not readily found.

Number of Occurrences with Good Viability

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

Comments This factor can only be evaluated for the collections listed in the ISMS tables and that number comes out to five. The premise is that a species can only be viable in certain habitats and thus only in the protected sites does it have a chance of surviving in the long term.

Population Size

U = Unknown

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

Range Extent

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

Comments The documented range extends from British Columbia down the west coast and Cascade Mountains into the Klamath National Forest of northern California and from Arizona to NW Wyoming, and Idaho.

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 too little data to draw any conclusions

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 too little data to draw any conclusions

Threats

D = Moderate, non-imminent threat. Threat is moderate to severe but not imminent for a significant portion of the population, occurrences, or area.

Scope	Moderate	Severity	Moderate	Immediacy	Low
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Comments Mostly found in mature moist coniferous forests and typically associated with very rotten wood which may be buried. Thus ground-disturbing activities that reduce the amount of rotting wood and interrupt the addition of fresh wood to rot could impact the species. Other threats include logging, thinning, or other activities that would change the humidity, light patterns, and composition of the habitats.

Number of Appropriately Protected and Managed Occurrences

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

Comments In Oregon there is one site rated G1/2 and four in LSRs; both kinds of units are currently protected. In Washington one site is rated G1/2, and one site was in Matrix land. I suspect some of the older collections were made in areas that are now protected but not listed here; revisiting those sites might be instructive.

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 is a forest-dweller that is especially abundant within the range of the northern spotted owl, an area that has experienced considerable logging with more likely to occur in the future. Logging and other activities that alter the environment of this fungus are likely to result in the fungus dying out in the habitat.

Environmental Specificity

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

Comments Often found in areas with thick duff or moss on the ground and that are shaded much of the day so the humidity remains high at ground level. It has no adaptations for resisting drying out.

Other Considerations

NRANK - N3. This species and *C. grisea* were both described from the Olympic Peninsula and are known primarily from the range of the northern spotted owl and some sites in the Rocky Mountains. They are difficult to separate even when good field notes accompany the collections. Both species are patchy in their distribution and fruit irregularly. Relatively few collections of either species are known. DNA studies need to be undertaken to determine if these species are truly distinct or are phases of one species.

Edition 11/22/2002 **Edauthor** Nancy S. Weber

Grank G3 **Grank Date** 11/22/2002

Greasons

These fruiting bodies resemble small, tough/fibrous, pinkish tan to grayish brown misshapen mushroom buttons. *C. monticola* fruits irregularly and is seldom abundant when it does fruit. I know of no sites where a given population has been closely monitored over several years to see what the fruiting pattern may be. Because it has been reported over a wide area of western North America but from relatively few documented localities, the G3 rating seems reasonable. If *C. monticola* and *C. grisea* are determined to be conspecific the rating would need to be reconsidered. Poor field data has made accurate identification of specimens difficult to impossible in many cases resulting in undercounts of the number of occurrences.

BCD Sources

New Sources

Callan, B., Dennis, J., Thomson, A., Bahl, and Crawford, C. n.d. Pacific Forestry Centre's Forest Pathology Herbarium (DAVFP) Collections Database. Retrieved 2002.11.12 from http://www.pfc.forestry.ca/biodiversity/herbarium/voucher_specimens_e.html

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

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Mains 1956b Mains, E.B. 1956. North American species of the Geoglossaceae. Tribe Cudonieae. *Mycologia* 48: 694-710.

OSC n.d. Mycological Collections Oregon State University. Retrieved 2002.11. from <http://ocid.nacse.org/research/herbarium/myco/index.html>.