

Oregon Status Factors

Elcode NFSM000008
Gname ARCANGELIELLA CAMPHORATA
Gcomname

Number of Occurrences

D = 81 - 300

Comments 5 known sites. In addition, 88 collections from 3 blocks (areas of forests separated by 2-3 kilometers), which consisted of 5 adjacent sites; near Pistol River. (After clear-cutting and the Biscuit Fire, at least 9 of the 15 sites at Pistol River are no longer suitable habitat for this species.) Also, in the year 2000, 2 additional sites were found in Curry County, and one was discovered in Coos County (Luoma, 2001).

Number of Occurrences with Good Viability

A = No (A- or B- ranked) occurrences with good viability

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

Comments Two collections, possibly from the same site, 4 years apart.

Population Size

A = 1-50 individuals

Comments

Range Extent

E = 5,000-20,000 km² (about 2,000-8,000 square miles)

Comments From the Siskiyou Mountains of Southern Oregon North through the Coast Range to the Olympic Peninsula and in British Columbia.

Area of Occupancy

A = <0.4 km² (less than about 100 acres)

LA = <4 km (less than about 2.5 miles)

Comments 11 known collections

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

D = Moderate Decline (decline of 25-50%)

Comments This species appears to be in moderate decline in Oregon, due to the extensive amount of clear-cutting in what seems to be its optimal habitat (Luoma, 2001).

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

D = Declining. Decline of 10-30% in population, range, area occupied, and/or number or condition of

occurrences

Comments This species appears to be in moderate decline in Oregon, due to the extensive amount of clear-cutting in what seems to be its optimal habitat (Luoma, 2001).

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 This is a mycorrhizal species; it is dependent on a host tree for its carbohydrates. Studies have shown that if the tree is killed the mycorrhizal fungi die shortly after. The one possibly saving feature of this species is the spore bank. However, nothing is known about the spore bank of this species. This species appears to persist at thinned sites; however, *A. camphorata* was extirpated from 6 clearcut sites in Oregon in 1997. Wildfire also appears to be a serious threat: In 2002, the Biscuit Fire burned through the Pistol River research area, adversely affecting populations there (Luoma, 2001).

Number of Appropriately Protected and Managed Occurrences

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

Comments

Intrinsic Vulnerability

U = Unknown

Comments

Environmental Specificity

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

Comments

Other Considerations

ORNHIC - List 1

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Grank S2 **Grank Date** 11/11/2002

Reasons

There are 4 collections in the Central Oregon Coast Range and 5 in the Southern Oregon Kalamath mountains. The Central Oregon Coast Range is well characterized for Truffle like fungi and there are only 3 known sites for this species. This indicates that it is probably a rare fungus.

BCD Sources

New Sources

Pegler, D.N., T.W.K. Young. 1979. The gastroid Russulales. Trans. Brit. Mycol. Soc. 72:353-388. Singer, R., A.H. Smith. 1960. Studies on Secotiaceous fungi. IX. The astrogastraceous series. Mem. Torr. Bot. Club 21:1-112

Luoma, D. 2001. Monitoring of Fungal Diversity at the Siskiyou Integrated Research Site with Special Reference to the Survey and Manage Species *Arcangeliella camphorata* (Singer & Smith) Pegler & Young. Special Report on file with the Chetco Ranger District, Siskiyou National Forest, Brookings, Oregon.