

Washington Status Factors

Elcode NFSM000127
Gname PHAEOCOLLYBIA PSEUDOFESTIVA
Gcomname

Number of Occurrences

A = 1 - 5

Comments There are 7 known collections representing 5 occurrences of *Phaeocollybia pseudofestiva* in WA. Continued fungal surveys may uncover more sites. (Norvell 1998abc; ISMS 2002 data)

Number of Occurrences with Good Viability

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

Comments At least 2 occurrences are extant, both of which lie within permanently protected areas. Last collection dates for the other three occurrences range from 1939 to 1966. The Copalis-Ocean Pines site lies on developed lands..

Population Size

U = Unknown

Comments Records reflect only species occurrence, i.e. fruitbodies, not numbers of individuals. Genets of ectomycorrhizal fungi cannot be delimited without DNA sampling.

Range Extent

D = 1,000-5,000 km² (about 400-2,000 square miles)

Comments An endemic restricted to the northern spotted owl region in Pacific Northwest North America, in Washington PHPS3 is known only from the Olympic Peninsula (Norvell 1998ac; ISMS Database 2002 and GIS map for PHPS3).

Area of Occupancy

U = Unknown

LU = Unknown

Comments Occupancy is highly spotty and cannot be extrapolated for this organism, which appears restricted to fairly complex environments. There are large areas of unsuitable habitat within the overall range. Area occupancy can only be roughly approximated from fungal fruitbodies as the vegetative organism is hidden from site within the substrate. PHPS3 is an ectomycorrhizal fungus with unknown biological and ecological requirements that determine how and when symbiotic associations are formed with partners. (Norvell 1990ab).

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 Due to PHPS3's spotty distribution and lack of resampled occurrences, it is difficult to project a long-term trend in population size, extent of occurrence, or area of occupancy. PHPS3 is

ectomycorrhizal , so its trends are closely linked to the trees that are its symbiotic partners in LSOG forests where in Washington it forms mycorrhizal associations with conifers. Individuals are less dependent upon spore dispersal than upon mycelial interactions with other individuals and their mycorrhizal partners. Trends will also be determined by occurrence of hot fires and human alteration of the habitats. (Norvell 2002 pers comm)

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 PHPS3 is an ectomycorrhizal fungus dependent upon the health of its symbiotic partner. Natural catastrophes or human activities that imperil the health of the tree partner will compromise both tree and fungus. Current occurrences are rare, and only 2-3 (2 collected in 1992) occur in protected reserves. Due to PHPS3's spotty distribution and lack of resampled occurrences (but see note above) (Norvell 1998a, 2002 pers comm; ISMS 2002 data).

Threats

U = Unknown. The available information is not sufficient to assign degree of threat as above. (Severity, scope, and immediacy are all unknown, or mostly [two of three] unknown or not assessed [null].)

Scope	High	Severity	Unknown	Immediacy	Unknown
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Comments Whatever threatens the extant forest will threaten the fungus. This species has almost exclusively been collected from late successional forests. Populations may be long-lived: it is possible that two collections made in California in 1935 and 1956 represent one population (Norvell 2002 pers comm). Like the forest, PHPS3 is threatened by hot fires, road construction or other development, and clearcutting (Norvell pers comm 2002). Only 2-3 presumed extant occurrences lie within permanently protected areas in Washington. (Norvell 1998ac; ISMS 2002 data)

Number of Appropriately Protected and Managed Occurrences

B = Few (1-3) occurrences appropriately protected and managed

Comments ISMS (2002) and Norvell (1998ac) cite ~2-3 extant occurrences in permanently protected reserves (none are noted as occurring in late-successional or riparian reserves).

Intrinsic Vulnerability

U = Unknown

Comments Ectomycorrhizal fungal vulnerability is linked to that of the symbiotic partner (here trees). This fungus may be long-lived and is historically found in older stands. (Norvell pers comm 2002). It is vulnerable to anything that threatens the forest habitat, including hot fires, road construction and development, and clearcutting. PHPS3 has a highly sporadic and spotty distribution.

Environmental Specificity

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

Comments PHPS3 is generally found in complex late-successional or old growth coniferous (mixed fagaceous-coniferous in southern Oregon and California) rainforests where it forms symbiotic partnerships with Pinaceae spp and possibly Quercus or Lithocarpus. Its precise biological and ecological requirements are unknown. It has been found only in the western northern spotted region in North America. It fruits generally late in the fall season. Like all Phaeocollybias, it is extremely patchy in distribution. (Norvell 1998ab).

Other Considerations

Phaeocollybia pseudofestiva has no known synonyms. It is restricted to the northern spotted region of North

America west of the Cascade crest. It is rare in Washington.

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Grank S2 **Grank Date** 11/21/2002

Greasons

PHPS3 rare in WA with only 4 suspected extant occurrences, of which ~2-3 lie in currently protected forest reserves. It is endemic and restricted to the western northern spotted owl region, and has been collected only within the Olympic Peninsula in WA. Its extreme patchy distribution and unpredictable phenology preclude estimation of population size and area of occupancy. It may be long-lived: one population in California MAY (based on historical data) have been sampled over a 21 year period. Stability of extant populations is unknown. Unprotected occurrences may be threatened by road construction & development and clearcutting or heavy thinning. All occurrences are imperiled by hot fire.

BCD Sources

New Sources

Norvell. 1998a. The biology and taxonomy of Pacific Northwest species of *Phaeocollybia* Heim. 391 pp.
Norvell. 1998b. . Observations on the development, morphology, and biology of *Phaeocollybia*. *Mycological Research* 102:615-630.
Norvell. 1998c. ROD: Strategy 3 Fungal Species Evaluation (11 gilled Basidiomycete Strategy 3 species). Unpubl. report on file at the Regional Mycology Lab, Corvallis, Oregon.
ISMS 2002 database and GIS map on PHPS3