

Washington Status Factors

Elcode NF000PSQU2
Gname PSEUDALEURIA QUINAULTIANA
Gcomname

Number of Occurrences

B = 6 - 20

Comments The fruiting bodies of this species are bright orange red cups that become more or less flat in age and seldom exceed 35 mm in diam. They appear from late winter into spring in recently disturbed areas where they may fruit for a couple of springs in succession. This species is endemic to Washington and Oregon and is known only within the range of the northern spotted owl. Three collections from Washington were cited by Castellano et al. (1999) and two Washington collections are cited in the ISMS data base; the maps show only two sites in Washington. It is not clear if both sources report the same set of collections.

Number of Occurrences with Good Viability

Comments Apparently this species fruits in response to small scale disturbances in mature to old forests such as construction and road scraping sites, trail maintenance sites, soil disturbances accompanying uprooting of trees, etc. At one site, it fruited for 4 years (Lusk 1987); nothing is known of its nutritional mode, it could be mycorrhizal and fruit in response to the death or decline of its host or it could be saprobic. One of the ISMS sites is in G1/2 area and is protected, one is in a LSR and thus not protected.

Population Size

U = Unknown

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

Range Extent

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

Comments Its known from Clallam and Grays Harbor Cos. In Washington (Castellano et al. 1999).

Area of Occupancy

U = Unknown

LU = Unknown

Comments Short of using molecular tools there is no way to evaluate this factor.

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 information to allow for meaningful comments

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 information to allow for meaningful comments

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 If, as it appears, this species fruits only in small disturbed areas in mature forests, then maintaining forest cover is important--as is disturbing it on a small scale in suitable ways from time to time. Removal/destruction of low elevation (primarily) moist mature forests is the major threat to this species.

Number of Appropriately Protected and Managed Occurrences

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

Comments Of the three Washington sites mentioned by Castellano et al. (1999), two are in Olympic National Park and well protected. As for the ISMS data, I am unclear as to whether the site in a G1/2 area in Washington is one of those mentioned by Castellano et al. (1999). The other site in Washington is in a LSR and is not protected.

Intrinsic Vulnerability

C = Not Intrinsically Vulnerable. Species matures quickly, reproduces frequently, and/or has high fecundity such that populations recover quickly (< 5 years or 2 generations) from decreases in abundance; or species has high dispersal capability such that extirpated populations soon become reestablished through natural recolonization (unaided by humans). Ecological community occurrences are resilient or resistant to irreversible changes in composition and structure and quickly recover (within 10 years).

Comments This rating was assigned because the species occurs in temporary habitats in the form of small scale disturbances such as result from windthrows. As long as there are forestes, trees will become uprooted.

Environmental Specificity

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

Comments This species is dependent on small scale disturbance associated with mature conifers, a rather unusual habitat.

Other Considerations

Just because this species appears to be very specific in the conditions under which it will fruit and is associated with disturbance, it does not follow that there is no point in protecting areas where it is known to fruit. If ever there was a fungal species for which habitat protection was important, this is it.

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Grank S2 **Grank Date** 11/18/2002

Greasons

This species was described from Washington and is known from 5-7 sites in Washington. It fruits in temporary habitats such as soil disturbed when a tree is uprooted. Even in such habitats it is uncommon. The bright orange-red cups are easily spotted so the low number of collections is significant.

BCD Sources

New Sources

1999. 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.

Lusk, D.E. 1987. *Pseudaleuria quinaultiana*, a new genus and species of operculate Ascomycete from the Olympic Peninsula. *Mycotaxon* 30: 417-431.