

Oregon 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. Two collections from Oregon (Lincoln and Marion Cos.) are cited by Castellano et al. (1999); the same number, perhaps the same specimens, are listed in the ISMS locality summary; the maps show only two sites. I know of at least 2 other sites in Oregon, one in Clackamas Co., and one near Newport.

Number of Occurrences with Good Viability

U = Unknown what 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 in the same site in Washington for 4 years (Lusk 1987); no comparable data seems to have been gathered on the Oregon populations. 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.

Population Size

U = Unknown

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

Range Extent

F = 20,000-200,000 km² (about 8,000-80,000 square miles)

Comments Its known range in Oregon extends from s.w. of Estacada (personal collection south to Silver Falls State Park and possibly into central Lane Co. (no locality data here) and west to Lincoln Co., and the Drift Creek Wilderness.

Area of Occupancy

U = Unknown

LU = Unknown

Comments This fungus is known to fruit only in temporary habitats, relatively small scale disturbances in forested areas. Whether the mycelia are widely distributed or the organism is present only as dormant spores between sightings (both in time and space) is unknown.

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

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

Comments Of the five sites mentioned by Castellano et al. (1999), one is in a Wilderness Area, two are in Olympic National Park, and one in a state park in Oregon. As for the ISMS data, I am unclear as to whether the two sites in a G1/2 area in Washington are in sites mentioned by Castellano et al. (1999). Three sites in Washington are in Riparian/Matrix areas; of these according to directions received, we should estimate that about 25% of the reports actually were in Riparian Reserves and thus protected. Riparian Reserves are part of the Northwest Forest Plan and may or may not continue to be observed.

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 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

ORNHIC List 3. Based on uncertainty of habitat and status rangewide, and possible associations with disturbance, this taxa needs to be on the review List 3. However, it may eventually warrant movement to List 1.

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.

Edition 11/18/2002 **Edauthor** Nancy S. Weber

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Greasons

This species was described from Washington and is known from fewer than 5 sites in Oregon. It fruits in temporary habitats such a 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.