

Pseudocyphellaria perpetua

Supplemental Guidance for Pre-Disturbance Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines

USDA Forest Service Regions 5 and 6
USDI Bureau of Land Management, Oregon and California

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Survey Guidance for *Pseudocyphellaria perpetua*

Pseudocyphellaria perpetua was changed from Category B to Category A in the 2003 Annual Species Review (IM OR-2004-034, Dec 19, 2003). Pre-disturbance surveys for this species will need to be completed for all activities which have NEPA decisions or decision documents signed on or after Oct 1, 2006 when all of the following conditions are met:

1. Project lies within the known or suspected range of the species.
2. Project lies within or could affect suitable habitat for the species.
3. The project has the potential to cause a significant negative effect on the species habitat or the persistence of the species at the site.

Protocols for pre-disturbance surveys should follow the survey methods previously developed for lichen species (Survey Protocols for Survey & Manage Category A & C Lichens, IM OR-2003-078, June 9, 2003). Vouchering for this species follows previously transmitted direction from the Agencies for lichens.

Survey data must be entered into GeoBOB for BLM and NRIS TES Plants using field forms developed for each respective application. Use of NRIS TES Plants will be contingent on the availability of the application to individual Forests but all Forests should use the field forms developed for NRIS TES Plants.

Species Name, taxonomic group:

Pseudocyphellaria perpetua (McCune and Miadlikowska); Lichen

Technical Description:

P. perpetua, which has variously been called *P. mougeotiana*, *P. aurata*, or *P. crocata* in the past, is morphologically distinct from all three of those species. *P. perpetua* has narrow, linear lobes, almost exclusively marginal soralia, a yellow medulla, a pale lower surface and a blue-green photobiont (Miadlikowska et al. 2002). The upper cortex is UV+ pale bluish; the medulla and soralia are K+ yellow, C+ and KC+ orange (fleeting), UV- or dark reddish. *P. aurata* has a green primary photobiont, whereas that of *P. perpetua* is blue-green. Morphological variation in lobe length has been used to separate *P. crocata* from *P. mougeotiana* in New Zealand (Galloway 1985). McCune and Geiser (1997) consider *P. mougeotiana* to be a synonym for *P. crocata*.

Range:

So far, *P. perpetua* is known only from oceanic and suboceanic areas in North America and the Far East of Russia (Miadlikowska et al. 2001). In the Northwest Forest Plan area, it is known from three sites on the Oregon Coast. These are Gwynn Creek Special Interest Area (Siuslaw NF) near Cape Perpetua from which the type specimen was described, near Clear Lake about 23 km (14 mi) north of Florence; Eel Creek Campground (Oregon Dunes National Recreation Area); and Rock Creek, about 6.4 km (4 mi) north of Florence (Lane County). Two Hawaiian collections, in the Brigham Young University Herbarium, appear to be morphologically similar to *P. perpetua* (St. Clair, pers. comm.).

Habitat

P. perpetua occurs on both conifers and hardwoods. At Gwynn Creek it was found on fallen conifer twigs and branches in a riparian old-growth Sitka spruce/Douglas-fir (*Pseudotsuga menziesii*)/western hemlock (*Tsuga heterophylla*) forest. At Eel creek it was found on dune forests of *Pinus contorta*, *Picea sitchensis*, *Arctostaphylos* and *Myrica californica*. The closed *P. sitchensis* forest on the Oregon coast are often so dense that it grows only in the upper to mid-canopy and is most frequently encountered on fallen branches. This lichen is very rare, currently known globally from less than 10 locations.

References

Galloway, D.J. 1985. Flora of New Zealand Lichens. British Museum of Natural History. P.D. Hasselberg, Government Printer, Wellington, New Zealand. 662 p.

McCune, B. and L. Geiser. 1997. Macrolichens of Pacific Northwest Forests. Oregon State University Press, Corvallis, OR. 386 p.

Miadlikowska, J., B. McCune, and F. Lutzoni . 2002: *Pseudocyphellaria perpetua*, a new lichen from western North America. The Bryologist 105(1): 1-10.

St. Clair, L. 1998. personal Communication. Brigham Young University, Provo, Utah.