

Heritage Rank Status Factors

Elcode NLLEC1N090
Gname PANNARIA RUBIGINOSA

Gcomname

Number of Occurrences

D = 81 - 300

Comments

Number of Occurrences with Good Viability

F = Very many (>125) occurrences with good viability

Comments

Population Size

F = 10,000-100,000 individuals

G = 100,000-1,000,000 individuals

Comments

Range Extent

H = > 2,500,000 km² (greater than 1,000,000 square miles)

Comments A cool-temperate species found in localities in the eastern and western parts of the North America, although absent from the Pacific coast (replaced by *P. malmei*). Range in North America is BC to mid-coast CA, the New England states north to Newfoundland, and also in MO and AR (Brodo et al. 2001). The type is from South Africa (Jorgensen 2000). In the British Isles it is oceanic, now only commonly encountered in the extreme west of Scotland and Ireland (Dobson 1979, Czeuczuga and Richardson 1989). In Germany it is a highly oceanic lichen of climatically balanced, mild stations (Wirth 1995). Reported from Slovenia 100 years ago, but possibly extirpated there (Mayrhofer et al. 1996). Previous reports from Asia are really several other species (Jorgensen 2001).

Area of Occupancy

H = >20,000 km² (greater than 5,000,000 acres)

LH = >200,000 km (greater than 125,000 miles)

Comments

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 Trend unclear in North America. In Europe this species is disappearing.

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

E = Stable. Population, range, area occupied, and/or number or condition of occurrences unchanged or remaining within $\pm 10\%$ fluctuation

Comments

Threats

D = Moderate, non-imminent threat. Threat is moderate to severe but not imminent for a significant portion of the population, occurrences, or area.

Scope Moderate Severity Moderate Immediacy Low

Comments Appears to be threatened by air pollution, as its range in the British Isles is limited to the west coast (Dobson 1979). Appears to have gone extinct in Slovenia (Mayrhofer et al. 1996). Listed as endangered in Denmark due to changed forestry.

Number of Appropriately Protected and Managed Occurrences

Comments

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 Sensitive to air pollution. Pannaria species reproduce fairly quickly.

Environmental Specificity

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

Comments Oceanic.

Other Considerations

NRANK - N4. Easily confused in field with *P. malmei*, *Fuscopannaria leucostictoides* on the Pacific coast, and by *P. subfusca* and *P. lurida* ssp. *quercicola* in the southeastern USA. Asian reports are several different species, not *P. rubiginosa*.

Edition 2/20/2003 **Edauthor** Daphne Stone

Grank G4G5 **Grank Date** 12/15/2002

Reasons

In North America, this lichen ranges from British Columbia to Oregon, and from New England to the Atlantic Canada provinces. It also occurs throughout the Appalachians and, disjunctly, in Arizona, mid-coast California, and in the Ozarks region. Also known from continental Europe, the British Isles, and South Africa. The viability of sites and populations is not known; the species appears to be threatened by air pollution in countries other than the United States and Canada.

BCD Sources

New Sources

Brodo, Irwin M., Sharnoff, Sylvia D. and Stephen Sharnoff. 2001. Lichens of North America. Yale University Press. New Haven and London. 795 pp.

McCune & Geiser 1997 Macrolichens of the PNW. 386 pp.

Jorgensen Per M. 2000. Survey of the lichen family Pannariaceae on the American Continent, north of Mexico. Bryologist 103(4): 670-704.

Wirth, V. 1995. Die Flechten Baden-Württembergs. Teil 1 & 2. Ulmer GmbH. Stuttgart.

Jorgensen PM. 2001. Four new Asian species in the genus Pannaria. Lichenologist 33(4): 297-302.

Mayrhofer H, Koch M, Batic F. 1996. Contributions to the lichen flora of Slovenia II. Lichens of the Pohorje. Herzogia 12: 111-127.

Czeczuga B Richardson DHS. 1989. Carotenoids in some lichen species from Ireland. Lichenologist 21(4): 363-368.

Glavich, D, Geiser LH, and Mikulun A. 2002 unpubl. Assessment of the old-growth forest association and habitat requirements of federally listed coastal lichens from northern California, Oregon and Washington, USA. USDA-Forest Service