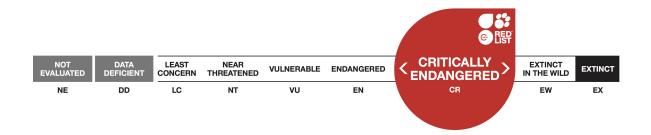


Erioderma pedicellatum, Boreal Felt Lichen

Assessment by: Scheidegger, C. (Lichen Specialist Group)



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Fungi	Ascomycota	Lecanoromycetes	Peltigerales	Pannariaceae

Taxon Name: Erioderma pedicellatum (Hue) P.M.Jørg.

Synonym(s):

• Pannaria pedicellata Hue

Common Name(s):

• English: Boreal Felt Lichen

Assessment Information

Red List Category & Criteria: Critically Endangered A2c+4c ver 3.1

Year Published: 2003

Date Assessed: April 30, 2003

Annotations: Needs Updating

Justification:

The generation time of *Erioderma pedicellatum* is roughly estimated to about 30 years. This is based on several hundred permanent plots established in Newfoundland where single thalli were observed over four years. For the assessment of the Red List status we therefore considered a period of about 100 years (three generations). During this period *E. pedicellatum* has completely disappeared from New Brunswick (Canada), Norway and Sweden. Populations in Nova Scotia have suffered a major decline (> 95% of the regional population size). Only in Newfoundland has a considerable regional population survived and is under permanent observation by regional forest and conservation authorities, and the Lichen Specialist Group of IUCN. A recent assessment of the Newfoundland population has suggested that this species is threatened based on thallus counts and a documented decline in the regional distribution (local subpopulations and habitat range).

The major threats to this species are habitat destruction through logging and air pollution. The decline (considered irreversible) of the global population (i.e., loss of local subpopulations) is > 80%. The area of occupancy for the Newfoundland population is 23.35 km². The number of individuals in the Canadian subpopulation (based on thallus counts during the past five years) is about 5,074 thalli.

Geographic Range

Range Description:

Erioderma pedicellatum is an amphi-Atlantic species known from Europe (Norway and Sweden) and Canada (New Brunswick, Nova Scotia and Newfoundland). Today, it is largely restricted to Newfoundland. Fourteen individuals are known from Nova Scotia and 5,060 individuals (thalli) have been documented from Newfoundland. The Newfoundland population comprises 84 localities. Even in

the largest local subpopulations *E. pedicellatum* is a rather rare species and occurs on only a small percentage of suitable trees. In most cases only one thallus of this species is found on a tree.

Country Occurrence:

Native: Canada (New Brunswick - Regionally Extinct, Newfoundland I, Nova Scotia)

Regionally extinct: Norway; Sweden

Population

Grows in low densities.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Erioderma pedicellatum is an epiphytic species with narrow habitat requirements (primarily old growth, highly oceanic coniferous forests). In Sweden and Norway the species grew on twigs of Norway Spruce (*Picea abies*) in a unique type of temperate rainforest. In Newfoundland this lichen grows predominantly on the trunks of *Abies balsamea* and rarely on trunks or twigs of *Picea mariana*.

The species has very low growth and reproductive rates.

Systems: Terrestrial

Threats (see Appendix for additional information)

Threatened by forest management and is highly sensitive to atmospheric air pollutants such as acid rain.

Conservation Actions (see Appendix for additional information)

The status of the areas of some of the largest subpopulations in Newfoundland is still a matter of debate. The habitats of the former Norwegian populations were suggested as nature reserves. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has designated the 'Atlantic population' (New Brunswick and Nova Scotia) as Endangered and the 'Boreal population' (Newfoundland) as Special Concern.

Credits

Assessor(s): Scheidegger, C. (Lichen Specialist Group)

Reviewer(s): Wolseley, P.A. & Smith, C. (Lichen Red List Authority)

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External Resources

For <u>Images and External Links to Additional Information</u>, please see the Red List website.

Appendix

Habitats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.1. Forest - Boreal		Suitable	-

Threats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.5. Motivation Unknown/Unrecorded	Ongoing	-	-	-
	Stresses:	1. Ecosystem	stresses -> 1.2. Ecos	ystem degradation
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.1. Unspecified species	Ongoing	-	-	-
	Stresses:	1. Ecosystem	stresses -> 1.2. Ecos	ystem degradation
9. Pollution -> 9.5. Air-borne pollutants -> 9.5.1. Acid rain	Ongoing	-	-	-
	Stresses:	1. Ecosystem	stresses -> 1.2. Ecos	ystem degradation

Conservation Actions Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Actions Needed	
1. Land/water protection -> 1.1. Site/area protection	
2. Land/water management -> 2.1. Site/area management	
3. Species management -> 3.3. Species re-introduction -> 3.3.1. Reintroduction	

Research Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Research Needed	
1. Research -> 1.3. Life history & ecology	
2. Conservation Planning -> 2.2. Area-based Management Plan	
3. Monitoring -> 3.1. Population trends	

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