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Lecania vermispora

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Fungi	Ascomycota	Lecanoromycetes	Lecanorales	Ramalinaceae

Scientific Name: Lecania vermispora Fryday

Taxonomic Source(s):

Index Fungorum Partnership. 2020. Index Fungorum. Available at: http://www.indexfungorum.org.

Assessment Information

Red List Category & Criteria: Vulnerable D2 ver 3.1

Year Published: 2020

Date Assessed: June 12, 2020

Justification:

Lecania vermispora is only known from three locations and its total Area of Occupancy is 8 km². Livestock grazing and/or climatic changes could quickly lead to the decline and extirpation of this species. Therefore, it is listed as Vulnerable under criterion D2.

Geographic Range

Range Description:

Lecania vermispora is known only from three sites on the off-shore island West Point Island, Falkland Islands (Malvinas) from collections made in 1968. This species was not found during recent surveys in 2015 of the Falkland Islands (Malvinas) (Fryday et al. 2019). However, the sites have not been revisited and there have not been any directed surveys for the species. Careful examination of ~10,000 collections from southern South America held in the herbarium at Michigan State University did not result in the discovery of any individuals of this species occurring on mainland South America (Fryday and Prather 2001). This thorough investigation supports the conclusion that *L. vermispora* is endemic to the Falkland Islands (Malvinas).

Country Occurrence:

Native, Extant (resident): Falkland Islands (Malvinas)

Distribution Map





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Population

There are three reported subpopulations from collections made in 1968. No other subpopulations have been reported, and recent surveys did not relocate the species (Fryday *et al.* 2019). The total number of mature individuals is unknown, and the previously documented subpopulations may have been extirpated, although given the limited amount of surveying possible they are considered extant for this assessment. The current population trends are unknown.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

Lecania vermispora occurs on the stems of native Hebe elliptica plants on West Point Island, a single off-shore island.

Systems: Terrestrial

Threats (see Appendix for additional information)

An ongoing decrease in summer rainfall and an increase in sunlight as a result of climate change and ozone depletion may negatively impact lichen species throughout the islands (McAdam 2013). *Lecania vermispora* specifically is threatened by grazing and the destruction of native *Hebe elliptica*, which was once widespread on the Falkland Islands (Malvinas) but is now found on only a few offshore islands where it has escaped the effects of over grazing (Fryday *et al.* 2019).

Conservation Actions (see Appendix for additional information)

This species currently does not have a formal protected status. The two most important conservation actions needed to preserve this species are: 1) protection of the land on which it occurs, and 2) education of local land owners/citizens about the presence of this species in their area. Additionally, further research is needed to ascertain the current status and distribution of this species.

Credits

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Bibliography

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External Resources

For <u>Supplementary Material</u>, and 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?
3. Shrubland -> 3.2. Shrubland - Subantarctic	Resident	Suitable	Yes

Plant Growth Forms

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

Plant Growth Form	
LC. Lichen	

Threats

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

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming	Ongoing	Whole (>90%)	Slow, significant declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
		2. Species Stresses -> 2.1. Species mortality		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Ongoing	Whole (>90%)	Slow, significant declines	Medium impact: 7
	Stresses:	 Ecosystem stresses -> 1.1. Ecosystem conversion Ecosystem stresses -> 1.2. Ecosystem degradation 		

Conservation Actions in Place

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

Conservation Action in Place	
In-place research and monitoring	
Action Recovery Plan: No	
Systematic monitoring scheme: No	

Conservation Actions Needed

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

Conservation Action Needed

- 1. Land/water protection -> 1.1. Site/area protection
- 4. Education & awareness -> 4.3. Awareness & communications

Research Needed

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

Research Needed

1. Research -> 1.2. Population size, distribution & trends

Additional Data Fields

Dictri	hution	

Estimated area of occupancy (AOO) (km²): 8

Continuing decline in area of occupancy (AOO): Unknown

Extreme fluctuations in area of occupancy (AOO): Unknown

Estimated extent of occurrence (EOO) (km2): 8

Continuing decline in extent of occurrence (EOO): Unknown

Extreme fluctuations in extent of occurrence (EOO): Unknown

Number of Locations: 3

Continuing decline in number of locations: Unknown

Extreme fluctuations in the number of locations: Unknown

Population

Continuing decline of mature individuals: Unknown

Extreme fluctuations: No

Population severely fragmented: No

No. of subpopulations: 3

Continuing decline in subpopulations: Unknown

Habitats and Ecology

Continuing decline in area, extent and/or quality of habitat: Unknown

Generation Length (years): 30

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<u>Programme</u>, the <u>IUCN Species Survival Commission</u> (SSC) and <u>The IUCN Red List Partnership</u>.

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