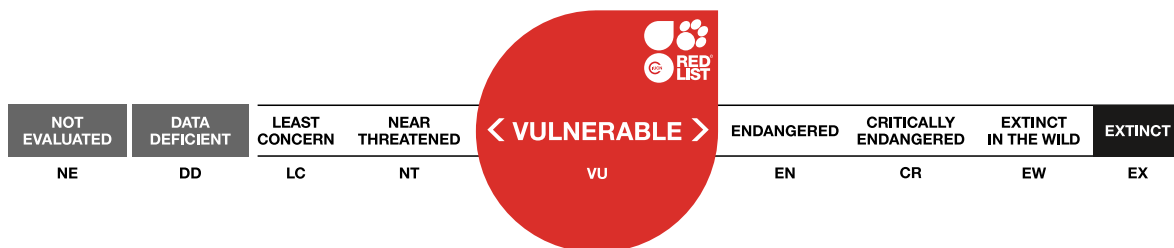


Acarospora malouina

Assessment by: Fryday, A.



View on www.iucnredlist.org

Citation: Fryday, A. 2020. *Acarospora malouina*. The IUCN Red List of Threatened Species 2020: e.T176075275A177005677. <https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T176075275A177005677.en>

Copyright: © 2020 International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale, reposting or other commercial purposes is prohibited without prior written permission from the copyright holder. For further details see [Terms of Use](#).

The IUCN Red List of Threatened Species™ is produced and managed by the [IUCN Global Species Programme](#), the [IUCN Species Survival Commission \(SSC\)](#) and [The IUCN Red List Partnership](#). The IUCN Red List Partners are: [Arizona State University](#); [BirdLife International](#); [Botanic Gardens Conservation International](#); [Conservation International](#); [NatureServe](#); [Royal Botanic Gardens, Kew](#); [Sapienza University of Rome](#); [Texas A&M University](#); and [Zoological Society of London](#).

If you see any errors or have any questions or suggestions on what is shown in this document, please provide us with [feedback](#) so that we can correct or extend the information provided.

Taxonomy

Kingdom	Phylum	Class	Order	Family
Fungi	Ascomycota	Lecanoromycetes	Acarosporales	Acarosporaceae

Scientific Name: *Acarospora malouina* Øvstedal & K. Knudsen

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 10, 2020

Justification:

Acarospora malouina is only known from two 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:

Acarospora malouina is known from only two localities c. 7.5 km apart on the north shore of Saunders Island, Falkland Islands (Malvinas). This species was first collected and identified as *A. gwynnii* by R. L. Lewis Smith in 2000. It was discovered at a second site 7.5 km to the east by Fryday in 2015 (Fryday *et al.* 2019) and shown to be a distinct species by Øvstedal *et al.* (2018) based on molecular investigation of these collections. 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 *A. malouina* is endemic to the Falkland Islands (Malvinas).

Country Occurrence:

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

Distribution Map

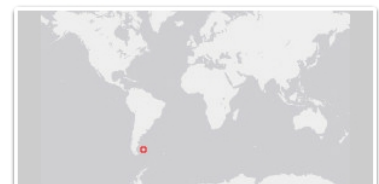


Legend

● EXTANT (RESIDENT)

Compiled by:

IUCN (International Union for Conservation of Nature) 2020



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

Population

The population size and trends for this species are currently unknown. A detailed investigation of the population size and trends for *Acarospora malouina* is one major research and conservation need for this species.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

Acarospora malouina occurs on low, siliceous rocks, loosely associated with rockhopper penguin rookeries. In 2015 it was seen only in the immediate vicinity of the rockhopper rookery (-51.308°, -60.12°) and 0.5 km to the east - becoming less frequent and less well-developed further east. It was not seen at all further east along the coast as far as rookery cottage (-51.306°, -60.10°). The extension to the east of the penguin rookery is a consequence of the prevailing strong westerly winds that are a near constant feature of the islands.

Systems: Terrestrial

Threats (see Appendix for additional information)

Trampling by sheep and cows is a threat to rock-dwelling species (Stenroos and Ahti 1992). 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).

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

Assessor(s):	Fryday, A.
Reviewer(s):	Lendemer, J.
Contributor(s):	Allen, J. & Scott, T.
Facilitator(s) and Compiler(s):	Allen, J. & Scott, T.

Bibliography

- Bachman, S., Moat, J., Hill, A.W., de la Torre, J. and Scott, B. 2011. Supporting Red List threat assessments with GeoCAT: geospatial conservation assessment tool. In: V. Smith and L. Penev (eds) e-Infrastructures for data publishing in biodiversity science. *Zookeys* 150: 117–126.
- Fryday, A. M. and Prather, L. A. 2001. The lichen collection of Henry Imshaug at the Michigan State University Herbarium (MSC). *The Bryologist* 104: 464-467.
- Fryday, A. M., Orange, A., Ahti, T., Øvstedal, D. O. and Crabtree, D. E. 2019. Checklist of lichenized and lichenicolous fungi reported from the Falkland Islands. *GLALIA* 8(1): 1-100.
- IUCN. 2020. The IUCN Red List of Threatened Species. Version 2020-3. Available at: www.iucnredlist.org. (Accessed: 10 December 2020).
- McAdam, J. 2013. The impact of the Falklands War (1982) on the peatland ecosystem of the islands. *Landscape Archaeology and Ecology* 10: 143-162.
- Øvstedal, D. O., Lindblom, L., Knudsen, K. and Fryday, A. M. 2018. A new species of *Acarospora* from the Falkland Islands (Islas Malvinas). *Phytotaxa* 340(1): 86-92.
- Stenroos, S. and Ahti, T. 1992. The lichen family Cladoniaceae in the Falkland Islands. *Annales Botanici Fennici* 29(1): 67-73.

Citation

Fryday, A. 2020. *Acarospora malouina*. *The IUCN Red List of Threatened Species* 2020: e.T176075275A177005677. <https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T176075275A177005677.en>

Disclaimer

To make use of this information, please check the [Terms of Use](#).

External Resources

For [Supplementary Material](#), and for [Images and External Links to Additional Information](#), please see the Red List website.

Appendix

Habitats

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

Habitat	Season	Suitability	Major Importance?
13. Marine Coastal/Supratidal -> 13.1. Marine Coastal/Supratidal - Sea Cliffs and Rocky Offshore Islands	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%)	-	Medium impact: 6
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Ongoing	Whole (>90%)	-	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. 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
In-place land/water protection
Conservation sites identified: 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

Distribution
Estimated area of occupancy (AOO) (km ²): 8
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km ²): 8
Extreme fluctuations in extent of occurrence (EOO): Unknown
Number of Locations: 2
Extreme fluctuations in the number of locations: Unknown
Population
Population severely fragmented: No
No. of subpopulations: 2
Habitats and Ecology
Generation Length (years): 30

The IUCN Red List Partnership



The IUCN Red List of Threatened Species™ is produced and managed by the [IUCN Global Species Programme](#), the [IUCN Species Survival Commission \(SSC\)](#) and [The IUCN Red List Partnership](#).

The IUCN Red List Partners are: [Arizona State University](#); [BirdLife International](#); [Botanic Gardens Conservation International](#); [Conservation International](#); [NatureServe](#); [Royal Botanic Gardens, Kew](#); [Sapienza University of Rome](#); [Texas A&M University](#); and [Zoological Society of London](#).