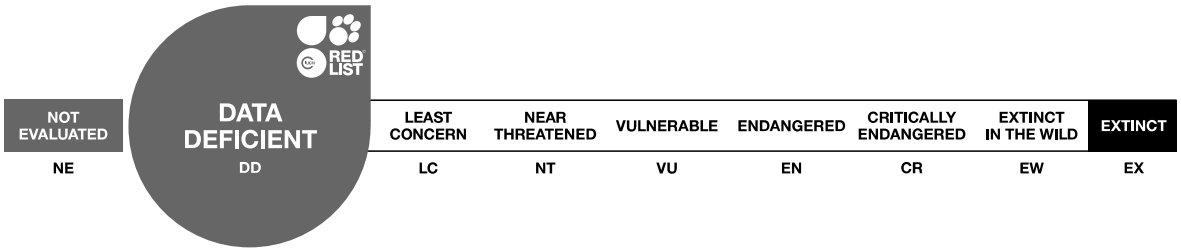
The IUCN Red List of Threatened Species™
ISSN 2307-8235 (online)
IUCN 2021: T124920396A124930786
Scope(s): Global
Language: English

Pseudolycoriella campanulata

Assessment by: Nunes, R. & Borges, P.A.V.



View on www.iucnredlist.org

Citation: Nunes, R. & Borges, P.A.V. 2021. *Pseudolycoriella campanulata*. *The IUCN Red List of Threatened Species* 2021: e.T124920396A124930786. https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T124920396A124930786.en

Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Sciaridae

Scientific Name: *Pseudolycoriella campanulata* Frey, 1945

Assessment Information

Red List Category & Criteria: Data Deficient ver 3.1

Year Published: 2021

Date Assessed: March 26, 2018

Justification:

Pseudolycoriela campanulata is an endemic species of the Azores (Portugal), known from Flores, Terceira and S. Miguel islands. It is possible that this species has declined in the past as a result of human activity, but the present situation of this species needs to be further assessed, and further research is needed into its population, distribution, threats, ecology and life history. Based upon the lack of recent data regarding this species' population, distribution, threats and ecology, it is not possible to accurately estimate the extinction risk of the species and it could theoretically fall into any category. Therefore, it is assessed as Data Deficient (DD). Conservation/restoration of native wet and boggy areas, as well as invasive plant species control, could potentially aid this species' conservation.

Geographic Range

Range Description:

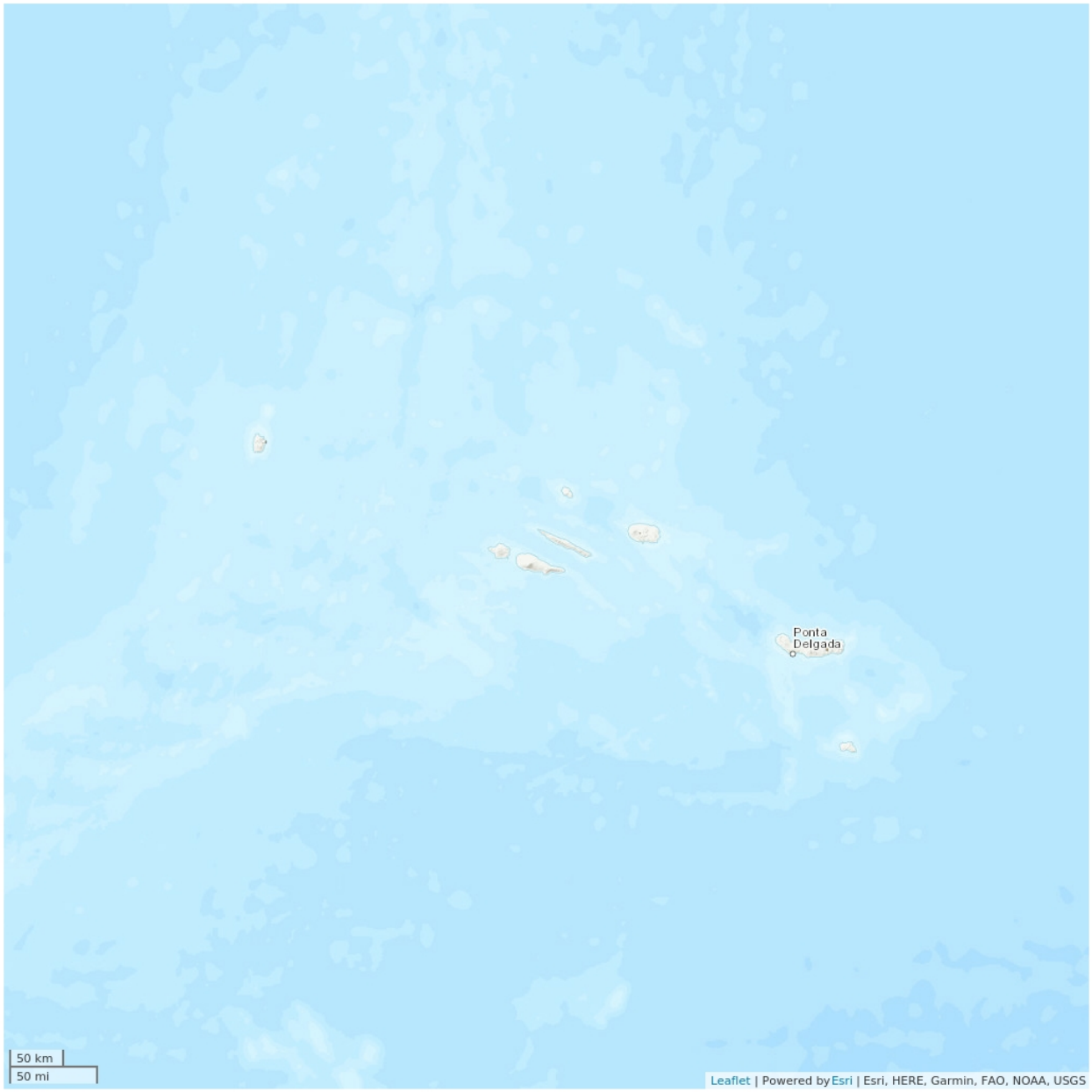
Pseudolycoriella campanulata is an Azorean-endemic species described from the islands of Flores, Terceira and S. Miguel (Azores, Portugal) (Borges *et al.* 2010). This species has been collected in areas of moorland and of geothermal springs, with one of the sites being currently highly degraded. Based on the historical data (Frey 1945), the Extent of Occurrence (EOO) would be ca. 10,570 km² and the Area of Occupancy (AOO) would be ca. 28 km². However, there is no recent information regarding the distribution of this species, and the actual full distribution of the species is unknown.

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T124920396A124930786.en

Distribution Map

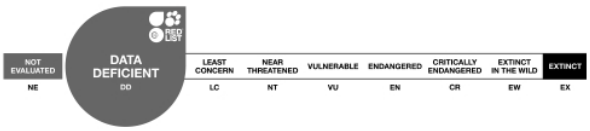


Legend

EXTANT (RESIDENT)

Compiled by:

Azorean Biodiversity Group 2018



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

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T124920396A124930786.en

Population

No current population size estimates exist for this species, and the overall population size and trend are essentially unknown.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

Specimens of *Pseudolycoriella campanulata* have been collected in moorland and in the vicinity of geothermal springs (Furnas, S. Miguel), but the specific ecology and traits of this species are unknown. Sciaridae can be found mostly in forests, swamps, and moist meadows. The adults are found in foliage, while the larvae on the substrate of which they feed, namely fungi, decaying vegetation, animal excrement, plant roots or in rotten wood and under the bark of fallen trees (McAlpine *et al.* 1981). Sciaridae larvae can be considered pests in greenhouses and of commercially cultivated mushrooms.

Systems: Terrestrial

Threats (see Appendix for additional information)

A lack of information regarding the present status of this species precludes an assessment of potential threats. Nevertheless, the ecology of other members of the Sciaridae family, and the locations where this species was collected, suggests that this species might be affected by future habitat declines as a consequence of climate change (Ferreira *et al.* 2016) and increased droughts. This species has been collected in areas that are disturbed to a greater or lesser extent, and so past and present human disturbances might have also affected this species, as well as habitat degradation by invasive species. Since one of the sites was in a area of hot springs, future violent geothermal activity might also affect this species.

Conservation Actions (see Appendix for additional information)

The species is not protected by regional law. The present situation of this species needs to be further assessed, and further research is needed into its population, distribution, threats, ecology and life history. From what is known of its habitat preferences, conservation of native wet and boggy areas, as well as invasive species control, could potentially aid this species' conservation. Historically at least, this species was present in areas that are currently included in the Natural Parks of Terceira and S. Miguel, disturbed or otherwise.

Credits

Assessor(s): Nunes, R. & Borges, P.A.V.

Reviewer(s): Russell, N.

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T124920396A124930786.en

Bibliography

Borges, P.A.V., Costa, A., Cunha, R., Gabriel, R., Gonçalves, V., Martins, A.F., Melo, I., Parente, M., Raposeiro, P., Rodrigues, P., Santos, R.S., Silva, L., Vieira, P. and Vieira, V. 2010. *A list of the terrestrial and marine biota from the Azores*. Princípia, Cascais.

Ferreira, M.T., Cardoso, P., Borges, P.A.V., Gabriel, R., Azevedo, E.B., Reis, F., Araújo, M.B. and Elias, R.B. 2016. Effects of climate change on the distribution of indigenous species in oceanic islands (Azores). *Climate Change* 138(3-4): 603-615.

Frey, R. 1945. Tiergeographische studen über die Dipterenfauna der Azores. *Commentatione biologicae* 8(10): 1-114.

IUCN. 2021. The IUCN Red List of Threatened Species. Version 2021-1. Available at: www.iucnredlist.org. (Accessed: 25 March 2021).

McAlpine, J.F., Peterson, B.V., Shewell, G.E., Teskey, H.J., Vockeroth, J.R. and Wood, D.M. 1981. *Manual of Nearctic Diptera - Volume 1*. Research Branch, Agriculture Canada, Ottawa.

Citation

Nunes, R. & Borges, P.A.V. 2021. *Pseudolycoriella campanulata*. *The IUCN Red List of Threatened Species* 2021: e.T124920396A124930786. https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T124920396A124930786.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?
5. Wetlands (inland) -> 5.4. Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.12. Wetlands (inland) - Geothermal Wetlands	Resident	Suitable	Yes

Threats

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

Threat	Timing	Scope	Severity	Impact Score
6. Human intrusions & disturbance -> 6.1. Recreational activities	Past, likely to return	Unknown	Unknown	No/negligible impact: 0
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.1. Unspecified species	Ongoing	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
10. Geological events -> 10.1. Volcanoes	Future	Unknown	Rapid declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Future	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
11. Climate change & severe weather -> 11.2. Droughts	Future	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		

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

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T124920396A124930786.en

Conservation Action in Place
Systematic monitoring scheme: No
In-place land/water protection
Occurs in at least one protected area: Yes

Conservation Actions Needed

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

Conservation Action Needed
2. Land/water management -> 2.1. Site/area management
2. Land/water management -> 2.2. Invasive/problematic species control

Research Needed

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

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Continuing decline in area of occupancy (AOO): Unknown
Extreme fluctuations in area of occupancy (AOO): Unknown
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): Unknown
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 10
Upper elevation limit (m): 550
Population
Continuing decline of mature individuals: Unknown

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T124920396A124930786.en

Population
Extreme fluctuations: Unknown
Population severely fragmented: Unknown

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.