The IUCN Red List of Threatened Species™
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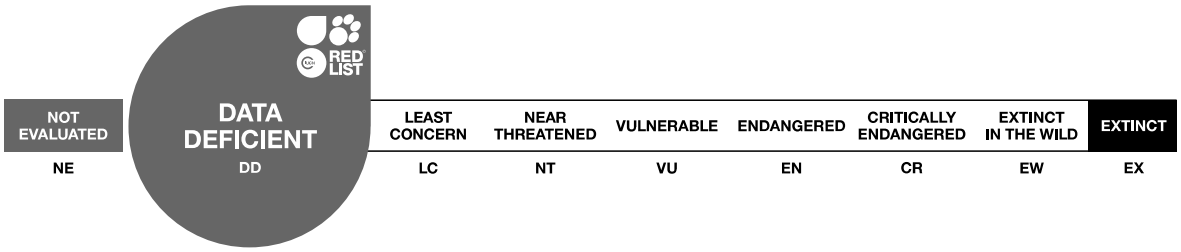
Scope(s): Global
Language: English

Mycetophila storai

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



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Mycetophilidae

Scientific Name: *Mycetophila storai* Chandler & Ribeiro, 1995

Assessment Information

Red List Category & Criteria: Data Deficient ver 3.1

Year Published: 2021

Date Assessed: March 28, 2018

Justification:

Mycetophila storai is an endemic fly species of the Azores (Portugal), known from Terceira and S. Miguel island. This species is known from sites that are currently highly degraded. From the historical data, this species has a small Extent of Occurrence (1,205 km^2) and Area of Occupancy (56 km^2); and it is possible that this species has declined in the past, as a result of human activity. 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. Conservation of native habitats and humid areas could potentially aid this species' conservation. 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, this species is assessed as Data Deficient (DD).

Geographic Range

Range Description:

Mycetophila storai is an Azorean-endemic fly species described from the islands of Terceira and S. Miguel (Azores, Portugal) (Borges *et al.* 2010). This species was collected at some sites that are currently highly degraded. Based on the historical data (Frey 1945), the Extent of Occurrence (EOO) could be ca. 1,205 km^2 and the Area of Occupancy (AOO) could be ca. 56 km^2. 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)

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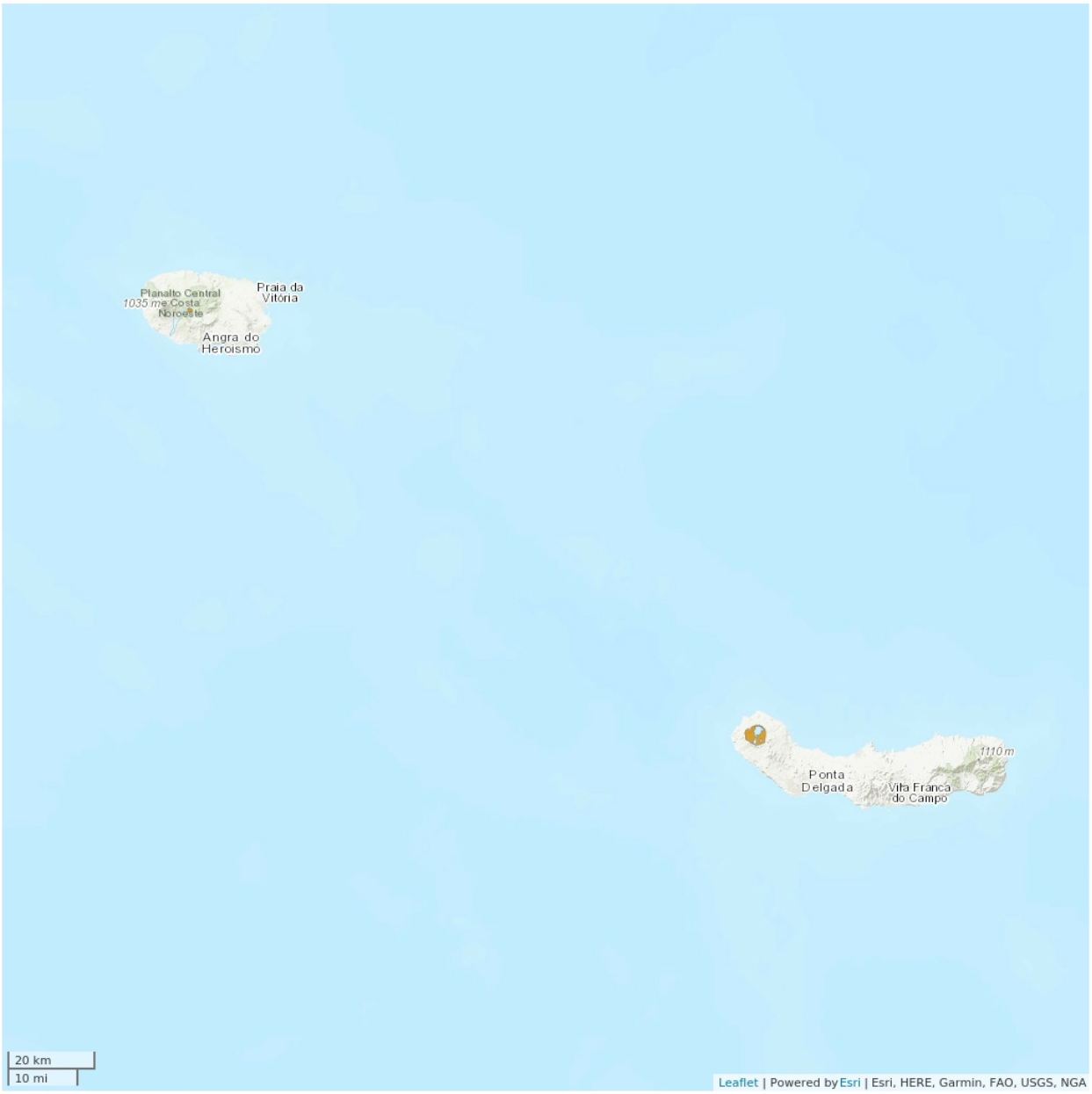
Distribution Map

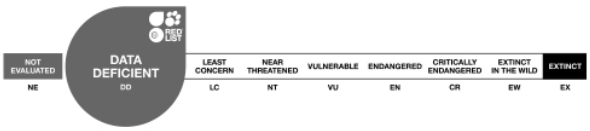


Legend

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.

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)

The ecology and traits of this species are unknown. Mycetophilidae occur mainly in humid areas like moist forests (McAlpine *et al.* 1981), but are also quite common in swamps, while some species live in the moister parts of heath and open grassland and other species have been recorded on mosses and liverworts. The larvae of many species live in fleshy or woody fungi or in dead wood and usually feed on fungi, especially the fruiting bodies, but also spores and hyphae. Nevertheless, the larvae of some species, while still being associated with fungi, are at least partly predatory (McAlpine *et al.* 1981). A few species are monophagous or polyphagous, but the majority of species are restricted to particular genera or families of fungi. Pupation usually takes place in the ground but some species pupate in the host fungus (McAlpine *et al.* 1981). This species was collected near lakes or in and area of semi-natural pasture.

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 Mycetophilidae family 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 was collected from several highly disturbed sites, so past and present anthropogenic impacts, coupled with habitat degradation by invasive species might have also affected it.

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, conservation of natural habitats water bodies and other wet areas, together with problematic species control, could potentially aid this species' conservation. Historically, this species was present in areas that are currently included in the Natural Parks of Terceira and S. Miguel, albeit disturbed.

Credits

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

Reviewer(s): Russell, N.

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Disclaimer

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) -> 5.5. Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	Resident	Suitable	-
14. Artificial/Terrestrial -> 14.2. Artificial/Terrestrial - Pastureland	Resident	Unknown	-

Threats

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

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.4. Scale Unknown/Unrecorded	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
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		
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
Systematic monitoring scheme: No
In-place land/water protection
Occurs in at least one protected area: Yes

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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): 350
Upper elevation limit (m): 600
Population
Continuing decline of mature individuals: Unknown
Extreme fluctuations: Unknown
Population severely fragmented: Unknown

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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.