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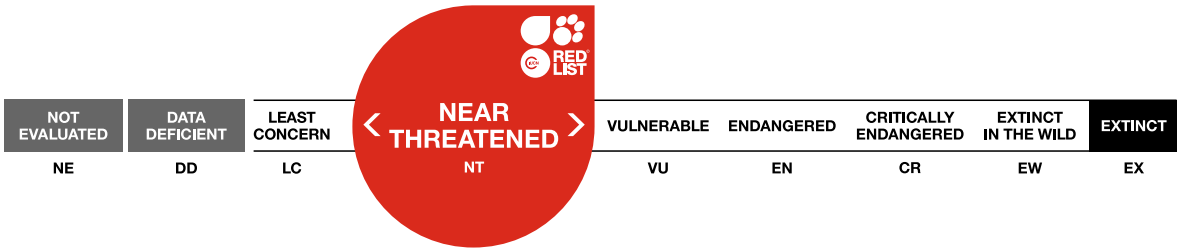
Aphaniosoma azoricum

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



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Chyromyidae

Scientific Name: *Aphaniosoma azoricum* Frey, 1958

Assessment Information

Red List Category & Criteria: Near Threatened B1ab(iii)+2ab(iii) ver 3.1

Year Published: 2021

Date Assessed: March 29, 2018

Justification:

Aphaniosoma azoricum is an endemic species of the Azores (Portugal), being present on Flores, Faial, S. Jorge, Terceira and S. Miguel islands. From the historical data, this species had a relatively small Extent of Occurrence (14,022 km^2), and a small Area of Occupancy (48 km^2). This species was described from several disturbed sites, 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, though, and further research is needed into its population, distribution, threats, ecology and life history. However, despite the incomplete knowledge regarding this species population, distribution, threats and ecology, this species is unlikely to warrant listing under the most threatened Red List categories. Pending further information, the number of locations could be said to be relatively small, and so the species can be precautionarily assessed as Near Threatened. Conservation of native forests and vegetation, native wet and boggy areas and natural streams and other water bodies could potentially aid this species' conservation.

Geographic Range

Range Description:

Aphaniosoma azoricum is an Azorean-endemic species, described from the islands of Flores, Faial, S. Jorge, Terceira and S. Miguel (Azores, Portugal) (Borges *et al.* 2010). Based on the historical data (Frey 1945), the Extent of Occurrence (EOO) would be *ca* 14,022 km^2 and the Area of Occupancy (AOO) would be *ca* 48 km^2.

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

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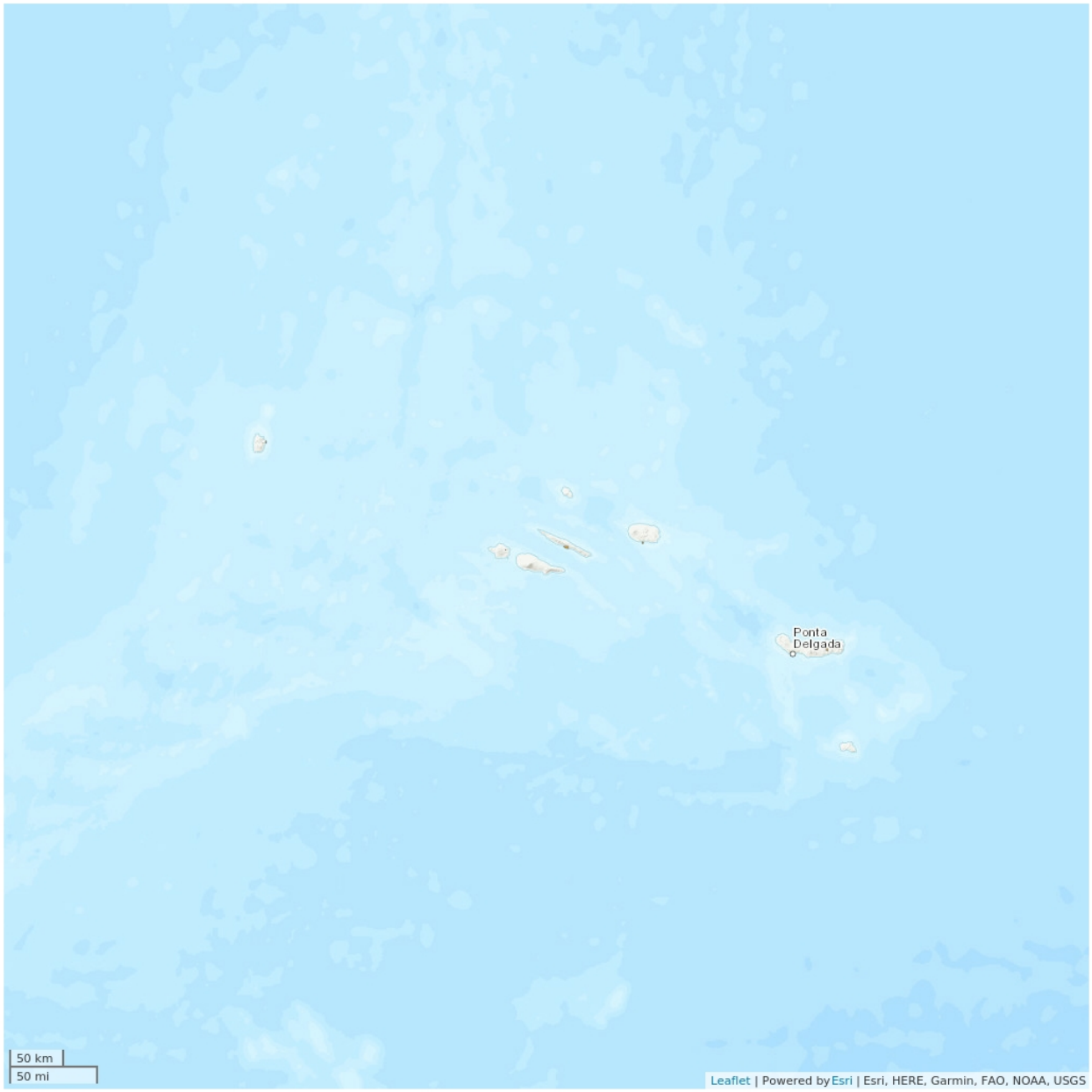
Distribution Map



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

Currently no population size estimates are known for this species.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

The ecology and traits of this species are unknown, and the biology and ecology of Chyromyidae is in general poorly known, with some species having been reared from birds' nests or from wood debris of hollow trees (McAlpine *et al.* 1987) or from mammal burrows and firewood. Other species of the genus *Aphaniosoma* apparently frequent grasses and sedges on seashores and around alkaline or saline ponds and lakes (McAlpine *et al.* 1987). From the description, this species was collected in disturbed areas, in some sites near streams and other wet areas.

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, from the scarce existing information regarding the ecology of other members of the Chyromyidae family, it is possible that this species might be affected by future habitat declines as a consequence of climate change (Ferreira *et al.*, 2016) and increased droughts. The species was described from several disturbed and urbanised areas, and it is likely that past and present human disturbance and land use changes might have also affected 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 habitats and of natural water bodies could potentially aid this species' conservation. Historically at least, this species was present in one area that is currently highly disturbed, but included in the Natural Park of S. Miguel.

Credits

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

Reviewer(s): Danielczak, A.

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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) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	Resident	Suitable	-
5. Wetlands (inland) -> 5.12. Wetlands (inland) - Geothermal Wetlands	Resident	Unknown	-
14. Artificial/Terrestrial -> 14.2. Artificial/Terrestrial - Pastureland	Resident	Unknown	-
14. Artificial/Terrestrial -> 14.3. Artificial/Terrestrial - Plantations	Resident	Unknown	-

Threats

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

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
6. Human intrusions & disturbance -> 6.1. Recreational activities	Ongoing	-	-	Low impact: 3
	Stresses:	2. Species Stresses -> 2.2. Species disturbance		
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

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Conservation Action in Place
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

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
Estimated area of occupancy (AOO) (km²): 48
Continuing decline in area of occupancy (AOO): Unknown
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km²): 14022
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): Unknown
Number of Locations: 7-12
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 10
Upper elevation limit (m): 400
Population
Continuing decline of mature individuals: Unknown

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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.