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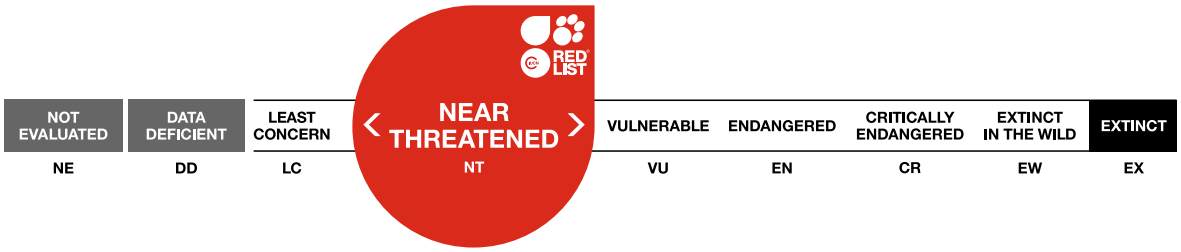
Scope(s): Global
Language: English

Rachispoda atrolimosa

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



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Sphaeroceridae

Scientific Name: *Rachispoda atrolimosa* (Frey, 1945)

Synonym(s):

- *Leptocera atrolimosa* Frey, 1945

Assessment Information

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

Year Published: 2021

Date Assessed: March 27, 2018

Justification:

Rachispoda atrolimosa is an endemic species of the Azores (Portugal), known from Flores, S. Jorge, Terceira and S. Miguel islands. From the historical data, this species has a relatively small extent of occurrence (EOO = 15,427 km^2) and a small area of occupancy (AOO = 120 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. However, the EOO and AOO of the species are relatively small, on the global scale, and if there were more data available it is possible that the species could qualify as threatened under criterion B. Therefore, it is assessed here as Near Threatened. Conservation of native forests, of natural streams and other water bodies and of coastal areas could potentially aid this species' conservation, together with problematic invasive species control.

Geographic Range

Range Description:

Rachispoda atrolimosa is an Azorean-endemic species known from the islands of Flores, S. Jorge, Terceira and S. Miguel (Azores, Portugal) (Borges *et al.* 2010), occurring in several sites of native forest or with bodies of water, some currently highly disturbed. Based on the historical data (Frey 1945), the Extent of Occurrence (EOO) could be ca. 15,427 km² and the Area of Occupancy (AOO) could be ca. 120 km². However, there is no recent information regarding the distribution of this species.

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

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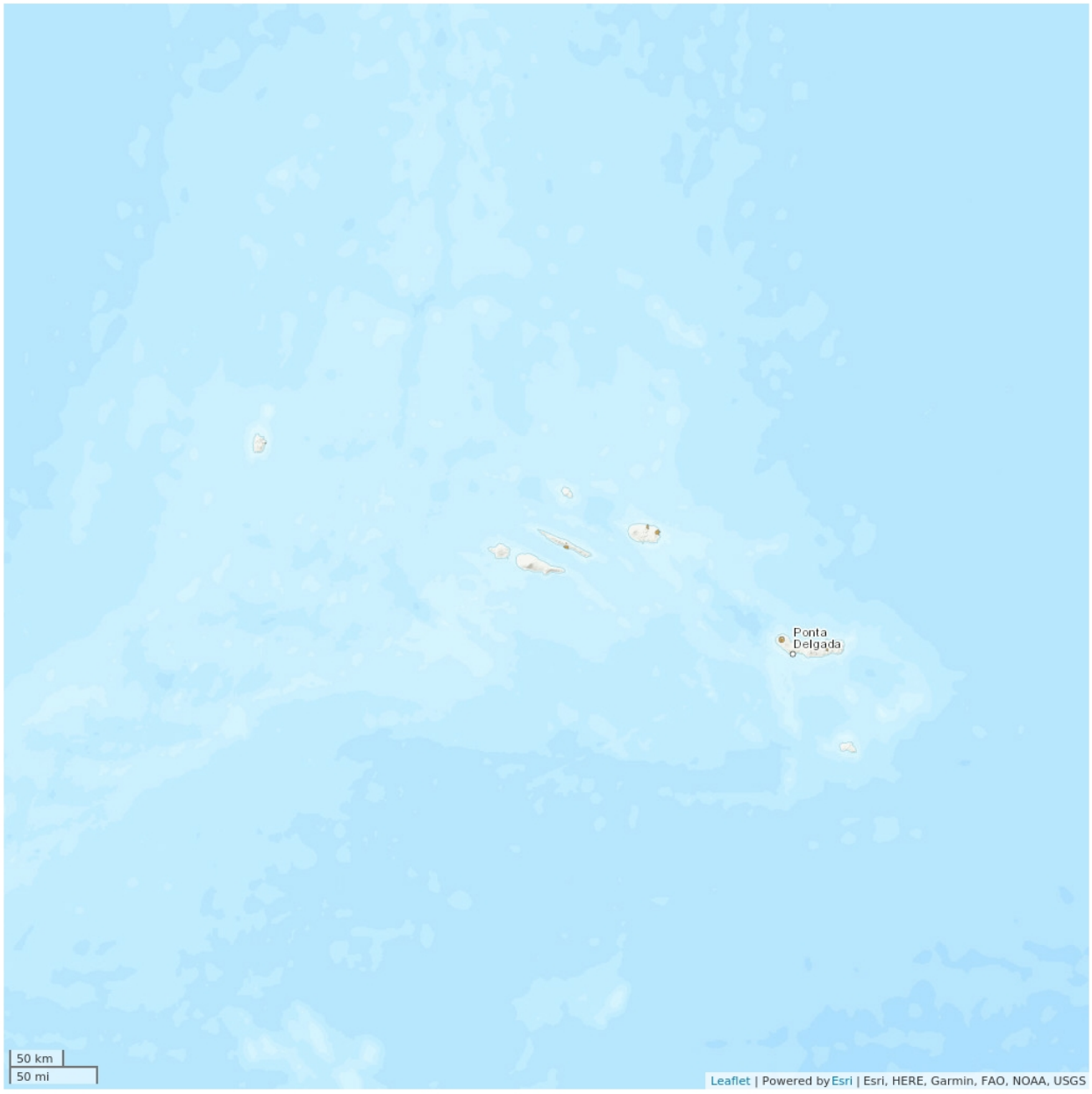
Distribution Map



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.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

The ecology and traits of this species are unknown. Sphaeroceridae are commonly associated with all types of organic decay including dung, carrion, fungi, supralittoral seaweed where (they play a major as decomposers), compost, mammal nests, cave debris and small deposits of dead vegetation, but also in man-made habitats, like sewage pipes (McAlpine *et al.* 1987), having in general an important role in the nutrient cycling, as decomposers. Immature stages are poorly known (McAlpine *et al.* 1987), but it is most likely that larvae feed on manure, decaying matter, seaweed or fungi. Some species in this group can potentially be considered a nuisance or pests in food production plants (McAlpine *et al.* 1987). *Rachispoda atrolimosa* specimens have been collected from native forest, from the vicinity of lakes, streams and hot springs and from coastal 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, the habitats where this species has been collected suggests that it might be affected by future habitat declines as a consequence of climate change (Ferreira *et al.* 2016) and increased droughts. Also, some sites where this species was collected (Furnas and Lagoa das Sete Cidades) are currently highly disturbed by human activity and by habitat degradation caused by invasive species. Praia da Vitória (Terceira) waterfront is currently also highly urbanised and industrialised. Past 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 forests, of coastal areas and of natural streams and water bodies, together with invasive species control, 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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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?
1. Forest -> 1.4. Forest - Temperate	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.5. Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.12. Wetlands (inland) - Geothermal Wetlands	Resident	Suitable	Yes
12. Marine Intertidal -> 12.2. Marine Intertidal - Sandy Shoreline and/or Beaches, Sand Bars, Spits, Etc	Resident	Suitable	Yes

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	Causing/could cause fluctuations	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
1. Residential & commercial development -> 1.2. Commercial & industrial areas	Ongoing	Unknown	Causing/could cause fluctuations	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		
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

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(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

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
Estimated area of occupancy (AOO) (km^2): 120
Continuing decline in area of occupancy (AOO): Unknown
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km^2): 15427
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): Unknown
Number of Locations: 6

Distribution
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 0
Upper elevation limit (m): 600
Population
Continuing decline of mature individuals: Unknown
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.