The IUCN Red List of Threatened Species™
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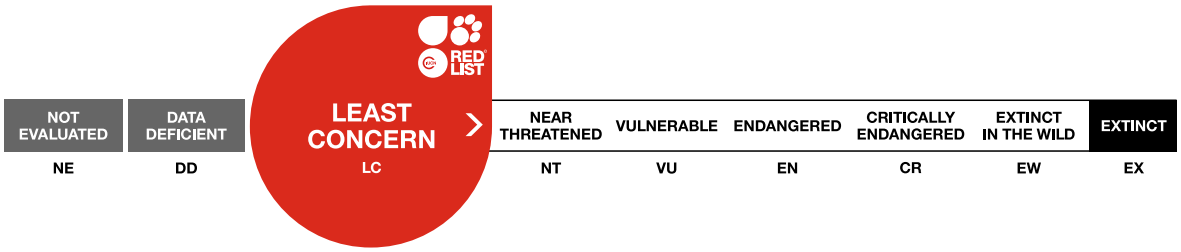
Aphrosylus calcarator

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



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Dolichopodidae

Scientific Name: *Aphrosylus calcarator* Frey, 1945

Assessment Information

Red List Category & Criteria: Least Concern ver 3.1

Year Published: 2021

Date Assessed: March 14, 2018

Justification:

Aphrosylus calcarator is an endemic species of the Azores (Portugal), being present (at least historically) on all the islands of the Azorean archipelago with the exception of Santa Maria. This species was considered common and widespread through the coastal areas of the archipelago (Frey 1945). From the historical data, this species potentially has a relatively large Extent of Occurrence (27,415 km^2) but a small Area of Occupancy (244 km^2), although these are most likely underestimates. 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; while conservation of coastal areas could potentially aid this species' conservation. Even though there is a paucity of recent data regarding this species' population, distribution, threats and ecology, this species is unlikely to warrant listing as threatened under any criterion, and so it is listed as Least Concern.

Geographic Range

Range Description:

Aphrosylus calcarator is an endemic species that was described from the coastal areas of all the islands of the Azores (Portugal) with the exception of Santa Maria (Borges *et al.* 2010). Based on the old historical data (Frey 1945), the Extent of Occurrence (EOO) could be ca. 27,415 km^2 and the Area of Occupancy (AOO) could be ca. 244 km^2. However, there is no recent information regarding the distribution of this species.

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

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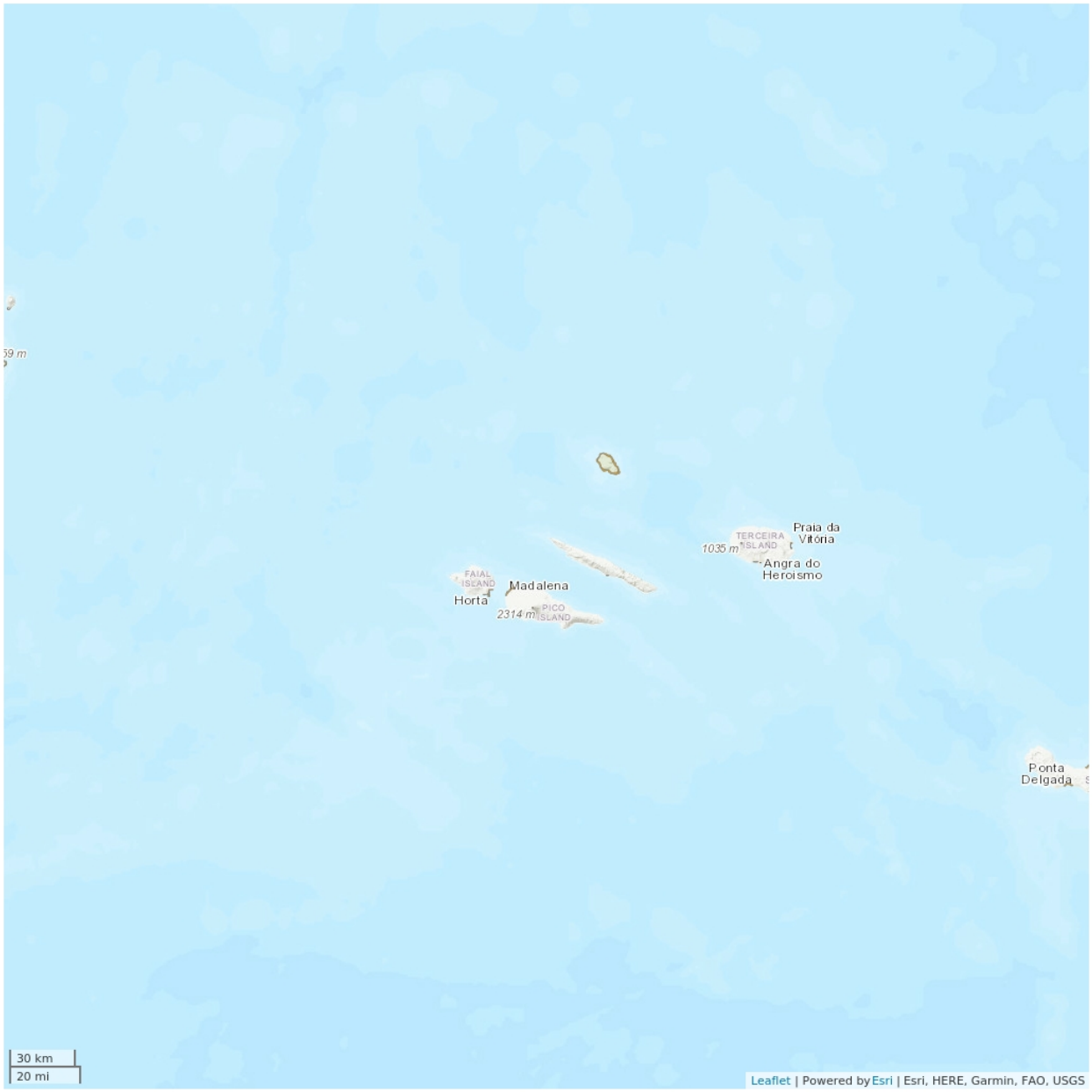
Distribution Map



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.

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Population

No current population size estimates exist. Nevertheless, from the species description (Frey 1945) and from the samples collected in 1938, this species was considered common and widespread through the coastal areas of the Azores archipelago.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

The ecology and traits of this species are unknown. Adults and most larvae of other species of Dolichopodidae are predators, feeding on other arthropods, with the adults of some species being notable predators of Culicidae (McAlpine *et al.* 1987). The larvae occupy a wide range of habitats, living generally in moist environments such as soil, moist sand, or rotting organic matter. Many flies of the subfamily Hydrophorinae live in the intertidal zone of seashores and accordingly, *Aphrosylus calcarator* was collected on the seashore and intertidal areas of several Azorean islands, being considered very common and widespread (Frey 1945).

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 apparent habitat preferences of this species suggests that it might be affected by future habitat declines as a consequence of climate change (Ferreira *et al.* 2016) and human disturbance of the seashore. Past human disturbance of the seashore 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 natural seashore areas could potentially aid this species' conservation. Historically at least, this species was present in areas that are currently included in the Natural Park of Faial.

Credits

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

Reviewer(s): Danielczak, A.

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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. 1987. *Manual of Nearctic Diptera Volume 2*. Research Branch. Agriculture Canada, Ottawa.

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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?
12. Marine Intertidal -> 12.1. Marine Intertidal - Rocky Shoreline	Resident	Suitable	Yes
12. Marine Intertidal -> 12.2. Marine Intertidal - Sandy Shoreline and/or Beaches, Sand Bars, Spits, Etc	Resident	Suitable	Yes
12. Marine Intertidal -> 12.3. Marine Intertidal - Shingle and/or Pebble Shoreline and/or Beaches	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	Unknown	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	Unknown	Unknown	Unknown
	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		

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

Conservation Actions Needed

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

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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
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): 0
Upper elevation limit (m): 50
Population
Continuing decline of mature individuals: Unknown
Extreme fluctuations: Unknown
Population severely fragmented: Unknown
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: 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.