The IUCN Red List of Threatened Species™
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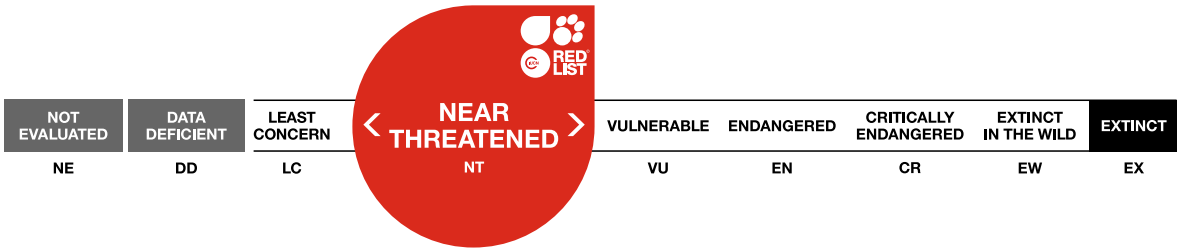
Xanthandrus azorensis

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



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Syrphidae

Scientific Name: *Xanthandrus azorensis* Frey, 1945

Assessment Information

Red List Category & Criteria: Near Threatened B1b(iii)+2b(iii) ver 3.1

Year Published: 2021

Date Assessed: March 29, 2018

Justification:

Xanthandrus azorensis is an endemic species of the Azores (Portugal), being present in historical and recent records from Faial, Pico, S. Jorge, and S. Miguel islands. It is apparently widespread through natural and man-made/disturbed habitats. This species has an extent of occurrence of 5,765 km^2, although its potential area of occupancy is small (132 km^2). It is possible that this species has declined in the past as a result of human activity, even if apparently adapted to artificial habitats and also associated with introduced vegetation. The present situation of this species needs to be assessed and further research is needed into its population, distribution, threats, ecology and life history. Conservation of native habitats could potentially aid this species conservation. Overall, precautionarily, this species is assessed as Near Threatened.

Geographic Range

Range Description:

Xanthandrus azorensis is a hoverfly species from the islands of Faial, Pico, S. Jorge and S. Miguel (Azores, Portugal) (Frey 1945), known from several distinct habitats, some degraded. Based on the old historical data and more recent records, the extent of occurrence (EOO) is ca. 5,765 km^2 and the estimated area of occupancy (AOO) is ca. 132 km^2.

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

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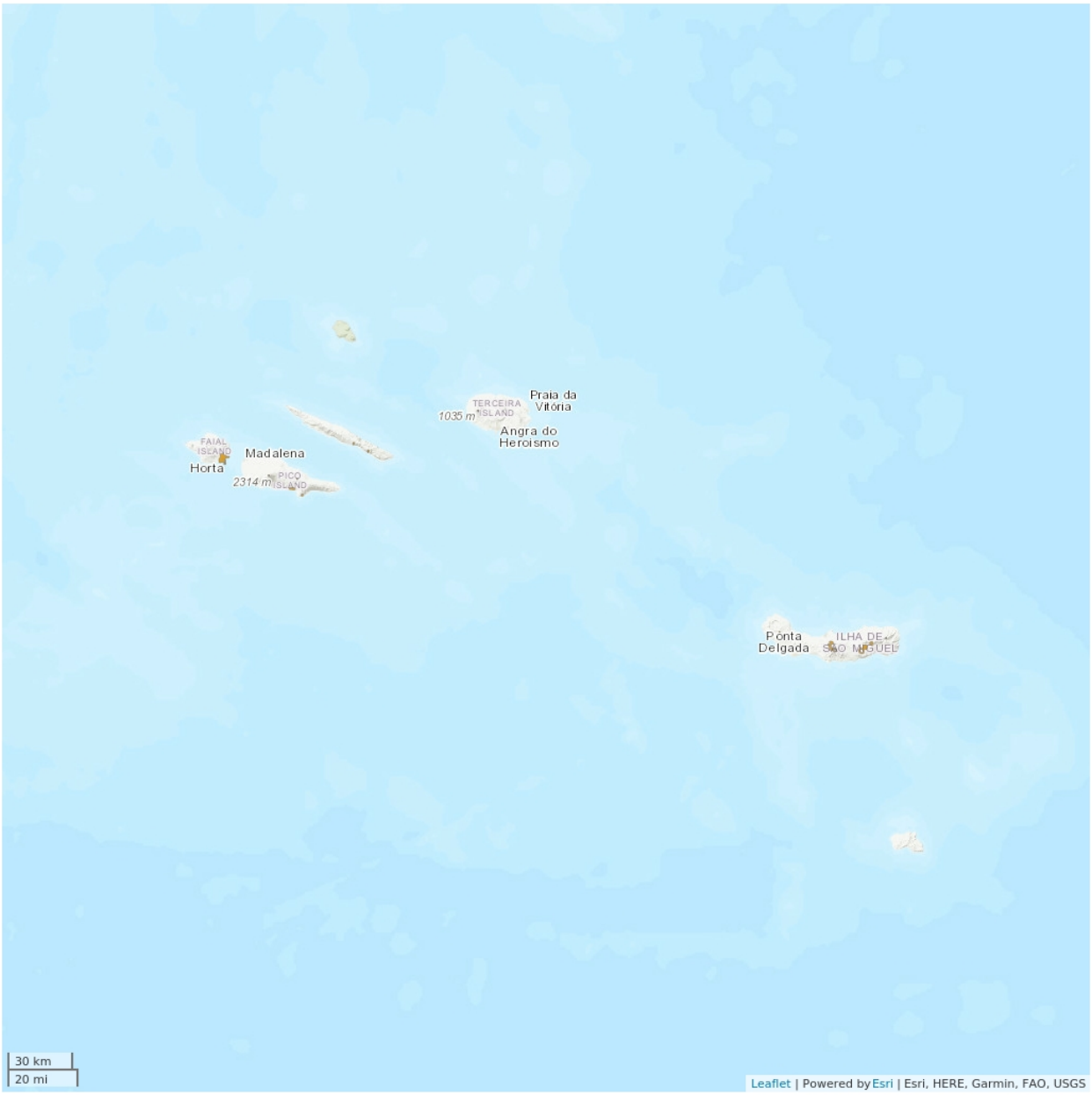
Distribution Map



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.

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Population

No current population size estimates exist for this species. Nevertheless, this species is relatively widespread through part of the Azores archipelago, in a wide variety of habitats, which might be assumed as an indicator of a stable population.

Current Population Trend: Stable

Habitat and Ecology (see Appendix for additional information)

Although the larvae of this species are not described (Speight 2018), *Xanthandrus azorensis* presumably has aphidophagous larvae, like other congeneric species. It has been found visiting flowers of exotic plants (e.g. *Hydrangea macrophylla*) and endemic plants (e.g. *Euphorbia stygiana*) (Frey 1945). This species has been collected in several different habitats, including swampy meadows and deciduous forests, and also disturbed or urbanised areas. According to Rojo *et al.* (1997), its preferred environment is peaty wetland. The species has been found flying from June to September (Rojo *et al.* 1997).

Systems: Terrestrial

Use and Trade (see Appendix for additional information)

The species is not utilised.

Threats (see Appendix for additional information)

The lack of information regarding the present distribution and ecology of this species, precludes a complete assessment of potential threats. Nevertheless, from the ecology of the Syrphidae family and known habitat preferences, this species has probably declined in the past due to changes in habitat size and quality, mostly due to human action. On the other hand it seems adapted to some disturbed habitats and is associated with both endemic and introduced flowering plant species; although pesticides and herbicides will most likely have an impact on this species. Based on Ferreira *et al.* (2016) the habitat will likely further decline as a consequence of climate change (increasing number of droughts and habitat shifting and alteration).

Conservation Actions (see Appendix for additional information)

Historically, this species was present in areas that are currently included in the Natural Parks of Faial, Pico and S. Miguel, disturbed or otherwise. The species is not protected by regional law. It has been collected in some native vegetation areas, but also in degraded areas. From what is known of its habitat preferences, conservation of native wet or dry grasslands and other natural habitats could potentially aid this species conservation. Degraded habitats could also be restored. Additionally, a strategy needs to be developed to address the future threat by climate change. Further research is also needed into this species population, distribution, threats, ecology and life history.

Credits

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

Reviewer(s): Russell, N.

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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?
1. Forest -> 1.4. Forest - Temperate	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.4. Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	Resident	Suitable	Yes
14. Artificial/Terrestrial -> 14.3. Artificial/Terrestrial - Plantations	Resident	Suitable	-
14. Artificial/Terrestrial -> 14.4. Artificial/Terrestrial - Rural Gardens	Resident	Suitable	-

Threats

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

Threat	Timing	Scope	Severity	Impact Score
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.3. Herbicides and pesticides	Ongoing	Unknown	Very rapid declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 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 -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
11. Climate change & severe weather -> 11.2. Droughts	Future	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		

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 -> 2.3. Habitat & natural process restoration

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): 132
Continuing decline in area of occupancy (AOO): No
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km²): 5765
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): No
Continuing decline in number of locations: No
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 0
Upper elevation limit (m): 900
Population
Continuing decline of mature individuals: Unknown
Extreme fluctuations: No
Population severely fragmented: No

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Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Unknown

The IUCN Red List Partnership

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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.