The IUCN Red List of Threatened Species™
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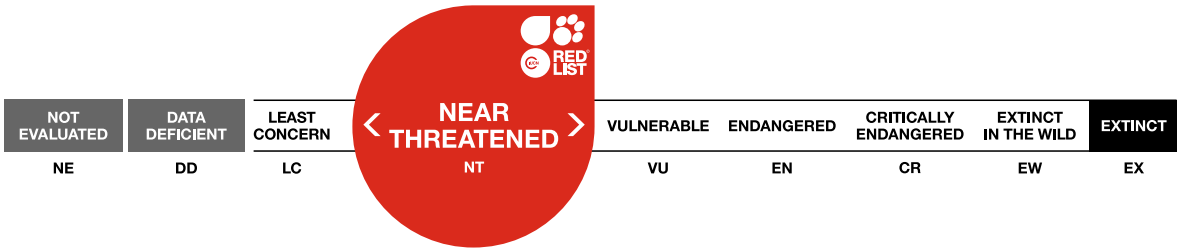
Chrysotus polychaetus

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: *Chrysotus polychaetus* Frey, 1945

Assessment Information

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

Year Published: 2021

Date Assessed: March 15, 2018

Justification:

Chrysotus polychaetus is an endemic species of the Azores (Portugal), being present in Flores, Pico, S. Jorge and Terceira islands. This species has been described as apparently common and widespread through a wide variety of natural and disturbed habitats in the aforementioned islands (Frey 1945). From the historical data, this species potentially has a fairly small Extent of Occurrence (11,957 km^2) and a limited Area of Occupancy (80 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, 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:

Chrysotus polychaetus is an Azorean-endemic species that was described from the islands of Flores, Pico, S. Jorge, and Terceira (Azores, Portugal) (Borges *et al*. 2010), known from a wide variety of habitats. Based on the historical data (Frey 1945), the Extent of Occurrence (EOO) would be *ca.* 11,957 km² and the Area of Occupancy (AOO) would be *ca.* 80 km².

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

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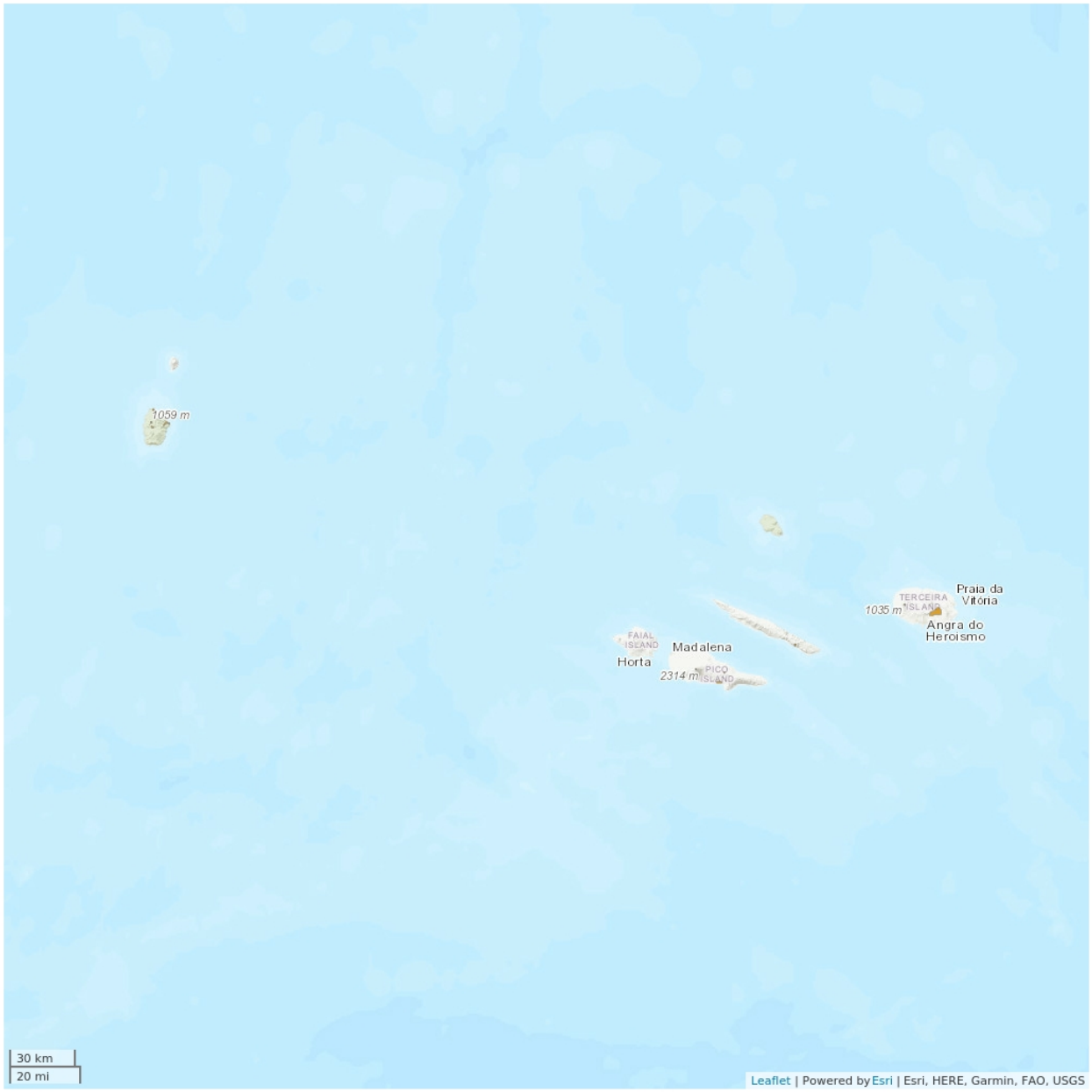
Distribution Map



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.

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. The larvae pupate in cocoons made of cemented soil particles. Dolichopodidae in general inhabit lightly shaded areas near swamps and streams, or in meadows and woodlands (McAlpine *et al.* 1987). Other species of the genus *Chrysotus* are generally heliophilous, being found mainly on the foliage of low herbs, while a number of species seem to prefer wet, sandy banks of ponds and rivers. *Chrysotus polychaetus* has been found in a wide variety of habitats, mainly in native, deciduous and production forests (*Cryptomeria japonica)*, heathland, and near lakes.

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 Dolichopodidae 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. 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, native wet and boggy areas, natural streams and other water bodies could potentially aid this species' conservation. Historically at least, this species was present in areas that are currently included in the Natural Parks of Flores and Pico.

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?
1. Forest -> 1.4. Forest - Temperate	Resident	Suitable	Yes
3. Shrubland -> 3.4. Shrubland - Temperate	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.7. Wetlands (inland) - Permanent Freshwater Marshes/Pools (under 8ha)	Resident	Suitable	Yes
14. Artificial/Terrestrial -> 14.3. Artificial/Terrestrial - Plantations	Resident	Suitable	-

Threats

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

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.3. Scale Unknown/Unrecorded	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
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		
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

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Conservation Action in Place
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

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): 80
Continuing decline in area of occupancy (AOO): Unknown
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km^2): 11957
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): Unknown
Number of Locations: 6-9
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 0
Upper elevation limit (m): 800

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Population
Continuing decline of mature individuals: Unknown
Extreme fluctuations: Unknown
Population severely fragmented: 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.