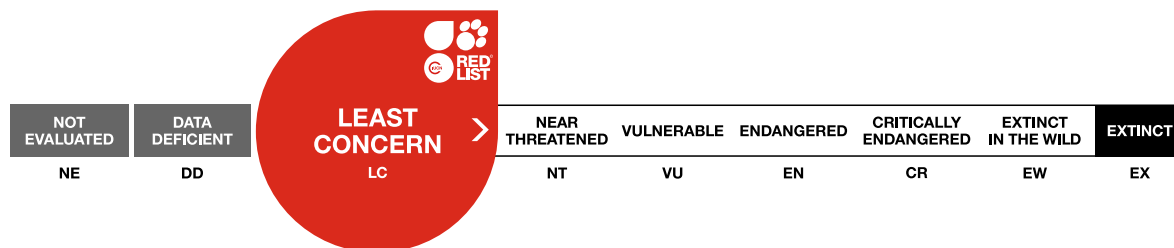


Chrysotus vulcanicola

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 vulcanicola* Frey, 1945

Assessment Information

Red List Category & Criteria: Least Concern [ver 3.1](#)

Year Published: 2021

Date Assessed: March 15, 2018

Justification:

Chrysotus vulcanicola is an endemic species of the Azores (Portugal), present on Flores, Faial, Pico, S. Jorge, Terceira and S. Miguel 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 relatively large Extent of Occurrence (22,715 km²), but a fairly small Area of Occupancy (360 km²). 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. Conservation of native forests and vegetation, native wet and boggy areas and natural streams and other water bodies 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

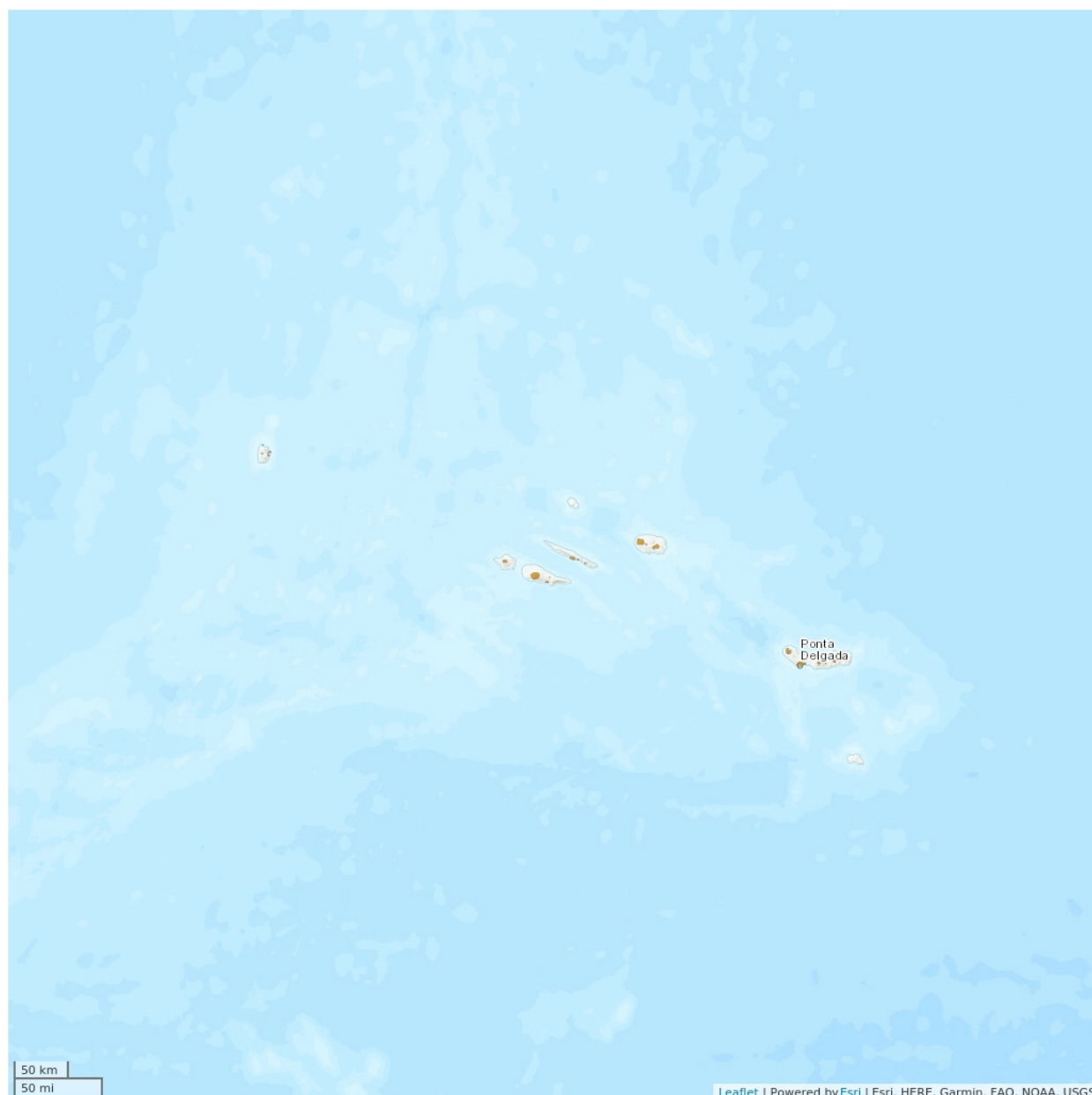
Range Description:

Chrysotus vulcanicola is an Azorean-endemic species described from the islands of Flores, Faial, Pico, S. Jorge, Terceira and S. Miguel (Azores, Portugal) (Borges *et al.* 2010), and known from a wide variety of habitats. Based on the historical data (Frey 1945), the Extent of Occurrence (EOO) could be *ca.* 22,715 km² and the Area of Occupancy (AOO) could be *ca.* 360 km². However, there is no recent information regarding the distribution of this species.

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

Distribution Map

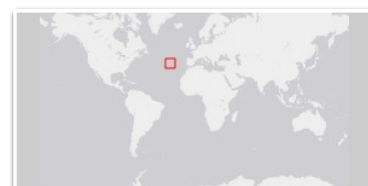


Legend

■ 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. Nevertheless, from the samples collected in 1938 this species seemed to be fairly common and widespread through the islands 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. 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 vulcanicola* has been found in a wide variety of habitats, mainly in native, deciduous and production forests (*Cryptomeria japonica*), heathland, near lakes and streams, in moorlands and in other wet and moist 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 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 and other natural streams and 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, Faial, Pico, Terceira and 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?
1. Forest -> 1.4. Forest - Temperate	Resident	Suitable	Yes
3. Shrubland -> 3.4. Shrubland - Temperate	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.2. Wetlands (inland) - Seasonal/Intermittent/Irregular Rivers/Streams/Creeks	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.4. Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	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
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.4. Scale Unknown/Unrecorded	Ongoing	-	-	Low impact: 3
	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	-	-	Low impact: 3
	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
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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>)

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

Distribution
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 0
Upper elevation limit (m): 2,200
Population
Continuing decline of mature individuals: Unknown
Extreme fluctuations: Unknown
Population severely fragmented: Unknown

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