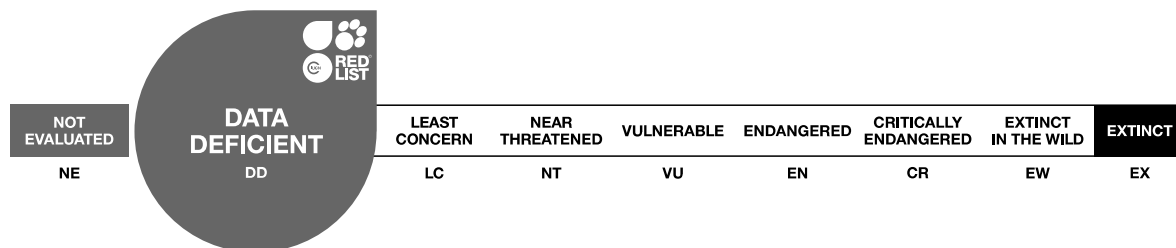


Ommatocephus parvilamellatus

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



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Arachnida	Oribatida	Cepheidae

Scientific Name: *Ommatocepheus parvilamellatus* Pérez-Íñigo & Pérez-Íñigo Jr., 1996

Assessment Information

Red List Category & Criteria: Data Deficient [ver 3.1](#)

Year Published: 2021

Date Assessed: March 31, 2018

Justification:

Ommatocepheus parvilamellatus is an endemic species of the Azores (Portugal), being described from a few site on Terceira and S. Miguel islands. From the species' description, it would have a very small Extent of Occurrence (467 km²) and Area of Occupancy (16 km²), which are likely underestimates, as this species probably has a wider distribution through the soil component of the islands. It can be assumed that this species is affected by human activities and invasive plant species that alter the natural structure and composition of the soil. Future climatic changes and increased risk of droughts will also affect this species. However, 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 natural habitats and invasive species control could also potentially aid this species' conservation. Based upon the incomplete knowledge regarding this species' population, distribution, threats and ecology, it is not possible to accurately estimate the extinction risk of the species and it could theoretically fall into any category. Therefore, this species is assessed as Data Deficient (DD).

Geographic Range

Range Description:

Ommatocepheus parvilamellatus is an Azorean-endemic oribatid mite species known from Terceira and S. Miguel islands (Azores, Portugal) (Borges *et al.* 2010), described from both the Nature Reserve of Caldeira Sta. Bárbara e Mistérios Negros and from a disturbed forest in Terceira, and from the Natural Forest Reserve of Pico da Vara (Tronqueira) in S. Miguel. From the species' description, the Extent of Occurrence (EOO) would be *ca.* 467 km² and the Area of Occupancy (AOO) would be 16 km².

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

Distribution Map

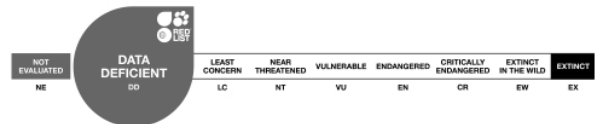


Legend

■ 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 for this species. As an oribatid mite, this species is likely common and widespread in the soil habitat.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

The ecology and traits of this species are unknown. Oribatid mites are associated with organic matter in most terrestrial ecosystems, being found throughout the soil profile, in surface litter, on grasses, shrubs or in the bark and leaves of trees, among other habitats. Oribatida are also one of the most numerically dominant arthropod groups in the organic horizons of most soils (Behan-Pelletier 1999). *Ommatocephus parvilamellatus* was collected in pitfalls from both native forest and from production (*Eucalyptus sp.*) forest.

Systems: Terrestrial

Threats (see Appendix for additional information)

A lack of information regarding the present range of this species precludes an assessment of potential threats. Nevertheless, it can be assumed that this species will be affected by future habitat declines as a consequence of climate change (Ferreira *et al.*, 2016) and increased droughts. Other factors that affect habitat quality like land use changes, pesticides and nutrient loads or invasive plants might also affect this species. For instance, the forest in Tronqueira is being degraded by the spread of invasive plants (*Hedychium gardnerianum* and *Clethra arborea*), which are changing the habitat and soil structure.

Conservation Actions (see Appendix for additional information)

The species is not protected by regional law, but part of its habitat is in a regionally protected area (Natural Parks of Terceira and S. Miguel). Invasive plants and land-use changes are likely one of the main current and future threats, and conservation of native habitats and invasive species control could potentially aid this species' conservation. The São Miguel Natural Park administration is currently starting control measures of the invasive plants. A LIFE PRIOLO project started with a restoration of degraded habitats increasing the area of pristine forest. A habitat management plan is needed and one is anticipated to be developed during the coming years. Further research is needed into its population, distribution, threats, ecology and life history; and it is also necessary to develop a monitoring plan for the invertebrate community in order to contribute to the conservation of this species.

Credits

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

Reviewer(s): Danielczak, A.

Authority/Authorities: IUCN SSC Spider and Scorpion Specialist Group

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Behan-Pelletier, V.M. 1999. Oribatid mite biodiversity in agroecosystems: role for bioindication. *Agriculture, Ecosystems & Environment* 74(1-3): 411-423.

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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
14. Artificial/Terrestrial -> 14.3. Artificial/Terrestrial - Plantations	Resident	Unknown	-

Threats

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

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.1. Small-holder plantations	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Clethra arborea)	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Hedychium gardnerianum)	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.1. Nutrient loads	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.3. Herbicides and pesticides	Ongoing	Minority (50%)	Very rapid declines	Medium impact: 7
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Future	Majority (50-90%)	Slow, significant declines	Low impact: 4
	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	Majority (50-90%)	Slow, significant declines	Low impact: 4
	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: Yes
Systematic monitoring scheme: No
In-place land/water protection
Conservation sites identified: No
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
2. Land/water management -> 2.3. Habitat & natural process restoration
5. Law & policy -> 5.1. Legislation -> 5.1.3. Sub-national level

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
2. Conservation Planning -> 2.2. Area-based Management Plan
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): 350
Upper elevation limit (m): 600
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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