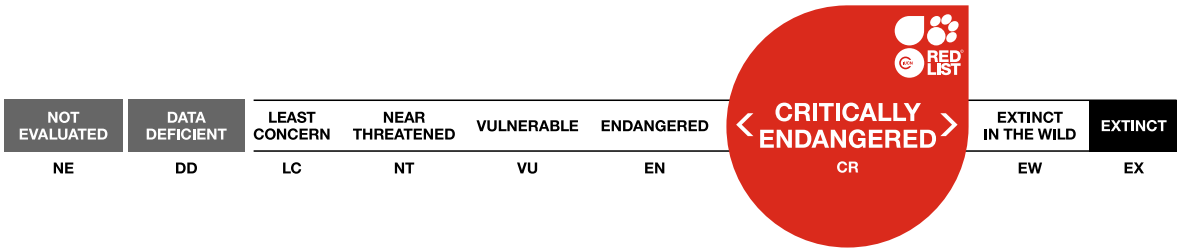
The IUCN Red List of Threatened Species™
ISSN 2307-8235 (online)
IUCN 2020: T119450611A124930586
Scope(s): Global
Language: English

Pseudoblothrus oromii

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



View on www.iucnredlist.org

Citation: Nunes, R. & Borges, P.A.V. 2020. *Pseudoblothrus oromii*. *The IUCN Red List of Threatened Species* 2020: e.T119450611A124930586. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T119450611A124930586.en

Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Arachnida	Pseudoscorpiones	Syarinidae

Scientific Name: *Pseudoblothrus oromii* Mahnert, 1990

Assessment Information

Red List Category & Criteria: Critically Endangered B1ab(i,ii,iii,v)+2ab(i,ii,iii,v) ver 3.1

Year Published: 2020

Date Assessed: March 30, 2018

Justification:

Pseudoblothrus oromii is a cave-adapted species known from a single island, S. Jorge (Azores, Portugal). It has a very small Extent of Occurrence (EOO = 4 km²) and Area of Occupancy (AOO = 4 km²). The species is rare and only known from a single subpopulation in the lava tube of Gruta da Beira. The area surrounding the cave is heavily impacted by human activities. Further research is needed into its population, ecology and life history. A habitat management plan is needed and one is anticipated to be developed during the coming years. We also suggest as future measures of conservation the regular monitoring of the species (every ten years) and limiting access to the cave. The species is assessed as Critically Endangered (CR), mostly due to its small Extent of Occurrence (EOO) and Area of Occupancy (AOO) and the decline in habitat quality.

Geographic Range

Range Description:

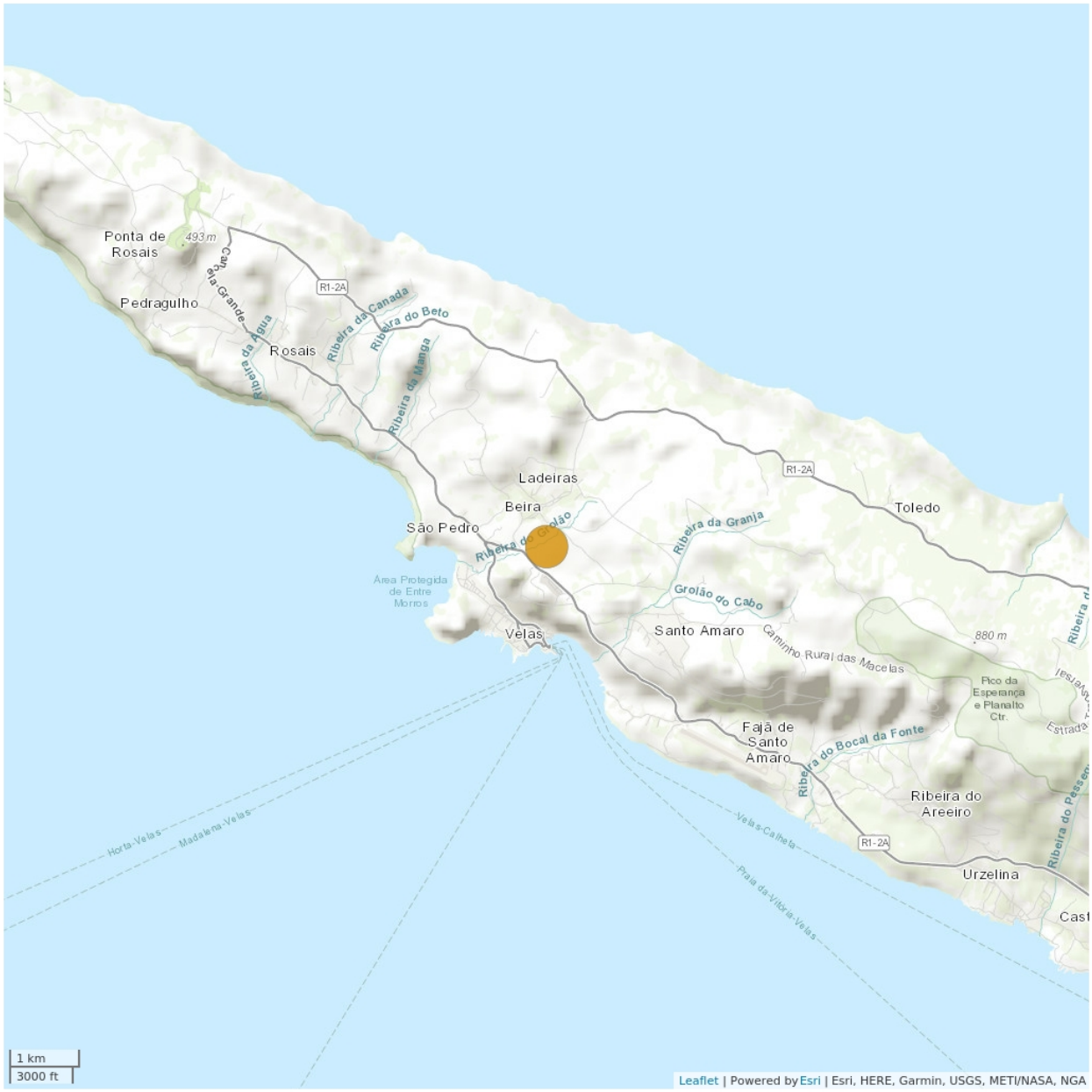
Pseudoblothrus oromii is an Azorean-endemic, cave-adapted pseudoscorpion species known from a single island, S. Jorge (Azores, Portugal) (Borges *et al.* 2010), and occurring in a single cave; the lava tube of Gruta da Beira. The Extent of Occurrence (EOO) is 4 km² and the maximum estimated Area of Occupancy (AOO) is 4 km².

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T119450611A124930586.en

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.

https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T119450611A124930586.en

Population

The species is rare and only known from a single subpopulation on S. Jorge island. The area surrounding the cave is heavily impacted by human disturbance.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

There is limited information regarding this species' ecology and life history. Gruta da Beira is a 200 m long lava tube opening on a slope near a urbanised area. The surrounding area is highly disturbed by agricultural fields, mostly intensive pasture.

The genus *Pseudoblothrus* is exclusively cave-dwelling (Mahnert 1990). Specimens were found near the entrance of the cave, under rotting wood and other organic litter. It is a cavernicolous (i.e. a troglobitic species) predator and/or saprophagous species.

Systems: Terrestrial

Threats (see Appendix for additional information)

The main current threats to this species are the degradation of habitat quality due to the impact of urbanisation, agriculture activities, agricultural and domestic pollution, and recreational cave visitation. However, there are several future potential threats: climatic changes (see Ferreira *et al.* 2016) that can change the conditions inside the cave; changes in the road infrastructure around the cave; potential human recreational activities with cave visitation and geological events (volcanic activity and earthquakes).

Conservation Actions (see Appendix for additional information)

The species is protected by regional law (RAA 2012), however, the cave where it occurs is not protected. Land-use changes are one of the main current and future threats, and conservation measures should be extended beyond the cave. Further research is needed into its population, ecology and life history; and a monitoring plan for the invertebrate community is necessary in order to contribute to the conservation of this species. As a future conservation measure, the limiting of visits to the cave could be considered. A habitat management plan is needed and one is anticipated to be developed during the coming years.

Credits

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

Reviewer(s): Russell, N.

Authority/Authorities: IUCN SSC Spider and Scorpion Specialist Group

https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T119450611A124930586.en

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.

IUCN. 2020. The IUCN Red List of Threatened Species. Version 2020-3. Available at: www.iucnredlist.org. (Accessed: 10 December 2020).

Mahnert, V. 1990. Deux nouvelles espèces du genre *Pseudoblothrus* Beier, 1931 (Pseudoscorpiones, Syarinidae) des Açores (Portugal). *Viearea* 18: 167-170.

RAA. 2012. *Regime jurídico da conservação da natureza e da proteção da biodiversidade - Decreto Legislativo Regional n.° 15/2012/A de 2 de Abril*. Região Autónoma dos Açores. Diário da República, 1.ª Série.

Citation

Nunes, R. & Borges, P.A.V. 2020. *Pseudoblothrus oromii*. *The IUCN Red List of Threatened Species* 2020: e.T119450611A124930586. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T119450611A124930586.en

Disclaimer

To make use of this information, please check the Terms of Use.

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?
7. Caves and Subterranean Habitats (non-aquatic) -> 7.1. Caves and Subterranean Habitats (non-aquatic) - Caves	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	Minority (50%)	Rapid declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
4. Transportation & service corridors -> 4.1. Roads & railroads	Future	Minority (50%)	Very rapid declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
6. Human intrusions & disturbance -> 6.1. Recreational activities	Ongoing	Minority (50%)	Causing/could cause fluctuations	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.2. Species disturbance		
9. Pollution -> 9.1. Domestic & urban waste water -> 9.1.2. Run-off	Ongoing	Minority (50%)	Rapid declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
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 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		

9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.3. Herbicides and pesticides	Ongoing	Minority (50%)	Very rapid declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
10. Geological events -> 10.1. Volcanoes	Future	Whole (>90%)	Very rapid declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
10. Geological events -> 10.2. Earthquakes/tsunamis	Future	Whole (>90%)	Very rapid declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Future	Whole (>90%)	Rapid declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
11. Climate change & severe weather -> 11.2. Droughts	Future	Whole (>90%)	Rapid declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		

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
Conservation sites identified: No

Conservation Actions Needed

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

Conservation Action Needed
1. Land/water protection -> 1.1. Site/area protection

https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T119450611A124930586.en

Conservation Action Needed
2. Land/water management -> 2.1. Site/area management
4. Education & awareness -> 4.1. Formal education
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
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
Estimated area of occupancy (AOO) (km²): 4
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km²): 4
Continuing decline in extent of occurrence (EOO): Yes
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 1
Continuing decline in number of locations: No
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 250
Upper elevation limit (m): 250
Population
Continuing decline of mature individuals: Yes
Extreme fluctuations: Unknown
Population severely fragmented: No

https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T119450611A124930586.en

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

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.