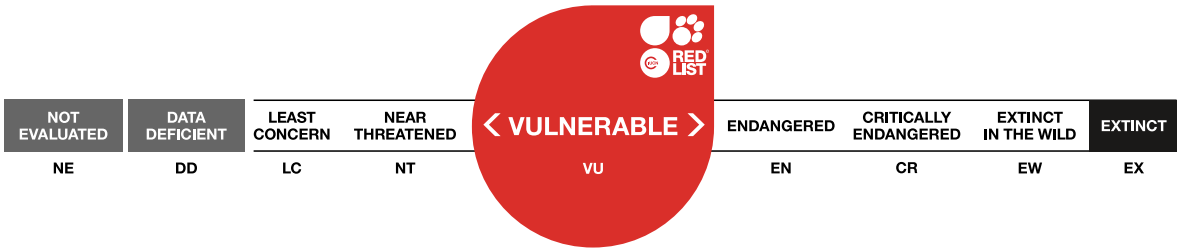
The IUCN Red List of Threatened Species™
ISSN 2307-8235 (online)
IUCN 2021: T58052793A58061282
Scope(s): Global
Language: English

Sancus acoreensis

Assessment by: Borges, P.A.V. & Cardoso, P.



View on www.iucnredlist.org

Citation: Borges, P.A.V. & Cardoso, P. 2021. *Sancus acoreensis*. *The IUCN Red List of Threatened Species* 2021: e.T58052793A58061282. https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T58052793A58061282.en

Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Arachnida	Araneae	Tetragnathidae

Scientific Name: *Sancus acoreensis* (Wunderlich, 1992)

Synonym(s):

- *Leucognatha acoreensis* Wunderlich, 1992

Taxonomic Source(s):

Platnick, N.I. 2014. The World Spider Catalog, Version 14.5. P. Merrett & H.D. Cameron (eds). American Museum of Natural History. Available at: http://research.amnh.org/iz/spiders/catalog/index.html. (Accessed: 31 March 2014).

Assessment Information

Red List Category & Criteria: Vulnerable B2ab(ii,iii,iv,v) ver 3.1

Year Published: 2021

Date Assessed: December 4, 2017

Justification:

Sancus acoreensis is an endemic long-jawed orb weaver spider species occurring in seven islands of the Azorean archipelago (Azores, Portugal) (only absent in Graciosa and Corvo) (Borges *et al*. 2010). It has a relatively large Extent of Occurrence (EOO = 38,863 km²) and a small Area of Occupancy (AOO = 216-752 km²). This species occurs mainly in Azorean pristine native forest at mid and high elevation sites with forests dominated by *Juniperus brevifolia*, *Laurus azorica* and *Ilex perado* subsp. *azorica* and densely covered by shrubs of *Vaccinium cylindraceum* and *Myrsine* spp. Ongoing threats, such as from invasive plant species, are thought to be causinf continuing declines, and so the species is assessed as Vulnerable (VU).

Geographic Range

Range Description:

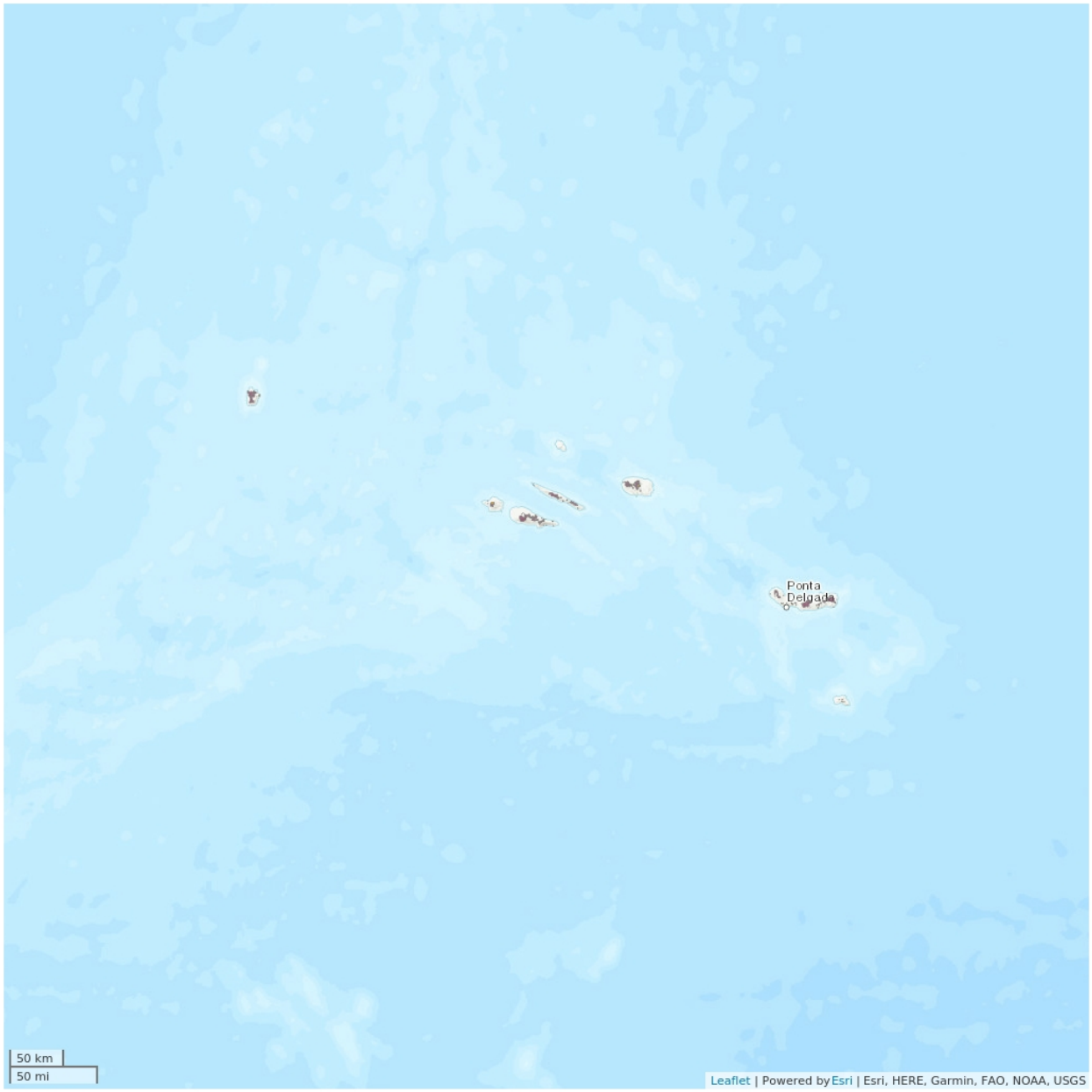
Sancus acoreensis is an endemic long-jawed orb weaver spider species occurring on seven islands of the Azorean archipelago (Azores, Portugal) (only absent in Graciosa and Corvo) (Borges *et al*. 2010). Within these seven islands it is known from eighteen Natural Forest Reserves: Caldeiras Funda e Rasa and Morro Alto e Pico da Sé (Natural Park of Flores); Caldeira do Faial and Cabeço do Fogo (Natural Park of Faial); Mistério da Prainha, Caveiro and Caiado (Natural Park of Pico); Pico Pinheiro and Topo (Natural Park of S. Jorge); Biscoito da Ferraria, Pico Galhardo, Caldeira Guilherme Moniz, Caldeira Sta. Bárbara e Mistérios Negros and Terra Brava (Natural Park of Terceira); Atalhada, Graminhais and Pico da Vara (Natural Park of S. Miguel) and Pico Alto (Natural Park of Sta. Maria). The estimated Extent of Occurrence (EOO) is 38,863 km^2 and the estimated Area of Occupancy (AOO) is 216-752 km^2.

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T58052793A58061282.en

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

Distribution Map



Legend

EXTANT (RESIDENT)

POSSIBLY 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.2021-1.RLTS.T58052793A58061282.en

Population

This can be considered one of the most abundant endemic Azorean spider species, but it is most abundant in native forest.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

The species occurs mainly in native forests and builds its web in the canopies of endemic trees and shrubs, although also associated with herbaceous vegetation, such as small individuals of *Vaccinium cylindraceum* and *Myrsine* spp. This generalist predator is active during the night and, based on long-term data with SLAM traps (Borges *et al*. 2017), it occurs in all seasons, but with adults being dominant in late spring and summer. The species tends to be more abundant at sites with pristine forests dominated by *Juniperus brevifolia*, *Laurus azorica* and *Ilex perado* subsp. *azorica* and densely covered by shrubs of *Vaccinium cylindraceum* and *Myrsine* spp.

Systems: Terrestrial

Threats (see Appendix for additional information)

In the past, the species has probably strongly declined due to changes in habitat size and quality (Triantis *et al.* 2010). However, the species seems to have survived in the remaining native forests of the Azores, mostly at mid and high elevation pristine forests. The main current threat is the spread of invasive plant species namely *Hedychium gardnerianum* and *Pittosporum undulatum* on most islands, and *Clethra arborea* on S. Miguel, which are changing the structure of the forest and the cover of endemic trees and shrubs. Based on Ferreira *et al.* (2016) the habitat will further decline as a consequence of climate change (increasing number of droughts, and habitat shifting and alteration).

Conservation Actions (see Appendix for additional information)

The species is not protected by regional law, but its habitat is in regionally protected areas (Natural Parks of Faial, Flores, Pico, S. Jorge, Terceira, S. Miguel and S. Maria). Degraded habitats in some islands, degraded due to invasive plant species, should be restored (e.g. S. Maria) and a strategy needs to be developed to address the current threat posed by invasive species on all islands, as well as the future threat posed by climate change. A habitat management plan is needed and is anticipated to be developed during the coming years. Formal education and awareness is needed to allow future investments in restored habitats invaded by invasive plants; while further research is needed into its ecology and life history in order to obtain adequate information on population size, distribution and trends. An area-based management plan is also necessary for the most disturbed sites, including invertebrate monitoring to contribute to a potential species recovery plan. Monitoring every ten years using the BALA protocol will inform about habitat quality (see e.g. Gaspar *et al.* 2011).

Credits

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

Reviewer(s): Russell, N.

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T58052793A58061282.en

Contributor(s): Lamelas-López, L. & Mendonca, E.

Authority/Authorities: IUCN SSC Spider and Scorpion Specialist Group

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T58052793A58061282.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.

Borges, P.A.V., Pimentel, R., Carvalho, R., Nunes, R., Wallon, S. & Ros Prieto, A. 2017. Seasonal dynamics of arthropods in the humid native forests of Terceira Island (Azores). *Arquipelago Life and Marine Sciences* 34: 105-122.

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.

Gaspar, C., Gaston, K.J., Borges, P.A.V. and Cardoso, P. 2011. Selection of priority areas for arthropod conservation in the Azores archipelago. *Journal of Insect Conservation* 15: 671–684.

IUCN. 2021. The IUCN Red List of Threatened Species. Version 2021-1. Available at: www.iucnredlist.org. (Accessed: 25 March 2021).

Triantis, K.A., Borges, P.A.V., Ladle, R.J., Hortal, J., Cardoso, P., Gaspar, C., Dinis, F., Mendonça, E., Silveira, L.M.A., Gabriel, R., Melo, C., Santos, A.M.C., Amorim, I.R., Ribeiro, S.P., Serrano, A.R.M., Quartau, J.A. and Whittaker, R.J. 2010. Extinction debt on oceanic islands. *Ecography* 33(2): 285-294.

Citation

Borges, P.A.V. & Cardoso, P. 2021. *Sancus acoreensis*. *The IUCN Red List of Threatened Species* 2021: e.T58052793A58061282. https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T58052793A58061282.en

Disclaimer

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

Threats

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

Threat	Timing	Scope	Severity	Impact Score
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%)	Rapid declines	Medium impact: 6
	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		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Pittosporum undulatum)	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	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		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Hedychium gardnerianum)	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	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%)	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 -> 11.2. Droughts	Future	Whole (>90%)	Rapid declines	Medium impact: 6
	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

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: Yes
In-place land/water protection
Conservation sites identified: Yes, over part of range
Percentage of population protected by PAs: 81-90
Area based regional management plan: No
Occurs in at least one protected area: Yes

Conservation Actions Needed

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

Conservation Action Needed
1. Land/water protection -> 1.1. Site/area protection
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
4. Education & awareness -> 4.1. Formal education
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.3. 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

Research Needed
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km²): 216-752
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km²): 38863
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 10
Continuing decline in number of locations: Yes
Lower elevation limit (m): 2
Upper elevation limit (m): 2,242
Population
Continuing decline of mature individuals: Yes
Population severely fragmented: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 0.5

https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T58052793A58061282.en

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.