The IUCN Red List of Threatened Species™
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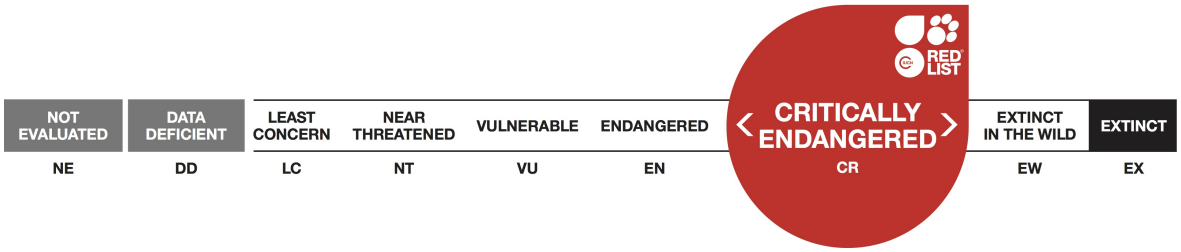
Scope: Global
Language: English

Olisthopus inclavatus, Ground.beetle

Assessment by: Borges, P.A.V.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Coleoptera	Carabidae

Taxon Name: *Olisthopus inclavatus* Israelson, 1983

Common Name(s):

- English: Ground.beetle

Taxonomic Source(s):

GBIF. 2016. Global Biodiversity Information Facility. Available at: http://www.gbif.org/.

Assessment Information

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

Year Published: 2018

Date Assessed: March 21, 2017

Justification:

Olisthopus inclavatus is endemic to Azores, occurring in only one islands (S. Maria). It has a very small extent of occurrence (EOO = 35 km²) and reduced area of occupancy (AOO = 32 km²). There is a continuing decline in the EOO, AOO, extent and quality of habitat as well as the number of mature individuals as a result of the invasions of non-native plants and human activities (forestry and agriculture). The species is particularly restricted to very small fragmented patches of exotic forest with a marginal occurrence in semi-natural pastures. In the past, the species has probably strongly declined due to changes in habitat size and quality. Based upon the small geographic range of the species and continuing decline of its habitat area and quality, it is assessed as Critically Endangered.

Geographic Range

Range Description:

Olisthopus inclavatus is a single island endemic species from Santa Maria (Azores, Portugal) (Borges *et al.* 2010), known from few patches of highly modified lowland forests. The extent of occurrence (EOO) is 35 km² and the maximum estimated area of occupancy (AOO) is 32 km².

Country Occurrence:

Native: Portugal (Azores)

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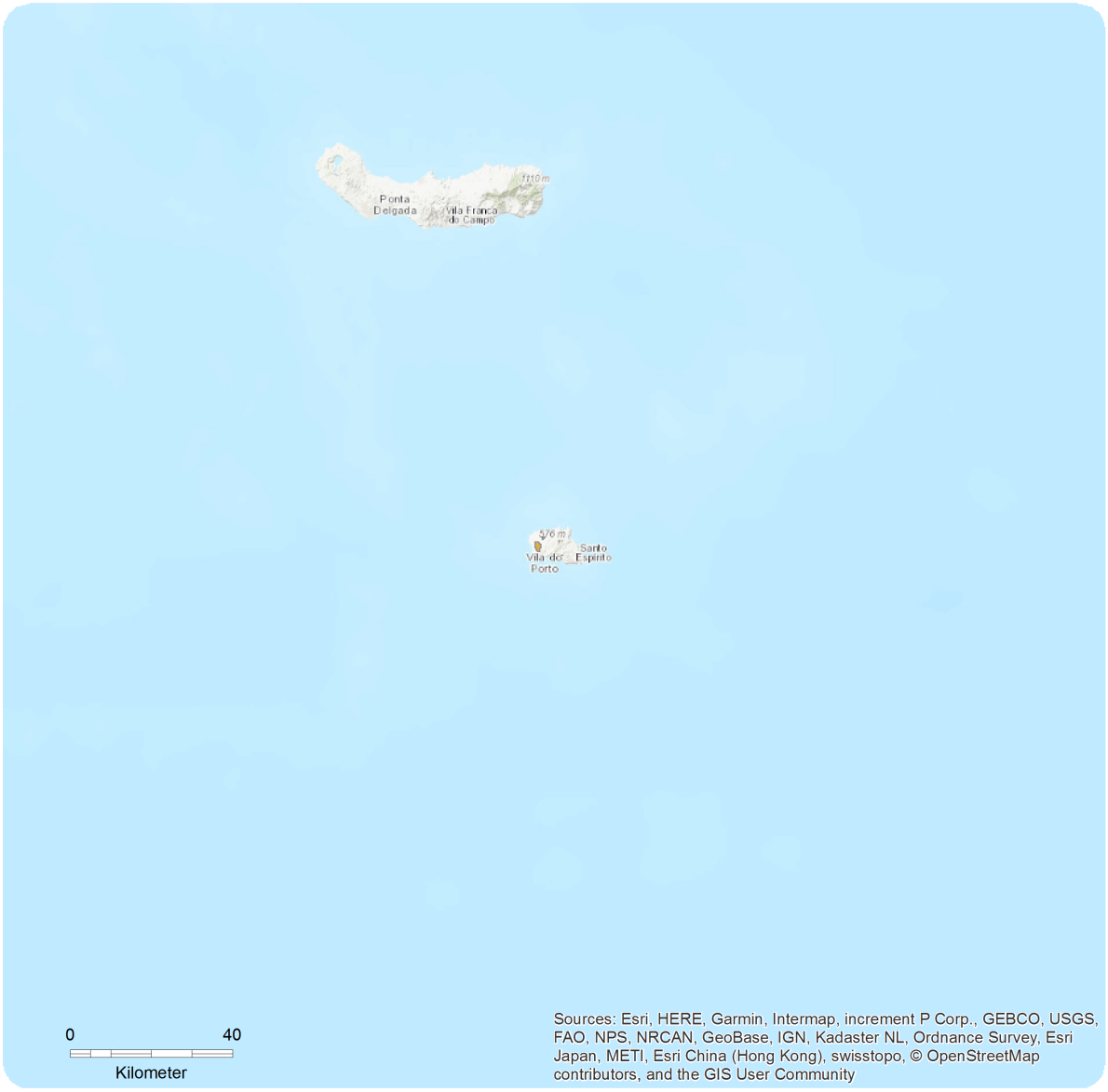
Distribution Map

Olisthopus inclavatus



Range

Extant (resident)

Compiled by:

Paulo Borges

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

The species is particularly restricted but the abundance is relatively high in the known localities. A continuing decline in the number of mature individuals is inferred from the ongoing habitat degradation due to invasions of alien plants and the destruction of exotic plantations for the implementation of pastures. This species is assessed here as at least 50% of its population can be found in subpopulations that are 1) smaller than would be required to support a viable population, and 2) separated from other habitat patches by a large distance.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

The species occurs in exotic forests (dominated by *Cryptomeria japonica*, *Acacia* spp.), semi-natural forests and in semi-natural pastures in Santa Maria island, with an altitudinal range between 150 and 300 m, being relatively widespread (Meijer *et al.* 2011). It is a nocturnal predator that lives in native trees and in the soil.

Systems: Terrestrial

Use and Trade

The species is not utilised.

Threats (see Appendix for additional information)

In the past, the species has probably strongly declined due to changes in habitat size and quality. Currently the modified habitats where it occurs are being highly modified and disturbed, namely pactches of *Cryptomeria japonica* and *Acacia* sp.. Agriculture and wood & pulp productions are also a major threat. Based on Ferreira *et al.* (2016) the habitat will further decline as a consequence of climate change (increasing number of droughts and habitat shifting & alteration).

Conservation Actions (see Appendix for additional information)

The species is not protected by regional law. Degraded habitats should be restored and a strategy needs to be developed to address the ongoing impact of invasive plants and future threat by climate change. A habitat management plan is needed and anticipated to be developed during the coming years. Formal education and awareness is needed to allow future investments in restored habitats invaded by alien plants. Further research is needed into its ecology and life history in order to find extant specimens and obtain information on population size, distribution and trends. It is also necessary a monitoring plan for the invertebrate community in the habitat in order to contribute to perform a species potential recovery plan in some of the isolated exotic *Acacia* spp. patches.

Credits

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

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Disclaimer

External Resources

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
4. Grassland -> 4.4. Grassland - Temperate	Resident	Suitable	No
0. Root -> 16. Introduced vegetation	Resident	Suitable	Yes

Threats

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

Threat	Timing	Scope	Severity	Impact Score
10. Geological events -> 10.1. Volcanoes	Future	Whole (>90%)	Very rapid declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 2. Species Stresses -> 2.1. Species mortality		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Future	Whole (>90%)	Slow, significant declines	Low impact: 5
	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	Ongoing	Whole (>90%)	Slow, significant declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.1. Small-holder plantations	Ongoing	Minority (50%)	Causing/could cause fluctuations	Low impact: 5
	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%)	Rapid declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.2. Species disturbance		

Conservation Actions in Place

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

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Conservation Actions in Place
In-Place Land/Water Protection and Management
Percentage of population protected by PAs (0-100): 0

Conservation Actions Needed

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

Conservation Actions 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
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 -> 2.3. Harvest & Trade Management Plan
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km^2): 32
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km^2): 35
Continuing decline in extent of occurrence (EOO): Yes
Extreme fluctuations in extent of occurrence (EOO): Unknown
Number of Locations: 4
Continuing decline in number of locations: Yes

Distribution
Lower elevation limit (m): 150
Upper elevation limit (m): 300
Population
Continuing decline of mature individuals: Yes
Population severely fragmented: Yes
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 1
Movement patterns: Not a Migrant

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.