The IUCN Red List of Threatened Species™
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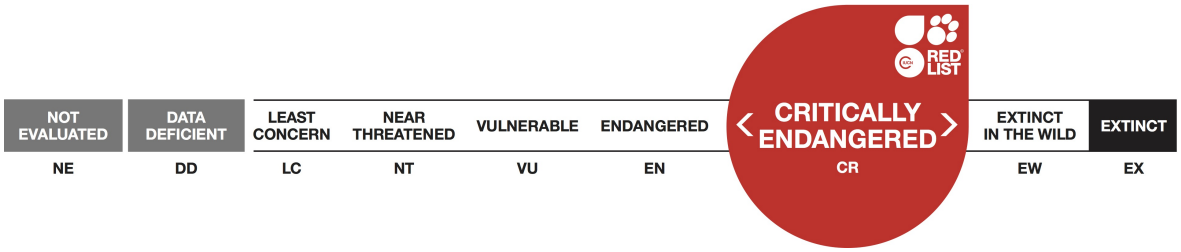
IUCN 2008: T97213241A99166744
Scope: Global
Language: English

Phytosus schatzmayri, Rove beetle

Assessment by: Borges, P.A.V.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Coleoptera	Staphylinidae

Taxon Name: *Phytosus schatzmayri* Bernhauer, 1941

Common Name(s):

- English: Rove beetle

Taxonomic Source(s):

2016. Integrated Taxonomic Information System. Available at: http://www.itis.gov/.

Assessment Information

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

Year Published: 2017

Date Assessed: February 21, 2017

Justification:

Phytosus schatzmayri is a single island endemic species from S. Miguel (Azores, Portugal) (Borges *et al.* 2010), known from the historical location of Ponta Delgada (S. Miguel) with a last record in 1935. It has a very small extent of occurrence (EOO = 12 km²) and area of occupancy (AOO = 12 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 major land-use changes in the last 150 years. Main recent past and ongoing threats are the destruction of habitat for creation of urban areas, industrial plantations of *Cryptomeria japonica* and pastures. Based upon the small geographic range of the species with only one location and continuing decline of its habitat area and quality, it is assessed as Critically Endangered (Possibly Extinct).

Date last seen: 1935

Geographic Range

Range Description:

Phytosus schatzmayri is a single island endemic species from S. Miguel (Azores, Portugal) (Borges *et al.* 2010). This species is considered very rare and possibly near extinction (Terzopoulou *et al.* 2015). It has a very small extent of occurrence (EOO = 0-12 km²) and area of occupancy (AOO = 0-12 km²).

Country Occurrence:

Native: Portugal (Azores)

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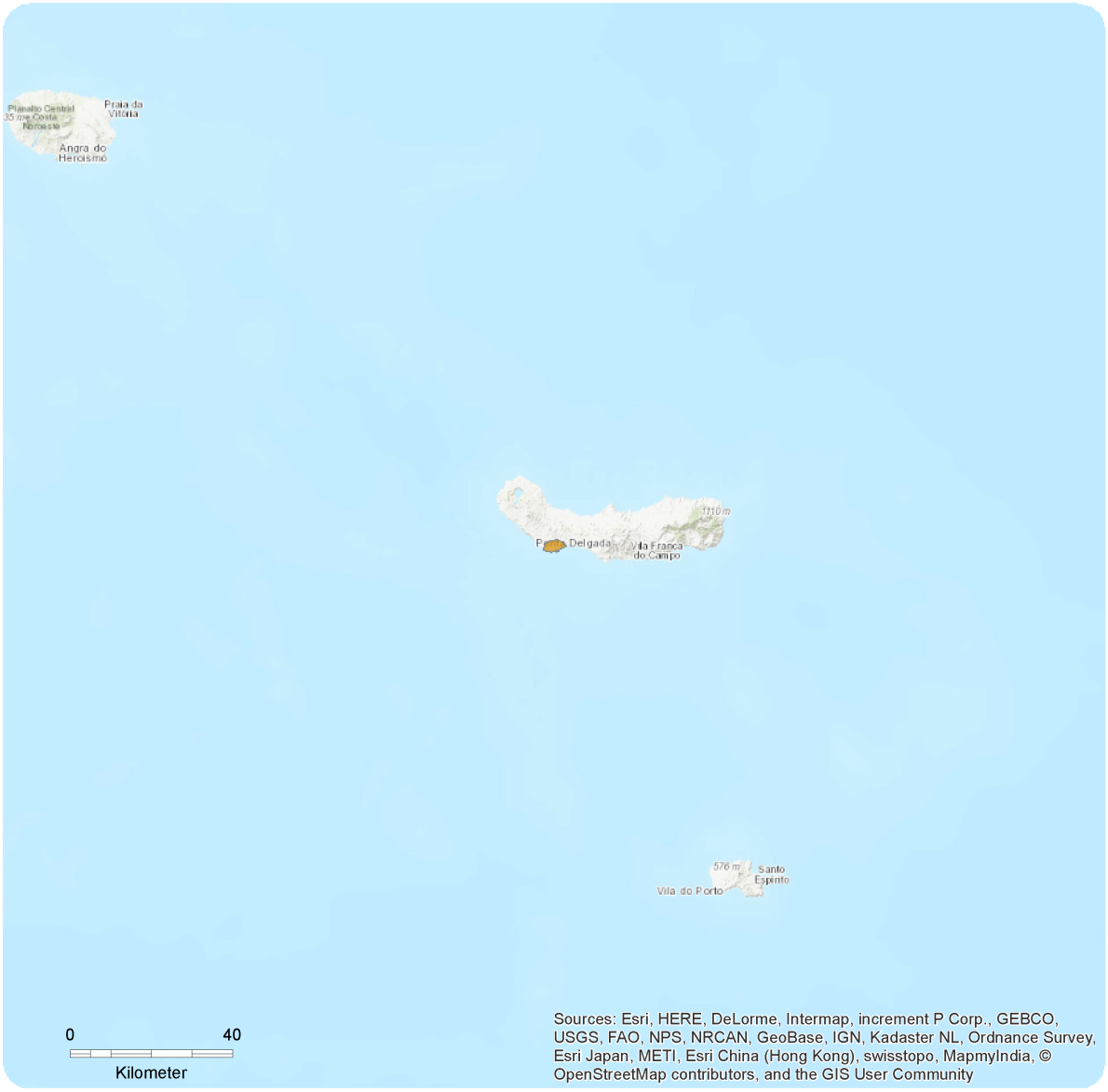
Distribution Map

Phytosus schatzmayri



Range

Extant (resident)

Compiled by:

Paulo Borges

NE DD LC NT VU EN CR CRITICALLY ENDANGERED EW EX

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 only known from a single subpopulation. A continuing decline in the number of mature individuals is inferred from historical records. According to Terzopoulou *et al.* (2015) this species is possibly extinct.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

The species occurred in the native forest of São Miguel Island (Azores), with an altitudinal range between 0 and 200 m. It is possibly extinct. This is a nocturnal predator species usually associated with plant debris 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. Currently the historical location is highly modified due to urbanisation. Based on Ferreira *et al.* (2016) the habitat will further decline as a consequence of climate change (increasing number of droughts).

Conservation Actions (see Appendix for additional information)

The species is not protected by regional law. A strategy needs to be developed to address the future threat by climate change. Formal education and awareness is needed to allow future investments in restored habitats invaded by invasive plants. Further research is needed into its ecology and life history in order to find extant specimens, possibly in public and private gardens, and obtain information on population size, distribution and trends. It is also necessary a monitoring plan in private gardens in Ponta Delgada for the invertebrate community in the habitat in order to contribute to perform a species potential recovery plan.

Credits

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

Reviewer(s): Danielczak, A.

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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

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	Whole (>90%)	Very rapid declines	High impact: 9
	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%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		

Conservation Actions in Place

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

Conservation Actions in Place
In-Place Research, Monitoring and Planning
Systematic monitoring scheme: No
In-Place Land/Water Protection and Management
Conservation sites identified: No
Occur in at least one PA: No
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

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Conservation Actions Needed
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
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km²): 0-12
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km²): 0-12
Continuing decline in extent of occurrence (EOO): Yes
Extreme fluctuations in extent of occurrence (EOO): Unknown
Number of Locations: 1
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 0
Upper elevation limit (m): 200
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

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Habitats and Ecology
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.