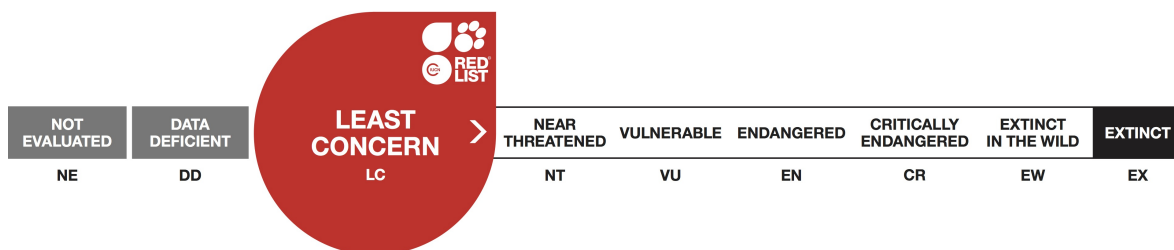


## *Calacalles subcarinatus*, True weevil

Assessment by: Borges, P.A.V. & Lamelas-López, L.



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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Coleoptera	Curculionidae

**Taxon Name:** *Calacalles subcarinatus* (Israelson, 1984)

### Synonym(s):

- *Acalles subcarinatus* Israelson, 1984
- *Acalles wollastoni* Chevr., 1852

### Common Name(s):

- English: True weevil, Snout beetle, Weevil

### Taxonomic Source(s):

2016. The Azorean Biodiversity Portal. Available at: <http://azoresbioportal.uac.pt/>.

## Assessment Information

**Red List Category & Criteria:** Least Concern [ver 3.1](#)

**Year Published:** 2018

**Date Assessed:** December 18, 2016

### Justification:

*Calacalles subcarinatus* is an endemic species present in all islands of the Azorean archipelago (Azores, Portugal). It has a relatively large extent of occurrence (EOO = ca 42,600 km<sup>2</sup>) and area of occupancy (AOO = 420 km<sup>2</sup>). The species is found in endemic trees but it also seems to be adapted to non-native trees and therefore is expanding its distribution. Living in the canopy of endemic trees it is protected from soil invasive plants. No threats are currently known for this species. Based upon the large area of occupancy and absence of threats it is assessed as Least Concern (LC).

## Geographic Range

### Range Description:

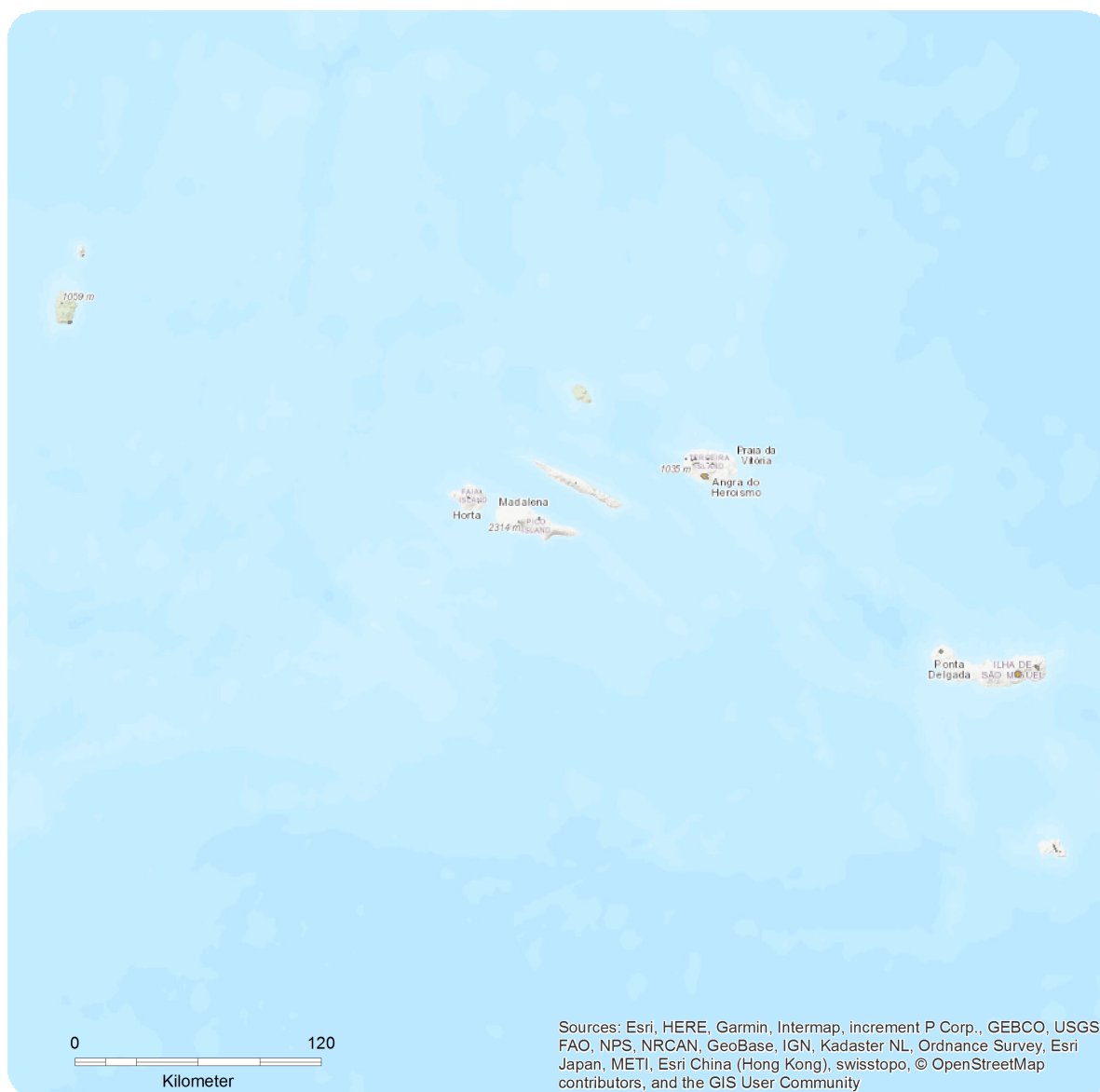
*Calacalles subcarinatus* is an endemic species present in all islands of the Azorean archipelago (Azores, Portugal) (Borges *et al.* 2010), known from Natural Forest Reserves of Caldeiras Funda e Rasa and Morro Alto e Pico da Sé (Flores); Caldeira do Faial (Faial); Mistério da Prainha (Pico); Pico Pinheiro and Topo (S. Jorge); Biscoito da Ferraria, Pico Galhardo, Caldeira Sta. Bárbara e Mistérios Negros and Terra Brava (Terceira); Atalhada e Pico da Vara (S. Miguel) and Pico Alto (Sta. Maria). The extent of occurrence (EOO) is ca 42,600 km<sup>2</sup> and the maximum estimated area of occupancy (AOO) is 220 km<sup>2</sup>.

### Country Occurrence:

**Native:** Portugal (Azores)

# Distribution Map

*Calacalles subcarinatus*

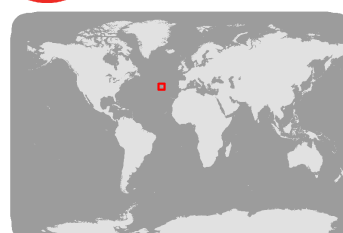


## Range

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.



## Population

*C. subcarinatus* is a widespread and highly abundant species. The species is expanding to exotic habitats and population is increasing. We assume no impact for the population as it occurs naturally in several native and exotic patches in all islands of the archipelago.

**Current Population Trend:** Increasing

## Habitat and Ecology (see Appendix for additional information)

The species occurs in several habitats and in all islands of the Azorean archipelago, with an altitudinal range between 100 and 1200 m. *C. subcarinatus* inhabits the native forests dominated by native and endemic vegetation, preferring *Ilex perado* subsp. *azorica* but also occurring in *Juniperus brevifolia*, *Frangula azorica*, *Vaccinium cylindraceum* and *Erica azorica*; exotic forests (mainly plantations and forests of *Pittosporum* spp. and *Eucalyptus* spp.); in agricultural areas occurs associated with *Castanea sativa*. Adults and larvae are herbivores and feed of plant tissues both during the day and night. Based on seasonal data from SLAM traps obtained in several islands between 2012 and 2016, the adults are active all year, being most abundant in spring and summer (Borges et al. 2017).

**Systems:** Terrestrial

## Use and Trade

The species is not utilised.

## Threats

In the past, the species has probably strongly declined due to changes in habitat size and quality (Triantis et al. 2010; Terzopoulou et al. 2015). However, the species seems to be adapting to other non-native trees and is expanding its range. No threats are known for this species.

## Conservation Actions (see Appendix for additional information)

The species is not protected by regional law. Its habitat is in regionally protected areas (Natural Parks of Flores, Faial, Pico, S. Jorge, Terceira, Graciosa, S. Miguel and Sta. Maria). No special measures of conservation are needed since the species also occurs in non-native plants and is expanding its range. Some research is needed to understand the population dynamics in exotic trees and orchards. A 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. & Lamelas-López, L.

**Reviewer(s):** Danielczak, A.

## Bibliography

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## 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
14. Artificial/Terrestrial -> 14.3. Artificial/Terrestrial - Plantations	Resident	Suitable	No
0. Root -> 16. Introduced vegetation	Resident	Suitable	No

### 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: Yes
In-Place Land/Water Protection and Management
Conservation sites identified: Yes, over part of range
Occur in at least one PA: Yes
Percentage of population protected by PAs (0-100): 71-80
In-Place Education
Subject to recent education and awareness programmes: Yes

### 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) (km <sup>2</sup> ): 220

<b>Distribution</b>
Continuing decline in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km <sup>2</sup> ): 42600
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 0
Continuing decline in number of locations: No
Lower elevation limit (m): 100
Upper elevation limit (m): 1200
<b>Population</b>
Continuing decline of mature individuals: No
Population severely fragmented: No
<b>Habitats and Ecology</b>
Continuing decline in area, extent and/or quality of habitat: No
Generation Length (years): 0.5
Movement patterns: Not a Migrant

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