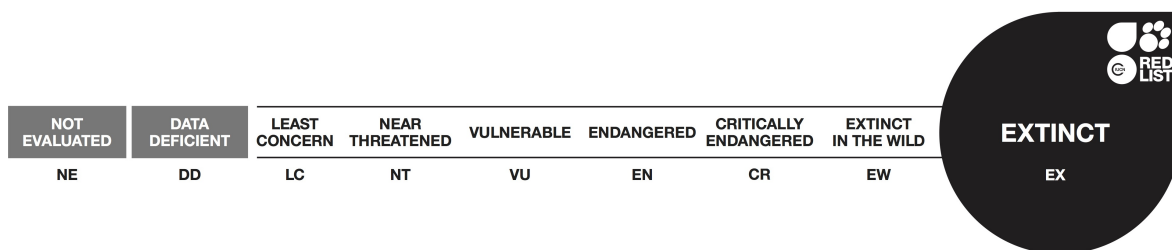


## *Neocnemis occidentalis*, Weevil

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



View on [www.iucnredlist.org](http://www.iucnredlist.org)

**Citation:** Borges, P.A.V. & Lamelas-López, L. 2018. *Neocnemis occidentalis*. The IUCN Red List of Threatened Species 2018: e.T97161884A99166654. <http://dx.doi.org/10.2305/IUCN.UK.2018-1.RLTS.T97161884A99166654.en>

**Copyright:** © 2018 International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale, reposting or other commercial purposes is prohibited without prior written permission from the copyright holder. For further details see [Terms of Use](#).

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](#).

If you see any errors or have any questions or suggestions on what is shown in this document, please provide us with [feedback](#) so that we can correct or extend the information provided.

## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Coleoptera	Curculionidae

**Taxon Name:** *Neocnemis occidentalis* Crotch, 1867

### Common Name(s):

- English: Weevil

### Taxonomic Source(s):

De Jong, Y., Verbeek, M., Michelsen, V., Bjørn, P.P., Los, W., Steeman, F., Bailly, N., Basire, C., Chylarecki, P., Stloukal, E., Hagedorn, G., Wetzell, F.T., Glöckler, F., Kroupa, A., Korb, G., Hoffmann, A., Häuser, C., Kohlbecker, A., Müller, A., Güntsch, A., Stoev, P. and Penev, L. 2014. Fauna Europaea – all European animal species on the web. *Biodiversity Data Journal* 2: e4034. DOI: 10.3897/BDJ.2.e4034.

## Assessment Information

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

**Year Published:** 2018

**Date Assessed:** December 30, 2016

### Justification:

*Neocnemis occidentalis* was an endemic species from Sta. Maria (Azores, Portugal). It had a very small extent of occurrence (EOO = 0-4 km<sup>2</sup>) and area of occupancy (AOO = 0-4 km<sup>2</sup>). Exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual (Borges *et al.* 2016). The species is considered Extinct.

## Geographic Range

### Range Description:

*Neocnemis occidentalis* is a single island endemic species from Sta. Maria (Azores, Portugal) (Borges *et al.* 2010). This species is considered extinct in Azores (Terzopoulou *et al.* 2015).

### Country Occurrence:

**Regionally extinct:** Portugal (Azores)

# Distribution Map

*Neocnemis occidentalis*



Range

■ Extinct

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

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 extinct.

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

The species occurred in the native forest of Santa Maria Island (Azores), with an range between 450 and 550 m Asl. It is considered extinct. It is a phytophagous species.

**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 (Terzopoulou *et al.* 2015). 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. Its habitat is in a regionally protected area (Natural Park of Santa Maria). 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.

## Credits

**Assessor(s):** Borges, P.A.V. & Lamelas-López, L.

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

## 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. & Vieira, V. 2010. *A list of the terrestrial and marine biota from the Azores*. Príncipeia, Cascais.

Borges, P.A.V., Gaspar, C., Crespo, L., Rigal, F., Cardoso, P., Pereira, F., Rego, C., Amorim, I.R., Melo, C., Aguiar, C., André, G., Mendonça, E., Ribeiro, S.P., Hortal, J., Santos, A.M., Barcelos, L., Enghoff, H., Mahnert, V., Pita, M.T., Ribes, J., Baz, A., Sousa, A.B., Vieira, V., Wunderlich, J., Parmakelis, A., Whittaker, R.A., Quartau, J.A., Serrano, A.R.M. & Triantis, K.A. 2016. New records and detailed distribution and abundance of selected arthropod species collected between 1999 and 2011 in Azorean native forests. *Biodiversity Data Journal* 4(e10948): 1-84.

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: 603-615.

IUCN. 2018. The IUCN Red List of Threatened Species. Version 2018-1. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed: 28 June 2018).

Terzopoulou, S., Rigal, F., Whittaker, R.J., Borges, P.A.V. & Triantis, K.A. 2015. Drivers of extinction: the case of Azorean beetles. *Biology Letters* 11: 1-4.

## Citation

Borges, P.A.V. & Lamelas-López, L. 2018. *Neocnemis occidentalis*. The IUCN Red List of Threatened Species 2018: e.T97161884A99166654. <http://dx.doi.org/10.2305/IUCN.UK.2018-1.RLTS.T97161884A99166654.en>

## Disclaimer

To make use of this information, please check the [Terms of Use](#).

## 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
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Past, unlikely to return	Whole (>90%)	Rapid declines	Past impact
	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		
11. Climate change & severe weather -> 11.2. Droughts	Past, unlikely to return	Whole (>90%)	Very rapid declines	Past impact
	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 Actions in Place
In-Place Land/Water Protection and Management
Conservation sites identified: No
Occur in at least one PA: Yes
Percentage of population protected by PAs (0-100): 1-10

## 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

<b>Conservation Actions Needed</b>
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>)

<b>Research Needed</b>
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

<b>Distribution</b>
Estimated area of occupancy (AOO) (km <sup>2</sup> ): 0-4
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km <sup>2</sup> ): 0-4
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
Lower elevation limit (m): 450
Upper elevation limit (m): 550
<b>Population</b>
Population severely fragmented: Unknown
<b>Habitats and Ecology</b>
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 1

<b>Habitats and Ecology</b>
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](#).