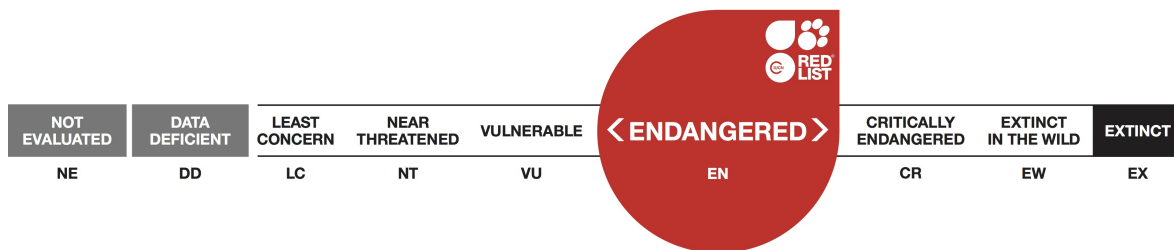


Drouetius oceanicus, Weevil

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: *Drouetius oceanicus* Machado, 2009

Synonym(s):

- *Laparocerus azoricus*

Common Name(s):

- English: Weevil

Taxonomic Source(s):

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

Assessment Information

Red List Category & Criteria: Endangered B2ab(i,ii,iii,iv,v) [ver 3.1](#)

Year Published: 2018

Date Assessed: December 29, 2016

Justification:

Drouetius oceanicus is an endemic species with two subspecies: *D. o. oceanicus* restricted to Terceira island and *D. o. tristis* present in Corvo, Faial, S. Jorge, Graciosa and S. Miguel islands (Azores, Portugal). It has a relatively large extent of occurrence (EOO = ca 22,000 km²) but a small area of occupancy (AOO = 40 km²). The several subpopulations are highly fragmented and located at lower altitudes in Human modified habitats. Possibly some of them are now extinct. Based on Ferreira *et al.* (2016) the habitat will further decline as a consequence of climate change (increasing number of droughts). Based upon the small area of occupancy, the decline in AOO, the decreasing extent and quality of habitat as well as the number of mature individuals as a result of the invasions of non-native plants, urbanisation and pollution, the species is assessed as Endangered (EN).

Geographic Range

Range Description:

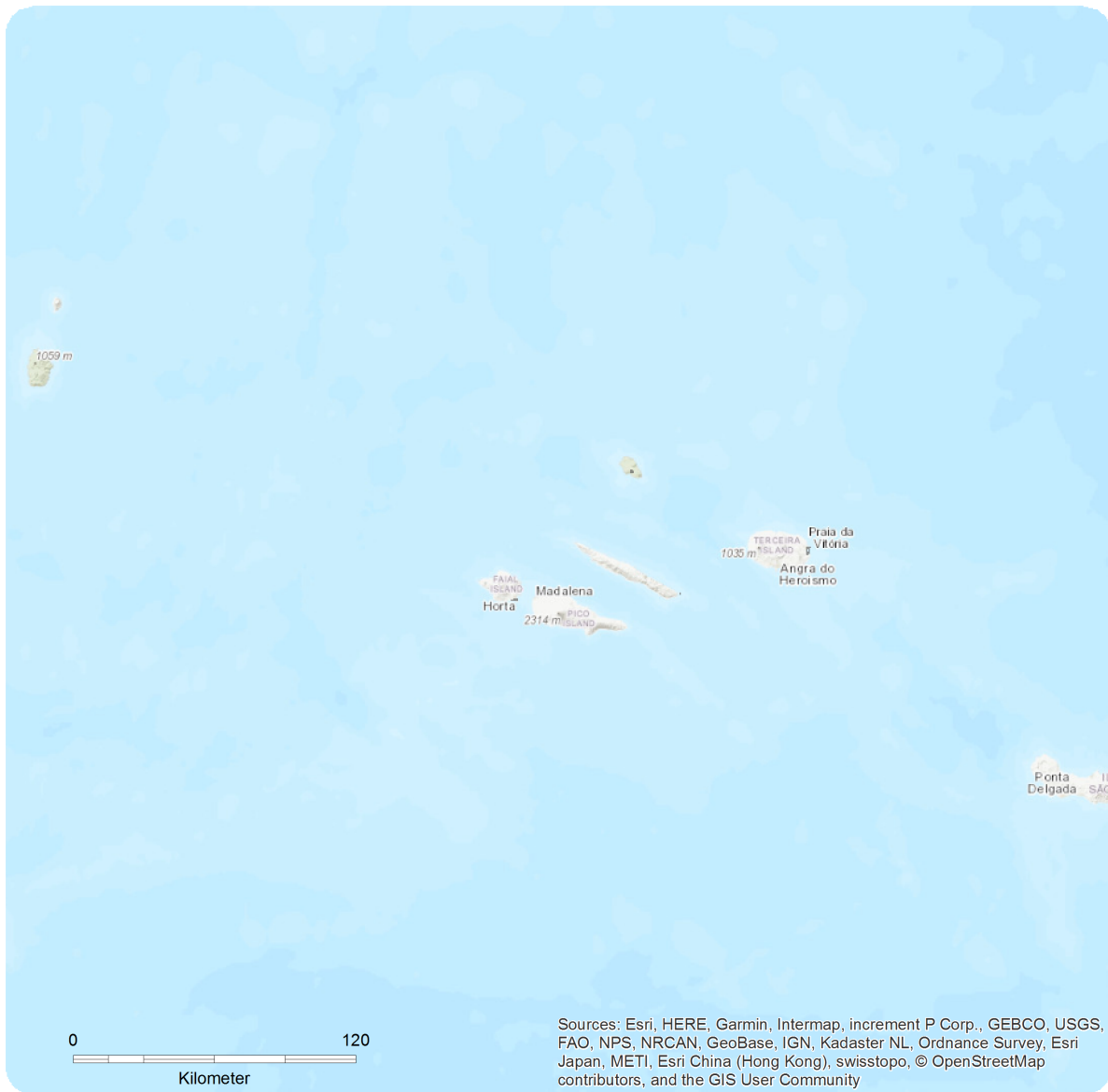
Drouetius oceanicus is an endemic species with two subspecies: *D. o. oceanicus* restricted to Terceira island and *D. o. tristis* present in Corvo, Faial, S. Jorge, Graciosa and S. Miguel islands (Azores, Portugal) (Borges *et al.* 2010). The species occurs in coastal areas. The extent of occurrence (EOO) is ca 22,000 km² and the maximum estimated area of occupancy (AOO) is 40 km².

Country Occurrence:

Native: Portugal (Azores)

Distribution Map

Drouetius oceanicus



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

The species is extremely rare and there are known subpopulations in low altitude areas in several islands (Corvo, Faial, S. Jorge, Graciosa, Terceira and São Miguel islands). A continuing decline in the number of mature individuals is inferred from the ongoing habitat degradation due to human activities. Recently in 2016 (Borges unpublished data) few specimens were found in the historical site from Terceira in a highly degraded marsh associated with native and exotic plants (Paúl do Belo Jardim). This species is assessed here as severely fragmented 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)

This species has two subspecies (*D. o. oceanicus* restricted to Terceira island and *D. o. tristis* present in Corvo, Faial, S. Jorge, Graciosa and S. Miguel islands), and occurs in modified native forests (dominated by *Erica azorica* and *Morella faya*), exotic forests and marsh areas (in Terceira) (Machado 2009). Adults and larvae are herbivores and feed on plant tissues. The fact that the species is polyphagous facilitates its survival in a highly human modified territory at lower altitudes. However, some of the historical locations are completely destroyed and urbanised or with intensive pastures, which may imply local extinction. The subpopulation of Terceira is located in a small water course near a marsh area surrounded by an industrial area. This species has an altitudinal range between 0 and 200 m.

Systems: Terrestrial

Use and Trade

This 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 (Triantis *et al.* 2010, Terzopoulou *et al.* 2015). One of the most important ongoing threat to this species is the continuous change of habitat due to Human activities at lower altitudes. The sites with still native vegetation are also changing due to the spread of invasive plants (e.g, *Pittosporum undulatum*). Urbanization and pollution are also a problem. 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. Further spread of invasive plants needs to be stopped in order to avoid any future declines of the species. Degraded habitats should be restored and 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 at low elevations. Further research is needed into its ecology and life history in order to find extant specimens at lower elevations 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 addition, there is the need of special area-based management plans for most of the

subpopulations. 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.

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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 |
| 3. Shrubland -> 3.4. Shrubland - Temperate | Resident | Suitable | Yes |
| 5. Wetlands (inland) -> 5.16. Wetlands (inland) - Permanent Saline, Brackish or Alkaline Marshes/Pools | Resident | Suitable | Yes |
| 14. Artificial/Terrestrial -> 14.2. Artificial/Terrestrial - Pastureland | Resident | Marginal | - |
| 0. Root -> 16. Introduced vegetation | Resident | Marginal | - |

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%) | Slow, significant declines | Medium impact: 7 |
| | 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 | | |
| 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>)

| |
|--|
| 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 |
| 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 |
| 3. Monitoring -> 3.4. Habitat trends |

Additional Data Fields

| |
|--|
| Distribution |
| Estimated area of occupancy (AOO) (km ²): 40 |

| |
|---|
| Distribution |
| Continuing decline in area of occupancy (AOO): Yes |
| Extreme fluctuations in area of occupancy (AOO): Unknown |
| Estimated extent of occurrence (EOO) (km ²): 21930 |
| Continuing decline in extent of occurrence (EOO): Yes |
| Extreme fluctuations in extent of occurrence (EOO): Unknown |
| Number of Locations: 6 |
| Continuing decline in number of locations: Yes |
| 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: 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



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