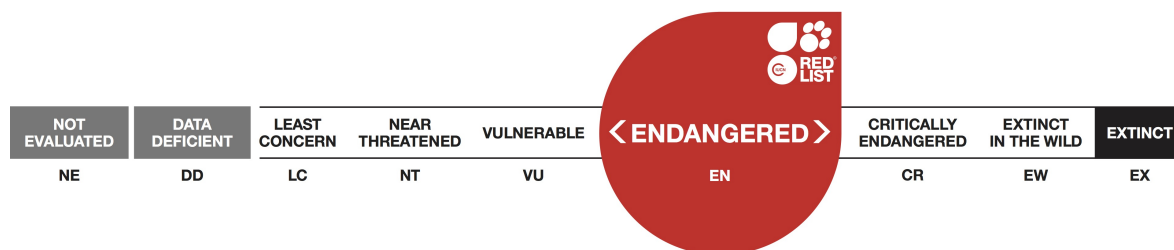


Drouetius azoricus, Weevil

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 azoricus* (Drouet, 1859)

Synonym(s):

- *Laparocerus azoricus*

Common Name(s):

- English: Weevil

Taxonomic Source(s):

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

Assessment Information

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

Year Published: 2018

Date Assessed: December 27, 2016

Justification:

Drouetius azoricus is an endemic species with four subspecies, *D. a. azoricus* present in Faial, S. Jorge and Graciosa islands; *D. a. nitens* present in Occidental group (Corvo and Flores islands); *D. a. parallelirostris* restricted to Terceira island and *D. a. separandus* restricted to S. Miguel island (Azores, Portugal). It has a relatively large extent of occurrence (EOO = ca 23,800 km²) but a small area of occupancy (AOO = 76 km²). The several subpopulations are highly fragmented and located at lower altitudes in Human modified and disturbed habitats. 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, the species is assessed as Endangered (EN).

Geographic Range

Range Description:

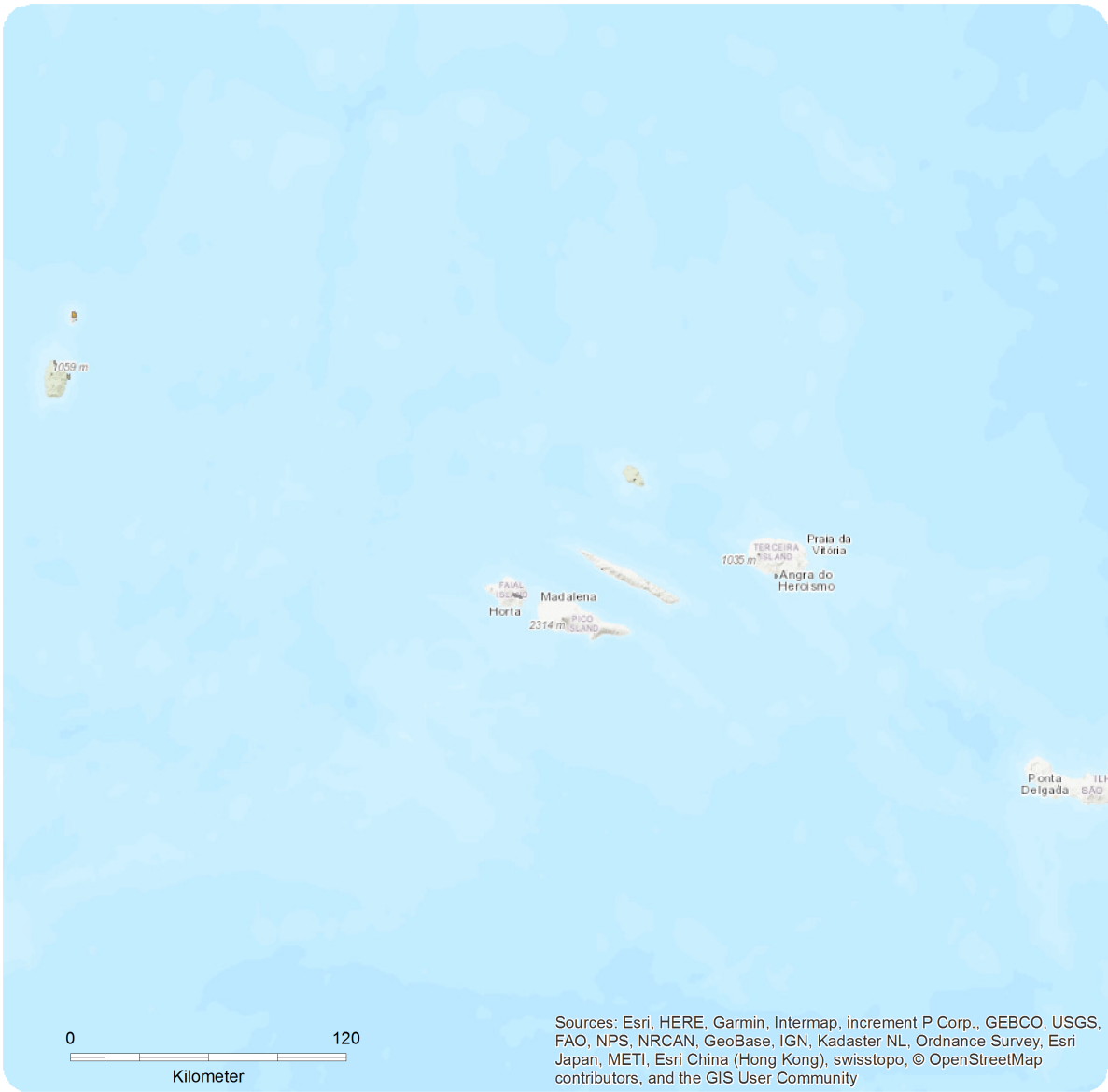
Drouetius azoricus is an endemic species with four subspecies, *D. a. azoricus* present in Faial, S. Jorge and Graciosa islands; *D. a. nitens* present in Occidental group (Corvo and Flores islands); *D. a. parallelirostris* restricted to Terceira island and *D. a. separandus* restricted to S. Miguel island (Azores, Portugal) (Borges *et al.* 2010). *D. a. parallelirostris* is known from a small area in Terceira Natural Park. The extent of occurrence (EOO) is ca 23,800 km² and the maximum estimated area of occupancy (AOO) is 76 km².

Country Occurrence:

Native: Portugal (Azores)

Distribution Map

Drouetius azoricus



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 rare (very few number of specimens known) and known from subpopulations in low altitude areas in several islands (Corvo, Flores, Faial, S. Jorge, Graciosa, Terceira and S. Miguel islands). A continuing decline in the number of mature individuals is inferred from the ongoing habitat degradation due to human activities at lower altitudes. 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 four subspecies (*D. a. azoricus* present in Faial, S. Jorge and Graciosa islands; *D. a. nitens* present in Occidental group (Corvo and Flores islands); *D. a. parallelirostris* restricted to Terceira island and *D. a. separandus* restricted to S. Miguel island), and occurs in modified native forests (dominated by *Erica azorica* and *Morella faya*) exotic forests and semi-natural pastures (Machado 2009). This species has an altitudinal range between 0 and 500 m. Adults and larvae are herbivores and feed on plant tissues. It is frequent to find specimens in caves, since the adults stay underground during the day. The fact that the species is polyphagous facilitates its survival in a highly human modified territory at lower altitudes.

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 keeping native vegetation are also changing due to the spread of invasive plants (e.g. *Pittosporum undulatum*). 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 Terceira). In the other six islands none of subpopulations are located within the range of protected areas. 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 in all the historical localities and obtain information on population size, distribution and trends. It is also necessary for a monitoring plan for the invertebrate community to be developed in the habitat in order to contribute to perform a species potential recovery plan in many of the historical localities. In addition, there is the need of special area-based management

plans for most of the subpopulations.

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
4. Grassland -> 4.4. Grassland - Temperate	Breeding	Suitable	No
7. Caves and Subterranean Habitats (non-aquatic) -> 7.1. Caves and Subterranean Habitats (non-aquatic) - Caves	Passage	Marginal	-
14. Artificial/Terrestrial -> 14.2. Artificial/Terrestrial - Pastureland	Resident	Suitable	No

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	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	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 -> 11.1. 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		
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		
9. Pollution -> 9.1. Domestic & urban waste water -> 9.1.1. Sewage	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		

- | |
|---|
| 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 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): 11-20

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): 76
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km ²): 23800
Continuing decline in extent of occurrence (EOO): Yes
Extreme fluctuations in extent of occurrence (EOO): Unknown
Number of Locations: 11
Continuing decline in number of locations: Yes
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 0
Upper elevation limit (m): 500
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

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