

Eudonia melanographa, Moth

Assessment by: Vieira, V. & Borges, P.A.V.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Lepidoptera	Crambidae

Taxon Name: *Eudonia melanographa* (Hampson, 1907)

Synonym(s):

- *Scoparia melanographa* Hampson, 1907

Common Name(s):

- English: Moth

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: Vulnerable B2ab(iii,iv) [ver 3.1](#)

Year Published: 2018

Date Assessed: March 9, 2017

Justification:

Eudonia melanographa is an endemic species present in the islands of the Flores, Pico, S. Jorge, Terceira and S. Miguel (Azores, Portugal) (Nuss *et al.* 1997, Borges *et al.* 2010). It has a relatively small area of occupancy (AOO = 104 km²), but a large extent of occurrence (EOO = 20,113 km²). It is usually associated with native forest, occurring in two Natural Forest Reserves of Azores, but also occurs in human modified habitats at low altitude. It is a phytophagous species, closely associated with Azorean endemic trees and has possibly two generations per year. Based on Ferreira *et al.* (2016) the habitat will decline as a consequence of climate change. The species is assessed as Vulnerable due to small AOO, the small number of locations and the decline in habitat quality.

Geographic Range

Range Description:

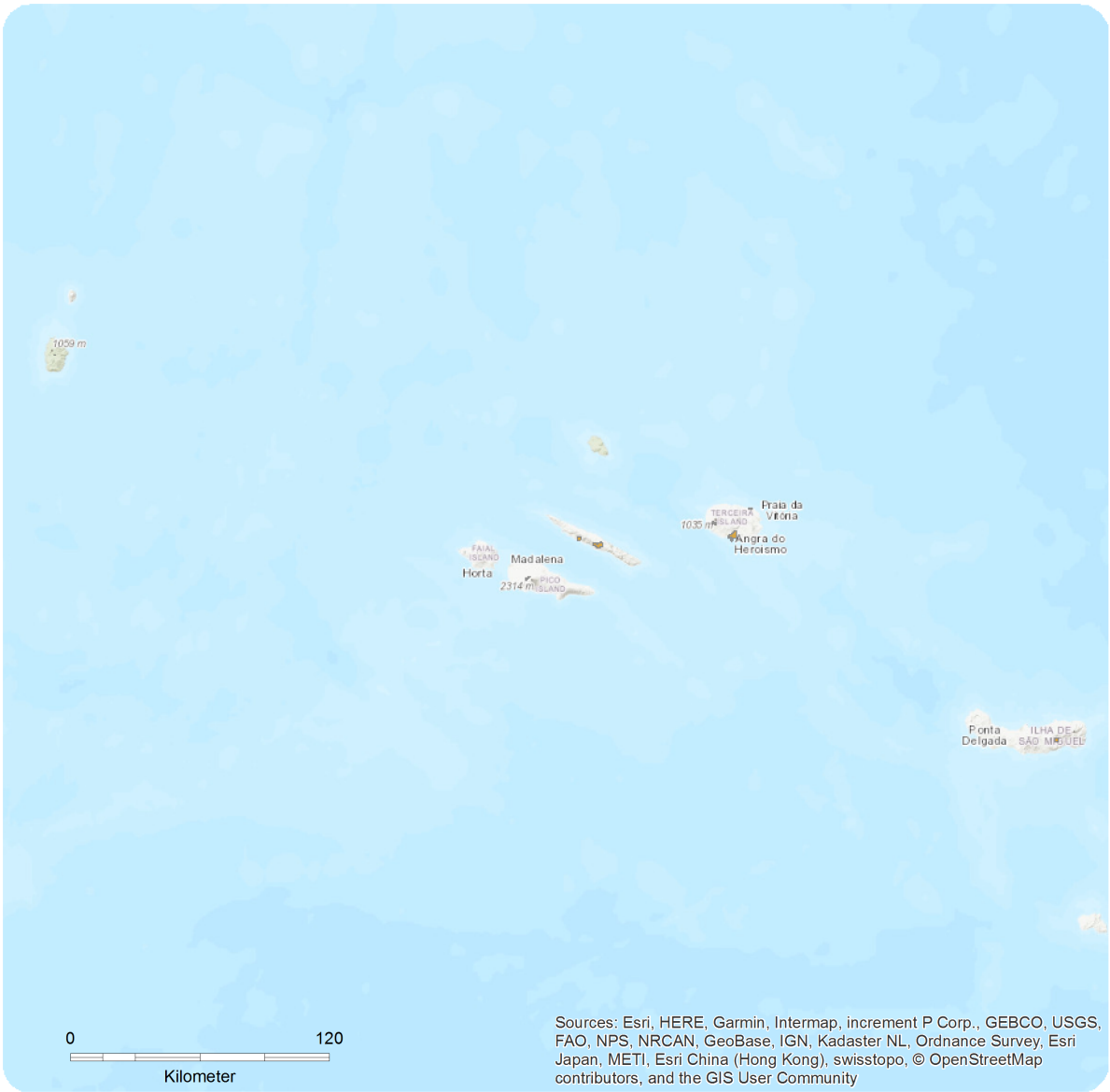
Eudonia melanographa is an endemic species present in the islands of the Flores, Pico, S. Jorge, Terceira and S. Miguel (Azores, Portugal) (Nuss *et al.* 1997, Borges *et al.* 2010). The species was observed flying in a quarry on the western slope of the volcano Pico (Nuss *et al.* 1997), which belongs to the Natural Park of Pico island. It can also be found in two Natural Forest Reserves of Morro Alto e Pico da Sé (Flores) and Caldeira Sta. Bárbara e Mistérios Negros (Terceira). The extent of occurrence (EOO) is *ca* 20,100 km² and the maximum estimated area of occupancy (AOO) is 104 km².

Country Occurrence:

Native: Portugal (Azores)

Distribution Map

Eudonia melanographa

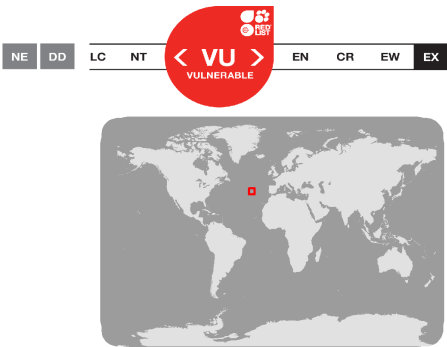


Range

Extant (resident)

Compiled by:

Paulo Borges



Population

E. melanographa is a widespread but low abundant species. All the nine known subpopulations occur in a wide range of altitudes in the Azorean islands (Flores, Pico, S. Jorge, Terceira and S. Miguel), from 10 to 800 m. The species presents currently stable populations.

Current Population Trend: Stable

Habitat and Ecology (see Appendix for additional information)

The adults fly from March to October, and they rest and fly around rupicolous lichens (Nuss *et al.* 1997), with probably two generations per year. The larva is unknown, but considered to be a specialist herbivore and the adult is frequently seen as pollinator. Altitudinal range: 10-800 m.

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, mostly the creation of pastures (Triantis *et al.* 2010). Currently invasive plants *Pittosporum undulatum* and *Hedychium gardnerianum* are changing some of the areas and decreasing the quality of the habitat. These changes are decreasing the relative cover of endemic plants and changing the soil cover (decreasing the cover of bryophytes and ferns) with the expansion of other plants and potential threats to the species. Based on Ferreira *et al.* (2016) the habitat will further decline as a consequence of climate change (increasing number of droughts and habitat shifting & alteration).

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, Pico, S. Jorge, Terceira and São Miguel). Degraded habitats should be restored and a strategy needs to be developed to address the future threat by climate change. It is necessary a monitoring plan for the invertebrate community in the habitat in order to contribute to the conservation of this species. A habitat management plan is needed and anticipated to be developed during the coming years. Monitoring every ten years using the BALA protocol will inform about habitat quality (see e.g. Gaspar *et al.* 2010).

Credits

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

Reviewer(s): Danielczak, A.

Contributor(s): Nunes, R. & Lamelas-López, L.

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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

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	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	Future	Whole (>90%)	Slow, significant declines	Low impact: 5
	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 (<i>Hedychium gardnerianum</i>)	Ongoing	Majority (50-90%)	Rapid declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 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 (<i>Pittosporum undulatum</i>)	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: 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): 61-70

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
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 104
Continuing decline in area of occupancy (AOO): No
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km ²): 20100

Distribution
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): Unknown
Number of Locations: 9
Continuing decline in number of locations: Yes
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 10
Upper elevation limit (m): 800
Population
Continuing decline of mature individuals: No
Population severely fragmented: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 0.5
Movement patterns: Not a Migrant

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