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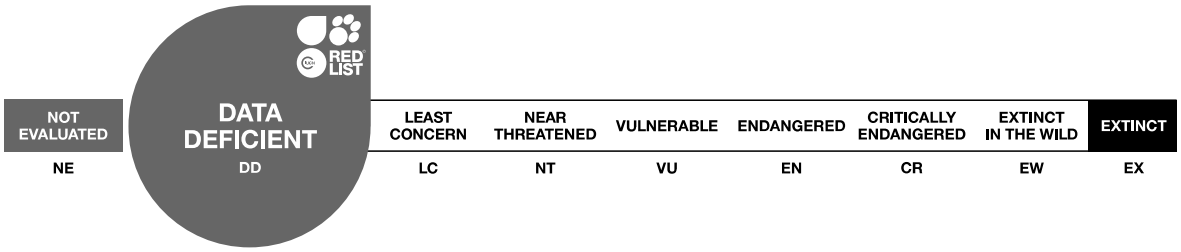
Hydrellia amauropoda

Assessment by: Nunes, R. & Borges, P.A.V.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Ephydridae

Scientific Name: *Hydrellia amauropoda* Frey, 1945

Assessment Information

Red List Category & Criteria: Data Deficient ver 3.1

Year Published: 2021

Date Assessed: March 26, 2018

Justification:

Hydrellia amauropoda is an endemic species of the Azores (Portugal), recorded from Faial and S. Jorge islands. From the historical data, this species potentially has a very small Extent of Occurrence (58 km^2) and Area of Occupancy (16 km^2); and it is possible that this species has declined in the past as a result of human activity. The present situation of this species needs to be further assessed, and further research is needed into its population, distribution, threats, ecology and life history. Conservation of natural streams and other water bodies could potentially aid this species' conservation. Based upon the lack of recent data regarding this species' population, distribution, threats and ecology, it is not possible to accurately estimate the extinction risk of the species and it could theoretically fall into any category. Therefore, this species is assessed as Data Deficient (DD).

Geographic Range

Range Description:

Hydrelia amauropoda is an Azorean-endemic species, described from the islands of Faial and S. Jorge (Azores, Portugal) (Borges *et al.* 2010). It is known from only two streams. Based on the historical data (Frey 1945), the Extent of Occurrence (EOO) could be *ca* 58 km^2 and the Area of Occupancy (AOO) could be *ca* 16 km^2. However, there is no recent information regarding the distribution of this species, and the actual full distribution of the species is unknown.

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

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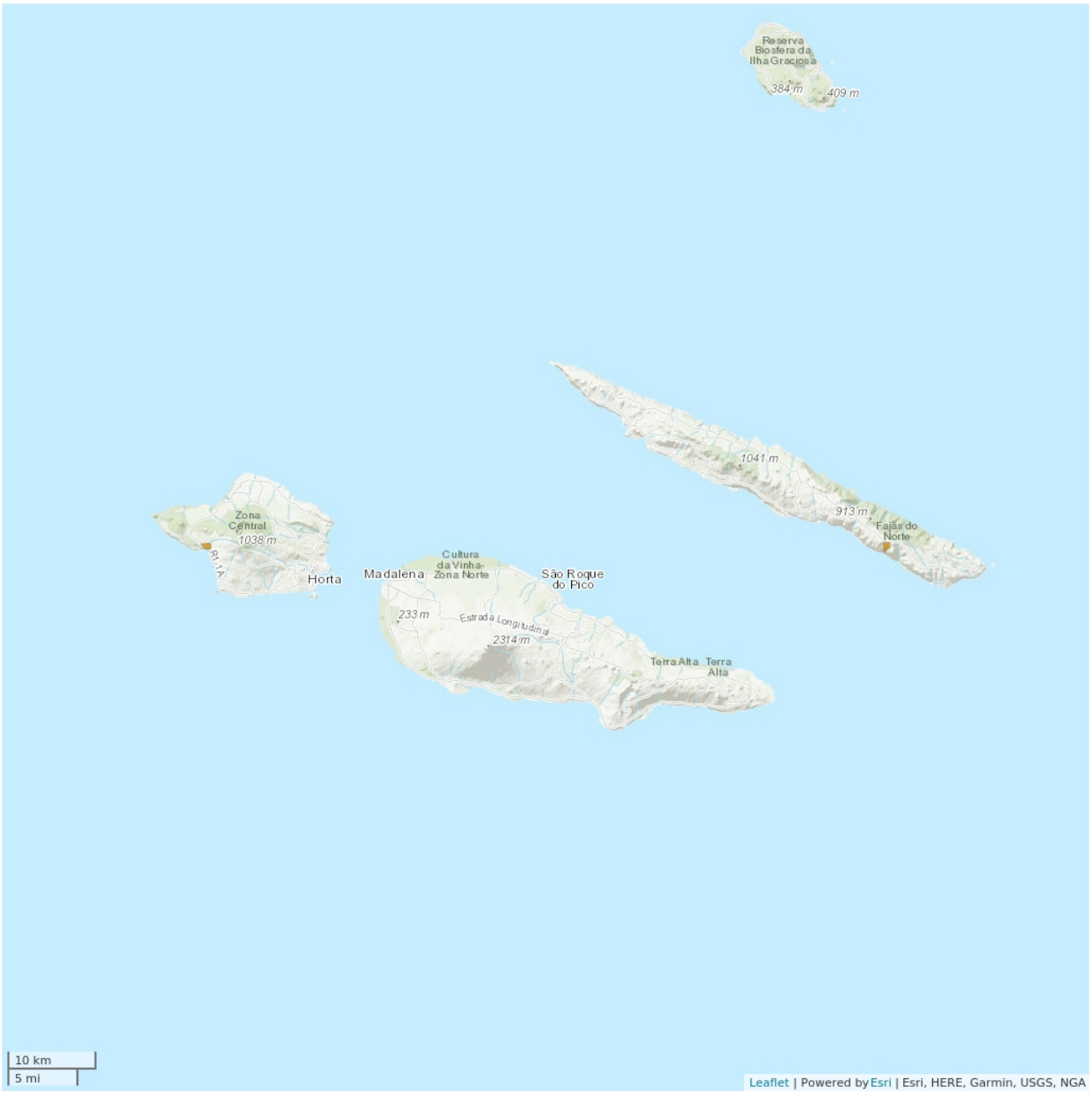
Distribution Map

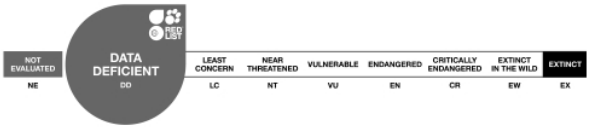


Legend

EXTANT (RESIDENT)

Compiled by:

Azorean Biodiversity Group 2018



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

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Population

No current population size estimates exist for this species, and the overall population size and trend are essentially unknown.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

The ecology and traits of this species are unknown. Ephydridae usually live in aquatic and semiaquatic habitats; maritime marshes, tidal salt pools, salt and alkaline lakes of arid regions (McAlpine *et al.* 1987). A few species of *Hydrellia* live in stems, or mine leaves of aquatic plants. Larvae of most Ephydridae are filter-feeders, feeding on microscopic algae, bacteria and yeasts from the surrounding semiliquid medium. Others prefer dead and decaying animal tissue or excrement, while others are leaf miners. Larvae of some species are predators (McAlpine 1987). *Hydrellia* larvae, due to their ecology and feeding habits are considered agricultural pests of several irrigated cereals (McAlpine *et al.* 1987).

Systems: Terrestrial, Freshwater (=Inland waters)

Threats (see Appendix for additional information)

A lack of information regarding the present status of this species precludes an assessment of potential threats. Nevertheless, the ecology of other members of the Ephydridae family suggests that this species might be affected by future habitat declines as a consequence of climate change (Ferreira *et al.* 2016) and increased droughts. Contamination of surface waters by agricultural and livestock runoff can also potentially affect this species. Human disturbance and land use changes might have also affected this species.

Conservation Actions (see Appendix for additional information)

The species is not protected by regional law. The present situation of this species needs to be further assessed, and further research is needed into its population, distribution, threats, ecology and life history. From what is known of its habitat preferences, conservation of native forests, of natural streams and water bodies, of native wet and boggy areas and other wet habitats could potentially aid this species' conservation.

Credits

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

Reviewer(s): Danielczak, A.

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External Resources

For Supplementary Material, and 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?
5. Wetlands (inland) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	Resident	Suitable	Yes

Threats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.4. Scale Unknown/Unrecorded	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.4. Scale Unknown/Unrecorded	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
6. Human intrusions & disturbance -> 6.3. Work & other activities	Ongoing	Unknown	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.2. Species disturbance		
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.1. Nutrient loads	Ongoing	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.3. Herbicides and pesticides	Ongoing	Unknown	Rapid declines	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Future	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
11. Climate change & severe weather -> 11.2. Droughts	Future	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		

Conservation Actions in Place

(http://www.iucnredlist.org/technical-documents/classification-schemes)

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Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No

Conservation Actions Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Action Needed
2. Land/water management -> 2.1. Site/area management

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
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Continuing decline in area of occupancy (AOO): Unknown
Extreme fluctuations in area of occupancy (AOO): Unknown
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): Unknown
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 200
Upper elevation limit (m): 700
Population
Continuing decline of mature individuals: Unknown
Extreme fluctuations: Unknown

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Population
Population severely fragmented: Unknown

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