

## Moreletina obruta

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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Mollusca	Gastropoda	Stylommatophora	Hygromiidae

**Taxon Name:** *Moreletina obruta* (Morelet, 1860)

**Synonym(s):**

- *Helix obruta*

**Taxonomic Notes:**

*Moreletina obruta* was described as a fossil. Backhuys (1975:203) attributed it cautiously to the genus *Cerneuella*. Martins *et al.* (1991) found it alive and placed it under *Helicella*. Finally Martins (2002) placed it in a separate genus, *Moreletina*. Two ecomorphs were recognized, their true taxonomic identity awaits molecular analysis.

## Assessment Information

**Red List Category & Criteria:** Vulnerable D2 [ver 3.1](#)

**Year Published:** 2013

**Date Assessed:** November 19, 2010

**Justification:**

Due to the highly restricted area and few number of sites where the specimens were found, it is clear that we are dealing with a small population; the disjunct distribution of the two morphs, which could well be two different species, enhances the fact that the diversity within the population is very much at risk due to isolation and small size. The fact that it was first found as a fossil but later found alive enhances the need for protection. This species is considered Vulnerable (VU D2) due to the combination of its small area of occupancy (Area of occupancy = 20 km<sup>2</sup>), its two unique locations and potential threats from accidental fire and natural events (such as cliff erosion).

**Previously Published Red List Assessments**

1996 – Vulnerable (VU)

## Geographic Range

**Range Description:**

This species is only found on Santa Maria island, Azores, where it is restricted to two small areas.

**Country Occurrence:**

**Native:** Portugal (Azores)

# Distribution Map

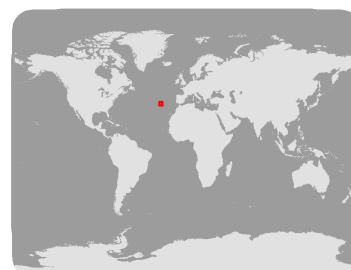


## *Moreletina obruta*

Range

■ Extant (resident)

Compiled by:  
IUCN



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



## Population

This species appears to have a disjunct distribution, the white ecomorph living in Figueiral (N 36° 56.873'; W 25° 07.715'; 100 m) and west of Praia Formosa (coordinate unavailable; 10 m); the black ecomorph was collected east of Anjos (coordinate unavailable; 50 m) and west of Anjos (N 37° 00.481'; W 025° 08.318'; 20 m) (Martins 2002)

**Current Population Trend:** Unknown

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

*Moreletina obruta* lives near the shore on sea cliffs; the white morph lives among gramineae, the black morph under stones. Although there are plenty of dead shells of the white morph, living specimens can be hard to find; the black morph is even rarer.

**Systems:** Terrestrial

## Threats (see Appendix for additional information)

As this species lives in cliff areas near the sea, only natural threats are foreseeable; however, accidental fires may pose a real threat to the white morph colonies, which live among gramineae.

## Conservation Actions (see Appendix for additional information)

Due to their habitat (cliffs near the sea), only general preventive measures can be advised, such as preventing fires that could destroy the habitat. More taxonomic research is also needed on the two ecomorphs.

## Credits

**Assessor(s):** Frias Martins, A.

**Reviewer(s):** Neubert, E., Cuttelod, A. & Nichols, C.

## Bibliography

Backhuys, W. 1975. *Land & Fresh-water Molluscs of the Azores*. Backhuys & Meesters, Amsterdam.

IUCN. 2011. IUCN Red List of Threatened Species (ver. 2011.1). Available at: <http://www.iucnredlist.org>. (Accessed: 16 June 2011).

Martins, A.M.F. 2002. *Moreletina* a new genus of Hygromiidae (Pulmonata: Stylommatophora) from Santa Maria, Açores. *Journal of Molluscan Studies* 68: 205-215.

Martins, A.M.F., Backeljau, T., da Cunha, R.M.T. and Brito, C.P. 1991. Moluscos terrestres da Ilha de Santa Maria. Lista preliminar. *Relatórios e Comunicações do Departamento de Biologia. Santa Maria e Formigas* 19: 53-59.

Morelet, A. 1860. *Notice sur l'histoire naturelle des Açores suivie d'une description des mollusques terrestres de cet archipel*. Baillièere, Paris.

## Citation

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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?
4. Grassland -> 4.4. Grassland - Temperate	-	Suitable	Yes
13. Marine Coastal/Supratidal -> 13.1. Marine Coastal/Supratidal - Sea Cliffs and Rocky Offshore Islands	-	Suitable	Yes

## Threats

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

Threat	Timing	Scope	Severity	Impact Score
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity	Future	Minority (50%)	Causing/could cause fluctuations	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
10. Geological events -> 10.3. Avalanches/landslides	Future	Majority (50-90%)	Causing/could cause fluctuations	Low impact: 4
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		

## Conservation Actions Needed

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

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection
4. Education & awareness -> 4.3. Awareness & communications

## Research Needed

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

Research Needed
1. Research -> 1.1. Taxonomy

## Additional Data Fields

<b>Distribution</b>
Estimated area of occupancy (AOO) (km <sup>2</sup> ): 20
Number of Locations: 2
Lower elevation limit (m): 10
Upper elevation limit (m): 100
<b>Population</b>
Population severely fragmented: No

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