

# Actinella actinophora

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## **Taxonomy**

Kingdom	Phylum	Class	Order	Family	
Animalia	Mollusca	Gastropoda	Stylommatophora	Hygromiidae	

**Taxon Name:** Actinella actinophora (R.T. Lowe, 1831)

#### **Taxonomic Notes:**

Wollaston (1878) described two varieties of this species, the nominate race *actinophora* and var.  $\beta$  descendens. Walden (1983) treated these as subspecies in his list, and Bank *et al.* (2002) retained these subspecies in their list.

### **Assessment Information**

Red List Category & Criteria: Vulnerable B1ab(iii)+2ab(iii) ver 3.1

Year Published: 2013

**Date Assessed:** September 4, 2008

### Justification:

This species is considered to be borderline between Vulnerable and Near Threatened, as it has a restricted range, the number of known locations is less than 10, but the habitats in part of the range have become stabilised and less threatened, given the presence of a protected area in the central part of Madeira reducing the likelihood of habitat degradation. It is listed as Vulnerable (VU) B1ab(iii)+2ab(iii), as the habitats of the sub-populations on Desertas are still threatened by goats, and the loss of these sites and the coastal sites on northern Madeira means that 50% of the subpopulations are still at risk. Should these threats be removed, then the assessment would change to Near Threatened. The previous listing as Near Threatened was based on similar data, but some additional sites have been recognised close to the other localities in the central part of Madeira (Seddon 2008).

### **Previously Published Red List Assessments**

1996 - Lower Risk/near threatened (LR/nt)

1994 – Vulnerable (V)

## **Geographic Range**

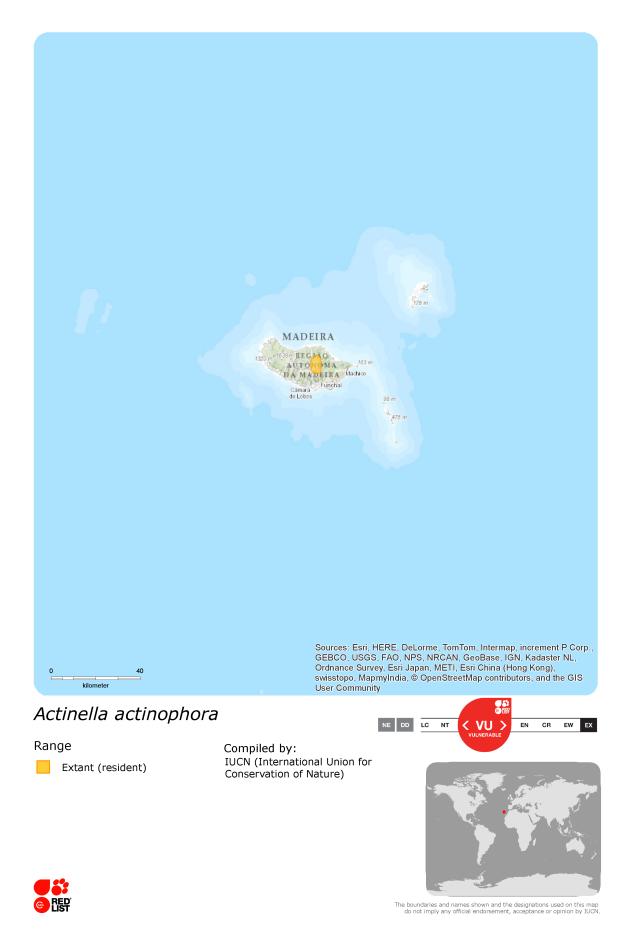
### **Range Description:**

Actinella actinophora is endemic to the Madeiran Archipelago, where it is found on Madeira and Desertas. Actinella actinophora actinophora is found on the main island of Madeira where it is known from seven locations, several very closely located in the laurisilva zone below Pico Arreiro and Pico Ruivo and three isolated localities on the North Coast of Madeira (Seddon 2008, p.72, 173, Map 94). Actinella actinophora descendens is found on Deserta Grande where it is known from two locations; there are fossil records from the island of Bugio (Seddon 2008, p.72).

## **Country Occurrence:**

Native: Portugal (Madeira)

## **Distribution Map**



**Population** 

There are no data on population trends.

**Current Population Trend:** Unknown

Habitat and Ecology (see Appendix for additional information)

Actinella actinophora is found in leaf-litter in deep ravines in the laurisilva zone, in rocky areas at high

elevations or grassland by the coast. The critical condition is a moist microhabitat with deep leaf-litter.

**Systems:** Terrestrial

Use and Trade

This species is not used.

Threats (see Appendix for additional information)

The threats vary depending on the island locations. On Deserte Grande the habitats were changed radically in the 1900s with the introduction of goats to the island. Although this island is no longer inhabitated, the goats remained, and the level of grazing has changed the vegetation, leading to considerable soil erosion of the steep slopes. Until the goats have been eradicated and the vegetation

reestablished stablising the slopes, these subpopulations are viewed as extremely vulnerable.

On the north coast of Madeira, the three subpopulations are vulnerable as these lie in areas close of human habitation and roads, with impact of disturbance and change in habitats from non-native plants,

grazing and road widening schemes.

On the summit slopes, the laurisilva region lies within a protected area, and so is less susceptible to habitat degradation, however, the small gullies and ravines lie along popular walking paths, and so sites

maybe disturbed by 'cleaning' of the sides of the paths to maintain and upgrade the footpaths.

**Conservation Actions** (see Appendix for additional information)

The species lies in two protected areas, and would benefit from habitat monitoring on Desertas and in the coastal zone of Madeira.

**Credits** 

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## **Bibliography**

Bank, R.A., Groh, K. and Ripken, T.E. 2002. Catalogue and Bibliography of the non-marine Mollusca of Macronesia. In: M. Falkner, K. Grah and M.C.D. Speight (eds), *Collecteana Malacologica*, pp. 89-235.

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Wollaston, T.V. 1878 Testacea Atlantica or the land and freshwater shells of Azores, aderiras, Salvages, Canaries, Cape Verdes and Saint Helena. London; Reeve.

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### **External Resources**

For <u>Images and External Links to Additional Information</u>, 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	-	Unknown	-
3. Shrubland -> 3.4. Shrubland - Temperate	-	Unknown	-
4. Grassland -> 4.4. Grassland - Temperate		Unknown	-
0. Root -> 6. Rocky areas (eg. inland cliffs, mountain peaks)	-	Unknown	-

### **Threats**

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

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.3. Tourism & recreation areas	Ongoing	Minority (50%)	Negligible declines	Low impact: 4
	Stresses:	<ol> <li>Ecosystem stresses -&gt; 1.1. Ecosystem conversion</li> <li>Ecosystem stresses -&gt; 1.2. Ecosystem degradation</li> <li>Species Stresses -&gt; 2.1. Species mortality</li> </ol>		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming	Ongoing	Minority (50%)	Causing/could cause fluctuations	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.2. Named species (Capra hircus)	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion		
		1. Ecosystem stre	esses -> 1.2. Ecosysten	n degradation
		2. Species Stress	es -> 2.1. Species mor	tality

## **Conservation Actions in Place**

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

Conservation Actions in Place	
In-Place Land/Water Protection and Management	
Occur in at least one PA: Yes	
Percentage of population protected by PAs (0-100): 50	

## **Conservation Actions Needed**

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

### **Conservation Actions Needed**

4. Education & awareness -> 4.3. Awareness & communications

### **Research Needed**

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

#### **Research Needed**

3. Monitoring -> 3.4. Habitat trends

### **Additional Data Fields**

#### Distribution

Estimated area of occupancy (AOO) (km²): 100

Estimated extent of occurrence (EOO) (km²): 1600

Number of Locations: 9

### **Population**

Population severely fragmented: No

### **Habitats and Ecology**

Continuing decline in area, extent and/or quality of habitat: Yes

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