The IUCN Red List of Threatened Species™
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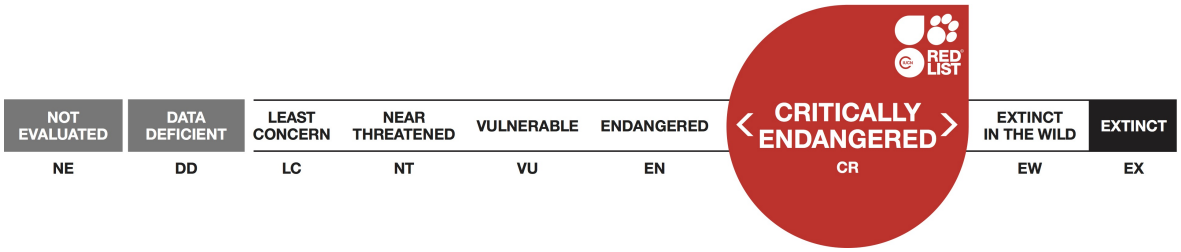
Scope: Global
Language: English

Lampedusa melitensis, Maltese Door-snail

Assessment by: Schembri, P.J. & De Mattia, W.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Mollusca	Gastropoda	Stylommatophora	Clausiliidae

Taxon Name: *Lampedusa melitensis* (Caruana Gatto, 1892)

Synonym(s):

- *Clausilia melitensis* Caruana Gatto, 1892

Common Name(s):

- English: Maltese Door-snail

Taxonomic Source(s):

Giusti, F., Manganelli, G. and Schembri, P.J. 1995. *The non-marine molluscs of the Maltese Islands*. Torino.

Taxonomic Notes:

It has been confirmed as a valid species through a morphological (shell characters and anatomy of the reproductive system) and genetic (sequencing of a fragment of the mitochondrial large ribosomal subunit 16S rRNA, and the nuclear internal transcriber spacer 1, ITS-1 rRNA) study (Giusti *et al.* 1995).

Identification Information:

Shell light yellowish grey, ribbed, 8-11 whorls, aperture detached and slightly protruded, columellaris almost completely inside and hardly visible in a perpendicular view, lunula very deep inside, no basalis, subcolumellaris invisible in the aperture, clausilium plate short.
Differs from *L. imitatrix* in its much less prominent columellaris, absence of a basalis and short clausilium plate. 12-18 x 3.2-4.8 mm.

Assessment Information

Red List Category & Criteria: Critically Endangered B1ab(ii,iii)+2ab(ii,iii) ver 3.1

Year Published: 2017

Date Assessed: May 24, 2016

Justification:

This species is endemic to the Maltese Islands, where it occurs only on the island of Malta. The species is only known from one locality, on a section of the coastal cliffs (Rdum tal-Madliena; the Dingli Cliffs) on the western coast Malta, near Dingli, where it occurs on a few isolated boulders only. The population is estimated to be a few hundred individuals (Giusti *et al*. 1995). Given the very restricted area of occurrence and therefore the very small population size, and the evidence that there is a continuing decline in the area of occupancy (AOO) and the extent of habitat, the species is assessed as Critically Endangered (CR B1ab(ii,iii)+2ab(ii,iii)). Research is required to confirm the distribution, threats, population size and trend of this species. Frequent monitoring and a conservation plan are also needed.

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Previously Published Red List Assessments

2012 – Critically Endangered (CR)
http://dx.doi.org/10.2305/IUCN.UK.2012-1.RLTS.T11205A15000080.en

Geographic Range

Range Description:

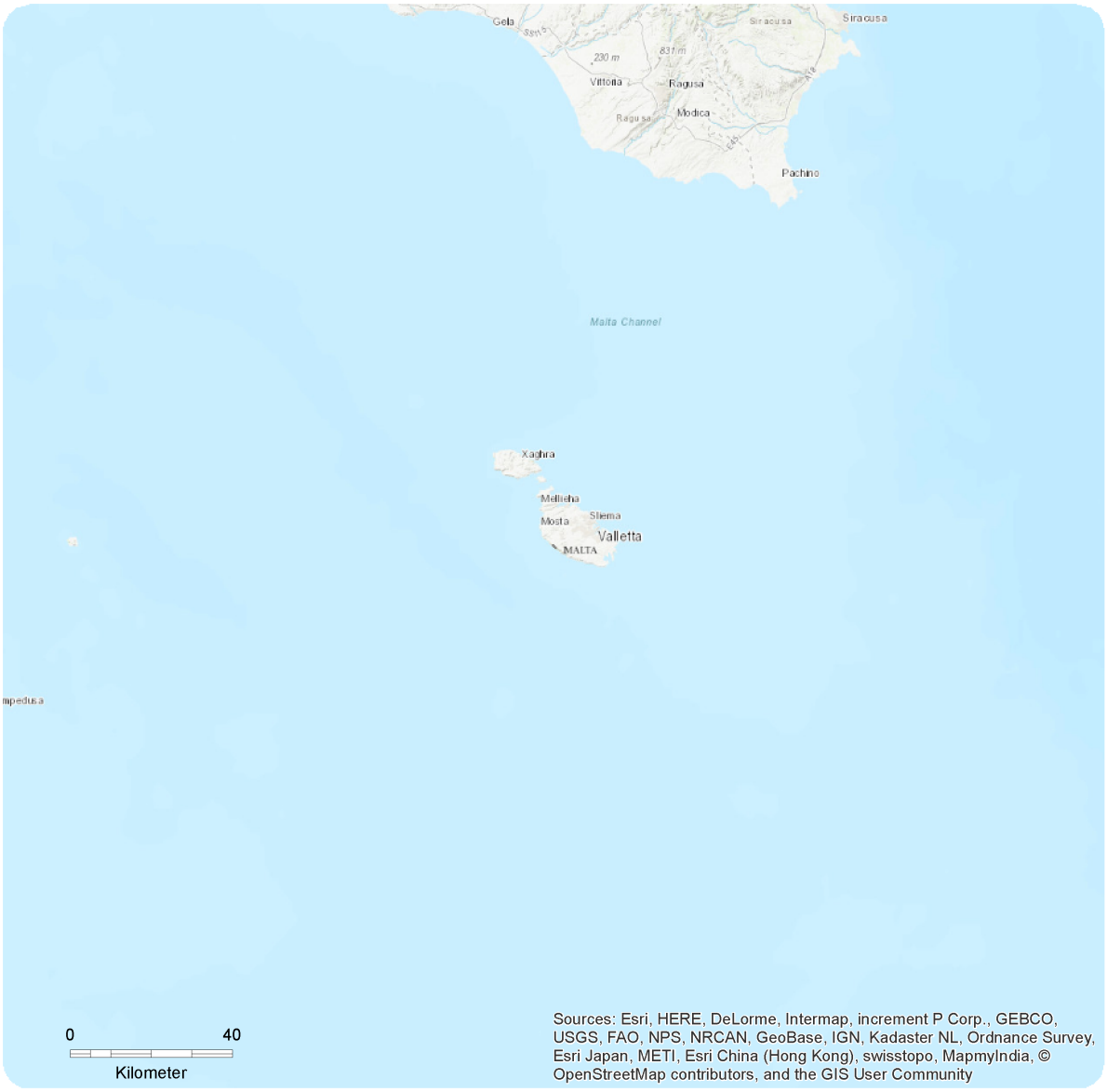
This species is endemic to the Maltese Islands, where it occurs in a single locality on the cliffs of Rdum tal-Madliena (the Dingli Cliffs), near Dingli, in the western coast of Malta. The species is limited to a few large boulders lying on clay slopes at the foot of an escarpment of the sea-cliffs. These boulders have detached from the overlying cliff edge and form ‘islands’ of karstic rock surrounded by clay and non-karstic steppic habitat. There is evidence that the species used to occur on the karstic cliff edge but has been displaced from this habitat by another more competitive 'clausiliid' species: *Muticaria macrostoma* (or introgressed with this species). Currently, it only survives on boulders that became detached from the cliff edge before they were colonised by *Muticaria* (Thake 1985, Giusti *et al*. 1995).

Country Occurrence:

Native: Malta

Distribution Map

Lampedusa melitensis



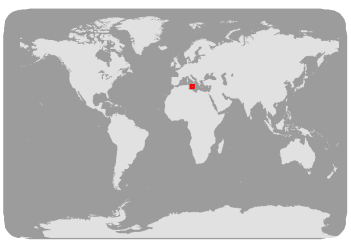
Range

Extant (resident)

Compiled by:

IUCN (International Union for Conservation of Nature)

NE DD LC NT VU EN CR CRITICALLY ENDANGERED EW EX



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 quantitative estimates have been made of the population size, but given the very restricted area of habitat, it is estimated to be a few hundred individuals. The population is assumed to have declined as originally used to occur on a karstic cliff edge but has been displaced by, or has introgressed with, *Muticaria macrostoma*, and now only survives on boulders that became detached from the cliff edge before they were colonised by *Muticaria* (Giusti *et al.* 1995).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

The species is found on a few large boulders lying on clay slopes at the foot of an escarpment, part of the sea-cliffs, and these boulders are resting on clay that is susceptible to slumping and downhill sliding.

Systems: Terrestrial

Use and Trade

There may be some illegal collecting by shell collectors, but the scale of this, if it occurs, is not known.

Threats (see Appendix for additional information)

This species is restricted to one locality where it is found in a very precarious habitat consisting of boulders lying on clay at the foot of an escarpment on the western sea-cliff coast of Malta. The boulders are subject to slumping and downhill sliding due to natural slope processes. It is also very susceptible to stochastic events due to its extremely reduced distribution. Also, displacement or introgression with *Muticaria macrostoma* seems to be an important threat to this species.

This is a protected species and is not in trade, although it was sought after by collectors in the past, and there may be some illegal collecting for shell collections. Given its very restricted distribution and precarious habitat, it is considered to occur at only one location.

Conservation Actions (see Appendix for additional information)

This is a protected species, listed in Schedule II (Animal and plant species of Community interest whose conservation requires the designation of Special Areas of Conservation) and Schedule V (Animal and plant species of Community interest in need of strict protection) of the Flora, Fauna and Natural Habitats Protection Regulations, 2006 (Government of Malta). It is also listed as a 'priority species' in Schedule II.

The species is also listed in Annex II and Annex IV of the European Union Habitats Directive. The present species is listed as a 'priority species' in Annex II. The prime threat to this species is the destruction of the habitat due primarily to natural causes (slope processes). There is a need to assess and understand this threat in order to take appropriate action for the conservation of the species. Surveys to determine the exact number, position and area of boulders where this species occurs are strongly suggested, as well as quantitative estimates of population size and studies on its basic biology.

The species occurs within the *Rdumijiet ta' Malta: Ir-Ramla tac-Cirkewwa sal-Ponta ta' Benghisa*

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(MT0000024), Natura 2000 Site (EUNIS 2016).

Credits

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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?
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
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Past, likely to return	Majority (50-90%)	Unknown	Past impact
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
7. Natural system modifications -> 7.3. Other ecosystem modifications	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.2. Species disturbance 2. Species Stresses -> 2.3. Indirect species effects -> 2.3.7. Reduced reproductive success		
8. Invasive and other problematic species, genes & diseases -> 8.2. Problematic native species/diseases -> 8.2.2. Named species (Muticaria macrostoma)	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	2. Species Stresses -> 2.2. Species disturbance 2. Species Stresses -> 2.3. Indirect species effects -> 2.3.1. Hybridisation 2. Species Stresses -> 2.3. Indirect species effects -> 2.3.2. Competition		

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): 91-100
Invasive species control or prevention: No
In-Place Species Management

Conservation Actions in Place
Harvest management plan: No
In-Place Education
Subject to recent education and awareness programmes: Unknown
Included in international legislation: No
Subject to any international management/trade controls: Unknown

Conservation Actions Needed

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

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection
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 -> 1.5. Threats
2. Conservation Planning -> 2.1. Species Action/Recovery Plan
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) (km²): 4
Continuing decline in area of occupancy (AOO): Yes
Estimated extent of occurrence (EOO) (km²): 4
Continuing decline in extent of occurrence (EOO): No
Number of Locations: 1
Lower elevation limit (m): 100
Upper elevation limit (m): 100

Population
Continuing decline of mature individuals: Unknown
Population severely fragmented: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Movement patterns: Not a Migrant

The IUCN Red List Partnership

The IUCN Red List of Threatened Species™ is produced and managed by the IUCN Global Species Programme, the IUCN Species Survival Commission (SSC) and The IUCN Red List Partnership.

The IUCN Red List Partners are: Arizona State University; BirdLife International; Botanic Gardens Conservation International; Conservation International; NatureServe; Royal Botanic Gardens, Kew; Sapienza University of Rome; Texas A&M University; and Zoological Society of London.