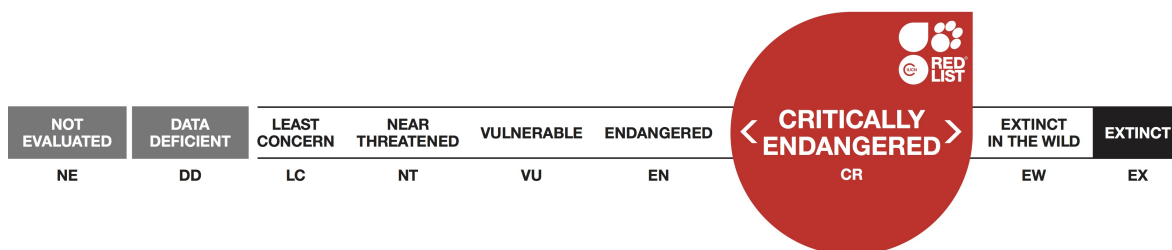


## *Cheirolophus crassifolius*, Maltese Rock-centaury

Assessment by: Stevens, D. & Lanfranco, E.



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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Asterales	Compositae

**Taxon Name:** *Cheirolophus crassifolius* Susanna

**Synonym(s):**

- *Palaeocyamus crassifolius*

**Common Name(s):**

- English: Maltese Centaury, Maltese Rock-centaury

## Assessment Information

**Red List Category & Criteria:** Critically Endangered B1ab(i,ii,iii,iv,v) [ver 3.1](#)

**Year Published:** 2006

**Date Assessed:** January 31, 2006

**Justification:**

The area in which this species is found is very restricted (covering less than 100 km<sup>2</sup>), the remaining population is severely fragmented, and the area where it grows, quality of its habitat, and number of individuals is predicted to decline unless increased conservation measures are taken. The total wild population is estimated at a thousand individuals, but has not been counted.

**Previously Published Red List Assessments**

1998 – Rare (R)

## Geographic Range

**Range Description:**

*Cheirolophus crassifolius* has a patchy distribution along the northwestern and southern cliffs of the islands of Malta, southern Gozo and Fungus Rock.

**Country Occurrence:**

**Native:** Malta

## Population

The total wild population is estimated at a thousand individuals, but has not been counted.

**Current Population Trend:** Decreasing

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

This perennial shrub is confined to coralline limestone seaside cliffs and scree, growing in full sun.

The Maltese Rock-centaury is the National Plant of Malta. This species displays some ancient traits in its habitat preference and flower morphology, and is considered to be a paleoendemic, meaning that it speciated in the distant past and may have been much more widely distributed than today. Previously this species had been placed in a genus of its own (*Palaeocyamus*), but was then grouped with species of the genus *Cheirolophus*. To fully understand the taxonomy of this species, it is important to study its relationship with species of the similar-looking genera *Centaurea* and *Serratula*.

**Systems:** Terrestrial

## Threats (see Appendix for additional information)

The species is threatened by a number of factors. First, it is rare to find juvenile plants of this long-lived species, possibly due to the larvae of an unidentified moth observed attacking the developing fruits. Second, the habitat is under threat from quarrying, as fragile boulder cliffs collapse from the pressure wave of nearby dynamite explosions. Dust pollution from quarrying seems to be a minor problem. Third, a number of sites have been affected by human disturbance, especially those most easily accessible. Finally the species, even at inaccessible sites, is threatened by introduced alien plant species, particularly *Opuntia ficus-indica*, *Agave americana* and *Carpobrotus edulis*. These species were originally planted on the plateau but now invade the cliffs.

## Conservation Actions (see Appendix for additional information)

### Actions in Place

Legally: Internationally, this species is listed in Annex II of the Habitats Directive since Malta's EU adhesion in May 2004. Nationally, it is protected by the Flora and Fauna Protection Regulations of 1993 and the Flora, Fauna and Natural Habitats Protection Regulations of 2003.

All cliffs of the island of Malta and some cliffs of Gozo are protected locally, either as Sites of Scientific Importance, Areas of Ecological Importance, or Special Areas of Conservation. Fungus Rock (il-Gebbla tal\_General) is a Strict Nature Reserve. Access is forbidden except for valid scientific reasons.

*In situ*: Management plans are being drafted for a number of sites, including the Qawra-Dwejra Special Area of Conservation (western Gozo).

*Ex situ*: *C. crassifolius* has been extensively cultivated, especially since its designation as the Maltese National Plant in 1971. It is now frequently encountered in parks and along the centre-strips of main roads. (Note that even if the plant is under cultivation, this does not change its conservation status as the Red List Criteria only apply to wild natural populations).

### **Actions Needed**

The most effective conservation measures needed are protection and management of the habitat, which means to better control quarrying, prevent illegal dumping (fly-tipping), avoid the introduction of new invasive alien species, and manage the invasives that exist. More cliffs on Gozo need to be protected by law because of their extreme ecological importance. Law enforcement regarding the protection of this species and its habitat needs to be strengthened. Finally, more research is needed to identify the reasons for this species' apparent population decline and habitat fragmentation.

### **Credits**

**Assessor(s):** Stevens, D. & Lanfranco, E.

**Reviewer(s):** Strahm, W. & de Montmollin, B. (Mediterranean Island Plants Red List Authority)

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## External Resources

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## Appendix

### Habitats

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

Habitat	Season	Suitability	Major Importance?
3. Shrubland -> 3.8. Shrubland - Mediterranean-type Shrubby Vegetation	-	Suitable	-
13. Marine Coastal/Supratidal -> 13.1. Marine Coastal/Supratidal - Sea Cliffs and Rocky Offshore Islands	-	Suitable	-

### Threats

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

Threat	Timing	Scope	Severity	Impact Score
3. Energy production & mining -> 3.2. Mining & quarrying	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
6. Human intrusions & disturbance -> 6.1. Recreational activities	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.2. Named species (Agave americana)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.3. Indirect species effects -> 2.3.2. Competition		
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.2. Named species (Opuntia ficus-indica)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.3. Indirect species effects -> 2.3.2. Competition		
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.2. Named species (Carpobrotus edulis)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.3. Indirect species effects -> 2.3.2. Competition		
8. Invasive & other problematic species & genes -> 8.2. Problematic native species	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		

### Conservation Actions in Place

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

<b>Conservation Actions in Place</b>
In-Place Species Management
Subject to ex-situ conservation: Yes

## Conservation Actions Needed

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

<b>Conservation Actions Needed</b>
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>)

<b>Research Needed</b>
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.5. Threats



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