



The Top 50 Mediterranean Island Plants

Silene hicesiae

Latin name: *Silene hicesiae* Brullo & Signorello
Common name: *Silene vellutata delle Eolie* (Italian)
Family: Caryophyllaceae (carnation family)
Status: CRITICALLY ENDANGERED (CR)

Where is it found?

This species is endemic to the Aeolian Islands, and grows on the rocky slopes of two small volcanic islets: Panarea (where the population covers an area of 3-4 hectares with almost 400 individuals) and Alicudi (with an even smaller population of less than 30 individuals covering 60 m²). These two populations are situated about 60 km apart.

How to recognise it

This perennial plant has a woody base and grows to between 50-120 cm tall. It produces both sterile and fertile rosettes of densely hairy, elliptical leaves between 5-10 cm long. The fertile rosettes produce a hairy, usually unbranched flowering stem with bunches of five-petalled pink flowers which open in May. The fruits mature between the second half of August and the beginning of September.

Interesting facts

Silene hicesiae belongs to the “*Silene mollissima* group”, which comprises seven species endemic to the coastal cliffs of the western Mediterranean basin. These different species may have evolved when the Mediterranean became drier during the late Miocene period, about 5 million years ago, and the ancestral species became isolated into several different populations. This is one of numerous examples demonstrating how geographic separation of populations belonging to the same species, for example on islands, can contribute to the formation of new species.

Why is it threatened?

This species is categorized CR (Critically Endangered) according to IUCN Red List Criteria B1ab(iv,v)+2ab(iv,v). This means that the species covers a very small area, the populations are severely fragmented, and the number of populations and mature individuals is declining. The population of the islet of Alicudi comprises less than 50 mature individuals, so few that its future on this islet is in jeopardy unless urgent conservation measures are taken.

The main threats that this species faces include wildfires; grazing by herbivores (e.g. rabbits); invasive alien plants (e.g. “Tree of Heaven” *Ailanthus altissima*); and incorrect management of protected areas. Any of these threats could wipe out either of the two populations.

What is being done to protect it?

Legally: This species is listed as a priority species in Annexes II and IV of the EC Habitats Directive. The islets of Alicudi and Panarea are



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nature reserves where the collection of *Silene hicesiae* is strictly forbidden.

In situ & ex situ: A number of conservation measures have been implemented as part of the EU LIFE project “Conservation of priority species of the Eolian Islands’ flora – EOLIFE99”: improvement of knowledge on the biology and ecology of *Silene hicesiae*, reinforcement of wild populations with plants propagated *ex situ*, cultivation in botanical gardens and seedbanks, and informing decision makers and the general public. This plant is also included in the GENMEDOC project (an inter-regional network of Mediterranean seedbanks), and seeds are being collected in order to propagate this species.

What conservation actions are needed?

All populations of the “Tree of Heaven” *Ailanthus altissima* near to where *Silene hicesiae* grows need to be eliminated. The conservation programme initiated by EOLIFE99 also needs to be continued.

Scientific coordination

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