

Project partner: Hortus Botanicus Karalitanus of the University of Cagliari

Island

SARDINIA

Species name (Family)

Dianthus morisianus Vals. (Caryophyllaceae)

Common name

Garofano del Moris, garofano di Moris, garofano sardo (Italian names), Moris's pink (English name).

Plant description

- ✓ *Dianthus morisianus* Vals. is a perennial suffrutex, characterised by numerous woody stocks and erect stems, 20-45 cm long, and by a basal rosette with thin and linear leaves. It presents hermaphroditic and, in low frequency, female flowers, which are normally pink. Fruits consist of cylindrical-oblong capsules containing dark obovate seeds.
- ✓ Moris's pink is a psammophilous chamaephyte. The flowering season lasts from early May to late June, whereas ripe fruits can be found from June to July.
- ✓ This *taxon* grows on stabilised dunes at an altitude of 20-90 m a.s.l. and on slopes with a varied incline and aspect. From a bioclimatic point of view, the species can be referred to the Upper Thermomediterranean, Upper Dry, Euoceanic Strong.

Distribution

D. morisianus is a narrow endemic species of South-West Sardinia (Italy). The only one natural population is found in the Portixeddu coastal dune system, which corresponds to the *locus classicus*.

Map



Legal status

Currently, the species is not listed in any international, national or local regulations.

Main threats and conservation status

According to the IUCN Threats Classification Scheme (Version 3.2) the main threats are:

- ✓ 6.1: Recreational Activities. Exploitation of the sites for recreational purposes represented a threat factor for the population and its habitat.
- ✓ 2.3: Livestock Farming & Ranching. Unregulated grazing, mainly due to goats, leads to considerable damage to the population.
- ✓ 2.2: Wood & Pulp Plantations. The conifer reforestation in the Portixeddu area, affects the population of *Dianthus morisianus*, determining a loss of habitat quality.
- ✓ 7.1: Fire & Fire Suppression. Stochastic environmental events such as fires could represent significant potential threats.

This *taxon* was assessed as Endangered in the Italian Red List and as Vulnerable in the Regional Red List. Recently, it is categorised as Critically Endangered on the IUCN Global Red Lists.

Conservation actions carried out in the CARE-MEDIFLORA project

A translocation action was carried out in order to strengthen the population by boosting the number of mature individuals. Plants were propagated from seeds at the greenhouse of the Sardinian Germplasm Bank (BG-SAR). In March 2018, 38 adult plants were reintroduced in a new site, previously protected by fences to reduce human and animal disturbance. This area was fenced by using chestnut poles and metal fences with variable mesh in order to avoid (or substantially reduce) the access of humans and herbivores. Each plant, labelled for future monitoring activities, was placed depending on the availability of suitable microhabitats.

A monitoring plan of translocated plants and the natural fence was elaborated and started in spring 2018 in order to measure the survival, the reproductive traits, the number of seedlings and the effectiveness of the management action.

The preliminary results of the management action showed that fences positively enhanced the plant's long-term survival and reproductive success. After the end of the project, the monitoring activities will be continued, ensuring the long-term sustainability of the *in situ* actions.

Photos



Left: Flower of *Dianthus morisianus* (photo by Donatella Cogoni). Right: Individual of *Dianthus morisianus* (photo by Gianluigi Bacchetta).



Translocation of *Dianthus morisianus* (photo by Donatella Cogoni)..