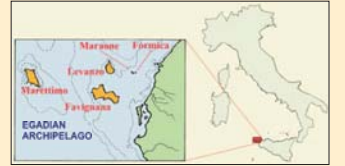


# ENDANGERED PLANT SPECIES OF MARETTIMO ISLAND (SICILY, ITALY)

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**GEOMORPHOLOGIC AND BIOCLIMATIC CHARACTERISTICS** - Marettimo Island represents the westernmost emerged portion of the Mountain Range of the Egadian Islands, formed during the Upper Miocene (CATALANO et al., 1985; CATALANO, 1986; ARGNANI, 1987). It consists of four tectonic units, predominantly composed of dolostones, marls and limestones of the Middle Triassic-Lower Lias (ABATE et al., 1982, 1998). The orographic ridge, located along the NW/SE direction, is dominated by Mount Falcone (686 m a.s.l.). A very peculiar habitat is represented by towering cliffs, which give rise to a conservative environment characterized by many floristic emergencies of particular biogeographical relevance. In particular, the island falls mainly in the thermomediterranean bioclimatic belt, with ombrotype varying from dry to subhumid, tending towards the mesomediterranean subhumid one, over 400-550 m a.s.l. However, the coastal area exposed to S/SW manifests conditions of strong environmental dryness, with aspects of summer deciduous scrub of *Periploca laevigata* subsp. *angustifolia* (*Periploca angustifolia*-*Euphorbia dendroides* sismetum). In the thermomediterranean belt, the series of the Pine forest with *Pinus halepensis* (*Pistacio lentisci-Pino halepensis* sismetum), tied to the detrital substrates more or less cemented at the base of the mountains, and that of the Olive (*Euphorbia dendroides* sismetum), located on the compact limestones, especially of the western side, dominate mostly. Instead, in the mesomediterranean belt, the series of the Holm Oak (*Pistacio lentisci-Quercus ilicis* sismetum), with interesting residual forest nuclei located in Pizzo Campana and between Mount Falcone and Pizzo delle Fragole, is more frequent. However, the vegetation of Marettimo is mainly replaced by secondary aspects - mostly shrubby - because of anthropic disturbance in the territory, at least until the Second post-war.



*Cosentinia vellea*



*Phyllitis sagittata*

**FLORISTIC PECULIARITIES OF MARETTIMO ISLAND** - In addition to the geomorphologic and topographic characteristics of the territory, the floristic originality of Marettimo is in correlation with the complex paleogeographic events that affected the Channel of Sicily in the course of the last geologic era. In particular, unlike the other islands of the Egadian Archipelago, and also Sicily itself, Marettimo has not been affected by the floristic invasions related to the Quaternary glaciations, retaining some peculiarities now completely absent in Sicily. Also the vegetation physiognomy of the island is quite different; just think of e.g. the *Rosmarinus officinalis* and *Erica multiflora* maquis-garrigue, very common here, but residual elsewhere and located within restricted geographical areas. The flora peculiarity itself, represented by 612 infrageneric taxa (GIANGUZZI et al., 2006), is the result of the vicissitudes that have affected phytogeographic flows in this sector of the Mediterranean Sea. There are different endemic species, some of which paleoendemic, or entities of phytogeographic significance, with small populations and therefore "at risk". The study investigates these entities, highlighting the problems related to their conservation. Among the exclusive endemic species to the island, there are *Allium franciniae*, *Helichrysum everese* var. *messeri*, *Linonum tenuicolum*, *Bupleurum dianthifolium*, *Oncostema hughii*, *Thymus richardii* subsp. *nitidus* and *Anthemis secundiramea* var. *corymbosa*; a species is endemic to the Egadian Archipelago (*Brassica macrocarpa*). Moreover, many other taxa are to be mentioned: some of them are endemic to Sicily, e.g. *Asperula rupestris*, *Bellevalia dubia*, *Euphorbia papillaris*, *Plantago agra* subsp. *zwerlehnii*, *Pseudocabiosa limonifolia* and *Ranunculus spicatus* subsp. *rupestris*, or to the Central Mediterranean Area, such as *Crocus longiflorus*, *Dianthus rupicola* subsp. *rupicola*, *Iberis semperlorensis*, *Pimpinella antioides*, etc. Many other plants are absent or very rare/threatened at a regional level, such as *Aristolochia navicularis*, *Daphne sericea*, *Erodium maritimum*, *Lagurus ovatus* subsp. *vestitus*, *Periploca laevigata* subsp. *angustifolia*, *Reichardia tingitana*, *Simethis mathiazii*, *Thymelaea tartonraira*, etc. Other entities, rather frequent in the nearby Sicilian coast, retain only one or few relict stations in Marettimo, e.g. *Hedera helix*, *Tussock fruticans*, *Chamaerops humilis*, *Phillyrea latifolia*, *Cyclamen hederifolium*, *Ephebra fragilis*, locally represented by very few individuals, for which therefore protection actions would be necessary.

