



Silene crassiuscula (Caryophyllaceae), a new species from Sicily

SALVATORE BRULLO¹, CRISTIAN BRULLO¹, SALVATORE CAMBRIA¹, GIANLUIGI BACCHETTA²,
GIANPIETRO GIUSSO DEL GALDO¹ & VINCENZO ILARDI³

¹Università di Catania, Dipartimento di Scienze Biologiche, Geologiche ed Ambientali, Via A. Longo 19, 95125 Catania (Italy) :
brullo@dipbot.unict.it

²Centro di Conservazione della Biodiversità, Dipartimento di Scienze Botaniche, Viale S. Ignazio da Laconi 13, 09123 Cagliari (Italy) :
bacchet@unica.it

³Dipartimento di Biologia Ambientale e Biodiversità, via Archirafi, 38, I – 90123 Palermo (Italy): vincenzo.ilardi@unipa.it

Abstract

Silene crassiuscula, a new species of *S.* sect. Dipterosperma, is described and illustrated from North-Western Sicily. It is an annual halophyte with succulent growing on carbonatic or calcarenitic rocks of coastal stands. From the morphological point of view, *S. crassiuscula* appears to be similar to the species belonging to the *S. colorata* group especially to *S. nummica*, from Sardinia, from which it differs in several features chiefly regarding the habit, leaves, inflorescences, floral pieces and seed micro-morphology. An analytical key of the taxa belonging to this section is also provided.

Key words: Caryophyllaceae, chorology, Central Mediterranean, ecology, *Silene* sect. Dipterosperma, taxonomy

Introduction

The taxa belonging to *Silene* Linnaeus (1753: 416) sect. Dipterosperma (Rohrbach 1868: 144) Chowdhuri (1957: 248) show a remarkable morphological variability. They include plants annual, characterized by hairy-pubescent indumentum, eglandular, erect flowers, arranged in monochasia or dichasia, calyx hairy, not inflated, 10-nerved, anthophore pubescent, petal limb deeply bifid, coronal scales present, seeds orbicular-reniform, laterally flat and dorsally furrowed between two more or less undulate wings. As emphasized by Maire (1963), Talavera (1990), Charter *et al.* (1993), Valsecchi (1995) and Brullo *et al.* (2012, 2014a, 2014b), it is a very complex group, often represented by isolated populations, most of which require further in-depth taxonomical investigations.

Valsecchi (1995: 452) described from some localities of Sardinia a very peculiar species, named *Silene nummica*, recorded also for Corse, Sicily, Latium and Libya. Field surveys carried out in several Sardinian and Sicilian stands, mainly in those ones listed by Valsecchi (1995), allowed to verify that the populations occurring in Sicily are very different from those ones of Sardinia (*locus classicus* including). The investigated populations occurring in the two islands are usually linked to coastal sites, represented by compact arenaceous soils or limestone, directly affected by marine aerosol. They behave as typical halophytes, suitable to soils with a fairly good concentration of chlorides, that conferring a marked succulence mainly to the leaves. The Sicilian plants significantly differ from the Sardinian ones in having a very bigger size, leaves widely spatulate (not strictly spatulate), many-flowered inflorescence (not one-flowered), larger flowers with wider petals and bigger seed with undulate wings (not flat). These diagnostic features, quite constant in the all examined populations, allow to distinguish the Sicilian populations as a species new to science, named *Silene crassiuscula*.

Material and methods

The morphological study was carried out on living plants (10 specimens for each locality), which were sampled in several Sicilian and Sardinian localities. The morphological comparisons with the allied species of *S.* sect. Dipterosperma, are based both on herbarium material (CAT and PAL, acronyms according to Thiers [continuously update]) and literature,