



Sarcocornia obclavata (Amaranthaceae) a new species from Turkey

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Abstract

Sarcocornia obclavata is described as a new species from Mediterranean Turkey. The main morphological characters that separate *S. obclavata* from other *Sarcocornia* species are the obclavate shape of its fertile segments, which is more obvious at lower fertile segments. *Sarcocornia obclavata* differs from *S. perennis* in having cymes on fertile segments that clearly do not reach the upper edge. It differs from *S. fruticosa* in having curved hairs on the seed testa.

Key words: Mediterranean, Chenopodiaceae

Introduction

Sarcocornia Scott (1977: 366) is a genus of halophytic perennials with a nearly worldwide distribution, comprising ca 20–25 species (Steffen *et al.* 2010). *Sarcocornia* is distinguished from the annual *Salicornia* Linnaeus (1753: 3) in being shrubby perennials and by having flowers of equal height in the cymes (Scott 1977). *Sarcocornia* and *Salicornia* differ from *Arthrocnemum* Moquin-Tandon (1840: 111) in having membranous seeds that lack endosperm, and in their florets not being hidden behind bracts (Scott 1977). Molecular phylogenetic studies support the morphological distinctions between the three genera (Kadereit *et al.* 2006, Kadereit *et al.* 2007). The generic status of *Sarcocornia* is accepted in many recent taxonomical studies (Alonso & Crespo 2008, Steffen *et al.* 2009, Steffen *et al.* 2010).

There are two *Sarcocornia* species known from the Mediterranean region (Piiirainen 2009): *S. fruticosa* (Linnaeus 1753: 3) Scott (1977: 367) and *S. perennis* (Miller 1768) Scott (1977: 367). The latter is usually divided into two subspecies: *S. p.* subsp. *perennis* and *S. p.* subsp. *alpini* (Lagasca 1817: 48) Castroviejo (in Castroviejo & Coello 1980: 60). Although several taxonomical studies have been carried out on the genus *Sarcocornia* in the western Mediterranean and Britain (Castroviejo & Coello 1980, Castroviejo & Lago 1992, Figueroa *et al.* 2003, Davy *et al.* 2006), there is no study on central and eastern Mediterranean *Sarcocornia* except for some flora accounts (Meikle 1985, Tan 1997, Pignatti 1982, Aellen *et al.* 1967, Freitag 2000).

In this paper a new species is presented, which was discovered in Turkey during studies on *Sarcocornia* of the eastern Mediterranean. A drawing of the holotype (Fig 1), SEM pictures of seed testa (Fig 2) and a distribution map of *S. obclavata* (Fig. 3) are provided. ITS based molecular study of Mediterranean *Sarcocornia* showed that *S. obclavata* is a monophyletic entity (A.E.Yaprak & G. Kadereit, unpublished data).

The study is mainly based on both 70% alcohol preserved material and herbarium specimens, which were collected by the author during his taxonomical study on Turkish *Sarcocornia*. Additional Mediterranean *Sarcocornia* material has been examined in GAZI and KAS. A list of examined specimens of *S. obclavata*, *S. fruticosa* and *S. perennis* was provided. Voucher specimens are deposited in Herbarium ANK. Due to the inadequacy of herbarium materials in representing succulent growth forms (especially for floral characters), the holotype consists of a herbarium sheet with an associated alcohol preserved specimen.