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A new species of *Odontites* (Orobanchaceae) from southern Italy

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Abstract

Odontites sillettii, a new species from central Apulia (Southern Italy), is described and illustrated. This species is morphologically closely related to *O. rigidifolius*, endemic to Sicily, from which it differs in several features regarding leaves, calyx, corolla, anthers and pistil. The seed testa and pollen micromorphology, ecology, conservation status and its relationships with the hitherto known species of *Odontites* are examined, as well as an analytical key of the annual species of *Odontites* characterized by glabrous corolla on the abaxial face is provided.

Key words: Apulia, endemic flora, Mediterranean Basin, taxonomy

Introduction

The genus *Odontites* Ludwig (1757: 120), previously included in the family Scrophulariaceae Jussieu (1789: 117), is currently member of the family Orobanchaceae Ventenat (1799: 292). It is distributed in the Mediterranean area, sometimes extending to mainland Euro-Asiatic territories and Madeira (Macaronesian region). This genus was recently revised by Bolliger (1996), who recognized 26 species with several subspecies. More recently, Rico *et al.* (2008) and Rico (2009), revising the genus *Odontites*, apart from proposing a new name (*O. bolligeri* E.Rico, L.Delgado & Herrero (2008: 702)) for *O. squarrosus* Salzmann ex Bolliger (1996: 148), revalued other two species, as *O. foliosus* Pérez Lara (1894–1895: 261) and *O. recordonii* Burnat & Barbey (1882: 42), increasing the number of species to 28. According to Bolliger (1996), *Odontites* shows a W-Mediterranean origin and is mainly represented by local endemics which are restricted to islands or mountains. As concerns to the habit, the species are usually annual, more rarely perennial showing a chamaephytic life form, and are characterized by a late summer to autumnal flowering period.

During an autumnal field trip in southern Italy some small populations of a very peculiar plant clearly belonging to the genus *Odontites* were collected in abandoned fields and meadows on limestones of a well circumscribed plateau of Central Apulia. From literature data and herbarium investigation, no record of this plant was previously known. The surveyed plants showed for the habit some relation with *Odontites rigidifolius* (Bivona 1806: 36) Bentham in Candolle (1846: 550), a species distributed exclusively in Sicily. Morphological investigation has emphasized that it is well differentiated from the Sicilian taxon in several significant features regarding the leaves, calyx, corolla, anthers and pistil. Therefore, it is described as species new to science and named *Odontites sillettii.*

Material and Methods

The morphological analyses were carried out on living plants collected at the *locus classicus* (*Odontites sillettii*), while *O. rigidifolius* was surveyed both on living and dried material from several Sicilian localities kept in CAT, and from literature data. The micro-morphology of seed testa was studied on mature and dried seeds (20 seeds from two populations per species) using a scanning electron microscope (SEM) Zeiss EVO LS10, according to the protocol reported by Stork *et al.* (1980), while terminology of the seed coat sculpturing follows Barthlott (1981) and Gontcharova *et al.* (2009). Pollen morphology obtained from living material in dry condition was examined according to the protocol of Davies (1999) with some modifications (Bolliger & Wick 1990) for scanning electron microscope

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