



Verbascum misirdalianum (Scrophulariaceae), a new species from central Anatolia, Turkey

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Abstract

Verbascum misirdalianum (Scrophulariaceae) is described and illustrated as a new species endemic to central Anatolia, Turkey. In this study, diagnostic morphological characters of this new species and closely related species (*V. tossiense*) are discussed. Furthermore, comments on habitat, morphology and conservation status are provided and distribution maps presented for the two taxa.

Key words: Turkey, *Verbascum*, new species, threat category CR, taxonomy

Introduction

Verbascum Linnaeus (1753: 177) (Scrophulariaceae) includes about 360 species in the world (Mabberley 2008). In Turkey, the genus is represented by 246 species, 130 hybrids and 6 imperfectly known or doubtful records (Huber-Morath 1978, Davis *et al.* 1988, Karavelioğulları 2012, 2014a, 2014b). The first revision of Turkish *Verbascum* for *Flora of Turkey* was carried out by Huber-Morath (1978). Fourteen species and six hybrids were later described and three new records have been identified (Karavelioğulları 2012, 2014a, 2014b). Endemism of the genus in Turkey is very high with 196 endemic species (80%) (Karavelioğulları 2012, 2014a, 2014b).

Verbascum is divided into two sections (Murbeck 1933): sect. *Aulacospermae* Murbeck (1933: 593) and sect. *Bothrospermae* (Murbeck 1933: 82). The most important difference between these is the seed morphology. In sect. *Aulacospermae*, the seeds are longitudinally corrugated, while in sect. *Bothrospermae* the seeds are transversally corrugated and alveolate. All Turkish species of *Verbascum*, belong to sect. *Bothrospermae* (Murbeck 1925, 1933; Huber-Morath 1971).

During field exploration in Karaman province, Turkey, in 2013, an unusual population of *Verbascum* was discovered. The plants in this population seemed to be similar to *V. tossiense* Freyn & Sintenis (1894: 44, 263) Huber-Morath (1978: 568). The specimens were cross-checked with the keys provided by Huber-Morath (1978, 1981) and the *Verbascum* accounts given in various relevant publications such as Feinbrun-Dothan (1978a, 1978b), Meikle (1985), and Boulos (2009). Herbarium specimens from GAZI, ANK, G and LD (photos) were also examined and compared (Thiers 2015). As a result of these studies a new species of *Verbascum* was recognised and this is here formally named and described. The threat category assessment of the new species was defined according to IUCN criteria (IUCN 2013).

Description of the new species

Verbascum misirdalianum Karavel., Çeçen and Ünal *sp. nov.* (Figs. 1–2)

Type:—TURKEY. C4 Karaman: 40 km north of Karaman, Çakırdağı Mountain, southwest of Yalnızdağ Hill, steppe, 1100–1300 m, 3 May 2013, Ö. Çeçen 700, A. Ünal & H. Mısırdalı (holotype: KNYA! GAZI!, isotypes: HUB!, Yıldırımli, KNYA! and ANK!).