

**VERBASCUM OZTURKII (SCROPHULARIACEAE),
A NEW SPECIES FROM EAST ANATOLIA, TURKEY**

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Abstract

A new species *Verbascum ozturkii* Karavel., Uzunh. & S.Çelik sp. nov. (Sect. *Bothrosperma* Murb.), has been described here. It was collected from East Anatolia in Turkey. The species is related to *V. oocarpum* Murb. and thus a comparison was made. It differs from *V. oocarpum* Murb. Mainly in its hair situation, basal leaves, inflorescence, pedicels, calyx, corolla, stamens and capsule features.

Introduction

The genus *Verbascum* L. (*Scrophulariaceae*) includes about 360 species (Heywood, 1993). In Turkey, it is represented by 238 species spread over 13 groups, and 129 hybrids (Huber-Morath, 1978; Davis *et al.*, 1988; Vural & Aydogdu, 1993; Karaveliogullari *et al.*, 2004; 2006; Sutory, 2001; 2004; Ozhatay, 2006; Kaynak *et al.*, 2006; Parolly & Tan, 2007). Out of these 238 species 190 (80%) are endemic. All Turkish species of *Verbascum* and the species described here for the first time belong to sect. *Bothrosperma* Murb. (Murbeck, 1925, 1933, Huber-Morath, 1971).

Materials and Methods

The authors collected some flowering and fruiting specimens of *Verbascum* in 2005 in Kemaliye, Erzincan province. The specific descriptions of *Verbascum* in Huber-Morath (1978), Ferguson (1972), Fedchenko (1955), Huber-Morath (1981), Feinbrun-Dothan (1978a, 1978b), Meikle (1985), Tackholm (1974), Ekim (2000) were studied as well as specimens from GAZI, G, ANK and HUB were compared. The abbreviations of the authors of plant names were checked from Brummitt & Powell (1992) and <http://www.ipni.org/index.html>.

Observations: *Verbascum ozturkii* Karavel., Uzunh & S.Celik sp. nov. (Sect. *Bothrosperma* Murb.) (Figs.1 and 2).

Affinis V. oocarpum Murb., *sed differt planta dense stellata et sparsim stipitata glandulifera (non appressa tenui stellata); foliis basalis lanceolatis, oblongo-lanceolatis, crenatis, petiolo 4-10 cm. (non linearo-lanceolatis ad linearis, crenulato-dentatis, petiolo 2-3 cm); corolla sine pellucido-punctata (non pellucido-glandula); filis purpureo-*

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violaceis (non filis albido-flavis lanatis); capsulis globosis, 2-6 x 1-5 mm (non ellipticis, 4-4.5 x 3 mm).

Type: Turkey. B7 Erzincan: Kemaliye-Divrigi, 35. km, 1200-1300 m, 10.vii.2005, calcareous stony slopes, *F. A. Karaveliogullari* 3467, *M. E. Uzunhisarcikli* (holo. GAZI, iso. ANK, HUB).

Usually biennial, 30-60 cm, densely stellate, sparsely stalked glandular. Stem robust, terete, branched. Basal leaves 5-10 x 2-4 cm, mostly congested at base, lanceolate, oblong-lanceolate, crenate, rarely entire, acute, attenuate. Petiol 4-10 cm. Cauline leaves 3-6 x 2-5 cm, lanceolate, entire, acute. Inflorescence loose, simple or branched, numerous clusters of 1-10 flowers (accessory flowers 1). Bracts 5-10 x 1-2 mm, lanceolate to linear-lanceolate, entire, acute. Pedicels 2-10 mm. Bracteoles 3-5, 2-3 x 1-2 mm, linear-lanceolate, entire, acute. Calyx 5-10 mm, divided almost to base, lanceolate to ovate-lanceolate, acute. Corolla 10-20 mm diam., yellow, tube 2 mm, lobes unequal, orbicular, without pellucid-punctate, stellate tomentose outside. Stamens 5, 4-7 mm, filaments 5-6 mm, with purple-violet woolly, two anterior glabrous near apex, anthers reniform. Ovary globose. Stylus 5-7 mm, filiform. Stigma 2-3 x 0.5 mm, spatulate. Capsule 2-6 x 1-5 mm, globose, densely stellate.

Fl. 6-7, Fr. 7-8.

Etymology: This new species is named in honour of the eminent Turkish botanist and ecologist Prof. Dr. Munir Oztürk

Results and Discussion

Verbascum ozturkii is allied to *V. oocarpum* which is only known from East Anatolia. *V. Oocarpum* grows alongside the dry banks, scree, between 1200-1750 m altitude (Murbeck, 1933), but differs from *V. ozturkii* by hair situation densely stellate, sparsely stalked glandular (not with adpressed fine stellate hairs); basal leaves lanceolate, oblong-lanceolate, crenate, petiole 4-10 cm (not linear-lanceolate to linear, crenulate-dentate, petiole 2-3 cm); inflorescence numerous clusters of 1-10 flowers, dichasium with 2-9-flowers, stalk of dichasium 5-10 cm (not with clusters 2-7 dichasiums 3-5 flowered, stalk of dichasium 1-6 cm); Pedicels 2-10 mm (not absent or upto 5 mm); calyx 5-10 mm (not 2-3 mm); corolla without pellucid-punctate (not with pellucide glands); filament with purple-violet woolly (no filament with whitish-yellow woolly); capsule 2-6 x 1-5 mm, globose (not 4-4.5 x 3 mm, elliptic). Table 1 presents a brief comparison of these species.

Additional specimens of *Verbascum ozturkii* examined: B7 Erzincan: Kemaliye-Divrigi 35. km, 1200-1300 m, 12-8-2005, *F.A.Karaveliogullari* 3482, *M.E.Uzunhisarcikli & Sezgin Celik*

Representative specimens of *Verbascum oocarpum* examined: Turkey. B7 Erzincan: Armenia turcica, Sipikordagh, in subalpinis, 12.8.1890, *Sintenis* 3344 (Iso G photo); ibid. 1700 m, 17.viii.2005, *F.A.Karaveliogullari* 3477 *et. al.* (GAZI); ibid. 13.7. 2004, *A.Kandemir* 4051, 6 km from Mutu to Erzincan, 1200 m, *Hub.-Mor.* 10646 (Type of *V. microcymosum*) (ANK).

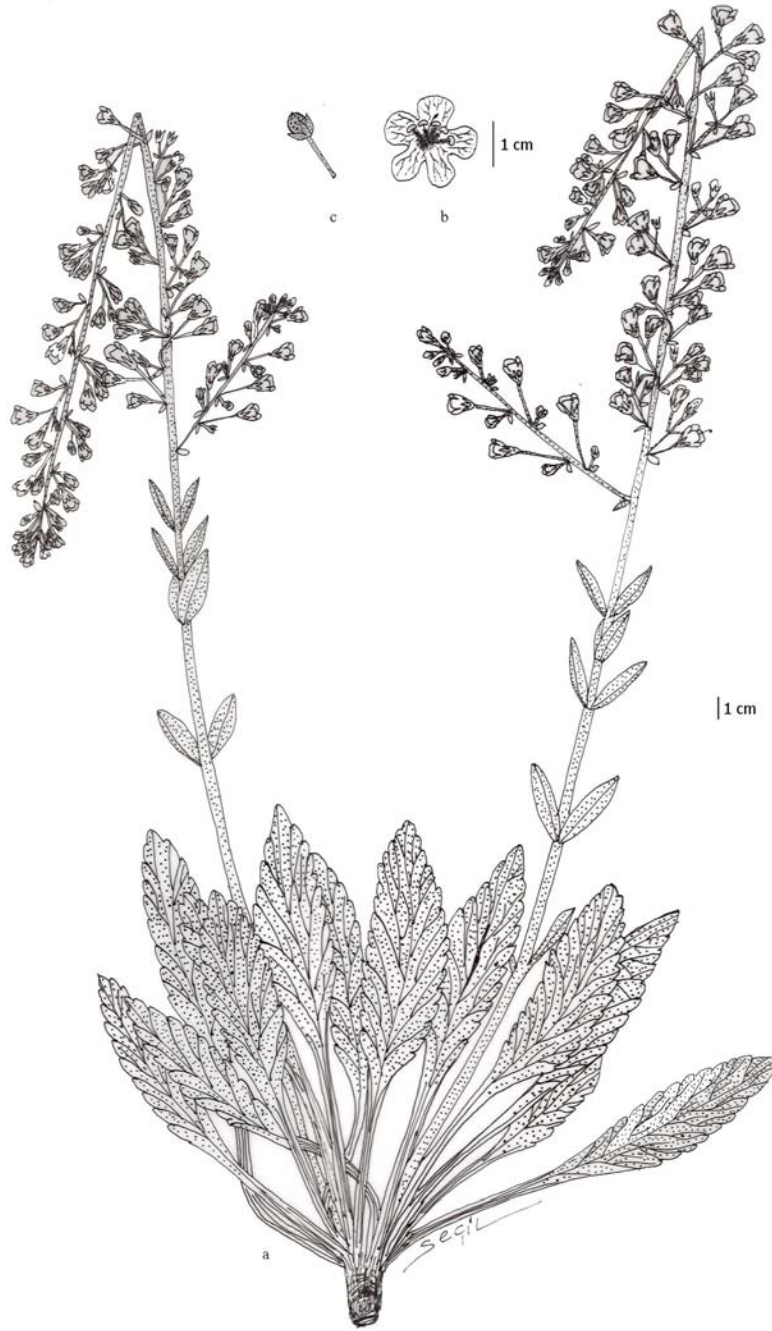


Figure 1. *Verbascum ozturkii* Karavel., Uzunh & S.Çelik a. habit, b. corolla, c. capsul

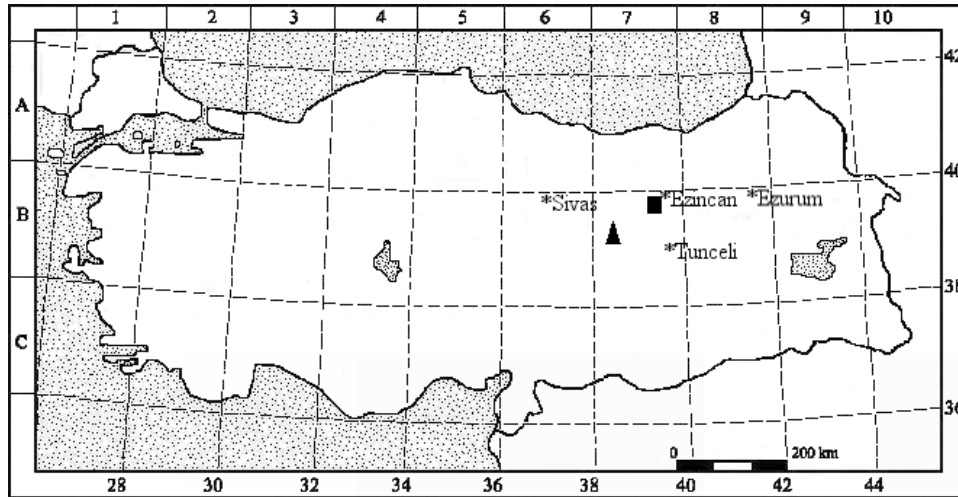


Figure 2. Distribution map of *Verbascum ozturkii* (▲), *Verbascum oocarpum* (■)

Table 1. Diagnostic characters of *Verbascum ozturkii* with the related *V. oocarpum*

Characters	<i>V. ozturkii</i>	<i>V. oocarpum</i>
Hair situation	densely stellate, sparsely stalked glandular	with adpressed fine stellate hairs
Basal leaves	lanceolate, oblong-lanceolate, crenate, petiole 4--10 cm	linear-lanceolate to linear, crenulate-dentate, petiole 2--3 cm
Inflorescence	numerous clusters of 1--10 flowers	with culusters 2--7
Pedicels	2--10 mm	absent or to 5 mm
Calyx	5--10 mm	2--3 mm
Corolla	without pellucid-punctate	with pellucide glands
Stamens	with purple-violate woolly	with whitish-yellow wool
Capsule	2--6 x 1--5 mm, globose	4--4.5x 3 mm, elliptic

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