

A New Record from Turkey: *Verbascum szovitsianum* Boiss. Var. *Szovitsianum* (Scrophulariaceae)

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Abstract: *Verbascum szovitsianum* Boiss. var. *szovitsianum* (Scrophulariaceae) is reported and illustrated for the 1st time from East Anatolia. This new record is confined to B10 Agri-Dogubeyazit. This study represents the diagnostic morphological characters from closely related taxon its ecology and conservation status.

Key words: *Verbascum szovitsianum*, *szovitsianum*, Scrophulariaceae, Agri-Dogubeyazit, ecology, taxon

INTRODUCTION

The genus *Verbascum* L. (Scrophulariaceae) includes about 360 species on Earth (Heywood, 1993). In Turkey, it has 241 species in 13 groups and 129 hybrids (Huber-Morath, 1978; Davis *et al.*, 1988; Vural and Aydogdu, 1993; Karaveliogullari *et al.*, 2004, 2006; Karaveliogullari and Aytac, 2008; Sutori, 2001, 2004; Özhatay, 2006; Kaynak *et al.*, 2006; Parolly and Tan, 2007; Parolly and Eren, 2008). Partly artificial groups are used in the Flora of Turkey (Huber-Morath, 1978) account. All Turkish species of *Verbascum*, belong to sect. *Bothrosperma* Murb. (Murberck, 1925, 1933; Huber-Morath, 1971). In Turkey, 192 (80%) of the 241 species are endemic.

During one of the field trip in East Anatolia (B10 Agri-Dogubeyazit) for revision of Turkish *Verbascum* (Group A) (Karaveliogullari and Aytac, 2008), a locally unusual specimen of *Verbascum* was encountered. At first glance, it looked close to *Verbascum szovitsianum* var. *adenothyrsium*. After closer examination and consultation with the Flora of Turkey (Huber-Morath, 1978, 1971; Davis *et al.*, 1988; Ekim, 2000), it was realized that the specimens were different from *Verbascum szovitsianum* var. *adenothyrsium*. The specimens were cross-checked with various *Verbascum* accounts given in relevant literature e.g., Flora of the USSR (Fedchenko, 1955) Flora Iranica (Huber-Morath, 1981), Flora Palaestina (Feinbrun-Dothan, 1978a, b) and Monograph *Verbascum* (Murbeck, 1933). The specimens have been also cross-checked with the material housed at various European

and Turkish herbaria E, GAZI, HUB, G, ISTE, K and ERE photo!. All plant name researchers are given according to Brummitt and Powell (1992) and (<http://www.ipni.org/index.html>). Eventually, the specimens were identified as *Verbascum szovitsianum* var. *szovitsianum*, which is not previously reported in the literature relating to the Flora of Turkey.

MATERIALS AND METHODS

Taxonomy: *Verbascum szovitsianum* Boiss:

- Inflorescence eglandular hairy (var. *szovitsianum*)
- Inflorescence glandular hairy (var. *adenothyrsium*)

Verbascum szovitsianum Boiss. var. *szovitsianum* Fl. or. 4:333 (1879).

Syntype: Transcaucasia, Karabagh, Szovits (LE); Persia: Prov. Azerbeidjan, Szovits (LE).

Usually biennial, 20-120 cm. Stem robust, terete, simple, stellate-short stalked eglandular hairs. Basal leaves 5.5-14 (Inc. petiole) × 2-2.5 cm, mostly congested at base, lanceolate, crenate, acute, attenuate, densely stellate hairs. Cauline leaves 3-9 × 0.5-1.5 cm, linear-lanceolate, crenate, acute, attenuate, decreasing to flowering part. Inflorescence loose, simple or branched, clusters of flowers pediculate. Bracts 0.5-5 × 0.1-2 mm, elliptic-lanceolate to linear-lanceolate, crenate-entire, acute. Pedicels 2-15 mm. Bracteoles 3-5, 2-10 × 1-3 mm, linear-lanceolate, entire, acute. Caly × 0.5-1 cm, divided almost to base, ovate-lanceolate to elliptic, acute. Corolla 10-30 mm

diam, yellow, tube 2 mm, lobes unequal, orbicular, with pellucid-punctate, stellate tomentose outside. Stamens 5, 4-7 mm, filaments 5-6 mm, with whitish-yellow woolly, 2 anterior glabrous near apex, anthers reniform. Ovary oblong, Stylus 5-7 mm, filiform. Stigma 2-3×0.5 mm, spatulate. Capsule 3-8×2.5-4.5 mm, oblong, densely stellate or rarely sparsely glandular, Fl. 5-7. Steppe, limestone slopes, volcanic rock, calcareous stony slopes, 1100-1860 m.

RESULTS

Examined specimens

Verbascum szovitsianum var. *szovitsianum*: B10 Agri: Dogubeyazit, Dogubeyazit-Agri 15 km, 1750 m, 09 vi 2001, calcareous stony slopes, Karaveliogullari 3066, Ekici and Akan; Dogubeyazit, 1860 m, 12 vii 2002, steppe, calcareous stony slopes, Karaveliogullari 3370 and Çelik; Dogubeyazit, Sari Çavus village, 1100 m, 09 vi 2001, calcareous stony slopes, steppe, Karaveliogullari 3061, Ekici and Akan; ibid. 19 vii 2001, Karaveliogullari 3134, Aytaç, Ekici and Akan (GAZI).

Verbascum szovitsianum var. *adenothyrsus*: Turkey, B9 Van: Güzelsu-Güzeldere, 1840 m, 26 vii 1983, steppe, Nyddegger 18482 (GAZI, HUB, G); Toprakkale, hill above Van, 1700 m, *Hub-Mor.* 8817 (ISTE); B10 Agri: 3-4 km E of Dogubeyazit, 1750 m, D 43956 (ANK, E); Saray-Serdarbulak, 06 vi 1930, Schelkovnikov (ERE photo); ibid 12 vii 2002, steppe, calcareous stony slopes, Karaveliogullari 3373 and Çelik (GAZI).

DISCUSSION

Verbascum szovitsianum Boiss. var. *szovitsianum*, the distribution of which has not been recorded previously in Turkey, is distributed in Azerbaijan (Huber-Morath, 1978).

Verbascum szovitsianum Boiss. var. *szovitsianum* is closely related to *Verbascum szovitsianum* Boiss. var. *adenothyrsus* Murb. However, var. *szovitsianum* differing from Var. *adenothyrsus* on its eglandular inflorescence.

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