



Verbascum shahsavarensis (Scrophulariaceae), a new species for Flora of Iran

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Abstract

A new endemic species, *Verbascum shahsavarensis*, is described from north of Iran. Based on two unique characters of this species, these being two anterior longitudinally obliquely inserted anthers and an ebracteolate pedicel, we compared it to species described by Murbeck in 1933. The new species can be easily distinguished from the other Iranian species by having bi-colored hairs on the stamen filaments and the unique anther and pedicel characters. A distribution map is provided. The name of new species comes from Shahsavar, the ancient name of Tonekabon, an old coastal city on the Caspian Sea.

Introduction

The genus *Verbascum* Linnaeus (1753: 177) (Scrophulariaceae) in Iran includes 43 species and four hybrids (Huber-Morath 1981, Sharifnia 2011, Sotoodeh *et al.* 2014), of which 19 are endemic. The genus has been divided in *Flora Iranica* into two groups based on indumentum type and the number of flowers in each axil (Huber-Morath 1981). *Verbascum* is widespread in Iran, but more species are found in the Northwest of Iran (Huber-Morath 1981) including Irano-Turanian and Hyrcanian regions than in the southern desert regions and rarely in some mountains peaks (e.g., Mt. Geno in south of Iran) in the transition of the Irano-Turanian and Saharo-Sindian regions. The ecology of the genus in Iran is very diverse, with species occurring in wet or arid plains, forests and alpine regions (Huber-Morath 1981). In Iran most of the species of *Verbascum* have a restricted distribution with the exception of *V. cheiranthifolium* Boissier (1844: 56) and *V. songaricum* Schrenk ex Fisch & Meyer (1841: 26), which have the broadest distribution in Irano-Turanian region.

During a fieldtrip in the north of Iran in 2014, we collected an interesting specimen of *Verbascum* near Tonekabon, on Sehezar region, at the elevation of 1570 m on rocks above the tree line. This specimen has some characters which separate it from the others Iranian species, including the bi-colored hairs on the stamens' filaments, and these are violet in the lower part and white above (Fig. 1 D). This character is found only in this new species.

Material and methods

The new species was encountered during the systematic revision of *Verbascum* from Iran as part of the first author's Ph.D thesis. All herbarium specimens of Iranian species were studied at MPU, TUH, HKS, K, BM, and TEH (Holmgren *et al.* 1990) and also from specimens scanned from other Herbaria and accessed in Jstor Global Plants (plant.jstor.org) and several floras (Murbeck 1933, Parsa 1952, Huber-Morath 1978, Huber-Morath 1981, Fedtschenko 1997, Sharifnia 2011).

Description of the new species

Verbascum shahsavarensis Sotoodeh, Attar, Civeyrel, *sp. nov.* (Fig. 1–3)

Planta versimiliter biennis vel perennis, tota denso-griseo stellato-ramosa, usque 70 cm alta. Caules teres, simplex, superne ramos longifloriferos, foliatus. Folia integrimma, acuta; basalia petiolo 3–7 cm longo praedita; lamina oblonga, 28–32 ×

Verbascum spectabile:—Turkey. Giresum-Susehri, 1700 m, 1977, *Max Nydegger 12948* (P, image!); Tauria, 1875, (P, image!).

Verbascum wiedemannianum:—Turkey. Karasar-Gecidi, 1650m, 1987, *Nydegger 15535* (P, image!); Merzifoun, 1891/92, *Manissadjian 182* (P, image!); Wilajet Kastambuli Tossia Seke, *Sintensis 4010* (P, image!); Arac-Kastamonu, 1985, *Norman 7* (K!); SE of Bayburt, 1150m, 1965, *Mathew & Tomlinson 4340* (K!); Keyseri-Bonyan, 1954, *Davis 21793* (K!).

Verbascum siculum:—Italy. Bosco Bauli Siracusa, 1976, *Brullo 057058* (CAT, image!).

Verbascum virgatum:—1885, *Beddome 5631* (BM!); France. Rennes, *Legris* (P, image!); Cognac-le-Froid, 1954, *3190* (P, image!); Spain. Huelva Galarosa, 1931, *E. Gros* (P, image!).

Verbascum microcarpum:—Mesopotamia, 1837, *Aucher-Eloy 2458* (P, image!).

Verbascum hervieri:—Spain. Le Pozo, 1500m, 1905, *Elisée Reverchon 1375* (P, image!); Image from flora Iberica!

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