

Onosma bisotunensis (Boraginaceae), a New Species from Western Iran

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ABSTRACT. *Onosma bisotunensis* Attar & Hamzeh'ee (Boraginaceae), a new species from western Iran, is described and illustrated. It is distinguished from its nearest relative, *O. hebebulbum* DC., by having a pilose (vs. glabrous) nectariferous ring, a bilabiate (vs. regular) calyx with two or three basally connate (vs. free) lobes and larger corolla ca. 19 mm (vs. 15 mm) long and pubescent (vs. densely villous) outside, and anthers 8–8.5 mm (vs. 6–7 mm) long.

Key words: Boraginaceae, Iran, *Onosma*.

During recent floristic and phytosociologic studies in western Iran by the second author, many new or rare species were collected. Among these is a new species of *Onosma* L. (Boraginaceae) described below as *O. bisotunensis* Attar & Hamzeh'ee. *Onosma* includes about 55 species, of which 17 are endemic to Iran, where they are distributed primarily in the central, western, and southwestern portions of the country (Riedl, 1968). The new species has stellate hairs and belongs to a group of 11 Iranian species distributed in Kurdistan, Kermanshah, and Boyer-Ahmad provinces of the Zagros Mountains (Riedl, 1968; Ghahreman & Attar, 1996).

Onosma bisotunensis Attar & Hamzeh'ee, sp. nov.

TYPE: Iran. Kermanshah: Kermanshah–Kamyaran rd., Vermanjeh, 1500–1700 m, 15 Apr. 2001, Behnam Hamzeh'ee & Unes Asri 80844 (holotype, TARI). Figure 1.

Perennis, basi lignosa, usque 25 cm alta. Folia basalia ovata vel spathulata 1.5–2 × ca. 1 cm, petiolo breviusculo 0.5–2 cm, indumento e setis appressis basaliter tuberculis pilosis praeditis et inter setas e pilis brevibus numerosissimis obsita; folia caulina acuta vel apiculata. Inflorescentiae subcapitatae, terminales; bracteae ovatae, ca. 18 × 6 mm, superiores anguste lineares, usque 10 × 1.5 mm; pedicelli usque 3 mm longi, setosi. Calyces ca. 13 mm longi, bilabiati albido-setosi, lobis ca. 2 mm latis; corolla ca. 19 mm longa, flava, in sicco cyanea, campanulato-cylindrica, extra pubescens, intus glabra, lobis 5, triangularibus, 2–2.5 × ca. 2 mm, revolutis; annulus nectarifer villosus;

filamenta compressa basin versus angustata, ca. 7 mm longa, fere ca. 7 mm supra basin corollae inserta; antherae 8–8.5 mm longae, sagittatae, lineares, per totam longitudinem liberae, basibus raro cohaerentibus, subexsertae; stylus filiformis, corollam superans; stigma minutissimum. Nuculae ignotae.

Perennial, woody at base, up to 25 cm tall; flowering stems ascending, simple or branched above; setae patent or adpressed, with indistinct glabrous or pilose tubercle at base, densely shortly pubescent between setae. Basal leaves ovate or spatulate, 1.5–2 × ca. 1 cm, petiole 0.5–2 cm, with long-adpressed setae on stellate-pilose tubercles, sparsely pubescent between setae; stem leaves 20–30 × 8–13 mm, remote, ovate, sessile, acute or apiculate. Inflorescences densely congested, subcapitate, 1 or 2; lower bracts leaf-like, ca. 18 × 6 mm; upper bracts narrowly linear, up to 10 × 1.5 mm; pedicel up to 3 mm, setose. Calyx ca. 13 mm, lobes ca. 2 mm wide, bilabiate, 2 or 3 connate, densely covered by appressed setae and pubescence, white at base with sericeous setae; corolla ca. 19 mm, yellow, sometimes dark blue with age, cylindric-campanulate, pubescent outside; lobes 5, triangular, 2–2.5 × ca. 2 mm, revolute; nectariferous annulus villous; filaments ca. 7 mm, compressed, attenuate toward base, inserted ca. 7 mm above the base; anthers 8–8.5 mm, sagittate at base, with sterile tips, slightly exserted, free or rarely connate at base; style filiform, long-exserted; stigma small. Mature achenes unknown.

Habitat. *Onosma bisotunensis* grows in *Quercus brantii* Lindley and *Acer monspessulanum* L. communities on limestone substrates. This species was found only in a limited area, and we could not find any specimens in other herbaria such as TARI, TUH, and IRAN.

Relationships. *Onosma bisotunensis* is distributed in a small area of Kermanshah Province in western Iran. It is distinguished from its nearest relative, *O. hebebulbum* DC., which is distributed between Mehran



Attar, Farideh and Hamzeh'ee, Behnam. 2007. "Onosma bisotunensis (Boraginaceae), a New Species from Western Iran." *Novon a journal of botanical nomenclature from the Missouri Botanical Garden* 17, 279–279.

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