

ONOSMA STRAUSSII AS A NEW COMBINATION AND SOME NEW PLANT RECORDS IN IRAN

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Khatamsaz, M. 1992.12.1: *Onosma straussii* as a new combination and some new plant records in Iran. -Iran. Journ. Bot. 5(2): 75-82. Tehran.

The new combination *Onosma straussii*, based on *O. cyrenaicum* Durand & Bar. subsp. *straussii* Riedl is made. More to a complete description of the new combination, a table showing differences of it with *O. cyrenaicum* and *O. bulbotrichum* is presented.

Seven species including *Onosma ambigens*, *O. azureum*, *O. cornutum*, *O. intertextum*, *O. procerum*, *O. rechingeri* and *O. tschichatschevii* are recorded as new plant records for the flora of Iran.

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ترکیب جدید *Onosma straussii* و گزارش گونه‌های جدیدی از ایران
محبوبه خاتم‌ساز

ترکیب جدید *Onosma straussii* براساس نام *O. cyrenaicum* Durand & Bar. subsp. *straussii* Riedl ساخته می‌شود. شرح کاملی برای ترکیب جدید ارائه و اختلاف آن با گونه‌های *O. bulbotrichum*, *O. cyrenaicum* به صورت جدول نمایش داده می‌شود. گونه‌های زیر به عنوان گزارشی جدید برای اولین بار از ایران ذکر می‌گردند. *Onosma ambigens*, *O. azureum*, *O. cornutum*, *O. intertextum*, *O. procerum*, *O. rechingeri*, *O. tschichatschevii*

INTRODUCTION

The *Boraginaceae* family in Iran in the project of "Flora of Iran in Farsi" has been subject to studies. In the genus *Onosma*, *O. cyrenaicum* Durand & Bar. subsp. *straussii* Riedl was observed. This subspecies has been called *O. iranicum* Hausskn., nom. nud., *O. bulbotrichum* DC. var. *rubriflorum* Bornm. and *O. xanthotrichum* Boiss. var. *rubriflorum* (Bornm.) Riedl in the past. Further studies has shown that, this subspecies is an independent speccis. Table 1 shows its discrepancies with mentioned species. Since the name *O. iranicum* was given to another plant by Parsa 1948, *O. straussii* was chosen for the species as a new combination. Due to the lack of complete description for this species, effort was made to describe it completely. Also in these studies 7 species have been identified as new records from Iran.

NEW COMBINATION

Onosma straussii (Riedl) Khatamsaz, **comb. nov.**

Syn.: *O. cyrenaicum* Durand & Bar. subsp. *straussii* Riedl, Fl. Ir. no. 48: 192 (1967); *O.*

iranicum Hausskn., Mitt. Thür. Bot. ver. N.F. 12:7 (1898) nom. nud., non Parsa (1948); *O. bulbotrichum* DC. var. *rubriflorum* Bornm., Beih. Bot. Centrbl. 20/B:186 (1906); *O. xanthotrichum* Boiss. var. *rubriflorum* (Bornm.) Riedl, Acta Univ. Bergensis. ser. Math. - Nat. 1962: 43 (1962).

Perennial or biennial. Stems to several, becoming woody at base, erect, branched above, 20-40 cm high, densely clothed with long white stout setae and with shorter deflexed hairs. Radical leaves linear or linear-lanceolate, up to 150 mm long and 10 mm wide, narrowed at base, acute or obtuse. Cauline leaves linear or linear-lanceolate. Inflorescence consist of 1-3 terminal or lateral cymes, many-flowered, scorpioid, then elongated. Bracts up to 20 mm long, narrowly lanceolate, acute. Pedicels in fruit up to 3 mm long. Calyx in fruit 15 mm long. Corolla red or pinkish, 15-20 mm long, clavate-campanulate, glabrous; lobes 5 narrowly triangular, up to 4 mm long. Anthers 8-10 mm long, linear, completely exserted, free. Annulus pilose. Style long, exserted. Nutlets glabrous, shining, minutely beaked.



Fig. 1. *Onosma straussii* (x 0.5; corolla x 0.85)

Table 1: Differences between *Onosma straussii*, *O. cyrenaicum* & *O. bulbotrichum*

<i>O. straussii</i>	<i>O. cyrenaicum</i>	<i>O. bulbotrichum</i>
Radical leaves linear or linear-lanceolate.	Radical leaves oblong-spathulate.	Radical leaves linear or linear-spathulate.
Flowers red or pinkish, never yellow.	Flowers yellow, purplish or blue.	Flowers yellow to whitish.
Calyx up to 15 mm, not enlarged in fruit.	Calyx 18-25 mm, enlarged in fruit.	Calyx 15-20 mm, enlarged in fruit.
Pedice! short, not longer than 3 mm.	Pedice! long to 10 mm.	Pedice! up to 10 mm.
Corolla clavate-campanulate, 15-20 mm long, with 3-4 mm narrow lobes.	Corolla cylindrical-campanulate, 30-40 mm long, with 2 mm broad lobes.	Corolla cylindrical-campanulate, 18-22mm long, with broad triangular lobes.
Anthers completely exerted.	Anthers not exerted.	Anthers included or in sterile tips exerted.
Style longer than corolla.	Style not longer than corolla.	Style longer than corolla.
Nutlets minutely beaked.	Nutlets beaked.	Nutlets with strongly incurved beak.
Dist. Endemic in Iran.	Dist. Endemic in Libya, Gebel Akhdar area (Kaiser, 1979).	Dist. Turkey, Iran, Iraq and Afghanistan.

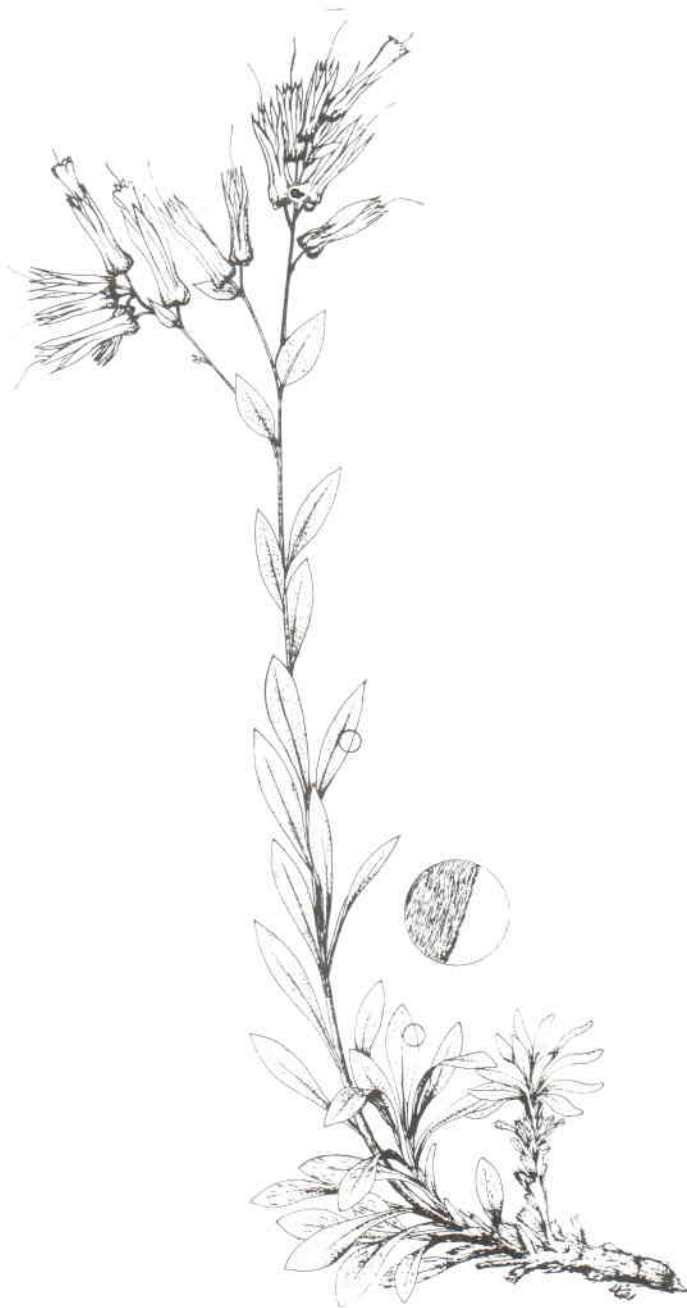


Fig. 2. *Onosma cornutum* (x 0.62)

Specimens seen: Luristan: Khoramabad, 1400 m., Reyhani 25075; Kuhkilouyeh: 46km. E. of Dugonbadan, 900 m., Pabot 25623; Chaharmahal-e Bakhtiari: Road from Lordegan, to Dourahan, Pol-e Abvanak, 1800 m., Mozaffarian 54989; Khuzistan: 47 km to Masjed-Soleiman from Haftgel 300 m., Assadi & Abouhamzeh 38935; Ahvaz, 27 km. E. of Andimeshk, Pabot 25626; Izeh, 46 km on Haftgel road, 650 m. Riazi 9538; Kosh, mountains of Masjed-Soleiman, 750 m, Telvary 186.

NEW RECORDS

Onosma ambigens Lacaita

Bakhtaran: Tang-e Dalkushiar, W. of Kerend, 1450 m, on limeston rock, Wendelbo & Assadi 16782; Lorestan: Tang-e Tir ca. 40 km. W. of Khorramabad, 1300 m, Wendelbo & Assadi 16523.

A new record for Iran and K.H. Rechinger Flora Iranica area (Riedl, 1967). The closest locality to the above mentioned gathering is in E. of Turkey (Davis, 1978). It was found in the *Quercus* forest under *Quercus brantii*.

Onosma azureum Schipcz.

Semnan: ca 50 km N. of Semnan, between Sheli and Hikuh villages, 2400 m, Assadi & Mozaffarian 40621.

A new record for the flora of Iran. It was found in *Quercus macranthera* forest. Previously known from a wet place in Central Asia.

It is recognized easily within the Iranian representatives of the genus by having large sky-blue color of corolla, not changing.

Onosma cornutum Riedl

Lorestan: Dorud, neck Mt. between Saravand and Gahar lake, 2300-3500 m, Mozaffarian & Sardabi 42385; Azerbayejan: 25 km on road from Sardasht to Baneh, 1400 m, Runemark & Mozaffarian 25941; 33 km to Shahpur on road from Khoy, 1500 m, Assadi & Mozaffarian 30483; Razhan, 2200 m, Sabeti 2900; Urmiyeh, Pesan, 1800 m, Sabeti & Siami 3121.

A new record for the flora of Iran. previously, it was known from the



Fig. 3. *Onosma intertextum* (x 0.45; flower x 1.42)

Iraq-Kurdistan (Riedl., 1962).

Onosma intertextum Hub.-Mor.

Bakhtaran: 45 km NW. of Kerend, Dalahu mountains, 2000-2200 m, Assadi 60835.

A new record for Iran which was not included by Riedl (1967) in K.H. Rechinger Flora Iranica. Previously it had been known from W. of Turkey.

Onosma procerum Boiss.

Kurdistan: Sanandaj, Zalleh Research Station, 1540 m, Fattahi 1182.

The closest locality to the Iranian gathering is in Turkish *Quercus* forests.

Onosma rechingeri H. Riedl

Kurdistan: Marivan, Famishleh area, 1700-1900 m, Tavakoli & Khaledian 2633; Kamiaran, *Quercus* afforestation area, s.n.

This species was described from Turk.-Kurdistan (Riedl, 1961). The closest locality to the Iranian gathering is in Hakkari of Turkey (Davis, 1978).

Onosma tschichatschevii Popov.

Bakhtaran: 43 km N. of Bakhtaran, above

Meimoonabad, 1900 m, Fattahi & Hamzehee 672.

A new record for Iran. Previously it was known from W. of Turkey. It grows in scattered mixed *Amygdalus*, *Pistacia*, *Acer*, *Ficus* and *Celtis* shrubland.

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