

NOTES ON DIONYSIA, CORYDALIS AND FUMARIA IN IRAN

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Dionysia mozaffarianii is described as new to science. *Corydalis hausknechtii* Lidén, *C. seisumsiana* Lidén and *Fumaria officinalis* L. subsp. *officinalis* are reported for the first time from Iran. New records are presented for *Corydalis hyrcana* Wbo.

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Key words. Iran, new species, new records, *Dionysia*, *Corydalis*, *Fumaria*

نکاتی در مورد جنسهای *Dionysia*، *Corydalis* و *Fumaria* در ایران

ماگنوس لیدن

گونه *Dionysia mozaffarianii* به عنوان گونه جدیدی برای علم گیاهشناسی شرح داده می شود. گونه های *Corydalis hausknechtii* و *C. seisumsiana* و زیرگونه *Fumaria officinalis* subsp. *officinalis* برای اولین بار از ایران گزارش داده می شود. نمونه های جدیدی از گونه *Corydalis hyrcana* جمع آوری شده است.

Introduction

This short note includes some findings made during a visit to Iran in spring 1998, partly experiences from SLIZE (Swedish-Latvian-Iranian Zagros Expedition), and partly discoveries made in the herbarium of the National Botanical Garden of Iran (TARI).

Dionysia mozaffarianii Lidén, *sp. nov.*; Fig. 1.

Caespites densi efarinosi, ramis cylindricis dense foliatis foliis dense imbricatis. Lamina late obovata apice tri-vel raro quinque-lobata, exterioris sparse glandulosa, interioris inferne nuda, superne hirsuta, margine plano sparse ciliato. Bractee 2, spathulatae, plus minusve ciliatae. Calyx usque ad basin in lobis linearao-oblongis subacutis divisus. Flos brevistylis 9 mm, longistylis 13 mm longus. Corolla coeruleo-purpurea, limbo in lobis late obovatis emarginatis diviso. Ovulis 4. Species valde peculiaris.

Typus. Iran: Chaharmahale Bakhtiari, Semirom, just at the entrance into the city from the Shahreza road (31° 26'N, 51° 35'E, 2400 m, 17.5. 1998, SLIZE (Lidén, Mozaffarian, Popp and Seisums) 232

(UPS-holo), separate number, Mozaffarian 77912 (TARI-iso).

Cushions dense, 5-15 (?) cm in diameter, green, appearing composed of quite distinct columns; branches densely leafy with old leaves persisting for a few years; basalmost branches naked. Leaves 3 mm long, slightly incurved and densely overlapping, apically divided into 3 (-5) obtuse lobes; lower leaves on each branch clearly stalked with small lamina 1 mm broad; middle and upper leaves 2 mm broad, broadly obovate, indistinctly stalked, sparsely glandular with very short hairs on the outer side, inner side with rather long hairs (0.3 mm) in upper half, glabrous below; margin sparsely ciliate. Flowers sessile. Bracts 2, spatulate, entire or rarely with one or two indistinct teeth, sparsely hairy, more or less ciliate, 3-3.5 mm long. Calyx 3.5 mm long, divided almost to the base; segments linear-oblong, subacute, slightly keeled towards the base. Corolla bluish purple, sparsely and shortly hairy. Long-styled flower 13 mm long, style not exerted; short-styled flower 9 mm long. Limb 6 mm wide with 5 broad slightly emarginate segments. Anthers 1.5 mm long. Ovary with about 4 ovules.

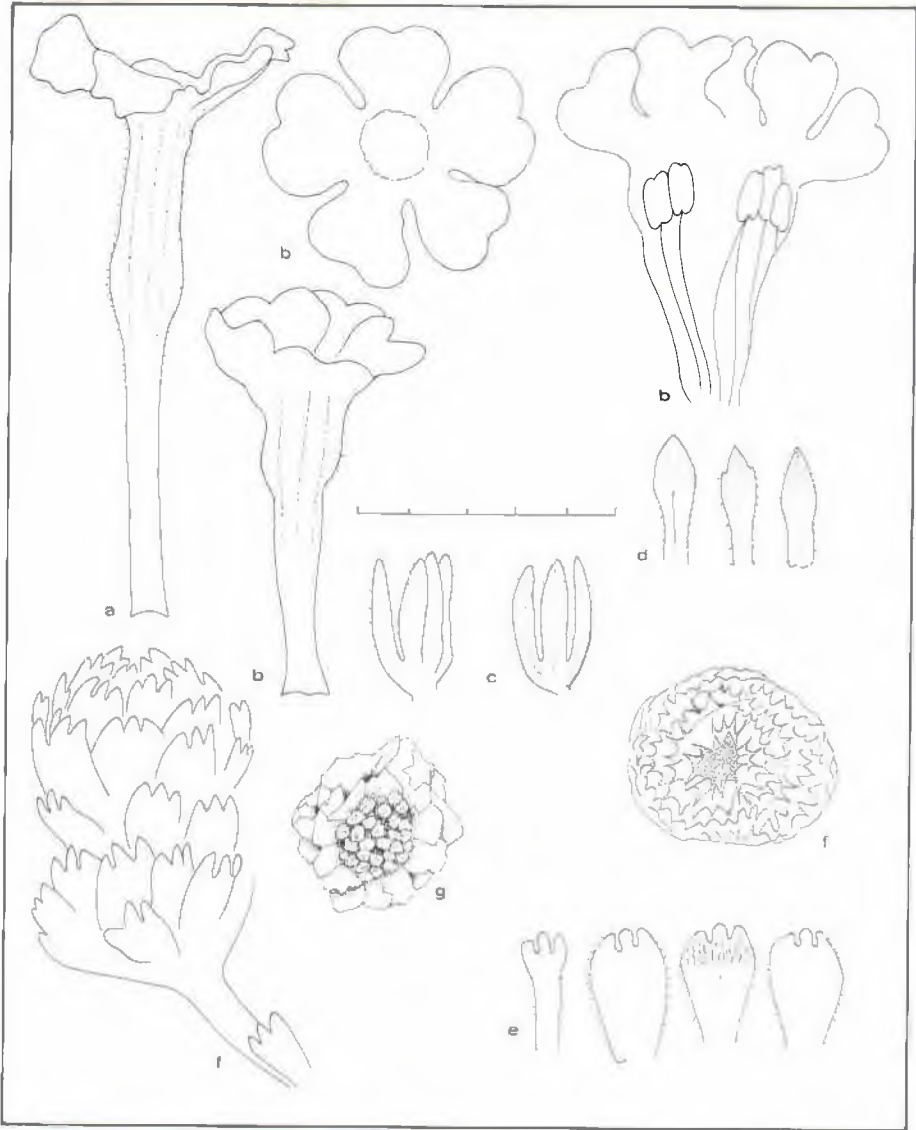


Fig. 1. *Dionysia mozaffarianii* type: a) logstyled flower, b) shortstyled flower, c) calyx, d) bracts, e) leaves (third one shows upper side of lamina; shading indicates green parts), f) flowering branch, side view and from above (flower removed), g) young cushion. Scale: 5 mm (not for g).

Dionysia mozaffarianii grows on semihard limestone cliffs facing northwest to southwest at 2400 m. It is not wholly confined to vertical or overhanging substrate, but also grows on more gently sloping rocks. *Dionysia mozaffarianii* cannot be confused with any other species and it is not clear what are the closest relatives, but it fits reasonably well in the subsection *Bryomorphae* Wbo. The early leaves produced in cultivation are considerably larger and thinner and frequently have 5 short lobes at apex.

Only known from the type locality. It was discovered some years ago by V. Mozaffarian, but no herbarium specimens were taken. In 1998 it was, however, collected by the SLIZE expedition under the guidance of VM, and it is now in cultivation in the botanic gardens of Göteborg and Uppsala (Sweden) and with a few other *Dionysia*-growers.

***Corydalis hyrcana* Wbo, Fl. Iran. 110: 14 (1974).**

This species grows in shady places in rich fertile loam in the hyrcanian forest. Both in its habit of growth and choice of habitat it differs from other species of the section *Leonticoides* DC. and is reminiscent of

Corydalis cava. (L.) Schweigg. & Körte. It is probably most closely related to *C. seisumsiana* and *verticillaris* but differs substantially from both in the broad-lobed green foliage, the coarse spur and the very broad flowers. It is apparently a rare species, with 5 known localities to the N and NE of Tehran between 500 and 2270 m. It was found by SLIZE in the type locality Siah Bisheh and is now in cultivation in the Botanic Garden of Göteborg. N. B. A better known Siah Bisheh [black forest] is situated further to the west and at a higher altitude. This has caused some confusion in the past.

Iran: Mazandaran: Siah Bisheh (36° 07' N, 52° 21' E, locus classicus), 500-600 m, 10/5 1998, SLIZE (Assadi, Lidén, Popp and Seisums) 42 (GB, TARI) Pol-e Sefid above Sangdeh, 1700-2200 m, "scattered *Fagus* forest beside snow", 24/5 1995, Assadi 73288 (TARI); 14 km from Kordkoy to Radkan, 2270 m, 20/5 1986, Maassoumi 55031 (TARI); Firozkuh, Pole Veresk, 1740 m, 15/4 1971, Foroughi 1227 C (TARI, mixed coll. *C. verticillaris*). Tehran: Rudshour, on Saveh road, 1000 m, 6/6 1968, Babakhanlou 9730 (TARI).

Azerbaijan: Talysh: near village Burzunbul 15 km NW Lerik, forest dominated by

Fagus orientalis. 700-800 m, 28/4 1987, Ruksans, Seisums & Zobova, RSZ 87-44 (no herbarium specimen). Arnis Seisums grew this plant for a couple of years in Salaspils (Latvia), but subsequently lost it. A colour slide of the cultivated plant constitutes verification (UPS).

Regarding the taxonomic and nomenclatural confusion surrounding this species, see Lidén 1998.

Corydalis seisumsiana Lidén, Willdenowia 26: 32 (1966).

Iran: Azarbaijan: ca 30 km NE Marand, Kuhkamar village, 2000-2600 m, Assadi & Shahsavari 65622 (TARI).

This species of the section *Leonticoides* has not previously been recorded for Iran, but is not unexpected, as the formerly known localities are just across the river in Nakhichevan. See Lidén & Zetterlund (1997) for distribution maps and illustrations.

Corydalis haussknechtii Lidén, Notes Roy. Bot. Gard. Edinb. 45: 358 (1989 [1988]).

Iran: Azarbaijan: SW Rezaiyeh, pass between Dizeh and Ushnuiyeh, 1750 m,

"sloping meadow near snow bed, flowers pale lilac", 25/5 1976, Runemark & Foroughi 19870 (TARI).

The distribution of this species, previously known from Turkish and Iraqi parts of Kurdistan, is now shown to extend into Iran. Apart for *C. angustifolia*, it is the only Iranian species of the mainly Anatolian *C. wendelboi* group, belonging systematically in series *Helicosyne* Lidén of subsect. *Corydalis*. See Lidén & Zetterlund (1997) for distribution maps and illustrations.

Fumaria officinalis L., Sp. Pl. (1753), subsp. **officinalis**

Iran: Gorgan: Golestan park, S of Tang-e Rah, open rocky S-facing slope in forest, 550 m, Wendelbo, Foroughi, Sanii, & Shirdelpur 11042 (TARI).

This species, which is a common cosmopolitan weed, has not been previously recorded from Iran.

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