

A new subspecies of *Cortusa matthioli* (Primulaceae) from N. Iran

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Abstract

*Cortusa matthioli* L. ssp. *iranica* ssp. nov. is described from the Central Elburz Mountains of Iran. It is intermediate between ssp. *turkestanica* (A. LOZ.) stat. nov. from C. Asia and ssp. *matthioli* of Central Europe. The genus was previously not known to occur in Iran.

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زیر گونه جدیدی از گونه *Cortusa matthioli* (Primulaceae) از شمال ایران .  
از: موسی ایرانشهر و پروندل‌بو

خلاصه

زیر گونه جدید *Cortusa matthioli* L. ssp. *iranica* از کوه‌های البرز مرکزی ایران گزارش داده میشود. این زیر گونه بینابین زیر گونه جدید *ssp. turkestanica* (A. LOZ.) stat. nov. از آسیای مرکزی و زیر گونه *ssp. matthioli* از اورپای مرکزی است. این جنس قبلاً " در ایران مشاهده نشده بود .

## Introduction

During a collecting trip to the Sang-Deh area on the forested northern side of the Central Elburz Mountains, J. RENZ and M. IRANSHAHR came across a stand of a *Cortusa*, a genus previously unknown to Iran (cp. WENDELBO 1965, 26).

The Asiatic members of the genus *Cortusa* were treated by LOZINA-LOZINSKAJA (1936) who described several new species. Before this paper was published, the genus was often considered to be monotypic with one variable species that could be divided into several infraspecific taxa. The difficulty in treating the *Cortusa* taxa as distinct species, however, became apparent in the treatment of the genus for Flora U.S.S.R. by FEDOROV (1952). He referred no less than 4 of the species of LOZINA-LOZINSKAJA to synonymy and he also mentioned transitions between some of the remaining species due to hybridization. Also WENDELBO (1965, 27) pointed out difficulties in getting a clear picture of the 2 species occurring in Afghanistan.

The plants collected in the Elburz Mountains seem to come closest to *C. turkestanica* A. LOZ. known from Tien-Shan and Pamir-Alai regions of Central Asia (LOZINA-LOZINSKAJA 1937, 240-241) and the eastern Hindukush of Afghanistan (WENDELBO 1965, 26). But the material also shows certain similarities to the European *C. matthioli* L. The characters separating these three taxa from each other are in our opinion not good enough to merit specific distinction. We have therefore reduced *C. turkestanica* to a subspecies under *C. matthioli* and described the Iranian plant as a new subspecies under the same species. Several of the other Asiatic species probably should follow suit and be reduced, but we have refrained from making the formal transfer of any of these species as they are outside the scope of our paper.

### *Cortusa matthioli* L.

ssp. *iranica* IRANSHAHR et WENDELBO, ssp. nov.

Lamina folii 5-7.5 x 5-7 cm, late ovato-orbiculata usque suborbiculata, 9-11-lobata lobis 1.5-2 cm

longis semiorbiculatis, 3-lobulatis, grosse dentatis dentibus late triangularibus, acutis, supra sparse appresse pilosa vel subglabra, subtus secus nervum medianum  $\pm$  dense pilosa; petiolus 8-10 (-16) cm longus pilis 1.5-2 mm longis, articulatis, albis, patentibus sparse usque  $\pm$  dense obtectus. Scapus sub anthesi (11-) 18-22 cm longus, basi c. 2 mm diam., sparse pilosus. Bractee 8-10 mm longae, subrhombicae, laciniatae. Umbella (2-) 5-9 -flora. Calyx 4.5-5 mm longus, campanulatus lobis 3 mm longis, 1.4-2 mm latis, triangulari-ovatis, acutis glandulis minutis sparse obsitus. Corolla 10-12 mm longa lobis 5-6.5 mm longis, 3-4 mm latis, elliptico-oblongis, apice rotundatis. Antherae c. 4 mm, longae sinus corollae excedentes. Capsula immatura c. 8 mm longa.

Iran. Mazandaran: Above Sang-Deh c. 30 km SE of Pol-e Sefid, 2500-3000 m, 11, VII. 1974, J. RENZ and M. IRANSHAHR 16804, holotypus Herbarium of the Ministry of Agriculture, Evin, Tehran, isotypus GB, TARI.

### *C. matthioli* L.

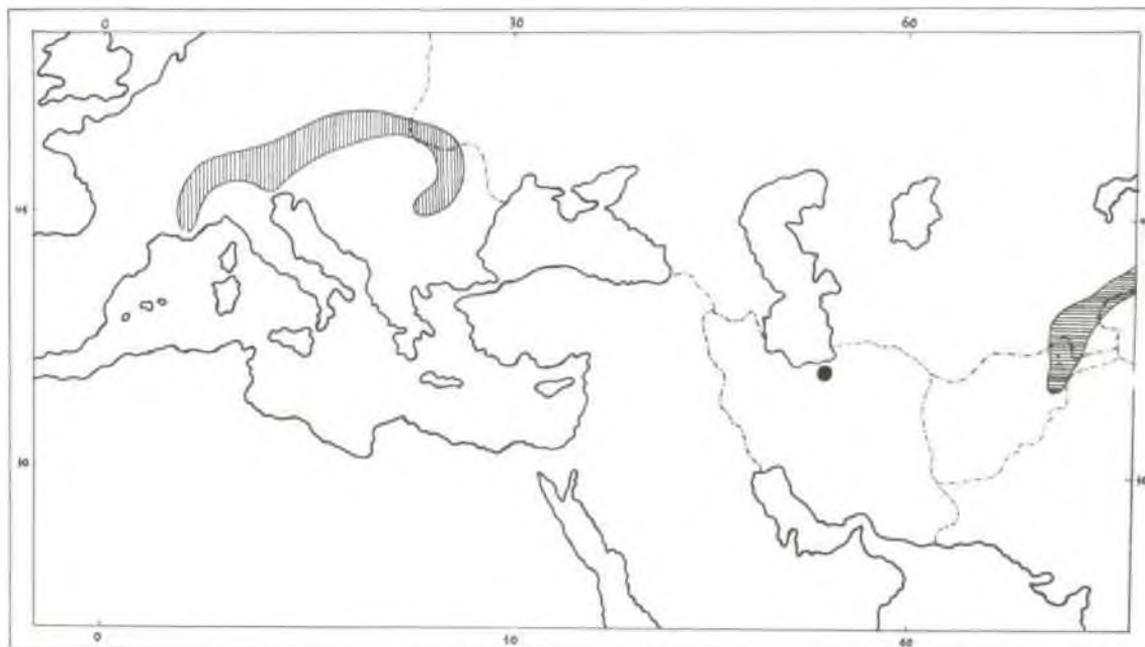
ssp. *turkestanica* (A. LOZ.) IRANSHAHR et WENDELBO, stat. nov. Basionym: *C. turkestanica* A. LOZ., Acta Instituti Botanici Academiae Scientiarum URSS Ser. 1, fasc. 3: 239; 1937.

Ssp. *iranica* differs from ssp. *matthioli* in the distinctly broader ovate-triangular calyx lobes (not narrowly triangular, and acuminate) and in the slightly larger corolla with rounded (not acutish) lobes. Generally the leaves are also more rounded in outline. From ssp. *turkestanica* it differs in the broadly triangular, acute teeth of the leaves and in the smaller calyx with acute (not rounded) lobes as well as in the smaller corolla with apex of anthers exceeding the sinuses between the corolla lobes.

Phytogeographically the occurrence of a representative of *Cortusa* in the Elburz Mountains is interesting. Ssp. *matthioli* occurs in C. Europe (c. 2800 kms to the WNW) and there is no representative of the genus recorded from the Caucasus. There is also a large disjunction to the nearest locality of ssp. *turkestanica* in E. Hindukush (c. 1600 kms to the E). One would expect, due to the lack of *Cortusa* in the Caucasus, that there has



FIG. 1 *Cortusa matthioli* ssp. *iranica* ssp. nov. A. Habit, x 2/3; B. Corolla split open, x 3; C. Calyx, x 3.



**FIG. 2** Distribution of *Cortusa matthioli* ssp. *matthioli* (vertical lines), ssp. *iranica* (black dot), ssp. *turkestanica* (horizontal lines). Ssp. *turkestanica* is also found further to the north-east in the USSR outside the map.

been a connection with ssp. *turkestanica* rather than ssp. *matthioli*. Generally speaking the flora of the Elburz Mountains is more closely linked with that of Caucasus than with that of Hindukush but links to the east are not lacking. A species like *Pedicularis rhinanthoides* SCHRENK has about the same gap in distribution as there is between *C. matthioli* ssp. *turkestanica* and ssp. *iranica*.

#### References

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