

TRIGONELLA CAERULEA (FABACEAE), AN AROMATIC PLANT FROM ARDABIL PROVINCE, IRAN

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Trigonella caerulea (L.) Ser is an annual plant growing as a wild species of *Fabaceae* family in Iran. This wild fenugreek is described and illustrated for the first time from Ardabil province. In addition, the chromosome numbers of *Trigonella caerulea* was counted for the first time in Iran. The result showed that the plant is a diploid with $2n = 16$.

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Key words. *Trigonella caerulea*, *Fabaceae*, new record, chromosome number, Ardabil, Iran.

Trigonella caerulea

گونه *Trigonella caerulea* برای اولین بار از استان اردبیل گزارش می شود. این گیاه در مراحل مختلف فنولوژی در طبیعت بررسی شده و تصاویر دیجیتالی از قسمتهای مختلف آن تهیه گردیده است. این شنبلیله با داشتن میوه کوتاه به طول ۶-۴ میلی متر و با منقار کوچک به طول ۳-۲ میلی متر در انتهای نیام، از سایر گونه های شنبلیله متمایز می گردد. شمارش کروموزومی گونه در ایران برای اولین بار انجام گردید و گیاه دیپلوئید با $2n = 16$ بود.

Introduction

There are approximately 25 species of fenugreeks (*Trigonella* spp.) in Iran (Web 2008; Rechinger 1984). *Trigonella caerulea* (L.) Ser in DC. is distributed throughout the European part of Russia, Ukraine, Crimea, Moldova and Caucasus (Ivimey-Cook 1968; Grossheim 1952). This species prefers ruderal places. It grows among bushes, along roads and in fields. It is a forage and aromatic plant. Young seedlings are eaten with oil and salt. The leaves and young plants are eaten cooked (Facciola 1990). *Trigonella caerulea* was not included in Flora Iranica (Rechinger 1984) but the plant was collected in Iran and therefore this record is a new to Flora Iranica area. Chromosome number report is based on the chromosome count of Iranian material.

***Trigonella caerulea* (L.) Ser.** In DC. (family: *Fabaceae*, tribe: *Trifolieae*).

Ardabil: around Shorabil lake and Shamasbi, between Ardabil and Sarabm, 1380 m, Badrzadeh 2501 (herbarium of the university of Mohaghegh Ardabili).

Annual and herbaceous plant. Stems straight, hollow, 25-60 cm high, with uprising branches. Leaves trifoliolate, alternate. Leaflets lanceolate, 2-5 cm long, 1-2cm broad; blade margin minutely serrate (serrulate). Stipules triangular-lanceolate and adnate to the petiole. Racemes compact and globular (similar to clover inflorescences). Peduncle longer than the leaves. Calyx twice as short as corolla; teeth equaling the tube. Corolla pale blue to white, 5-6.5 mm long. Legumes (Pods) erect or slightly curved, compressed, 4-6 mm long, with small beak (2-3 mm) and containing two seeds. Seeds small, elongated, variable in color, mostly yellow, some lemon-colored to dull, ($2n = 16$).

References

- Facciola, S. 1990: A Source Book of Edible Plants. - Kampong Publications.
- Grossheim, A. A. 1952: *Trigonella* in Flora Kavkaza vol. 5: 168-17. -Moskva & Leningrad.

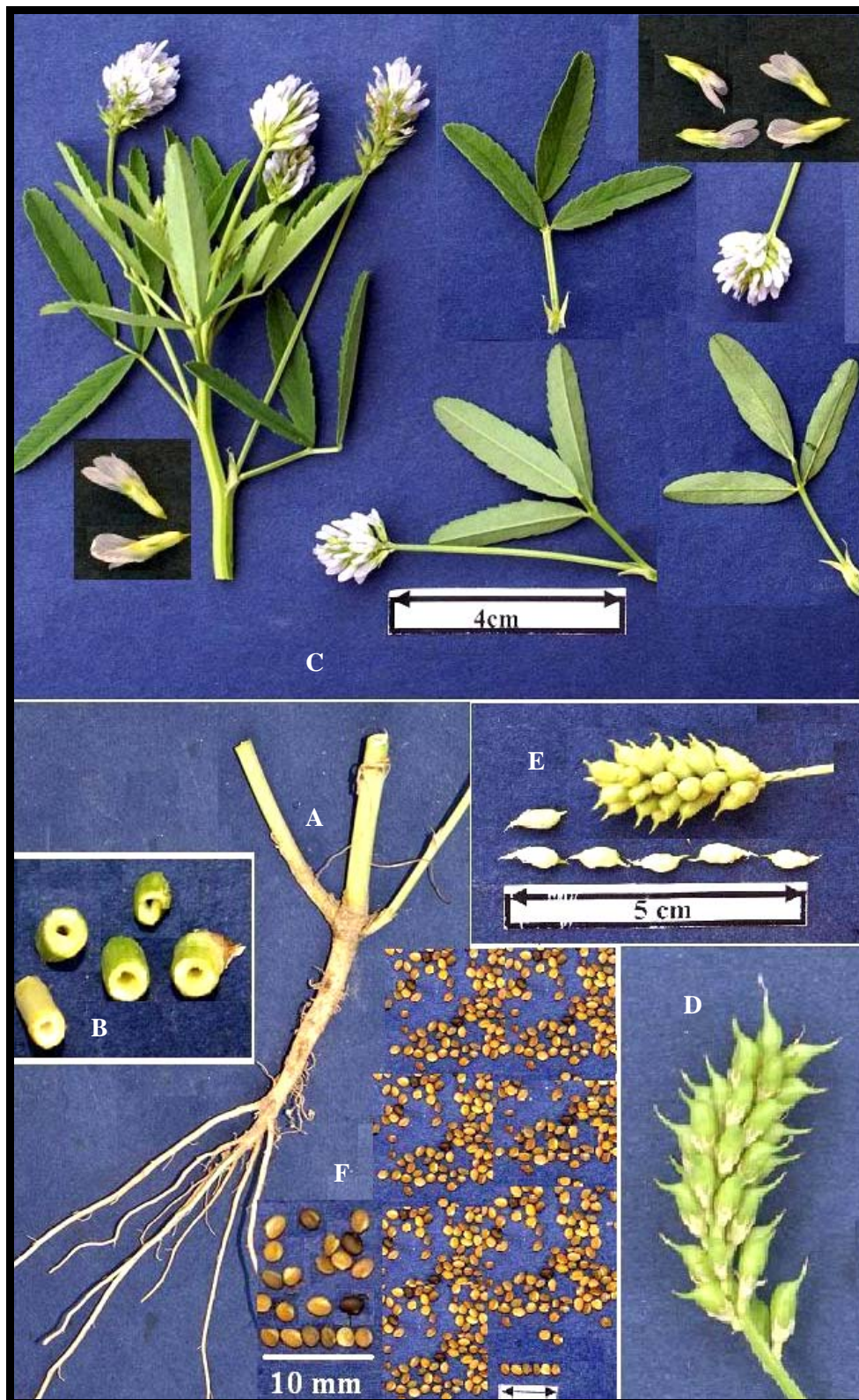


Fig. 1. Plant parts of *Trigonella caerulea*. A) root, B) hollow stems, C) inflorescence, flowers and leaves, D) immature fruits, E) mature fruits and F) seeds.

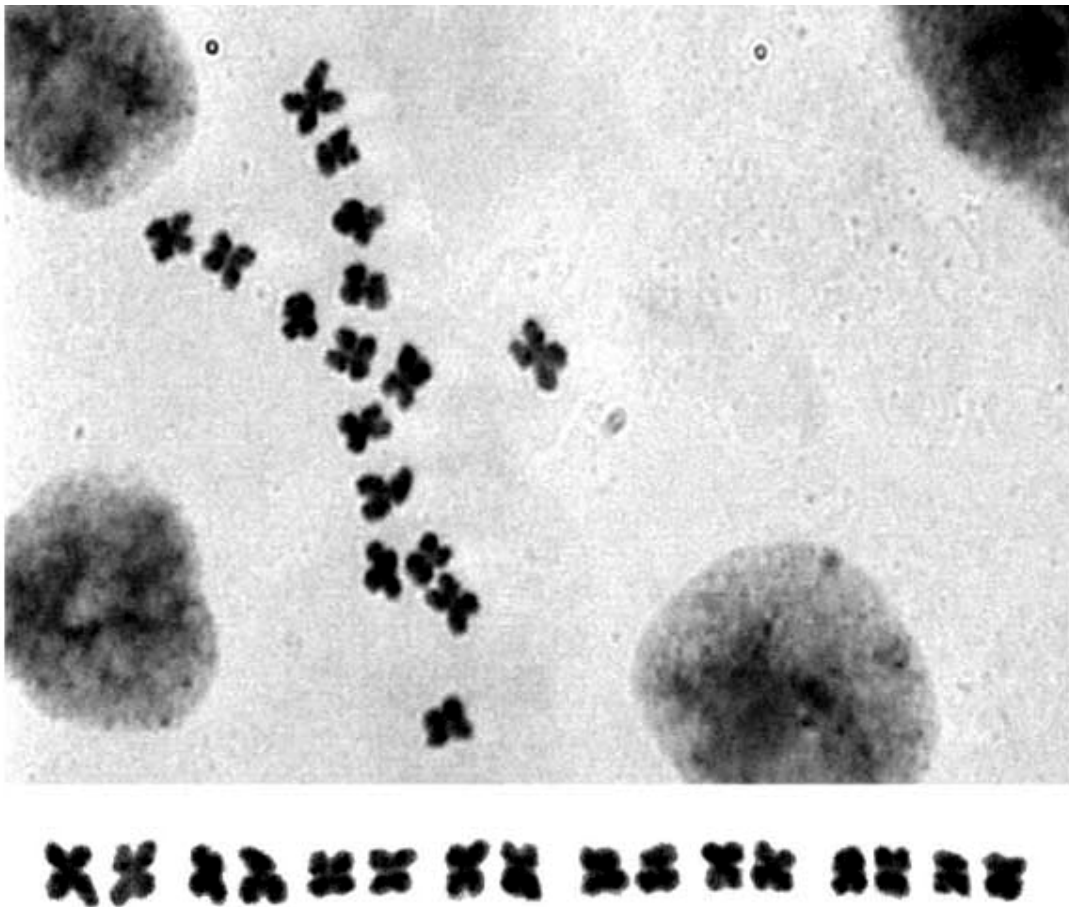


Fig. 2. Somatic metaphase chromosomes of *Trigonella caerulea* stained in aceto-iron-hematoxilin ($2n=16$).

Ivimey-Cookm, R. B. 1968: *Trigonella* in Tutin & al. *Flora Europaea* vol. 2: 150-152. -Cambridge at the University Press.

Rechinger, K. H. 1984: *Trigonella* in K. H. Rechinger *Flora Iranica* no. 157: 200-253. -Graz: Akadem

Web.2008, Geographical Distribution Legumes of the world, Asia: Iran. On line:
<http://www.ildis.org/LegumeWeb/6.00/geo/g188.shtml>