

GERANIUM KURDICUM, A NEW RECORD FOR THE FLORA OF IRAN

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Geranium kurdicum Bornm. (Geraniaceae), is reported here as a new record from Dalanpar Mountain for the flora of Iran. The geographical distribution of the new record and its distinguishing characters, plus its detailed photo are presented.

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Geranium kurdicum گزارشی نو برای فلور ایران

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Geranium kurdicum به عنوان گزارشی نو برای فلور ایران از کوه دالانپار معرفی می شود. پراکنش جغرافیایی و صفات مورفولوژیکی این گونه و همچنین تصاویر مربوط به آن ارائه گردیده است.

INTRODUCTION

Our floristic studies in Dalanpar Mountain during the last six years made a collection of rare and endangered species.

During re-evaluation and revisiting of unknown plant specimens in the HKS herbarium we found a plant specimen that we could not identify it using Flora Iranica (Schonbeck-Temesy 1970) and Flora of Iran (Janighorban 2009).

More detailed cross-checking with type photos and neighbor flora books finally revealed it as a new record, *Geranium kudicum*. It was previously recorded from Hakkari Province of Turkey, and Kurdistan of Iraq.

Morphological characters and phytogeographical points of view are presented here for the new record.

MATERIALS & METHODS

The plant materials were collected from Dalanpar Mountain (W-Azerbaijan province), prepared as herbarium specimens. The materials were identified using Flora Iranica (Schonbeck-Temesy 1970), Flora of Iran (Janighorban 2009), Flora of the USSR (Shishkin 1949), and Flora of Turkey (Davis 1967), for the new *Geranium*. The specimen is deposited in the HKS herbarium. All available materials were examined and compared with the type photos at W, E, K, BM, G, P,

HUH, S, and SAV (herbarium acronyms follow Thiers 2019+). The distribution map of the new record was drawn in ArcMap ver. 10.6.1.

RESULTS AND DISCUSSION

Geranium kurdicum Bornm., Feddes Rep. 8: 82 (1910). Figure 15, p. 457. (Fig. 1)

Specimen examined: W-Azerbayejan: Oshnaveieh, Dalanpar Mountain, 2500-3000 m a.s.l., 11.06.2014, Hariri 12169 (HKS); Oshnaveieh, Dalanpar Mountain, 2700-3000 m a.s.l., 11.07.2019, Tabad 14287 (HKS).

Perennial, glabrescent, 18-37 cm; rhizome horizontal. Stems sparsely puberulent in upper parts. Basal leaves green on both sides, glabrous above, 4-7 cm diam., deeply palmatisect; segments cuneate-rhombic, very deeply pinnatisect into linear-lanceolate laciniae. Bracts 3.5-4.5 mm. Pedicels puberulent, eglandular. Sepals 7-9 mm, both puberulent and pilose, eglandular; awn 1.5-2.5 mm. Petals obcordate, 11-13 mm, lavender-blue or sometimes dark violet. Mericarps pilose.



Fig. 1. Image of herbarium specimen of *Geranium kurdicum* Bornm.

Distribution: Turkey, Iraq, Iran. Fig. 2.

The present discovery of the species from Dalanpar Mountain expands the distribution range of this species into adjacent NW of Iran. The Iranian plants fit perfectly well the descriptions and images given in all references.

Habitat: The observed population had less than 60 flowering individuals in an area of about 500 m², in an

open, calcareous, and rocky habitat.

Taxonomic notes

Geranium kurdicum is easily distinguishable from its related species, *G. libani* and *G. iberica* by the following characters:

usually with two flowers on each 4-bracteate peduncle; horizontal rhizome; and leaves glabrous on the upper surface.

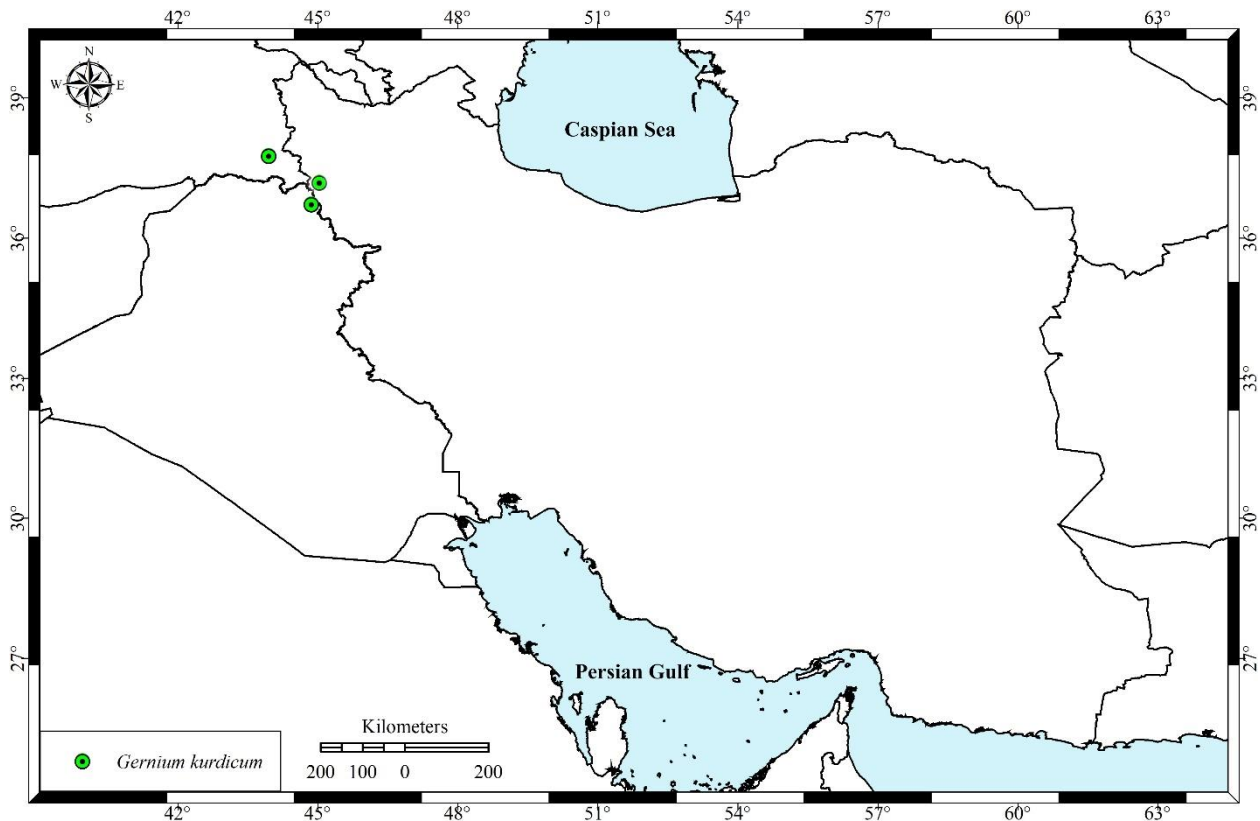


Fig. 2. Distribution map of *Geranium kurdicum*.

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