TWO NEW SPECIES OF THE GENUS ASTRAGALUS L. (FABACEAE) FROM IRAN

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Among the rich materials collected from different parts of Iran, two new species namely A. karlheinzii from section Hymenostegis and A. juladakensis from sect. Dissitiflori are described.

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Introduction

The sect. Hymenostegis Bunge seems to be a disagreement section with its number of species in the genus Astragalus. The first revision of this section with 26 species established by Bunge (1868). Later on, present author during the local revision for Astragalus in Iran increased the number of species to 35 distinct taxa (Maassoumi 1995). This critical work was not also confidence for specialists, in this reason the section was revised again (Zarre & Podlech 1996), unfortunately, these authors without studying of the type of recent species, unreasonably reduced the number of taxa. Finally for preparing Flora Iranica treatment (Podlech & Maassoumi 2001) revised the section again with new collections. In this work with describing more new taxa, the number of species increased to about 40 distinct species. Recently three more new species were described (Podlech 2003; Ghahremani nejad 2004). Finally, another new species is described by the author. So, with this short historic introduction it seems that with new collections, the number of taxa will be increased. Recently the new molecular analysis of the section on some species, showed that this section is a monophyletic and homogenous section in the genus. The sect. Dissitiflori DC. for flora Iranica area was recently revised (Podlech, unpublished). This work covered a great number of species in which the majorities belong to Afghanistan territory. According to Fl. USSR sect. Corethron Bunge is closely related to sect. Dissitiflori DC. But the shape of fruit with having oblong elliptic pods and long spreading hairs seems to be a distinct section, but new molecular analysis (Kazempour & Maassoumi, unpublished) with using A. dendroproselius Rech. f. in cladogram nested with other species of sect. Dissitiflori DC. So, it will be reasonable to reduce sect. Corethron as a synonymous of sect. Dissitiflori DC, as Podlech treated.

New species

Astragalus karl-heinzii Maassoumi, sp. nov e sect. Hymenostegis

Inter speciebus ab sect. Hymenostegis Bunge sed differt inflorescentia laxe multiflora c. 8-9 cm longa insigni.
Differt ab A. rubrostriatus Bunge stipulic c. 17 mm longis ad basi c. 7 mm petiolis adnatis ( nec 7-12 mm longis et c. 5 mm petiolis adnatis), pedunculo c. 2-3 cm longo dense patenter longe et brevissime piloso ( nec usque ad 15 cm longo et appresse brevissime et longe patenter piloso), foliololo rachisque dense patenter vel subpatenter piloso ( nec appresse piloso), calyces c. 21 mm longis, partim atropurpurea nervosis ( nec 11-16 mm longis).

Plants suffruticose, caespitose, spiny, 22 cm tall, spherical, c. 35 cm in diameter. Stems 10 cm long, the older parts densely covered with remnants of old leaves, strongly branched, parts of the current year up to 2 cm long. Stipules hyaline-membranous, 17 mm long, at the base c. 7 mm adnate to the petiole, vaginate, connate behind the stem for 3 mm, the free tips narrowly triangular, ca. 6-7 mm long, glabrous, sparsely ciliare at the margins. Leaves 7-8 cm long; petiole 2.5 cm long, similar to the rachis covered with subappressed hairs to 0.4-1.4 mm long. Leaflets 8 pairs, linear to narrowly elliptic, 17 mm long and 3-4 mm wide, at the apex acuminate, pungent, with a cusp 1-1.5 mm long, on both sides densely covered with subappressed hairs to 0.3-0.7 mm long. Peduncles 2-2.5 cm long, shorter than the leaves, densely covered with short and long spreading hairs 0.5-1 mm long. Racemes cylindrical, 9-12 cm long, densely or remotely many-flowered; axis densely covered by ascending to spreading hairs. Bracts permanent, chartaceous, 14-15 mm long, 4-6 mm wide, narrowly ovate, glabrous, margin remotely ciliate. Calyx tubular, c. 21 mm long, 4-5 mm wide, inflated, violet, mostly with purple nerves, densely covered with short and long ascending to spreading hairs 1.5-2.5 mm long; teeth subulate, purple, 8-9 mm long. Petals purple-violet or pale violet. Standard 23 mm long; blade obovate to oblong, slightly panduriform, 7 mm wide, acute at the apex, slightly constricted below the middle, at the base obtusely angular-hastate, with cuneate claw. Wings 20 mm long; blades narrowly ovate, at the apex rounded, 9 mm long and 3 mm wide; auricle 0.5 mm long; claw 10 mm long. Keel 15 mm long; blades obliquely obovate, 5 mm long and 3 mm wide; auricle minute; claw 10 mm long. Ovary sessile, oblong, densely hairy. Legumes unknown.

Type. Azerbaijan: Ardabil, c. 20-30 km from Masuleh to Khalkhal, N: 37,16, 25: E: 48, 44, 17, 2100 m, Assadi 86477 (holotypus TARI).

The new species named in the honor of Prof. Dr. Karl Heinz Rechinger for his survey on the Astragalus of Iranian territory and for his monumental scientific work of Flora Iranica.
Fig. 1. *Astragalus juladukensis* (×0.6); detail of flower (×1.2).
References