

Astragalus khajehensis (Fabaceae), a new species from NW Iran

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Received 20 Jan. 2004, revised version received 21 Sep. 2004, accepted 22 Oct. 2004

Ghahremaninejad, F. 2005: *Astragalus khajehensis* (Fabaceae), a new species from NW Iran. — *Ann. Bot. Fennici* 42: 77–79.

Astragalus khajehensis F. Ghahremani. (Fabaceae), endemic to E Azarbayjan province, Iran, is described as a new species and illustrated. It belongs to *A.* sect. *Erioceras*, a bifurcate-haired section, and resembles *A. catacamptus* and *A. pentanthus*.

Key words: *Astragalus*, *Cercidothrix*, *Erioceras*, Fabaceae, new species, taxonomy

Iran is one of the most important centers of diversity of the genus *Astragalus*. In this paper a new species with bifurcating trichomes is described in *Astragalus* section *Erioceras* from E Azarbayjan province, Iran. *Astragalus* subg. *Cercidothrix* sect. *Erioceras*, which was originally established by Bunge (1868) with seven species, now has ca. 38 species (Podlech & Maassoumi 2003, Ghahremaninejad 2004).

***Astragalus khajehensis* F. Ghahremani.,
sp. nova** (Fig. 1)

Species A. pentantho affinis, sed differt caulibus ad 4.5 (nec ad 1.5) mm longis, pedunculis 1–2.5 (nec 2–4) cm longis, bracteis 1–1.5 (3–5) mm longis, calyce 11.5–12 (nec 12–16) mm longo, dentibus ad 1 (nec 2–3) mm longis.

HOLOTYPE: Iran. E Azarbayjan Province: Heris, 7 km from Khajeh to Ahar, 1535 m, 9.V.96, *Ghahremani & Abbaszadeh 5713* (Herbarium Research Centre of Natural Resources of Tabriz, Iran).

Perennial, ca. 17–18 cm tall, furnished with bifurcate (medifixed) white and black hairs. Woody caudex up to 6 mm thick, branched. Stems of current year up to 4.5 cm long, very densely hairy. Stipules 1.5 mm long, 1.3 mm broad at base, adnate to petiole at base, free (non-connate), triangular-acuminate, abaxially densely covered with appressed white or rarely with a few black hairs. Leaves imparipinnate with 4 pairs of leaflets, 4–5.5 cm long, petiole and rachis densely covered with appressed white hairs; petiole 1.5–2.2 cm long, 3/4 to about two times as long as rachis; leaflets sessile to shortly (0.5 (1) mm) petiolulate, elliptic, acute, 6–9 mm long, 1.5–3 mm wide, upper side covered with moderately appressed hairs, underside covered with dense appressed-ascending hairs, asymmetric to symmetric. Peduncles 1–2.5 cm long, 2 times to several times shorter than leaves, densely covered with white hairs. Inflorescence 4–8-flowered, 2–3 cm long, with nearly dense to remotely spaced and spreading flowers. Bracts lanceolate-triangular, membranous, 1–1.5 mm

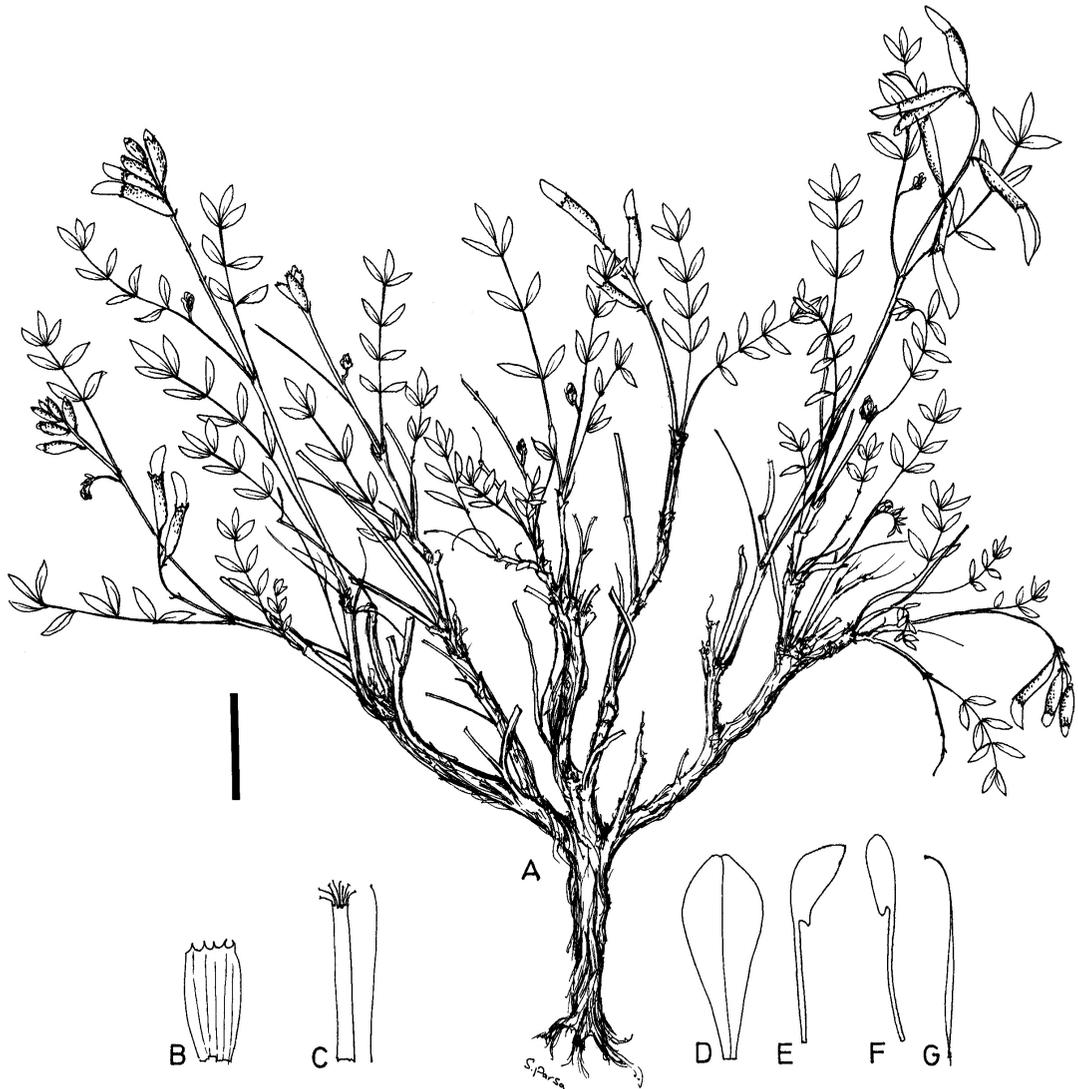


Fig. 1. *Astragalus khajehensis* (from holotype). — **A:** Habit. — **B:** Calyx. — **C:** Stamens. — **D:** Standard. — **E:** Keel. — **F:** Wing. — **G:** Pistil. Scale bar = 2 cm for **A**, 1 cm for **B–G**.

long, 0.8 mm wide at base, covered with white and black hairs. Bracteoles wanting. Pedicel 1.5–2 mm long, ascending-appressed of white, rarely with few black hairs. Calyx cylindrical, 11.5–12 mm long, obliquely cut at mouth, covered with subappressed to ascending hairs, mostly long white and shorter black hairs, asymmetric to nearly symmetric; calyx teeth triangular, very short to 1 mm long. Corolla brown when dry, glabrous. Standard 20.5–21 mm long, blade 8 mm wide, obovate, slightly retuse at apex, slightly constricted at middle, at base gradually narrowed

into a claw. Wing 18–18.5 mm long, limb oblong to oblong-ovate, rounded at apex, 7.5–8 mm long, 2.5 mm wide; auricle 1 mm long, claw 9.5 mm long. Keel 16.5–17 mm long; limb obliquely obovate, acute, 6 mm long, 2.75–3 mm wide; auricle triangular, ca. 0.5 mm long; claw 10.5 mm long. Stamen-tube 18.5–19.5 mm long, free portion 2–2.25 mm long; anther brown, 0.46×0.25 mm. Pistil 21–22 mm long; ovary 9.5–10 mm long, linear, 0.4–0.5 mm wide, densely covered with appressed white hairs, on stipe ca. 2.5–3 mm long; stipe glabrous; style 8.5–9

mm long, yellow, glabrous; stigma green; ovules nearly 20, 0.25×0.25 mm. Legume unknown. Flowering in May.

Astragalus khajehensis is known only from the type specimen collected in NW Iran. It is closely related to *A. catacamptus* and *A. pentanthus*, but differs from them in stem length (up to 4.5 vs. up to 3 cm), calyx teeth length (up to 1 vs. 2–3 mm), bract length (1–1.5 vs. 2–5 mm) and peduncle length (1–2.5 vs. 2–5 cm).

The center of diversity of *Astragalus* section *Erioceras* is in the Turkestanian floristic province (Takhtajan 1986) of the Irano-Turanian region. The species of section *Erioceras* are distributed in Middle Asia, South, East and West Asia, Caucasus, and Europe. Nine of the ten Iranian species of this section are endemic. The section has a continuous range in central, north-western, eastern, and west parts of Iran, being concentrated mainly in the SE parts of Iran. The species are distributed at altitudes between 180 to 2500 m.

Acknowledgments

I wish to thank Sepideh Parsapajouh for preparing the illustration.

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