

A new species of *Astragalus* (Fabaceae) from East Anatolia, Turkey

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Astragalus tuna-ekimii N. Adıgüzel from East Anatolia, belonging to sect. *Macrosemium* Bunge, is described as a species new to science and illustrated.

Key words: *Astragalus*, Leguminosae, new species, Turkey

When Prof. Tuna Ekim was teaching at the Firat University in 1983, he collected plant specimens in some regions of Eastern Anatolia, Turkey. A part of that collection was evaluated by the author (Adıgüzel & Ekim 1991). During identification of the specimens, I realised that some of them represented taxa new to Turkey, and further work showed that there was one species new to science. It belongs in *Astragalus* L. sect. *Macrosemium* Bunge and is close to *A. chamaephaca* Freyn. During a visit to Edinburgh in 1998, the isotype and other specimens of *A. chamaephaca* were examined by me.

Astragalus tuna-ekimii N. Adıgüzel, *sp. nov.*
(Fig. 1)

A. chamaephaca Freyn *affinis, sed foliis longioribus, foliolis 13–15-jugis (non 7–10-jugis), stipulis longioribus, calycibus brevibus et sparse villosa, vexillis brevibus et carinis non purpureis apicibus.*

Type: Turkey. B9 Bitlis: Tatvan, Nemrut mountain, below Şahmıran village, 1 900 m, volcanic area, 28.V.1972 H. Peşmen 2915 (holotype GAZI).

Scapose perennial with fibrous at base. Leaves 10–16 cm; leaflets 6–15 mm, elliptic to lanceolate, terminal leaflets obovate, mucronate, glabrous, pilose on the margins, 13–15-paired; stipules 12–20 mm, lanceolate, membranous, persistent. Inflorescence 2–3-flowered raceme; peduncles 4 mm, pedicels 3.5 mm. Bracts 7–8(–10) mm, ovate-lanceolate, ciliate. Calyx 13–16 mm, tubular, sparsely villous; teeth 4–6 mm, lanceolate, ciliate. Corolla yellow; standard 35 mm; wings 25–27 mm; keel 23 mm. Style 18–20 mm, glabrous; ovary adpressed-villous at least towards the tip, ovules eight. Legume 5.5–6.5 mm, oblong to obovate, inflated, glabrous or a few hairs on suture, sessile, sutures prominent; beak 2.5 mm. Seeds light brown, 2.5 mm, reniform, compressed, smooth.

Specimens examined (paratypes). B6 Kahramanmaraş: Göksun, Cennetderesi, mixed forest, 1 800 m, 20.VI.1981 B. Yıldız 3010 (E). B7-8 Elazığ: around Guleman, Maden,



Fig. 1. *Astragalus tuna-ekimii* N. Adigüzel (holotype). — a: Plant. — b: Calyx. — c: Standard. — d: Wings, keel and stamens. — e: Ovary and style. — f: Legume.

1 400 m, 30.IV.1983 *T. Ekim 7066* (GAZI). B9 Van: Tatvan-Van, after 5 km from Tatvan, 1 800–1 900 m, 24.VI.1983 *T. Ekim 7616* (GAZI).

The species is allied to *Astragalus chamaephaca* Freyn, which differs in its longer leaves with more numerous leaflets, longer stipules, shorter and hairy calyx, shorter standard and uniform colour of keel (not purple-tipped). The morphologi-

cal differences between *A. tuna-ekimii* and *A. chamaephaca* are listed in Table 1.

Astragalus tuna-ekimii belongs in the sect. *Macrosemium*. The section is closely related to sect. *Myobroma* Bunge, but is distinguished by its longer standard, claw of wings, and the keel united with the staminal tube (Chamberlain & Matthews 1969). With the new species the sect. *Macrose-*

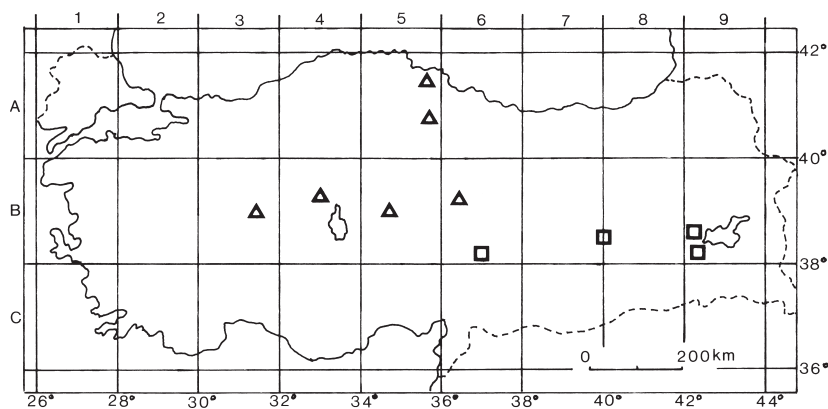


Fig. 2. Distribution of *Astragalus tuna-ekimii* N. Adıgüzel (□) and *A. chamaephaca* Freyn (△) in Turkey.

Table 1. Diagnostic characters of *Astragalus chamaephaca* Freyn and *A. tuna-ekimii* N. Adıgüzel.

Characters	<i>A. chamaephaca</i>	<i>A. tuna-ekimii</i>
Leaves	5–12 cm	10–16 cm
Leaflets	10–20 mm elliptic to oblong subacute or obtuse 7–10-paired	6–15 mm elliptic to lanceolate acute, mucronate 13–15-paired
Stipules	10–12 mm ovate-lanceolate	12–20 mm lanceolate
Bracts	7–9 mm	7–8 (–10) mm, ciliate
Calyx	16–20 mm, glabrous	13–16 mm, sparsely villous
Corolla	whitish-yellow	yellow
Standard	35–45 mm	35 mm
Keel	purple-tipped	not purple-tipped
Legume	unknown	5.5–6.5 mm oblong to obovate
Seeds	unknown	2.5 mm, reniform

mium is represented in Turkey by three species, of which two are endemic. The distributions of the two endemic species are shown in Fig. 2 (Chamberlain & Matthews 1969, Donner 1990). *Astragalus tuna-ekimii* is distributed east of the Anatolian Diagonal (Ekim & Güner 1986), while *A. chamaephaca* is also distributed west of the Diagonal and it grows at lower altitudes, from 350 to 1 100 m.

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