

## **Astragalus kurdaicus Saposhn. ex Sumn., an additional to the flora of Iran**

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### **Abstract**

*Astragalus kurdaicus* Saposhn is now considered an additional species of the flora of Iran as is recorded so, this species was introduced from Middle Asia, and is also recorded from NE Iran. It belongs to *Astragalus* section *Cystium*.

### **Introduction**

Iran is one of the most important and biggest centers of diversity for *Astragalus*, with more than 700 species (Ghahremani-nejad 2000). In this paper a new species from *Astragalus* sect. *Cystium* Bunge is recorded for Iran. This section was originally established by Alexander Bunge (1868) with 6 species, and is now comprised of 15 species based on work by Yakovlev et al. 1996.

### **Taxonomic Remarks**

*Astragalus* L. Sect. *Cystium* Bunge

Mem. Acad. Imp. Sci. Saint Petersburg 11, 16: 113, 1868. -Lectotype (Podlech1990):

*A. physodes* L.

= Sect. *Xerophysa* (Stev.) Barn., Mem. New York Bot. Gard. 13: 1167, 1964.

= *Xerophysa* Steven, Bull. Soc. Imp. Naturalistes Moscou 29: 147, 1856.

The section belongs to *A.* subgen. *Cercidothrix* Bunge, which is characterized by a perennial growth and the presence of bifurcate hairs (Bunge 1868). A concise description of *A.* sect. *Cystium* Bunge follows.

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**Key words:** *Astragalus kurdaicus*, Fabaceae, flora of Iran, section *Cystium*, subgenus *Cercidothrix*.

Perennial, acaulescent to nearly so, vested with bifurcate hairs; stipules more or less connate; leaves imparipinnate; bracteoles absent; inflorescence usually long pedunculate calyx cylindrical, non-inflated; corolla glabrous; pod inflated, membranous, bilocular.

*Astragalus kurdaicus* Saposhn. ex Sumn.

In Animadv. Syst. Univ. Tomsk, Nos. 9-10 (1936) 7.- Fig. 1.

Holotype: Kirghizia, Tian-schan, ad fontes fl. Kurdai, 19.4.1913, B.K. Schischkin and Genina (TK; iso: LE!)

=*A. pseudophysodes* Gontsch. In Not. Syst. Ex Herb. Inst. Bot. Ac. Sc. URSS IX (1946).



**Fig. 1. *Astragalus kurdaicus*; After Joharchi & Zangoee 20495**

Perennial, up to 30 cm tall, year stem up to 2 cm long, stipules connate, leaflets (10) 12-23 pairs, 6-11 mm long, peduncle together with inflorescence equaling to somewhat exceeding the leaves, calyx 10-13 mm long, the teeth 3-4 times shorter than the tube, standard 20-25 mm long, ovary glabrous, pod inflated, glabrous, bilocular.

Specimen seen.

Iran, Khorassan Prov.: Darreh-Gaz, Tandureh National Park, Between Shekarab and Chelmir, 1000-2300 m, 27 May 1991, Joharchi & Zangoose 20495 (FAR, FUMU).

This species is distributed exclusively in Middle Asia (Yakovlev et al.1996).

Therefore our specimen shows a range extension for *A. kurdaicus*.

*A. kurdaicus* is well distinguished from other species of the section in Iran by the combination of a glabrous pod, longer leaves, and numerous leaflets.

*Astragalus* section *Cystium* has its center of diversity in the Turkestanian floristic province (Takhtajan, 1986) of the Irano-Turanian region. The species of this section are distributed in Middle Asia, Mongolia, China, Pakistan, Iran, Caucasus, Turkey and Europe.

The species of this section is concentrated in Elburz Mt. and Kopet-Dagh Mt. (NE Iran). Its species in Iran and Turkmenistan cover a continuous area together. Iran is the lower latitude for this section; probably Iranian species have migrated to Iran from Turkmenistan. The species of this section are distributed at an altitude between 1900 m and 2800 m in Iran. Iranian species of this section follow (Lock & Simpson 1991).

*A. didymophysus* Bunge; Distribution: Iran (endemic).

*A. masenderanus* Bunge; Distribution: Afghanistan, Iran.

*A. kurdaicus* Saposhn. ex Sumn.; Distribution: Iran, Kazakhstan, Kirgizstan, Turkmenistan, Uzbekistan.

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### **References**

1. A. Bunge, *Generis Astragali Species Gerontageae 1, Claves Diagnosticae.*- Mem. Acad. Imp. Sci. Saint Petersburg, ser. 7, 11(16)(1868).

- 2 F.Ghahremani-nejad, Systematic and biosystematic studies on the sections of perennial bifurcate Astragalus L. (Fabaceae).- Ph.D. dissertation, Univ. of Tehran, Tehran (2000).
3. J. Lock and K. Simpson, Legumes of West Asia, a check-list.- RBG Kew (1991).
- 4.D. Podlech, Die Typifizierung der altweltlichen Sekion der Gattung Astragalus L.(Leguminosae).- Mitt. Bot. Staatssamml. Munchen 29 (1990) 461-494.
5. A.L. Takhtajan, Floristic regions of the World.- University of California Press (1986).
6. G.P. Yakovlev, A.K. Sytin, and Yu. R. Roskov Legumes of Northern Eurasia, a check-list.- RBG Kew (1996).