



Caragana leduensis, a new species of Leguminosae from Qinghai, China

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Abstract

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Caragana leduensis from Qinghai is described as a new species and illustrated. It is similar to *C. kozlovii* but differs by the corolla wing auricle being $\frac{3}{4}$ as long as the claw, the densely white-villous ovary and legumes, and the obovate-elliptic leaflets being blunt at the apex and glabrous except for the white-villous midvein and margins on the lower surface.

The genus *Caragana* Fabr. contains about 80 species, which are centred in their distribution to arid and semiarid Asia. About 60 species are found in China, preferable in the northern and western parts of the country (Liou 1993), of these about 20 species occur in Qinghai (WU 1999). Revising the herbarium specimens of *Caragana* collected in Qinghai, we discovered two older specimens that represent a still undescribed species, which is here described as new to science.

Caragana leduensis Y. Z. Zhao, Y. H. Wu & L. Q. Zhao, **sp. nov.**

Holotype: China, Qinghai, Ledu, mountain slope, c. 2500 m, 29.5.1966, B. Z. Guo 6755 (HNWP) – Fig. 1.

Species *Caragana kozlovii* Kom. affinis, sed auricula alae ungue $\frac{3}{4}$ longiore, ovario dense albo-villoso, foliola obovati-elliptica, apice obtusa, supra glabra, infra secus costam et marginem albo-villoso differt.

Shrub, c. 1 m tall. *Bark* cinereous-brunescens, lacerate. *Stipules* ovate, rufous, membranous, densely white-villous. *Leaves* paripinnate, *rachis* persistent and becoming a rigid thorn, 1.5-3 cm long; *leaflets* in 3-4 pairs, obovate-elliptic, 10-12 × 3-5 mm, blunt at the apex, glabrous on upper surface, white-villous at midvein and margins on the lower surface. *Flowers* solitary; *pedicel* c. 8 mm long, with a knee at the base, densely white-villous; *calyx* tubular, c. 10 mm long, c. 5 mm in diam., densely white-villous, lobes triangular, c. 2.5 mm long; *corolla* yellow; *vexillum* broadly obovate, c. 21 mm long; *wings* c. 20 mm long, claw c. 8 mm long, auricle linear, $\frac{3}{4}$ as long as the claw; *keel* c. 20 mm long, claw and blade equally long, auricle short and small, dentiform; *ovary* densely white-villous outside, glabrous inside. *Fruit* at maturity not seen.

Fig. 1. *Caragana leduensis* – holotype specimen.

Additional specimen seen (paratype). – China, Qinghai, Zhiduo, c. 3950 m, 21.6.1966, L. H. Zhou 110 (LZU).

The new species is similar to *Caragana kozlovii* Kom. and *C. tangutica* Kom. (see Liou 1993, Wu 1999) but can be distinguished from these species as follows:

1. Leaflets oblong, 15-30 × 5-9 mm, with acute apex, often in 3 pairs, remotely spaced, the apical ones larger; pedicels with a knee at the middle of the lower half; ovary and pod densely white-villous *C. tangutica* Kom.
- Leaflets obovate-lanceolate or obovate-elliptic, 8-15 × 3-5 mm, in 3-4 pairs, closely spaced, ± of the same size; pedicels with a knee at the base; ovary and pod glabrous or densely white-villous 2
2. Corolla wings with auricle ½ as long as the claw; ovary and pod glabrous; leaflets obovate-lanceolate, with acute apex, glabrous on both surfaces *C. kozlovii* Kom.
- Corolla wings with auricle ¾ as long as the claw; ovary and pod densely white-villous; leaflets obovate-elliptic, with blunt apex, glabrous on upper surface, with white-villous midvein and margins on lower surface . . . *C. leduensis* Y. Z. Zhao, Y. H. Wu & L. Q. Zhao

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