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Astragalus kongrensis Benth. ex Baker (Fabaceae), a New Record for Central and North-West Himalayas

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ABSTRACT: *Astragalus kongrensis* Benth. ex Baker is reported for the first time from Central (Nepal) and North-West Himalayas (India). Earlier the species was known from East Himalaya (Sikkim-India, Bhutan) and China. The description and illustrations of the species are provided.

KEY WORDS: ***Astragalus kongrensis*, Fabaceae, New record, Central and North-West Himalayas.**

INTRODUCTION

Astragalus kongrensis Benth. ex Baker was first described by Baker (1876) from Sikkim (East Himalaya) based on single collection 'Kongra Lama, 15000 ft., *J. D. Hooker*' and subsequently, the species was recorded from Bhutan (Grierson and Long, 1987) and China (Wenninger, 1992).

While examining the specimens of *Astragalus* L. in the context of revising the genus from India, the author observed some specimens identified as *A. prainii* Duthie mss (a unpublished name) collected from Nepal (Central Himalaya) and Uttaranchal-India (N. W. Himalaya) at Central National Herbarium, Howrah (CAL) and Botanical Survey of India, Dehra Dun (BSD). The critical examination of these specimens revealed that they belong to *A. kongrensis* Benth. ex Baker, which is so far not recorded from Central and North-West Himalayas (Ali, 1961, 1977; Sanjappa, 1992; Press et al., 2000; Kumar and Sane, 2003) and forms a new record for these regions. The description along with line drawing illustrations and other taxonomic details of the species are provided for its identification.

TAXONOMIC TREATMENT

Astragalus kongrensis Benth. ex Baker in Hook. f., Fl. Brit. India 2: 120. 1876; Grierson & Long in Grierson & Long, Fl. Bhutan 1 (3): 718. 1987; Sanjappa, Legum. India 90. 1992; Wenninger in Mitt. Bot. Staatss. Munchen 30: 136. 1992; Kumar & Sane, Legum. South Asia: Checkl. 232. 2003. Fig. 1

Rhizomatous subacaulescent herbs, 9-12 cm long, prostrate, stem up to 5 cm long, glabrous or pilose with long, white, spreading hairs. Stipules 8-10 × 3-4 mm, free from petiole and from each other, foliaceous, ovate-lanceolate, ciliate along margins with long, white, spreading hairs. Leaves (2.5-5.5-) 8-12 cm long, imparipinnately compound; petioles ca. 3 cm long, thinly pilose with long, white, spreading hairs like rachis; leaflets 13-31, 5-9 × 3-5 mm, broadly elliptic (almost orbicular), broadly ovate or obovate to broadly obovate, cuneate or rounded at base, subtruncate, obtuse or emarginated at apex, ciliate along margins, glabrescent to thinly pilose above, moderately pilose with long, white, spreading hairs below. Inflorescence axillary, peduncled capitate raceme (head); racemes dense, 5-12-flowered; peduncles (4-) 6.5-10 cm long, pilose with long, mixed blackish-brown and white, spreading hairs. Bracts ca. 5 × 1 mm, longer than pedicel, linear, ciliate along margins, pilose on outer surface with long, white, spreading hairs. Flowers 15-20 mm long, pinkish purple (yellow in *Hajra* 73967), nodded; pedicels ca. 2 mm long, densely pilose with long, blackish-brown, half spreading hairs. Calyx 7-11 mm long, tubular-campanulate, pilose with long, mixed blackish-brown and white, spreading hairs outside, tube 4.5-6 mm long, teeth 2.5-5 mm long, shorter than or almost equal to tube, narrowly triangular, hairy on inner side. Corolla glabrous; standard 15-20 × 6-9 mm, obovate, emarginate at apex; wing petals 13-16 mm long, shorter than standard and keel petals, lamina 7-9 × 2-3 mm, oblong, obtuse at apex, upper auricle *ca.* 3 mm long, linear, claw ca. 7 mm long; keel petals equal to standard, lamina ca. 8 × 3.5-4 mm, obovate, subobtuse and curved towards apex, upper auricle ca. 1.5 × 1 mm, claw ca. 8 mm long. Stamens

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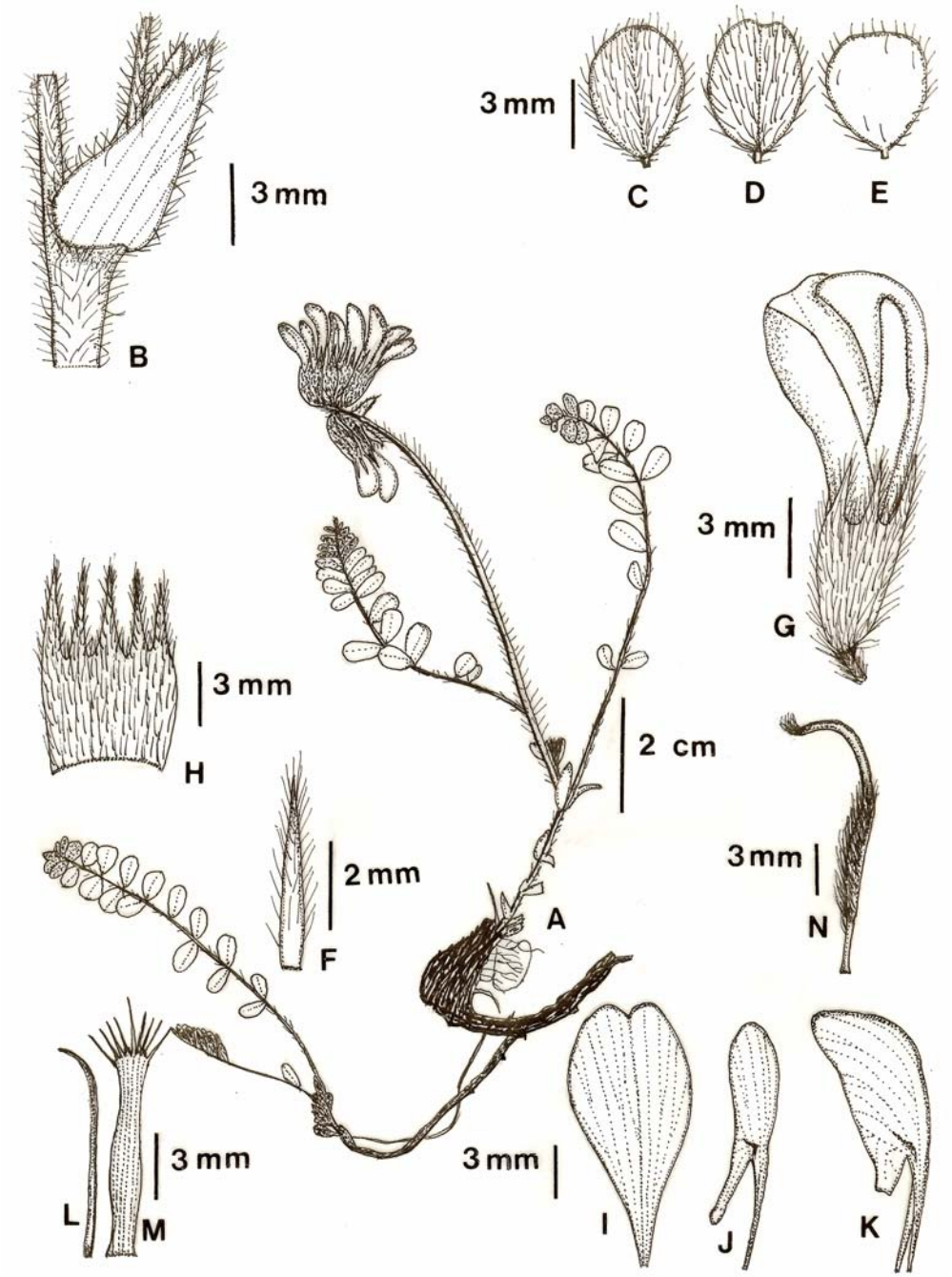


Fig. 1. *Astragalus kongrensis* Benth. ex Baker. A: Habit. B: A portion of stem with stipules. C-E: Leaflets (C, D lower side; E upper side). F: Bract. G: Flower. H: Calyx dissected (outer side). I: Standard. J: Wing petal. K: Keel petals. L: Vexillary filament. M: Staminal sheath (opened). N: Carpel. (A from *Duthie* 5466; B-G from *Younghusband* 15; H-N from *Gonld* 108).

diadelphous, (9 + 1); vexillary filament ca. 16 mm long, free from staminal sheath; staminal sheath ca. 13 mm long, subtruncate at apex, upper free filaments 2-4 mm long. Ovary ca. 5 mm long, densely hairy with adpressed, blackish-brown hairs, stipitate, stipe 4-5 mm long, as long as calyx tube; style ca. 6 mm long, glabrous; stigma penicillate. Pods not seen.

Distribution: India (Uttaranchal, Sikkim), Nepal, Bhutan, China.

Phenology: (June –) July – Aug.

Habitat: On grassy mountain slopes and along riversides at altitudes ranging from 3800-4200 m.

Specimens examined: INDIA. Uttaranchal: Nanda Devi National Park, Bhojgara to Ramni, 5 Jul. 1982, *P. K. Hajra*

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73967 (BSD). Sikkim: Gochung, 4 Jul.1903, *P. E. Younghusband* 15 (CAL: photo LWG); In between Gochung-Talling, 21 Jul. 1986, *D. C. S. Raju* 6159 (BSHC: photo LWG). NEPAL. Western Nepal, Nampa Gadh, 13000-14000 ft., 27 Jul. 1886, *J. F. Duthie* 5466 (CAL: photo LWG). CHINA. Gantza, Chumbi Valley, Aug. 1912, *B. Z. Gonld* 108 (CAL).

A. kongrensis Benth. ex Baker exhibits some variations in the calyx. The calyx teeth are usually shorter than tube as also noticed by Baker (1876) and Grierson & Long (1987), while in some specimens like *Hajra* 73967 and *Gonld* 108 they are almost equal to tube without any other differences.

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喜馬拉雅中部及西北部豆科植物新紀錄種孔潤紫雲英（*Astragalus kongrensis* Benth. ex Baker）

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摘　　要

本文首次報導孔潤紫雲英（新擬中文名稱）分佈於喜馬拉雅中部（尼泊爾境內）及喜馬拉雅西北部（印度境內），本種植物以往僅東喜馬拉雅（錫金-印度、不丹）及中國地區有分佈記錄。文中並對本種加以描述及繪圖。

關鍵詞：孔潤紫雲英、豆科、新紀錄、喜馬拉雅中部及西北部。

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