

## ***Crotalaria medicaginea* var. *neglecta* (Fabaceae: Crotalarieae): A New distributional Record for Eastern India**

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**ABSTRACT:** *Crotalaria medicaginea* var. *neglecta* (Wight & Arn.) Baker (Fabaceae: Papilionoideae) is distributed in tropical Asia, Australia and Yunnan. In India, the taxa so far reported from South, Central - Western, and Northern India. A field exploration and collection of this taxa from Jharkhand confirms its distribution in Eastern India. A detailed description with photographs is provided to facilitate easy identification.

**Keywords:** Addition, *Crotalaria*, Eastern India, Jharkhand, Leguminosae.

### **INTRODUCTION**

The genus *Crotalaria* L. is a member of the legume family Fabaceae (=Leguminosae: Crotalarieae). The genus *Crotalaria* L. was first described by Carolus Linnaeus with 13 species in his Species Plantarum (Linnaeus, 1753). It is represented by 714 species with 107 subspecies and 78 varieties and distributed in tropical and subtropical regions of the world (WCVF: Fabaceae v.4, 2023). Africa and Madagascar are the main centres of diversity with India being subcentre and it occurs from sea level to about 3000 m (Ansari and Chauhan 2020) in diverse habitats. In India the genus *Crotalaria* L. is represented by over 102 species, 04 subspecies, 19 varieties and 02 forma (Ansari, 2008; Ansari and Chauhan 2020). Out of which, 63 taxa including 47 species, 02 subspecies, 12 varieties and 02 forma are endemic to India. (Ansari and Chauhan 2020).

### **MATERIAL AND METHODS**

While collecting native species germplasm for *ex-situ* conservation in Acharya Jagdish Chandra Bose Indian Botanic Garden, Howrah from Eastern India, an interesting population of *Crotalaria* species in flower and fruit was found and a few specimens were collected from the existing population. The voucher specimens were studied critically with relevant literature (Ansari, 2008) and identified as a *Crotalaria medicaginea* var. *neglecta* (Wight & Arn.) Baker. The identification is further confirmed by matching the specimens with images housed at Central national Herbarium (CAL), Howrah. Scrutiny of literature (Ansari, 2008; Ansari and Chauhan 2020; Sanjappa, 2020) reveals that the species so far has been reported from South India (Andhra Pradesh, Karnataka, Tamil Nadu, Telangana), Central-Western India (Madhya Pradesh, Maharashtra),

and Northern India (Himachal Pradesh) and not from Eastern India (Baker, 1879; Prain, 1903; Haines, 1910 & 1921-25; Mooney, 1950; Saxena and Brahmam 1994; Singh *et al.*, 2001). Hence, the present collection from Jharkhand is noteworthy and shows its extended distribution to Eastern India. A detailed description with photographs is provided to facilitate easy identification.

### **TAXONOMIC TREATMENT**

*Crotalaria medicaginea* var. *neglecta* (Wight & Arn.) Baker in Hook.f., Fl. Brit India 2: 81. 1876; Ansari, *Crotalaria* India 307.2008; Ansari & Chauhan, *Crotalaria* India Suppl. 46.2020; Sanjappa in A. A. Mao and S.S. Dash, Fl. Pl. India Annot. Checkl. Dicot. 1: 363. 2020. *Crotalaria neglecta* Wight & Arn., Prodr. Fl. Ind. Orient. 1: 192. 1834.

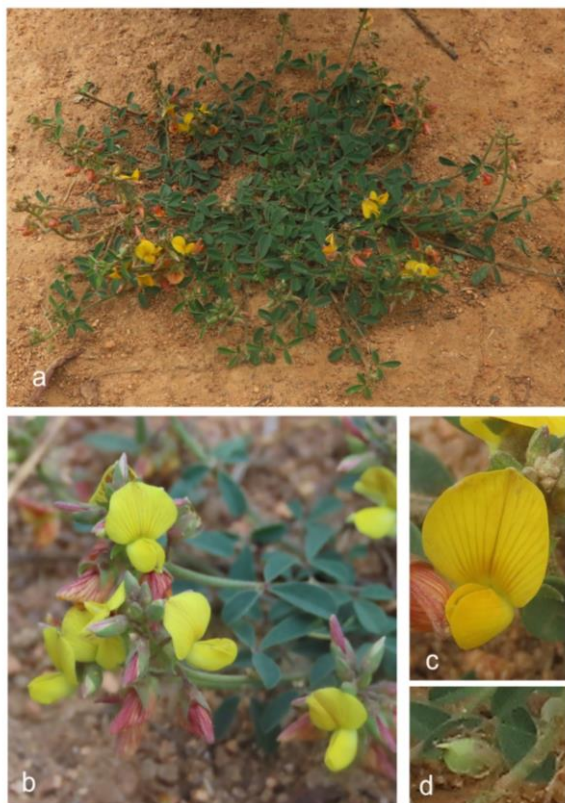
Diffuse, much branched herbs; branches ascending, pubescent. Leaves 3-foliolate; leaflet sobovate-oblongate, cuneate at base, entire along margin, obtuse, retuse or emarginate at apex, 2–8 × 0.5–1 mm, glabrous above, silky beneath; stipules sericeous, c. 1 mm long, deciduous; petioles upto 5mm long; petiolule 0.4–0.8 mm long. Racemes terminal and leaf opposed, 6–12-flowered; peduncle up to 1.5 cm long. Flowers yellow, 4–6 mm long bracts linear, 1 mm long; bracteoles subulate. Calyx 1.5–2 mm long; tube campanulate, 5-lobed; lobes linear-lanceolate, acute at apex, appressed hairy. Corolla yellow twice as long as calyx; vexillum obovate-orbicular, pubescent on the back reddish-veined; wings oblong, obtuse at apex; keel petals ovate-oblong, beak spirally twisted. Stamens monodelphous, 10. Ovary ellipsoid, softly silky. Pods obliquely sub-globose, grooved and shortly beaked, pubescent, 2-seeded.

*Flowering & fruiting:* March– November.

*Habitat & Ecology:* Occasionally distributed in drier parts and also in hilly regions of India.

*Specimens cited:* Jharkhand, Ranchi district, Garh Khatanga, 23° 15' 35.9928" N, 85° 20' 2.85" E, Alt. 666 m., 30.03.2023, V.K. Mastakar 69376 (CAL).

*Distribution:* India (Andhra Pradesh, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu, Telangana and now from Eastern India (Jharkhand), Tropical Asia, Australia and Yunnan.



**PLATE 1.** *Crotalaria medicaginea* var. *neglecta*: **a.** Habit, **b.** Inflorescence, **c.** closeup of flower, **d.** fruit.

## CONCLUSIONS

The present survey led to the confirmed extended distribution of the taxa in Eastern India, which will help in understanding the detailed ecology and distribution of the species.

## FUTURE SCOPE

The species has a symbolic relationship with soil bacteria and the bacteria forms root nodules on the roots and fix atmospheric nitrogen into Ammonia. The species can be used in the barren lands to convert the soil into fertile.

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**Conflict of Interest.** None.

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