

***Crotalaria spectabilis* (Fabaceae); A New Record for Telangana State, India**

Appaiah Asalla¹, Gollamandala Ravi^{2*}, Lingala Paramesh³ and Dasari Veeranjanyulu⁴

^{1&2}Bharatiya Engineering Science and Technology Innovation University, Anantapur, Andhra Pradesh-515731, India

³Applied Palynology Laboratory, Department of Botany, Nizam College, Osmania University, Hyderabad-500001, India

⁴ENVIS Division, EPTRI, Hyderabad, Telangana-500032, India

*Email ID: gollamandala.ravi2@gmail.com

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Abstract

Crotalaria spectabilis Roth belongs to the family Fabaceae has been reported for the first time from the Mancherial district of Telangana state. Detailed description, phenological data, pictorial data and herbarium voucher numbers have been provided here to facilitate easy identification and future references.

INTRODUCTION:

The genus *Crotalaria* in India, comprises of six sections *Crotalaria* sect. *Hedriocarpae* Wight & Arn., *Crotalaria* sect. *Incanae* (Benth.) Polhill, *Crotalaria* sect. *Calycinae* Wight & Arn., *Crotalaria* sect. *Crotalaria*, *Crotalaria* sect. *Stipulosae* (Baker f.) M.M. le Roux & B.-E.vanWyk and *Crotalaria* sect. *Grandiflorae* (Baker f.) Polhill (Le Roux *et al.*, 2013). The genus *Crotalaria* L. is a highly diverse, widely distributed genus found in open areas, plains, hills, along forest margins, and in grasslands with a wide range of habit types, including perennial aquatic herbs, terrestrial creepers, diffuse to erect herbs, shrubs, and trees. The genus *Crotalaria* L. consists of more than 712 species, widespread in Old and New World countries (POWO, 2022) including India with 116 taxa (Nandikar *et al.*, 2018; Rokade *et al.*, 2019, 2020; Dhatchanamoorthy *et al.*, 2021). In Telangana state, the genus *Crotalaria* L. is represented by 27 species (Reddy & Reddy, 2016; Pullaiah, 2015). Since then, three taxa viz., *Crotalaria medicaginea*

Lam. var. *neglecta* (Wight & Arn.) Baker, *Crotalaria mysorensis* Roth and *Crotalaria paniculata* Willd. var. *paniculata* Ansari were added to the Flora of the state (Reddy 2018). Since then, addition of two endemic *Crotalaria* taxa viz., *Crotalaria sandoorensis* Bedd. ex Gamble and *Crotalaria vestita* Baker were added to the Flora of Telangana state (Ravi *et al.*, 2022) from Bhadradi Kothagudem district. The present study resulted in one more *Crotalaria* species is addition to state flora from Mancherial district. Therefore, as of now, there are 33 species of *Crotalaria*, including present addition represented in Telangana state.

MATERIALS AND METHODS

While exploring the flora of Mancherial district of Telangana state, the first author has collected one *Crotalaria* species, from the roadside of Venkatapur village, Kasipet mandal of Mancherial District and it comes under the jurisdiction of Venkatapur Beat, Sonapur Section Devapur Range of Mancherial Forest Division.

After a critical study with relevant literatures Ansari (2002, 2006 & 2008); Gamble (1915-1936); Britto (2019) the specimens have been identified as *Crotalaria spectabilis* Roth. The scrutiny of the literature revealed that this species has not been listed so far in the Flora of Telangana by Pullaiah (2015); Reddy & Reddy, (2016) and the recent Floral checklist by Reddy (2018). Therefore, this species is reported here as a new addition to the Flora of Telangana state. The detailed description and photographs were provided to facilitate easy identification. The voucher specimens are deposited at the Botanical Survey of India, Deccan region, Hyderabad (BSID), Telangana.

RESULTS AND DISCUSSION

Crotalaria spectabilis Roth., Nov. Pl. Sp. 341. 1821; DC., Prodr. 2: 125. 1825 (repr. ed. 1989); Polhill In: Gillett, Polhill & Verdcourt (eds.), Fl. Trop. East Mca 2: 959. 1971; Niyomdham, Thai For. Bull. 11: 155. 1978; Polhill, *Crotalaria* in Africa and Madagascar 372. 1982; Saldan., Fl. Karnataka 1: 442. 1984; Sanjappa, Leg. India.130. 1992; Matthew, Illus. Fl. Palni Hills t. 169. 1996, Fl. Palni Hills 1: 306. 1999; Pullaiah & Ramamurthy, Fl. East. Ghats 1: 197. 2000. **Type:** India, Heyne (CAL).

Description: Erect, annual shrubby herb with many ascending branches, up to 1.5 m tall. Stems and branches terete, sulcate at tender portions, glabrescent. Leaves simple; stipules 6 x 3 mm, ovate, acute at apex; petioles 5 - 7 mm long, pulvinate, densely tomentose; lamina 7.5 - 8.5 x 2.7 - 3 cm, obovate - oblanceolate, base cuneate, apex rounded-obtuse, sub coriaceous, glabrous above and silky pubescent beneath; veins prominent underneath. Racemes 20 - 50 cm long, terminal, 20-30 flowered. Flowers 3 cm long and 2.5 cm across; bracts 5 - 8 x 2 - 4 mm, ovate, foliaceous, deflexed; bracteoles minute, 1-1.5 mm long, lanceolate, inserted on pedicel near the base; petioles 1-1.2 cm long, sparsely puberulous. Calyx bi-lipped, glabrous; tube 4 mm long; lobes subequal, upper two large (1 x 0.5 cm), broadly ovate; lower three narrow (1 x 0.3 mm), acuminate. Corolla bright yellow; standard petal 2 x 2.2 cm, suborbicular with two basal appendages, apex slightly emarginated, spreading backwards; wing petals 2.2 x 1.3 cm, obovate, longer than keel; keel petals 2 x 1 cm, ovate, rounded about the middle with an incurved twisted beak. Staminal sheath 7 mm long; filaments 7 mm and 3 mm long alternately with ovoid (1 mm long) and oblong (3 mm long) anthers alternately.

Ovary 10 x 2.5 mm, glabrous; stipe 2 mm long; style 1 cm long, geniculate, pubescent along the margin, exceeding anther; stigma not expanded. Pods 4 - 5.5 x 1.5 - 2 cm, clavate, glabrous, 20 - 30 seeded; stalk (5 - 8 mm long), flat. Seeds 4 mm dim., obliquely cordiform, smooth, brown.

Distribution: *Crotalaria spectabilis* Roth is pantropical in distribution. It is a native of Asia and is widely introduced to Africa and Madagascar as a green manure and became naturalized there (Polhill, 1982). In India it is frequent in Western Ghats, especially in open forests and wastelands. present reports from Mancherial district, Telangana state.

Habitat and ecology: The species is growing along roadside areas at the elevation of **270** m in association with *Mesosphaerum suaveolens* (L.) Kuntze, *Apluda mutica* L., *Senna occidentalis* (L.) Link, *Lantana camara* L., and *Achyranthes aspera* L. Three mature individuals were observed at Venkatapur Village, Kasipet Mandal of Mancherial district.

Flowering & Fruiting: October- January

Specimen examined: India, Telangana state, Mancherial district, Venkatapur Village, Kasipet Mandal, 26th October 2022, 19.09294N, 79.33300E, 270 m msl. A. Appaiah 619 (BSID).

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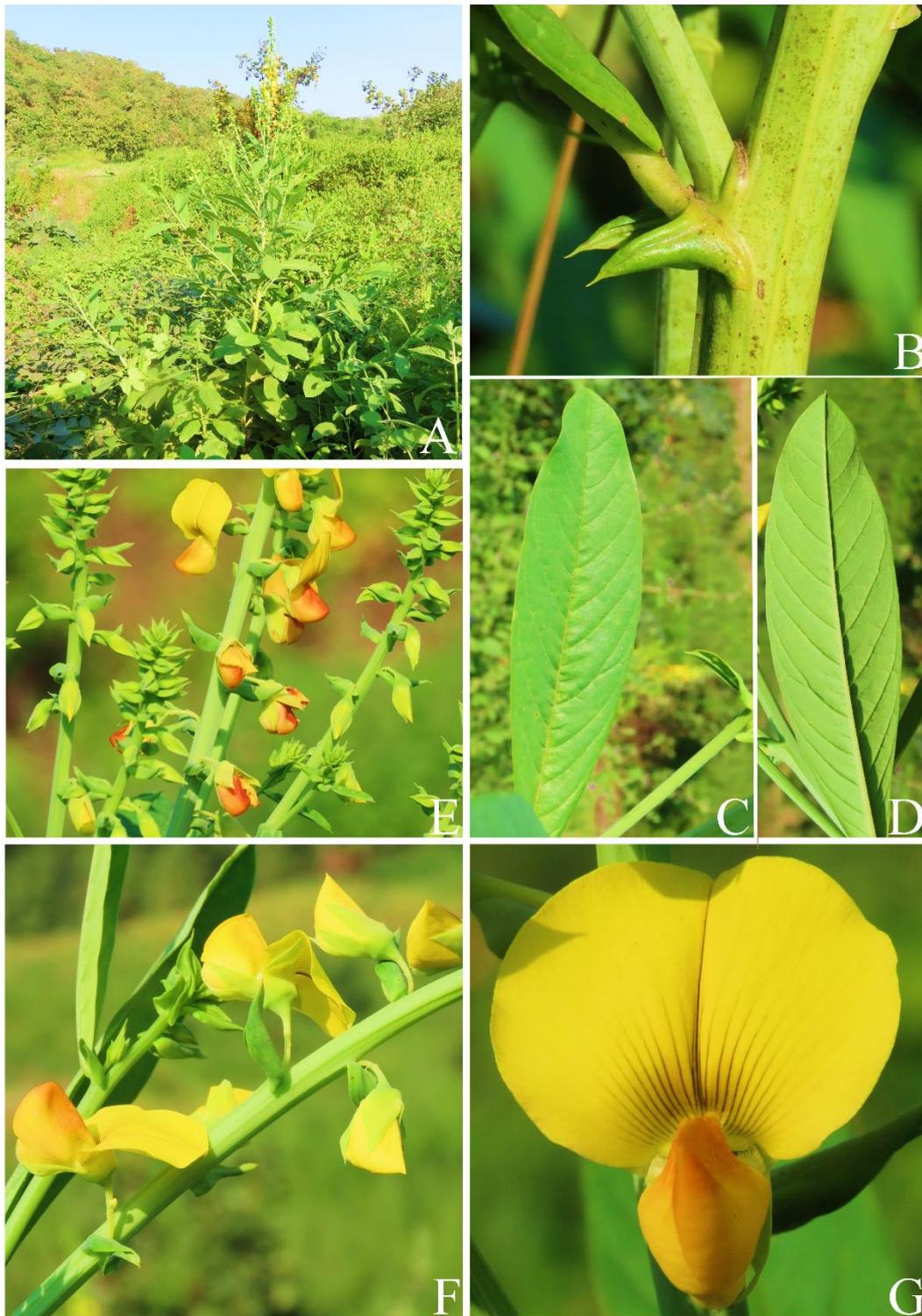


Fig-1. *Crotalaria spectabilis* Roth A. Habitat, B, Stipules, C. Leaf upper surface, D. Leaf lower surface, E & F. Inflorescence, G. Flower close-up.

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