



Occurrence of *Crotalaria epunctata* Dalz. from Satpuda range of Khandesh region of Maharashtra

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Abstract

Satpuda range of Khandesh region with great diversity of plants. The present paper deals with addition of a new flowering plant record from different parts of the Satpuda ranges of Khandesh region of Maharashtra is a new distributional records for the first time. The *Crotalaria epunctata* Dalz. (Fabaceae) is reported for the first time for Satpuda ranges of Khandesh region of Maharashtra. The study provides a detailed taxonomic description, photographs and relevant information based on fresh collections

Keywords: Satpuda range, *crotalaria epunctata* dalz., maharashtra

Introduction

The *Crotalaria* L. "Rattle box plant" is the largest genus of the family Fabaceae (Ansari, 2008) [3]. The common name comes from the loose seeds in the dried pods. The genus *Crotalaria* L. (Fabaceae) is represented by ca. 700 species in the world (Polhill, 1982; Mabberly, 2008; Abdull Jabbar *et al.* 2010) [12, 10, 1] mostly distributed in tropical and subtropical regions. In India, *Crotalaria* L. is the largest genus of the family Fabaceae with 93 species, 1 subspecies 17 varieties and two formas (Ansari, 2008) [3]. Sibichen and Nampy (2007) [13] have reported 67 species and 4 infra-specific taxa for south India. Theodore Cooke (1967) [5] has reported occurrence of 32 species and 3 infra specific taxa for the Presidency of Bombay. Almeida (1998) [2] reported 43 species and 5 infra-specific taxa for the state of Maharashtra. Afterwards Kothari (2000) [8] recorded 42 species and 3 infra-specific taxa as account on flowering plants of Maharashtra. Later on Lakshminarasimhan (2002) [14] added 7 species and 2 infra-specific taxa to the Kothari's contribution. Thus in the flowering plants of Maharashtra, the genus *Crotalaria* L. accounts for 49 species and 5 infra-specific taxa.

The vegetation of Satpuda range of Khandesh region is quite varied and interesting. Khandesh consist of three districts Jalgaon, Dhule and Nandurbar. Khandesh lies at the Northwestern corner of the Deccan plateau, in the valley of the Tapti river, and is bound to the north by the Satpuda ranges, to the east by the Berar (Vidarbha) region, to the south by the hills of Ajanta, belonging to the Marathwada region of Maharashtra, and to the west by the Northern most ranges of the Western Ghats, and beyond that the coastal plain of Gujarat. Khandesh includes varied topographical features and landscape. It lies between 20° 8' and 22° 7' North latitude and 73° 42' and 76° 28' East longitude. Khandesh covers a total area of 26,703.36 sq. km. The forest of the Khandesh region is of dry deciduous type. The vegetation varies with the changes in altitude, aspect and rainfall. While working on floristic of Khandesh region of Maharashtra we undertook frequent collection tours in every season to study plants.

Materials and Methods

During floristic exploration of Satpuda range of Khandesh region of Maharashtra the specimens of *Crotalaria*

epunctata Dalz., were collected from the Toranmal and Chandsaili Ghat area. These forest area is protected area due to permission and consistent support of forest department of Khandesh region exploration was done. After critical examination and consultation of relevant literature, these were identified as *Crotalaria epunctata* Dalz., hitherto unrecorded from Satpuda range of Khandesh region of Maharashtra. The species was first time collected by Singh *et al.* (2000) [14] from Southern Kokan from Maharashtra state. So far this taxon is known only from few collections and seems to be rare and hence it needs immediate steps towards conservations in Maharashtra. In India this taxon is known to be endemic to South India (E. Ghats, N. Circars, W. Ghats, Tirunelveli; 1350 m.). The species was identified with the help of pertinent literature Singh *et al.* (2000) [14], Ansari (2008) [3], Ansari and Chauhan (2020) [20] and the taxa were confirmed by Dr. Anis Ahmad Ansari (Retired Scientist 'E' and Head, B.S.I. Allahabad) and Dr. Jagdish V. Dalavi (BSI Pune).

Literature search (Singh *et al.* 2000, Patil 2003, Kshirsagar 2008 and Khan 2017 and 2019.) [14, 11, 9, 6, 7] and consultation with BSI Herbarium Pune revealed that this species was not reported from Satpuda range of Maharashtra. Hence it is new records for Khandesh region of Maharashtra. The voucher specimens are deposited in the herbarium of Department of Botany, H. J. Thim College of Arts and Science Mehrun, Jalgaon.

Taxonomic treatment

Crotalaria epunctata Dalz. in Hook., Kew J. Bot. 3:210. 1851 *et* Dalz. & Gibs. Bombay Fl. 56. 1861; Sanjappa, Leg. India 119. 1991. *C. albida* Heyne ex Roth var. *epunctata* (Dalz.) Baker in Hook.f, Fl. Brit. India 2:71. 1876. Singh *et al.*, Fl. of Maharashtra St. Dicot.1.629.2000. Ansari in *Crotalaria* L. in India 164. 2008. Fig.1.

Erect much branched, slender undershrubs; stems terete, 1.5-2.0 mm thick, adpressed- pubescent, older less hairy. Leaves simple, membranous, up to 9 cm long; petioles 1-2 mm long, pubescent; lamina obovate or obovate-oblong, 2-9 x 0.5-2.0 cm, acute or cuneate at base, obtuse, rounded, slightly retuse or subtruncate at apex, glabrescent above, slightly paler and piloso-pubescent beneath, main lateral veins 4-10 pairs, obscure; stipules absent. Racemes terminal (rarely inflorescence solitary axillary or paniculate);

peduncles 4-28 cm long, pubescent, with extra bracts. Flowers (-2) 4-15 (-20), 6-12 x 4-6 mm; pedicels 2-6 mm long, pubescent; bracts linear, 1.0-1.5 mm long, pubescent; bracteoles 2, beneath the calyx, linear, 2-4 mm long, pubescent. Calyx 5-lobed, densely brown piloso-pubescent, margins ciliate, tube ca 1 mm long, lobes 7-9 x 1-3 mm, 2-lipped, upper lip 2-lobed, oblong-lanceolate, acute at apex, lower lip 3-lobed, linear or linear-lanceolate, acuminate at apex, divided to half of its length. Corolla white or yellow, more or less equal to the calyx; vexillum obovate-oblong or rhombate-orbicular, 6-11 x 5-8 mm, pilose on the back in the middle or up to the base, claw ca 1 mm long, pilose, straight; wing petals oblong or obovate-oblong, 6-8 x 2-3 mm, rounded at apex, transverse ridges up to the middle or less than its breadth, claw 1 mm long; keel petals 5-9 x 4.5-6.0 mm, margins ciliate, beak 1.5-2.0 mm long, narrow, spirally twisted, claw less than 1 mm long. Staminal sheath 2-3 mm long; free filaments 2.0-4.5 mm long; longer anthers linear-oblong, 1.0-1.7 mm long; shorter anthers ovoid-oblong. Ovary sessile, oblong or obovate-oblong, 4-5 x 1.0-1.5 mm, narrowed upward, glabrous; style 5.0-7.5 mm long; stigma subglobose; ovules 8 or less. Pods oblong or obovate-oblong, 7-11 x 2-4 mm, beaked, glabrous,

yellowish-brown, stalk ca 0.5 mm long. Seeds 6-8 (-12), reniform, 1.0-1.5 x ca 1 mm, brown.

Flowering and Fruiting: September - January

GPS Reading: N 21.760905° E 74.506276°

Habitat: Rare. On hill slopes, amidst grasses at higher elevation, along the forest margins.

Distribution: In Maharashtra only reported from Southern Konkan.

Specimens examined: India, Maharashtra, Nandurbar District Toranmal: TAK 8127 (CAL), 29.10.2025; Chandsaili Ghat TAK 8193 (CAL), 30.10.2025. Jalgaon District Langdha Aamba: TAK 8209 (CAL), 02.11.2025.

Notes: *Crotalaria epunctata* Dalz., is allied to *C. albida* Heyne ex Roth. and some times considered conspecific. Baker (1886) treated it as a variety of *C. albida* Heyne ex Roth. But many authors (Saldanha, 1984; Ansari, 1991; Pullaiah & Ramamurthy, 2000) treated it as a distinct species. The present study in consultation with type and protologue corroborate the distinctiveness of the species. (*Crotalaria epunctata* Dalz. is distinct from *C. albida* Heyne ex Roth. in having erect habit, pubescent leaves and geniculate style against the caespitose habit, glabrous adaxial surface and non-geniculate style in *C. albida* Heyne ex Roth.

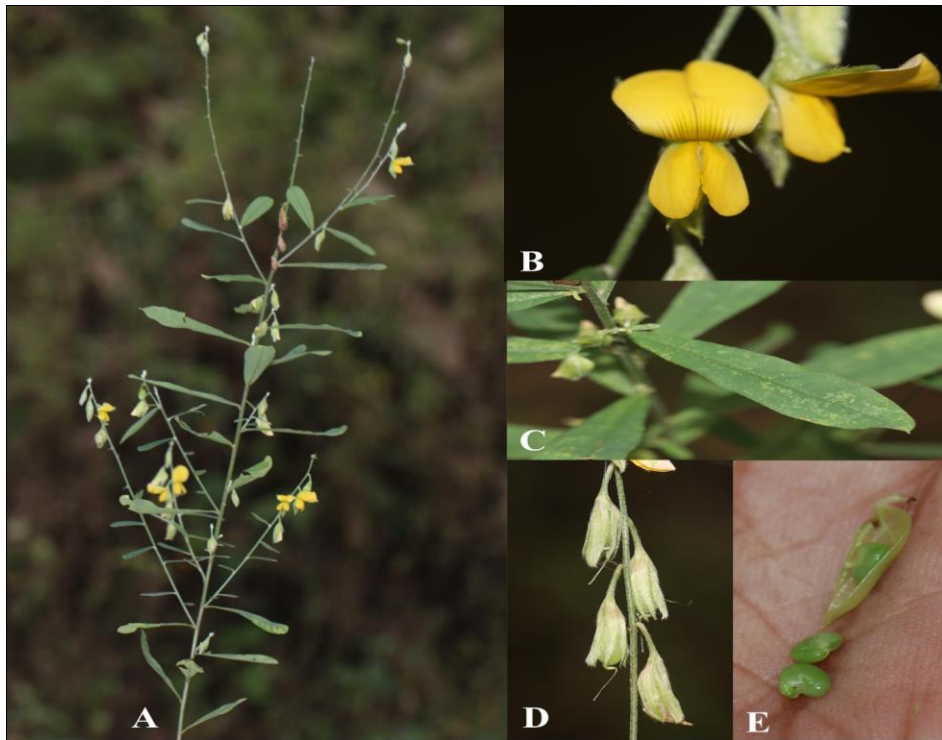


Fig 1: *Crotalaria epunctata* Dalz. A. Habit B. Flower C. Leaf D. Fruits E. Seeds

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