



## ***Gymnema montanum*-New Distributional Record of an Endemic Liana to Odisha, East India**

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**Abstract:** This paper reports new distributional record of *Gymnema montanum* (Roxb.) Hook.f. – an endemic liana to Odisha State. Detailed description and photographs are provided for easy identification and future conservation programme.

**Key Words:** Distribution, endemic liana, *Gymnema montanum*, new record, Odisha, East India.

### **Introduction**

The state, Odisha is situated on the eastern coast of India. It is bestowed with varied physiographic conditions, moderately high rainfall, relative humidity and a fine network of perennial rivers providing congenial conditions for floristic diversity. Till date over 2500 angiosperms and pteridophytes have been recorded from the state, which represents 20 percent of the total floristic elements of India (Saxena & Brahmam 1990). During an exploration trip during December 2013-June 2014 under the project Flora and Ethnobotany of Balasore district, an interesting *Gymnema* species was collected. After a critical scrutiny with the original description and the type specimen available at the BSI herbarium, CAL as well as the relevant literature its identity has been confirmed as *Gymnema montanum* (Roxb.) Hook.f. This plant is used in traditional medicine for various ailments especially for diabetes (Ananthan *et al.*, 2003). The genus *Gymnema* R.Br. is represented by 14 species and two varieties in India (Karthikeyan *et al.*, 2009). This endemic species was thought to be quite rare in mountainous tracts of Western Ghats and West Coast India. Since it forms a new record to Odisha state, a brief description, phenology, distribution along with photo plate has been provided to facilitate its easy identification. The voucher specimen of the same is deposited at the Herbarium of the Central Botanical Laboratory, BSI, Howrah and other specimens to CAL, Howrah.

***Gymnema montanum*** (Roxb.) Hook. f., Fl. Brit. India 4: 31. 1883; Gamble, Fl. Pres. Madras. 840 (590). 1923; Cook, Fl. Pres. Bombay 2:225. 1967 (repr.Ed.); Sharma *et al.*, Fl. Karnataka 167.1984; Manilal, Fl. Silent Valley 178. 1988. *Asclepias montana* Roxb. Fl. Ind. 2: 45. 1832. *Gymnema tingens* (Roxb.) Wight & Arn.var. *ovalifolia* Wight, Ic. t. 592. 1842. *Bidaria montana* (Roxb.) Rahman & Wilcock, Blumea 34: 99. 1989; Sasidh. & Sivar., Fl. Pl. Thrissur For. 285. 1996; Sasidh., Fl. Periyar Tiger Reserve 247. 1998; Pradeep, Fl. Vellarimala 100. 2000. Type: India, mountainous tracts, *Roxburgh s. n.* (n.v.).

A liana, glabrous or nearly so; branches slender, smooth, mature bark corky. Leaves 7.5-12x4-5 cm coriaceous, oblong or ovate-oblong or oblong-lanceolate, obtuse, acute or acuminate at apex, glabrous, base truncate or rounded with few small glands; lateral nerves 5-7 pairs, reticulations prominent; petiole to 2-3.5cm long puberulous. Peduncles to 0.5 cm long, stout shorter than the petioles, pubescent. Flowers 5-30 together, greenish-yellow in corymbose, at length racemose cymes; pedicels 0.7-2 cm long, pubescent, bracts minute, oblong, obtuse, ciliate. Calyx divided to the base; sepals 5-8cm long, linear-oblong, reflexed, ciliate. Corolla-tube ca 5 mm long, narrowly campanulate; lobes about equalling the tube, oblong, subacute; corona of 5 processes adnate to the corolla-tube and alternating

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with its lobes, the apices of the processes not prolonged above the sinus, the margins slightly thickened and densely villous. Staminal-column arising from the base of the corolla-tube; anther-tips acute, pollen masses erect, clavate, compressed, waxy, attached by very short caudicles to the pollen-carriers. Follicles acuminate, 7.5x0.5-1cm.

**Specimen examined:** INDIA. Odisha: Balasore, Kuldiha wildlife Sanctuary, 12-12-2013, R. Saravanan 34409; 10-06-2014 (Central Botanical Laboratory, BSI); Sujana K. A. 35835 (CAL)-Fig.1.



**Figure 1:** *Gymnema montanum* (Roxb.) Hook. f. a- habit; b-corky bark; c- exudation of milky latex; d-young leaves; e-flowering twig; f-inflorescence; g-close view of flower and buds

**Flowering:** May-June; **Fruiting:** September-March.

**Distribution:** Endemic to India: Karnataka (Shimoga); Kerala (Thrissur, Idukki, Wayanad, Palakkad, Kannur, Kozhikode); Maharashtra (Concan, Mahabaleswar); Tamilnadu (Nilgiri hills, Anamalai hills); Odisha (Kuldiha wildlife Sanctuary)

**Ecology:** This plant is rarely growing in Jodachua section of Kuldiha wildlife sanctuary at an elevation of about 317 m (21°24'28" N & 086°35'20" E) in shady places of dense moist deciduous forests. The plant is climbing upon *Vitex peduncularis* growing along with *Pavetta indica*, *Syzygium cumini*, *Macranga phillipensis*, *Dalbergia horrida*, *Canthium coromandellicum* and *Casearia elliptica*. A total of 4 mature and 12 saplings were observed.

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