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Six taxa of angiosperms as new distributional records for Chhattisgarh, India

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ABSTRACT

The paper deals with six taxa of angiosperms viz., *Jasminum roxburghianum* Wall. ex C.B. Clarke, *Kyllinga odorata* Vahl subsp. *cylindrica* (Nees) T. Koyama, *Lecanthus peduncularis* (Wall. ex Royle) Wedd., *Neanotis calycina* (Wall. ex Hook. f.) W.H. Lewis, *Stylosanthes hamata* (L.) Taub. and *Tylophora fasciculata* Buch.-Ham. ex Wight which are reported as new distributional records for the state of Chhattisgarh, India.

Key words: Angiosperms, New record, Chhattisgarh, India.

INTRODUCTION

Chhattisgarh, the 26th state of India, lies between 17° 46' – 24° 5' N latitude and 80° 15' – 84° 20' E longitude at an average altitude of 300 m. The state has 46% of forest cover of its total area which is quite higher than the recommendation of National Forest Policy of the country. The state experiences tropical monsoon type of climate receiving an average rainfall of about 150 cm. There are three main types of forests viz., tropical moist deciduous, tropical dry deciduous and montane subtropical in the state (Kumar et al., 2003; Khanna et al., 2005). A perusal of literature indicates that although floristic diversity (angiosperms) of the state has been worked out (Khanna et al., 2005) and further several new additions to the angiospermic taxa have been reported by various workers (Khanna and Jha, 2005; Tiwari, 2014, 2015a, 2015b, 2017; Tiwari and Ansari, 2014; Tiwari and Shukla, 2013, 2015; Singh, 2016; Tiwari et al., 2016, 2018a, 2018b, 2018c), it appears that the list is still not exhaustive. While working on the angiospermic diversity of the state, the authors

recorded six taxa of angiosperms which are hitherto not reported from Chhattisgarh. These taxa are reported in the present paper with their correct name, full nomenclatural citation, description of the plant, habitat, phenological data and specimens examined. All the cited specimens are housed in the herbarium of Botanical Survey of India, Central Regional Centre, Allahabad (BSA).

ENUMERATION

Jasminum roxburghianum Wall. ex C.B. Clarke in Hook. f., Fl. Brit. India 3: 595. 1882. (**Oleaceae**).

Large climbing shrubs; branches pubescent. Leaves opposite, elliptic, 4-6 x 2-3.5 cm, obtuse at apex, broadly cuneate or rounded at base, velvety tomentose on both the surfaces; lateral nerves distinct; petioles 0.5-1 cm long. Flowers in terminal, trichotomous, many-flowered cymes; bracts 1-2 mm long. Calyx 3-4 cm long, pubescent. Corolla greenish white; lobes 5, ovate or lanceolate, 10-15 mm long. Fruits usually simple, ellipsoid, black, smooth.

Habitat: In mixed forests.

Flowering & Fruiting: March - May.

Specimen examined: Bastar, Baikunth 406 (BSA).

Kyllinga odorata Vahl subsp. ***cylindrica*** (Nees) T.Koyama, Gard. Bull. Singapore 30: 161. 1977. *Kyllinga cylindrica* Nees, Contr. Bot. India 91. 1834; C.B.Clarke in Hook.f., Fl. Brit. India 6: 588. 1893, p.p. (**Cyperaceae**).

Tufted perennials, 10-30 cm high. Rhizomes short, covered with brown fibres; stolons absent. Stems slender, triquetrous, ca 1 mm thick. Leaves few, linear, 1.5-9 x 0.2-0.4 cm, acute, scabrid on upper margins; sheaths 2-5.5 cm long, pale brown. Inflorescence a head with 1-3 spikes, whitish green; central spike 1-1.4 cm long, cylindrical; lateral spikes globose, much shorter than the central spike; leafy bracts 3-5, the lowest up to 8 cm long. Spikelets elliptic, 2-2.5 mm long, flattened. Glumes 4; basal 2 small, ca 2 mm long; upper 2 glumes ca 2.5 mm long, broadly ovate, folded with green, smooth keel. Stamens 2. Style short; stigmas 2. Nuts laterally compressed, biconvex, obovate or elliptic-obovate, truncate at apex, ca 1.5 x 1 mm, yellow.

Habitat: In moist places.

Flowering & Fruiting: September – November.

Specimen examined: Bilaspur, A.P. Tiwari 75379 (BSA).

Lecanthus peduncularis (Wall. ex Royle) Wedd. in DC., Prodr. 16(1): 164. 1869. *Procris peduncularis* Wall. ex Royle, Ill. Bot. Himal. Mts., pl. 83, f. 2. 1839. *Lecanthus wightii* Wedd. in Ann. Sci. Nat. Bot. Ser. 4. I: 187. 1854; Hook.f., Fl. Brit. India 5: 559. 1888. (**Urticaceae**).

Annual, succulent herbs. Leaves opposite, in unequal pairs, obliquely ovate, acute, acuminate or caudate at apex, subcuneate at base, membranous, coarsely dentate or serrate-crenate, sparsely pubescent above and on veins beneath; petioles 2-4 cm long; stipules entire or dentate. Flowers in pedunculate heads; peduncles 8-15 cm long. Male tepals 4-5. Stamens 4-5. Pistillode rudimentary or absent. Female tepals 3, minute, unequal. Stamines minute. Achenes compressed, ovoid, minute.

Habitat: In rocky moist places.

Flowering & Fruiting: August - October.

Specimen examined: Bilaspur, A.P. Tiwari 75469 (BSA).

Neanotis calycina (Wall. ex Hook.f.) W.H.Lewis in Ann. Missouri Bot. Gard. 53: 37. 1966. *Anotis calycina* Wall. ex Hook.f., Fl. Brit. India 3: 73. 1880. (**Rubiaceae**).

Annual, erect, glabrous herbs. Stems 4-angled. Leaves opposite, ovate-lanceolate, membranous, sparsely pubescent. Flowers in few-flowered, axillary or terminal cymes; bracts and bracteoles small. Calyx-tube compressed; lobes well separated. Corolla

infundibuliform, purple; lobes recurved. Capsules truncate, didymous, sessile, each cell many-seeded. Seeds peltate, reticulate.

Habitat: In rocky slopes.

Flowering & Fruiting: August - October.

Specimen examined: Bilaspur, A.P. Tiwari 75483 (BSA).

Stylosanthes hamata (L.) Taub. in Verh. Bot. Brand. 32: 22. 1890; Mohlenbrock in Ann. Miss. Bot. Gard. 44: 324. 1957; Kumar & Khanna in Indian Forester 144(5): 485. 2018. *Hedysarum hamatum* L., Syst. Nat. ed. 10. 2: 1170. 1759. (**Fabaceae**).

Profusely branched herbs, up to 50 cm high. Stems with a line of pubescence on one side. Leaves 3-foliolate; leaflets lanceolate-elliptic, up to 2.5 x 0.5 cm, glabrous, prominently nerved beneath, acute at apex, slightly inequilateral at base; petioles 5-7 mm long; stipular sheath up to 2 cm long, 2-toothed at apex. Flowers yellow, in terminal, ovoid or oblong spikes; outer bracts 3-foliolate, the inner ones 1-foliolate, ciliate. Calyx-tube 2-4 mm long; lobes acute, ciliate. Standard suborbicular, ca 4 mm long; wings ca 3.5 mm long, clawed, auriculate; keel ca 3.5 mm long, falcate. Stamens monadelphous. Loments reticulate, oblong, 3.5-4 mm long; beak uncinat, pubescent. Seeds yellowish brown, rhomboid, ca 2 mm long, smooth.

Habitat: In open grassy fields.

Flowering & Fruiting: September – November.

Specimen examined: Dhamtari, Lalit Kumar 388 (BSA).

Tylophora fasciculata Buch.-Ham. ex Wight, Contr. Bot. India 50. 1834; Hook.f., Fl. Brit. India 4: 40. 1883. (**Asclepiadaceae**).

Erect undershrubs; roots thick, fascicled. Leaves lanceolate or ovate, 2-4 cm long, acute at apex, cordate or rounded at base, coriaceous, glabrous above, puberulous on veins beneath; petioles 6-10 mm long. Flowers in lateral, paniculate cymes; peduncles 2-3 mm long, pubescent; pedicels 5-8 mm long, pubescent. Calyx 5-lobed; lobes deltoid, revolute at anthesis, sparsely pilose. Corolla purplish brown, 5-lobed; lobes lanceolate, 2.5-3 mm long, pilose inside. Corona-lobes rounded with a short cusp. Follicles usually solitary, ovoid, 4-5 cm long, glabrous.

Habitat: In mixed forests.

Flowering & Fruiting: April - May.

Specimen examined: Bastar, Hariom Saran Sahi, 238 (BSA).

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