



**SOME NEW ADDITIONS TO THE FLORA OF AMRAVATI DISTRICT,  
(M.S.) INDIA.**

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**ABSTRACT**

Present paper deals with the addition of 08 new plant species belonging to 07 families from the region viz., *Hibiscus hispidissimus* Griff. (Malvaceae), *Senna alata* (L.) Roxb (Fabaceae), *Datura ferox* L. (Solanaceae), *Argyrea cymosa* Sweet, (Convolvulaceae), *Adelocaryum coelestinum* (Lindl.) Brand, (Boraginaceae), *Lepidagathis cuspidata* Nees., *Petalidium barlerioides* (Roth) Nees (Acanthaceae), *Boerhavia chinensis* (L.) Rottb (Nyctaginaceae). Correct and updated citation, local name, a short description, along with distribution is provided for future work.

**KEYWORDS:** Additions, Flora, Amravati District.

**INTRODUCTION**

Amravati District is a part of Maharashtra state located in its north region and lies between latitudes 21<sup>o</sup> 15'-21<sup>o</sup>45' N, and longitudes 76<sup>o</sup>-57'- 77<sup>o</sup> 33' E, endowed with very various topography, having plains, mountainous ranges- famous Melghatharboring Tiger Sanctuary - and low hills, and water bodies. Earlier documentation on the floristic exploration of the area –in the form of ‘Flora of Amravati District’, done by Dhore M.A. (1986) – describes 1084 species belonging to 126 families. Several new distributional reports have been published from region (Bhogaonkar and Dhole, 2012, 2014). As a continuation of botanical exploration,

during our filed surveys in the year 2009-2013 many taxa were collected from the region. After proper identification with the help of regional and standard floras it is found that some plant species are not reported in earlier works. So this plant species found to be new report to the flora of Amravati District. The species are listed here according to the Bentham and Hooker's system with a little adjustment as per recent literature. A brief description with prominent characters is included.

## MATERIALS AND METHODS

Plants were collected, identified with the help of standard floras (Hooker 1897, Cooke 1967, Naik 1998, Singh and Karthikeyan, 2000, Singh *et al.*, 2001, Yadav and Sardesai, 2002), and herbarium specimens made are deposited in the herbarium of Botanical Survey of India, Pune.

## OBSERVATIONS AND RESULTS

### Malvaceae

*Hibiscus hispidissimus* Griff. Not. Pl. Asiat. 4: 521. 1854; Pradeep & Sivar. in Taxon 40: 637. 1991. *H. furcatus* Roxb. ex DC. Prodr. 1: 448. 1824 non Willd. 1809; Mast. in Hook. f. Fl. Brit. India 1: 335. 1874; Cooke, Fl. Pres. Bombay 1: 112. 1958 (Repr.). *H. aculeatus* Roxb. Fl. Ind. 3: 206. 1832 non Walter 1788; Paul & Nayar in Nayar *et al.* Fasc. Fl. India 19: 123. 1988; Paul in Sharma *et al.* Fl. India. 3: 323. 1993.

Rambling, subfruticose undershrubs, nearly 1.5 m high. Leaves entire or palmately 3–5-lobed, margins crenate–dentate. Flowers solitary, axillary, 5–10 cm across; epicalyx with 8–12 segments, hispid; calyx deeply 5 cleft, 3-nerved; corolla yellow with purple centre. Capsules c. 1.5 cm long, ovoid. Seeds reniform, 4–5 mm across, brown.

**Fls. & Frts.:** September–February.

**Distribution:** Hilly tracts of Chikhaldara and Dharni

**Occurrence:** Rare

**Specimen examined:** PAD135

### Fabaceae

*Senna alata* (L.) Roxb. Fl. Ind. 2: 348. 1832; *Cassia alata* L. Sp. Pl. 378. 1753; Baker in Hook. f. Fl. Brit. India 2: 264. 1878; Cooke, Fl. Pres. Bombay 1: 454. 1958 (Repr.); Sanj. Leg. India 14. 1991. *C. bracteata* L. f. Suppl. 232. 1781.

Shrubs, up to 2 m high. Leaves 30–60 cm long; leaflets 8–14 pairs, 5–12 x 2.5–8.0 cm, lower oblong–elliptic, upper broadly obovate. Flowers 2.5 cm across, yellow. Pods 10–20 cm long, 1.5 cm broad with a wing down the middle of each valve, oblong, thin, shortly stipulate. Seeds many, transverse.

**Fls. & Frts.:** September–December.

**Distribution:** Badnera, spreading very fast throughout district

**Occurrence:** Common throughout the district.

**Specimen examined:** PAD198

### Solanaceae

*Datura ferox* L. Amoen Acad. 3: 403. 1756; Avery et al. in Blakeslee, Genus Datura 21, t. 4.1959; Bhandari & Mehta in J.Bombay Nat. Hist. Soc. 76: 550, f. 5. 1980.

Undershubs, upto 1.5 m high. Leaves angular and sinuate. Flowers white, solitary, axillary; corolla 5, toothed, 4.5 cm long, 2.3 cm wide. Capsules ovoid, 5.8 x 4.6 cm, spines few, of unequal size.

**Fls. & Frts. :** August - September.

**Distribution:** Near Chandur-rly road in waste places

**Occurrences:** Common throughout the district.

**Specimen examined:** PAD179

### Convolvulaceae

*Argyreia cymosa* (Roxb.) Sweet, Hort. Brit. ed. 289.1827; C.B.Cl. in Hook.f. Fl. Brit. India 4: 190. 1883; Cooke, Fl. Pres. Bombay 2: 327.1958 (Repr.); Naik, Fl. Osmanabad 216. 1979.  
*Lettsomia cymosa* Roxb. Fl. Ind. 2: 82. 1824.

Liana; stems terete, pubescent. Leaves 5.11 x 6.12 cm, ovate or suborbicular, pubescent on both sides, apex shortly acuminate, base cordate. Flowers in branched, corymbose cymes, peduncles hairy; bracts suborbicular, persistent, softly pubescent; corolla pale pink, infundibuliform, densely hairy outside. Berries 1.8.2.0 cm across, globose, brown.

**Fls. & Frts. :** September - March.

**Distribution:** On field hedges of Morshi Tehsil

**Occurrence:** Rare

**Specimen examined:** PAD 167

**Boraginaceae**

*Paracaryopsis coelesina* (Lindl.) R. Mill. In Edinb. J. Bot. 48: 57. 1991. *Cynoglossum coelestinum* Lindl. Bot. Reg. 25: t. 36. 1839. *Paracaryum coelestinum* (Lindl.) Bth. & Hook.f. Gen. Pl. 2: 850. 1876; C.B.Cl. in Hook.f. Fl. Brit. India 4:160. 1883; Cooke, Fl. Pres Bombay 2: 285.1958 (Repr.). *Adelocaryum coelestinum* (Lindl.) Brand. In Feddes Repert. 13: 549.1915 & in Engl. Pflanzenr. 78: 78, 79, f. 8.1921; Sant. in Rec. Bot. Surv. India 16(1): 167. 1967 (3rd Rev. ed.). 'Nisurdi'.

Erect branched, biennial or perennial herbs, 0.5.1 m tall; stems and branches reddish. purple, young parts subscabrous. Leaves: radical 12.20 x 8.18 cm, broadly ovate, apex acute, base cordate; cauline leaves 4.8 x 1.5.3.5 cm, ovate, scabrid on both sides, base cuneate. Flowers in forked racemes; calyx ciliate, persistent; corolla 0.6cm long, campanulate, lobes 0.4.0.5 cm long. Nutlets ovate, 4, margins prominent.

**Fls. & Frts.** : September - November.

**Distribution:** Malkhed

**Occurrence:** Common throughout the district near wet land.

**Specimen examined:** PAD 152

**Acanthaceae**

*Lepidagathis cuspidata* Nees in Wall. Pl. As. Rar. 3: 97. 1832. C.B.Cl. in Hook. f. Fl. Brit. India 4: 519. 1885; Cooke, Fl. Pres. Bombay 2: 478.1958 (Repr.); Sant. in Univ. Bombay Bot. Mem. 2: 73. 1952.

Undershrubs, erect; stems and branches quadrangular, glandular, pubescent upwards. Leaves of branches are smaller than main stem, leaves of main stem 6.12 x 2.0 .4.5 cm, oblong, lanceolate, apex acute or acuminate, usually mucronate, base acute, cuneately tapering and decurrent into the petiole nearly to its base. Flowers whitewith darker lines in terminal spikes often terminating in short, axillary branches. Capsules nearly 0.8 cm long, ovoid, lanceolate, acute. Seeds 4, about 0.25 cm long, nearly as broad as long, ovoid, compressed, rounded at apex, hygroscopically hairy, especially on margins with hairs shorter than nucleus.

**Fls. & Frts.** : March - May.

**Distribution:** Near Paratwada and Achalpur

**Occurrence:** Not common

**Specimen examined:** PAD 114

*Petalidium barlerioides* (Roth) Nees in Wall.Pl. As. Rar. 3:82.1832; C.B.Cl. in Hook. f. Fl. Brit. India. 4:416. 1884; Cooke, Fl. Pres.Bombay 2:435. 1958 (Repr.); Sant.in Univ. Bombay Bot. Mem. 2:29.1952.

Shrubs, 0.5-1.5 m. high; stems numerous, subterete. Leaves 5.10x 3.5-6.5 cm broadly ovate, apex acuminate, base usually rounded, crenate serrate. Flowers white, solitary, usually crowded on abbreviated, lateral, strongly nerved and reticulately veined, green at first, becoming pale brown and scarious in age, ciliolate. Capsules 1.2-1.5 cm long, clavate, pointed. Seeds usually 2, reaching 0.5 cm across, orbicular, softly villous especially on the margin.

**Fls. & Frts.** : January- June.

**Distribution:** On farm hedges near Morshi and Warud

**Occurrence:** Common throughout the district.

**Specimen examined:** PAD 178

### Nyctaginaceae

*Boerhavia chinensis* (L.) Aschers & Schweinf. in Schweinf. Beitr. Fl. Aeth. 1: 167.1867; Stemmerik in Steenis, Fl. Males. Ser. 1,6(3): 455. 1964. *Valeriana chinensis* L. Sp.Pl. 33.1753. *Boerhavia repanda* Willd. Sp. Pl. 1: 22. 1797; Hook. f. Fl. Brit. India 4: 709. 1885; Cooke, Fl. Pres. Bombay 2: 564. 1958 (Repr.). *Commicarpus chinensis* (L.) Heimerl. in Engl. & Prantl Nat. Pflanzenf. ed. 2,16 c: 117. 1934. *Punarnava*

Herbs, diffuse, subscandent. Leaves 3.5-7.0 x 3.5 cm, deltoid. ovate, apex acute or acuminate, base cordate or truncate, repand. sinuate, glabrous above, pubescent beneath. Flowers pink in 3-8 flowered umbels on 2.0-5.5 cm long slender peduncles. Anthocarp 0.6 cm long, clavate, faintly ribbed, rough with glandular knobs.

**Fls. & Frts.:** October - February.

**Distribution:** As a weed in Morshi, Warud tehsil

**Occurrence:** Common throughout the district.

**Specimen examined:** PAD142

### CONCLUSION

Though the floristic explorations are being made continuously in different regions of all states, and new species and new distributional reports are continuously being published; yet more remains to be explored, especially regarding the distribution of ephemerals and

seasonal. The significance of such field research is the detection of novel additions to a floristic region, which subsequently improves our understanding of plant biogeography and species diversity.

## REFERENCES

1. Bhogaonkar PY and Pankaj Dhole. "Nymphoides hydrophylla (Lour.) O. Ktze. (Menyanthaceae) – A new report for the flora of Amravati distt. (M.S.). Vidarbha Journal of Science, 2012; 7 (3 – 4): 31-34.
2. Bhogaonkar PY and Dhole PA. *Luffa echinata* Roxb. (Cucurbitaceae) – New Distributional Record for Vidarbha (Maharashtra). Sci. Res. Rept., 2014; 4(1): 21-23.
3. Cooke T, (Rpr). The Flora of the Presidency of Bombay. Vol. II. Botanical Survey of India. Calcutta, 1967.
4. Dhore MA. Flora of Amravati District with special reference to the distribution of tree species, Amravati University, Amravati: 1986.
5. Hooker JD, (Rpr.). The Flora of British India. Vol. IV, Periodical Expert Book Agency, New Delhi: 1897.
6. Singh NP and Karthikeyan S. Flora of Maharashtra State: Dicotyledones, Vol. I (Ranunculaceae to Rhizophoraceae). Botanical Survey of India, Howrah: 2000.
7. Singh NP, Lakshminarasimhan P, Karthikeyan S and Prasanna PV. Flora of Maharashtra State: Dicotyledones, Vol. 2: (Combretaceae to Ceratophyllaceae). Botanical Survey of India, Howrah: 2001.
8. Naik VN. Flora of Marathwada. Amrut Prakas, Aurangabad: 1998.
9. Yadav SR and Sardesai MM. Flora of Kolhapur District. Shivaji University, Kolhapur (India): 2002.