



Research Paper

**ADDITION TO THE FLORA OF MARATHWADA REGION,
MAHARASHTRA**

*Raut D. U., **S. S. Kamble and *Survase S. A.

*Department of Botany,

Lalbahadur Shastri Senior College, Partur Dist. Jalna – 431501 (M.S.) India,

**Department of Botany,

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India.

Abstract

The present paper deals with addition of eleven taxa of flowering plants to the Flora of Marathwada Region Maharashtra. Updated nomenclature, name of the family, locality, flowering and fruiting season and exsiccata are given for each species.

Key words: Additions, Marathwada, Flora.

INTRODUCTION

After the publication of Flora of Marathwada Naik *et al.*, (1998), many taxa of flowering plants were collected and reported by various authors such as Almeida (2003), Sonje *et al.* (2007), Kare *et al.* (2008), Rathor (2006, 2008), Rathor & Chavan (2002), Rathor *et al.* (2007), Wadood Khan & Solanke (2008) and Survase *et al.* (2009, 2009), Gore *et al.* (2011).

During our field survey, many taxa were collected from the region. Specimens were brought to laboratory and processed for herbarium specimens with standard procedures Survase and Dhabe (2008). Majority of the specimens were satisfactorily identified by using pertinent literature. After critical investigations authors found that 12 taxa are not reported from the region. Correct and updated citation, a short description and note on its phenology is depicted for each taxon followed by a note on ecology and taxonomic identity.

The voucher specimens are deposited in the BAMU Herbarium of Department of Botany, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

Enumeration of Taxa

1) **Bauhinia vahlii** Wight & Arn. Prodr. 297. 1834; Baker in Hook f. Fl. Brit. India 2: 297. 1878; Sanj. Leg. India 6. 1991.

The spreading stout branches are covered with rusty fine hair. The stout tendrils are coiling and occur in pairs. Large leaves are 10-45 cm, 2-lobed with a broad cut. The white flowers, 2-3 cm across, turn yellow when old. The flowers are borne in rounded clusters. They have has 3 fertile stamens and 7 staminodes. Fruit is a flat woody pod with fine rusty hairs.

Fls. & Frts.: April-June

Exsiccata: SAS 7760

Locality: Aurangabad

Note: Cultivated plants but much more cultivation

Rubiaceae

2) **Mussaenda glabrata** (Hook f.) Hutch ex. Gamble, Fl. Pres. Madras 610. 1962, (2: 430. 1957); Jayaweera in J. Arnold Arbor, 44. 241. 1963; *M. frondosa* var *glabrata* Hook f. Fl. Brit. India 3: 90. 1880; *M. frondosa* L. Sp. Pl. 177. 1753; Cooke Fl. Pres Bombay 2: 24.1958.

Shrub or small tree. Stems and veins are red and so indented are the leaves by these veins that they have a quilted appearance. This swells at the end and opens into five triangular petals, like orange velvet. Beneath, these are pale green and the center of the flower is yellow. Flowers one sepal of the calyx is prolonged into an oval bract, dead white in color and very distinctive.

Fls. & Frts.: Oct-Dec.

Exsiccata: SSK -7754

Locality: Aurangabad

Note: Cultivated plants but much more cultivation.

Campanulaceae

3) **Campanula alphonisii** Wall. Ex. A.DC. in DC. Prodr. 7: 473. 1939; C. B. Cl. In Hook f. Fl. Brit. India 3: 440. 1881; Cooke Fl. Pres. Bombay 2: 134. 1958.

Leaves simple, alternate or forming rosettes at the base. Inflorescence 1-many flowered, with racemes or spikes. Flowers blue to purple or white. Sepals 5, with or without reflexed appendages between lobes; calyx tube adnate to the ovary, segments 5-lobed. Corolla campanulate, funnel-shaped or tubular. Stamens 5, free, filaments dilated at the base. Ovary 3-locular; style cylindrical; stigmas 3. Fruit a capsule.

Fls. & Frts.: Sept.-Oct.

Exsiccata: SSK 7753

Localities: Aurangabad; Daultabad

Note: Newly introduce in grass land forest.

Asclepiadaceae

4) **Gomphocarpus fruticosus** W. T. Aiton, Hortus Kew. ed. 2. 2: 80. 1811.

Shrubs to 2 m tall. Stems puberulent. Leaves opposite, short petiolate; leaf blade linear or linear-lanceolate, 6-10 cm × 5-8 mm, glabrous, apex acuminate, margin revolute; lateral veins inconspicuous. Cymes 4-6 cm. Flower buds globose. Sepals lanceolate, puberulent. Corolla white; lobes broadly ovate or elliptic, reflexed, ciliate. Corona lobes dark, hood-like. Follicles inflated, 5-6 × ca. 3 cm, apex acuminate.

Fls. & Frts.: June-Sept.

Exsiccata: SSK 7749

Locality: Aurangabad

Note: First time report in Maharashtra. Ornamented plants cultivated or grow in wild field.

5) **Marsdenia tenacissima** (Roxb.) Moon Cat Pl. Ceylon 21. 1824; Hook f. Fl. Brit. India 4: 35. 1883; Cooke Fl. Pres Bombay 2: 230. 1958 (Repr.); *Asclepias tenacissima* Roxb. Pl. Cor. 3: 35 t. 240. 1819.

Lianas robust, densely pilose to tomentose throughout except for interior of corolla. Petiole 5-6 cm, slender; leaf blade ovate, base deeply cordate with rounded sinus, apex acuminate; basal veins 5-7, lateral veins 2 or 3 pairs. Inflorescences much branched, broader than long, to many flowered; peduncle to 2 cm, shorter than first internode. Corona lobes exerted from corolla tube, oblong, apex truncate-emarginate with corners produced into short thorns, sometimes toothed between these.

Fls. & Frts.: Sept.-April

Exsiccata: SAS 7761

Localities: Beed; Wadawani

Solanaceae

6) **Datura suaveolense** Humb. & Bonl. Ex Wild Enum, Hort Berol 227. 1809; Deb in J. Eco. Tax. Bot. 1: 38. 1980.

Woody shrub or small tree. The leaves are generally oval in shape. The corolla has five points that are slightly recurved. The flowers are usually white but may be yellow or pink and are pendulous. These may be yellow, orange, white, pink or multi-colored and are more prone to hang straight down.

Fls. & Frts.: Sept.-Oct.

Exsiccata: SAS 7752

Locality: Aurangabad

Note: Ornamented plants grow in cultivated.

Acanthaceae

7) **Barleria lawii** T. Anderson in J. Linn. Soc. 9: 492. 1867; C.B. Cl. In Hook f. Fl. Brit. India 4: 486. 1884; Cooke Fl. Pres Bombay 2: 460. 1998.

Shrubs, perennial, erect, up to 2 m high. Stems terete, strigose and glandular-pubescent when young. Leaves elliptic-lanceolate attenuate at base, acuminate at apex, lineolate and strigose above. Flowers solitary, axillary or in short racemelike cymes, often forming a terminal panicle. Outer sepals subequal; elliptic-lanceolate, entire at margin, acuminate at apex, strigose and glandular-pubescent. Corolla bilipped, glandular-pubescent. Fertile stamens 2, exserted; filaments. Capsules ellipsoid, compressed, glabrous.

Fls. & Frts.: October – March.

Exsiccata: SSK 7757

Locality: Aurangabad.

Note: Plants are newly introducing cultivated or wild fields.

Moraceae

8) **Ficus virens** Ait. Hort Kew 3: 451. 1789; F. infectoria Roxb. Fl. Ind. 3: 551. 1832 non wild 1806; King in Ann. Roy Bot. Gard Calcutta 1: 60 t. 75 1887.

A large tree in excess of 30 metres tall, and a trunk diameter exceeding 1.8 metres. Leaves Alternate on the stem, 5 to 20 cm long, 2.5 to 6 cm wide. Ovate lanceolate in shape, which contrasts to the broader leaves. Leaves with a short but noticeable tip, often curling to one side.

Fls. & Frts.: Sept.-April

Exsiccata: SAS 7759

Localities: Beed; Manjarsumba

Note: Plants are introducing in road side.

Urticaceae

9) **Laportea interrupta** (L.) Chew. In Gard Bull Singapore 21: 200. 1965. *Urtica interrupta* L. Sp. Pl. 985. 1753; Hook f. Fl. Brit. India 5: 548. 1888; Cooke Fl. Pres. Bombay 3: 131. 1958 (Repr.).

Herbs annual, monoecious. Stems straight, branched, 40-100 cm tall; upper stems and petioles sparsely armed with short stinging and pubescent hairs. Stipules ovate-oblong, leaf blade ovate or cordate, stinging hairs, base abruptly cuneate or shallowly cordate, margin serrate, apex acuminate; cystoliths botuliform, regularly arranged abaxially along veins. Male flowers pedicellate, in bud ca. 1.2 mm; perianth lobes (3 or)4, connate 1/2 of length, obovate, puberulent, apex corniculate; stamens (3 or)4; Female flowers: pedicel to 1.5 mm, not winged; perianth lobes 4, free, unequal, dorsal lobe ovate, 2 lateral lobes largest, enclosing the ovary, broadly ovate, ventral lobe smallest, triangular ovate. Ovary asymmetrically triangular; stigma reflexed, filiform, 3-fid, ca. 0.3 mm. Achene obliquely triangular.

Fls. & Frts.: Aug.-Sept.

Exsiccata: SSK 7748

Locality: Aurangabad

Note: Newly introducing in grass land forest.

Hypoxidaceae

10) **Monileria capitulata** (Lour.) Herb. Amaryllid 84. 1837. *Leuconjun capitulatum* Lour Fl. Cochinch 199. 1790; *Curculigo recurvata* Dryand in Ait. Hort, Kew ed 22: 253. 1811; Hook f. Fl. Brit. India 6: 278. 1892; Cooke Fl. Pres. Bombay 3: 255. 1958 (Repr. ed).

Herbs to 1 m tall, stout. Rhizomes tuberous, thick, with creeping, slender stolons. Leaves often 4-7; petiole 30-80 cm; leaf blade oblong-lanceolate to suboblong. Flowering stems (10-)15-30 cm, brown villous. Perianth yellow; segments ovate-ob-long, apex obtuse, outer segments adaxially hairy, inner ones adaxially hairy on midvein or at base of mid-vein. Stamens 5-6 mm; filament less than 1 mm; anther linear. Ovary subglobose to oblong, hairy. Style longer than stamens, slender; stigma subcapitate. Berry white, subglobose.

Fls. & Frt.: Aug.-Sept.

Exsiccata: SAS 7751

Locality: Beed; Kaij

Note: Cultivated plants use in Medicinal.

ACKNOWLEDGEMENTS

Authors are thankful to the Head, Department of Botany, Dr. B. A. M. U. Aurangabad for providing herbarium facilities, valuable suggestions and constant encouragement. Authors are also thankful to Dr. M. M. Sardesai for confirmation & identifications of the species.

LITERATURE CITED

- Almeida, M.R. 2003. *Flora of Maharashtra*. Vol. IVB. Acanthaceae to Ceratophyllaceae. Blatter Herbarium, St. Xaviers College. Mumbai.
- Gore & S.P. Gaikwad. (2011). Addition to the Flora of Marathwada. *Journal of Threatened Taxa* (In press).
- Kare, M.A., S.A. Survase and A.S. Bhuktar. (2008). New records of flowering plants for Marathwada, Maharashtra, India. *Bioinfolet* 5(3): 274 – 276.
- Naik, V.N. (1998). *Flora of Marathwada*. Vol. I & II, Amurt Prakashan, Aurangabad.
- Rathor, O.S. & Chavan V.K. (2002). Occurrence of *Kleinhovia hospita* L. (Sterculiaceae) in Marathwada region of Maharashtra. *J. Bombay nat. Hist. Soc.* 99 (2): 359.
- Rathor, O.S. (2006). *Pittosporum dasycaulon* Miq. A new record for Marathwada. *Bioinfolet* 3(2): 140 – 141.
- Rathor, O.S. (2008). *Muntingia calabura* L. (Elaeocarpaceae) A new addition in the flowering plants of Marathwada *Bioinfolet*. 5 (1): 40 – 41.
- Rathor, O.S., K.M. Ranjalkar and R.G. Chillawar. (2007). New records for the Flora of Marathwada. 4 (1): 60 – 62.
- Singh N. P. & S. Karthekeyan (Eds.). (2000): *Flora of Maharashtra State: Dicotyledons Vol. I & II*. Botanical Survey of India Calcutta.
- Sonje, S.B., M.A. Kare, and A.S. Bhuktar. (2007). Newly recorded exotic plants for the Flora of Marathwada. *Bioinfolet* 4 (3): 259 – 261.
- Survase S.A. & M.M. Sardesai. (2009). Addition to the exotic plants of Marathwada. *Bioinfolet* 5 (4): 314-314.
- Survase S.A., M.M. Sardesai and V.N. Naik. (2009). Addition to the Flora of Marathwada Region, Maharashtra. *J. Tax. & Eco. Bot.*
- Survase S.A. and A.S. Dhabe. (2007). Herbarium & Techniques of Herbarium in BAMU Herbarium. *National level conference on Modern Trends in Plants sciences*, Dept. of Botany, Dr. B.A.M. University, Aurangabad from 07-08 October.
- Wadood Khan, M.A. and S. N. Solanke. 2008. Novelties in Cyperaceae VIII – A new variety and a new record. *Bioinfolet* 5(2): 103 – 107.