



NEW ADDITION TO THE FLORA OF YAVATMAL DISTRICT (MS), INDIA

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The present floristic investigation deals with the additions of 06 new plant species belonging to the 5 different families to the flora of Yavatmal district viz, *Maerua oblongifolia* (Forssk.) A. rich. (Capparaceae), *Crotalaria verrucosa* L. (Fabaceae), *Ichnocarpus frutencens* (L.) W.T. Aiton (Apocynaceae), *Operculina turpethum* (L.) Silva Manso (Convolvulaceae), *Asparagus racemosus* Willd. and *Chlorophytum tuberosum* (Roxb.) Baker (Asparagaceae) with correct and update citation, a short description along with distribution is provided for future work.

Key words: Additions, Yavatmal district, Maharashtra

The Yavatmal district is situated in the eastern part of Maharashtra state and lies between 19°26' and 20°42' north latitudes and 77°18' and 79°9' east longitudes. The district has an area of 13,517.21 sq.km. The forest area occupies 23% of the total area of the district. Forest has been divided into various ranges, i.e., Pandharkawada, Mukutban, Ghatangi, Patanbori, Wani, Umari, Bitargaon, Kharbi, Digras and Zari-jamni. This forest area has very rich Biodiversity. The vegetation has been considerably modified by the combined influence of all site factors like climatic, edaphic and biotic factors including availability of species and their characteristic (Rothe 2000). The floristic exploration of the district was carried out by Karthikeyan and Anantkumar (1993) and reported 577 plant species comprising of 365 genera and 98 families. Subsequently, Rothe (2000) reported 29 plant species of 18 families and Bhogaonkar *et al.* (2015) 9 species of 9 families as new additions to the flora of Yavatmal district.

MATERIAL AND METHODS

The several field visits were conducted in different forest areas of Yavatmal district during the year 2014-16 in different seasons and plant specimens were collected in the flowering periods. The collected voucher specimens were identified with the help of standard flora (Hooker 1887, Cooke 1967,

Sharma *et al.* 1996, Naik 1998, Singh and Karthikeyan 2000, Singh *et al.* 2001) and herbarium specimens were deposited in the department of Botany, Shri Shivaji College of Arts, Commerce and Science, Akola, Maharashtra.

OBSERVATION AND RESULTS

1. *Maerua oblongifolia* (Forssk.) A. Rich. in. Guill. & Pers. Fl. Seneg. Tent 1:32, t, 5, 1831. *Capparis oblongifolia* Forssk. Fl. Aeg-Arab.99,1775. *Maerua arenaria* (DC.) Hook f. & Thoms. in. Hook f. Fl. Brit. India 1:171. 1872. *M. ovalifolia* (DC.) Camb. In Jacqvoy. Bot.23, t 24.1844. Cooke. Fl. Pers. Bombay 1:43,1967 (Repr.). (**Capparaceae**)

Climbing unarmed shrub. Leaves simple 2.5-5.1 x 1.0-2.5cm elliptical oblong, apex obtuse or retuse-mucronate. Flower greenish yellow, in corymbs; calyx ovate, acute, hooded at apex with short horn behind the hood and the pubescent margins. Fruit monoliform 0.5 cm long pale brown, seed echinate.

Fl. & Fr.: December- March

Ecological notes: it is commonly found on hedges of field, protect the crop, and act as a wind breaker and good fodder for cattle.

Specimen examined: Maharashtra, Yavatmal, Chikhalgaon,

Date of Collection: 12/02/2015 MNB001.

Distribution: India, Pakistan, Africa and

Soudi Arabia.

2. *Crotalaria verrucosa* L. Sp. Pl. 715. 1753; Baker in Hook. f. Fl. Brit. India 2:17. 1876; Cooke, Fl. Pers. Bombay 1:139.1967 (Repr.); Sanj. Legums of India 131, 1991. (**Fabaceae**) Herb, 25-96 cm height, 4 angled sparsely pubescent, erect. Leaves 3.0-9.8 x 2.5-7.2 cm ovate to ovate-deltoid, apex obtuse-acute base tapering, hairy beneath; petiole 2.5-4mm; stipule large. Flower terminal, dense 15-18, racemose; calyx 5.5-7.2 mm long membranous; corolla 2-2.5 cm long; pedicel 4-5mm in length. Pod oblong cylindrical 3-4 x 1 cm, 10-12 seeded.

Fl. & Fr.: July- March

Ecological notes: It is a palatable ground species, easily distinguished due to its bluish white Flowers, act as soil binder

Specimen examined: Maharashtra, Yavatmal, Maregaon,

Date of collection: 12/02/2015 MNB002.

Distribution: India, Ceylon, China, Africa, Mauritius, tropical America, in Maharashtra it is found on Deccan plateau

3. *Ichnocarpus frutescens* (L.) W.T. Aiton, Hortus Kew. Ed.2.2: 69.1811. *Quirivelia frutescens* (L.) M.R. & S.M. Almeida in. J. Bombay Nat. Hist. Soc. 90:427 (1993) 1994. *Apocynum frutescens* L. Sp. Pl.213.1753. *Ichnocarpus frutescens* (L.) R.Br. Men. Wern. Nat. Hist.Soc.1:62.1811; Hook. f. Fl. Brit. India 3: 669, 1882; Cooke, Fl. Pers. Bombay, 2:205.1967 (Repr). *I. ovatifolius* A.D.C. in D.C Prodr.8:435.1844. (**Apocynaceae**)

Woody twiner. Leaves 4.5-7.2 x 1.8-3.6 cm elliptical-oblong, acute to acuminate at apex, rounded at base. Flowers white, in brownish-pubescent, in paniculately branched cyme; corolla tube inflated in middle, petals 1.5 mm long with long hairs on margin. Follicle 10-15cm long, cylindrical. Seed 1.2-1.8 cm, linear; coma, white, scanty.

Fl. & Fr.: September – January

Ecological notes: It checks the growth of other plant at which it grows and occupies the canopy of the plant

Specimen examined: Maharashtra, Yavatmal, Nilghiriban, Wani,

Date of collection: 6/12/2015 MNB006

Distribution: Common in evergreen forest in Maharashtra, More or less Distributed in India, Myanmar, Java and Australia

4. *Operculina turpethum* (L.) Silva Manso, Enum. Subst. Bras.16.1836; Ooststr. in. Steenis, Fl. Males. 1, 4:456, f 32.1953; Cooke, Fl. Pres. Bombay 2:309, 1967 (Repr.); Naik, Fl. Marathwada 1:601. 1998. *Convolvulus turpethum* L. Sp. Pl.155. 1753. *Ipomoea turpethum* (L.) R.Br. Prodr. 485.1810; C. B. Cl. In Hook. f. Fl. Brit. India 4:212. 1883. *Merremia turpethum* (L.) Shah & Bhatt in Shah Fl. Gujarat 1:450. 1978 et J. Bombay Nat. Hist. Soc. 74:567.1978. (**Convolvulaceae**)

Perennial twiner. Stem narrowly or broadly 3-5 winged, glabrous or sparsely hairy, younger part some time tomentose. Leaves mostly orbicular or ovate or ovate-lanceolate, 5-15 x 1-14 cm. base corded or hastate, apex obtuse or acuminate, mostly entire, glabrous above, pubescent beneath; petiole terete or winged, 2-7 cm long. In axillary, 1 – few flowered cymes. sepal broadly ovate, unequal, outer one pubescent, inner one glabrous; corolla funnel shaped, 3-4.5 cm long, white or yellowish base, glabrous or some time minute yellowish gland outside. Capsule depressed globose, 1.5-1.7 cm in diam. Seed ovoid, 5-6mm long back glabrous.

Fl. & Fr.: September – March

Ecological notes: Occasionally found along hedges, sometime cultivated, roots of the has long been used in medicine as a purgative and is known as turpeth root or Indian julab

Specimen examined: Maharashtra, Yavatmal, Pandharkawada, Maregaon,

Date of collection: 17/03/2015 MNB003

Distribution: Distributed throughout India, cultivated in Myanmar, Philippines, Tropical America, Africa

5. *Asparagus racemosus* Willd. var. *javanicus*. Baker in J. Linn. Soc. 14:624. 1874.

Hook. f. Fl. Brit. India 6:317.1892. Naik, Fl. Osmanabad 333.1979. *Aspargaus javanica* Kunth, Enum 5:100, 1850. *Asparagus jacquemontii* Baker loc.cit. 615.1874.

(Aspargaceae)

Extensive, scandent, undershrub, root tuberous; branches angular. Leaves reduced to spines, linear subulate, 4-6 mm long, conical at base, straight or curved. Cladodes slender, spinous pointed. Flowers fragrant, in simple 5-15 cm long axillary racemes; rachis triquetrous, crowned with tuft of cladodes. Pedicel filiform 3-5 mm long, jointed above the middle, solitary or in pairs along the rachis; bract ovate, 1-1.5 mm long, acute; perianth white, segments distinct. Fruits fleshy globose, 3-4 mm in diam. Seeds usually solitary.

Fl. & Fr.: June-November

Ecological notes: Commonly found on slopes, barren field, hedges of farm, protecting to the crop field, reducing the soil temperature by spreading their branches, at the same time when it grows on tree plants may harmful to them

Specimen examined: Maharashtra, Yavatmal, Shible,

Date of collection: 28/06/2015 MNB005

Distribution: Myanmar, Arabia, India

6. *Chlorophytum tuberosum* (Roxb.) Baker in. J. Linn. Soc. 15:332.1875; Hook. f. Fl. Brit. India 6:334.1892. *Anthericum tuberosum* Roxb. Fl. India. 2:149, 1832. *Phalangium tuberosum* (Roxb.) Wt. Icon 6:21. t 2036. 1853. **(Aspargaceae)**

Erect perennial herb, 10-45 cm tall, root fibrous slender ending in ellipsoidal tubers. Leaves linear lanceolate, 15-40 x 1.5-2.5 cm falcate, recurved, with undulate margin, acute or acuminate, green, sheath membranous short. Scape terete, naked, 10-70 cm long, branching near top; raceme rather dense 5-20 cm long; bract lanceolate 1-2 cm long acuminate; pedicel 6-12mm long jointed below the middle. Perianth white; segments ovate-lanceolate, 10-12 x 3-4mm, subacute, 7-9 nerved; stamen shorter than perianth; stigma minute. Capsule obovoid, 8-10 x 5-6 mm, emarginated acutely,

three angled. Seeds 10-15, angular, 2.5-3mm long, black.

Fl. & Fr.: June–September

Fl. & Fr.: June-November

Ecological notes: commonly found along slope and forest gully, it grows as a palatable species always found to be mixed with grasses and act as a soil binder

Specimen examined: Maharashtra, Yavatmal, Shible,

Date of collection: 28/06/2015 MNB004

Distribution: Africa, India, Myanmar

CONCLUSION

The present study shows the additions of 1 family and 6 plant species in the flora of Yavatmal district of Maharashtra, which gives the opportunities to update the flora of the district.

This provide the base line information to understand the floristic diversity of the Yavatmal.

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