

Some Angiospermic Plants New to Central India

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ABSTRACT

Present paper deals with twile genus and twile species of flowering plants as an addition to Flora of Central India (Madhya Pradesh). Updated nomenclature, locality and description are given for each species as *Celastrus paniculata* ssp. *aggregates*, *Ceropegia odorata*, *Cleome rutidosperma*, *Cucumis sativus* var. *hardwikii*, *Cyathocline purpurea* var. *bicolor*, *Merremia dissecta*, *Phyllanthus tenellus*, *Psoralea odorata*, *Salvadora persica* var. *persica*, *Spilanthes redicans*, *Tephrosia uniflora* subsp. *petrosa* and *Vigna indica*.

Key words: Additions, Flowering plants, Flora, Central India (Madhya Pradesh).

INTRODUCTION

Madhya Pradesh, as the name indicates, lies in the Central part of India between latitudes 22°25'12"N and longitudes 72°32'-82°24" E. Total geographical area of the state is 3,08,252 sq km. and occupies the central region of the Country. Although the flora of Madhya Pradesh dealing with 2724 species has been published (Verma *et al.*, 1993; Mudgal *et al.*, 1997; Samvatsar, 1996; Singh *et al.*, 2001; Khanna *et al.*, 2001; Khanna *et al.*, 2009; Mujaffar *et al.*, 2012) but it is based on the survey of only about 40% of the area. It is expected that if extensive and intensive surveys are made, more species are likely to be added to the Flora of the State (Mujaffar 2012).

MATERIALS AND METHODS

Study area: The study area is East Nimar region which comprises of two districts namely Khandwa and Burhanpur. It is situated between 21° 5' – 22° 25' N and 75° 57' - 77° 13' E. The external features of land appears roughly like a crown with its apex in the east and base in the west. It is bounded on east by Betul, Harda districts and Amaravati district (Maharashtra). On the south by Jalgaon, Buldhana and Amaravati district (Maharashtra), on west by West Nimar district and in North by Dewas district. It covers total geographical area of 10779 sq. km. of which total forest cover is 4483.672 sq. km., Floristically rich East Nimar Region with varied topography and environmental factors along with

its phytogeographical position was not explored well in the past.

Data collection: The present report is the outcome of several field trips encompassing all the season, carried out throughout East Nimar of Madhya Pradesh during 2010-2012. The specimens were collected into flowering and fruiting stages and were processed into dried and mounted herbarium specimens following Jain and Rao, 1977. All specimens are deposited in S.N.P.G. College, Khandwa, Madhya Pradesh.

Enumeration of species : The enumeration is alphabetically arranged, followed by correct botanical name, synonyms, local name, short botanical description, flowering month, status, occurrence Khandwa & Burhanpur district, herbarium Number and photographs are provided here (Plate 1).

1. *Celastrus paniculata* Willd. ssp. *aggregates* K.M. Matthew ex K.T. Matthew in Kew Bull. 46:540, f. 1, 2.1991. (Celastraceae)

Scandent shrubs, leaves alternate, broadly elliptic, subcoriaceous, apex acute or retuse, base obtuse, margins crenulate, 10 x 6 cm. Flowers in condensed panicles, greenish, white, polygamous Capsules loculicidal, 1.2 x 1.1 cm. Seeds 1-6 per capsule, ellipsoid, completely covered with deep orange fleshy aril.

Fl. & *Fr.:* July – December.
H.No.-1245

Rare, found on the bank of godapachar river, collected from Bhagpura, Kalibhit, Khandwa district.

2. *Ceropegia odorata* Hook. f. Fl. Brit. India 4:75.1883. (Asclepiadaceae)

Herbs, twining, stems slender, mostly glabrous. Leaves petiolate, 6-7 X 0.5-1.0 cm, linear or narrowly lanceolate, hispidly pubescent above and long nerves beneath, apex acuminate, base narrowed. Flowers bright yellow, fragrant, 3-10, in umbellate cymes; peduncles hirsute; corolla 3-4 cm long, inflated near base; corona biseriate, outer of 5 entire lobes, glabrous, inner linear or elongated-triangular, erect, divergent at apex.

Fl. & Fr.: August-September. H.No.-547

Rare, grows in rocky areas amongst grasses in association with *Dendrocalamus strictus* (Roxb.) Nees and *Tylophora fasciculata* Buch.-Ham., collected from Neapanagar, Burhanpur district.

3. *Cleome rutidosperma* Candolle Prodr. 1:241. 1824. (Capparaceae)

Annual herb, 0.5-1.0 m tall; stem angular, thinly bistle. Leaves compound; leaflets 3, gradually reduced upwards, central leaflets 3.0-3.5 x 1.5-2.5 cm, ovate or oblong, apex acute, ciliate along margins. Flowers in leafy racemes; calyx hairy; gynophore less than 0.15 cm long or absent. Capsules linear, beaked.

Fl. & Fr.: September-November. H.No.-542

Rare, found in railway tract, collected from Asirgarh, Burhanpur district.

4. *Cucumis sativus* L. var. *hardwickii* (Royle) Alef., Landwirtschaftliche Flora 195-227. 1866. (Cucurbitaceae)

Perennial, climbing herb, stem angular, sulcate, tendrils filiform. Leaves alternate, simple, orbicular, 2.5-5 x 3-4 cm, dentate, truncate at base, Flowers yellow. Female flowers solitary or fasciculate. Fruits Pepo, oblong, echinate, striped green and white.

Fl. & Fr.: August – October H.No.-677/241

Rare, in forest and hedges of cultivated fields, collected from Kalibhit, Mehlu & Pamakhedi, Khandwa district.

5. *Cyathocline purpurea* (Buch.-Ham. ex D. Don.) O. var. *bicolor* Sant. in Kew Bull. 1948: 490. 1949. (Asteraceae)

Erect herb, pinnae segments oblong-linear, toothed. Involucral bracts in 2 or 3 rows, obtuse. Capitula pedunculate, in terminal corymbose, ray floret purple and disc floret white. Cypselae ovate, glabrous.

Fl. & Fr.: October – March H.No.-5487

Rare, in rivers beds and forest nallah, collected from Sunderdev, Khandwa district.

6. *Merremia dissecta* (Jacq.) Hall. f. in Engler Bot. Jahrb. 16:552. 1893. *Convolvulus dissectus* Jacquin, Obs. Bot. 2: 4. 1767. (Convolvulaceae)

Slender twiner, lamina dentate, to irregularly pinnately lobed segments. Flowers axillary, 1-4-flowered. Calyx ovate-lanceolate, acute. Corolla funnel-shaped, with purple tinges. Capsules globose, 4-valved, surrounded by persistent calyx. Seeds glabrous, black.

Fl. & Fr.: March – May H.No.-3268/1344

Rare, occasionally found on hedges on cultivated fields, collected from Tapalchal, Awalia, Khandwa district.

7. *Phyllanthus tenellus* Roxb. Fl. Ind. 3:668.1832. (Euphorbiaceae)

Erect, annual herb, cataphylls 1.2-1.5 mm long, linear-lanceolate, stipules triangular. Leaf blade obovate-oblong, entire, acute at apex. Capsules obovate, obtusely trigonous, smooth; seeds trigonous, brown.

Fl. & Fr.: July – September H.No.-4571

Rare, grown in dense forest and shaded area, noted at Kalibhit, Khandwa district.

8. *Psoralea odorata* Blatt. & Hallb. in Journ. Bomb. Nat. Hist. Soc. 26(1):238. 1918. (Fabaceae)

Sweet smelling, perennial herb, stem much branched from base. Leaves pinnately 3-foliolate; stipules triangular, glandular-punctate. Flowers white with blue. Pods ovate, 4.5 x 2.5 mm, brown, glandular, hirsute with white hairs. Seeds one.

Fl. & Fr.: November. – March H.No.-5421

Rare, grow in water courses near Damni river at Shahpur, Burhanpur district.

9. *Salvadora persica* L. var. *persica* Boiss. Verdcourt. Flora of Tropical East Africa 1. 1968. (Salvadoraceae)

Scrambling unarmed shrub or small tree. Young branches green with greyish hairs. Leaves oblong-elliptic to subcircular, 2-5 cm long, pale to mid-green, rather thick and fleshy, sometimes with gland dots seen against the light; apex with a sharp point; base running into the very short petiole. Flowers greenish-white, very small in loose branched terminal and axillary heads. Fruit ovoid 5-10 mm long, pink to red when ripe

Fl. & Fr. : December – May

Rare, old fort and near Tapti river, noted at Jainabad, Shahpur, Burhanpur district.

10. *Spilanthes redicans* Jacq. Collect. Bot. Chem. Hist. Nat. 11 (3):1714. (Asteraceae)

Erect herb, stem terete. Leaves ovate, 7 x 4 cm, acute, base obtuse. Head white. Achenes dimorphic, marginal ones trigonous, other laterally compressed,, flat.

Fl & Fr.: October – March. H.No.-5412

Rare, found in waste areas and river beds, noted at Neapanagar, Jainabad, Burhapur district.



Plate 1. A. *Cyathocline purpurea* var. *bicolor* Sant., B. *Phyllanthus tenellus* Roxb., C. *Merremia dissecta* (Jacq.) Hall. f., D. *Vigna indica* T.M. Dixit., E. *Tephrosia uniflora* Pers. subsp. *petrosa* (Blatt. & Hallb.) Gillett, F. *Ceropogia odorata* Hook. f., G. *Celastrus paniculata* Willd. ssp. *aggregates* K.M. Matthew, H. *Salvadora persica* L. var. *persica* Boiss., I. *Cucumis sativus* L. var. *hardwickii* (Royle) Alef., J. *Spilanthes redicans* Jacq. K. *Cleome rutidosperma* DC. Prodr.

11. *Tephrosia uniflora* Pers. subsp. *petrosa* (Blatt. & Hallb.) Gillett & Ali in Kew Bull. 1958:114. 1958. (Fabaceae)

Suffruticose perennial, branched from the base. Leaves 3-8 cm long; petioles 1-3 cm long; leaflets 3-7. Flowers axillary, solitary, rose or purple-red.

Pods linear, 3-4.5 x 0.2-0.3 cm. Seeds 7-9-seeded, compressed, blotches radiating from helium.

Fl. & Fr.: August – January. H.No.-1261/1390

Commonly, found in open areas and dry places, noted at Omkareswar, Chandgarh, Khandwa district.

12. *Vigna indica* T.M. Dixit, S.P. Sutar, S.R. Yadav, K.V. Bhat and S.R. Rao. *Rheedea* Vol. 21 (1) 1-7. 2011. (Fabaceae)

Herbs, trailing or twining, 15-60 cm high. Leaves pinnately 3-foliolate or deeply 3-lobed, lobes ovate, 1.5-3.0 x 1.2-2.5 cm, retuse. Flowers yellow, 5-10 in dense, terminal clusters. Legumes cylindrical, hairy. Seeds 5-10, brown, granulate, truncate at both ends.

Fl. & Fr.: August – October. H.No.-097/1589

Commonly, found in grassland areas and cultivated fields, collected from Asirgarh, Dahinala, Burhanpur district.

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LITERATURE CITED

Jain SK, and Rao RR, 1977. A hand book of field and herbarium Methods, *today & Tomorrows printers & pub. new Delhi.*

Khanna KK, Kumar A, Dixit RD, and Singh NP, 2001. Supplement to the Flora of Madhya Pradesh. *Botanical Survey of India, Calcutta.*

Khanna KK, Dubey PC, Sikarwar RLS, and Tiwari A, 2009. Some angiospermic plants new to central India. *J. Econ. Taxon. Bot.* Vol. **33(4.)**:834-836.

Mudgal V, Khanna KK, and Hajra PK, 1997. Flora of Madhya Pradesh, *Botanical Survey of India, Calcutta.* Vol. II.

Mujaffar S, Mishra S, and Solanki CM, 2012. *Amorphophallus konkanensis* Hett. Yadav & Patil. A new record from Madhya Pradesh, India *Science Research Reporter.* **2(3)**:298-301.

Mujaffar S, 2012. Study on Flora of East Nimar Region, Madhya Pradesh. *Life Science Bulletin.*, **9(1)**:187-190.

Samvatsar S, 1996. The Flora of Western Triabhal Madhya Pradesh. *Jodhpur.*

Singh NP, Khanna KK, Mudgal V, and Dixit RD, 2001. Flora of Madhya Pradesh, *Botanical Survey of India, Calcutta.* Vol. III.

Verma DM, Balakrishnan NP, and Dixit RD, 1993. Flora of Madhya Pradesh, *Botanical Survey of India, Calcutta.* Vol. I.

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