



Research Paper

NEW ADDITIONS TO THE FLORA OF NAGPUR DISTRICT, MAHARASHTRA –V

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Abstract

During regular field visit in the Nagpur District, authors have collected six interesting angiospermic specimens of various six families viz. *Xyris pauciflora* Willd. (Xyridaceae), *Commelina suffruticosa* Bl. (Commelinaceae), *Cleome rutidosperma* DC (Cleomaceae), *Hemidesmus indicus* (L.) R. Br. var. *pubescens* (Wight & Arn.) (Periplocaceae), *Physalis pruinosa* L. (Solanaceae) and *Cyperus involucratus* Rottb (Cyperaceae). These are new records for the Flora of Nagpur District.

Key words: New additions, Flora of Nagpur District, Maharashtra.

INTRODUCTION

Nagpur District having a great seasonal diversity of vegetation resulting continuous additions of various taxa by several workers to the Flora of Nagpur District which was earlier compiled by Ugemuge [1]. This paper is a series of our last several communications regarding new additions to the Flora of Nagpur district [2,3,4,5].

MATERIALS AND METHODS

Study Area:

Nagpur is the divisional headquarter of Vidarbha. It lies between latitudes 20° 35' and 21° 44' north and longitudes 78° 15' and 79° 40' east and has an area of 9930 square kilometers. The district has an average elevation between 275.50 and 305m above sea level. Nagpur district is divided into 14 talukas viz. Bhiwapur, Hingna, Kalmeshwar, Kamptee, Katol, Kuhi, Mouda, Nagpur, Nagpur Rural, Narkhed, Parseoni, Ramtek, Saoner and Umred. Seasonal explorations have been regularly done in the various talukas of district for the documentation of seasonal Flora of Nagpur District.

The identification and authentication of collected specimens has been done with the help of standard floras viz., Flora of Nagpur District [1], Flora of Maharashtra State Vol. I [6], Flora of Maharashtra State Vol. II [7], Flora of Maharashtra State: Monocotyledons Vol. III [8], Flora of Davanagere District, Karnataka [9], for Cyperaceae [10]; various literatures, research papers and reports. The voucher specimens of the collected plant specimens have been deposited at the Herbarium, Department of Botany, RTM Nagpur University, Nagpur.

OBSERVATION AND RESULTS

Authors have collected some specimens belonging to families Xyridaceae, Commelinaceae, Cleomaceae, Periplocaceae, Solanaceae and Cyperaceae. Authentication has been done with

the help of floras and available literatures, the specimens illustrated below. The flowering and fruiting seasons, habitats and localities in the district of the plants also cited in the text.

1) Family: Xyridaceae

Xyris pauciflora Willd. Phytogr. 1:2, t. 1, f. 1. 1794; Hook. f. Fl. Brit. India 6:365. 1892; van Royen in Steenis, Fl. Males. 1, 4:371, f. 1H, 3. 1953., **Photoplate I(a).**

Herbs, 8-16 cm tall; rootstocks bulbous. Leaves 3-25 x 0.1-0.2 cm, narrowly linear, apex acute to acuminate, sparsely papillate at either side; sheath 1.5-7.0 cm long with a scabrous keel. Peduncles twisted, 4-40 x 0.1-0.15 cm. Heads 0.3-0.9 x 0.2-0.8 cm, ovoid to globose. Flowers yellow. Capsules obovoid, 3-sided, 0.2-0.3 x 0.1 cm.

Flowering and Fruiting: October-February

Location: Gorewada Forest.

Ecology: Open patches

Status: Occasional

Exsiccata: Bot/9928

2) Family: Commelinaceae

Commelina suffruticosa Bl. Enum. Pl. Jav. 1:3. 1827; Hook. f. Fl. Brit. India 6:374. 1892; Fernandez *et al.* in J. Bomby nat. Hist. Soc. 52:662. 1954; Rolla Rao & Kammathy, *Ibid.* 59:65, t. 1(E). 1962. **Photoplate I(b).**

Herbs, 28-50cm high; rootstock perennial. Leaves cauline, sessile or subsessile, 9-17 x 3.5-7.0 cm, lanceolate or elliptic, subacuminate, unequal sided, the lower leaves often smaller. Spathe pedunculate, 1.5-2.5 x 0.9-1.5 cm, broadly ovate-turbinate, apex acute, base truncate, rounded or subcordate, margins hirsute. Flowers white. Capsules *c* 0.5 x 0.5 cm, obcordate, laterally flattened. Seeds filling the loculus, the inner face of the seed flat, outer one convex.

Flowering and Fruiting: July-October

Location: Mohgaon Zilpi.

Ecology: Besides streams.

Status: Sparse

Exsiccata: Bot/9879

3) Family: Cleomaceae

Cleome ruidosperma DC. Prodr. 1:241. 1824; Jacobs in Steenis, Fl. Males, 1,6:104. 1960; Raghavan in J. Econ. Tax. Bot. 5. 465. 1984 & in Sharma *et al.* Fl. India 2:313. 1993; Almeida, Fl. Mah. 1:55, f. 1996. **Photoplate I(c).**

Annual herbs, 0.25-1.0 m tall; stem angular, thiny bristly. 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; gynophores less than 0.15 cm long or absent. Capsule linear, beaked.

Flowering and Fruiting: September-November

Location: Civil Lines

Ecology: Open patch.

Status: Rare

Exsiccata: Bot/9929

4) Family: Periplocaceae

Hemidesmus indicus (L.) R. Br. **var. pubescens** (Wight & Arn.) J. Hooker Fl. Brit. India 4:5. 1883; Gamble, Fl. Presi. Madras 825(580). 1925. *H. pubescens* Wight & Arn. in Wight Contrib. Bot. India 63. 1834. **Photoplate I(d).**

Twining herb, latex milky, leaves softy pubescent above, velvety tomentose below, elliptic-broadly oblong, 3.5-5.8 x 1.5-3.2 cm apex acute, margin entire, base rounded. Flower purple, in axillary cymes, follicles paired, tip incurved.

Flowering and Fruiting: June-November

Location: Gorewada, Khindsi, University Campus

Ecology: On trees.

Status: Occasional
Exsiccata: Bot/9880

5) Family: Solanaceae

Physalis pruinosa L., Sp. Pl.: 184. 1753; Martínez in Taxon 42: 104. 1993. Type: Mexico: Herb. Linn. no. 247.13 (HT: LINN). *Physalis maxima* Mill., Gard. Dict. ed. 8, *Physalis* no. 15. 1768; Gentry & Standley in Flora, Guatemala 10: 90. 1974; Ganapathi et al. in Cytologia 56: 285. 1991; Singh & Pandey in Indian J. Forestry 25: 187. 2002. **Photoplate I(e).**

Erect, stout, viscid pubescent all over. Stems (young) and major veins of leaves covered with villous pubescence intermixed with short stalked glands; angular-ribbed, fistular. Leaves simple, spirally arranged, single at each node, 5-12×4-8 cm, ovate, base oblique, rounded, margin sinuate-dentate above middle, acuminate. Flowers solitary, axillary, small, 1.5- 2 cm across, pedicels erect, 2-5 cm. Calyx apex up to 0.8 cm, subulate. Corolla campanulate, pale yellow, 1.5-2 cm across, throat with 5, inconspicuous, dark green blotches. Ovary globose; style terminal, stigma green. Fruiting pedicels drooping, Fruiting calyx longer than broad and gradually acuminate at apex, fruiting calyx apex 1-2.5 cm long, downy, inflated, deeply sunken at base, 5-angled, reticulately veined, glabrescent, acuminate. Fruits persistent, not falling; Berries gray-green, 1-2 cm across. Seeds many, 0.3-0.4 cm, ovoid, reniform, brownish and pitted.

Flowering and Fruiting: August-December

Location: Deekshabhoomi Premises, Wanadongri.

Ecology: Wasteland

Status: Uncommon

Exsiccata: Bot/9878

6) Family: Cyperaceae

Cyperus involucratus Rottb. Descr. Pl. Rar. Progr. 22.1772. Baijnath in Kew Bull. 30:322. 1975; Cook CDK, Aq. & Welt. Pl. India: 113. 1996; Prasad & Singh in Sedg. Karnataka (Fam. Cypr.): 99. 2002. *C. flabelliformis* Rottb. Descr. Pl. Rar. Progr: 22. 1772. Et Ic. Rar. Nov. Pl. 42. t. 12.f. 2.1773; Kern in Steenis, Fl. Malesiana 1.7(3):618.1974; W.Khan in Naik Fl. Marathwada 2:919. 1998. *C. alternifolius* L. subsp. *Flabelliformis* (Rottb.) Kükenth. In Engl. Pflanzenr. 4(20) Heft. 101:193. 1936; Koyama in Dassan. & Fosb.Rev. Handb. Fl. Ceylon 5:201. 1985. *C. alternifolius* auct plur. non Linn. 1771. **Photoplate I(f).**

Robust perennial, 30-120 cm tall; rhiz. Short creeping, thick, stout, slender, stolons wanting; stems terete, 5-8 mm wide, scaberulous below the umbels. Leaves reduced, sometimes 1-2 cm long, sheaths glabrous. Inflorescence compound or decompounds; foliaceous, almost equal in length, conspicuously spaced one above the other, often 7-9 series (umbrella like) spreading or drooping, much longer than umbels; primary rays as many as the bracts, arising from their axils, sikes of capitates head with 3-10 spikelets, smooth indistinct, linear oblong, white. Glumes ovate, acute, carinate, boat shaped with 3-5 nerved keel; broadly hyaline margined. Nuts trigonous. Ovoid or obovoid, brown, punctulate, stipitate, apiculate.

Flowering and Fruiting: October-January.

Location: Besides the Nag River.

Ecology: Wasteland

Status: Escape

Exsiccata: Bot/9930

PHOTOPLATE: I



a) *Xyris pauciflora* Willd



b) *Commelina suffruticosa* Bl.



c) *Cleome rutidosperma* DC.



d) *Hemidesmus indicus* (L.) var. *pubescens*



e) *Physalis pruinosa* L



f) *Cyperus involucratus* Rottb

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