

## DISTRIBUTIONAL NOTES ON CYPERACEAE

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## ABSTRACT

The critical study made on the available material of Cyperaceae in the Herbaria of CAL, BSA and ASSAM shows that there are 12 species from various parts of Madhya Pradesh, which have not yet been reported. Among these, there are some species which have been cited under a wrong nomenclature. Hence, the studies have been taken up to list such of the species with their citation with known and new distributional data in this paper while enumerating the species. Corrections to the nomenclature have also been incorporated.

A critical checking of the identity and distribution of Cyperaceae materials deposited in the herbarium of the Botanical Survey of India, Allahabad (BSA) revealed collections of twelve species from various parts of Madhya Pradesh which were so far known to have rather limited or disjunct distribution. Thus, a specimen, *Panigrahi* 6033 B, collected from Shivpuri in 1962, turned out to be *Fuirena tuwensis*, so far known only from its Type locality in Gujarat. The occurrence in Madhya Pradesh of *Fimbristylis intonsa* and *F. fusca* with their earlier known distribution in Malaysia, Bengal or Nepal is a record of their further westward distribution. Similarly, eastward extension in distribution has been noticed for *Cyperus metzii*. Some large gaps in the known distribution of another seven species have been bridged up by their reported collections. It may also be mentioned that though several of these species show wide distribution, their collections appear few and scattered, as evidenced by floristic publications and specimens at CAL, BSA and ASSAM.

Incidentally, these names are to be added to the lists of Cyperaceae of Madhya Pradesh published by Tiwari and Maheshwari (*Ind. For.* 90: 147-159; 616-629, 1964), Sahni,

Vaid and Naithani (*Ibid.* 98: 192-194, 1972) and Saxena (*Ibid.* 99: 505-507, 1973).

The following enumeration gives the correct name, a few selected synonyms and references, earlier known distribution, new distributional data from Madhya Pradesh, and some notes to facilitate their identification.

**Cyperus castaneus** Willd. Sp. Pl. 1: 278. 1797; Clarke in Hook. f. Fl. Brit. Ind. 6: 598. 1893; Kern in Fl. Males ser. I: 7: 630. 1974.

Very similar to the commonly found *C. cuspidatus* Kunth and *C. amabilis* Vahl but characterised by a solitary stamen and linear-oblong nuts with almost parallel sides.

**Known distribution:** AUSTRALIA; SOUTH-EAST ASIA; BURMA; NEPAL; INDIA: Sikkim, Bihar, Maharashtra, Tamilnadu; CEYLON.

**New distributional data:** Madhya Pradesh. Raipur: Pithora-Bagbahara, Verma 25831.

**C. macer** Clarke in J. Linn. Soc. (Bot.) 21: 160. 1884 et in Hook. f. Fl. Brit. Ind. 6: 613. 1893.

The simple or subcompound anthela of 3-5 subdigitate yellowish spikelets with bracts shorter than it, narrowly winged rachilla and deeply trifid style characterises this rare species so far probably known only from the following collections.

**Known distribution:** BURMA: Pegu, Kurz 671; BANGLADESH: Chittagong, Clarke 19779; INDIA: Assam: Goalpara, U. N. Kanjilal 4785. Maharashtra: Chunda, Duthie 9837.

**New distributional data:** Madhya Pradesh. Mandla, S. C. Pandeya s. n. (BSA acc. no. 5297).

**Cyperus metzii** (Hochst. ex Steud.) Mattf. et Kükenth. in Pflanzenr. heft 101: 612. 1936. *Kyllinga metzii* Hochst. ex Steud. Syn. Cyp. 70. 1855. *K. squamulata* Thonn., ex Vahl, Enum. 2: 381. 1806; Clarke in Hook. f. Fl. Brit. Ind. 6: 589. 1893, non *Cyperus squamulata* Steud. (1855).

Easily recognised by its about one mm broad toothed wing on the keel of the glumes.

**Known distribution:** TROPICAL AFRICA; INDIA: Kashmir, Garhwal, Mt. Abu, Western India, Karnataka.

**New distributional data:** Madhya Pradesh. Balaghat forest, V. J. Nair 18064; Balaghat, Lagaur forest, V. J. Nair 18135.

**C. sanguinolentus** Vahl ssp. **cyrtostachys** (Miq.) Kern in Reinwardtia 3: 57. 1954 et in Fl. Males. ser. I. 7: 647. 1974.—*C. eragrostis* var. *cyrtostachys* Miq. Fl. Ind. Bat. 3: 257. 1856.

Characterised by a rather open inflorescence with spreading bracts, two stamens, and up to one mm long nuts. There is a possibility of its being found mixed up in the herbaria with ssp. *sanguinolentus* since Clarke (in Hook. f. l.c.) and other authors of the Indian Regional Floras did not distinguish between the various subspecies, as correctly recognised by Kern (l.c.).

**Known distribution:** SOUTH-EAST ASIA; INDIA: Dehra Dun.

**New distributional data:** Madhya Pradesh. Raipur: Sigma, Verma 24950.

**Fimbristylis fusca** (Nees) Clarke in Hook. f. Fl. Brit. Ind. 6: 649. 1893; Kern Fl. Males. ser. I. 7: 567. 1974.—*Abildgaardia*

*fusca* Nees in Wt. Contr. Bot. Ind. 95. 1834.

The distichous pale brown glumes pubescent on the back characterises this species. Clarke (l.c.) gives Bentham as the authority for this combination. However, Bentham (in B. and H., Gen. Pl. 3: 1048. 1883) only suggested that *Abildgaardia fusca* Nees should be placed under *Fimbristylis* but did not make a formal transfer.

**Known distribution:** SOUTH-EAST ASIA; JAPAN; CHINA; BURMA; NEPAL; INDIA: Bengal.

**New distributional data:** Madhya Pradesh. Raipur: Khallari, Verma 17522.

**F. intonsa** Blake in J. Arn. Arb. 35: 221.f.2. 1954; Kern, Fl. Males. ser. I. 7: 571. 1974.—*F. disticha* var. *kurzii* Clarke, Fl. Brit. Ind. 6: 651. 1893.

This setaceous annual with scabrid rays and distichous pubescent glumes was first described by Clarke (l.c.) as *F. disticha* var. *kurzii* on a solitary collection of Kurz. Later, Blake (l.c.) described a new species, *F. intonsa*, on a collection of Brass 7841 from Papua without making any reference to var. *kurzii* Clarke. However, Kern (l.c.) noticed that both are same and the species is well distributed in Malayasia. But for India, Sengupta 15817 is the only other known collection after that of Kurz.

**Known distribution:** SOUTH-EAST ASIA; INDIA: North Bengal. Titaliya, Kurz.

**New distributional data:** Madhya Pradesh. Ambikapur: Basantpur, Sengupta 15817.

**F. nutans** (Retz.) Vahl, Enum. 2: 285. 1806; Clarke, Fl. Brit. Ind. 6: 632. 1893. Kern, Fl. Males. ser. I. 7: 589. 1974.—*Scirpus nutans* Retz. Obs. 4: 12. 1786.

Very distinct in its solitary terminal and somewhat nodding spikelet, and transversally 3-5-ridged nuts. In some of the abnormal duplicates of the following collection, the solitary terminal spikelet appeared to be branching into 2-7 spikelets with only empty glumes.

**Known distribution:** AUSTRALIA; SOUTH-EAST ASIA; BURMA; CHINA; INDIA: Meghalaya, Tamilnadu; CEYLON.

**New distributional data:** Madhya Pradesh. Sidhi: Mara forest, Sengupta 12109.

***Fuirena tuwensis*** M. B. Deshpande et G. L. Shah in Bull. bot. Surv. Ind. 10: 239-240. 1969.

The 1-nerved inner perianth-scales with obtuse spongy thickened apex would distinguish it from the widely distributed *F. ciliaris* (L.) Roxb. with which it has a superficial resemblance. *Panigrahi* 6033 B is the only other known collection of this species besides those from the Type locality.

**Known distribution:** INDIA: East Gujarat, Tuwa, Deshpande 1726.

**New distributional data:** Madhya Pradesh. Shivpuri, *Panigrahi* 6033 B.

***Rhynchospora rugosa*** (Vahl) Gale in Rhodora 46: 275. t. 835. f. 1 A-B. 1944; Kern, Fl. Males. ser. I. 7: 720. 1974.—*Schoenus rugosus* Vahl, Ecolog. Am. 5. 1798.—*R. glauca* Vahl, Enum. 2: 233. 1806, *nom. illegit.*; Clarke, Fl. Brit. Ind. 6: 671. 1893.

This widespread species with narrow paniculate inflorescence of a few distant corymbiform anthelas is known only from a few scattered collections in the Indian subcontinent. Its report from Madhya Pradesh connects a wide gap left between Nepal and Khasi hills in the north and Nilgiri hills and Ceylon in the south.

**Known distribution:** PANTROPICAL. INDIA: Meghalaya; Khasi hills, Tamilnadu; Nilgiri hills.

**New distributional data:** Madhya Pradesh. Hoshangabad: Rajat-Pratap-Pachmari, *Panigrahi* 6614.

***Scirpus isolepis*** (Nees) Boeck. in Linnaea 36: 499. 1870; Clarke, Fl. Brit. Ind. 6: 663. 1893.—*Hemicarpha isolepis* Nees in Edinb. New Phil. J. 17: 263. 1834 et in Wt. Contr. Bot. Ind. 92. 1834.

An easily identifiable species with seta-

ceous stem, 1-2 pseudolateral spikelets, obtuse glumes and biconvex nuts.

**Known distribution:** TROPICAL AFRICA; INDIA: Karnataka, Tamilnadu, Bihar, Bengal.

**New distributional data:** Madhya Pradesh. Jabalpur: Hiran river-side, Sebastine 15495.

***S. lateriflorus*** Gmel. Syst. Veg. 1: 127. 1791; Kern, Fl. Males. I. 7: 514. 1974.—*S. supinus* var. *uninodis* Clarke, Fl. Brit. Ind. 6: 656. 1893. *non Isolepis uninodis* Delile.

There is a likelihood of its confusion with the Eurasian *S. supinus* L. from which it can be distinguished by the presence of a node on the stem above its base, frequently anthelate inflorescence, glumes with a prominent midnerve and nerveless sides, and anthers with papillose-bristly tips.

**Known distribution:** AUSTRALIA; SOUTH-EAST ASIA; CHINA; INDIA: Bengal, Bihar, Orissa, Karnataka, Maharashtra; CEYLON.

**New distributional data:** Madhya Pradesh. Raipur: Kasdol, Mahanadi river, Verma 17742.

***Scleria pergracilis*** (Nees) Kunth, Enum. 2: 354. 1837; Clarke, Fl. Brit. Ind. 6: 685. 1894; Kern, Fl. Males. ser. I. 7: 743. 1974.—*Hypoporum pergracile* Nees in Edinb. New Phil. J. 17: 267. 1834.

Very distinct by its spiciform inflorescence bearing glomerules of spikelets and glumaceous bracts, and much reduced rim-like hypogynous disc. A species with wide but very scattered distribution as evidenced from floristic publications. The only collection known from Madhya Pradesh is that of Lawrie, collected in the year 1908.

**Known distribution:** TROPICAL AFRICA; CEYLON; INDIA: western Himalayas, Tamilnadu, Bihar, Bengal, Assam; BANGLADESH; CHINA; SOUTH-EAST ASIA.

**New distributional data:** Madhya Pradesh. Raipur, Lawrie s. n. (CAL).