

## ADDITION OF SEDGES TO THE FLORA OF TAMIL NADU STATE

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### ABSTRACT

*Fimbristylis carpopoda* Govind., *F. microcarya* F. Muell., *F. sanjappae* W. Khan & Solanke and *Cyperus prolifer* Lam., four new distributional records for the state of Tamil Nadu are described.

**Keywords:** *Cyperaceae*, *New Records*, *Tamil Nadu*

### INTRODUCTION

While working on the family Cyperaceae of Tamil Nadu a few interesting specimens were collected and also found in herbaria which were wrongly identified. A detailed study of these specimens and perusal of literature (Clarke, 1894; Fischer, 1928; Karthikeyan, 1989; Kern, 1974; Koyama, 1985; Matthew, 1999) revealed that these four species are new distributional records for the state.

***Fimbristylis carpopoda*** Govind., Proc. Ind. Acad. Sci. 79, 4: 160. 1974; Rao & Verma, Cyperaceae of N. E. India, 34.1982; Rejani, Cyperac. Kerala 254. 1991.

Perennials, short rhizome, culms 1-3 tufted, glabrous, erect, flat, ribbed, 3-4 noded, smooth, up to 45 cm long. Leaves 3-4 per culm, glabrous, flat, obtuse, ligulate, 15-25 cm long, sheaths stramineous-brown. Inflorescence compound, consisting of 10-16 spikelets, 3-4 x 2.0-4.5 cm, involucre bracts leaf like, overtopping the inflorescence, 4.5 – 6.0 cm long. Spikelets ovoid-lanceolate, acute, terete, glabrous, many flowered, 6-7 x 3-4 mm, basal glumes empty, rachilla winged. Glumes spiral, often inflated, densely imbricate, dark brown, glabrous, chartaceous, rounded and mucous at apex, 15-17 nerved in each half, 3.0 – 3.4 x 3.2 – 3.4 mm; Stamens 2; anther yellowish, lanceolate, minutely apiculate, 0.6-0.7 mm long. Style flat, not dilated at base, densely hairy, 1.3 – 1.4 mm long; stigma 2, glabrous or hairy, 1.0 – 1.2 mm long. Nutlet suborbicular, biconvex, shining with thickened smooth or undulate margin, 1.6 – 1.8 x 1.0 – 1.2 mm; golden yellow.

Flowering & Fruiting: April – June

Habitat: Marshy areas along a drying canal

Distribution: Kerala, Tamil Nadu (Present report) and North East India

Note: Note: Allied to *F. schoenoides* (Retz.) Vahl but differs in having broader culms and leaves, compound inflorescence bearing more number of acute spikelets. Also nutlets resemble to *F. podocarpa* but differ with the shining with thickened smooth or undulate margin.

*Specimens examined:* Tamil Nadu, Dharmapuri District, Halfway between Natrampalayam and Biligundulu, 05.04.2002, K. M. Matthew 63491.

***Fimbristylis microcarya*** F. Muell. Fragm 1:200. 1859; Kern in van Steenis Fl. Malesiana 1.7 (3): 550. 1974; Prasad & Singh, Sedges of Karnataka (J. Econ. Tax. Bot. Add. Ser. 21), 191.2002; Wad. Khan, Cyperaceae W. Ghats, W. Coast & Maharashtra: 213. 2015. *Irihamicrocarya* O. Ktze. Rev. Gen. Pl. 2: 753. 1891. *Fimbristylis complanata* Link var. *microcarya* (F. Muell.); C.B. Clarke in Hook. f. Fl. Brit. India 6:646. 1893.

Annuals with fibrous roots, without rhizome, up to 35 cm long. Culms tufted, ridged, 0.7- 1.5 mm broad. Leaves mostly basal shorter than culm, flat, acuminate at apex, up to 25 cm long; sheaths flattened, 1.5–9 cm long; ligule a fringe of short hairs. Inflorescence decoumpound, 3-7 x 1.5–6 cm, involucre bracts 3-4, acuminate at apex, Primary rays few to many, unequal, up to 4.5 cm long. Spikelets solitary, ovoid or oblong-lanceolate, acute at apex, 3-4 x ca 1 mm, rachilla winged. Glumes spiral, membranous, ovate, acute-mucronate at apex, keeled, ca 1.25 x 1.0 mm. Stamen 1, elongate, up to 1.25 mm; anther oblong ca 0.4 mm long. Style triquetrous, 0.6-0.7 mm long, glabrous; stigmas 3. Nutlet trigonous, obovoid, shortly stipitate, 0.6-0.7 x 0.4-0.5 mm, smooth or sparsely verruculose, brownish.

### New Record

Flowering & Fruiting: January - March

Habitat: Ponds, marshy areas, rocky crevices, along canals

Distribution: Karnataka, Kerala, Maharashtra and Tamil Nadu (Present report) and Himalaya, widely distributed in Eastern Asia, North Australia.

*Specimen Examined:* Tamil Nadu, Ramanathapuram District, Peruvayal, 16.01.1989, V. Balasubramaniam 2120.

**Fimbristylissanjappae** W. Khan & Solanke in J. Eco.Tax. Bot. 30 (3):717.2006; Wad. Khan, Cyperaceae W. Ghats, W. Coast & Maharashtra: 234. 2015.

Perennial, with short rhizome. Culms slender, up to 40-55 cm long, 0.4-1 mm wide, trigonous. Leaves ligulate, shorter than culms. Inflorescence simple to compound; 1.4- 3.2 x 1-1.5 cm; involucre bracts 4-5, foliaceous. Spikelets ovoid, 2-4 x 1.5 – 2.5 mm, subacute, rachilla winged, persistent. Glumes spiral, obovate-oblong, 2-2.3 x 1-1.2 mm, not keeled, shortly mucronate, with 3-5 closely nerved keel. Stamens 1, anthers linear, 0.5 mm long. Style bifid, filiform. Nutlets biconvex, 0.7-0.8 x 0.3-0.4 mm, obovate, umbonulate, whitish trabeculate with transversely oblong, thick walled, concave cells in between 4-7 vertical ridges.

Habitat: Common in wet grass land, forest clearings on hills slopes.

Flowering & Fruiting: October – December

Distribution: Karnataka, Kerala, Maharashtra, Tamil Nadu (Present report).

*Specimen examined:* Tamil Nadu, Coimbatore District, Vellingeri hills, 1700 m, 19.09.2014, K. Yarrayya 119051.

**Cyperusprolifer** Lam., Tabl. Encycl. 1: 147. 1791, *Papyrus laxiflorus* Spreng., Syst. Veg. 1: 232. 1824.

Perennials, tufted rhizomatous. Culms trigonous to terete, 15-98 cm x 2-6 mm, glabrous. Leaves reduced to sheaths up to 10-30 cm long, with a short mucro at the apex. Inflorescence is an umbel, primary rays 10-25 cm long; secondary rays 0.5-5 cm; involucre bracts 2-3, horizontal or reflexed, 5-12 cm x 1.5-4 mm. Spikelets 1-30, linear-lanceolate, ellipsoid to narrowly ovoid, compressed-quadrangular, 6-17 x 1-1.5 mm. Glumes 5-12, reddish brown, 1-3-ribbed, 1.2-1.6 x 0.6-0.9 mm, apex mucronulate. Stamens 3; anthers 1-1.2 mm; styles 0.3 mm; stigmas 1-1.3 mm. Nutlets obovoid, 0.4 x 0.2 mm, base stipelike, nearly cuneate, apex obtuse, surfaces finely reticulate, brownish.

Flowering & Fruiting: July-September

Habitat: Pond shores and marshy areas

Distribution: Kerala and Tamil Nadu (Present report).

*Specimen examined:* Tamil Nadu, Viluppuram District, Auroville, Matrimandir nursery, 01.07.2000, K. M. Matthew & W. F. Gastmans 71883.

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***New Record***

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