



Research Article

Fimbristylis scabrida* (Cyperaceae): a new record for Asian*Continent**

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Abstract: *Fimbristylis scabrida* Schumach. (Cyperaceae), an African sedge species is reported here for the first time from the Western Ghats of India in the Asian continent. A brief description, notes and colour photographs are provided for easy identification.

Keywords: *Fimbristylis*, Kerala, new record, southern Western Ghats

Introduction

The family Cyperaceae consists of 90 genera and ca. 5,500 species, is cosmopolitan in distribution except Antarctica (Maarten *et al.*, 2016). *Fimbristylis* Vahl is the third largest genus of the family represented by ca. 300 species with south east Asia as its major centre of distribution (Kern, 1974; Goverts *et al.*, 2007). In India, the genus is represented by 116 species of which 60 are reported from Kerala (Prasad & Singh 2002; Viji *et al.*, 2016; Sunil *et al.*, 2016; Viji & Preetha, 2017).

During the floristic studies of Cyperaceae in Kerala, an interesting specimen of *Fimbristylis* was collected from the wet rocky areas in Pathanamthitta district. On critical examination and perusal of relevant literature it was identified as *F. scabrida* Schumach. a species so far known only from Africa. The present collection therefore, forms a new distributional record for the Asian continent.

Taxonomic Treatment:

Fimbristylis scabrida Schumach., Beskr. Guin. Pl. 32. 1827.

Type: GHANA, Southern part of the country, *Thonning*. P 394 (possible holotype, C10003865 image!)

Annual *herbs*, 10–30 cm tall. *Roots* fibrous. *Culms* solitary, slender, obtusely trigonous, smooth, 8–25 cm high, 0.5–1 mm thick. *Leaves* basal, lower ones reduced to sheaths, upper bladed; *sheaths* membranous, 1–3 cm long, shining fuscous or purplish, glabrous; ligule absent; *blades* linear, 2–13 cm long, 2.5–5 mm wide, strongly folded, erect, apex acute, antrorsely scabrid at the top. *Inflorescence* compound, loose, 16–30 spikelets, 2–5 × 1–5 cm; involucrel *bracts* 2–5, erect, 0.5–2 mm long; *primary rays* up to 6, filiform, 0.5–3 cm long, erect or obliquely erect, smooth; *secondary rays* ca. 0.5 cm

long. *Spikelets* solitary, ovoid, shortly angular, 3–3.5 × 0.8–1 mm, 8–10 flowered, brown; *rachilla* winged; *glumes* spiral, puberulent, chartaceous, obliquely erect, triangular – ovate, 1.5–2 × 1.5–1.8 mm, apex mucronate, sharply keeled, hyaline towards margins. *Stamens* 2; *anthers* elliptic, 0.5–0.7 mm long, obtuse apex; *filaments* short. *Ovary* obovoid, 0.3–0.5 mm long; *style* ca. 1 mm long, trigonous at base; *stigmas* 3, 0.2–0.3 mm long. *Nutlets* trigonous, obovoid, 0.6–0.8 × 0.2–0.3 mm, brownish, sparsely, shortly stipitate, shortly beaked (Fig. 1.).



Fig. 1. *Fimbristylis scabrida* Schumach. A. Habit; B. Spikelet; C. Glume; D. Stamen; E. Pistil; F. Nut

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Phenology: Flowering and fruiting occur from March to August.

Habitat & Ecology: It is naturally growing in the moist rocky slopes of Sabarimala hills in Pathanamthitta District, Kerala, part of the Western Ghats. The associated species in the community are *Fimbristylis cinnamometorum* (Vahl) Kunth, *Fimbristylis pseudonarayanii* Ravi & Anilkumar, *Utricularia minutissima* Vahl etc.

Distribution: West Tropical Africa to South West Uganda, Madagascar. India: Kerala.

Specimen examined: India, Kerala, Pathanamthitta, Perumthenaruvi, 20th July 2017, A. R. Viji 5218 (UCT, TBGT).

Note: Peter Thonning collected many plant specimens from Africa (1800–1827) and forwarded these specimens to his teacher F. C. Schumacher. The complete sets of botanical material collected by Thonning are now preserved in the Botanic Museum in Copenhagen (C) (Hornemann, 1827; Hopkins, 2013). *F. scabrida* was described by Schumacher (1827) based on the specimens collected by Thonning, but the protologue lacks the details of the collections including date and locality. We could trace out only a single specimen collected by Thonning from Copenhagen (C10003865!) and which is the possible holotype.

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