New Distribution Record of *Fimbristylis bispicula* Govind for Kerala, India

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Absract: Fimbristylis bispicula Govind. a rare sedge is reported from Kerala

Keywords: Fimbristylis, Madayipara, New record, Kerala, India

1. Introduction

The genus Fimbristylis Vahl consists of about 300 species, mainly distributed in pantropic but also well represented in temperate regions. In India 117 species have been reported[1]. Most species prefer wet localities like wet rice fields, margin of lakes, river banks, etc. Many are considered as weeds. They are typical sedges in appearance with stiff, short rigid stems and cone shaped terminal panicles of spikelets. This species, identified as Fimbristylis bispicula Govind., is collected from Madayipara, a lateritic hillock in Kannur District of Kerala, at latitude 12⁰2 N and longitude $75^{0}16$ E, and with an altitude of 40 - 47 msl. It is a notable area being the type locality of some narrow endemic such as Nymphoides krishanesara [2], Rotala malabarica [3], Justicia ekakusuma [4] and Lapidagathis keralensis [5]. The lateritic outcrops of this area support a grassland-scrub system, unique in its ecology, being active along with the monsoon rains, supporting rich assemblage of many aquatic and semi-aquatic plants and animals, and remaining as a barren land as the rain recedes⁶. More than 500 species of plants were recorded from the area, which include 59 peninsular Indian endemic, of which 14 are endemic to Kerala state confined to the lateritic hillocks [6].

F. bispicula Govind. is earlier reported from Simoga, Agumbe and Nishanigudda of Karnataka [1] and Kas plateau of Satara district of Maharashtra [7]. On close examination of the collected specimen, it is found to be a new distribution record for Kerala. The herbarium specimens (MBGH 11148, 10.11.2017) are deposited at Malabar Botanical Garden Herbarium (MBGH).

Ecological notes: This plant is collected from a wet, hard lateritic soil, open area at Madayipara, Kannur district of Northern Kerala, with thin layer of soil found mixed with *Eriocaulon* spp., *Utricularia* spp. and grasses during monsoon season (July – August).

A short description with photographs (Figure 1. A - G) of the plant is given below:

2. Taxonomic treatment

Fimbristylis bispicula Govind. Rheedea 6 (2): 59 - 60. 1996. Prasad and Singh Sedg. Karnatak (Fammily Cyperaceae): 161. 2002. Fig. 8, Pl. IX. Wadoodkhan Cyperaceae of Western Ghats, West Coast and Maharashtra: 172 - 173. 2015.

Annuals with fibrous roots. Culms slender, stiff, glabrous, tetragonous, groved, 7 - 15 cm long, 0.5 mm thick. Leaves linear, stiff erect, flat 0.5 - 1 mm wide, glabrous, sheaths all laminiferous, brown, ligulate. Inflorescence simple, usually consisting of a pair of spikelets (rarely up to four), Involucral bracts 2, distichously paired. Spikelets paired, one sessile and other pedicellate, ovoid – lanceolate, angular, acute, dark brown 5 -7 X 1.5 –2mm, 8 – 10 flowered, rachilla winged. Glumes spiral, membranous, ovate, acute and muticous at apex, glabrous, 3 X 1 – 1.5mm. Stamens 3; anther linear, brown, 2mm long saggitate with acute apex. Style triquetrous with narrow pyramidal base, glabrous, 2mm long. Stigma 3 fid, shorter than style. Nut trigonous 1 X 1mm, obovoid or sub globoid, triconsolute with convex sides, verruculose, appearing rough, brownish.

Specimen Examined: India, Kerala, Kannur District, Madayipara, 10.11.2017, *Anoop K.P.*, 11148 (MBGH).

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References

- Prasad, V. P. and N. P., Singh (2002). Sedges of Karnataka, India (Family – Cyperaceae). *Journal of Economic and Taxonomic Botany*. Additional series, 21, 150-218.
- [2] Joseph, K. T. and Sivarajan, V. V. (1990). A new species of *Nymphoides* from India. *Nordic J. Botany* 10, 281-284
- [3] Pradeep, A. K., Joseph, K. T. & Sivarajan, V. V. (1990). *Rotala malabarica* a new species of Lythraceae from India. *Bot. Bull. Acad. Sinica*, 31, 51-61
- [4] Pradeep, A. K., Joseph, K. T. & Sivarajan, V. V. (1991). *Justicia ekakusuma* a new species of Acanthaceae from Peninsular India, *Rheedea*, 1, 40-43.

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- [5] Madhusoodanan, P. V. and Singh, N. P. (1992). A new species of *Lepidagathis* (Acanthaceae) from South Inda. *Kew Bulletin*, 1: 19-22
- [6] Balakrishnan, V. C., Palot, M. J. & Rajesh, K. P. (2010). Observations on the flora of *Madayipara* at midland

literate hill in Kannur district, Kerala. *Malabar Trogen*, 8 (2&3), 14-29

 [7] Wadoodkhan, M. A. (2015). Cyperaceae of Western Ghats, West Coast and Maharashtra. 1st ed. Dattsons: Nagpur, pp 172-173. ISBN: 978-81-7192-082-2



Figure: 1. *Fimbristylis bispicula* Govind.; A - Habit, B & C - Spikelets, D - Glumes, E - Stamens, F - Pistil, G - Nuts

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