

NOTES ON THE GENUS *STENOTAPHRUM* (POACEAE), IN INDIA

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INTRODUCTION

The state of Mizoram forms a tongue shaped, rugged mountainous region at the extreme southern part of north east India, previously known as the *Lushai Hills*, which formed a part of undivided Assam in the British period. Geographically the state is located between 21°57' - 24°30' N latitude and 92°15' - 93°29' E longitude, covering an area of 21, 081km². Conscientious field visits were conducted at regular intervals in assorted areas of Mizoram, for documentation of grasses and bamboos during March 2010 to June 2011. The collected materials were processed following standard herbarium techniques. Specimens were identified with the help of available literature and authentic herbarium specimens housed at ASSAM and CAL. While examining the collected specimens, the author observed a specimen from Poaceae with unilateral false spikes, composed of solitary, spiciform racemes and spikelets shrouded behind teeth-like, flat lobes. It was identified as *Stenotaphrum dimidiatum*, which on perusal of literature (Shukla, 1996) revealed that, the genus *Stenotaphrum* previously not reported from north eastern India. The genus along with the species *Stenotaphrum dimidiatum* is appended here with a short description and a note.

***Stenotaphrum* Trin., Fund. Agrost. : 175. 1820. [*Stenos*, slender; *taphros*, water course].**

A tropical genus with 7 species all over the world (Sauer, 1972; Sreekumar & Nair, 1991; Chen & al., 2006; Mabberley, 2008; Kabeer & Nair, 2009; Hyde & al., 2013), is native to eastern parts of Africa (Clayton & al., 2011). Hooker (1896) reported 2 species of *Stenotaphrum* viz. *S. helferi* Munro ex Hook.f. and *S. glabrum* Trin. (presently *S. glabrum* is treated as a synonym of *S. dimidiatum* (L.) Brongn.) growing in the plains of British India. Bor (1940) had provided a portrayal of a single species *S. dimidiatum* from Mymensingh and Sylhet, presently in Bangladesh, devoid of any locality from present political boundaries of India. Bor (1960) also reported this species from Madras. Sreekumar & Nair (199 and Chen, 1992 reported *S. dimidiatum* (L.) Brongn. and *S. secundatum* (Walter) Kuntze, from Kerala.

Key to the species

- 1a. Lower glume orbicular, apex obtuse, margins finely ciliate..... *S. dimidiatum*
- 1b. Lower glume broadly ovate, apex acute, margins smooth..... 2
- 2a. Spikelets not sunk in axis cavities, rhachis broadly winged, lower lemma membranous *S. helferi*
- 2b. Spikelets on one face of a flattened axis, rhachis not winged, lower lemma coriaceous..... *S. secundatum*

***Stenotaphrum dimidiatum* (L.) Brongn., Voy. Monde 2(2): 127 - 130. 1831; C. E. C Fisch. in Gamble, Fl. Madras 3: 1773. 1934; Bor, Grass. Burma Ceylon India Pakistan: 366. t. 41. 1960; B. D. Sharma & al., in Biol. Mem. 2(1 & 2): 170. 1977; V.J. Nair in A. N. Henry & al., Fl. Tamil Nadu Anal. 3:143. 1989; K. M. Matthew III. Fl. Palni Hills: t. 874. 1996; S. Moulik, Grass. Bamb. India 1: 162. t. 30. 1997; K. T. Mathew in K. M. Matthew, Fl. Palni Hills 3: 1538. 1999. *Panicum dimidiatum* L., Sp. Pl.: 57. 1753. *Stenotaphrum glabrum* Trin., Fund. Agrost. 7: 90. 1820; Hook.f., Fl. Brit. India 7: 90. 1896.**

Fig. 1

Perennial; mat-forming, stoloniferous, basal innovations flabellate, rooting at base. Culms prostrate, 24 - 62cm, trailing on ground, creeping at intervals, culm surface smooth, glaucous, whitish-green; nodes round, bulging, brownish-green, lower nodes rooting. Leaf blades linear to oblong, apex sub-acute to bluntly rounded, base narrow, 10 - 12 × 0.5 - 0.6mm, conduplicate, margins faintly serrulate, ciliate, both surfaces rough, glabrous, midrib raised abaxially, 5 - 7 lateral nerves on each side of midrib; ligule membranous, flap-like, white, apex fimbriate, 3 - 4mm; sheaths compressed, strongly keeled, striate, 4.5 - 5.7mm, glabrous, margins ciliate. Inflorescence borne along a central axis in a unilateral false spike, composed of solitary, spiciform racemes, 5 - 6.4 × 0.6mm, axis of terminal inflorescence membranaceous, with tooth-like lobes behind upper racemes;

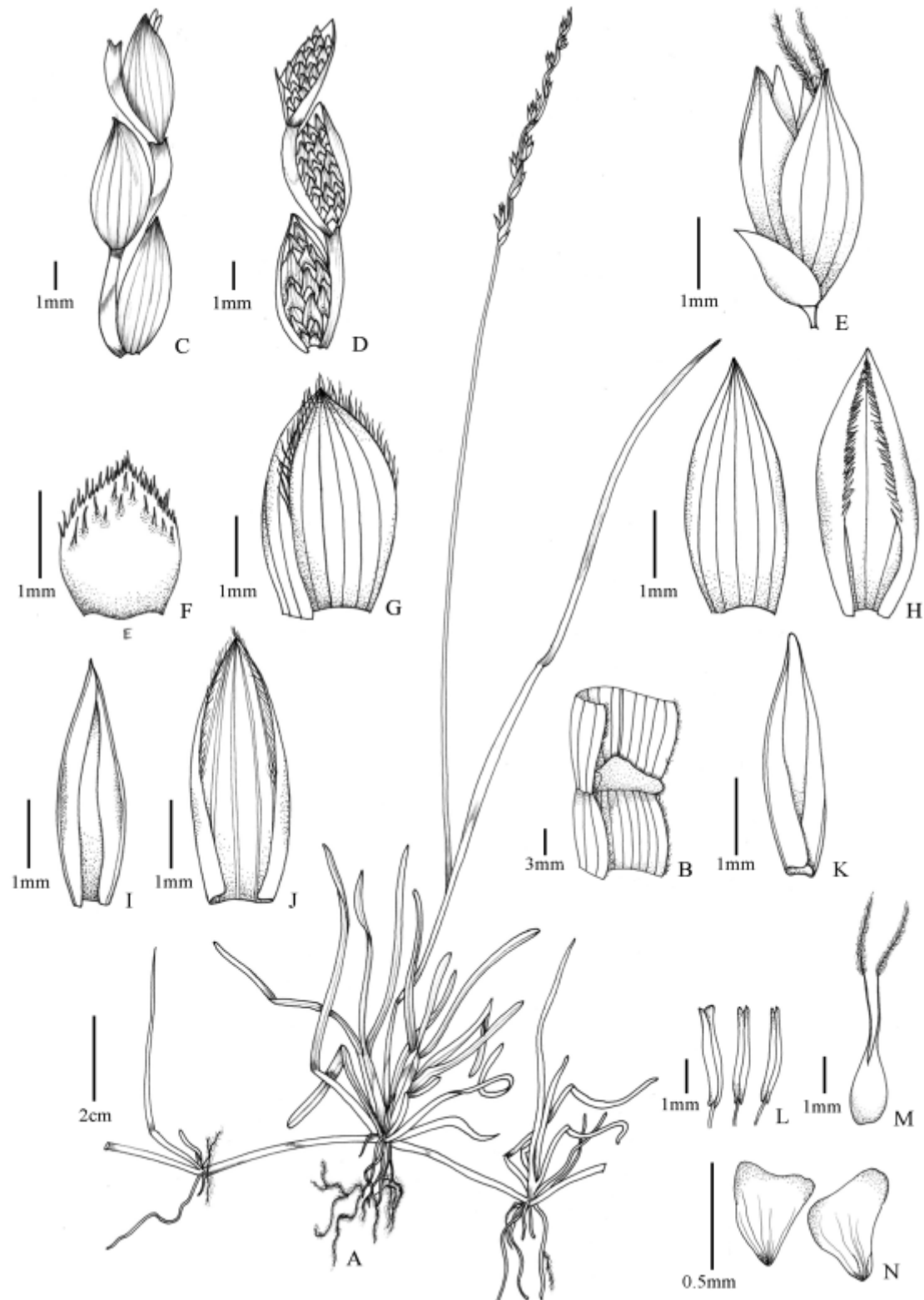


Fig: 1 : *Stenotaphrum dimidiatum* (L.) Brongn. **A.** Habit; **B.** Leaf ligule; **C-D.** Spike enlarged (dorsal & ventral view); **E.** Spikelet; **F.** Lower glume; **G.** Upper glume; **H.** Lower lemma (dorsal & ventral view); **I.** Lower palea; **J.** Upper lemma; **K.** Upper palea; **L.** Stamens; **M.** Pistil; **N.** Lodicules. (S. Pathak 48535 CAL)

peduncle terete, 24 - 27cm; rhachis flat, zigzag, foliaceous, bearing shallow pockets at irregular segments, hiding 3 - 5 sunken spikelets, tip subulate. Spikelets ovate to lanceolate, 3.4 - 4 × 0.7 - 1mm, dorsally compressed, falling entire, deciduous. Glumes dissimilar. Lower glume orbicular, apex obtuse, 1.4 - 1.5 × 0.7 - 1mm, membranous, pallid, margin ciliolate at apex. Upper glume narrowly ovate to elliptic, boat-shaped 3.4 - 4 × 1.4 - 1.7mm, chartaceous, tough, 7-nerved, lateral nerves faint, margin ciliate at apex. Florets 2, basal florets male, upper bisexual. Lower lemma narrowly ovate, boat-shaped, 3.8 - 4 × 0.7 - 0.8mm, sub-coriaceous, 5 nerved without grooves. Lower palea ovate to lanceolate, 3.4 - 3.5 × c 0.7mm, almost hyaline, 2-nerved, 2-keeled, margins infolded, at times faintly ciliate at apex. Upper lemma broadly lanceolate, apex almost blunt, 3.8 - 4 × 0.9 - 1mm, sub coriaceous, 5 -nerved, margins flat. Upper palea elliptic to lanceolate, 3.3 - 3.4 × 0.7mm, margins almost closed, 2 -nerved, ciliate at apex. Anthers 3, yellowish-green, 1 - 1.6mm. Pistil ca 6mm; ovary oblong, dark brownish-green; style 2; stigma plumose, dark purplish. Lodicules 2, fan-shaped, apex truncate, membranous, almost hyaline, 0.4 - 0.5mm.

Habitat : Grows in patches on small hillocks, road sides, beside small streams and other similar places.

Fl. & Fr. : April-October.

Distribution : Bangladesh, Kenya, Madagascar, Sri Lanka. INDIA: Kerala, Karnataka, Mizoram (new report), Tamil Nadu.

Specimen examined : 04 - 04 - 2011, on the way to Kolasib from Aizawl, Kolasib District, Mizoram; 23° 41'44.97" N - 92° 26'33.31" E. S. Pathak 48535 (CAL).

Note : *S. dimidiatum* (L.) Brongn. usually grow along road sides, small water bodies, or on embankments of paddy fields etc, in some southern states of India (Kabeer & Nair, 2009).

ACKNOWLEDGMENTS

The author is thankful to the Director, Botanical Survey of India for facility; to Ministry of Environment & Forests for providing financial assistance under All India Co-ordinated Project in Taxonomy (AICOPTAX) and to the Forest Department, Mizoram for their help during the collection trips.

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