

## ***Sporobolus coromandelianus* (Retzius) Kunth [Poaceae] - a new record for North-Eastern India**

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[Received revised 22.04.2013; Accepted 10.5.2013]

### **Abstract**

*Sporobolus coromandelianus* (Retzius) Kunth (Poaceae) is collected and reported for the first time from North-Eastern India. The present work embodies a detailed description and illustration to facilitate identification and confirmation of the species in this region.

**Key words:** India, Poaceae, *Sporobolus coromandelianus*.

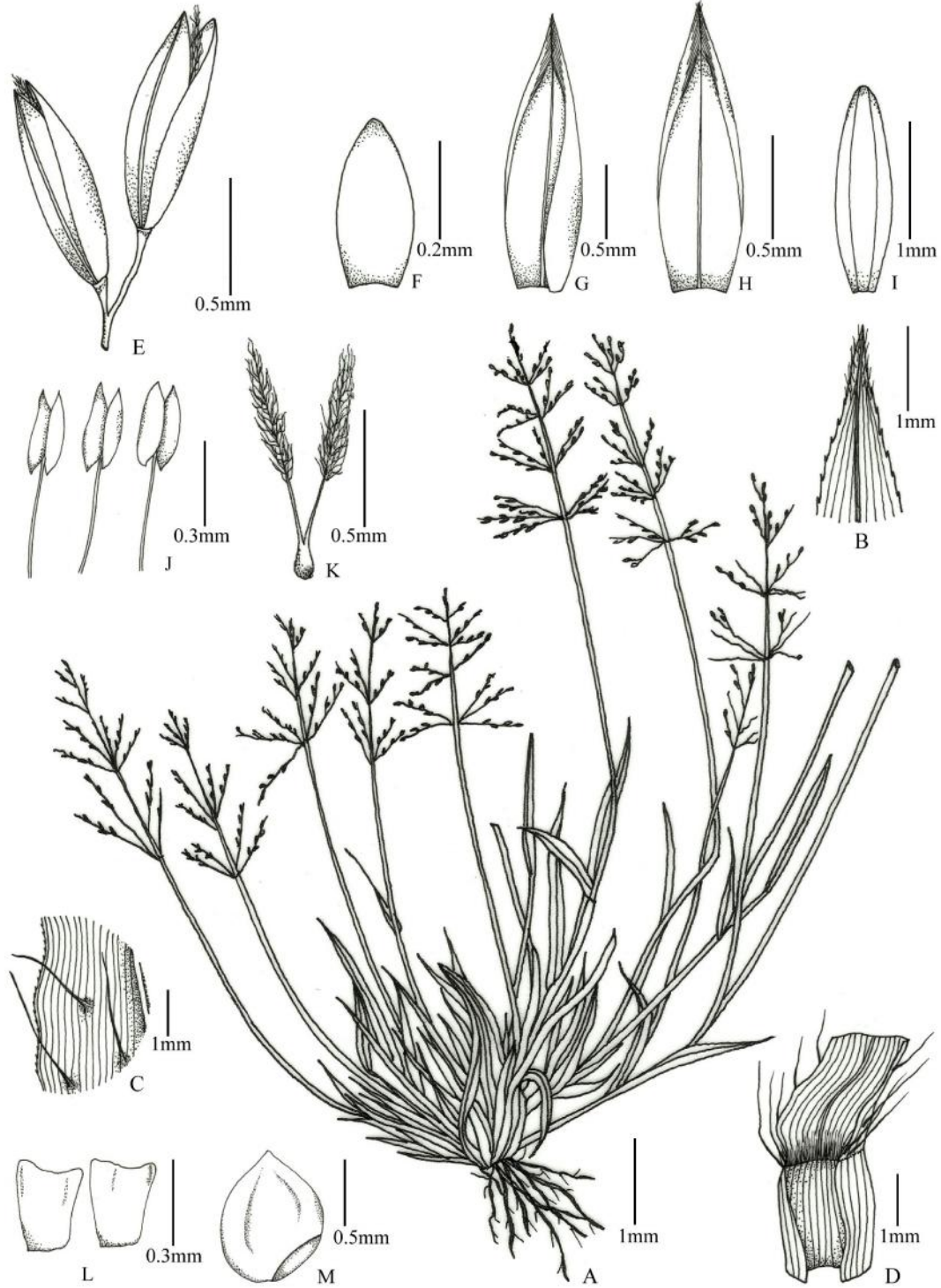
### **INTRODUCTION**

The graminoids (grasses) are the fourth largest family of flowering plants, globally represented by 10,550 species under 715 genera (Mabberley 2008). India is known to comprise of 261 genera including 1,334 species of grasses (Karthikeyan 2005). *Sporobolus* R. Brown, is a cosmopolitan genus, forming one of the principal genera of the sub-family Chloridoideae, tribe Eragrostideae and sub-tribe Sporobolinae (Clayton & Renvoize 1992). The genus is recognized by 160 species, predominantly distributed in the tropical and pan-tropical regions of the world (Clayton & Renvoize 1986; Shukla 1996; Cope 1998; Mabberley 2008).

*Sporobolus coromandelianus* (Retzius) Kunth, a species pervasive from Tropical Africa to India extending up to Australia (Simon 1987; Phillips 1995; Wu & Philips 2006). Hooker (1897) reported 14 species from British India. Currently, 19 species are reported to occur in the present political boundaries of India (Karthikeyan 2005).

Bor (1940) reported 5 species of *Sporobolus*, where he gave a portrayal of *S. coromandelianus*, giving a note that, so far it was not recorded from Assam, however it is likely be found in the plains of Sylhet, Goalpara and Darrag. Moreover, Shukla (1996) enumerated 3 species of *Sporobolus*, excluding *S. coromandelianus*, from North-Eastern India. Consequently, at present neither any literature nor collections have established the occurrence of this species from this region. Hitherto, *Sporobolus coromandelianus*, the present collection from Mizoram forms its first report to North-Eastern India.

*Sporobolus coromandelianus* (Retzius) Kunth, Révis. Gramin. 1: 68. 1829; Hooker *f.*, Fl. Brit. India 7: 252. 1896; Rangachari & Tadulinga, Handb. S. Indian Grass. tt. 181, 182. 1921; C.E.C. Fischer in Gamble, Fl. Madras 3: 1817. 1934; Bor, Grasses of Burma, Ceylon, India, Pakistan: 627. 1960; Britto & K.M. Matthew, Fl. Tamil Nadu Carnatic 3(2): 1904. 1983; K.M. Matthew, fur. III. Fl. Tamilnadu Carnatic 4: t.825. 1988; Chandrabose. & N.C.



**Fig. 1:** *Sporobolus coromandelianus* (Retzius) Kunth - A. Habit; B. Leaf apex; C. Abaxial surface of leaf; D. Leaf ligule; E. Spikelet; F. Lower glume; H. Lemma; I. Palea; J. Stamens; K. Pistil; L. Lodicules; M. Caryopsis. [*S. Pathak 48520, CAL*]

Nair, Fl. Coimbatore: 348. 1988; V.J. Nair in A.N. Henry & al., Fl. Tamil Nadu Anal. 3: 141, 1989; S. Moulik, Grass. Bamb. India 2: 477. 1997; P. Daniel & Umamaheswari, Fl. Gulf Mannar: 588. t. 105. 2001. *Agrostis coromandeliana* Retzius, Observ. Bot. 4:19. 1786; *Sporobolus commutatus* (Trinius) Kunth, Enum. Pl. 1:214. 1833; Rangachari & Tadulinga, Handb. S. Ind. Grasses: tt.183, 184. 1921. *Vilfa commutate* Trinius, Diss. Bot.: 156. 1824.

### Figure 1.

Tufted, rosette forming, annual. Culms caespitose, erect or geniculately ascending at base, 8 – 22 cm, surface glabrous-ribbed, furrowed at the middle, greenish; nodes round, slightly depressed, glabrous. Leaf blades lanceolate to linear lanceolate, acuminate, base narrow, truncate, 2 – 7.5 × 0.3 – 0.5 cm, adaxial surface scabrid to rugose, tuberculate white, hairs present at base, *ca* 0.5 – 0.6 mm, abaxial surface rough, glabrous, margins glabrous, rarely ciliate at base, margins serrulate, cartilaginous, hirsute at apex, mid-rib prominent, raised abaxially, lateral veins many; ligule 0.5-0.6 mm, a fringe of white, villous hairy; sheath keeled, terete, mouth ciliate, outer margins cartilaginous, 1.5 – 1.8 cm. Inflorescence an effuse, pyramidal, panicle, 2 – 8 × 1.5 – 5 cm, branches whorled, spreading, 3 – 7 noded, having 5 – 8 racemes per node; peduncle 4 – 8.5 cm, ribbed. Racemes 1 – 4.8 cm, hairy when young, rhachis scabrid, with purplish glands near nodes. Spikelets paired towards base, with long 0.5 mm, to short 0.2 – 0.3 mm pedicels and solitary towards apex. Spikelets lanceolate acuminate at apex, truncate at base, 1 – 1.5 × 0.4 mm, glabrous, subterete, greenish yellow, breaking up at maturity. Glumes deciduous, dissimilar, reaching apex of florets. Lower glume minute, ovate to oblong, obtuse at apex, 0.3 – 0.4 × 0.1 – 0.2 mm, hyaline, membranous, nerveless. Upper glume oblong to lanceolate, apex acute, 0.8 – 1.5 × 0.4 – 0.5 mm, membranous, surface smooth, glabrous, 1-nerved, grayish green. Lemma oblong to lanceolate, apex acute, 1.5 × 0.4 mm, chartaceous, surface smooth, glabrous, 1-nerved, grayish green. Palea oblong, 0.7 – 1 × 0.4 mm, 2-nerved, not keeled, hyaline. Stamens 3, rarely 2, anthers purplish, 0.2 – 0.3 mm, stamens 0.4 mm long. Pistil 0.8 – 1 mm, ovary globose, white, style 2, stigma plumose, dark brown. Lodicules 2, hyaline, truncate, 0.2 – 0.3 mm. Caryopsis ovate, 0.8 – 1 × 0.6 mm, 0.7 – 0.8 mm, dark brown. (Fig: 1)

**Habitat:** Grows in patches in dry, waste lands and sometimes along forest edges. Also seen to grow in disturbed landslide zones

**Flowering & Fruiting:** September to March.

**Distribution:** Afghanistan, Java, Myanmar, New Guinea, Pakistan, South Africa, Sri Lanka, Thailand. INDIA: Andhra Pradesh, Bihar, Daman & Diu, Gujarat, Karnataka, Maharashtra, Mizoram, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh.

**Habitat:** Found to grow along road sides and narrow trails.

**Exsiccatae:** Mizoram: Lunglei District, Tenzawal road side, 332 m, 24°48'41.36" N and 92°39'06.54" E, 03.04.2011, S. Pathak 48520 (CAL).

**Other Specimens Examined:** Upper Burma, September 1891, *Abdul Huk* 100 (CAL)!; Burma, November, 1902, *Shaik Mokim* 502 (CAL)!; Karnataka, Mysore, Place Dairy Farm, 17.11.1956, *P. C. Nanda* 582 (CAL)!; Tamil Nadu, Coimbatore, 05.08.06, *C. E. C. Fisher* 1153 (CAL)!; Andhra Pradesh, Belgam- Gowchar, 05.09.1955, *M. P. Guha* 13 (CAL)!.

### Acknowledgements

The authors are thankful to the Chief Conservator of Forests, Mizoram for facilitating the exploration work and to the Ministry of Environment and Forests, New Delhi for financial assistance.

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