

***ISEILEMA* - A NEW GENERIC RECORD FOR NORTH EASTERN INDIA**

S. PATHAK &amp; P. SINGH

*Botanical Survey of India, CGO Complex, Salt Lake City, Kolkata - 700064**E-mail: pchanna@gmail.com*

Poaceae, one of the largest families of flowering plants, are represented by 10, 550 species belonging to 715 genera (Mabberley, 2008) in world and by 1, 334 species under 261 genera in India (Karthikeyan, 2005). *Iseilema* Andersson, has 20 species chiefly distributed in Southeast Asia to Australia. In India, 7 species are reported to occur (Karthikeyan & al., 1989; K. A. A. Kabeer & V. J. Nair, 2009) showing self-consistent system of evolutionary mechanisms (Rao, 1975). Hitherto, *Iseilema* species were not reported from North-Eastern region.

Intensive field visits were conducted during March-April, 2010 and April-June, 2011 at regular intervals in different areas for collection and study of grasses and bamboos of Mizoram. The collected materials were processed following standard herbarium techniques, and specimens were correctly identified with the help of literature and authentic specimens available at ASSAM and CAL. While identifying the specimens collected from Mizoram, a collection from Dampa Tiger Reserve was identified as *Iseilema anthephoroides* Hack. It was observed that the genus *Iseilema* was not known from North-East India (Bor. 1940, Kumar, 1996, Shukla, 1996, Noltie, 2000) and reported from peninsular India (Bor, 1960, Karthikeyan & al., 1989). Therefore, the present collection is not only an extended distribution of this species, but also the first report of the genus from the North-Eastern India. Detailed description is provided along with illustration to facilitate identification.

***Iseilema anthephoroides* Hack.** in A. DC & C. DC. Monogr. Phan. 6: 683. 1889; Hook. f., Fl. Brit. India 7: 218. 1896; Rang. & Tadul., Handb. S. Ind. Grasses: 219. tt. 169, 170. 1921; C.E.C. Fisch. in Gamble, Fl. Madras 3: 1748. 1934; Bor, Grass. Burma, Ceylon, India and Pakistan, 187. 1960; K. M. Matthew, III. Fl. Tamilnadu Carnatic 2: tt. 886, 887. 1982; Britto & K. M. Matthew in K. M. Matthew, Fl. Tamilnadu Carnatic 3(2):1870. 1983; Karthik. & al., Fl. Ind. Enum. Monocot. 233. 1989; V. J. Nair in A. N. Henry & al., Fl. Tamilnadu Anal. 3: 124. 1989; S. Moulik, Grass. Bamb. India 1: 235. 1997.

Perennials. Culms tufted, up to 2.5m high, slender ascending from prostrate base, finely hairy at the junction of the root and culm. Culms thin, slender, cylindrical, glabrous; nodes slightly bulging, glabrous, reddish-green; sometimes with a brown ring. Leaf blades 4 - 7 × 0.3 - 0.4cm, lanceolate, clustered at base, obtuse at apex, rounded at base; green to whitish-green, entire, scabrid, mid-rib whitish, flat, lateral veins many; ligule c. 0.2mm long, membranous, white, mouth ciliate, cilia 0.3 - 0.4 mm; sheath keeled, c.1.7 - 2cm long, dorsally compressed. Panicle linear, up to 13cm long, peduncle short, enclosed within the spathe, spathe oblong-elliptic, apically constricted, aristate, dorsally keeled, ribbed, ribs prominent, tuberculate hairy along margins, especially towards apex, hairs 2 - 2.2mm long, white. Racemes with 4 male involucre spikelets at base, 1 sessile bisexual spikelet, 2 pedicelled male or barren spikelets, all disarticulating from the base of the peduncle; callus 0.5 - 0.6 mm long, white, bearded, hairs 2.5mm long, apex of callus forming a cup shaped bulge. Involucre spikelets pedicelled, oblong-lanceolate, c. 4 × 1 mm, glabrous, greenish-brown, pedicels hispid. Lower glume oblong-lanceolate, c. 4 × 1.2mm, acute, chartaceous, yellowish-green, prominently 3- nerved, 2 lateral nerves placed close to the margin, central nerve white, slightly grooved, 2 keeled at apex, keels scabrellate, apex hyaline, faintly hairy at the back. Upper glume oblong-elliptic to lanceolate, c. 3.9 × 1.1mm, acute, scale like, delicate, margins narrowly folded, apex hyaline, 3 nerved, central nerve prominent, 2 lateral ones faint or absent. Lemma, c. 1.3 × 0.2mm, oblong, delicate, partly hyaline, acute. Stamens 3, anthers yellow, filaments, white, hyaline, 2.5mm long. Sessile spikelets oblong-elliptic, 5.5 × 1.1mm, yellowish-green, awned, rachis smooth. Lower glume oblong-elliptic up to middle and caudate from above middle, 2 toothed, c. 5.8 × 1.1mm, chartaceous, yellowish-green, 5-nerved, central nerve prominent, scabrellate on nerves, 2 keeled above middle, keels scabrid,

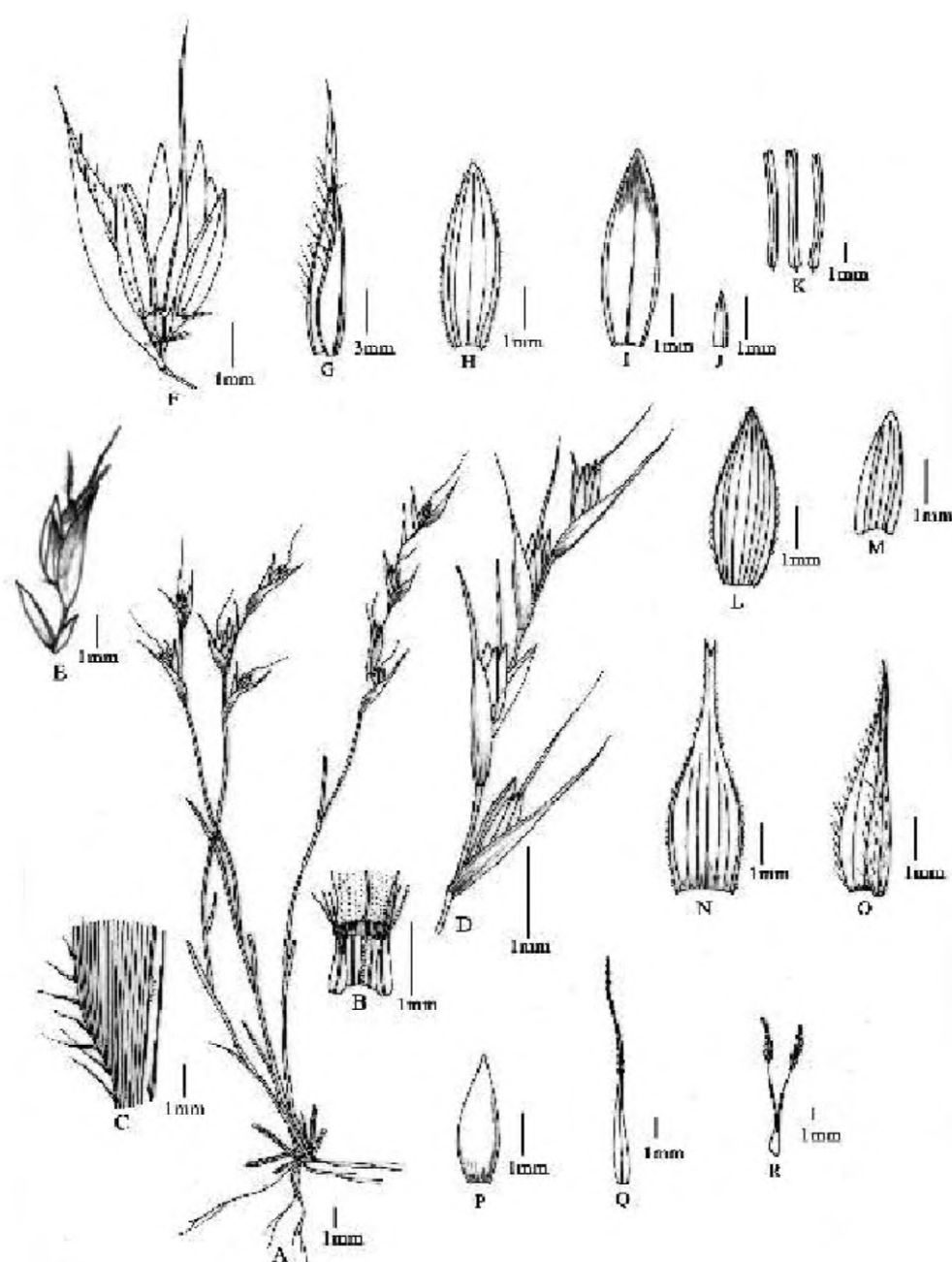


**Fig. 1.** *Iseilema anthephoroides* Hack. **A.** Habit, **B.** Leaf Ligule, **C.** Leaf margin, **D.** Arrangement of Spikelet in the Rhachilla, **E.** Spikelet, **F.** Spikelet with Spathe, **G.** Spathe, Male Spikelet, **H.** Lower glume, **I.** Upper glume, **J.** Lemma, **K.** Stamens; Pecelled Spikelet, **L.** Lower glume, **M.** Upper glume; Sessile spikelet, **N.** Lower glume; **O.** Upper glume, **P.** Lower lemma, **Q.** Upper lemma, **R.** Pistil.

margins infolded, hairy. Upper glume oblong-elliptic, c.  $4.8 \times 0.9$  mm, acuminate, chartaceous, faintly 3-nerved, nerves end mid-way, dorsally tuberculate hairy. Florets 2, lower barren, upper bisexual, both epaleate. Lower lemma ovate, acute, c.  $2.6 \times 0.7$  mm, membranous, hyaline, nerveless. Upper lemma reduced to the hyaline base of the awn, c.  $10 \times 0.3$  mm, awn 3-4 mm, bearded, column twisted. Ovary oblong, acute; style 2; stigma 2, plumose, purplish, 3 mm long. Pedicelled spikelets oblong-lanceolate, acuminate,  $3.8 - 3.9 \times 0.7$  mm, chartaceous, glabrous, yellowish, barren. Lower glume oblong-lanceolate, c.  $3.4 \times 0.6$  mm, faintly 6 - 7 nerved, hyaline, partly scabrellate at apex on dorsal surface. Upper glume ovate-elliptic, acuminate; c.  $2.8 \times 0.6$  mm, 3 nerved, margins incurved at apex.

*Habitat:* Grows in patches on small hillocks and slopes, usually in shady places.

*Fl. & Fr.:* March- September.

*Distribution:* Tropical Asia (Clayton & al., 2006) INDIA: Andhra Pradesh, Karnataka, Kerala, Maharashtra, Mizoram ( New Record), Tamil Nadu.

*Specimen examined:* Mizoram Mamit District, Dampa Wild Life Sanctuary, Teiri,  $23^{\circ}45'41.97''$  N- $92^{\circ}26'32.38''$  E, 03:04:2011, S. Pathak 48485 (CAL).

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