

Original Research Article

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## Two endemic grasses (Poaceae): Additions to the flora of Telangana, India

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### Abstract

Two endemic grass species viz., *Dimeria bialata* C.E.C. Fisch. and *Heteropogon polystachyos* (Roxb.) Schult. are strictly endemic to India have been reported from Eastern Ghats of Telangana as new additions to the grass flora of Telangana State, India. A brief description and colour photo plates are provided for easy identification.

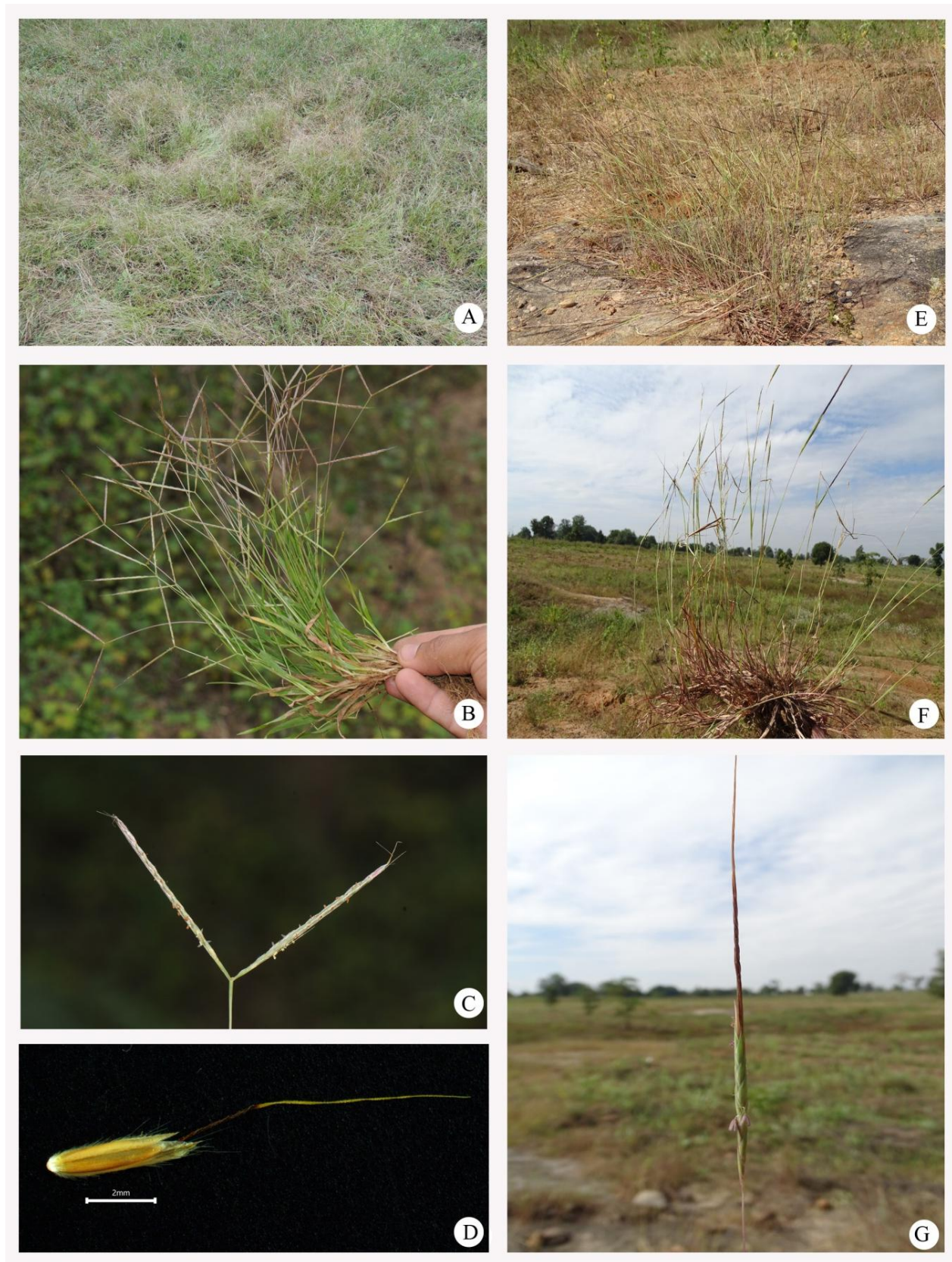
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### Introduction

While working on the grasses of Telangana, the first author collected *Dimeria bialata* C.E.C. Fisch. and *Heteropogon polystachyos* (Roxb.) Schult. from Kinnerasani Wildlife Sanctuary. Perusal of literatures revealed that both the species are not reported from the Telangana state (Pullaiah, 2015; Reddy and Reddy, 2016). Hence, these two species are reported here as an additions to the flora of Telangana. A brief descriptions and colour photo plate are provided for easy identification. Voucher specimens are deposited at

Botanical Survey of India, Deccan Regional Centre (BSID), Hyderabad, Telangana.

*Dimeria bialata* C.E.C. Fisch. in Bull. Misc. Inform. Kew (7): 351. 1933; C.E.C. Fisch. in Gamble, Fl. Madras 1713.1934; Bor, Grasses Burma, Ceylon, India and Pakistan 140. 1960; Karthik et al., Fl. Ind. Enum. Monocot. 209. 1989; Bhattacharya (Sunanda Moulik), Grasses Bamboos India 1: 281. 1997; Prasanna et al., Poaceae in Mao & Dash (eds.) Fl. Plants of India- an annotated checklist – Monocotyledons 355. 2020 (Fig. 1).



**Fig. 1:** *Dimeria bialata* C.E.C. Fisch.: A. Habitat; B. Habit; C. Inflorescence; D. Spikelet. *Heteropogon polystachyos* (Roxb.) Schult.: E. Habitat; F. Habit; G. Inflorescence.



Annuals. Culms up to 45 cm high, slender, smooth; nodes bearded. Leaves mostly confined to culm-base; leaf blades up to 7 × 0.25 cm, linear-lanceolate, acuminate at apex, keeled, minutely scabrid and bulbous-based hairs on both surfaces and along margins; ligule membranous, truncate and fimbriate at apex; sheath loose, keeled on upper half, rounded below, glabrous. Racemes 1 or 2, up to 3 cm long, peduncle well exerted; raceme-rachis flat, up to 1.5 mm wide, winged, sparsely ciliate at margin; pedicels flattened, tip concave. Spikelets up to 4 mm long, elliptic-lanceolate; callus short, bearded. Lower glume coriaceous, linear-acute, shortly acuminate at apex, strongly keeled on back, sometimes narrowly winged on keel, scabrid towards apex, sometimes sparsely hairy. Upper glume coriaceous, elliptic-lanceolate, pilose on keel and side, scabrid towards apex, margins ciliate, broadly winged along keel; wings papery, narrower towards base. Lower floret empty; lower lemma thinly hyaline, elliptic-lanceolate, margins sparsely ciliate towards apex. Upper floret complete, bisexual; upper lemma elliptic-obtuse, bifid at apex with acute lobes, sub-hyaline, awned from sinus; awn up to 11 mm long with twisted column; palea absent. Caryopsis brownish, terete.

**Flowering and fruiting:** November - February.

**Habitat:** Occasional in moist lateritic habitats. It is associated with *Bonnaya ciliata* (Colsm.) Spreng. and *Iseilema prostratum* (L.) Andersson.

**Distribution:** Endemic to Andhra Pradesh, Karnataka, Kerala, West Bengal and Telangana (Present collection).

**Specimens examined:** Telangana, Kinnerasani Wildlife Sanctuary, Regalla Range, Madeelagudem Beat, 17.99090" N, 80.55933" E, 170 m., 03.01.2020, J. Swamy 10715 (BSID).

*Heteropogon polystachyos* (Roxb.) Schult., Syst. Veg. 2, Mant. 460. 1824; Bor, Grasses Burma, Ceylon, India and Pakistan 165. 1960; Karthik et al., Fl. Ind. Enum. Monocot. 227.1989; Bhattacharya (Sunanda Moulik), Grasses Bamboos India 1: 227. 1997; Prasanna et al., Poaceae in Mao & Dash (eds.) Fl. Plants of India - an annotated checklist – Monocotyledons 379. 2020. *Andropogon polystachyos* Roxb., Fl. Ind. 1: 265. 1820; Hook, f., Fl. Brit. India 202. 1896. *Heteropogon contortus* var. *polystachyos* (Roxb.) Deshp. in Bull. Bot.

Surv. India 30: 121. 1990 (Fig. 1).

Annuals. Culms erect, tufted, up to 50 cm tall. Leaf blade 4-12 cm long, hairy on both sides; ligule a short ciliate membrane; Leaf sheath terete, glabrous up to 5 cm long. Racemes solitary, 1.8-3 cm long, with lower homogamous spikelet pairs. Hermaphrodite sessile spikelet 5-6 mm long, awned, callus sharp, bearded with dark brown hairs. Lower glume coriaceous, linear to narrowly oblong, covered with brown hairs on dorsal surface, margins inflexed, 5-nerved, obtuse or rounded at apex. Upper glume membranous, narrowly obovate, hairy on the middle nerve, 3-nerved, apex apiculate. Lower lemma hyaline, ovate, nerveless, apex acute. Palea absent. Upper lemma represented by the acute base of the awn, awn geniculate, 4-5 cm long, hairy. Pedicelled spikelets ca. 6 mm long. Lower glume membranous, narrowly elliptic-ovate, glabrous, 1-keeled; keel winged, 8-10-nerved, apex acute. Upper glume membranous, narrowly ovate, glabrous, margins inflexed, ciliate, 3-nerved, apex acuminate. Lower lemma membranous, narrowly elliptic-ovate, ciliate on margins, apex rounded or obtuse. Lodicules 2. Stamens 3.

**Flowering and Fruiting:** August - November.

**Habitat:** Occasional in open grass lands. It is associated with *Hyptis suaveolens* (L.) Poit., *Microchloa indica* (L.f.) P. Beauv., and *Polycarpha aurea* Wight & Arn.

**Distribution:** Endemic to Andaman & Nicobar Islands, Jharkhand, Maharashtra and Telangana (Present collection).

**Specimens examined:** Telangana, Kinnerasani Wildlife Sanctuary, Chatakonda Range, Gattumalla South Section and Beat, 17.65005" N, 80.60230" E, 166 m., 15.11.2020, J. Swamy 10868 (BSID).

### Conflict of interest statement

Authors declare that they have no conflict of interest.

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