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RESEARCH ARTICLE

Dimeria veldkampii (Poaceae) – A new record for South India

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Abstract

Dimeria veldkampii Kiran Raj et Sivadas., an Andropogonoid grass species is reported for the first time from Karnataka in South India. A detailed description, photographs and relevant notes are provided. This endemic species previously reported only from type locality, North Goa district of North West India. It has extended distribution in to Southern Western Ghats of Karnataka, South India.

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INTRODUCTION

Dimeria R. Br. (Poaceae) is a little known paleotropical genus with about 65 species (Teerawatananon *et al.*, 2014). They are mainly adapted to humid or semi-arid habitat and in distribution from India to China, Korea, Indonesia and northern Australia to Sri Lanka and Madagascar (Bor, 1953; Clayton *et al.*, 2006; Kiran Raj and Sivadasan, 2008; Kiran Raj *et al.*, 2013; Kiran Raj *et al.*, 2015). Clayton and Renvoize (1986) considered this genus as most peculiar in the tribe Andropogoneae by its solitary, laterally compressed spikelets and flat or filiform rachis without joints. The callus is cylindrical and the glumes are keeled with margins with no auricles at apex.

During botanical explorations in Western Ghats of Karnataka, India, the first author has collected interesting specimen of *Dimeria* from Shimoga district of Karnataka. Through detailed

study and perusal of relevant literature and expert comments, it was identified as *Dimeria veldkampii* Kiran Raj *et* Sivad., previously known only from the type locality Taleigoa, in North Goa district of North West India. The report of its occurrence in Karnataka is the first record in Southern India. Hence detailed botanical description, ecology and biotic association of the species are provided along with colour photographs to facilitate its easy identification.

Taxonomy: *Dimeria* is the only genus of anomalous paleotropical subtribe Dimerineae apart from *Nanooravia* Kiran Raj *et* Sivad. The subtribe is distinguished by spatheate inflorescences consisting of 1–11 digitate racemes with tough rachis and strongly laterally flattened solitary spikelets by which it differs from all other Andropogoneae Dumort. (Clayton, 1972). Two infrageneric classifications are given by Bor (1953) and Kiran Raj *et al* (2015). This newly recorded endemic *D. veldkampii* Kiran Raj & Sivad., is included in *Dimeria* sect. *Annulares*.

Dimeria veldkampii Kiran Raj *et* Sivad., Novon 18: 183. 2008.

(Fig. 1)

Annuals. Culms up to 15 cm long, erect or decumbent at base, smooth; nodes sometimes bearded at upper halves; internodes shorter than the sheaths. Leaves usually along the culm; leaf blade linear-acuminate, up to 3-5.5 cm x 1-2.5 mm, thick with broad, bulbous-based hairs on the upper surface and margins; ligules membranous, up to 1 mm long, truncate and fimbriate at apex; leaf sheath longer than internodes, smooth and glabrous, margins hyaline. Inflorescence straight, peduncle enclosed in spatheole, racemes 2, 3.5-4 cm long when rachis spread, racemes with tough rachis, straight at first, circinate recurved at maturity, each forming a ringlet with the spikelets on the inner surface; rachis smooth and glabrous, upon which pedicelled spikelets are arranged; pedicels ca. 0.5 mm long, lip flat, terete below, glabrous. Spikelets oblong-lanceolate, 4-4.5 mm long, callus short, ca. 0.5 mm long, densely bearded, hairs white; lower glume coriaceous, oblong-obtuse, 3.5-4 mm long, yellowish brown when dry, glabrous to



Figure 1. *Dimeria veldkampii* Kiran Raj *et* Sivad.: **A.** Habit; **B.** Inflorescence; **C.** Close up of racemes showing loosely rolled rachis; **D.** Spikelets; **E.** Sparsely hairy and wingless upper glume.

sparsely hairy along the keel towards apex, hyaline on the margins; upper glume coriaceous, oblong-obtuse, 4-4.5 mm long, strongly compressed, sparsely hairy and wingless. Lower floret empty; lemma very hyaline, oblanceolate, 2-2.5 mm long, hyaline. Upper floret bisexual; lemma oblong-acute, cleft at apex, awned from the sinus; awn up to 12 mm long with a dark twisted 3.5-4.5 mm long column; palea absent; lodicules 2, small, truncate; stamens 2, anthers ca. 1 mm long; ovary oblong; stigmas plumose. Caryopsis ca. 1.5 mm long, slightly compressed.

Flowering and Fruiting: October-December.

Habitat & Ecology: Dry lateritic plateau; growing in grassy plains along with *Dimeria woodrowii* Stapf., at an altitude range of 200-250 m.

Distribution: India: North Western India (Goa); Southern Western Ghats (Karnataka). Endemic.

Specimen examined: INDIA, **Goa**, North Goa district, Taleigoa, 27.10.2002. Kiran Raj CU 81073 (CALI). **Karnataka**, Shimoga district, Jersopha, 21.11.2013, Dileep 9396 (CALI).

Notes: Small grass on rocky areas with characteristic curled inflorescence. This species is quite distinct from *Dimeria woodrowii* Stapf., an endemic species of peninsular India by its exerted, non-articulated peduncle, and the loosely incurved raceme-rachis (Kiran Raj, 2008).

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