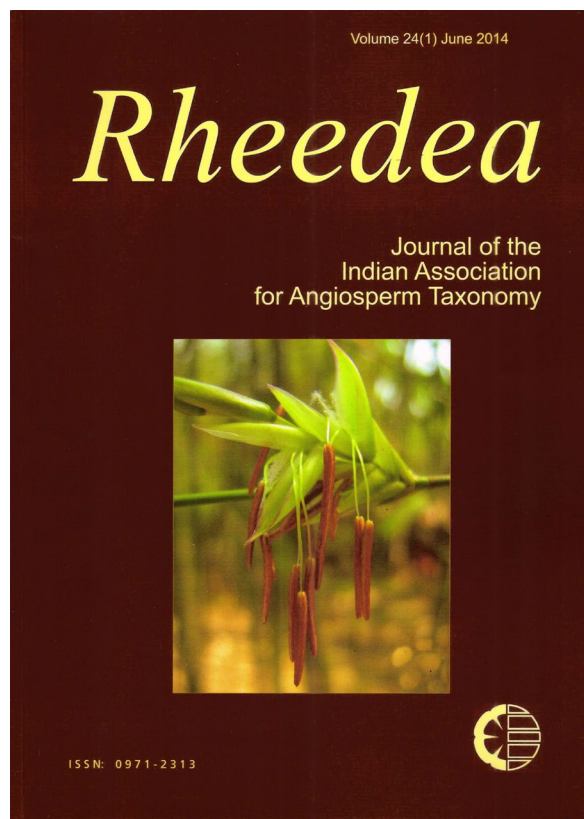




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Chrysopogon festucooides (Poaceae): A new record for South India

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Abstract

Chrysopogon festucooides (Presl) Veldk. is reported from Kerala in South India. A detailed description, illustration and photographs of the taxon are provided for easy identification.

Keywords: *Chrysopogon festucooides*, Poaceae, new record, South India

Introduction

The genus *Chrysopogon* Trin. with about 45 species is mostly distributed in the Old World tropics, with one species each in Cuba and Florida, 11 species in Thailand and 13 species in Malesia (Veldkamp, 1999). In India, the genus (including *Vetiveria* Bory) is known to have 16 species. Among them, *C. zizanioides* (L.) Nash and *C. lawsonii* (Hook.f.) Veldk. from India were previously treated either under the genus *Andropogon* L. or *Vetiveria* Bory (Hooker, 1896; Bor, 1960) as they share many features in common. The authors, during their floristic investigations in the wetlands of Kerala, located populations of this tussock forming grass in a small area along the wet fields near Kooriyad in Malappuram district of Kerala. The plant resembled *Vetiver* of commerce, *Chrysopogon zizanioides*, but its roots are odourless. The specimens were studied and determined as *Chrysopogon festucooides* (Presl) Veldk. The plant was not treated as occurring in India. However, Veldkamp (1999) while revising the genus *Chrysopogon* in Thailand and Malesia opined that a collection by Jenkins from Upper Assam available at Kew (K) belongs to this species. Since this taxon has not been treated in any of the Indian Floras, it is described here with photographs and illustration to facilitate easy identification.

Chrysopogon festucooides (Presl) Veldk., *Austrobaileya* 5: 512. 1999. *Andropogon festucooides* Presl, *Rel. Haenk.* 1:340. 1830. *Vetiveria festucooides* (Presl) Ohwi, *Bull. Tokyo Sc. Mus.* 18:4. 1947.

Fig. 1, 2.

Tufted perennials. Culms 1–1.75 m tall. Ligule a fringe of hairs. Leaf blades conduplicate, 15–68

× 0.8–1 cm, linear-lanceolate, glabrous above, pilose beneath. Panicle 16–24 × 4–5.5 cm in outline, with many purplish branches; primary panicle branches whorled, with longest branch simple, 6–7.5 cm long. Raceme peduncle 0.8–1.2 cm long, scaberulous, with 7–13 spikelet groups per branch. Rachis filiform, 4–5 mm long, spikelets laterally compressed, 4–4.7 cm long. Fertile spikelets sessile. Sterile spikelets pedicelled. **Sessile spikelets** 4.2–4.5 mm long, linear, comprising 1 sterile basal floret, 1 fertile floret without rachilla extension, spikelet callus almost rounded, c. 0.3 mm across, sparsely hairy, hairs up to 0.4 mm long. Glumes dissimilar, lower glume lanceolate, coriaceous, 2.5–2.9 × 0.8–1 mm, 5–6-nerved, spinulose, aculeate prominently on the nerves, acute at apex. Upper glume lanceolate, chartaceous, 1-keeled, faintly 3–5-nerved, 2–2.5 × 0.8–1 mm, aculeate especially on the midrib, midrib distally setulose without a dorsal fringe of hairs, apex mucronate, mucro 0.4 mm long. Basal sterile floret barren. First lemma 3-lobed, midlobe much shorter than the laterals, margins entire or coarsely denticulate. Second lemma oblong, shortly notched, awned, awns exerted, straight, 2.5–3 cm long, glabrous. Stamens 3; anthers lemon yellow, 1.3–1.5 mm long, 0.3 mm wide; filaments hyaline, 0.25 mm long, glabrous. **Pedicelled spikelets** 5 mm long, comprising empty lemmas. Pedicel 3.1 mm long, scabrid. Lower glume coriaceous, scaberulous, shortly aculeate on the nerves, mucous. Anthers 1.3–1.5 mm long. Ovary ellipsoid, 0.4–0.6 mm long; style forked, 0.5 mm long, hyaline; stigma plumose, deep pink, 1–1.3 mm long.



Fig. 1. *Chrysopogon festucoides* (Presl) Veldk. in its natural habitat

Flowering & Fruiting: July–October.

Notes: *C. festucoides* differs from the cultivated *C. zizanioides* in having odourless roots, sessile spikelets upper glume apex mucronate (mucro 0.4 mm long), second lemma awned (awns exerted, 2.5–3 cm long) as opposed to aromatic roots, sessile spikelets upper glume apex mucicous and second lemma mucicous or briefly awned (awns 0–1.9 mm long, enclosed) in *C. zizanioides*.

Distribution & habitat: *C. festucoides* is known from Burma, Thailand, S. Laos, Vietnam, Malesia and Philippines. Veldkamp (1999) has shown a specimen (annotated as *C. zizanioides*) collected by Jenkins in Herbarium Hooker (K) from Assam, India belongs to this species. The present collection from the uncultivated, a mainly lowland of Kerala shows its extended distribution in the southernmost state of India.

Specimen examined: INDIA, **Kerala**, Malappuram Dt, Thalappara, Kooriyad wetlands, 16.07.2012, Pradeep 121350; *Ibid.*, 08.02.2013, Thoiba K. 138038 (CALI). **Tamil Nadu**, Salem District, Hosur, September 1954, Rajasekhara M. *s.n.*, Ramanathapuram Dt. Sathirakudi, ± 30 m. elevation, 16 January 1989, Balasubramaniam 2114 (MH!).

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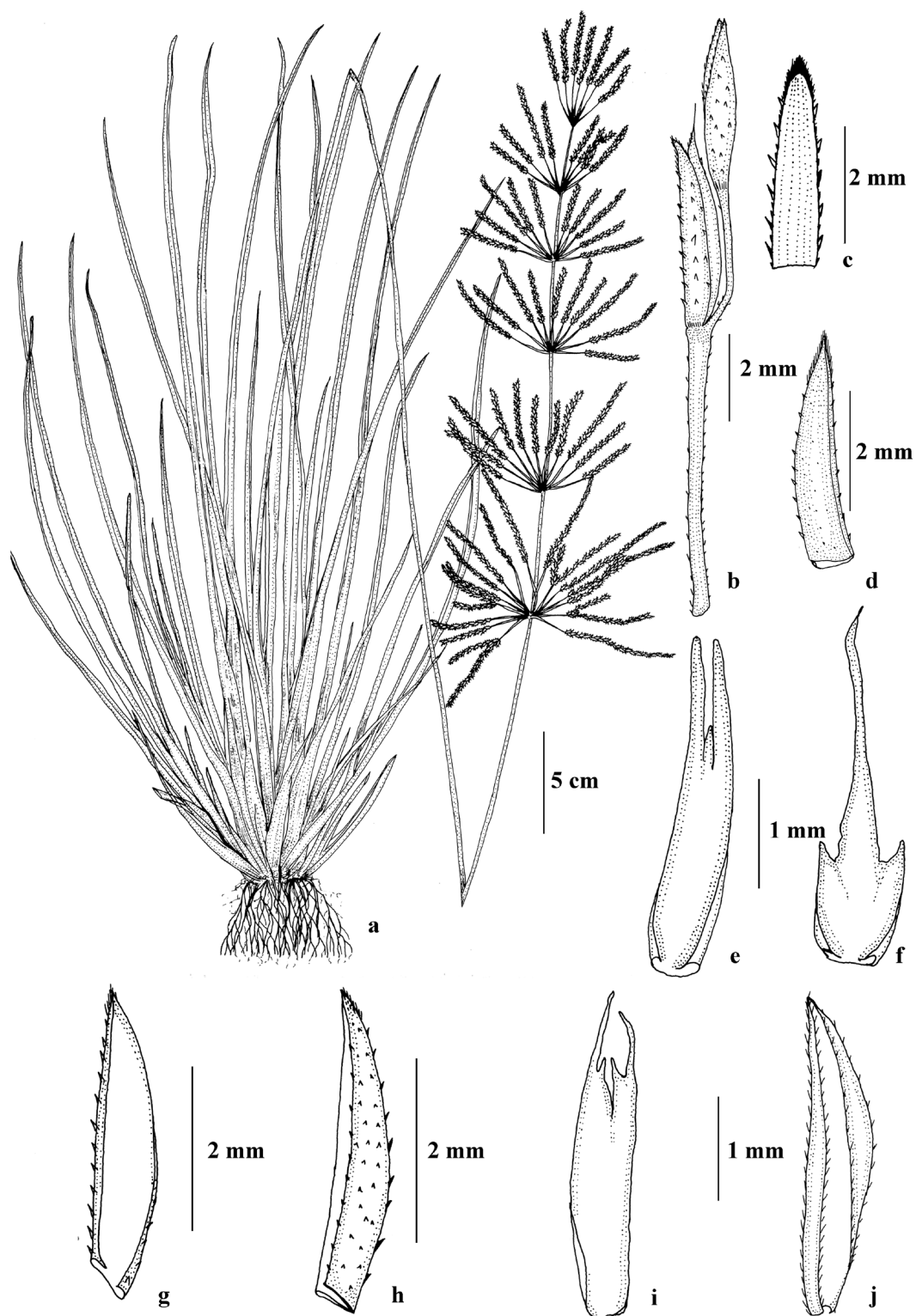


Fig. 2. *Chrysopogon festuoides* (Presl) Veldk.: **a.** Habit; **b.** Spikelet; **c–f.** Sessile spikelet: **c.** lower glume; **d.** upper glume; **e.** lemma 1; **f.** lemma 2; **g–j.** Pedicelled spikelet: **g.** lower glume; **h.** upper glume; **i.** lemma 1; **j.** lemma 2.

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other species from Africa and Australia. *Austrobaileya* 5: 503–533.

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