

# Species

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## A rattail grass *Sehima ischaemoides* Forssk., an addition to the flora of Telangana state, India

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**ABSTRACT**

*Sehima ischaemoides* Forssk., (Poaceae) is reported here as an addition to the grass flora of Telangana, collected from Ananthagiri hills, Vikarabad District, Telangana State. A detailed description and color photographs were provided to facilitate identification.

**Keywords:** Ananthagiri hills, *Ischaemoides*, New addition, Poaceae, *Sehima*, Telangana

**1. INTRODUCTION**

The genus *Sehima* Forssk., belongs to the family *Poaceae*, subfamily *Panicoideae*, supertribe *Andropogonodae*, tribe *Andropogoneae* (Soreng *et al.*, 2017). About Eight species distributed worldwide (Tropical and subtropical Africa and Asia); India harbors four species viz., *Sehima ischaemoides*, *S. nervosa*, *S. notata*, and *S. sulcata*. (Sur, 1988); three species in South India (Nagaraju *et al.*, 2020). *S. notata* and *S. sulcata* are endemic to India (Singh *et al.*, 2015). The genus characterized by its racemes solitary; lower glume deeply grooved on the back below the middle, minutely 2-toothed or mucronate; upper lemma awned. It differs from *Ischaemum* by its raceme solitary (vs. two or more); sessile spikelets laterally compressed (vs. dorsally compressed) and also differs from *Heteropogon* by its lower glume deeply grooved on the back below the middle, minutely 2-toothed or mucronate (vs. flat or rounded on the back, usually truncate) (Nagaraju *et al.*, 2020).

While explorations for the project “Grasses of Telangana state,” the authors collected a slender grass from Ananthagiri hills, Telangana, India. After a critical study, it identified as *Sehima ischaemoides* Forssk., (Bor, 1960). The perusal of relevant literature (Pullaiah, 2015; Reddy & Reddy, 2016) revealed this species not reported from Telangana. Hence, it is reported here as a new distributional record to the flora of Telangana state. The specimens (BSID008795) processed by standard herbarium techniques and deposited at BSID, Hyderabad. A detailed description and photo plate provided to facilitate its easy identification. This grass supports the local wildlife being a source of fodder and also called rattail grass.

## 2. TAXONOMIC TREATMENT

*Sehima ischaemoides* Forssk., Fl. Aegypt-Arab. 178. 1775; Bor, Grass. Burma Ceylon India Pakistan 218. 1960; Kellong. & al., Checklist of the grasses of India 429. 2020; Prasanna & al., Poaceae in Mao & Dash (eds.) Fl. Plants of India- an annotated checklist-Monocotyledons. 419.2020. *Ischaemum inscalptum* Hochst. ex A.Rich., Tent. Fl. Abyss. 2: 472.1850.

Annual, tufted. Culms 8–85 cm high, terete, erect; internodes 10–15 cm long; nodes glabrous. Leaves, basal and cauline. Leaf-sheath 3–5.6 cm long, terete, glabrous; ligule rim of hairs, 0.6–0.8 mm long. Leaf-blade linear, 10–32 × 0.2–0.5 cm, flat, glabrous, margins entire-serrulate, base truncate, apex acuminate (slender tail-like). Racemes solitary, 2–4.5 cm long. Joints compressed 3–3.8 mm long, densely silky. Sessile spikelet linear-ovate, 5–7 × 0.7–1 mm, awned, callus short, bearded. Lower glume, linear-ovate, 5.5–7 × 0.8–1.3 mm, coriaceous glabrous, 5–6-nerved, 2-keeled, margins inflexed, apex 2-toothed. Upper glume cymbiform, 4–5 × 0.6–0.8 mm, subcoriaceous, glabrous, 3-nerved, 1-keeled, keel winged, awned, slender, and straight up to 2.5 cm long. Lower lemma elliptic-narrowly ovate, 3.5–4.5 × 0.4–0.6 mm, hyaline, 2-nerved, 2-keeled, retrorsely barbed on keels, margins hairy, apex 2-toothed-lacerate. Lower palea linear-ovate, 3.5–4 × 0.5–0.6 mm, hyaline, glabrous, margins inflexed, 2-keeled, apex bifid. Upper lemma narrowly ovate, 3.5–4 × 0.6–0.8 mm, membranous, hyaline, 3-nerved, 2-toothed, awned from sinus, awn geniculate, 3–3.5 cm long, distinctly ciliate along the spiral. Upper palea lanceolate-elliptic, linear, 3–3.8 × 0.5–0.6 mm, chartaceous, hyaline, margins inflexed, 2-nerved, 2-keeled, apex lacerate. Lodicules 2, 0.2–0.5 mm long. Stamens 1–3, anthers 2–2.7 mm long. Ovary oblong, 0.5–0.8 mm long, stigma, densely plumose. Caryopsis oblong-ellipsoid. Pedicel compressed, up to 4 mm long; margins densely silky hairy (1–1.2 mm long). Pedicelled spikelet lanceolate, 8–12 × 1–1.2 mm, unawned. Lower glume linear-ovate, 9–13 × 0.8–1.5 mm, coriaceous-membranous, glabrous, margins inflexed, 5–6-nerved, 2-keeled, keels winged and densely hairy, apex with two setaceous teeth. Upper glume linear-ovate, boat-shaped, 5–7.5 × 0.6–1 mm, coriaceous-membranous, glabrous, margins inflexed, ciliate, 3-nerved, apex acuminate. Florets 2; both florets empty. Lower lemma linear, lanceolate-elliptic, 5–5.8 × 0.4–0.8 mm, hyaline, colorless dots below the apex on the dorsal side, glabrous towards base, margins inflexed, ciliate, 2-nerved; 2-keeled, retrorsely barbed on keel; apex lacerate. Lower palea linear-elliptic, 3.5–4.5 × 0.2–0.6 mm, chartaceous, hyaline, 2-nerved; 2-keeled, retrorsely barbed on keel; apex 2-toothed-lacerate. Upper lemma, lanceolate-elliptic, 4–5.2 × 0.3–0.4 mm, chartaceous, hyaline margins inflexed, ciliate, 3-nerved, apex acute-lacerate. Upper palea, lanceolate-elliptic, 4–5.1 × 0.2–0.4 mm, chartaceous, hyaline, 2-nerved, apex acute-lacerate.

*Flowering & Fruits:* September–December.

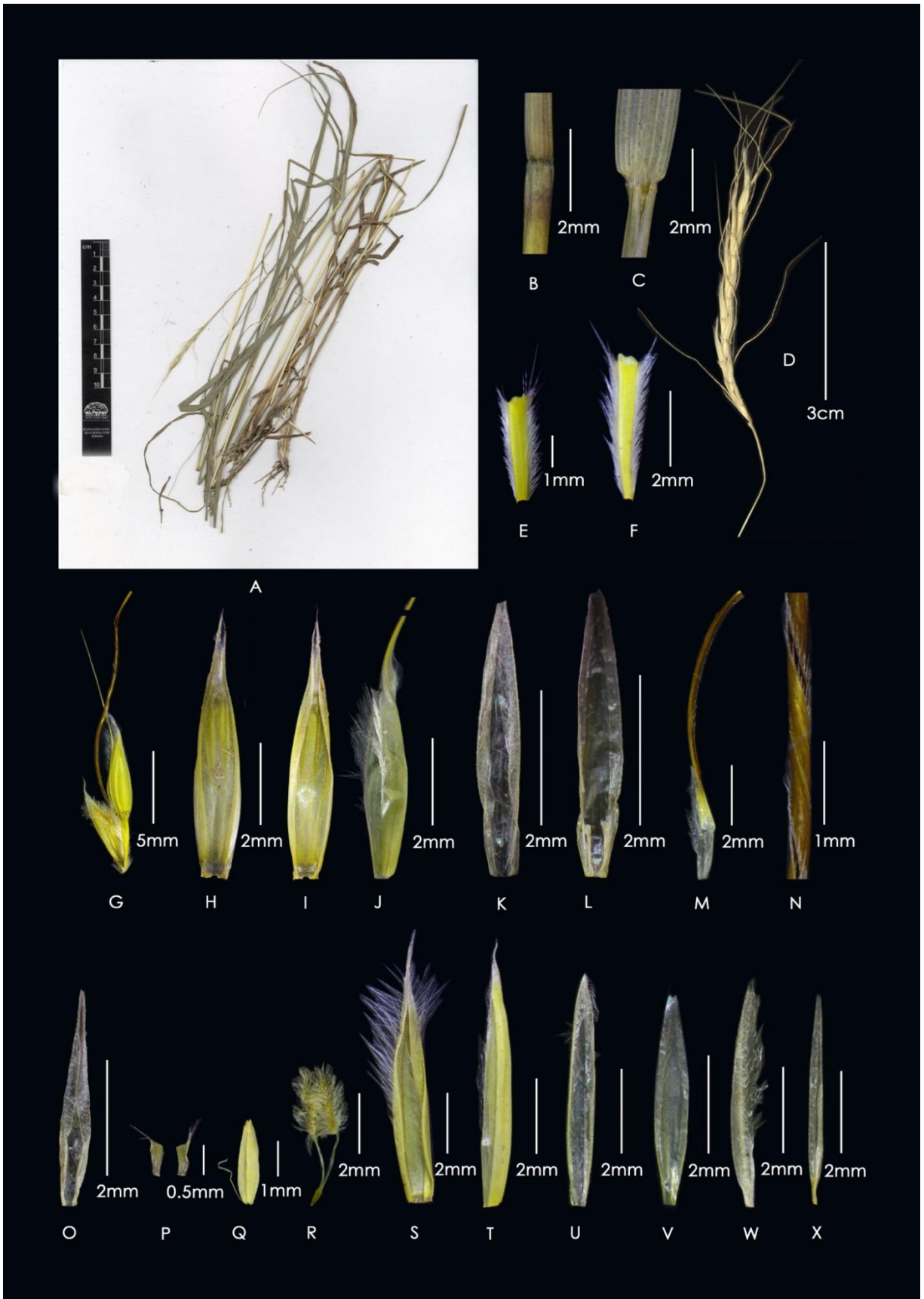
*Habitat:* Open grasslands.

*Distribution:* Gujarat, Karnataka, Maharashtra, Tamil Nadu and Telangana.

*Specimen examined:* Telangana, Vikarabad district, Naskal Range, Parigi RF (N 17.24211°, E 77.90955°, 687 msl), 01.12.2019, S. Nagaraju 008795 (BSID), (Figure 1).

*Conservation Status:* Least concern (Fish, *et al.*, 2005, Raimondo *et al.*, 2009).

*Note:* This species shows high variability in floral characteristics, like lower glume of the sessile spikelets shallowly to deeply grooved, and generally stamens three but at times one.



**Figure 1:** A. Habit; B. Node; C. Ligule; D. Inflorescence; E. Joint; F. Pedicel; H-R. Sessile spikelet; G. Sessile and pedicelled spikelet; H&I. Abaxial and adaxial view of lower glume; J. Upper glume; K. Lower lemma; L. Lower palea; M. Upper lemma; N. Awn spiral margins ciliate; O. Upper palea; P. Lodicules; Q. Stamen; R. Pistil; S-X. Pedicelled spikelet; S. Lower glume; T. Upper glume; U. Lower lemma; V. Lower palea; W. Upper palea; X. Upper palea.

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**Authors Contribution:** All authors have contributed equally to manuscript.

**Ethical approval**

The ethical guidelines for plants & plant materials are followed in the study for species collection & identification.

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**Conflicts of interest:**

The authors declare no conflict of interest.

**Data and materials availability**

All data associated with this study are present in the paper.

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