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TRIPOGON BORII A GRASS SPECIES NEW TO SCIENCE FROM INDIA

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ABSTRACT

Tripogon borii, a new species of Poaceae, discovered during the recent detailed studies on the grass flora of Tamil Nadu is described and illustrated here.

INTRODUCTION

The grass genus *Tripogon* Roem. & Schult. belonging to the tribe Eragrostideae is predominantly paleotropical, with only one species extending to the neotropics. *Tripogon* has about 35 species in the world, out of which about 15 species are reported from India. Detailed studies on Tamil Nadu grasses resulted in the collection of an unknown taxon which is different from all other known species of this genus in its external morphology. Hence it is described here as a new species.

Tripogon borii K.A.A. Kabeer, V.J. Nair & G.V.S. Murthy **sp. nov. (Fig. 1)**

Tripogon borii K.A.A. Kabeer, V.J. Nair & G.V.S. Murthy *sp. nov.* Ab *Tripogon ananthaswamianus* Sreek. & al. foliis latioribus, 2 - 3 mm latis; vaginis ubi maturas ad fibras fragentibus; oribus vaginarum dense et longe ciliatis; spiculis anguste linearibus, cremeoluteis; glumis inferarum curtioribus, apice mucronulatis, ad submedia profunde lobatis; glumis superarum curtioribus, c. 3 mm longis, apice profunde 2 - lobatis; lemmatibus curtioribus, ad 5 mm longis; carinis palearum non ciliatis; staminibus brevioribus, ad 0.8 mm longis; stigmatibus brunneolis; pilis callorum minutis, ad 0.5 mm longis, non patentibus et ab *Tripogon bromoides* Roem. & Schult. foliis non denso-pilosis; vaginis glabris; spiculis anguste linearibus, cremeoluteis; glumis inferarum apice mucronulatis, ad submedia profunde lobatis; glumis superarum apice profunde 2 - lobatis; lemmatibus brevioribus, ad 5 mm longis, apice 6 - lobatis, aristis subaequalibus, non barbellatis; staminibus brevioribus, ad 0.8 mm longis; stigmatibus brunneolis; pilis callorum minutis, ad 0.5 mm longis, non patentibus differt.

Typus: India. Tamil Nadu: Kanyakumari dist., Nagerkoil, Marunthuvamalai, ± 360 m, 30.11.2005, *K. Althaf Ahamed Kabeer* 118632 (Holo CAL; Iso MH).

Tufted perennial. Culms terete, 2 3 -noded; flowering culms up to 60 cm high; nodes glabrous. Leaf blade linear, (16) 30 - 45 × 0.2 - 0.3 cm, flat to inrolled, attenuate at apex, margins smooth to finely scabrellate, nerves prominent, upper surface glabrous to sparsely long hairy, lower surface finely scabrellate along ribs. Ligule c. 0.3 mm long membranous rim with long fimbriate hairy apex. Leaf sheath terete, glabrous, older ones breaking into fibres; mouth densely long ciliate along lateral sides near ligule and behind inside collar. Spike slender, 15 - 22 cm long, straight to curved; rachis glabrous, ribbed; peduncle terete, 11- 14 cm long, glabrous. Spikelets compactly arranged, narrowly linear, 1 1.2 × 0.1 - 0.2 cm, creamy yellow, having up to 14 florets. Lower glume oblong, 1.8 - 2 × c. 0.8 mm, acute and mucronulate at apex, deeply lobed below middle along one side, lobe acute to acuminate, membranous to chartaceous, prominently 1 -nerved, margins hyaline, glabrous. Upper glume oblong, 2.3 - 2.7 × c. 0.8 mm (excluding arista), acute, deeply 2 -lobed, with c. 0.5 mm long arista in between lobes, chartaceous, prominently 1 -nerved, margins glabrous. Florets similar, bisexual; rachilla oblong, up to 0.7 mm long, oblique at apex; callus bearded, hairs whitish to yellowish, minute, up to 0.5 mm long, compact and not spreading, not reaching next floret. Lemma oblong-lanceolate, c. 2.8 × 0.8 1 mm

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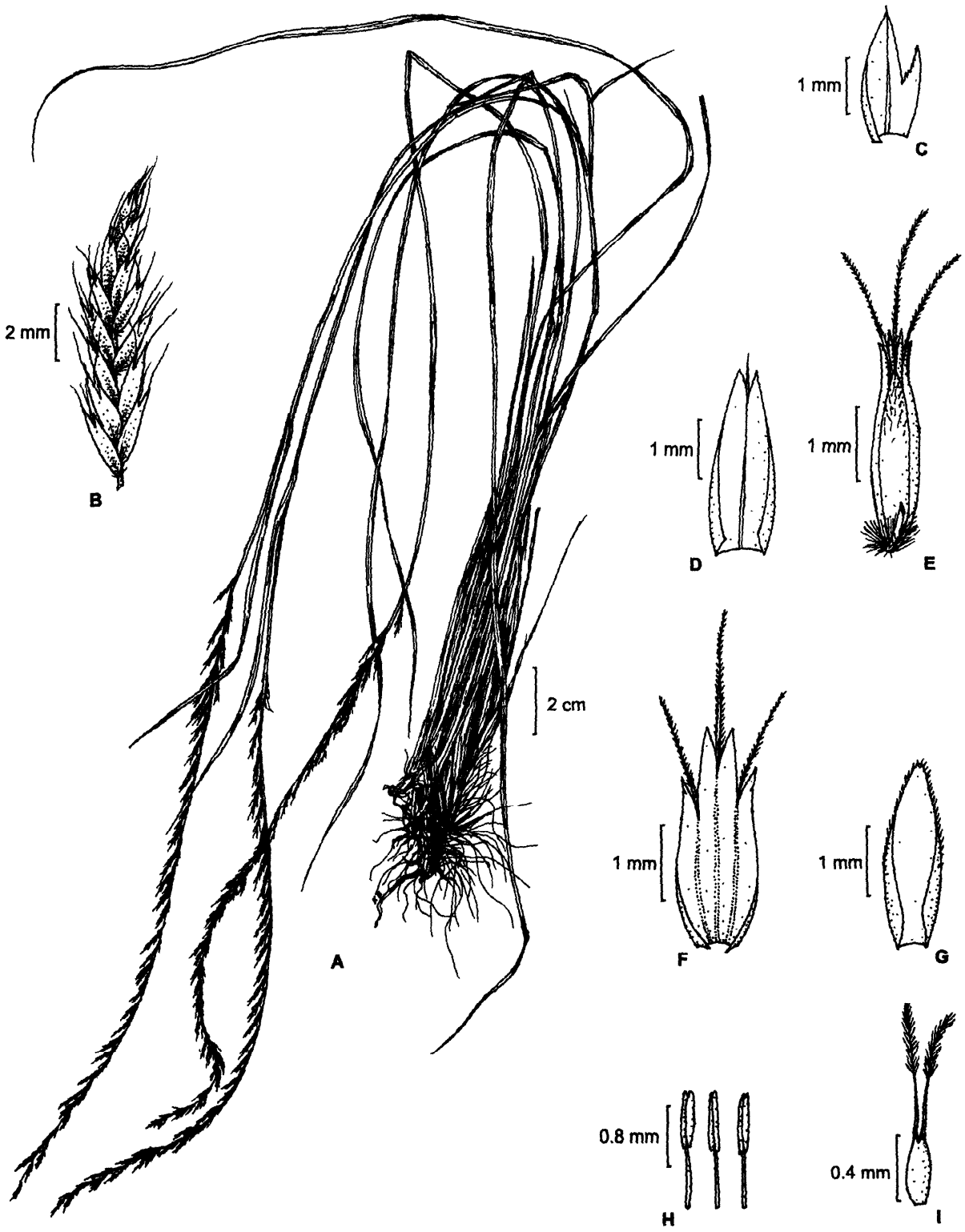


Fig. 1. *Tripogon borii* K. A.A.Kabeer, V.J. Nair & G.V.S. Murthy : A. Habit; B. Spikelet; C. Lower glume; D. Upper glume; E. Floret with rachilla and callus hairs; F. Lemma; G. Palea; H. Stamens; I. Pistil.

Table 1. Differences among *Tripogon ananthaswamianus* and *Tripogon borii sp. nov.*

Characters	Tripogon ananthaswamianus	Tripogon borii
Leaf blade		
width	less than 2 mm	2 - 3 mm
Leaf sheath		
nature	older ones not breaking in to fibres	older ones breaking into fibres
mouth near ligule	glabrous	densely long ciliate
Spikelet		
shape	broadly oblong - lanceolate	narrowly linear
colour	leaden grey to blackish	creamy yellow
florets	7 - 10	up to 14
Lower glume	3 - 5 mm, acuminate at apex, faintly lobed above or at middle along one side	c. 2 mm, mucronulate at apex, deeply lobed below middle
Upper glume	7 - 9 mm, notched at apex with small awn in between	c. 3 mm, acute and deeply 2 -lobed with c. 0.5 mm long arista
Lemma	6 - 9 mm (including awns)	up to 5 mm (including awns)
Palea	keels ciliate	keels not ciliate
Stamens	1.3 - 2 mm long	up to 0.8 mm long
Stigma	whitish	brownish
Callus hairs	long, up to 1.2 mm, spreading	minute, up to 0.5 mm, compact and not spreading

Table 2. Differences among *Tripogon bromoides* and *Tripogon borii sp. nov.*

Characters	Tripogon bromoides	Tripogon borii
Leaf blade		
margins	hairy	smooth, entire
upper surface	densely hairy	glabrous to sparsely long hairy
Leaf sheath		
hairiness	hairy	glabrous
mouth near ligule	hairy but not below collar within	densely long ciliate along laterals and densely ciliate behind within collar
Spikelet		
shape	oblong-lanceolate	narrowly linear
colour	olive green	creamy yellow
Lower glume	acute and notched at apex, not deeply lobed below middle	mucronulate at apex, deeply lobed below middle
Upper glume	notched at apex	deeply 2 -lobed at apex
Lemma		
size	6 - 8 mm (including awns)	up to 5 mm (including awns)
apex	4 -lobed	6 -lobed
Awns	unequal, lateral awns less than half of median one, barbellate	subequal, scabrid
Stamens	1 - 1.25 mm long	up to 0.8 mm long
Ovary	obovate to elliptic	oblong-elliptic
Stigma	purplish	brownish
Rachilla joints	0.8 - 1.2 mm long	up to 0.7 mm long
Callus hairs	long, up to 1.4 mm, as long as rachilla joints; spreading	minute, up to 0.5 mm, shorter than rachilla joints; compact and not spreading

(excluding awns), 6 -lobed at apex, lobes on either side of median awn acute to acuminate, lateral lobes conspicuous, 3 -awned between lobes, chartaceous, creamy yellow, prominently 3 -nerved, nerves continued into awns, margins hyaline; awns subequal, 1.5 2.5 mm long, barbellate. Palea oblong-elliptic, 2.3 2.7 × 0.8 1 mm, subacute to acute at apex, chartaceous, creamy yellow, 2 -nerved, 2 -keeled, keels scabrid, scabrellate on dorsal surface, margins infolded below up to middle. Stamens 3; anthers up to 0.8 mm long, yellowish. Ovary oblong-elliptic, c. 0.4 mm long; styles short; stigmas c. 0.8 mm, plumose, brownish.

Distribution and Habitat : So far known only from Marunthuvamalai near Nagerkoil, Kanyakumari district of Tamil Nadu. This species grows at altitudes between 360 to 400 m, along wet slopes of rocky areas.

Fl.: October December.

Etymology : The specific epithet is in honour of late Dr. N.L. Bor, a grass taxonomist of great repute.

Notes: *Tripogon borii* K.A.A. Kabeer, V.J. Nair & G.V.S. Murthy has some similarities to *Tripogon ananthaswamianus* Sreek. & al. and *Tripogon bromoides* Roem. & Schult. but can easily be distinguished from these species by the characters given in **Tables 1 and 2.**

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टरीपौगॉन बोरी- भारत से विज्ञान के लिए नई तृण जाति

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तमिल नाडु के तृण वनस्पतिजात पर हाल के विस्तृत अध्ययन के दौरान खोजी गई पोएसी कुल की एक नई जाति *टरीपौगॉन बोरी* का इसमें वर्णन एवँ चित्राँकन है ।