

New species of Muraingrass spotted in Western Ghats

New Delhi, Dec 11 (India Science Wier): A team of scientists from Agharkar Research Institute (ARI), Pune, an autonomous institute of the Department of Science and Technology, has found a new and sturdy species of Indian Muraingrasses (*Ischaemum*) in the Western Ghats of Goa. These grasses are known for their ecological and economic importance, such as fodder.

Globally 85 species are known from *Ischaemum*, of which 61 species are exclusively found in India. The Western Ghats have 40 species with the highest concentration of the genus.

The first collection of this new species was made in the 2017 monsoon. The population was kept under observation for the next two years to confirm the consistency of its characters. Morphological and molecular data of the species were used to confirm the novelty of the species.

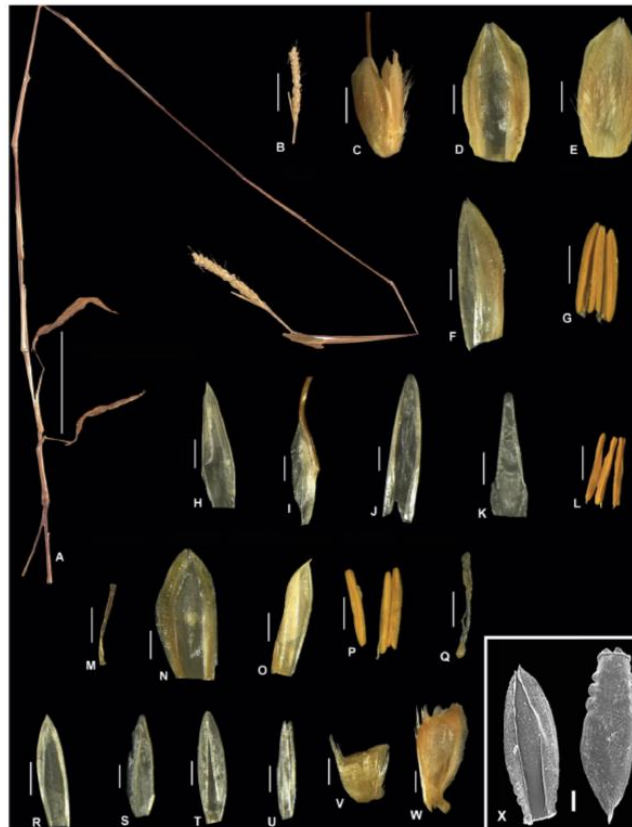


Fig. 1. *Ischaemum janarthanamii* (from the holotype). — A: Habit. — B: Raceme. — C: Pair of spikelets. — D–M: sessile spikelets. — D and E: Lower glume (ventral and dorsal view). — F: Upper glume. — G: Stamens of lower floret. — H: Lower lemma. — I: Upper lemma. — J: Lower palea. — K: Upper palea. — L: Stamens of upper floret. — M: Pistil of upper floret. — N–U: pedicelled spikelets. — N: Lower glume. — O: Upper glume. — P: Stamens of lower floret. — Q: Pistil of lower floret. — R: Lower lemma. — S: Upper lemma. — T: Lower palea. — U: Upper palea. — V: Callus. — W: Joint. — X: SEM images of dorsal and ventral view of the lower glume of sessile spikelet. Scales: 3 cm for A, 0.5 cm for B and 1 mm for C–X.

The team led by Dr Mandar Datar and Dr Ritesh Kumar Choudhary has been working on relationships among different groups of plants and their evolutionary development (plant taxonomy and phylogeny) of Indian Muraingrasses (Genus *Ischaemum*) to document the diversity and report novel species. The team discovered a novel species named *Ischaemum janarthanamii* from plateaus of the Western Ghats of Goa.

During their explorations on lateritic outcrops (habitats where portions of freely exposed bedrocks protrude above the soil level due to natural reasons) of Goa, the research team collected an interesting specimen of the species. Careful observations and critical morphological studies identified the species as a novel one. The species was named *Ischaemum janarthanamii* in honour of

Prof. M. K. Janarthanam, Professor of Botany, Goa University, for his contribution to the Indian grass taxonomy and documentation of the floristic diversity of Goa state.

Ischaemum janarthanamii grows on low altitude lateritic plateaus in the outskirts of Bhagwan Mahavir National Park, Goa. The vegetation is exposed to extreme climatic conditions like desiccation in drier months and soils with low nutrient availability. However, withstanding these, the species has adapted to survive harsh conditions and blossom every monsoon.

The research team comprised Dr Mandar Datar, Dr Ritesh Kumar Choudhary, Shubhada Tamhankar and Sarang A Bokil. The research paper describing this species was published recently in *Annales BotaniciFennici*. (India Science Wire)

Keywords: muraingrass, new species, western ghats, agharkar research institute,

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