

(III)

Two new distributional records of grasses for Maharashtra State

During the field exploration in Maharashtra state, specimens of genus *Bothriochloa* and *Setaria* were collected. On detailed and critical morphological observations, consultation of protologue, perusal of previous floristic reports of Maharashtra and relevant literature (Bor, 1960; Blatter and McCann, 1935; Cook, 1908; Deshpande 1984; Deshpande *et al.*, 1993; Gaikwad *et al.*, 2014; Hooker, 1897; Lakshminarasimhan, 1996; Potdar *et al.*, 2012) authors have confirmed that *B. ischaemum* and *S. barbata* has so far not reported from Maharashtra State. Therefore, *Bothriochloa ischaemum* and *Setaria barbata* reported here as a new distributional record and addition to the Grasses of Maharashtra.

Systematic treatment

Bothriochloa ischaemum (L.) Keng, Contr. Biol. Lab. Sci. Soc. China, Bot. Ser. 10: 201. 1936; Cope, Fl. Pak. 143: 287. 1982; Bor, Grasses. Burma Ceyl. Ind. Pak. 108. 1960. *Andropogon ischaemum* L. Sp. Pl. 1047. 1753; Hook.f., Fl. Brit. India. 7: 171. 1897. *Amphilophis ischaemum* (L.) Nash in N. Amer. Fl. 17: 124. 1912. *Dichanthium ischaemum* (L.) Roberty in Boissiera 9: 160. 1960; Deshpande in Fasc. Fl. India 15: 16. 1984. **Yellow Bluestem** (Fig. 1).

Tufted Perennial; caespitose. Culm 45-90 (-120) cm long; erect or geniculate ascending; nodes hairy. Leaf Sheath keeled, glabrous, 4 – 6 cm long, ligule ca. 1 mm long, ciliolate membrane, truncate. Leaves mostly basal; blades 28 cm × 0.5 cm, glaucous, pubescent to scaberulous, margins minutely serrate, hairy at base, apex acuminate. Inflorescence of subdigitate racemes; 2 – 7 (-9) in number, 5 – 8 cm long, shortly pedunculate, the peduncles 4 – 8 mm, joint 2 – 2.2 mm long, grooved with translucent median line. Sessile spikelet 3.0 – 3.5 × 1 – 1.2 mm, oblong-lanceolate, dorsally compressed, awned; callus obtuse. Lower glume 3.0 – 3.5 × 1 – 1.2 mm, flat, without pit, hairy below the middle, oblong-lanceolate, keeled and acute at apex, coriaceous, (5-) 7 – 9-nerved. Upper glume 3.0 – 3.5 × 0.8 – 1 mm, linear-lanceolate, boat shaped, keeled and acute at apex, subcoriaceous, 3-nerved, glabrous. Florets 2, epaleate, lower empty, upper bisexual. Lower lemma 2 – 2.5 × 0.5 – 0.8 mm, linear-oblong, acute at apex. Upper lemma 1.8 – 2 × 0.15 – 0.2 mm, linear, tipped by stout awn, hyaline in lower third, chartaceous; awn 18 – 22 mm

long, geniculate. Lodicules 2, ca. 0.3 × 0.2 mm. Stamen 3, anthers ca. 1 – 1.5 mm long. Pistil 0.5 × 2 mm long. Pedicel 2.2 – 2.5 mm long, grooved with translucent median line. Pedicelled spikelet 3.5 – 4.0 × 1 – 1.2 mm, lanceolate or elliptic to lanceolate, without pit, acute at apex, callus glabrous. Lower glume 3.5 – 4.0 × 1 – 1.2 mm, lanceolate, coriaceous, margins infolded, spinulose, glabrous dorsally, ca. 15 – 17-nerved, acute at apex. Upper glume 2.5 – 2.8 × 0.8 – 1 mm, lanceolate, membranous, 3-nerved, subcoriaceous, acute at apex. Florets 2, both epaleate, lower empty, upper staminate or barren. Lower lemma 1.5 – 1.8 × 0.5 – 0.6 mm, oblong-lanceolate, margins entire, hyaline, dentate at apex, nerveless, 2-keeled. Upper lemma absent. Lodicules 2, ca 0.15 × 0.1 mm, obovate. Stamen 3; mostly barren, anthers ca. 0.5 mm long.

Distribution: INDIA: Gujarat, Jammu and Kashmir, Manipur, Punjab, Rajasthan, Uttar Pradesh, Madhya Pradesh, Rajasthan, Maharashtra.

Habitat: Sajjangad (Thoseghar Road) is part of Deccan trap of Indian Peninsula, located middle of the western ghat, about 20 km west to Satara, underlying by Deccan trap basaltic lava flow of Upper cretaceous and Eocene age (Suryawanshi *et al.*, 2016). An average 850 mm rainfall and above 75% humidity were recorded in the rainy season. Collection locality mainly comprises medium black type of soil.

Associated Species: *Apluda mutica* L., *Capillipedium filiculme* (Hook.f.) Stapf, *Chloris virgata* Sw., *Grona triflora* (L.) H.Ohashi and K.Ohashi, *Heteropogon triticeus* (R.Br.) Stapf ex Craib, *Ischaemum rugosum* Salisb., *Tephrosia purpurea* (L.) Pers., *Thelepogon elegans* Roth etc.

Specimen Examined: INDIA: Maharashtra: Satara district, Sajjangad (17°38'31.5" N 73° 54'06.7"E), 907 m. 27th September 2020, Shaikh Tarbej YCCSK-2103 (SUK!).

Setaria barbata (Lam.) Kunth, Rev. Gram. 1: 47. 1829; Bor, Grasses. Burma Ceyl. Ind. Pak. 360. 1960; Nair *et al.*, in J. Econ. Taxon. Bot. 3: 271. 1982; Sreek. and Nair, Fl. Kerala Grass. 303. 1991. *Panicum barbatum* Lam, Tab. Encycl. Meth. Bot. 1: 171. 1791. *P. flavescens* auct. Non Sw.1788; Hook.f., Fl. Brit. India. 7: 56. 1897. East Indian bristle grass (Fig. 2)