

Vascular Plants of Williamson County

Panicum amarum – DEWEY BLUE SWITCHGRASS [Poaceae]

Panicum amarum Elliott, DEWEY BLUE SWITCHGRASS (likely cv. 'Dewey Blue' mostly resembling *P. amarum* subsp. *amarulum*). Perennial herb, bunchgrass, rhizomatous, fibrous-rooted, many-stemmed at base, cespitose, principal shoots not branched above ground level and ascending, in range 60–110 cm tall; andromonoecious; shoots with scalelike basal leaves, blade-bearing basal leaves and at least 5 cauline leaves, glabrous, bluish and conspicuously glaucous; rhizome shallow, ascending, to 7 mm diameter, covered with scales (bladeless leaves), ciliate at nodes with straight hairs 1–2+ mm long. **Stems:** cylindric, to 4 mm diameter, internodes > sheath, finely striped, nodes often light brown, glabrous often with thick surface wax on internode approaching node; internodes hollow. **Leaves:** alternate distichous, simple with sheath; sheath open overlapped at base, low-ridged, to 110 mm long, outer margin often tinged purple-red, hidden margin membranous, glabrous with surface wax approaching collar, without lobes (auricles) at top; collar to 1.5 mm long, whitish; ligule membranous and ciliate, ca. 1.5 mm long, with a curtain of dense, stiff straight hairs ca. 1 mm long; blade linear, in range < 150–300 × 6–10 mm, the widest near midblade, tough, flat or inrolling upward when stressed, bluish, entire and inconspicuously and sparsely short-ciliate and ciliate on wide, colorless margins, long-tapered at tip, parallel-veined and finely ridged on both surfaces, in range glabrous. **Inflorescence:** spikelets, stalked, in large, terminal, open paniclelike array with long primary branches, arising from flag leaf branches initially collapsed and tassel-like aging with spreading and ascending branches, in range to 400 mm long, principal axis with to 10 nodes and 2–3 primary branches per node, subopposite to pseudowhorled, nodes with 3 branches mostly approaching top, primary branches to 260 mm long decreasing upward, having an axillary pulvinus with several hairs at base, having 4 orders of branches; principal axes nearly smooth with inconspicuous teeth, primary axis with a concave internode face above each primary branch, minor axes straight to strongly wavy, flexible, the 3-order and 4-order axes and stalks of spikelets 3-angled and scabrous along edges, ca. 0.2 mm diameter, stalk of spikelets < 2–15 mm long and sometimes scabrous teeth red. **Spikelet:** of 2 fertile florets, the lower floret staminate (late anthesis) and the upper floret bisexual (early anthesis), in range mostly 4.5–5 mm long, breaking below upper floret above the upper glume; **glumes** 2, unequal, ascending (somewhat diverging), each usually with 5 raised veins, initially green to gray-green (glaucous) aging mostly purple red especially approaching tip; lower glume in range mostly 3.5–4 mm long, scabrous along midvein; upper glume mostly 4.6–5 mm long. lower < upper and upper glume extending ca. 1.5 mm above upper floret, raised midvein typically lacking teeth; **lower floret lemma** boat-shaped, ca. 4 mm long, with 5 raised veins, membranous with mostly green veins or tinged reddish and glaucous approaching tip, not scabrous; **palea** membranous, 2-keeled, 3–3.5 mm long, 2-veined; **upper floret** narrowly ovoid, ca. 3 × 1; **lemma** glossy membranous, 3 mm long, initially glossy colorless and finely 7-veined aging whitish with inconspicuous veins, minutely hairy at acute tip, margins slightly inrolled over palea below midpoint; **palea** 2.6–2.7 mm long, glossy colorless and faintly 2-veined aging whitish, margins overlapping on back side, inrolled and not keeled along veins. **Staminate flower:** **perianth (lodicules)** 2, fleshy wedge-shaped to plump liver-shaped, 0.4–0.5 × 0.4–0.6 mm, translucent; **stamens** 3, free; filaments threadlike, 1.5–2 mm long, colorless; anthers

basifixed (arrow-shaped at base), dithecal, 2.2–2.5 mm long, orange, longitudinally dehiscent; pollen pale orange; **pistil** absent. **Bisexual flower:** **perianth (lodicules)** 2, fleshy wedge-shaped to plump liver-shaped, 0.4–0.5 × 0.4–0.6 mm, translucent; **stamens** 3, free; filaments threadlike, ca. 1.5 mm long, colorless; anthers basifixed (arrow-shaped at base), dithecal, 2–2.2 mm long, orange, longitudinally dehiscent; pollen pale orange; **pistil** 1, 3 mm long, sessile; ovary superior, ovoid, ca. 0.3 mm long, translucent, 1-chambered with 1 ovule; styles 2, ca. 2.5 mm long, lower portion threadlike, 1–1.5 mm long, colorless, stigmatic upper portion bottlebrushlike, ca. 1.5 mm long, purple red, aging upper portion exerted from floret. **Fruit:** achene (caryopsis), disturbed with whitish, ovoid floret.

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