

Vascular Plants of Williamson County
Panicum capillare – WITCH GRASS [Poaceae]

Panicum capillare L., WITCH GRASS. Annual, fibrous-rooted, several–many-stemmed at base, tufted with principal shoot erect and basal branches suberect to decumbent and rooting at lower nodes, 15–100 cm tall; shoots with basal leaves and cauline leaves.

Stems (culms): cylindric, to 4 mm diameter, internodes 20–85(–100) mm long, glabrous (lower plant) to pilose (upper plant); solid. **Leaves:** alternate distichous, simple with sheath; prophyll present in axil of each branch, 35–60 mm long, 2-keeled, narrowly acute at tip, glabrous to sparsely pilose; sheath open, 40–85 mm long (the longest = flag leaf), veiny-ridged, pilose with most hairs enlarged at base (pustulate), without lobes (auricles) at top; ligule ciliate, 0.5–1.5 mm long, with groups of hairs fused at base for 1/3–2/3; blade linear-lanceolate, 20–300 × 3–15 mm, flat to ± transversely corrugated, minutely serrate-scabrous on margins, narrowly acute at tip, parallel-veined with 7–13 principal veins raised on lower surface, having ca. 5 minor veins between principal veins, sparsely pilose but hairs ± pustulate on lower surface. **Inflorescence:** spikelets, in terminal, open panicles, panicle ovoid, in range 130–270 × 70–300 mm, with 3–5+ orders of mostly alternate, widely spreading, lateral branches, branches to 24, 70–170 mm long at base of inflorescence decreasing upward, with an axillary pulvinus and pulvini for subsequent branchlets, spikelet typically with 2 florets, lower floret sterile and reduced and upper floret bisexual, bracteate, lacking awns; peduncle included in sheath of flag leaf or exserted to 40 mm, 75–125 mm long; rachis ± cylindric with 1–2 grooves, the grooves generally > rachis internode, smooth and glabrous or sometimes sparsely pilose at base and scabrous above; smaller axes scabrous or also pilose at base of each; stalk of spikelet (0.5–)2.5–11.5 mm long, scabrous with ascending hairs. **Spikelet:** lanceoloid, 2–3(–4) × 0.6–0.8(–1) mm, breaking below the glumes as 1 unit; **glumes** 2, unequal, lower glume deltate-ovate, 1–1.5 mm long (to 1/2 length of spikelet), encircling at base, acuminate at tip, 1–3-veined, scabrous along midvein, upper glume deltate-ovate, 1.8–3.1 mm long, encircling at base, acuminate at tip, 7–9-veined, scabrous along midvein; **lemma** of lower floret like upper glume, 2–3 mm long, acuminate to short-tailed (caudate) at tip, lemma of upper floret ellipsoid-oblong to lanceolate, 1.5–1.7 × 0.5–0.6 mm, firm and stiff (chartaceous), glossy pale tan, with margins incurved around palea, glabrous and smooth, becoming hard (indurate) in fruit; palea of lower floret absent, of upper floret narrowly ovate to oblong, 1.4–1.6 × 0.4–0.6 mm, with inrolled margins, glabrous, indurate in fruit. **Flower:** bisexual; **perianth (lodicules)** 2, fan-shaped, ca. 0.3 mm long; **stamens** 3, free; filaments threadlike, ca. 1.5 mm long; anthers partially exserted at tips of lemma and palea, dorsifixed, dithecal, 0.8–1.2 mm long, purplish red, longitudinally dehiscent; **pistil** 1; ovary superior, ellipsoid, ca. 0.8 mm long, glabrous, 1-chambered with 1 ovule; styles 2, exserted from tip of lemma, with feathery stigmas (plumose). **Fruit:** achene (caryopsis), firmly enclosed in indurate lemma and palea and dispersed as a unit with glumes and sterile floret, unit ca. 1.6 × 0.9 mm, glossy tan or glossy with tan veins and purplish red streaks between veins; achene ellipsoid, ca. 1.3 × 0.8 mm, dull yellowish green.

A. C. Gibson & B. A. Prigge