

Vascular Plants of Williamson County
Phalaris caroliniana – CAROLINA CANARY GRASS [Poaceae]

Phalaris caroliniana Walter, CAROLINA CANARY GRASS. Annual, fibrous-rooted, not rosetted, 1–several-stemmed at base, shoots ascending with erect, terminal, dense inflorescence, in range 40–75 cm tall; shoots mostly with basal leaves and cauline leaves, glabrous, < 12 leaves, glaucous often on internodes and blade upper surface. **Stems (culms):** cylindric, to 2.5 mm diameter (internodes) and to 3.5 mm diameter (nodes), tough, swollen node visible (not hidden by leaf sheath), nodes green, internodes to 85 mm long; internodes hollow. **Leaves:** alternate distichous, simple with sheath; sheath open with margins overlapping at base, distinctly < internode, not finely ridged, membranous margin wider on hidden margin, without projecting lobes (auricles) at top but pseudolobes at different levels; ligule membranous and continuous with sheath margins, overlapping at base, acute (truncate if short), 1–6.5 mm long, not scabrous; collar conspicuously oblique, whitish; blade lanceolate-linear to linear, in range < 50–140 × < 5–12 mm, the widest near sheath, flat, minutely scabrous on margins, parallel-veined with veins slightly raised on both surfaces. **Inflorescence:** spikelets, in terminal, dense panicles, panicle narrowly ellipsoid to narrowly lanceoloid, spikelike, 45–55 × 7–8 mm in fruit, with alternate distichous lateral branches, lateral branches ascending, densely layered, condensed and each repeatedly forked, to 20 mm long, with to 18 strongly flattened spikelets with broad side facing outward, spikelets all with 3 florets having lower 2 florets sterile and upper floret bisexual, spikelet mostly green on exposed portion, bracteate, not scabrous, lacking awns; peduncle to 100 mm × < 1 mm, at anthesis sometimes partially concealed by sheath of flag leaf; bract subtending the lowest lateral branch cuplike, to 1 mm long; rachis, branch and branchlet axes and spikelet stalks sparsely puberulent, yellowish; stalk of spikelet < 1 mm long. **Spikelet:** breaking above glumes as 1 unit (lemmas of sterile florets + fruit-bearing fertile floret); **glumes** 2, subequal, strongly keeled and flattened, ± elliptic to oblanceolate in outline, mostly 4.8–5.3 mm long, translucent-membranous, 3-veined with 1 curved green vein along keel to narrowly acuminate tip and 1 straight green vein on each side not converging at tip, winged above midpoint, the wing poorly defined, 0.3–0.5 mm wide, scabrous along keel and minutely toothed on inner margins approaching tip; **lemma** (sterile florets) appressed to lemma of fertile floret, awl-shaped, ca. 1.5–2 mm long (appearing longer with hairs at tip), to midpoint of fertile lemma, membranous but greenish above midpoint, back glossy, weakly 3-veined, short-ciliate on margins with soft hairs, persistent; **lemma** (fertile floret) strongly keeled and symmetrically folded along midvein, in range ovate in outline and ca. 3.5 × 1.5 mm, inconspicuously 5-veined and greenish-membranous, glossy, short-villous with upward-appressed hairs, internally glabrous; **palea** (fertile floret) keeled and keel-shaped in outline (folded between veins), ca. 2 mm long, membranous except having 2 closely spaced, green veins along keel, keel short-villous above midpoint. **Flower:** bisexual; **perianth (lodicules)** 2 (absent), ovate with bulbous base, 0.4–0.45 mm long, colorless; **stamens** 3, free; filaments slender but somewhat stiff, 4–5 mm long, white; anthers fully exerted above level of stigmas, dorsifixed, dithecal, 0.8–1.2 mm long, pale light yellow (cream-colored) or tinged rose, dehiscent only near tip; pollen pale yellow; **pistil** 1, 3–3.5 mm long; ovary superior, ovoid, 0.7–0.8 × 0.3–0.45 mm, pale yellowish green and opaque, tapered to style, glabrous, 1-

chambered with 1 ovule; styles 2, \pm fused at base, exerted from tip of keeled palea and lemma, ca. 3 mm long, colorless, straight and glabrous to midpoint and feathery-stigmatic (plumose) above midpoint. **Fruit:** achene (caryopsis), tightly enclosed within bisexual floret with 2 sterile florets at base (edges), all that hidden by and persistent within glumes; achene ovoid compressed front-to-back, slightly smaller than concealing lemma, brownish.

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