

Vascular Plants of Williamson County
Ruellia caerulea – BRITTON RUELLIA [Acanthaceae]

Ruellia caerulea Morong, BRITTON RUELLIA. Perennial herb (in range aquatic), taprooted and fibrous-rooted, not rosetted, many-stemmed at base, with ascending to erect principal branches, in range to 110 cm tall; shoots with only cauline leaves, initially with sparse, weak hairs to 1 mm long but mature shoots appearing essentially glabrous. **Stems:** 4-sided with rounded edges, to 10 mm diameter, red on exposed faces and green on other faces, opposite pair of faces with broad channel and other opposite pair with 2 narrow grooves on each face, internode to 50 mm long conspicuously enlarged above each node gradually tapered to next node, ledges retaining weak hairs; solid. **Leaves:** opposite decussate, simple, petiolate with a pair of low ledges across each node, without stipules; petiole channeled, < 10–20 mm long, indistinct from blade, having a pair of broad veins (channeled) becoming the channeled midrib of the blade; blade lanceolate-linear or oblanceolate-linear to linear-narrowly elliptic, < 100–190 × < 10–17.5 mm, long-tapered at base, subentire, red-purple, and short-strigose ciliate on margins, acuminate at tip, pinnately veined with principal veins conspicuously raised on both surfaces, lower surface having occasional hairs retained. **Inflorescence:** leafy cyme, axillary paired from node or 1 cyme paired with a vegetative shoot arising from other axillary bud; peduncle ridged, slender, to 70 mm long, with short-stalked glandular hairs; bract and bractlet subtending pedicel opposite at node, equal, leaflike but sessile, acuminate-lanceolate, to 20 × 2 mm, midrib slightly sunken on upper surface and raised on lower surface, upper surface with abundant, subsessile glandular hairs; pedicel cylindric, 25–30 mm long, with stalked glandular hairs having mushroom-shaped (flat-topped) heads aging red. **Flower:** bisexual, bilateral, 38–45 mm across; **calyx** deeply 5-lobed; tube barrel-shaped, ca. 2 × 3 mm, fleshy, pinkish to pinkish red, glabrous; lobes unequal with 1 noticeably shorter (2 mm shorter), ascending-spreading, narrowly triangular to acuminate-lanceolate, 6–12 × 2 mm, green or reddish to purple-red, somewhat fleshy, upper surface short-strigose with upward-pointing hairs, lower surface lacking nonglandular hairs and having conspicuous, scattered, stalked glandular hairs (sometimes aging reddish); **corolla** 2-lipped, 5-lobed; tube-throat enlarged around ovary and somewhat compressed side-to-side, ca. 12 × 3.5 × 2.5 mm, white at base above green aging with light purple, having mixed nonglandular short hairs and stalked glandular hairs; throat (above origin of free filaments) ± funnel-shaped, ca. 22 mm long, ca. 18 mm wide at orifice, pink-purple with principal veins violet and raised on outer surface, outer surface with mixed nonglandular and glandular hairs, inner surface floor with red-purple nectar lines; upper lip 2-lobed and lower lip 3-lobed; lobes subequal, roundish, ca. 20 × 20 mm, pink purple, lacking hairs on both surfaces; **stamens** 4, fused to corolla in pairs of 1 short + 1 long, positioned lateral to style with anthers appressed to upper side of corolla throat; filament pairs forming compressed ridges to 0.6 mm high arising from base of corolla tube and extending to midpoint of throat, free filaments 4.5–6 mm long (lower stamens) and 9–12 mm long (upper stamens 2×), filament tissue white, glabrous; anthers dorsifixed, dithecal, 3.3–3.5 mm long, white, longitudinally dehiscent; pollen white; **nectary disc** beneath ovary, barrel-shaped to 5-angled, 0.8–1 × 1.7–1.9 mm, white, producing copious thin nectar contained within corolla tube; **pistil** 1; ovary superior, lanceoloid, at anthesis 3.5–3.8 × 1 mm, green, glabrous except having some stalked

glandular hairs at top on green tissue just below style (persistent in fruit), 2-chambered, each chamber with ca. 15 ovules attached alternating from placenta. **Fruit:** capsule, dehiscent, 2-valved, \pm 20-seeded, oblanceoloid, 25–29 \times 5 mm, brown, glabrous. **Seed:** waferlike broadly ovate compressed front-to-back, ca. 3.5 \times 3 \times 1 mm, red-brown, soft-puberulent.

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