

Vascular Plants of Williamson County
Callirhoe leiocarpa – TALL POPPYMALLOW [Malvaceae]

Callirhoe leiocarpa R. F. Martin, TALL POPPYMALLOW. Annual, taprooted, initially rosetted, 1–3-stemmed at base, typically unbranched above base, in range 40–95 cm tall; shoots with many basal leaves and several–many widely spaced cauline leaves, basal rosette absent and lower cauline leaves often absent at flowering, foliage somewhat velveteen, having unbranched nonglandular hairs to 1 mm long and stellate hairs with to 4 appressed arms from a short stalk. **Stems:** initially inconspicuously low-ridged aging cylindrical, to 5 mm diameter, with 3 ridges descending from leaf + stipules, tough, internodes to 90 mm long making cauline leaves widely spaced and not overlapping, green tissue initially with sparse stellate hairs often aging rose-red and glaucous and appearing to lack hairs. **Leaves:** helically alternate, deeply palmately lobed with 5 or 7 (3) principal lobes, petiolate to long-petiolate to subsessile (the uppermost cauline leaf and bracts), with stipules; stipules 2, attached diagonally at node beneath petiole, suberect, asymmetric ovate, 10–12 × 4–5 mm, acute to acuminate at tip, ciliate with enlarged bases on margins, rounded and clasping at base, surfaces glabrous often somewhat glaucous, ± persistent; petiole slender and narrowly channeled, to 50 mm long, tough, with scattered nonglandular stellate hairs with mostly 3–4 arms; blade mostly roundish in outline with 3, 5, or 7 radiating principal lobes, in range to 50 mm, somewhat roundish to broadly tapered at base, sinuses typically deeper than midblade, the lobes somewhat fan-shaped with short sublobes and acute to obtuse teeth at top, lobe length and width decreasing upward with lobes of canopy nearly linear with or without teeth, palmately veined with 1 vein per lobe and principal veins raised on both surfaces. **Inflorescence:** racemelike, = the canopy portion of shoot with successive, axillary, solitary flowers, at shoot tip open flowers overtopping bud, solitary flower ascending and > leaf, bracteate, mostly with nonglandular hairs except on upper pedicel and calyx; bractlet subtending pedicel at early flowering leaflike but subsessile and blade diminutive, of later flowers = 2 stipules; pedicel cylindrical except with 5 ridge approaching flower, at anthesis 30–35 × 0.8–0.9 mm increasing 2× (to 115 mm long) in fruit, tough, to midpoint glabrate and upper portion having stellate hairs and inconspicuous, widely scattered glandular hairs approaching flower, lacking bracteoles (bractlets) at top. **Flower:** bisexual, radial, 24–38 mm across; **calyx** 5-lobed, 10–13 mm long, green, outer (lower) surface with unbranched short hairs along ridges; tube funnel-shaped, 3 mm long, glaucous and showing only 5 veins raised to midpoint but more veins raised above midpoint; lobes acuminate-triangular to acuminate-ovate, 7–12 × 3.5–4.3 mm, green, outer (lower) surface with many short glandular hairs between raised veins, inner (upper) surface densely pubescent especially above midpoint, 5-veined including marginal veins; **petals** 5, fused to domelike fused bases of filaments covering ovary, overlapping, fan-shaped to obovate, clawed, thick claw to 2.5 mm long, glossy white, ciliate on margins and with tuft of hairs ascending at each sinus, limb ascending-spreading, 13–23 × 14–17 mm, glossy white at base, dark rose or purplish red to wine red above, with many fine veins radiating from base, jagged on outer margin, glabrous; **stamens** many (± 100), fused into column (monadelphous) concealing ovary and fused to bases of petals, the individual filaments arising above 4 mm from base; filament column to 6.5 mm long, white, lower portion inversely funnel-shaped, with stellate hairs having 3–4 arms and colorless, short-stalked glandular hairs (especially on flared base), cylindrical portion 1 mm

diameter, filaments spreading to reflexed, to 2 mm long and often 2-forked, white; anthers in mass ca. 4×4 mm, basifixed, monotheical, ca. 0.3 mm long, cream-colored aging pale yellow, longitudinally dehiscent; pollen cream-colored to pale yellow; **pistil** 1, at anthesis 9–11 mm long, initially included within staminal structures except eventually tips of styles slightly visible; ovary superior, tightly covered by flaring white base of filament tube, wheel-like, ca. 1.5×2.5 mm, light green lower portion and darker upper portion around a depressed center, lower portion bowl-shaped, whitish and greenish, with furrows between chambers and minutely ciliate and irregularly toothed to jagged upper margin, glabrous, upper portion having scattered short hairs, 10–12-chambered, each chamber with a large ovule in lower portion (cell) and a smaller, sterile ovule in upper portion bent toward the center, the tip narrowly notched; style 7–8 mm long, white, cylindric ca. 2.5 mm, branched above with 1 branch for each chamber, the branches included, slender, straight and tightly packed within filament column, papillate-hairy stigmatic at tips initially within anther and less exerted < 1 mm from the closest anthers. **Fruit:** schizocarp, breaking into 10–12 dry, 1-seeded, indehiscent segments (mericarps), partially concealed by suberect to ascending, dry, veiny calyx, when intact tire-shaped, 6–7 mm across, outer side with 2 lobes per chamber (e.g., 20-lobed) and with a narrowly notched, triangular upper portion oriented toward center, immature seed-bearing portion light green and upper portion dark green with initially with some short hairs; mericarps = apostrophe-shaped wedges, $4\text{--}4.3 \times 3 \times 1.2\text{--}1.5$ mm, brown, upper surface smooth, lateral (radial) with raised veins from edges and faces minutely glandular. **Seed:** \pm kidney-shaped, ca. $2.5 \times 2\text{--}2.3 \times 1.1\text{--}1.4$ mm, fitting loosely within lower chamber, glossy brown, deeply notched at hilum.

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