

## Vascular Plants of Williamson County

### *Acalypha monococca* – ONESEED COPPERLEAF [Euphorbiaceae]

*Acalypha monococca* (A. Gray) L. W. Miller & Gandhi, ONESEED COPPERLEAF. Annual, taprooted, not rosetted, 1-stemmed at base, with several ascending branches in canopy, suberect to ascending, in range 15–35 cm tall; monoecious; shoots with only cauline leaves, short-hirsute and hirsute (occasional longer hairs), stinging hairs absent; latex clear. **Stems:** low 8-ridged, to 3 mm diameter, with 3 ridges descending from each leaf, tough, young internodes often reddish, stiff hairs pointing downward. **Leaves:** helically alternate, simple, petiolate, with stipules; stipules 2, attached to base of petiole, acuminate, < 1 mm long + hair at tip to 1 mm long, green with several dark red glands on margins; petiole subcylindric, 3.5–5 mm long, often purplish, with hairs; blade lanceolate to narrowly lanceolate, 11–53 × 3.5–10 mm, broadly tapered at base, entire, broadly acute and purplish at tip, pinnately veined with 3 principal veins at base, midrib slightly raised on upper surface and principal veins raised on lower surface, short-hirsute, lower surface appearing minutely white-dotted (inclusion in each cell). **Inflorescence:** pistillate spikelike cluster (flowers sessile) + staminate racemelike, axillary and each node in canopy, flowering shoot with stalk axillary to stipule < 1–2 mm long, compressed side-to-side, and hirsute, 2 axes of flowers subtending by leaflike bract next to stem, the bract strongly folded upward from midline concealing pistillate flowers, staminate structure spreading in opposite direction as bract and to 16 mm long, staminate flowers clustered at top in several–many-flowered lateral cymes of flowers on short pedicels, bracteate, short-hirsute and hirsute; bract at node deltate to broadly ovate, in range 5–9 mm, truncate to cordate at base, coarsely serrate (lobed) with ovate-triangular teeth, the teeth (9–)11–15, palmately veined with 1 vein ending in each tooth and with vein raised on lower (outer) surface, short-hirsute with longer hairs on teeth, tips of teeth when young with minute red glands, lower surface appearing minutely white-dotted (inclusion in each cell). **Staminate inflorescence:** peduncle to 9 × 0.35, often reddish, with short hairs arching upward; axis short-hirsute; cyme with flowers sequentially flowering, after pollen released having ascending filaments; bract subtending cyme broadly ovate, ca. 0.6 × 0.8 mm, short-ciliate with stiff hairs; bractlet subtending pedicel difficult to distinguish, triangular; pedicel slender, < 0.4 mm long, with several stiff hairs. **Staminate flower:** ca. 0.4 mm across; **sepals** 4, cupped-ovate, ca. 0.5 mm long, not hirsute but outer (lower) surface with glandular hairs above midpoint; **corolla** absent; **stamens** ca. 8 in 2 whorls, appearing free; filaments ascending, aging flattened-oblongate above midpoint, ca. 0.5 mm long, 1-veined, with short hairs below midpoint; anthers basifixed, 0.2 mm long, off-white; pollen whitish; **pistil** absent. **Pistillate inflorescence:** of 1–5 flowers in short-hirsute mass, dense with bract, bractlets, and perianth so closely packed difficult to distinguish and interpret the tiny parts, bract and bractlets subtending flower < 1 mm long, often reddish, with stiff short hairs or also short-ciliate. **Pistillate flower:** 0.5 mm across; **sepals** 3(–5), fused only at base, ovate, ca. 0.7 mm long, and persistent in fruit, if more outer sepals more slender and not obvious or absent in fruit; **corolla** not evident; **stamens** absent; **pistil** 1, ca. 2.5 mm long; ovary superior, obovoid but concealed by dense cover of stiff hairs, 0.5 mm long, often purple-red, with 1 fertile chamber with 1 ovule other chambers aborted); style ca. 6-branched 0.5 mm from top of ovary, the stigmatic branches suberect, threadlike, often orange. **Fruit:** capsule, dehiscent with 1 split along top to base, 1-seeded (pairs of fruits =

adjacent flowers), before dehiscing obovate, ca.  $2.5 \times 1.4$  mm, short-hirsute. **Seed:** arillate with caruncle covering hilum, seed ovoid, ca.  $2 \times 1.2$ – $1.3$  mm, when fresh and moist brownish red, when dry frosty and appearing gray, with fine straight and wavy longitudinal ridges of minute bumps (tuberculate); caruncle crestlike and oblanceoloid, ca.  $0.8 \times 0.2 \times 0.25$  mm (covering  $1/3$  of seed length), fleshy, white.

A. C. Gibson