**Vascular Plants of Williamson County**

*Crataegus crus-galli* L., COCKSPUR HAWTHORN. Shrub to small tree, spinescent, fall-deciduous, with flowers of short spur shoots, in range to 400 cm tall; shoots with only cauline leaves; spine = a modified axillary shoot with to 10 nodes but lacking persistent leaves, ± straight and ⊥ stem, cylindric, in range 25–60 × 1.5 mm, reddish aging and drying brown, hard, with sharp point at tip, initially with ephemeral leaves lanceolate to narrowly ovate, 2–3 × 1 mm, usually with a pair of the longest leaves at the base, with to 16 gland-tipped teeth on margins, drying papery and abscising in several days leaving a leaf scar. **Stems:** green, somewhat zigzagged, glabrous. Leaves: helically alternate, simple with teeth but lacking obvious lobes, petiole, with stipules; stipules 2 (absent on leaves approaching peduncle), petiolate, attached to petiole close to its base, petiole to 2.5 mm long, blade asymmetrically fan-shaped conspicuously toothed, to 4 × 8 mm, upper surface glossy and dark green with conspicuous vein network, palmately 3-veined at base, having gland at top of each tooth; petiole 2–5 mm long (lacking green blade tissue) indistinct from blade; blade obovate or ± rounded in outline to broadly elliptic or obovate-elliptic, 25–45 × 15–30 mm, the small blades produced on spur shoots, long-tapered at base, 1(partially –2)- serrate on margins, each tooth initially with a colorless gland aging purple-red and abscising before maturing, with tooth at tip, pinnately-veined, upper surface initially short-villous to villous typically aging without hairs and glossy, lower surface glabrous throughout leaf development. **Inflorescence:** paniculate cyme, terminal on spur shoot (early spring) with a few leaves, somewhat flat-topped, to 40 mm across, 7–12-flowered, lacking bracts, glabrescent; pedicel cylindric, 5–10 mm long, green, often with tiny, whitish bumps, glabrous or with sparse soft hairs. **Flower:** bisexual, radial, in range 11–13 mm across; hypanthium broadly funnel-shaped, ca. 1.5 mm long and 3 mm across, thick-walled, green on outer surface with several soft short hairs, inner surface with **nectary,** at pollination filled with thin nectar, adjacent ovary with hairs to 1 mm long; **calyx** 5-lobed; tube on top of hypanthium, short, greenish; lobes widely spreading or reflexed at anthesis, acuminate-triangular, 3.8–4.3 × 1.5–1.8 mm, green with whitish membranous margins below midpoint, with raised midvein on lower surface, short-ciliate on margins to midpoint, often with minute purplish point at tip, upper surface short-strigose pointing upward; **petals** (4–)5, free, easily dislodged, broadly ovate to roundish, (4.5–)6–8 × 5–7 mm, white, narrow at base, cupped upward later cupped downward, 3(5)-veined at base, minutely textured (domed cells) on upper surface; **stamens** in range mostly 7–8 in 1 whorl, formed on rim of hypanthium on outer edge of nectary, free sometimes having a pair of filaments fused at least at base; filaments ascending, 2.5–5.2 mm long, white, often somewhat flattened front-to-back and the widest narrowly triangular, glabrous; anthers medifixed, dithecal, ca. 1.5 mm long, pale rose and white, longitudinally dehiscent; pollen whitish; **pistil** 1; ovary inferior, to-shaped, ca. 1.5 mm long, green, outer surface mostly glabrous, top of ovary pubescent with hairs to 1 mm long, 3–4-chambered, each chamber with 1 ovule; styles 3–4, 4–5.3 × 0.35 mm, white aging greenish, not straight, with a dense tuft of colorless hairs at base (< 1 mm long), with oblique stigma at top. **Fruit:** pome, mostly with 3 “stones,” spheric to spheroid, in range (6–)7–8.5 mm, scarlet to orange-red, with sparse, scattered pilose hairs; hypanthium at top with 5 spreading
sepals and several dry, ascending filaments; pulp (mesocarp) in immature fruit ca. 0.5 mm thick; stones extremely hard, 1–2-seeded, 3-sided round on back and with 2 flat lateral faces, ± 5–6 × 5–6 mm, not easily separated in maturing fruit; pedicel straight, 5–15 mm long, with minute bumps along axis.

A. C. Gibson