

Vascular Plants of Williamson County
***Crataegus crus-galli* – COCKSPUR HAWTHORN**

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, \pm straight and \perp stem, cylindrical, in range 25–60 \times 1.5 mm, reddish aging and drying brown, hard, with sharp point at tip, initially with ephemeral leaves lanceolate to narrowly ovate, 2–3 \times 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 \times 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 \pm rounded in outline to broadly elliptic or obovate-elliptic, 25–45 \times 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:** paniclelike 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 cylindrical, 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 \times 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 \times 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 \times 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, $\pm 5\text{--}6 \times 5\text{--}6$ mm, not easily separated in maturing fruit; pedicel straight, 5–15 mm long, with minute bumps along axis.

A. C. Gibson