

## Vascular Plants of Williamson County

*Ammannia coccinea* – TOOTHCUP, LONG-LEAF AMMANNIA [Lythraceae]

*Ammannia coccinea* Rottb., TOOTHCUP, LONG-LEAF AMMANNIA. Annual, sometimes aquatic, diffuse-rooted, typically 1-stemmed at base, branched above or unbranched (branched below surface of water), erect to decumbent, in range 10–35 cm tall; shoots with conspicuously ranked cauline leaves and bracts in 4 vertical files, green or red, glabrous. **Stems:** 4-sided, < 4 mm diameter, 2 sides concave between the ridges descending from each leaf and 2 convex below each leaf, tough, the concave faces becoming convex lower on stem. **Leaves:** opposite decussate, simple, sessile and clasping, without stipules; blade linear-oblong or narrowly lanceolate to narrowly oblanceolate, 25–90 mm long, at midblade 1.5–14 mm wide and wider near base, heart-shaped and clasping at base (auriculate), entire and sometimes inrolled under (revolute) on margins, acute to acuminate at tip, 1-veined with midrib sunken on upper surface and raised on lower surface, dull green; glands in axil of leaf to 10, toothlike, reddish. **Inflorescence:** leafy cyme, axillary, paired at node, (1–)3–5-flowered, flowers subsessile, bracteate, glabrous; bracts at node = paired leaves; peduncle at anthesis < 0.5 mm long increasing to 3+ mm in fruit; bractlets subtending pedicel of the oldest flower 2, paired, awl-like,  $\pm$  1.5 mm long, pale green; pedicel at anthesis short increasing to 2 mm long in fruit; bracteoles subtending lateral flowers 2, awl-like and < bractlets. **Flower:** bisexual, radial, suberect to ascending, ca. 5 mm across, in population of only 1 type (homostylous); hypanthium (floral tube) at anthesis pleated, bell-shaped with 8 ribs, 2–2.5  $\times$  2 mm, expanding and spheric in fruit, appendaged, appendages (epicalyx lobes) hornlike, projecting outward; **sepals** 4, alternate with hypanthium appendages, never spreading, broadly triangular, 1  $\times$  1.5 mm, dark green aging purplish; **petals** (3–)4(–5), opposite hypanthium appendages, heart-shaped, 2–2.5(–3) mm long, rose-purple to strong reddish purple, abscising soon after anthesis (fugacious); **stamens** 4(–5), typically opposite sepals, free but inserted on hypanthium at or below midpoint, exerted 1 mm > hypanthium; filaments 2.5–3 mm long, rose-purple; anthers dorsifixed, dithecal, 0.4–0.5 mm long, pale greenish yellow, longitudinally dehiscent; pollen pale yellow; **pistil** 1; ovary superior, spheric with 3–4 shallow furrows, at anthesis ca. 1/2 hypanthium length, pale green, glabrous, 2–4-chambered, each chamber with numerous ovules attached to center; style cylindric, ca. 1.5  $\times$  0.4 mm, in bud hooked later becoming straight and exerted ca. 1 mm, rose-purple, persistent; stigma capitate, greenish. **Fruit:** capsule, dehiscent irregularly, many-seeded, spheric, 3–4 mm, hidden by brown hypanthium and appressed sepals, crimson aging purplish black drying brown. **Seed:** stout wedge-shaped to inversely pyramid-shaped, 0.2–0.35 mm long, often concave-convex with blunt angles, golden brown with glistening cells on fresh seed.

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