

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 10–55 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 cylindrical, 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 seeds. Late May–Late September.

Native. Annual occasionally found around banks of ponds in relatively dense, local populations. The small flowers of *Ammannia coccinea* are on paired axillary cymes, and the capsular fruit has hundreds of tiny, light-weight seeds. Leaves of toothcup turn light red while fruits are maturing, and the blades sometimes become strongly reflexed.

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