

## Vascular Plants of Williamson County

*Samolus parviflorus* – THIN-LEAF BROOKWEED, WATER PIMPERNEL [Theophrastaceae]

*Samolus parviflorus* Raf. [syn. *S. valerandi* L. subsp. *parviflorus* (Raf.) Hultén)], THIN-LEAF BROOKWEED, WATER PIMPERNEL. Perennial herb, ± aquatic, fibrous-rooted, rosetted from creeping, slender stem, 1-stemmed from rosette, unbranched or diffusely branched, erect, in range 10–30 cm tall; shoots glabrous; roots adventitious. **Stems:** cylindrical, slender, < 1 mm diameter, wiry. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole winged grading into blade, to 4 mm long, very short on upper cauline leaves; blade broadly elliptic or oval to obovate or ovate, 12–35 × 6–20 mm, typically tapered at base, entire, obtuse to round at tip (basal leaves) or broadly acute (cauline leaves) at tip, pinnately veined with conspicuous midrib and faint lateral veins.

**Inflorescence:** racemelike (the lowest branch also a short raceme), terminal, thin, ± flat-topped, initially with flowers overtopping buds, several–many-flowered, somewhat delicate, bracteate, glabrous; bract subtending inflorescence leaflike, obovate to ovate; peduncle ca. 10 mm long; rachis conspicuously zigzagged, flexuous, slender, to 100 mm long, internodes 2–7.5 mm long, glossy green, glabrous; bractlet subtending pedicel absent; pedicel ascending, in range 5–6 mm long spreading and increasing to 9 mm long in fruit, with another bractlet at midpoint or lower on pedicel, the bractlet awn-shaped, < 1 mm long, persistent in fruit. **Flower:** bisexual, radial, 2–3.5 mm across; **calyx** (4–)5-lobed, green; tube cup-shaped, ± 1.2 mm long; lobes ascending, triangular to deltate, 0.5–0.8 mm long, green with white tip, minutely dotted; **corolla** (4–)5-lobed, 1–1.3 mm long, white; tube short-cylindric, 0.25 × 0.9–1 mm; lobes ascending like calyx lobes, obtuse-oblong to round-oblong, 0.8–1.2 mm long, ± truncate or slightly notched at tip, with domed cells; **stamens** 5 fertile stamens (opposite corolla lobes) and 2–5 sterile staminodes fused at sinuses of corolla (opposite calyx lobes); filaments sharply tapered to tip, 0.3–0.4 mm long, white, glabrous; anthers dorsifixed, dithecal, inversely heart-shaped, ca. 0.4 mm long, orange-yellow, longitudinally dehiscent; pollen orange-yellow; staminode fingerlike, 0.5–0.6 mm long, white; **pistil** 1; ovary ± inferior (two-thirds), fused to calyx tube, hemispheric and truncate, 10-veined, 1-chambered with many ovules attached to center; style ± 0.25 (absent); stigmas (3)5, terminal, slightly lobed, papillate. **Fruit:** capsule, loculicidal, 5-valved, many-seeded, initially spheroid, when open cup-shaped to bell-shaped, in range 1.5–2.3 mm across, 5 triangular to deltate calyx lobes opposite and partially covering 5 tannish, recurved valves, rarely splitting below midpoint, seeds on basal central post; calyx tube portion of fruit finely 10-ribbed. **Seed:** 3–5-sided, in range 0.3–0.4 mm long, dull reddish brown to dark brown; seed coat minutely bumpy.

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