

Vascular Plants of Williamson County
Arenaria benthamii – HILLY SANDWORT [Caryophyllaceae]

Arenaria benthamii Fenzl, HILLY SANDWORT. Annual, fine-taprooted, 1–several-stemmed at base, divaricately branched in canopy, ascending to spreading, in range to 20 cm tall; shoots with only cauline leaves, somewhat wispy, not glandular-hairy or viscid. **Stems:** cylindrical, slender, ca. 0.5 mm diameter at mid-internode but bulbous just above each node, green, aging ± brittle, internodes to 35 mm long, with 2 vertical lines of puberulent hairs arching downward, the hairs descending from the blade margins. **Leaves:** opposite decussate, simple, petiolate (lower leaves) and sessile with pair fused across node and sheathing stem, without stipules; petiole indistinct from blade; sheath 0.2–0.4 mm long; blade of lower leaves ovate, of other leaves ascending from fused bases, elliptic or lanceolate to oblanceolate, ascending to spreading from fused bases, in range 4–7.5 × 2–4 mm, tapered at base, entire and sparsely short-ciliate on margins, ± acute at tip, 1-veined sunken on upper surface and raised on lower surface, surfaces without hairs.

Inflorescence: dichasial cyme with unequal branches, terminal or axillary, at lower nodes terminal flower diverging at 45° ⊥ plane from 2 branches at fork, cyme several–10+-flowered, bracteate, glabrous; bracts subtending peduncle and each fork 2, leaflike, sessile and fused across node, to 3 mm long decreasing upward, sparsely short-ciliate on margins; pedicel straight, initially short increasing to 25 mm long in fruit, 0.15–0.2 mm diameter, bulbous at base. **Flower:** bisexual, radial, ca. 3 mm across (calyx); hypanthium inconspicuous; **sepals** 5, free, overlapping, somewhat unequal, at anthesis acute-ovate, 1.8–2.3 × ± 1 mm increasing 2× and more clearly unequal in fruit, green and white-membranous on margins, 1-veined and outer sepals somewhat keeled, glabrous; **petals** 5, lacking claw, broadly elliptic, 1.6–1.9 × ca. 0.85 mm, white (veins obscure), obtuse at tip (sometimes with inconspicuous shoulder); **stamens** 10 in 2 whorls, free, formed on rim of hypanthium; filaments unequal, suberect, 1 mm long (outer stamens) and 0.8 mm long (inner stamens), white, glabrous; anthers dorsifixed, dithecal, 0.2–0.25 mm long, pinkish (outer stamens) and white and often appearing sterile (inner stamens), longitudinally dehiscent; pollen colorless; **nectaries** projections at bases of outer filaments, green, nectar not observed; **pistil** 1, very short-stalked (stipe or gynophore); ovary superior, spheroid, 0.7–0.8 mm, light green to midpoint and darker above midpoint with 6 faint lines defining future teeth, glabrous, 1-chambered with 20+ ovules attached to base on a central post on long funiculi; styles 3, spreading, ± 0.7 mm long, translucent-white, stigmatic on inner side of styles and especially on spreading tips, conspicuously papillate. **Fruit:** capsule, tightly appressed by calyx, consisting petals and stamens, dehiscent at top by 6 terminal teeth scarcely exceeding calyx, in range ca. 20-seeded, before dehiscent ovoid, in range 3–4 × 2mm drying urn-shaped with somewhat recurved teeth, not turning reddish but drying pale brown, smooth teeth acute and ± 0.6 mm long; seeds long-stalked (funiculus) on central postlike placenta; fruit stipe inconspicuous; calyx in range persistent around capsule, lobes somewhat keeled. **Seed:** sowbuglike to kidney-shaped with strongly curved embryo, in range ca. 0.5 × 0.4 × 0.35 mm, brown and not shiny, cells in longitudinal rows, low-bumpy (tuberculate), each cell wider than long, rounded on back. and lacking papillae.

A. C. Gibson