## Vascular Plants of Williamson County

Houstonia pusilla – TINY BLUETS, STAR-VIOLET, SMALL BLUET, INNOCENCE, SOUTHERN BLUET, ANGEL EYES, QUAKER LADIES [Rubiaceae]

Houstonia pusilla Schöpf, TINY BLUETS, STAR-VIOLET, SMALL BLUET, INNOCENCE, SOUTHERN BLUET, ANGEL EYES, QUAKER LADIES. Annual, slender-taprooted, not rosetted, 1-stemmed at base,  $\pm$  erect with ascending branches in canopy, < 10 cm tall; shoots with only cauline leaves at 2–5 nodes, glabrous. **Stems:** 4-sided and 4-ridged, < 1 mm diameter, with 2 ridges decurrent from each leaf (4 per node), weak, ridge edges sometimes vesicular and aging reddish. Leaves: opposite decussate, simple, petiolate and fused at node with stipules; stipules 2 per node,  $\pm$  triangular, ca.  $0.8 \times 0.8$  mm, nearly colorless, acuminate or 2-toothed at tip, with several orangish, conic glands on margins near petiole; petiole broadly channeled, < 1-5 mm long; blade ovate,  $4-8 \times 2-4.5$  mm, tapered at base, entire, acute to obtuse at tip, inconspicuously veined with only the faint midrib visible, upper surface minutely bumpy, lower surface smooth. Inflorescence: cyme, terminal, 1-several flowered, on each shoot paired with a newer cyme branch from the node, with terminal flower eventually pushed to the side and having a pair of axillary cymes, axillary cyme with a pair of leaflike bractlets at 1 node fused by stipules, 1 flower of a pair delayed in developing, bracteate, glabrous; axes 4-sided and 4-ridged, to 0.5 mm diameter, green; bractlet subtending pedicel leaflike by sessile to subsessile, < leaf blade; pedicel 4-sided, 10-25 mm long. Flower: bisexual  $\pm$  radial, 7–9 mm across; calyx deeply 4-lobed, scarcely fused at base, green, glabrous; lobes suberect, somewhat unequal, triangular to narrowly ovate,  $2.5-3 \times 0.7-0.9$  mm, pair on broader side wider, on edges with enlarged bases; corolla 4-lobed, trumpet-shaped, glabrous; tube flared at base, ca. 2 mm long, white with 4 greenish veins; throat  $\pm$  cylindric with 4 faint ridges, initially ca. 2.5 mm long and exserted from calyx after anthesis, flaring upper portion cuplike, to 1 mm long, violet to bluish on outer surface, inner surface reddish purple with yellowish starlike pattern pointing to sinuses; lobes initially erect then spreading, ovate to broadly elliptic,  $4-5 \times$ 2–2.3 mm, light violet to bluish, upper throat and lobes minutely papillate, lower surface paler, veins inconspicuous; stamens 4, attached at top of corolla tube, included; filaments slender, to 0.4 mm long, pale green; anthers dorsifixed, dithecal, 0.5–0.6 mm long, light yellow, longitudinally dehiscent; pollen light yellow; pistil 1; ovary inferior, strongly 2lobed with 4 shallow grooved and compressed side-to-side, ca.  $0.5 \times 1$  mm, green, glabrous, 2-chambered each chamber with several ovules; style 0.6–0.7 mm long, 2branched, lower portion nearly colorless and branches pale green, the branches ascending and at level of anthers, stigmas short papillate. Fruit: capsule, with 4 spreading, triangular calvx lobes, to 16-seeded, each half resembling a gecko head, ca.  $2.5 \times 4.5 \times 2$ mm. Seed: helmetlike, ca. 1 mm long.

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