

Vascular Plants of Williamson County

Diodia teres – ROUGH BUTTONWEED, POOR JOE [Rubiaceae]

Diodia teres Walter, ROUGH BUTTONWEED, POOR JOE. Annual, taprooted, several-stemmed at base, branching opposite decussate, in range to 28 cm tall; shoots with only cauline leaves, foliage scabrous with short, sharp-pointed hairs. **Stems:** somewhat 4-sided (especially at node), to 2 mm diameter, internodes to 38 mm long and streaked red, compressed side-to-side approaching node, with scattered long hairs to 2.2 mm long and curved short hairs. **Leaves:** opposite decussate, simple, sessile, with stipules; stipules = white bristles on stem node, 3–7 per side on flap between leaves, (1–)6(–11) mm long; blade narrowly lanceolate to narrowly elliptic, 13–36 × < 4–10 mm, tapered at base, entire but scabrous on margins, acute with fine point at tip, pinnately veined with midrib sunken on upper surface and raised on lower surface. **Inflorescence:** flowers solitary, axillary and only 1 per node, flower sessile. Flower: bisexual, ± radial, ca 4 mm across; **sepals** 4, opposite decussate and not obviously fused, dimorphic, ascending, ovate, 2–2.2 × 0.9 mm (outer pair) and 1–1.8 mm long (lateral pair), short-toothed ciliate, acute at tip, inconspicuously veined, having several short hairs on lower (outer) surface; **corolla** 4-lobed, light blue-violet; tube + throat cylindric, 4 mm long, white at base; lobes widely spreading, triangular, 2 × 1.2–1.3 mm, acute at tip, with short hairs on lower surface; **stamens** 4, fused to corolla at sinuses; filaments ± 0.6 mm long, white; anthers dorsifixed, dithecal, 0.8 mm long, white, longitudinally dehiscent; pollen white; **pistil** 1; ovary inferior, 2-lobed, pyramidal wedge-shaped, 1 mm long, green, with appressed stiff hairs, 2-chambered, each chamber with 1 ovule; **nectary disc** at top of ovary surrounding style; style erect, ca. 5 mm long, white; stigma terminal, exserted, umbrellalike (peltate), 0.8 mm across, violet. **Fruit:** schizocarp splitting into 2 dry mericarps, before splitting top-shaped, ca. 4 × 3.5 mm, with 1–3 sepals attached to each mericarp, sepals to 3 mm long; mericarps hemi-ovoid, ca. 4 × 2.6–2.8 × 2 mm, with long hairs above midpoint and having appressed, upward-pointing short hairs.

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