

Vascular Plants of Williamson County
Diodia virginica – BUTTERWEED [Rubiaceae]

Diodia virginiana L., LARGE BUTTERWEED. Annual, taprooted, several-stemmed at base, in range prostrate to low-spreading; shoots \pm 2-dimensional (plagiotropic), with only cauline leaves, glabrous. **Stems:** cylindric, to 3.5 mm diameter, at node with pair of ledges when leaves withered. **Leaves:** opposite decussate, simple, sessile with sheath and fused across node, with stipules; stipules 2 between pair, sheath 2–2.5 mm long and expanded at base, 3-forked above, 6–7 mm long, central lobe 4–5.5 mm long with several hairs at tip, lateral lobes bristlelike and diverging at 45°, 2.5–3.5 mm long, hairs somewhat tufted approaching tip; blade narrowly elliptic or elliptic to narrowly oblanceolate or narrowly ovate, (< 5 –)7–38 \times < 3 –10 mm, tapered to long-tapered at base, minutely toothed on margins, acute at tip, pinnately veined with midrib raised on lower surface, lateral veins paired.

Inflorescence: solitary, axillary and only 1 per node with a new unexpanded axillary shoot on upper side of shoot, ovary concealed by leaf sheath and ovary and fruit expanding and eventually breaking leaf sheath; bractlets subtending flower and partially encircling ovary 2, = a diminutive pair of stipules < 1.5 mm long, each bractlet 3-forked, the lobes mostly colorless but often purple-red at tips. **Flower:** bisexual, radial, ca. 7 mm across; hypanthium 0.3–0.4 mm long, short-fringed with 2 calyx lobes missing; **calyx** deeply 2-lobed, lobes ascending, narrowly lanceolate folded inward from midvein, 4–4.5 \times 0.8–1 mm, subequal to unequal, green with purplish red along midvein, acute at tip, short-ciliate on margins; **corolla** 4-lobed, white; tube curved away from stem, 4.5–5 \times 0.7–0.9 mm, glabrous on outer surface; lobes lanceolate, 3–4 \times 1.5–1.7 mm, thickish, with scattered hairs on upper surface or continued from tube; **stamens** 4, arising from near top of corolla tube opposite sinuses; filaments exerted, 2.2–2.4 mm long, white; anthers dorsifixed, dithecal, ± 1.7 mm long, white, longitudinally dehiscent; pollen white; **pistil** 1, appressed to stem internode; ovary inferior, 2-lobed, each part hemi-ellipsoid, 2.5 \times 2 \times 1–1.2 mm, light green, glabrous, 2-chambered, each chamber with 1 ovule; style slender, ca. 11 mm long, 2-branched, the branches stigmatic, threadlike, 4+ mm long **Fruit:** schizocarpic of 2 mericarps, \pm ellipsoid to ellipsoid-ovoid, 6.5–7.8 \times 4–4.5 mm, with 2 erect calyx lobes to 5 mm long, aging 8-ribbed and corky, with scattered short hairs along ribs above midpoint, having minute dark hairs above midpoint.

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