

Vascular Plants of Williamson County

Dalea frutescens – BLACK PRAIRIE CLOVER, BLACK DALEA [Fabaceae]

Dalea frutescens A. Gray, BLACK PRAIRIE CLOVER, BLACK DALEA. Subshrub, taprooted, not rosetted, branched at many nodes, in range < 30 cm tall; shoots with only cauline leaves, foliage bluish glaucous and glabrous, gland-dotted with pimplelike glands aging collapsed, foliage odoriferous when crushed. **Stems:** initially ridged soon cylindrical, pale light green with pimplelike glands; young periderm striped green and tan aging orangish and pale gray. **Leaves:** helically alternate, odd-1-pinnately compound (rarely even-1-pinnately compound) with (1–)5–7 paired of lateral leaflets, to 30 mm long, petiolate with pulvinus, with stipules; stipules 2, attached at base of petiole below pulvinus, acuminate, 1–1.5 mm long, whitish, bracketed by a pair of glands at base, persistent; petiole pulvinus above projecting, persistent base, ca. 0.6 mm long, pale green-yellow; above pulvinus channeled, slender; rachis channeled like petiole, with pairs of lateral leaflets spaced 1.5–4 mm apart not arising from pair of ridges on upper side but instead spreading from rachis, rachis pale green-yellow on lower side and light bluish green on upper side, 3 leaflets at top palmately placed; stipel subtending petiolule of each lateral leaflet on lower side of rachis (paired), ovoid to obovoid, ca. 0.2 mm long, plump and glandlike, light yellowish green, persistent; petiolule spreading, cylindrical, \pm 0.5 mm long, light yellow-green; blades of leaflets initially folded upward later low-cupped and aging flat, narrowly heart-shaped, $3\text{--}5 \times 1.7\text{--}2.5$ mm, tapered at base, entire, shallowly notched at tip with rounded lobes, pinnately veined with only midrib raised on lower surface, lower surface conspicuously gland-dotted producing visible windows on upper surface. **Inflorescence:** spike, initially headlike aging longer (25+ mm long), terminal, head ca. 25 mm across, flowers helically alternate, 13– < 30, bracteate, gland-dotted on green structures; peduncle several mm long with to 4 leaves (bracts) often with leaflets soon abscised, glabrous; rachis with raised bractlet buttresses, densely short-hairy; bractlet subtending flower folded and clasping, broadly elliptic and $4\text{--}4.3 \times 3.5$ mm (flattened), light green with a green triangular tip bent over the top of bud, midvein raised, faces with several glands, with short-pilose hairs to midpoint and on margins. **Flower:** bisexual, bilateral, 8–10 mm across (= wings), ca. 14 mm long; **calyx** 5-toothed, compressed side-to-side, ca. $3.5 \times 3 \times 1.5$ mm; tube compressed top-shaped, ca. 3 mm long, green along margin and at base, 10-ribbed, panel between adjacent veins with 3–4 pimplelike glands, the lowest mostly round, the middle conspicuously elongate, the upper glands small and round or elongate, yellowish glands often aging scarlet, densely short-ciliate on margin; toothlike lobes triangular with finer point at tip, green or aging with red tip, at least the lateral lobes only having a pair of diminutive point at base of tip; **petals** 5, upper petal (banner) free and 4 petals fused to staminal column, petals clawed; banner claw somewhat arched, ca. 4 mm long, white and not flat, limb inverted heart-shaped somewhat folded downward, ca. $4 \times 5\text{--}5.5$ mm, white with pink-purple basal lobes and a pair of yellowish spots near basal lobes; wings 2, attached ca. 2 mm from base of filament sheet, claws flat, ca. 1.5×0.3 mm, whitish, limbs vertically oriented, \pm ovate with round basal lobe, $5.5\text{--}6 \times 3$ mm, pink-purple to light pink-purple, finely palmately 5-veined from claw, rounded at top; keel of 2 petals fused along limbs nearly to tip, attached to filament sheet below free filaments, claws flat, 2.5 mm long, white, limbs \pm elliptic, ca. $7 \times 3.7\text{--}4$ mm, pink-purple but paler at base, basal lobe

backward-pointing and 0.35 mm long, rounded at tips; **stamens** 10, fused into sheet; filaments membranous and whitish, 11–12 mm long, sheet folded upward, free filaments 4–4.5 mm long; anthers dorsifixed, dithecal, included in keel, \pm 0.5 mm long, red-purple, longitudinally dehiscent; pollen light orange; **pistil** 1, ca. 13 mm long, not stalked; ovary superior, compressed broadly elliptic, 2×1 mm, green and gland-dotted, glabrous, 1-chambered with 2 ovules; style curved upward above midpoint, pale green, glabrous, with minute terminal stigma. **Fruit:** pod (legume), not stalked, 1–2-seeded, obliquely ovate in outline and compressed side-to-side somewhat inflated, ca. $3 \times 2 \times 1.2$ mm + persistent style, glabrous with several glands on each surface. **Seed:** somewhat kidney-shaped.

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