

## Vascular Plants of Williamson County

*Thamnosma texana* – TEXAS DESERT-RUE, DUTCHMAN'S BREECHES [Rutaceae]

*Thamnosma texana* (A. Gray) Torrey [when validly published, var. *texana*], TEXAS DESERT-RUE, DUTCHMAN'S BREECHES. Subshrub (suffrutescent perennial), forming shoots from ground level during earliest spring, small-leaved, several–many-stemmed at base, with ascending flowering shoots, in range to 20 cm tall; shoots with narrow, ascending cauline leaves on green (photosynthetic) stems, gland-dotted on green tissues, the glands domed from beneath the surface, when crushed producing a strong, aromatic odor like rue (*Ruta*; monoterpenes), glabrous and glaucous. **Stems:** cylindric, of new shoot ca. 1 mm diameter, easily broken, green and glaucous, glands spaced < 0.5 mm apart, with minute dots (stomates) between glands. **Leaves:** helically alternate, simple, subsessile, without stipules; petiole < 0.3 mm long or somewhat enlarged at base; blade ascending to suberect, linear to narrowly oblong-linear, (5–)8–12 × 1–1.3 mm, long-tapered at base, subentire on margins (indentations associated with glands), minutely notched at tip, 1-veined with midrib slightly raised on upper surface, lower surface glaucous with margins not flat. **Inflorescence:** leafy cyme, terminal, at first racemelike but often forked above, 10+-flowered, bracteate, conspicuously gland-dotted, glabrous, glaucous; rachis distinctly gland-dotted; bract and bractlet close to node but not subtending pedicel, with at least 1 on opposite side of pedicel, leaflike with short petiole, oblong to linear, at anthesis 3–4 × < 1 mm increasing to 7 mm long in fruit; pedicel at anthesis 0.5–1.6 mm long, often wrinkled, increasing in thickness and conspicuously wrinkled in fruit. **Flower:** bisexual, radial, when ovoid 3.2–4 mm across, wider when petals spreading; **calyx** 4-lobed, starlike with radiating lobes, ca. 1.5 mm long; tube dishlike, ca. 0.5 mm long, yellow-green, wrinkled; lobes ± deltate, 0.7–1 mm long, with minute notch at tip, stiff and thick, sometimes tinged red on margins, glabrous, glaucous; **petals** 4, erect to spreading, overlapping but 1 petal interior to adjacent 2 petals, cupped-ovate, ± 4 × 3.2–3.5 mm, white to pale yellow at base and lemon yellow from below midpoint, margins yellow base-to-tip, acute to obtuse at tip, gland-dotted, midvein visible; **stamens** 8 in 2 close whorls, free on elevated receptacle with nectary, receptacle bumpy and light green between stamens; filaments strongly curved upward from receptacle at base, 3–3.5 mm long, white, glabrous; anthers basifixed, dithecal, 0.65–0.75 mm long, orange-yellow, longitudinally dehiscent; pollen orange-yellow; **nectary** part of solid, cup-shaped receptacle 1 × 1.3 mm; nectar present; **pistil** 1; ovary superior, strongly 2-lobed with thick lobes from midpoint and rounded at tips, ca. 1.8 × 1.6 × 1.2 mm, green and ± glossy but glaucous, gland-dotted, 2-chambered, each chamber with ca. 8 ovules attached to center; style from between lobes, ca. 1.5 mm long, light green, enlarged at base, somewhat flattened but slightly swollen below stigma; stigma terminal, at or above anthers, 2-lobed, dark green, short-hairy. **Fruit:** capsule, to 10-seeded, wide V-shaped with thick lobes diverged nearly 90°, lobes ca. 3 mm long and fruit ca. 7 mm across, before drying green, glaucous, and gland-dotted. **Seed:** kidney-shaped to D-shaped, ca. 1.5 × 1 mm, initially pale green aging whitish, conspicuously bumpy (tuberulate) on back of strongly curved embryo.

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