

Vascular Plants of Williamson County
Euphorbia davidii – DAVID'S SPURGE [Euphorbiaceae]

Euphorbia davidii Subils, DAVID'S SPURGE. Annual, taprooted, not rosetted, 1(–3)-stemmed at base, ± erect with paired, ascending branches along main axis, in range < 25 cm tall; monoecious; shoots puberulent and short-hairy; latex white, copious. **Stems:** cylindrical, < 3 mm in diameter, rose-red to purplish red, internodes 12–90 mm long (the longest = first internode on a lateral branch), puberulent with sparse slightly longer hairs around some nodes. **Leaves:** opposite decussate to subopposite and in canopy often helically alternate, simple, petiolate, with stipules; stipules 2, on swellings at base of petiole with tiny glandular tips; petiole channeled, 5–25 mm long, green aging rose-red, puberulent to short-hairy; blade lanceolate or narrowly lanceolate to elliptic, in range (15–)25–50 × to 14 mm, > petiole, tapered at base, crenate and often somewhat wavy on margins and sometimes partially inrolled under, obtuse to blunt at tip, pinnately veined with principal veins purple-red sunken on upper surface and at least midrib raised on lower surface, upper surface sparsely puberulent and densely short-hairy along principal veins, lower surface evenly pubescent with evenly spaced bent hairs (bases sometimes enlarged, pustulate). **Inflorescence:** cyathium (= involucre with staminate flowers and 1 pistillate flower), terminal in dense, flat-topped, cymelike array, terminal array typically 3-branched subtended by a pseudowhorl of 3 leaflike, short-petiolate bracts, for each branch with oblong bracts to 8 mm long having lower portion white with green midvein and upper = a miniature green and rose blade without or with minute crenate margins, the uppermost bracts acuminate and < 1 mm long; peduncle beneath cyathium 1.5 mm long and whitish at first flowering to 2 mm long and rose in fruit; **involucre** cylindrical-narrowly bell-shaped, at anthesis 1 × 0.7 mm increasing to 2.5 × 1.2 mm in fruit, pale green, of 5 bracts and 1 gland, the bracts of involucre fused most of length, free portion handlike to 0.8 × 0.4 mm long and fringed with 5–7 white lobes, the gland nectar-producing, short-stalked, deeply cupped and compressed funnel-shaped (fan-shaped), ca. 1 × 1 mm, light green, without appendages; staminate flowers ca. 8 in 5 clusters, each cluster associated with a bractlet; bractlet with slender branches, ca. 0.7 mm long, colorless; pistillate flower on a pedicel-like stalk (gynophore), at anthesis gynophore erect and ca. 1 mm long increasing to 4 mm long and > cyathium in fruit, with styles initially exposed from involucre, soon gynophore elongating and ascending or bent sideways and having mature ovary fully exerted and becoming thicker. **Staminate flower:** reduced to 1 stamen; filament to 1.7 mm long, in each cluster elongating successively, white, with abscission constriction 1/3 from top; anthers conspicuously dithecal, each sac ellipsoid, ± 0.25 mm long, pale yellow, longitudinally dehiscent; pollen pale yellow. **Pistillate flower:** reduced to 1 pistil; ovary superior, 3-lobed subspheroid, at anthesis 1–1.3 mm wide, green, glabrous, 3-chambered, each chamber with 1 ovule; styles 3, ca. 1.2 mm long, pale green at base to whitish or pinkish above midpoint, 2-branched from near base; stigmas minute. **Fruit:** schizocarp (capsule), 3-seeded, conspicuously 3-lobed, in range ca. 3.2 × 4.2–4.5 mm, green blushed rose-red, glabrous, elastically dehiscent into 3 segments; style persistent, with persistent, 3-ribbed central axis ca. 2.7 mm long. **Seed:** with caruncle at attachment, ovoid with flat-oblique top, in range 2.2–2.4 × 1.8–2 mm, brown, conspicuously bumpy with low, rough projections, having brown line from the lowest point of oblique face to base of seed;

caruncle versatile on oblique end of seed by a very short stalk, horseshoe-shaped, mostly 0.8×1 mm, whitish drying yellowish, firm, often persistent.
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