

Vascular Plants of Williamson County
Euphorbia tetrapora – WEAK EUPHORBIA [Euphorbiaceae]

Euphorbia tetrapora Engelm, WEAK EUPHORBIA. Annual, taprooted, 1(–3)-stemmed at base, erect with ascending lateral branches, in range to 25 cm tall; monoecious; shoots with only cauline leaves, glabrous, sometimes purple-red on lower shoot; latex milky; cotyledons petiolate, petiole to 2 mm long, blade ovate, ca. 3×2.2 mm, rounded at tip. **Stems:** cylindric, to 2 mm diameter, mostly rose-red. **Leaves:** opposite at the lowest node above cotyledonary node, helically alternate but pseudowhorled at top of vegetative shoot, simple, petiolate (lower cauline leaves) to short-petiolate (upper cauline leaves), with stipules; stipules 2, inconspicuous glands at base of petiole; petiole hemicylindric, to 3 mm long, reddish, indistinct from blade; blade broadly obovate to spatulate (lower cauline leaves) to oblanceolate, $< 2\text{--}14 \times 2\text{--}3$ mm, broadly tapered to long-tapered at base, entire, obtuse to rounded or shallowly notched or short point at tip, pinnately veined with midrib slightly raised on lower surface. **Inflorescence:** cyathium (= involucre with staminate flowers and 1 pistillate flower), terminal with 1 cyathium per fork, terminal and axillary in leafy cymelike arrays, terminal cluster of 3 ascending cymelike arrays from a whorl of 3 leaflike bracts, axillary inflorescence developing downward, only 1 node; primary axis (= peduncles subtended by bract) at the top of vegetative shoot with a terminal sessile cyathium + an opposite pair of lateral secondary axes, potentially pattern continuing but decreasing upward, bracts subtending each fork 2, leaflike but asymmetrically broadly triangular to deltate, to $4.5\text{--}8 \times 5.5\text{--}8$ mm somewhat decreasing upward, often length $<$ width, palmately veined at base and veins not raised, leafy bracts \pm truncate at base with rounded corners, entire, broadly acute with short point at tip, not glaucous; peduncle (primary axis) 8–10 mm long decreasing upward (secondary and tertiary axes), green, glabrous; cyathium 2–3 mm across (including spreading glands); **involucre** \pm cup-shaped, at anthesis ca. 0.9×0.75 mm, light green, glabrous, of 5 bracts and 4 glands, the bracts of involucre fused most of length, tips ca. 0.3 mm long, whitish, papillate-hairy and fringed on margins, the glands alternate with bracts (1 absent), nectar-producing, raised, crescent-shaped (semicircular) with a pair of hornlike (fingerlike) extensions at opposite ends of each gland, ca. 0.6×0.8 mm including horns to 0.4 mm long increasing 2 \times in fruit, green, gland not depressed; staminate flower 5–8 in 5 clusters (1–2), stalked, each cluster associated with a bractlet; bractlet, threadlike flared at top, white, minutely hairy, the stalk ca. 1 mm long; pedicel beneath pistillate flower at anthesis ca. 1 mm long increasing and arching outward in fruit. **Staminate flower:** reduced to 1 **stamen**; filament (including pedicel) ca. 1 mm long (filament portion = 0.3 mm long), white; anther basifixed, dithecal, ca. 0.3 mm long, yellowish, sacs widespreading, longitudinally dehiscent; pollen yellow. **Pistillate flower:** reduced to pistil; **pistil** 1; ovary superior, 3-lobed ovoid, ca. $0.7 \times 0.5\text{--}0.6$ mm, light green, glabrous, 3-chambered, each chamber with 1 ovule attached to center; styles 3, fused only at base, ± 0.6 mm long, light green, 2-branched at midpoint, the branches ascending to spreading, domed and stigmatic at tips. **Fruit:** capsule, 3-seeded, 3-sided, ca. 2×2 mm, glabrous, elastically dehiscent along septa into dry valve, not warty but somewhat rough adjacent to septa. **Seed:** with fleshy appendage (caruncle), quadrangular oblong, ca. $1.4\text{--}1.5 \times 0.9\text{--}1$ mm, brown and minutely beaded, with groove on

lower ridge, with 2 stacked pits on face; caruncle inversely heart-shaped, ca. 0.7×0.4 mm, white, with tuft of short hairs on top of caruncle.

A. C. Gibson