

Vascular Plants of Williamson County

Euphorbia serpens – MATTED SANDMAT, CREEPING SPURGE [Euphorbiaceae]

Euphorbia serpens Kunth, MATTED SANDMAT, CREEPING SPURGE. Annual, taprooted, several-many-stemmed at base, mat-forming, branches diverging at 20–30° (to 90° in late summer and fall), prostrate, rooting at nodes, typically < 3 cm tall; monoecious; shoots strongly 2-dimensional (plagiotropic), glabrous, glaucous; latex, white, copious; adventitious roots where present mostly 1 or 2 per node. **Stems:** cylindrical, to 1.5 mm diameter, flexible, green becoming tannish or pinkish above, internodes 10–30(–35) mm long (1–10 mm on late-summer and fall growth), node swollen ca. 2× stem diameter. **Leaves:** opposite decussate, simple, short-petiolate, with stipules; stipules 2 (4 per node), attached to node and pairs fused across node, fused stipules broadly triangular, 0.5–1 × 1 mm, white-membranous, entire or jagged to fringed; petiole 0.4–1 mm long, curved to orient leaves horizontally, greenish aging pinkish; blade broadly ovate or heart-shaped to oblong or roundish, 1.3–7 × 1.1–5 mm, oblique and rounded to cordate at base, entire, obtuse to rounded or slightly notched at tip, typically 1-veined, gray-green but commonly reddish on margins. **Inflorescence:** cyathium (= involucre with staminate flowers and 1 pistillate flower), axillary, produced in leafy, cymelike arrays; peduncle 0.7–1.5 mm long, gradually expanded into base of involucre; cyathium 0.7–0.9 mm wide (including spreading glands and appendages); **involucre** narrowly inversely conic, ± 1 × 0.6 mm, green, white to light pinkish on margins and below glands, externally glabrous, internally hairy below glands, with 5 bracts and 4 glands, the bracts of involucre fused most of length, fringed, acute to acuminate or 3-toothed at free tips with white margins, the glands alternate with bracts (1 absent), nectar-producing, raised, transversely elliptic to oblong, 0.1 × 0.2–0.4 mm, fleshy, reddish to burgundy, depressed in center, appendaged below gland, the appendage petal-like, > gland, white, scalloped on outer margin; staminate flowers 5–7(–10) in 5 clusters of 1(–2), each with pedicel-like stalk, each cluster associated with a bractlet; bractlet lanceolate to oblanceolate, 0.5–0.7 mm long, white, fringed, pedicel at anthesis ± 1 mm long; pistillate flower on a pedicel-like stalk (gynophore), at anthesis gynophore short and erect, with only styles exposed, soon after gynophore elongating and becoming recurved with maturing ovary exerted, with 3 whitish, acute lobes at base of ovary. **Staminate flower:** reduced to 1 stamen; filaments ± 0.2 mm long; anther conspicuously dithecal, each sac spheroid, < 0.3 mm long, pale yellow to yellow-green and reddish burgundy on margins of slit, becoming rose-tinged to reddish burgundy on faces, longitudinally dehiscent; pollen golden yellow to pale yellow. **Pistillate flower:** reduced to 1 pistil; ovary superior, 3-lobed broadly ovoid, ± 0.5 mm long, light green aging with pink to reddish edges, glabrous, 3-chambered, each chamber with 1 ovule; styles 3, 0.3–0.4 mm long, 2-branched at midpoint, the branches cylindrical, fleshy, light green below and pink or reddish at tip; stigmas minute. **Fruit:** capsule, 3-seeded, 3-lobed and broadly triangular-ovoid, 1.5–1.7 × 1.7–1.9 mm, glabrous, elastically dehiscent along septa and chambers into 6 dry valves (some valve-pairs) remaining attached at base) and expelling seeds. **Seed:** quadrangular-oblong, 1–1.2 × 0.6–0.8 mm, orangey brown beneath frosty-white, very finely netted epidermis, grooved on obtuse ridge, acute on dorsal ridge, rounded on lateral angles, oily when poked.

A. C. Gibson & B. A. Prigge