

## Vascular Plants of Williamson County

*Zannichellia palustris* – COMMON POOLMAT, GRASS-WRACK [Zannichelliaceae]

*Zannichellia palustris* L., COMMON POOLMAT, GRASS-WRACK. Submersed aquatic annual, fibrous-rooted in muck, branched from creeping, rooted main axis, typically several-branched, to 50 cm long; monoecious; shoots wispy and flexible, appearing tufted with a cluster of fine cauline leaves, glabrous; adventitious roots nodal, 1 or 2 per node. **Stems:** cylindrical, < 1 mm diameter, translucent-white and microscopically striped. **Leaves:** alternate to opposite or pseudowhorled (= alternate), simple with a sheath (ligule); sheath membranous, 3–7 mm long, not persistent; blade threadlike, in range 15–50 × 0.2–0.3 mm, in x-section compressed-oval, often whitish at base, entire, narrowly acute with short point at tip, midvein faint to inconspicuous, with an air chamber on each side of midvein from base to near tip. **Inflorescence:** axillary cyme having 1 sessile, staminate flower at base (= 1 stamen) and 1 stalked pistillate flower at tip (appearing like several stalked pistils), bracteate, glabrous; bract at base of pedicel either 1 and sheathing (perfoliate) or 2 and distinct, greenish and thin, perfoliate bract (= sheath) cup-shaped to funnel-shaped, 0.7–0.8 mm long, 1–1.4 mm diameter, distinct bracts unequal, deltate-ovate and 0.75 × 0.75 mm (small bract) and depressed-ovate and 0.7 × 1.2 mm (larger bract); pedicel 0.2–0.4 mm long. **Staminate flower:** **perianth** absent; **stamen** 1, free; filament ca. 1.8 mm long; anther basifixed, dithecal, oblong, 1–1.5 × 0.5 mm, whitish, terminated by a conic, green connective, longitudinally dehiscent; pollen spheric, whitish; **pistil** absent. **Pistillate flower:** of (4–)5–7 pistils, sessile to short-stalked (stipe, gynophore), stipe at anthesis < 0.2 mm long, expanding into ovary base; **perianth** absent; **stamens** absent; **pistils** ovaries superior, ± ellipsoid but somewhat flattened on upper (adaxial) side; ovary ± ellipsoid (but ± flattened adaxially), 0.7–1.2 × 0.35–0.5 mm, green except for stigma, each ovary 1-chambered with 1 ovule attached at top; style 0.4–0.7 mm long, green; stigma asymmetrically umbrella-shaped (peltate), deltate to ± rhombic or funnel-shaped, 0.9 × 0.8 mm, whitish to light tan. **Fruits:** drupelets, to 7, indehiscent, each drupelet on stalk < 1 mm long (podogyne); drupelet slender D-shaped narrowly compressed side-to-side and slightly incurved with beak, 1.7–2.8 mm long, golden brown with colorless outer wall, smooth aging slightly dentate or ridged on out-facing, convex edge, eventually appearing minutely spiny; beak tapered, 0.8–1.5 mm long. **Seed:** sausage-shaped and slightly curved, 1.6–2 mm long, yellowish white, smooth.

A. C. Gibson & B. A. Prigge