

Vascular Plants of Williamson County

Acmella oppositifolia var. *repens* – CREEPING SPOTFLOWER [Asteraceae]

Acmella oppositifolia (Lam.) R. K. Jansen var. *repens* (Walter) R. K. Jansen, CREEPING SPOTFLOWER. Aquatic perennial herb, clonal, rhizomatous, fibrous-rooted, not rosetted, having an emergent axillary shoot arising from a submersed axis, at the top of the canopy commonly forming a pair of unequal shoots at base of peduncle, upright shoots in range to 35 cm long; shoots with only paired cauline leaves, appearing glabrous on mature surfaces; rhizomes = rooting horizontal axes where leaves have abscised; adventitious roots 1–several arising from horizontal axes touching substrate or submersed. **Stems:** cylindric, to 3 mm diameter, tough, internodes to 80 mm long, initially with some fragile hairs aging without hairs. **Leaves:** opposite decussate, simple, petiolate and fused across stem forming ledges, without stipules; petiole crescent-shaped, technically to 5 mm long but indistinct from the narrowly tapered (winglike) base of blade, off-white and greenish, rounded on lower side, with several hairs on edges; blade ovate, in range 20–60 × 12–22 mm (elsewhere larger), appearing broadly tapered at base but with narrow taper, in range entire to scarcely serrate on margins also with minute teeth on the low teeth, broadly acute to obtuse at tip, pinnately veined with 3 principal veins slightly sunken on upper surface and raised on lower surface. **Inflorescence:** head, terminal on long peduncle, sometimes appearing like a cymelike array with 2–3 heads but usually each lateral head terminal on a shoot with a pair of leaves, heads in range ca. 15 mm across, radiate, having pistillate ray flowers (commonly 8 or 13) and an elevated dome or column of 150+ bisexual disc flowers, the receptacle elongating to bullet-shaped, the disc 4+ × 6–7 mm, bracteate; peduncle slender and slightly ridged, to 110 mm long, initially with upward-arching short hairs, hollow; involucre broadly funnel-shaped, 4–6 mm across, of 10+ phyllaries typically in 2(3), appressed, acute-ovate and flat, 3.5–4 × 1.4–1.6 mm, green or with purplish tips, phyllaries subtending ray flowers and > outer disc flowers, thickish to midpoint, short-ciliate on margins, midvein often inconspicuous and with several weak hairs; receptacle with bractlets subtending disc flowers (paleae), visible in bud as the cupped, yellow, uppermost portion overtopping the bud, bractlet folded and bracketing ovary and lower corolla, keeled-narrowly obovate, 2–3.5 × 1–1.2 mm, colorless at base changing to yellowish above midpoint and yellow approaching tip, having papillate hairs along keel above midpoint. **Ray flower:** bilateral, 2 mm across (corolla limb); **calyx (pappus)** absent (not observed in range); **corolla** 6 mm long; tube 3-angled, enlarged around nectary disc at base, ca. 0.8 mm long, yellowish, pubescent; limb unevenly 2–3-toothed, widely spreading, oval, in range ca. 5 × 2 mm, bright yellow, with 2 raised principal veins on lower surface, teeth to 0.3 mm long; **stamens** absent; **pistil** 1; ovary inferior, 3-sided with compressed front-to-back with flat outer face next to phyllary, short-ciliate on edges and having short hairs on faces, 1-chambered with 1 ovule; **nectary disc** surrounding base of still, ca. 0.1 mm long, colorless; style exerted from below midpoint, 2-branched, 1.5–2 mm long, colorless at bulbous base and exerted branches yellow to yellow-orange, stigmatic at tips. **Disc flower:** radial, 1 mm across; **calyx (pappus)** absent; **corolla** 5-lobed; tube ± 0.8 mm long, enlarged around nectary disc at base, cylindric about, colorless, lacking hairs; throat bell-shaped, ca. 1 × 0.6 mm, colorless, lacking hairs; lobes ± deltate, 0.5 mm, yellow, with domed cells on upper surface, aging recurved; **stamens** 5; filaments 1–1.5 mm long, colorless; anthers basifixed, dithecal, exerted to midpoint, ca. 1 mm long

with short, infolded appendages, light yellow-orange, longitudinally dehiscent; pollen light orange; **pistil** 1; ovaries inferior, ovoid compressed side-to-side, ca. 1×0.5 mm, white, short-ciliate on edges and having short hairs on faces, 1-chambered with 1 ovule; **nectary disc** surrounding base of still, ca. 0.1 mm long, colorless; style exerted after anthers exerted, 2-branched, colorless at bulbous base and exerted branches yellow to yellow-orange, stigmatic at tips. **Fruits:** cypselae (achenes), in range pappus awns not observed, of disc flower dispersed falling with bractlet (palea) and papery corolla; cypselae inversely obovate slightly compressed front-to-back (disc flower) and 3-sided wedge-shaped (ray flower), in range $1.2\text{--}1.6 \times 0.5\text{--}0.7$ mm, black, having an opposite pair of minutely ciliate edges, faces with some minute, fragile hairs, flat-back (ray flower) with horizontal texture.

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