

Senecio quadridentatus Labill., COTTON FIREWEED. Perennial herb, taprooted with some purplish lateral roots, somewhat rosetted, 1-stemmed at base, branched in flowering canopy, erect, in range 45–100 cm tall; shoots with basal leaves and cauline leaves, densely white-woolly or cobwebby. **Stem:** ridged, to 5 mm diameter, with 3 ridges descending from each leaf, the ridges sometimes concealed by parallel long hairs appressed to axis. **Leaves:** helically alternate, simple, sessile, without stipules; blade linear, 80–240 × 3–8 mm, the widest well above midblade, stiffly folded upward from midrib in basal portion above flared base, the uppermost cauline leaves sometimes lobed at base (auriculate), the lobes spreading, 0.5–4 mm long, minutely toothed on margins except in basal portion, when water-stressed inrolled under (revolute) above midpoint (appearing entire and narrower), acute with short point at tip, midrib deeply sunken on upper surface and conspicuously raised on lower surface, upper surface woolly to sparsely woolly, lower surface densely woolly. **Inflorescence:** heads, in terminal, cymelike arrays, array 50–150 × 25–100 mm, with several ascending lateral branches (increasing with age) and clusters of several heads on each branchlet, head disciform, 3 mm across, < 50-flowered with 21–36 pistillate peripheral flowers having slender corollas and 7–13 bisexual central disc flowers, bracteate, with fine hairs; bract subtending branch leaflike, spreading, to 90 mm long, lobed at base (auriculate), the lobes spreading, 0.5–4 mm long; axes conspicuously ridged with cobwebby hairs in furrows; bracts subtending branchlets gradually decreasing upward; bract subtending peduncle awl-shaped, 2–3.5 mm long, dark purple at tip; peduncle low-ridged, to 3 mm long, surrounding involucre 5–8 bracts (calyculus) having dark purple (blackish) tips, calyculus bracts appressed, narrowly triangular, 1–2 mm long, sometimes forked at tip, sparsely cobwebby; **involucre** cylindrical urn-shaped, 1.9–2.5 mm wide, phyllaries 13, linear, 6–7.5 × 0.4–0.6 mm, green and striped often with purple at tip, exhibiting a slight spiral, acute and short-hairy at tip, 1-veined, sparsely pubescent or cobwebby; receptacle ± flat, without bractlets (paleae), having low-convex bumps between flowers, hollow below receptacle. **Peripheral flower:** pistillate, radial, < 0.8 mm across (= spreading styles); **calyx (pappus)** of ca. 40 capillary bristles, the longest 5–5.7 mm long, white, of unequal thickness; **corolla** 3–4-lobed, 5.8–6.3 mm long; tube-throat cylindrical, the widest 0.15 mm diameter near base, yellowish at base then mostly colorless becoming yellow approaching lobes; lobes ascending, ovate, ca. 0.2 × 0.1 mm, yellow; **stamens** absent; **pistil** 1; ovary inferior, fusiform, ± 0.8 mm long, with greenish ribs having minute, colorless projections, 1-chambered with 1 ovule; style exerted at least 1 mm, ca. 0.1 mm diameter, 2-branched, colorless but yellow on exposed portion, the branches spreading and curved, to 0.8 mm long, truncate at tip, stigmatic and minutely grooved on inner face. **Central (disc) flower:** bisexual, radial, ± 0.4 mm diameter (= corolla); **calyx (pappus)** of ca. 40 capillary bristles, the longest 5–5.7 mm long, white, of unequal thickness; **corolla** 4-lobed, 6–6.8 mm long; tube cylindrical, 0.3 mm diameter, white; throat narrowly funnel-shaped, ca. 2 mm long, colorless changing to yellow; lobes erect to suberect, deltate, ca. 0.3 × 0.2 mm, yellow; **stamens** 4, fused to corolla at top of tube; filaments ca. 2 mm long, white; anthers fused into cylinder surrounding style, basifixed, dithecal, ± 1 mm long, bright yellow, triangular at tip, longitudinally dehiscent; pollen bright yellow; **pistil** 1; ovary inferior, fusiform-oblong to narrowly oblanceoloid and ± 0.8 mm long, pale green, faintly 8-ribbed, ribs having minute, colorless projections, 1-chambered with 1 ovule; style barely exerted, colorless at base changing to yellow in

throat, 2-branched at tip, the branches ascending, ca. 0.8 mm long. **Fruits:** cypselae, fusiform, ca. 2.5×0.3 mm, reddish brown to dark brown, 8-ribbed and ca 30 whitish translucent projections along each rib; pappus ca. 6 mm long, white. Early April–mid-May.

Naturalized. Perennial herb first observed in range in 2005, growing along a fire road to the coast from Trippet Ranch (SMM). *Senecio quadricostatus* is native to Australia and has been recognized as belonging to the segregate genus *Erechtites*, but like *S. vulgaris* it has purple-tipped calyculus bracts and a similar involucre. Our population is densely white-woolly and has slender, linear leaves, with only the uppermost cauline leaves and lower bracts having tiny basal lobes.

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