

Senecio L. GROUNDSEL, RAGWORT

Senecio flaccidus Less. var. *douglasii* (DC.) B. L. Turner & T. M. Barkley, SHRUBBY BUTTERWEED, DOUGLAS' RAGWORT, DOUGLAS' THREADLEAF RAGWORT, BUSH SENECIO. Shrub or subshrub, leafless when dormant, taprooted, with ascending to arching or erect shoots, in range 50–150 cm tall; shoots when young grayish woolly-tomentose, pleasantly aromatic when crushed with a parsleylike fragrance (*Petroselinum*; = chemicals in resin ducts). **Stems:** ridged but ridges hidden by hairs produced in furrows, with 3 ridges descending from each leaf, sometimes becoming rose-striped or purple-striped after shedding hairs. **Leaves:** helically alternate, commonly deeply pinnately dissected with 1–3 pairs of lateral lobes, \pm sessile but not clasping, without stipules (sometimes basal lobes resembling stipules); blade linear and threadlike or with cylindric-linear lobes diverging from central axis, central axis 20–80 \times 1–3 mm, $> 3\times$ the longest lateral lobe, somewhat fleshy, flexible, lateral lobes often near leaf base, < 1 mm wide, entire and inrolled under (revolute) on margins, midrib = conspicuous groove on both surfaces, gray-tomentose to glabrescent. **Inflorescence:** heads, in terminal, flat-topped, cymelike arrays of several heads, head radiate, 25–40 mm across, with 7–13(–21) ray flowers and 40–63 disc flowers, bracteate, pubescent to nearly glabrous; bract subtending peduncle leaflike, lanceolate-linear to linear or awl-shaped (short ones), 4.5–15 \times 0.4–1.4 mm; peduncle 10–67 mm long, pubescent to nearly glabrous, with 1–7 widely spaced bracts along axis (bract for future peduncle), the bracts ascending, linear, 3.3–7 mm long; bracts subtending involucre 9–12(–15) (= calyculus), helically alternate, arching and spreading to ascending, linear awl-shaped, 4–7.8 mm long, tomentose on basal margins; **involucre** \pm bell-shaped becoming urn-shaped, 9–13.5 \times 6–7 mm, phyllaries (13–)17–21 in 1–2 series, subequal, linear to linear-lanceolate, (7–)8–10 mm long, outer phyllaries $<$ inner phyllaries and longer and wider in fruit, light green, ridged, reddish and papillate at tip, glabrous; receptacle flat, 2.5–4.5 mm tall, without bractlets (paleae), glabrous. **Ray flower:** pistillate, bilateral, ca. 5 mm across; **calyx (pappus)** of > 100 capillary bristles, bristles 3.5–7.4 mm long increasing in fruit, silky white; **corolla** minutely 3-toothed, 18–27 mm long; tube 5.3–8.4 mm long, light greenish yellow; limb narrowly elliptic, (10–)11.7–18(–20) \times 3.7–5 mm, bright yellow, 4–6-veined, veins yellowish aging reddish brown; **stamens** absent; **pistil** 1; ovary inferior, \pm cylindric, ± 2 mm long, light green, pubescent, 1-chambered with 1 ovule; style exserted, 7.5–10 mm long, whitish at base to yellowish and orangey yellow at tip, 2-branched, whitish at base to yellow above, the branches recurved, tapered, ca. 2 mm long, glabrous, grooved on exposed face. **Disc flower:** bisexual, radial, 1.5–2.7 mm wide; **calyx (pappus)** of > 100 capillary bristles, bristles 3.5–7.4 mm long increasing in fruit, silky white; **corolla** 5-lobed, cylindric, 8.2–10 mm long, with nectar in tube and lower throat, bright to vivid yellow; tube 3.7–5.2 mm long; throat narrowly bell-shaped, 3.5–5 mm long; lobes deltate, 0.5–1 \times 0.7–1 mm; **stamens** 5, fused to top of corolla tube; filaments 1.8–2.8 mm long, whitish; anthers fused into cylinder surrounding style, exserted to midpoint, basifixed, dithecal, 2.6–3.5 mm long, yellow, cordate at base, narrowly acute at sterile tip, yellow, longitudinally dehiscent; pollen orange yellow; **pistil** 1; ovary inferior, \pm cylindric and slightly tapered at base, 1.5–2.3 mm long, light greenish, densely pubescent; style exserted, 9–12 mm long, light whitish at base to yellow above, nectar-producing at base, 2-branched, the branches 1.5–1.8 mm long, broadly conic and

papillate at tip. **Fruits:** cypselae, monomorphic, straight to slightly curved and \pm cylindric, $4.2\text{--}5.7 \times 0.4\text{--}0.9$ mm, orangey tan or red-brown, obtuse at base, truncate and slightly flared at tip, 10-ribbed, densely white short-strigose; pappus of ca. 110 silky white capillary bristles, 7–10 mm long, (shortly barbed at 40 \times). Late May–late November.

Native. Shrub occurring mostly along runoff channels in chaparral and coastal sage scrub. *Senecio flaccidus* var. *douglasii* has pinnately dissected leaves with threadlike lobes, hence one of the common names. Its ray flowers are showy and bright yellow, and the disc flowers provide a nectar reward for pollinators.

B. A. Prigge & A. C. Gibson