

Leptosyne bigelovii (A. Gray) A. Gray, BIGELOW COREOPSIS, BIGELOW'S TICKSEED.

Annual, taprooted, ± rosetted, to 6-branched with each branch terminating in an inflorescence, in range 15–60 cm tall; shoots with basal leaves and cauline leaves, puberulent and sparsely and inconspicuously glandular-hairy, soon becoming glabrescent, not aromatic. **Stems:** cylindrical, to 4 mm diameter, green aging purplish red; hollow. **Leaves:** helically alternate and occasionally opposite in upper canopy, (1–)2-pinnately lobed having to 7 lobes to unlobed (upper cauline leaves), petiolate, without stipules; petiole channeled, 12–50 mm, 1–2 mm wide most of length but wider at base, when young in channel pubescent with beadlike cells (± moniliform) and glandular-hairy on sides; blade broadly ovate to spade-shaped or widely rhombic in outline, 25–55 × 20–55 mm, blade < petiole, primary lobes spreading, opposite or alternate, linear, 5–40 mm long, ± equal if opposite, axis weakly channeled approaching lobes and slightly narrower than petiole, commonly with a pair of secondary lobes, upper leaves unlobed or with 1 pair of lateral lobes, secondary lobes linear, 2–13 × 0.4–1 mm, tapering to a blunt tip, pinnately veined with principal vein of each lobe raised on lower surface, glabrous, when young sparsely glandular-hairy. **Inflorescence:** heads solitary or in terminal, cymelike arrays on long, scapelike peduncles, head radiate, 25–45 mm across, in range with 8–13 ray flowers and 50–75 disc flowers, bracteate, nearly glabrous; peduncle cylindrical, 70–300 mm long, becoming purplish red especially initially along veins, with 0–2 bracts, mostly glabrous but when young with some nonglandular and glandular hairs next to head, the peduncle bracts linear, 5–25 × 0.1–1.5 mm; bracts subtending involucre in range 4–6, appearing whorled (calculus), somewhat appressed to or slightly spreading from involucre, linear-lanceolate, 5–12 × 1.3–2 mm, ± knobbed at base, green, tapered to a rounded or acute tip; **involucre** deeply bell-shaped, 10–15 mm wide, phyllaries 6–9 in 1–2 series, erect with spreading tips, ovate to obovate, in range 5–9 × 1.5–4.5 mm, greenish and herbaceous in lower 2/3 becoming orange-yellow and thinner approaching tip, acute and minutely jagged-ciliate at tip, outer phyllaries 16–20-veined, glabrous except at tip; receptacle convex, with bractlets (paleae), palea erect, weakly fused to ovary of disc flower, narrowly lanceolate, 4–5 × 1–1.3 mm increasing to 7.5 mm in fruit, acute at tip, parallel-veined, membranous and yellow-orange at tip. **Ray flower:** pistillate, bilateral, 4–10 mm across; **calyx (pappus)** absent or 2 short, colorless teeth; **corolla** 4–5-lobed; tube compressed front-to-back, 1.8–2.2 mm long, yellow but becoming greenish yellow at base, with colorless, club-shaped hairs on lateral edges below limb; limb elliptic to obovate, in range 10–17 × 5.4–10 mm, lemon yellow, with 14–17 parallel veins; **stamens** absent; **pistil** 1; ovary inferior, obovoid flattened front-to-back, 1.7–2.1 × 1.2–1.5 mm, whitish to pale green and greenish tinged at base and tip, truncate at base and top, sometimes with 2 short teeth at top (= vestigial pappus), glabrous, 1-chambered with 1 ovule; style 2–2.6 mm long, 2-branched, the branches barely exerted and recurved, tapered to tip, minutely papillate and stigmatic on inner face. **Disc flower:** bisexual, radial, 2–2.5 mm across; **calyx (pappus)** of 2 erect, narrowly lanceolate scales, 1.8–2.2 mm long, colorless, keeled, densely short-ciliate on margins and keel; **corolla** 5-lobed, funnel-shaped; tube cylindrical, 1.7–2.7 × 0.4–0.5 mm, light green to light greenish yellow, with a ring of colorless glandular hairs at junction of tube and throat; throat expanding upward, 1.5–1.8 × 1.2–1.3 mm, golden yellow; lobes spreading, triangular to deltate, 0.8–1.2 × 0.8–0.9 mm long, golden yellow to orange-yellow, ± papillate on thickened margins; **stamens** 5, fused to

corolla at base of throat, slightly exerted at anthesis; filaments ca. 0.8 mm long, yellowish; anthers fused into cylinder surrounding style, basifixed, dithecal, 1.7–2 mm long, golden yellow, rounded at base, with a triangular appendage at tip, longitudinally dehiscent; pollen golden yellow; **pistil** 1; ovary inferior, linear to oblong, 1.7–3.3 mm long, slightly flattened front-to-back, whitish, short-ciliate on edges, 1-chambered with 1 ovule; style 3.5–5.5 mm long, 2-branched, the branches exerted, initially \pm appressed later recurved, ca. < 1 mm long, golden yellow but with reddish dots below stigma; stigmas \pm conic with tail-like tip and papillate-hairy at tip. **Fruits:** cypselae, some with awned pappus, dimorphic; cypselae of ray flower slightly obovoid compressed front-to-back, 4.7–5 \times 2.7–3 mm, frosted brown, winged, ridged on inner, concave face; cypselae of disc flower 2-awned, fused with base of palea and falling together, oblanceoloid to narrowly oblanceoloid (the narrowest at center of the head), 4.5–6(–7) \times 1.3–1.7 mm, dark brown, with long ascending, whitish ciliate hairs on margins; pappus \pm lanceoloid, 1.8–2 mm long, white, 3-winged, with ascending ciliate hairs on wings. Late February–early June.

Native. Annual occasionally observed during springtime on grassy slopes and openings mostly in chaparral at interior sites. *Leptosyne bigelovii*, more commonly known as *Coreopsis bigelovii*, occurs in isolated, local patches, hardly seen during some years and then appearing in dense local stands in other years, e.g., 2010, with hundreds to thousands of individuals forming the distinctive, golden yellow heads.

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