

Madia exigua (Smith) A. Gray, THREADSTEM TARWEED. Annual, taprooted, 1–many-stemmed at base, with branches ascending from almost every node along main axis, erect, in range 5–30 cm tall; shoots glandular-hairy and sparsely pilose to hirsute, the glandular hairs short-stalked, not glutinous, strongly aromatic. **Stems:** cylindric, to 2.5 mm diameter, weakly veined from decurrent leaf bases, with glandular hairs and scattered, long nonglandular hairs. **Leaves:** opposite decussate below, helically alternate above, simple, sessile, without stipules; blade \pm linear, 10–25(–40) \times 0.7–2 mm, entire, acute at tip, with only midrib conspicuous, pilose to hirsute, with scattered glandular hairs. **Inflorescence:** heads, in terminal and axillary, open, paniclelike arrays, head radiate, 4–5 mm across, in range with 5–8 ray flowers and 1(–2) disc flower, bracteate, glandular-pubescent; bracts typically 2 on basal 1/3 of peduncle, ascending, leaflike, \pm sessile, lanceolate to narrowly elliptic, 2.5–4 \times 0.5–1 mm, conspicuously ciliate on margins, with scattered glandular and nonglandular hairs; peduncle suberect to ascending, wiry, slender, 15–47 \times 0.2–0.4 mm; **involucre** broadly top-shaped, 2.5–3.5(–5) mm wide, phyllaries 5–8 in 1 series, each phyllary enveloping a ray flower and abscising with fruit, phyllaries equal, arching and free, claw-shaped, at anthesis \pm 2 mm long, green, having conspicuous, stalked glandular hairs with golden yellow heads, ciliate on free margin; receptacle narrow, flat, with bractlets (paleae), paleae fused to midpoint forming a tube around central disc flower, the tube fusiform, at anthesis 1.5–2.3 mm long, 5-ridged (= 5 fused paleae), densely pubescent at tip, with scattered glandular hairs and hispid multicellular hairs along ribs. **Ray flower:** pistillate, width hidden by phyllary, not showy; **calyx (pappus)** absent; **corolla** 2-lobed or 3-lobed, 1.1–1.8 mm long; tube to midpoint of corolla, pale yellow becoming orange-brown; limb spreading, lobes rounded, bright yellow; **pistil** 1; ovary inferior, asymmetrically obovoid and flattened on sides, opaque gray, glabrous, 1-chambered with 1 ovule; style exerted, \pm 1.5 mm long, greenish yellow aging dark red to reddish brown, 2-branched, the branches spreading, 0.3–0.4 mm long, flattish, thickened on margins, acute at tip, appearing stigmatic on margins. **Disc flower:** bisexual, radial, in range \pm 0.6 mm across, barely visible above hairs of palea tube; **calyx (pappus)** absent (several short bristles); **corolla** 4-lobed, cylindric, \pm 0.8 mm long, yellow; **stamens** 4, fused to base of corolla throat, slightly exerted; filaments to 0.4 mm long; anthers fused into cylinder surrounding style, basifixed, dithecal, \pm 0.5 mm long, yellowish turning pink, longitudinally dehiscent; pollen yellow; **pistil** 1; ovary inferior, obovoid and flattened on sides, opaque gray, glabrous, 1-chambered with 1 ovule; style exerted, \pm 1.5 mm long, greenish yellow aging dark red to reddish brown, 2-branched, the branches 0.3–0.4 mm long, spreading, flattish, thickened on margins, acute at tip, appearing stigmatic on margins. **Fruits:** cypselae, somewhat dimorphic, in range 1.5–2.2 mm long, compressed side-to-side, \pm dull black, glabrous, longitudinally shallow-grooved, transversely minutely wrinkled; cypselae of ray flowers abscising with and tightly enveloped by phyllary, claw-shaped with short, knoblike beak, convex on outer edge, concave on inner edge, pappus absent; cypselae of disc flower falling with and surrounded by a ring of paleae, asymmetrically obovoid, straight on one edge, convex on other edge, \pm lacking beak, pappus absent (several minute bristles). Early May–late June.

Native. A seldom seen, late spring annual generally restricted to open slope faces on Sespe Formation sandstone. The entire plant is covered with short-stalked glandular hairs,

elsewhere termed tack-shaped glands. Flower heads of this species are not showy, and like other tarweeds, each fruit of a ray flower is enclosed within a phyllary, which falls with the fruit. This species has a central fruit that is wedged within the fused paleae.

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