Logfia filaginoides (Hooker & Arnott) Morefield, CALIFORNIA COTTONROSE, FLUFFWEED, FILAGO. Annual, taprooted, 1-stemmed at base, with ascending branches, erect, in range 6-48 cm tall; shoots leafy throughout, thinly sericeous-spiderweblike (arachnoid) to densely woolly. Stems: cylindric, 0.6–3 mm diameter at base, internodes 1–30 mm. **Leaves:** helically alternate (opposite at the basal 1–2 nodes), sessile, without stipules; blade linear to oblanceolate, $2.5-20 \times 0.5-4$ mm, clasping at base (slightly decurrent on stem), entire, broadly acute to acute with short point at tip (mucronate or apiculate), only midrib visible, thinly tomentose or arachnoid-sericeous. Inflorescence: heads, terminal, solitary or in racemelike or paniclelike arrays with condensed clusters of 2-7+ heads, head disciform, ovoid to pear-shaped, $2.6-4.5 \times 2-3.5$ mm, in range with 5-6 outer pistillate flowers lacking pappus (epappose), 12-24 pistillate flowers with pappus (pappose), and 2–6 central bisexual flowers with pappus, sessile or on short peduncle, subtended by bracts (capitular leaves), woolly; capitular leaves like cauline leaves, $0.75-2 \times$ height of head; involucre absent or consisting of < 6 phyllaries in 1 series, phyllaries unequal, ovate to lanceolate, 1-3 mm long, flat or slightly folded lengthwise, with membranous margins and tip, woolly; receptacle convex, having bractlets (paleae) in 2 sets, papillate between flowers; paleae of outer series (subtending and enveloping epappose pistillate flowers) ovate, 2.1–0.6 mm long, folded lengthwise forming a semi-ovate, curved sack enveloping each flower, firm but with membranous margins and tip, densely woolly on outer surface except glabrous on membranous tissue; receptacle with bractlets (paleae), paleae of inner series 5 in 1 whorl, opposite outer paleae and subtending the outermost pappose pistillate flowers, lanceolate, $2.8-4.2 \times 1-1.5$ mm, flat, keeled, green but translucent-membranous on margins and tip, becoming purplish red above green portion, outer surface thinly tomentose to glabrous, inner surface glabrous. **Pistillate flower** (epappose): radial, 0.2 mm across; calyx (pappus) absent; corolla minutely 4-toothed, tubular, ca. 1.5×0.1 mm, mostly whitish but tinged purplish red at top, each tooth with 1–2 stalked glands; stamens absent; **pistil** 1, \pm 2.5 mm long; ovary inferior, oblanceoloid and sometimes curved, ca. 0.6 \times 0.2 mm, whitish, 1-chambered with 1 ovule; style exserted, ca. 2 mm long, 2-branched, the branches ca. 0.2 mm long, stigmatic. **Pistillate flower** (pappose): radial, ca. 0.3 mm across; calyx (pappus) of 17–24 erect, capillary, hairlike bristles in 1 whorl, somewhat fused at base, white; **corolla** minutely 4-toothed, tubular, $1.5-2.6 \times 0.1$ mm, whitish but sometimes tinged purplish red at top, each tooth with 1–2 stalked glands; stamens absent; **pistil** 1; ovary inferior, compressed-ellipsoid, ca. 0.6×0.3 mm, 1-chambered with 1 ovule; style 1.7–2.8 mm long, 2-branched, the branches equal and ca. 0.2 mm long or unequal and 0.2 mm and 0.1 mm long. Bisexual flower: radial; calyx (pappus) of 17–24 erect, capillary, hairlike bristles in 1 whorl, somewhat fused at base, white; corolla 4(-5)-lobed, tubular, $2.1-2.5 \times 0.15-0.2$ mm; lobes ovate, ca. 0.15 mm long, purplish red; stamens 4(-5), fused to corolla tube ca. 0.5 mm above base; filaments white; anthers fused into cylinder surrounding style, basifixed, dorsifixed, 0.4–0.5 mm long, light vellow, with tails and sterile appendage at tip, longitudinally dehiscent; pollen light yellow to amber yellow; **pistil** 1, ca. 2.2 mm long; ovary inferior, compressed-ellipsoid, ca. 0.6×0.3 mm, 1chambered with 1 ovule; style included, $1.5-2 \text{ mm} \log 2$ -branched, the branches < 0.2mm long, stigmatic. **Fruits:** cypselae, dimorphic, with or without pappus; cypselae of epappose flowers oblanceoloid, $2-2.1 \times 0.7$ mm, yellowish brown, smooth; cypselae of

pappose flowers lanceoloid, $0.65-0.7 \times 0.3$ mm, yellowish brown, papillate; pappus of 17–24 minutely barbed capillary bristles, barely fused at base and falling in groups of bristles or as a complete ring, arching outward, 2.1–2.5 mm long, white but barbs translucent reddish.

Native. Annual common during wet spring in bare patches of chaparral and coastal sage scrub. *Logfia filaginoides* formerly was treated as *Filago californica*, and in range is the most common of these tiny, woolly annuals of Tribe Gnaphalieae. This species is recognized by observing that the outer fruits lack pappus and are enclosed in paleae. B. A. Prigge & A. C. Gibson