

Tetradymia DC. COTTON THORN, HORSEBRUSH

Tetradymia comosa L., HAIRY HORSEBRUSH. Shrub, evergreen, erect, in range 70–140 cm tall; shoots with \pm rigid leaves, lacking axillary clusters of young leaves, with dense, white, feltlike hair. **Stems:** cylindric, green and photosynthetic beneath dense cottony hairs, leaf bases persistent as bumps on stems after leaves abscise. **Leaves:** helically alternate, simple, sessile or with weakly defined petioles, without stipules; blade reduced to thin margins along midrib, linear, $20\text{--}60 \times 1\text{--}2.5$ mm, entire, pointed but not sharp at tip, becoming stiff to rigid but not hard along axis, the narrow margins folded upward (blade V-shaped in \times -section). **Inflorescence:** heads, in terminal cymelike arrays of 3–11 heads, often having several short cymes clustered with ca. 30 heads, heads discoid, 4–7 mm across, in range with (5–)6 disc flowers, bracteate, hairy like white cotton; bract subtending peduncle leaflike, 3–8 mm long; peduncle 0–5(–8) mm long, with leaflike bracts sometimes along peduncle and 1 or 2 bracts subtending head; **involucre** barrel-shaped, in range $6\text{--}8.5 \times 4\text{--}7$ mm, phyllaries 5–6 in 1 series, elliptic to oblong or oblanceolate, $5.5\text{--}6.5 \times 2.4\text{--}3.5$ mm, acute to truncate or roundish at tip, stiff, with upper (inner) surface concave and glabrous and lower (outer) surface convex and ridged with feltlike hair; receptacle lacking bractlets (paleae). **Disc flower:** bisexual, radial, in range 5–6 mm across, 10.5–12 mm long, often bent outward; **calyx (pappus)** absent; **corolla** conspicuous 5-lobed, spreading to somewhat reflexed, vivid yellow; tube narrowly cylindric, 4–4.5 mm long, concealed by capillary hairs from ovary; throat funnel-shaped, 1.2–1.7 mm long, lighter yellow; lobes narrowly triangular, $2.8\text{--}3.2 \times 1.1\text{--}1.2$ mm; **stamens** 5, fused to base of corolla throat, exerted; filaments ± 1.5 mm long; anthers fused into cylinder surrounding style, basifixed, dithecal, ± 3 mm long (including sterile acuminate tip), orange-yellow (strong yellow) with a burgundy stripe on each anther, short arrow-shaped at base, longitudinally dehiscent; pollen orange-yellow; **pistil** 1; ovary inferior, totally concealed by hairs, the hairs ascending, unbranched, 6–8 mm long, silky white, resembling pappus bristles; **nectary** at base of style, ± 0.5 mm long, golden yellow; style 7–8 mm long, slightly swollen at base above nectary, 2-branched, the branches erect, ± 1.2 mm long, papillate at truncate tip, later spreading and exposed or arching outward through the split anther column. **Fruits:** cypselae, narrowly fusiform, ± 4 mm long, without pappus but covered by capillary, pappuslike hairs 6–8+ mm long. Mid-July–late August.

Native. A stiff-leaved shrub known from several chaparral localities from Palo Comado SMMNRA westward to the northern slope of Simi Peak, SH. The largest population on China Flats occurs in chaparral with *Adenostoma fasciculata*; after the massive SH fire in 2006, here *Tetradymia comosa* resprouted vigorously and flowered abundantly. This shrub is covered with dense, cottonlike hairs, and its bright yellow flowers, produced during summertime drought, is showy against the white shoots. Eggs oviposited in the heads at flowering time produce caterpillars that consume the ovaries, and to date no fertile fruits have been observed in range, so it does not appear that *T. comosa* currently has the potential to spread and establish where it would otherwise be successful.

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