

Baccharis sarothroides A. Gray × *B. pilularis* DC., HYBRID DESERTBROOM, BROOM

BACCHARIS. Shrub, with ascending to spreading branches having photosynthetic stems, in range 100–250 cm tall; dioecious; shoots with flexible, green young stems and small leaves or appearing somewhat leafless, glabrous and with glandular hairs sunken in pits so appearing gland-dotted (punctate), when young glossy from resinous exudate becoming scurfy as glandular hairs dry and resin becomes thinner, the resin fairly hard and scented ± like lacquer but not sticky, pleasantly aromatic. **Stems:** conspicuously 6-ridged, young green shoots ca. 1 mm diameter, with 3 ridges descending from each leaf and having lateral ridges more pronounced than central ridge, internodes 1–10 mm long; older stems angled with ridges becoming obscure, grayish brown. **Leaves:** helically alternate, simple, short-petiolate (large leaves) to sessile, without stipules; petiole < 0.5 mm long; blade oblanceolate to elliptic or oblong, 2.5–26 × 1–7.8 mm, broadly tapered at base, entire and acute at tip or in range with 1–5 teeth on margins with 0–3 per side, mostly 2-toothed above midblade and appearing 3-toothed at tip, 1-veined or weakly 3-veined at base with midrib slightly raised on upper surface and raised on lower surface. **Inflorescences:** unisexual heads, in terminal racemelike and cymelike clusters forming overall paniclelike arrays, array 150–300 × 50–150+ mm, ultimate branchlets with 1–11 heads at tip and (if clustered) the oldest sessile and terminal, head discoid, with ca. 22–33 staminate flowers or ± 26 pistillate flowers, bracteate, glabrous and glutinous with hardened resin; bract subtending lateral branch and branchlet leaflike, decreasing upward, entire or toothed on margins; axes ridged and stemlike; peduncle at anthesis to 10 mm long, conspicuously ridged, resinous, with 2–7+ bracts at tip with 2–3 short, narrow bracts appressed to involucre (staminate), bracts oblanceolate to tongue-like, 0.7–9 × 0.4–3.5 mm, mostly entire and rounded at tip but larger bracts toothed and leaflike; **involucre** urn-shaped, 2.7–3 mm long (staminate) and 4.2–4.5 mm long (pistillate), phyllaries 40–42 in 7–8 series, elliptic to oblanceolate and 1.2–3.5 mm long (staminate) or oblong to elliptic or obovate to narrowly oblanceolate and 1–3.7 mm long (pistillate), at anthesis tightly appressed later spreading, of pistillate head cupped (except the innermost phyllaries), rigid most of length and thicker at base, light green to light yellowish green but membranous on margins and becoming jagged approaching tip, with a resinous, darker green midvein above midpoint; receptacle flat to domed, ca. 0.75 mm across, without bractlets (paleae), deeply pitted, with a crownlike ridge surrounding each ovary, the ridges with fine hairs. **Staminate flower:** structurally bisexual, radial, 1.8–2.2 mm across; **calyx (pappus)** of ca. 20 capillary bristles in 1 whorl, ca. 3 mm long, < involucre, white, bent and densely barbed at tip; **corolla** 5-lobed, 4.5–5.2 mm long, white; tube cylindrical, 1.5–1.8 mm long, glabrous; throat narrowly funnel-shaped (not bell-shaped), 0.5–0.9 mm long, with scattered short hairs (± scurfy); lobes recurved to coiled, narrowly lanceolate, 1.1–1.3 × 0.25–0.3 mm; **stamens** 5, fused to corolla at base of throat; filaments 0.6–0.9 mm long; anthers fused into cylinder surrounding style, basifixed, dithecal, 1.2–1.3 mm long including sterile appendages at tip, whitish to pale yellow, rounded at base, appendages acuminate to narrowly triangular, ca. 0.2 mm long, longitudinally dehiscent; pollen bright yellow; **pistil** 1, ca. 3.8 mm long; ovary inferior, aborted, inversely conic or wedge-shaped, < 0.3 mm long; style exerted, ± 3.5 mm long, white, **nectary** swollen at base 0.3 mm, green, style with an ovoid, conspicuously papillate-hairy tip. **Pistillate flower:** structurally unisexual,

radial, 0.2–0.3 mm across; **calyx (pappus)** of 35–40 capillary bristles in 1 whorl, at anthesis 2.5–3.5 mm long (< pistil) increasing in fruit, white; **corolla** 5-lobed, ± narrowly cylindrical, 2.4–2.6 mm long increasing to 4 mm long in fruit, 0.25–0.3 mm diameter, light yellowish green at base tapered to paler tip, with ascending short hairs; lobes erect, unequal, < 0.2 mm long, yellowish orange to tannish; **stamens** absent; **pistil** 1, in range 3.5–4 mm long; ovary inferior, ± obovoid, ± 0.6 × 0.3 mm, at anthesis white, truncate at top, low-ribbed, glabrous, 1-chambered with 1 ovule; style exerted, 2.9–3.3 mm long, 2-branched, the branches tapered and sharply spreading, 0.2–0.3 mm long, whitish to pale green, narrowly rounded and becoming reddish purple at tip.

Waif. Shrub hybrid grown occasionally in southern California by homeowners interested in water-conserving plants for xeriscape, found established on a hiking trail escaped from nearby plantings (SH). The cultivar called 'Centennial' is an interspecific hybrid between the coastal *Baccharis pilularis* and *B. sarathroides* of desert washes, which has photosynthetic stems and inconspicuous leaves. The hybrid is intermediate between the parental species.

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