

Salvia columbariae Benth., CHIA. Annual, taprooted, rosetted, 1–several-stemmed at base, erect, 3–85 cm tall; shoots with ca. 4 basal leaves and tall plants with 1 or more pairs of cauline leaves, short-stemmed + long inflorescence, short-hairy and glandular-hairy, the glandular hairs with colorless, spheric heads, mildly aromatic. **Stems:** conspicuously 4-sided (2 flat, 2 concave), to 7 mm diameter, green, with a pair connected with curved ledges across node, short-strigose with downward-pointing hairs. **Leaves:** opposite decussate, 1–2-pinnately dissected or sometimes 1-pinnately compound (basal leaves), 25–110 mm long, petiolate, without stipules; petiole short–50 mm long, flat to concave on upper side, often reddish to purple, puberulent; blade ovate to oblong in outline, 15–60 × 8–35 mm, with ovate to oblong leaflets or principal lobes, crenate on margins, rounded at tips, pinnately veined with principal veins raised on lower surface, upper surface cobblestonelike and short-strigose, lower surface glandular-hairy and with hirsute hairs especially along veins. **Inflorescence:** condensed cymes, axillary in congested, headlike clusters of 2 per node (verticils), produced as a flowering axis terminating each shoot, with 1–several widely spaced verticils on erect peduncle, verticil 8–20+ mm across, many-flowered, bracteate, short-strigose and densely glandular-hairy; peduncle stemlike, 25–170+ mm long, convex on sides, purple along edges, short-strigose like lower stem; bracts of the lowest pair opposite, broadly ovate with awnlike tip, 4–7 mm long, green, sometimes purple-veined, palmately 5–7-veined, recurved at tip, exposed lower surface short-strigose to pubescent and with sparse spheric glandular hairs, upper surface short-strigose approaching tip; inner bracts ± in whorls of 4, ovate grading to oblanceolate with fewer veins on the innermost bracts and bractlets, very pale green to whitish at base, generally tinged rose-purple to oxblood red above midpoint but often greenish just below awnlike tip, more sparsely short-strigose but with denser glandular hairs than verticil bracts, the awn to 2 mm long, deep oxblood red; pedicel very short. **Flower:** bisexual, strongly bilateral, 3–5 × 6–8 mm across, ascending at 60°; **calyx** 2-lipped, 8–10 mm long, glandular with short hairs and sessile glandular spheres, with scattered stiff hairs having blisterlike bases at top of tube or base of upper lip; tube 5–6 mm long, whitish and green, 10-veined, with rose-purple awns and glandular hairs; lips deep purple, long-ciliate on margins; upper lip hoodlike, unlobed, with raised veins, 2-awned (rarely short-pointed), the awns ascending and 0.6–0.9 mm long; lower lip highly reduced to 2 short, awn-tipped lobes, the awns 1–1.5 mm long; **corolla** 2-lipped, at least 5-lobed, strong blue-violet (pale blue) on lips and fading into tube; tube + throat 6–8 mm long, curved, tube white at base, glabrous; upper lip ascending, 2-lobed (entire), 2–3 mm long; lower lip descending, 4–5 mm long, platformlike with 4–5 lobes (2 lateral and others terminal), lighter in color at base, typically with 3–7 darker violet spots, upper surface short-papillate, lower surface with scattered hairs; **stamens** 4, fused to corolla throat < 1 mm below division between lips, dimorphic, upper 2 stamens sterile, rudimentary, 0.3–0.7 mm long, the lower 2 exerted and fertile; filaments of fertile stamens ± 2 mm long, violet, pubescent below anther; anther with 2 sacs widely separated by filamentlike connective, arching, ± 2.5 mm long, violet, 2-armed, the upper arm ca. 3× > lower arm, anther sacs unequal, the upper sac to 1.3 mm long, the lower sac ± 0.5 mm long, purple, longitudinally dehiscent; pollen light yellow, sticky; **nectary disc** beneath ovary base, ringlike, 0.3 mm long, white; **pistil** 1; ovary superior, strongly 4-lobed, lobes compressed-ellipsoid, 0.4 mm long, glossy greenish, 2-chambered, each lobe with 1 ovule; style exerted, attached to ovary base at

center of ovary lobes (gynobasic), \pm 11 mm long, lavender, glabrous, unequally 2-branched, the lower branch recurved, \pm 1.5 mm long, positioned at height of long stamens, the upper branch straight, \pm 0.5 mm long. **Fruits:** nutlets, 4, flattened ellipsoid, $1.8\text{--}2.2 \times 0.8\text{--}1$ mm, tannish speckled and mottled dark brown. Late January–mid-May.

Native. Common spring annual in chaparral and coastal sage scrub, occurring especially on burned or open areas, especially in full sun and in loose soil. *Salvia columbariae* has a distinctive vegetative rosette with leaves having a cobblestonelike appearance. Plant size varies greatly at a single site, and in a good year plants can be very tall and have cauline leaves. In nature, the corolla of chia appears essentially blue. Fruit set on a plant is usually very high.

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