Collinsia heterophylla Graham var. ***heterophylla***, PURPLE AND WHITE CHINESE HOUSES. Annual, taprooted, 1–several-stemmed at base, with or without pairs of ascending lateral branches, erect, 12–95 cm tall; shoots minutely hairy with downward-arching hairs, not glandular on vegetative plant. **Stems:** cylindric, to 4 mm diameter, often red-purple on lower stem, swollen beneath each node. **Leaves:** opposite decussate, simple, sessile with pairs narrowly connected by low ledges across node, without stipules; blade narrowly triangular to lanceolate, 10–80 × 3–30 mm decreasing upward and lanceolate or oblong, to 20 × 6 mm (upper cauline leaves), truncate to having basal lobes at base, entire to remotely serrate and short-ciliate to scabrous on margins, obtuse to rounded at tip, pinnately veined with principal veins often sunken on upper surface and only midrib raised on lower surface, with major lateral veins diverging from midrib at or near base, often aging reddish or red-purple. **Inflorescence:** raceme (panicle), terminal, open, raceme with 1–8 whorls of flowers, each node with 3–6 flowers (at lower nodes with 2 flowers axillary to cauline leaves), bracteate, short-hairy and with stalked glandular hairs; peduncle 20–70 mm long, short-hairy like stem and sparsely glandular by having minutely 2-lobed terminal gland on a stalk (40×); rachis 25–110 mm long, with hairs like peduncle but also sparsely long-hairy; bractlet subtending pedicel leaflike, narrowly triangular to narrowly lanceolate or elliptic, 4.3–26 × 1.2–6.5 mm, short strigose-ciliate on margins; pedicel ± ascending, 1.8–3.5 mm long, short-strigose and more glandular than peduncle. **Flower:** bisexual, bilateral, 8–14 mm across, ± horizontally oriented; **calyx** 5-lobed, 5.2–8 mm long increasing in fruit, short-villous to villous with nonglandular and glandular hairs; tube bell-shaped, 1.8–2.5 mm long, 2.2–4.5 mm wide at orifice; lobes lanceolate to ovate, 4.8–7 × 1.7–3 mm, unequal in width having the narrowest lobes on each side of upper lobe, 3-veined at base with the lateral veins sometimes forking, veins green below midpoint with the narrower tissue between veins white or blotched purple (pale lavender); **corolla** 2-lipped, 5-lobed, 8–14 mm across, 13–20 mm long (rarely albino individual lacking purple pigmentation); tube 0.8–1.5 × 1.5 mm, whitish, ± flared at base; throat abruptly expanded, straight on upper side and saclike lower side compressed side-to-side, pouch pale lavender, internally with 6 deep rose lines (3 per side) and scattered stiff white hairs within pouch, approaching lower limb mostly white but with 3 dark rose or purplish veins below each lateral lobe having 1 vein short and ending at base of lobe and the others continuing into colored portion of lobe; upper lip ± erect, 2-lobed, 5.5–11.5 mm long, lobes rounded or truncate at tip, 3.5–5.2 × 3.5–4.8 mm, pale lavender with white near throat, with dark rose to purple spots (maculate) before lobes and a transverse purplish line at base of lip; lip and throat separated by a transverse palate, the palate ± 2-lobed with a deep sinus in middle, whitish, densely and minutely papillate on crest, purple-dotted on 1 side (distal) and white and sometimes purple-dotted on other side (proximal); lower lip horizontal to slightly descending, 3-lobed with a boatlike central lobe enclosing stamens and style, 8.5–12 mm long, lateral lobes demarcated by white, deeply infolded creases, central lobe free from lateral lobes 2–4 mm, lateral lobes white at base changing abruptly to dark purple or reddish purple with a dark reddish purple vein, without hairs, 0.3–1.5 mm > central lobe, central lobe back whitish but dark purplish red above anthers at tip, sometimes maculate between colored tip and whitish base, bearing a short, internal spur below each sinus, the spurs barely entering throat and compressed side-to-side, rounded with scattered, inconspicuous glandular hairs, rounded to notched at tip; **stamens** 4 fertile + 1 staminode,

fused to throat toward upper side, lower pair fused near base of throat and other pair above midthroat (ca. 1 mm below orifice), with anthers hidden within central lobe of lower lip and all displayed at same level several mm from tip; filaments unequal, 5.5–10 mm long with a line of short, stiff white hairs on outer side (lower stamens) and 9.8–12 mm long and glabrous (upper stamens), white; with a free spur at base 1.3–1.5 mm long; anthers divergent, dorsifixed, dithecal, ± horseshoe-shaped prior to dehiscence, ca. 1 × 1 mm, yellow to yellow-orange (red), longitudinally dehiscent and deshiscing across the fused tip (becoming peltate explanate); pollen yellow; staminode = fingerlike nectary attached to base of corolla tube, 0.5–0.8 mm long, pale green or pale yellowish green, nectar-producing; **pistil** 1, 10.5–17 mm long; ovary superior, ovoid, 1–2 mm long, green, 2-chambered, each chamber with several ovules attached to center; style 9.5–15 mm long, white, glabrous; stigma terminal, minutely 2-lobed, pale yellow or whitish, papillate. **Fruit:** capsule, loculicidal and septicidal (2-valved appearing 4-valved), to 20-seeded, subspheroid, 4.5–5 × 4–4.5 mm, pale brown, when immature sometimes with slightly bulging seeds. **Seed:** oblong, ovoid, or ± like grains of sand, (1.1–)1.6–2 × 1–1.3(–1.6) mm, dark brown, surface conspicuously shallowly netlike, deeply sunken on side of hilum, the concavity pale tan to whitish with a thick, brownish rim. Late February–early June.

Native. Annual common throughout the range growing on moist slopes in mixed stands with native herbs and naturalized grasses, e.g., in openings of chaparral. *Collinsia heterophylla* often forms dense populations with hundreds to thousands of individuals, with individuals varying in size from short plants on thin, drier soils to taller plants on moister shady microhabitats, and populations can be harder to find during years with low precipitation. Within a population can be found flower variants in the purple colors, and rarely one will encounter an individual that produces totally white flowers. Fruit set is particularly high, and a single raceme may produce more than five hundred seeds, a level which probably ensures that the seed bank is fully replenished for years.
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