

Stachys bullata Benth., CALIFORNIA HEDGE NETTLE, WOOD MINT. Perennial herb, rhizomatous, fibrous-rooted, several-stemmed at base, often branched below initial inflorescence, decumbent to erect, 30–110 cm tall; shoots with only cauline leaves, pilose and weakly hispid, glandular-pubescent, the glandular hairs stalked to 0.2 mm long and with colorless heads, pleasantly aromatic; rhizomes horizontal, 4–6-sided with convex faces, whitish, densely hairy when young. **Stems:** sharply 4-angled in \times -section with flat faces, < 3.5 mm diameter, green or red-tinged on edges, internodes 30–100 mm long, pilose and glandular-pubescent on faces, hispid along edges with erect or downward-pointing hairs; internodes hollow. **Leaves:** opposite decussate, simple, petiolate with pair connected by ledges across node, without stipules; petiole 8–50(–60) mm long, thick U-shaped in \times -section, hispid along veins and densely glandular-hairy; blade ovate, 30–120(–180) \times 18–60(–80) mm, cordate at base, crenate on margins, obtuse at tip, pinnately veined with 3 principal veins arising at base, dull, upper surface pilose and glandular-hairy, lower surface densely glandular-hairy and hispid along veins. **Inflorescence:** interrupted, terminal, spikelike arrays of condensed cymes, axillary, in congested, headlike clusters of 2 per node (verticils), array with 5+ flowering nodes, in range each cyme 3(–4)-flowered (commonly 6 flowers per node), bracteate, densely glandular-pubescent with colorless, stalked hairs; bracts subtending peduncle leaflike; peduncle of inflorescence stemlike, to 50 mm long; axis 4-sided, verticils to 25 mm apart increasing in fruit, the basal one the longest; bract subtending each cyme \pm reflexed, at the lowest node leaflike (2 per node), short-petiolate to sessile, to 20 \times 13 mm, often short-crenate, decreasing upward and entire with the uppermost bracts roundish and reduced to 2–5 mm long; bractlets subtending flower 2 (0 for central flower of cyme) + 1 bracteole, minute awl-shaped, \pm 0.5 mm long, whitish, hairy, persistent; pedicel 0– < 0.5 mm long, flower positioned spreading. **Flower:** bisexual, bilateral, 7–10 mm across, to 14 mm long; **calyx** 5(–6)-lobed, green, densely glandular-pubescent and sparsely short-villous; tube funnel-shaped, 4–4.5 mm long not increasing in fruit, with an inconspicuous vein to each lobe but not ribbed; lobes at anthesis spreading (sometimes nearly \perp axis), equal, acute-ovate and bristle-tipped, 1–1.5 \times 1.2–1.5 mm + bristle 0.5–1 mm long and colorless, internally the uppermost tube and lobes pubescent; **corolla** 2-lipped, 18–20 mm long (laid straight), outer surface short-pilose and glandular-hairy; tube + throat \pm cylindrical, 7–10 mm long, reddish purple, gradually wider approaching orifice, lacking sac on lower side, internally with ring of \perp white hairs \pm 1 mm from base, lacking corresponding constriction on outside, with thickish white hairs forming a conspicuous beard inside tube below lower lip and extending on lower lip; upper lip \pm erect, cupped-obovate to roundish, 3.5–4(–5.5) mm long, reddish purple, entire to heart-shaped; lower lip 3-lobed, descending, ovate in outline, 6.5–8.5 mm long, white and spotted with reddish purple, lateral lobes often somewhat reflexed, central lobe cupped-oblate to cupped-obovate, entire to shallowly notched; **stamens** 4, attached at different levels on corolla tube but \pm equally exerted from throat to below upper lip, dimorphic, 2 short and 2 slightly longer; filaments free for 4–5 mm (lower stamens) and 3–4 mm (upper stamens), red-violet, with membranous margins, densely villous over most of length, with some glandular hairs near tip; anthers dorsifixed, dithecal, 1–1.2 mm long, purple, longitudinally and downwardly dehiscent; pollen cream; **nectary disc** beneath and slightly wider than pistil, ringlike, greenish white, producing copious nectar; **pistil** 1; ovary superior, strongly 4-lobed, lobes 3-sided ovoid, < 1 mm long, greenish white, 2-

chambered, each lobe with 1 ovule; style attached to ovary base at center of ovary lobes (gynobasic), ± 12 mm long, white, pressed to upper side of corolla tube then curved downward placing stigma in center next to anthers, 2-branched, the branches spreading vertically, equal, ± 0.5 mm long. **Fruits:** nutlets, 4, plump-ovoid, ca. 2×1.5 mm, dark brown, smooth. Mid-February–late July.

Native. Perennial herb occurring fairly commonly on moist or shaded slopes in old chaparral or where brushland and southern oak woodland meet. On the corolla of *Stachys bullata*, the tube and throat form an uninterrupted, straight-sided, narrow funnel. In range, our populations appear to have a calyx shorter than is typical for the species. This species is always strongly aromatic.

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