Marrubium vulgare L., HOREHOUND. Subshrub, ± evergreen, thick-taprooted, several many-stemmed at base, with spreading, decumbent, ascending, and sometime erect branches, above midplant often = flowering shoots, canopy fountain-shaped to hemispheric, in range 35–120 cm tall; shoots with only cauline leaves, densely whitetomentose with matted long hairs (especially on summer foliage) and scattered, sessile glandular hairs having colorless, spheric heads, young shoots only faintly aromatic. Stems: young stems 4-sided (± square in ×-section), to 12 mm diameter, tough, white woolly-tomentose. Leaves: opposite decussate, simple, petiolate to subsessile, without stipules; petiole (2–)8–35 mm long, channeled and crescent-shaped in ×-section; blade ovate to round or rhombic, $12-60 \times 12-47$ mm, truncate to cordate at base, crenate on margins, rounded or obtuse at tip, with several primary veins arising near base but otherwise pinnate with veins strongly raised on lower surface, upper surface conspicuously cobblestonelike with deeply sunken veins, sometimes hidden beneath dense hairs. **Inflorescence:** paired cymes in dense axillary, headlike clusters (= verticils), verticils 10– 50 mm apart, each hemispheric cyme 5–36-flowered and subtended by bract, flowers sessile; bract subtending cyme leaflike, sessile; bract subtending branchlet of cyme or bractlet subtending flower linear awl-shaped, 2.5–5 mm long, green, hooked, persistent. **Flower:** bisexual, bilateral, 4–5.5 mm across; **calyx** 10-lobed, narrowly bell-shaped, 4–5 mm long increasing to 2× in fruit, green, 10-ribbed, stellate-tomentose and glandular with sessile spheric hairs; tube ca. 3 mm long, internally glabrous except with ring of hirsute hairs at top; lobes narrowly acuminate, 1–1.5 mm long, for each lobe green and tomentose below midpoint + spreading with a sharp recurved hook and glabrous at tip; corolla 2lipped, 5-lobed, 6–8 mm long, white; tube ca. 2 mm long, with white hairs forming ring inside tube at level of filament attachment; throat \pm 1.5 mm long, with papillate hairs between stamens on lower side; upper lip 2-lobed, ascending to erect, 2-3 mm long, ca. 1 mm wide at base, pubescent on both surfaces; lower lip 3-lobed, 2.5–4 mm long, wider than upper lip, pubescent on outer (lower) surface, the central lobe transversely elliptic to heart-shaped, 2.5–3.5 mm wide, notched, the lateral lobes ascending, triangular, 0.6–1 mm long; stamens 4, fused to top of corolla tube, dimorphic, 2 short and 2 slightly longer, included; filaments 1–1.2 mm long (lower stamens) and 0.5–0.7 mm long (upper stamens), white, bulbous at base; anthers dehiscent before anthesis, dorsifixed, dithecal, 0.6–0.7 mm long, pale yellow to yellowish green, with brownish or olive green connective, longitudinally dehiscent; pollen pale yellow; **nectary disc** beneath ovary, ringlike; **pistil** 1; ovary superior, strongly 4-lobed, \pm 0.7 mm long, 2-chambered, each lobe with 1 ovule; style attached to ovary base at center of ovary lobes (gynobasic), sigmoidal at base, white; stigma extending beyond anthers, unequally 2-branched, 1 branch ca. 0.5 mm long and other 1/2 as long. Fruits: nutlets, 1–4, 3-sided broadly ellipsoid to oblong-obovoid, 2.2– $2.5 \times 1.2 - 1.4$ mm, brown, truncate at tip, convex on outer face, flat or concave on inner faces, minutely warty, warts sometimes black; nutlets hidden from view by cone of hairs at top of calyx. January–December.

Naturalized. Very common, low, \pm evergreen perennial of disturbed habitats throughout the range, occurring especially along roadsides, in vacant lots, and along heavily traveled trails, because the nutlets are dispersed when the hooked lobes of the calyx become attached to clothing or animal fur. Somewhere within the range, any day of the year one

can find Marrubium vulgare having new shoots with clusters (verticils) of white flowers, although at most sites flowering occurs mainly during springtime and early summer. With the onset of summer drought, plants become water-stressed and lose most leaves. During fall and winter, generally the plants are only vegetative. Marrubium vulgare is only faintly aromatic; it lacks the typical "minty" smell of its family, although shoots have glandular hairs with sessile heads from which monoterpenes are commercially extracted for candies (horehound drops), used to soothe sore throats or to suppress coughing.

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