

*Lamium amplexicaule* L., HENBIT. Annual, taprooted, several-stemmed at base, decumbent to ascending, 10–30(–40) cm tall; shoots vegetative and leafy at lower nodes, reproductive with leaflike bracts at upper nodes, with nonglandular hairs, not aromatic. **Stems:** 4-sided with raised, cordlike edges, < 3 mm diameter, flexible, green aging purplish especially along edges, puberulent to glabrate, typically sparsely short-strigose with hairs bent downward, internodes to 150 mm long; hollow. **Leaves:** opposite decussate, simple, petiolate with pairs conspicuously fused across node (amplexicaulous), without stipules; petiole channeled, 5–45 mm long,  $\geq$  blade, puberulent, with hairs spreading to slightly downward-pointing and of varying lengths; blade widely ovate or kidney-shaped to  $\pm$  roundish, 6–25 mm long and wide or length < width, truncate to subcordate at base, crenate and sometimes shallowly 3–5-lobed on margins, rounded at tip, palmately veined at base with veins sunken on upper surface and conspicuously raised on lower surface,  $\pm$  hirsute. **Inflorescence:** condensed cyme, axillary and paired at node (verticil), each cyme 12–20-flowered, flowers either outcrossing (chasmogamous) or cleistogamous, sessile on a green mound fused to bract base; bract subtending cyme leaflike, sessile, fused to stem,  $\pm$  kidney-shaped to hemi-circular, 10–24  $\times$  15–35 mm, typically 3–5-lobed and short-crenate,  $\pm$  hirsute, with hair bases often purple, having minute, inconspicuous glandular hairs on bracts and axis. **Chasmogamous flower:** bisexual, bilateral, 2.5–4 mm across, **calyx** 5-lobed, 4–6.5 mm long, light green, short-hirsute; tube  $\pm$  bell-shaped, 2.5–3 mm long, minutely glandular-hairy; lobes subequal, acuminate, 1.7–3  $\times$  0.8–1 mm, hairy on both surfaces; **corolla** 2-lipped, ascending to erect, 10–21 mm long, dark rose-lavender to strong purplish red; tube cylindrical, straight, 7–12 mm long, paler than throat and upper lip, pubescent with straight hairs pigmented purplish red or colorless; throat funnel-shaped, slightly compressed side-to-side, short-hairy; upper lip ascending, hood-shaped, 3–4.5  $\times$  2.5–3 mm, enclosing anthers and style, densely hirsute and in bud strong purple; lower lip 3-lobed, with lateral margins abruptly curved outward to form short but wide lateral lobes  $\pm$  confluent with central lobe at lower tip of throat, the central lobe constricted at base and deeply notched, 2–2.5  $\times$  2.5–4 mm, pale or light purple to whitish with purplish red margins, spotted purplish red (commonly with a dark spot at base and a spot on each lobe), the lateral lobes pale lavender to white, with 1–2 deep purple spots; **stamens** 4, dimorphic, outer 2 longer and fused to lower throat 3.5–5 mm long (lower stamens), with anthers elevated above those of inner stamens, the 2 inner stamens fused to upper throat, 2–3 mm long (upper stamens); filaments white to pale lavender, sparsely short-villous, some with papillate hairs near the base; anthers positioned against roof of upper lip, basified, dithecal,  $\pm$  0.5 mm long, purplish with orange margins, conspicuously short-hairy, longitudinally dehiscent; pollen orange; **nectary disc** beneath ovary, ringlike, 5-lobed, greenish yellow, with copious nectar; **pistil** 1; ovary superior, strongly 4-lobed, each lobe pie-shaped in  $\times$ -section, fused only at base, 2-chambered, each lobe with 1 ovule; style attached to ovary base at center of ovary lobes (gynobasic), 14–20.5 mm long, whitish to pale lavender, glabrous, 2-branched, the branches 0.5–0.8 mm long, tapered toward tip; stigmas small, at level of anthers, papillate. **Cleistogamous flower:** bisexual, appearing radial, ca. 2 mm across; **calyx** resembling chasmogamous flower but smaller, 3–5 mm long; tube 1.7–2.5 mm long; lobes acuminate to narrowly triangular, 1–2.5 mm long; **corolla** closed and abscising before lips open, appearing tubular, 2.7–3.5 mm long; upper lip a hemispheric cap completely enveloping lower lip, covered with bristly purplish red hairs centrally and white hairs peripherally; lower lip 4-

lobed with 2 lobes terminal forming a heart-shaped tip, with a purplish red between base of terminal lobes and lateral lobes; **stamens** 4, unequal; filaments to 1 mm long (longer stamens) and 0.5 mm long (short stamens); anthers at same level, dark purple with orange margins, conspicuously hairy, longitudinally dehiscent; pollen orange; **nectary disc** beneath ovary but no nectar present; **pistil** 1; ovary like open flower but style only 2.5–4.5 mm long, straight to  $\pm$  helical when long. **Fruits:** nutlets, 4, obovoid,  $1.7\text{--}2 \times 1$  mm, brown or brownish with whitish spots or not, 3-sided in  $\times$ -section, flat on 2 sides and convex on outward-facing side,  $\pm$  obliquely truncate; base initially with aril-like cover of fleshy, whitish tissue, drying amber or falling off. Mid-December–early June.

Naturalized. Annual occurring occasionally on recent burns and open, disturbed areas as well as in agricultural fields. *Lamium amplexicaule* has squarish stems and amplexicaulous bracts subtending paired cymes at each node (verticils), making this species easily recognized as a mint, but henbit does not have a characteristic mint odor because it mostly lacks the classic glandular hairs. When in bud, the tip of unopened corolla is densely covered with vibrant, deep purplish red hairs. For every flower, all four nutlets mature, indicating that this attractive weed from Europe is self pollinated. *Lamium amplexicaule* also can produce much smaller flowers that never open (cleistogamous) and still produce nutlets.

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