

*Geranium* L. CRANESBILL, GERANIUM

*Geranium molle* L., DOVE'S FOOT GERANIUM, WOODLAND GERANIUM. Annual, taprooted, rosetted, 1–2-stemmed at base, 15–23+ cm tall; shoots with 8–11, suberect to ascending, basal leaves and several cauline leaves on stem to 20+ cm long, finely pilose having hairs to 3 mm long, pubescent, or commonly pilose-pubescent with hairs of various lengths, sparsely glandular-hairy with erect, colorless, capitate hairs, the glandular hairs increasing upward and densely glandular-hairy on pedicels and sepals. **Stems:** cylindric, < 2 mm diameter, ± flexuous with a bend at each node, light green or turning reddish on exposed, older surfaces, nodes swollen, internodes 4.5–110 mm long increasing upward, finely pilose-pubescent, with sparse glandular hairs approaching inflorescence. **Leaves:** helically alternate, palmately lobed with (7–)9 principal lobes, long-petiolate, with stipules; stipules 2, with lower 1/3 attached to flared base of petiole, ovate, 4.2–6.5 × 1.4–3 mm, entire to wavy or 1–2-toothed on outer margin, acuminate at tip, whitish membranous but nearly opaque to pale green or pale yellow, sericeous or ascending-pilose on lower surface and glabrous on upper surface; petiole cylindric or ± 3-sided, on basal leaves 90–195 mm long decreasing upward to 15 mm long, sometimes grooved or concave on faces, 3-veined, pilose-pubescent, sparsely glandular-hairy below blade; blade widely elliptic or roundish (oblate) in outline, 16–30 × 18–33 mm, with petiole attached between basal lobes sinuses between principal lobes 3–7 mm deep, the lobes 3–7.5 mm wide, entire or with 2–3 sublobes (if 3, the central sublobe the widest), sublobes with a small reddish point (mucro) on rounded or truncate tip, palmately veined to principal lobes with veins sunken on upper surface and raised on lower surface, finely pilose, lower surface lighter green and with denser hairs. **Inflorescence:** 2-flowered, umbel-like cyme, arising at node on side opposite cauline leaf; peduncle slender and straight, at anthesis 30–57 mm long increasing somewhat in fruit, green, finely pilose-pubescent and sparsely glandular-hairy; bractlet subtending pedicel = 2 diminutive stipules, oblongish, 0.4–0.9 × 0.5–0.6 mm, membranous whitish to pale young-green aging reddish; pedicel ascending to spreading, 6–17 mm long, light green, finely pilose-pubescent and glandular-hairy, in fruit pedicel arching upward at tip. **Flower:** bisexual, radial, 7–8 mm across; **sepals** 5, overlapping in bud with exposed surfaces pilose and glandular-hairy, ascending, ovate to elliptic or oblong, 2.7–3.6 × 1.1–2 mm increasing 1.2–1.6× and erect in fruit, green with whitish membranous margins, 3-veined from base, entire, margins 0.15–0.25 mm wide unexposed in bud, on outer surface thickened at tip with point (± mucronate) but not awned; **petals** 5, ascending, heart-shaped to obovate, in range 4–5.5 × 2.3–3 mm, whitish at base to reddish purple above, 3–5-veined above base, long-tapered and ciliate at base, notched (obcordate) to 2-lobed at tip with sinus 0.7–1.2 mm deep; **nectaries** 5, opposite sepals, ± semicircular, fleshy, pale green with dark green center; **stamens** 10 in 2 whorls of 5, free, outer whorl arising lower on receptacle than the inner whorl; filaments lanceolate, 2.2–2.5 mm long, 0.35–0.55 mm wide at base, whitish, erect but outer ones curved outward 90° at tip and inner ones straight at tip, glabrous; anthers dorsifixed, dithecal, widely oblong to cordate, 0.4–0.55 × 0.4–0.6 mm, of dark purple, anthers of outer whorl placed lower, longitudinally and sideways dehiscent; pollen pale to light violet; **pistil** 1, at anthesis 2.2–2.5 mm long; ovary superior, 5-lobed, ca. 0.6 mm long, green, with incipient cross wrinkles, 5-chambered, each chamber with 2 ovules; style column ca. 0.8 mm long, finely pubescent

and with some glandular hairs, 5-branched, the branches ca. 0.5 mm long, arched outward, greenish on outer side and purplish red and papillose-stigmatic on inner side. **Fruit:** schizocarp, of 5 dry 1-seeded mericarps dehiscent on inner face, 8–13 mm long with persistent, central style column; mericarp oblong, 1.5–1.8 × 1.1–1.2 mm, dull brown, with prominent transverse-oblique wrinkles (ridges) and a medial ridge, with inconspicuous brown hairs; before abscission column 8–9 mm long, beaks (styles) 5–5.5 mm long, comma-shaped coiled ca. 270°, easily detached from top of mericarp, outer surface finely pubescent and with some glandular hairs. **Seed:** held tightly within mericarp wall and only exposed on inner face, oblong, ± 1.5 × 1 mm, frosty grayish orange, minutely textured. Early February–late April.

Naturalized. Annual occurring in shady southern oak woodland at several localities in SMM. Young leaves of *Geranium molle* have pale stipules and a blade that rarely exceeds thirty millimeter in width, and this species of geranium has glandular hairs present in the canopy especially on pedicels and sepals. Its sepals never have well-defined awns and petals are conspicuously notched and reddish purple, but the most distinctive feature is the fruitlet body (mericarp), which has prominent oblique ridges. The seed is trapped within the mericarp wall, but the wall and seed are easily separate when wetted.

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