

Mimulus guttatus DC., SEEP MONKEYFLOWER, COMMON YELLOW MONKEYFLOWER.

Annual or perennial herb, mostly taprooted and fibrous-rooted at below-water lower nodes or if rhizomatous (aquatic perennial), 1–several-stemmed at base, sometimes with many lateral branches, erect to ascending, 2–150 cm tall; shoots often aging reddish, puberulent with whitish, narrowly conic, nonglandular hairs, with colorless to whitish, stalked glandular hairs. **Stems:** initially 6-angled aging cylindrical, < 1–15 mm diameter, light green aging reddish, internodes to 180 mm long, often with swelling at base of long internodes and axillary branches, long internodes hollow (tall individuals). **Leaves:** opposite decussate, simple, petiolate (lower nodes) and sessile with pair fused across node forming narrow strips (aging papery), without stipules but sometimes with stipulelike appendages at base of petiole; petiole somewhat flattened, typically to 65(–95) mm long, sometimes winged (long petioles); blade ovate to round, (4–)10–75(–125) × (2.3–)4–55 mm, thin, light green, long-tapered or tapered to truncate at base, dentate to serrate or 2-serrate on margins, rounded to obtuse at tip, ± palmately veined with 2–3 veins on each side of midrib (parallelodromous), upper surface moderately pubescent with nonglandular and gland-tipped hairs, lower surface glabrous or sparsely pubescent. **Inflorescence:** ± leafy raceme or panicle of lateral racemes from base, terminal, raceme > 5-flowered, having pair of axillary flowers at each node, bracteate, all green parts with nonglandular hairs; bractlet subtending pedicel broadly ovate to heart-shaped, mostly < 15 × 15 mm, petiolate or more commonly sessile with pair fused across node, acuminate at tip (sometimes with margins inrolled and appearing tail-like); pedicel at anthesis 4.5–8 mm long increasing to 45(–80) mm in fruit, light green, puberulent with erect, nonglandular and gland-tipped hairs. **Flower:** bisexual, bilateral, 3.8–30 mm across, 4.5–25 mm tall; **calyx** 5-lobed, ± urn-shaped and strongly 5-pleated, 3.5–12.5 mm long and asymmetrically swollen in fruit, glabrous to puberulent with appressed or spreading hairs and sparsely stalked glandular-hairy; tube 3.7–7.2 mm long, light green but paler in grooves and sometimes red-dotted; lobes unequal, all folded and creased lengthwise, broadly acute, 0.8–4 mm long increasing to 6–7.5 mm in fruit (upper lobe only) and 0.5–2.5 mm long (other lobes), < tube, with lower 3 lobes upturned in fruit; **corolla** 2-lipped, 5-lobed, 7.5–32(–40) mm long, vivid yellow; tube + throat funnel-shaped, 4.5–17.5 mm long. 0.7–3 mm wide at base expanding to 2.8–11 mm wide at orifice, yellow and internally red-dotted on lower side, externally ridged on top and puberulent with gland-tipped hairs, internally pilose on ceiling extending to basal part of upper lip, infolded (invaginated) on lower side to form a densely hairy palate of 2 broad ridges expanding toward orifice separated by a narrow groove extending into lower lip, the hairs narrowly club-shaped and yellow; upper lip 2-lobed, 2.5–14 × 3.8–17.5 mm (including lobes), lobes arching upward, rounded-oblong, 1.7–8 × 1.8–9 mm, sparsely pilose or glabrous on upper surface; lower lip 3-lobed, 3–18 × 5–27 mm (including lobes), lateral lobes spreading or projecting forward and outward, rounded-oblong, 1.5–8 × 1.5–9 mm, sometimes cupped, central lobe arching downward or projected forward, heart-shaped to transversely oblong, 1.5–10.5 × 2.4–15 mm, cleft to truncate on outer margin, pilose on upper surface; **stamens** 4, lacking staminode, fused to base of corolla throat, dimorphic, filaments of 2 lengths, included; filaments ± straight, 4–13.5 mm long (lower stamens) and 3–11 mm long (upper stamens), brownish orange at base to greenish yellow above; anthers dorsifixed, dithecal, M-shaped, the sacs, 0.5–1.3 mm long, yellow to light yellow, with thick connective, truncate at tip,

glabrous to colorless-papillate, longitudinally dehiscent; pollen yellow to light yellow; **nectary disc** at base of pistil on lower side, U-shaped, $< 0.7 \times 0.3$ mm, fleshy, dark green; **pistil** 1, 6.5–19 mm long, short-stalked (stipe), stipe narrowly inversely conic, 0.5–1 mm long, grading into base of ovary; ovary superior, \pm ellipsoid, $1.2\text{--}5 \times 0.5\text{--}1.5$ mm, green, curved on both edges or \pm straight on upper edge, glabrous or with sparse, stalked glandular hairs, 2-chambered, each chamber with many ovules on 2 intrusive placentae; style positioned along corolla throat ceiling placing stigmas above anthers and close to orifice, 4.2–12 mm long, light greenish yellow, in \times -section cylindrical most of length but flattened and expanded approaching stigma lobes, puberulent with ascending, narrowly conic hairs and some gland-tipped hairs; stigma 2-lobed, lobes unequal, flat, semi-elliptic to ovate, $0.5\text{--}1.8 \times 0.4\text{--}1.5$ mm, short-fringed on margins, papillate-hairy on inner surface, becoming rapidly appressed when touched. **Fruit:** capsule, loculicidal, short-stalked, ellipsoid and somewhat compressed, $5\text{--}12 \times 3.5\text{--}4$ mm, tannish brown but paler on ridges, shallowly grooved along septum, narrowly ridged along line of dehiscence, abruptly acuminate at tip with persistent style base, glabrate. **Seed:** ellipsoid to oblong, $0.4\text{--}0.5 \times 0.2\text{--}0.3$ mm, golden brown, longitudinally ridged to slightly netlike, the ridges minutely sinusoidal and commonly discontinuous. Mid-February–late August.

Native. Annual occurring in moist areas throughout the range, most conspicuously in dense populations along creeks and margins of standing water, but also appearing on exposed road cuts during springtime. *Mimulus guttatus* exhibits great variability in plant size, dependent on soil moisture, so that robust plants growing in a drainage ditch may be chest high but on nearby drier, thin soil plants can be among the smallest annuals. More amazing is that flower size on those same plants proportionately vary in size, so one can find very small flowers that may seem different than the typical form.

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