

Crag's Mts., 23 June, 1894, *Henderson 2675* (G); on hills, Lake Waha, Nez Perces Co., 23 June, 1890, *Henderson 2675a* (Cornell).

Washington: along irrigation ditches, Wawawai, May, 1897, *Elmer 752* (M, R. Mt., and Pomona).

43. *M. arenarius* Grant¹

Pl. 8, fig. 1.

Small glandular-pubescent annuals, somewhat slimy and with soft white hairs; stems 8–15 cm. long, simple or branched; leaves few, mostly elliptical, sometimes ovate, with a rounded base, acute, 1–1.7 cm. long, 3–7 mm. wide, sessile, often reddish on the lower surface, entire or sparingly denticulate, 1–3-nerved from the base, occasionally with short-petioled lower leaves; fruiting pedicels slender, reddish, longer than the leaves, usually divaricate and more or less curved; calyx narrowly campanulate, 5–6 mm. long, slightly larger in fruit, 6–8 mm. long, often dotted with red, teeth subequal, triangular-acute, ciliate; corolla bilabiate, 1.3–1.7 cm. long, yellow, tube exerted, throat funnelform, with a hairy ring at the base of the lobes and two densely hairy ridges more or less dotted with red down the throat, lobes unequal, the middle lobe of the lower lip longer and spreading; stamens glabrous, included, filaments flat; style slightly exerted, flattened, glabrous, stigma-lips broadly rounded, equal; capsule elliptical, longitudinally striate; seeds oval, papillate.

Distribution: moist sandy places in the Transition Zone of the Sierra Nevada Mts., from Mariposa Co. to Fresno Co., California.

Specimens examined:

California: near Wawona, Mariposa Co., 5000 ft. alt., 23 June, 1918, *A. L. Grant 1309* (N. Y., Cornell, M, Calif. Acad., and Calif.); in sandy places, Jackass Meadow, Madera Co., 7000 ft. alt., 25 June, 1918, *A. L. Grant 1336* (Cornell, M, and Calif.);

¹ *Mimulus arenarius* Grant, sp. nov., annuus pumilus, pubescens, viscoso-villosus; foliis ellipticis, integerrimis vel parce denticulatis; pediculis foliis longioribus, plerumque divaricatis, curvatis; calyce fructifero campanulato, 6–8 mm. longo, dentibus subaequalibus; corollae labiis inaequalibus, 1.3–1.7 cm. longis; stylo exserto, glabro, laciniis aequalibus.—Collected in moist sandy places near Huntington Lake, Fresno Co., 7000 ft. alt., 5 July, 1917, *Adele Lewis Grant 1032* (Gray Herb., Phil. Acad. Nat. Sci. Herb., Cornell Univ. Herb., Mo. Bot. Gard. Herb. no. 849663, TYPE, Rocky Mt. Herb., Univ. Calif. Herb., Stanford Univ. Herb., and Pomona Coll. Herb.).

Arnold Meadow, Madera Co., 5000 ft. alt., 27 June, 1918, *A. L. Grant 1344a* (Cornell, M, and Calif.); Raymond, Madera Co., 10 June, 1894, *Burnham* (Cornell); Huntington Lake, Fresno Co., 6 July, 1918, *A. L. Grant 1412* (M and Calif.); Huntington Lake, 20 July, 1917, *A. L. Grant 1119* (M and Stanford); in moist sandy places near the Lake, Huntington Lake, 7000 ft. alt., 5 July, 1917, *A. L. Grant 1032* (G, Phil., Cornell, M, TYPE, R. Mt., Calif., Stanford, and Pomona).

This species is intermediate between *M. floribundus* and *M. Pulsiferae*. It may be separated from the first by its leaves, which are mostly elliptical and either entire or sparingly denticulate, by the length of the corolla, and by the curved and divaricate pedicels. It may be distinguished from *M. Pulsiferae* by the type of the pubescence, the shorter calyx-tube, and the longer style.

44. *M. floribundus* Dougl. in Lindl. Bot. Reg. pl. 1125. 1828; Benth. Scroph. Ind. 29. 1835; DC. Prodr. 10: 372. 1846; Hook. Fl. Bor. Am. 2: 99. 1840; Hook. & Arn. Bot. Beechey's Voyage, 378. 1840; Gray in Proc. Am. Acad. 11: 99. 1876; Bot. Calif. 1: 569. 1876; Syn. Fl. N. Am. 2¹: 278. 1878, ed. 2, and Suppl. 450. 1886; Wats. Bot. King's Exp. 224. 1871; Greene in Bull. Calif. Acad. Sci. 1: 117. 1885; Manual Bay Region, 276. 1894; Howell, Fl. Northwest Am. 522. 1901; Jepson, Fl. W. Mid. Calif. 407. 1901, and ed. 2, 379. 1911; Eastwood, Fl. South Fork King's River, Sierra Club Publ. 27: 66. 1902; Abrams, Fl. Los Angeles, 366. 1904, and ed. 2, 336. 1917; Nelson in Coulter & Nelson, Manual Cent. Rocky Mountains, 454. 1909; Hall, Yosemite Fl. 222. 1912; Piper, Fl. Southeast Wash. and Adj. Idaho, 228. 1914; Henry, Fl. Brit. Columbia, 269. 1915; Rydb. Fl. Rocky Mountains, 779. 1917.

M. peduncularis Dougl. in Benth. Scroph. Ind. 29. 1835; G. Don, Hist. Dichlam. Pl. 4: 554. 1838; Walp. Rep. 3: 376. 1844-45.

M. serotinus Suksd. Deut. Bot. Monatsschr. 18: 154. 1900.

M. floribundus β *minor* Hook. Fl. Bor. Am. 2: 99. 1840.

M. pubescens Benth. in DC. Prodr. 10: 372. 1846.

M. deltoideus Gdgr. in Bull. Soc. Bot. Fr. 19: 218. 1919.