

Calandrinia breweri S. Watson, BREWER'S RED MAIDS. Annual, taprooted, rosetted, several-stemmed at base, decumbent to ascending, in range 3–25 cm tall, flowering shoots radiating to 45 cm from base; shoots with basal leaves, cauline leaves, and leaflike bracts and bractlets, somewhat fleshy, ± glabrous. **Stems** (axes of inflorescences): angled with ridged edges, to 4 mm diameter, with 3 ridges descending from each leaf, fleshy, flexible. **Leaves:** helically alternate, simple, petiolate (basal leaves) and sessile with long-tapered base (cauline leaves and bracts), without stipules; petiole indistinct from blade; blade oblanceolate to spatulate, 15–90 × 2.5–15 mm, flat with wide-triangular fleshy base, long-tapered at base, entire or minutely dentate on margins and often short-ciliate with coarse papillate hairs, acute at tip, midrib grooved on upper surface and slightly raised on lower surface. **Inflorescence:** leafy racemelike cyme, terminal, elongate, < 15-flowered, bracteate, appearing glabrous; bract at fork (on opposite side of pedicel) leaflike, papillate-ciliate on margins; bractlet subtending pedicel awl-like to lanceolate, at anthesis < 3 mm long, gradually increasing 3× in fruit, papillate-ciliate, the hairs milky; pedicel 2-ridged, ± 5 mm long becoming cylindrical and spreading (recurved) and increasing to 15–23 mm long in fruit, with a ridge descending from each sepal, the ridges sometimes sparsely papillate-hairy. **Flower:** bisexual, radial, in range 8–15 mm across, dish-shaped but closing tightly for fruit development, on a broad receptacle; after pollination, closed bud conspicuously deltate; **sepals** (bracteoles of some authors) 2, spreading closing ± erect and persistent, unequal, deltate, 4–5 mm long increasing to 5.5–8 mm in fruit, outer sepal slightly > inner sepal with thin overlapping margins in bud folded over edges of inner sepal, keeled, entire, keel and margins papillate-ciliate, acuminate with margins fused at tip, venation obscure, strongly angular in fruit; **petals** (4–)5 (corolla lobed; petaloid sepals of some authors), fused only at base forming short tube; lobes obovate, 3.5–6 mm long, rose-magenta with darker veins and white at base; **stamens** 3–7, fused at base to adjacent filaments and to nectary disc; filaments erect, ± 2 mm long, rose-magenta with a flared, fleshy, white base; anthers dorsifixed, dithecal, 0.8–0.9 mm long, light orange, longitudinally dehiscent before anthesis tending to twist after dehiscence; pollen light orange; **nectary disc** at base of corolla, 0.1–0.3 mm tall, greenish; **pistil** 1; ovary superior, conic and somewhat 3-sided, 2 mm long, green, 1-chambered with numerous ovules attached to base; style ca. 1 mm long, translucent-white, 3-branched, the branches stigmatic, ascending later spreading, 0.3 mm long, papillate and thicker on margins. **Fruit:** capsule, dehiscent by 3 valves splitting ca. 1/3 from top downward, 10–30+-seeded, narrowly ovoid, to 12 mm long, projecting at least 2 mm beyond the longer sepal, straw-colored, valves with inrolled margins; seeds borne on long funiculi from base. **Seed:** lenticular with very short beak (tip of raphe), in range 0.9–1.1 mm long, glossy black, finely bumpy (tuberculate); lacking a fleshy strophiole covering the hilum. Late January–early May.

Native. Annual seldom recognized in range from its more common relative, growing in similar habitats. *Calandrinia breweri* has many features that overlap those of *C. ciliata*, but for rapid identification look for three: flower buds are conspicuously deltate, sepals in fruit are mostly shorter than seven millimeters long while having the capsule projecting about two millimeters from the longer sepal; and there are never more than seven stamens. Experts prefer that seeds be used for positive identification, because seeds of *C. breweri* are shorter (0.9–1.1 mm versus 1.2–1.5 mm long) and have a bumpy surface (finely

tuberculate), as compared with the essentially smooth surface with cell contours on seed coats of *C. ciliata*.

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