

*Calystegia macrostegia* (Greene) Brummitt subsp. *cyclostegia* (House) Brummitt, ISLAND FALSE BINDWEED, WILD MORNING GLORY. Perennial vine, twining, from woody caudex, several-stemmed at base, with long, trailing flowering shoots; shoots with widely spaced leaves, glabrous to glabrescent with sparse, fine, short hairs becoming glabrate; latex milky. **Stems:** faintly 2-ridged becoming cylindrical, to 3 mm diameter, with 2 ridges descending from each leaf, tough,  $\pm$  smooth, green becoming purplish red, with long internodes, eventually forming purplish brown periderm. **Leaves:** helically alternate, with a pair of backward-pointing or spreading basal lobes, petiolate, without stipules; petiole slightly channeled, 9–32 mm long, inconspicuously ridged along channel, short-winged at expanded base, sparsely puberulent; blade arrow-shaped or with 2 spreading basal lobes (hastate), 25–55(–80)  $\times$  12–39(–55) mm, central portion triangular to lanceolate and acuminate to long-acuminate at tip, basal lobes each typically with a conspicuous tooth, a sublobe, or sometimes 2-toothed at tip, palmately (5)7-veined with principal veins raised on lower surface. **Inflorescence:** flowers solitary (2-flowered cyme), axillary, on long peduncle, bracteate, glabrescent becoming glabrate; peduncle (pedicel) 4–5-ridged, 10–35 mm long increasing 4 $\times$  in fruit, terminated by 2 bractlets partially concealing calyx, with 2 ridges descending from each bractlet; bractlets opposite to subopposite, in bud < 1 mm below flower increasing to 2 mm after anthesis (= pedicel elongation), erect, ovate, 8.5–15  $\times$  5.5–11 mm, green but often purplish red along veins, keeled (conspicuous in bud), broadly tapered to rounded or cordate at base, entire, narrowly membranous and ciliate on margins, slightly notched to obtuse with short point (cuspidate) at tip and tip somewhat overtopping calyx, many-veined mostly from base, fine-strigose above midpoint; pedicel with short hairs. **Flower:** bisexual, radial, 25–40 mm across; **sepals** 5, erect, overlapping, somewhat unequal, ovate, 10–13.5  $\times$  3.2–4 mm, decreasing in width from outer to inner sepals, pale green at base to darker green above and commonly reddish purple at tip, rounded to truncate at base, entire, narrowly membranous and ciliate on margins, glabrous or on exposed surface pubescent with fine ascending hairs below midpoint; **corolla** 5-lobed, pleated and twisted in bud, funnel-shaped, 35–43 mm long, thin and easily wilted, 10-angled (creases from pleats in bud = 5 inward angles + 5 outward angles), whitish to creamy white with 5 greenish or pinkish to reddish purple stripes on outer surface where exposed in bud, the stripes 2.5–3 mm wide at base tapered to a small tooth, lobes broad and short, margin irregularly short-dentate to jagged, short-ciliate adjacent to small teeth and ciliate on teeth; **stamens** 5, fused to corolla at base for 4–5.5 mm; filaments tapered to  $\pm$  cylindrical tip, 16–18.5 mm long (including fused base), 0.9–1.6 mm wide at base, papillate or having club-shaped hairs from base upward 6–8 mm; anthers included, basifixed, dithecal, linear or narrowly lanceolate to narrowly triangular, 3.8–5  $\times$  0.9–1.6 mm, whitish, arrow-shaped at base, with round-tipped sacs, longitudinally and laterally dehiscent; pollen whitish; **nectary disc** at base of ovary, cuplike, 1–1.2 mm tall, 1.9–2.3 mm across, yellow-orange (darker at base to lighter above), 5-angled in  $\times$ -section, scalloped or 5-angled on rim; **pistil** 1, 19–21 mm long; ovary superior, spheroid, 2–2.5  $\times$  1.6–1.8 mm, hairy with ascending and  $\pm$  appressed fine hairs or only around base of style, 1-chambered (sometimes having slightly intruded septum) with 4 ovules attached at base, densely silky hairy within chamber; style 13.8–15 mm long, glabrous or with  $\pm$  appressed ascending hairs on basal 0.5–7 mm; stigmas 2, narrowly oblong, 3–4  $\times$  0.6–1.1 mm, whitish, faces weakly convoluted on faces with medial groove on inner face, densely and

minutely papillate-stigmatic on faces. **Fruit:** capsule, loculicidal, surrounded by persistent, slightly spreading sepals and sometimes bractlets, dehiscent from tip downward by (several-)10–12 unequal valves, 2–4-seeded, spheroid, 6.4–7 mm, tannish with paler veins, long-hairy on inner valve. **Seed:** 1/4–1/2 spheric-wedges, 3.5–5.9 × 3–4.7 mm, very dark dull brown, minutely warty. Late October–late September.

Native. Perennial vine common throughout the range in shrubby habitats, flowering during winter and spring but individuals in the fog belt may be found with flowers nearly every week of the year. *Calystegia macrostegia* subsp. *cylcostegia* grows upon shrub canopies, but after a fire they appear scattered and often abundant as robust subshrubs with the native annuals. To identify this subspecies, keys require one to judge the shape of the bractlets, which is not always reliable to clearly distinguish it from other subspecies, with which hybrids may occur.

Several collections have been made under the name *C. macrostegia* subsp. *macrostegia*, from slopes in the western part of the range overlooking the Pacific Ocean. To date attempts to locate this form in range have not been successful, although good living materials of this subspecies were examined from north of the city of Ventura. Until it is verified in range, this subspecies will not be included in the flora.

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