

Artemisia biennis Willd., BIENNIAL WORMWOOD. Annual or biennial herb, taprooted, 1(–several)-stemmed at base, ± unbranched, erect, 30–80 cm tall; shoots leafy with spreading to ascending, deeply dissected cauline leaves and having unexpanded axillary flowering shoots, lacking tufted leaves, sparsely hairy with some parts glabrous, lacking glands, unscented. **Stems:** low-ridged, to 5 mm diameter, with 3 ridges descending from each leaf, straight, often aging purple-red and faintly striped; internodes solid. **Leaves:** helically alternate, odd-1–2-pinnately dissected with lateral pairs ± subopposite and diverging at 45–60° from axis, lower leaves mostly 2-pinnate grading in canopy to 1-pinnately dissected with coarse teeth, short-petiolate (the lowermost leaves) to sessile with diminutive lobes close to stem (cauline leaves), lacking stipules; blade broadly lanceolate to elliptic or narrowly ovate in outline, 40–90+ × 15–45 mm, green to yellow-green, principal primary lobes ± oblanceolate to oblong in outline and coarsely serrate, to 32 × 12 mm, with teeth narrowly triangular and lobes acuminate at tip, 3-veined at base with only midrib conspicuous and raised on lower surface, upper surface often glabrous. **Inflorescence:** heads, in terminal arrays with heads appearing like axillary, racemelike clusters but instead on condensed lateral branch at each node, array 120–300+ mm long, subtended by persistent cauline leaf, of erect heads, head disciform, hemi-spheroid, 1.5–2.5(–4) mm across, with (0)6–25 pistillate peripheral flowers and 15–40 bisexual central flowers, leafy bract > cluster of heads, not gland-dotted; bract within cluster of heads leaflike, pinnately dissected often with narrow, linear lobes extending from the upper clusters; **involucre** bell-shaped, 2–4 mm long, phyllaries to 15 in several series, overlapping and tightly appressed, obovate or broadly elliptic, to 4 mm long, green with wide-membranous margins and tip aging scarious, glabrous, inner phyllaries more membranous and the innermost phyllaries elliptic; receptacle conic, without bractlets (paleae), glabrous. **Peripheral flower:** pistillate, radial, ± 0.3 mm across, ca. 2.5 mm long, with exserted, ascending styles; **calyx (pappus)** absent; **corolla** typically 4-toothed, ca. 1 mm long; teeth acute, ± 0.2 mm long, pale yellow; **stamens** absent; **pistil** 1; ovary inferior, 1-chambered with 1 ovule; style 2-branched; the branches ascending, subequal, flat, papillate-hairy on stigma, longitudinally grooved on inner face. **Central flower:** bisexual, radial, 0.5 mm across, ± 2.5 mm long; **calyx (pappus)** absent; **corolla** 5-lobed, ± funnel-shaped, ca. 1 mm long; teeth acute, ± 0.2 mm long, pale yellow; **stamens** 5, fused to corolla at base of throat, included; filaments short; anthers fused into cylinder surrounding style, basifixed, dithecal, pale yellow, rounded at base, acute at tip, longitudinally dehiscent, pollen pale yellow; **pistil** 1; ovary inferior, 0.4–0.6 mm long, 1-chambered with 1 ovule; style 2-branched; the branches ascending, flat, papillate-hairy on stigma, longitudinally grooved on inner face. **Fruits:** cypselae, monomorphic, oblanceoloid (ellipsoid), in range 0.5–0.9 mm long, brown but whitish at attachment scar, 4-ribbed (of pistillate flowers) or 5-ribbed (of bisexual flowers), glabrous.

Naturalized. Annual or biennial herb known historically from the edge of Point Mugu salt marsh. *Artemisia biennis* has distinctive, pinnately dissected leaves, and it is the only species of *Artemisia* in range that has no glands, hence it is not scented. Above midplant each leaf subtends a condensed, axillary shoots with many heads, which are erect, not nodding as in other species, and each head consists of pistillate flowers on the periphery and central bisexual flowers.

B. A. Prigge & A. C. Gibson