

*Centaurea cyanus* L., BACHELOR'S BUTTON, CORNFLOWER. Annual, taprooted, somewhat rosetted, 1-stemmed at base, branched above, decumbent to ascending, in range 35–60 cm tall; shoots loose-woolly with long hairs and scattered glandular hairs beneath wool.

**Stems:** low-ridged, to 4 mm diameter, with a ridge descending from each leaf, tough, striped but  $\pm$  obscured by woolly hairs. **Leaves:** helically alternate, deeply pinnately lobed (lower leaves) and unlobed (upper leaves),  $\pm$  petiolate, without stipules; petiole indistinct from blade; blade linear to narrowly elliptic, 40–60(–100)  $\times$  1.5–3 mm, tapered at base, in range entire to remotely short-dentate on margins, long-acuminate at tip, pinnately veined, gray-woolly but less so on upper surface. **Inflorescence:** heads, in terminal, open, few-branched, cymelike arrays, head of modified disc flowers (radiant), 21–30 mm across, with 13–18 showy, sterile peripheral (outer) flowers and 12–20 bisexual central flowers, bracteate, not spinescent; peduncle stemlike, having linear leaflike bracts decreasing upward; **involucre** urn-shaped (constricted around exerted flowers), in range 7–12  $\times$  5–6 mm increasing and becoming bell-shaped in fruit, phyllaries many in 4–5 graded series, outer phyllaries ovate, 2.5–4 mm long and green, inner phyllaries lanceolate, 8–10 mm long, reddish purple near tip (blue-flowered form) or greenish yellow to whitish (white-flowered form), narrowly scarious on margins, scariously fringed at tip with 5–14 teeth, sparsely woolly to glabrate; receptacle flat, with numerous flat bristles (setae), setae narrow, 3–6 mm long, colorless or silvery white. **Peripheral flower:** bilateral; **calyx (pappus)** of several diminutive bristles (setae); **corolla** 8-toothed, bilateral, arching with throat facing outward, blue, violet-blue, or white; tube cylindric, 3.5 mm long; limb 11.5 mm long, with the outer, lowest teeth the smallest; **stamens** absent; **pistil** reduced to a diminutive, sterile ovary. **Central flower:** bisexual, radial; **calyx (pappus)** of ca. 50 bristles (setae) in several series, 2–3 mm long; **corolla** 5-lobed, blue, violet-blue, or white; tube cylindric, 4–6 mm long; throat 2–3 mm long; lobes spreading, 2–4  $\times$  < 0.5 mm; **stamens** 5, fused to top of corolla tube, 6–11.5 mm long; filaments 1–1.5 mm long, with a tuft of glandular hairs above midpoint, in white flowers white below and lavender above hairs; anthers fused into cylinder surrounding style, exerted, basifixed, dithecal,  $\pm$  5 mm long, dark red to dark reddish purple in bluish flowers, in white flower lavender at base to white above, short arrow-shaped at base, longitudinally dehiscent; pollen whitish; **pistil** 1, 7–14.5 mm long; ovary inferior, obovoid, 1–1.5 mm long, pubescent, 1-chambered with 1 ovule; style exerted, translucent whitish at base grading to lavender below stigmas (bluish flower) or remaining whitish (white flowers), with a terminal tuft of glandular hairs, 2-branched, the branches stigmatic, tongue-shaped, ca. 0.4 mm long, reddish purple (bluish flower), or pale lavender (white flower), sometimes with hairs at base on outer face.

**Fruits:** cypselae, barrel-shaped, 4–5 mm long, pale metallic blue (from bluish flower) or straw-colored (from whitish flower), finely hairy; pappus of ca. 50 fine setae, unequal, 2–3 mm long. Early June–early July.

Waif. Cultivated, blue-flowered annual found growing along the Cistern Trail at Malibu Creek State Park in 2005 in the same vicinity as white *Gypsophila elegans* and crimson *Trifolium incarnatum*, suggesting these were the result of a patriotic seed package (red, white, and blue).

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