Apocynum cannabinum L. Perennial herb, winter-dormant, from horizontal rootstock, fibrous-rooted, 1-stemmed at base, main axis unbranched to midplant, above with ascending, unbranched lateral branches from every node, main and lateral branches terminating in an inflorescence, ascending to erect, in range to 175 cm tall; shoots with long internodes and persistent, spreading leaves, glabrous; latex white; adventitious roots on buried basal stem. Stems: cylindric, to 15 mm diameter, tough (phloem fibers), green and bright purplish red on exposed sides, main stem internodes commonly 70-140 mm long, first internode of lateral branch commonly 130–190 mm long, lower stem often glaucous; early periderm at base of stem dull orangish. Leaves: opposite (at several nodes subopposite), simple, short-petiolate to subsessile, without stipules (appearing to be the minute appendages); petiole hemicylindric, < 2 mm long, forming pairs of conic, upwardpointing, minute, greenish appendages (extrafloral nectaries) 0.3–0.7 mm long at base of petiole, exposed portion sometimes red; blade narrowly ovate to broadly lanceolate, in range $60-110 \times 22-55$ mm, dull, truncate or broadly tapered to subcordate or cordate at base, sometimes basal lobes \pm clasping, entire, acute to obtuse with short point at tip, pinnately veined with conspicuous, whitish midrib raised on lower surface, lower surface gravish green (not glaucous). Inflorescence: cyme, terminal, many-flowered, with 1–4 principal axes at base, bracteate, glabrous; bract subtending each branch and branchlet, oblong-lanceolate to lanceolate, 3–6 mm long, decreasing upward, with green midrib and membranous margins; bractlet subtending pedicel \pm narrowly ovate, ca. 2.5 mm long, partially sheathing, sometimes with low teeth on margins; pedicel 2–2.5 mm long, occasionally with bracteole < 1 mm below flower, bracteole < 1 mm long resembling a diminutive bractlet. Flower: bisexual, radial, 2–2.5 mm across; receptacle cup-shaped, externally appearing to be a calyx tube; **calyx** 5-lobed, slightly fused at base; lobes overlapping in bud, appressed to corolla, narrowly triangular, $1.6-2.1 \times 0.8-1$ mm, light green to light yellowish green with white margins; corolla 5-lobed, bell-shaped, in range 2.6–3.3 mm long; tube cylindric, 1.2–1.8 mm long, green at base to creamy white above, with 10 faint green veins, internally with 5 deltate appendages arising near bases and opposite lobes appressed to corolla tube, ± 0.5 mm, greenish; lobes overlapping, erect to ascending, ovate to oblong, $1.2-1.5 \times 1.1-1.3$ mm, white, with inrolled margins; stamens 5, fused to base of corolla tube; filaments broad and flat, ± 0.8 mm long, greenish, shortciliate and minutely jagged approaching anther; anthers tightly appressed along margins forming a pyramid concealing and contacting stigma just above filament, dorsifixed, dithecal, arrow-shaped, 1.6–1.8 mm long, light yellow with reddish margins, longitudinally and inwardly dehiscent; pollen colorless; nectary 5-lobed, the lobes between filament bases and next to ovaries, subspheroid, 0.3 mm long, greenish with deep purple on top; **pistil** 1, \pm 1.6 mm long; ovaries 2, superior, free, hemispheroid with flattened common face, green, each chamber with many ovules; style + stigma complex (clavuncle) fusiform, $0.7-0.9 \times 0.4$ mm, greenish, with thickening midpoint where contacting anthers, sticky. Fruits: follicles (not observed in range), 2 per flower, pendent, many-seeded, cylindric, 60–90 mm long, joined at tips. Mid-June–late August.

Native. Perennial herb known in range only from tangled vegetation along wet banks of permanent creeks growing in shade of southern oak woodland, Malibu Creek State Park and in Cold Creek (SMM). *Apocynum cannabinum* has stems that were used by Native

Americans as cordage (bast or phloem fibers), and its occurrence downstream from a former Native American settlement makes it likely that this species is not native in range but likely was cultivated there during prehistoric times. This plant is easy to identify because it has opposite leaves separated by long internodes and bleeds white latex when cut. The flower is small and requires special magnification to view and interpret the parts, but deserves special attention in having two separate ovaries joined by its subsessile stigma, and anthers that are shaped like straight-edged arrowheads. Plants in range do not appear to form fruits.

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