

Cotoneaster pannosus Franch., SILVERLEAF COTONEASTER. Shrub, ± evergreen, unarmed, with mostly spreading to arching or eventually drooping principal branches having short lateral flowering shoots, in range 125–300 cm tall; shoots somewhat 2-dimensional (plagiotropic) via petiolar twisting of leaves, tomentose with most hairs conspicuously looped at base. **Stems:** low-ridged below nodes becoming cylindric, initially 2 mm diameter, with a broad ridge descending from each leaf, densely hairy, becoming purple-red with hairs more widely spaced, soon woody and forming reddish bark with hairs persistent. **Leaves:** helically alternate, simple, petiolate, with stipules; stipules 2, on robust vegetative shoot linear, initially 6–7 × 1 mm increasing to narrowly oblanceolate and 9–10.5 × 2–3 mm, green often with a narrow, red tip, upper surface sparsely soft-hairy, lower surface densely tomentose, persistent, stipules on a short lateral shoot tapered-linear, 3.5–4.5 mm long, purple-red, hairy, early-deciduous; petiole narrowly channeled, 5–6 mm long (robust shoot) or 6–8 mm long (lateral shoot), tomentose; blade broadly elliptic to ovate (obovate), 21–46(–50) × 10–21(–25) mm, broadly tapered at base, entire, acute at tip (rounded) mostly with extension of midrib forming a short point, pinnately veined with midrib slightly sunken on upper surface and principal veins raised on lower surface, upper surface dull dark green with scattered hairs along veins, the hairs often not looped at base, lower surface light gray-green, velveteen and densely villous-tomentose with white hairs somewhat appressed. **Inflorescence:** paniclelike cyme, terminal on short lateral shoots (a shoot with inflorescence mostly 40–65 mm long), with several lateral branches, branched at base, 20–40 mm across and flat-topped, 5–50-flowered, bracteate, tomentose; axes cylindric, unequal at each fork; bract at each node 1 subtending the narrower axis and bractlet subtending a pedicel, linear, 2–4 mm long, hairy, early-deciduous; pedicel 1–2.5 mm long increasing 2× in fruit, often with a bractlet near a flower (= bractlet of a future pedicel); bracteoles absent. **Flower:** bisexual, radial, 8–9 mm across; hypanthium fused to ovaries and free portion arising near the top of the chambers, free portion short cup-shaped, 1–1.3 mm long, to 4 mm across at top, greenish, densely tomentose, internally glabrous, **nectary** on hypanthium near ovaries, with orange-red spots; **sepals** 5, ascending between petals, deltate, ± 1 mm, pale green, densely tomentose with hairs projecting through gaps between petals, internally glabrous, erect in developing fruit; **petals** 5, horizontally spreading, roundish with short base, ca. 2.5 × 3 mm, white with veins radiating from base, slightly cupped upward, irregularly jagged on margin; **stamens** ± 20 in 1 whorl, fused ca. 0.5 mm at bases and arising just above nectary; filaments erect (hooked inward in bud), tapered to tip, 1.5–3 mm long with alternating short and long filaments, white, after pollination tentlike over pistil but later ± erect in developing fruit; anthers short-versatile, dithecal, 0.6–1.1 mm long in a single flower, purplish red and white aging darker, longitudinally dehiscent; pollen pale amber-yellow; **pistil** 1, of (1–)2 ovaries fused nearly to top; ovaries ± inferior, rounded at top and conspicuously tomentose, green, (1–)2-chambered, each chamber with 2 ovules; styles (1–)2, erect and closely appressed, 2.5–3 mm long, pale green; stigmas truncate-capitate, semicircular in outline (2 touching appearing circular), 0.6–0.7 mm across, green. **Fruit:** pome, fleshy, with (1–)2 “stones”, ± spheroid, 6–7.5 × 7–8 mm, height < width, glossy red, mostly glabrescent but tomentose at top and on the persistent red sepals, sometimes with scattered hairs on the lower portion of fruit; pulp (mesocarp) ca. 3 mm thick, juicy, yellow; “stones” 1–2-seeded, hemi-obovoid with adjacent sides flat, 4.5–5.5 × 3–3.5 mm with hard point, yellowish brown, on

curved outer face roughly warty with red, free portion of hypanthium still attached at 2/3 level, above hypanthium with scattered hairs, inner flat face smooth but with a vertical suture line. Early June–early August.

Waif. Evergreen shrub cultivated in southern California and in range barely escaped, to date found growing along the boundary of southern oak woodland but close to planted specimens, at Camarillo Grove Park and near the Craggs Road entrance of Malibu Creek State Park (SMM). *Cotoneaster pannosus*, also treated as *C. pannosa*, produces fleshy red fruits that typically contain two stones; these fruits are eaten by birds and thereby dispersed from the mother plant. Nonthorny cotoneasters are closely related to the thorny pyracanthas, and they have similar flowers and fruits. There are numerous other species of *Cotoneaster* cultivated in range, so that in the wild they also may be expected in shady habitats near homes.

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