

Phoradendron villosum (Nutt.) Engelm., OAK MISTLETOE. Parasitic woody perennial, evergreen, forming thick attachment on host branch, with ascending to spreading or pendent shoots, to 150 cm long from woody base, canopy somewhat spheroid; dioecious; shoots with fleshy green leaves, densely soft-puberulent (velutinous). **Stems:** cylindric, flexible when herbaceous but breaking easily when woody, internodes typically 15–40 mm long, densely soft-hairy when young with short, whitish hairs aging tannish. **Leaves:** opposite decussate, simple, petiolate, without stipules; petiole somewhat flattened and elliptic in \times -section, 4–7(–11) mm long, grading into blade, stiff, densely puberulent; blade broadly elliptic to obovate or round, 15–40(–50) \times 10–26(–32) mm, stiff, thick (ca. 1 mm), leathery, flat or often \pm saddle-shaped (longitudinally concave and transversely convex), broadly tapered at base, entire, rounded at tip, palmately veined with 3(–5), inconspicuous principal veins radiating from base and slightly raised on upper surface, dull.

Inflorescences: interrupted, unisexual “spike,” spikes 1–3 per leaf axil (to 6 per node), densely short-hairy on all exposed parts, many-flowered, bracteate; spike to 22 mm long increasing somewhat in fruit (pistillate), typically with 3–4 internodes (segments) with the lowest sterile, segments green, tapered to narrower base, densely short-hairy on all exposed parts, with flowers sunken in pits \pm 0.4 mm (staminate) or \pm 0.8 mm (pistillate) having a crownlike rim; bracts (cataphylls) opposite decussate at each node, reduced, fused into a collar around base of each segment, broadly triangular at tip. **Staminate**

inflorescence: the lowest segment sterile, 2–3 mm long, other segments fertile, 3–7 mm long, fertile portion cylindric or broadly club-shaped to obovoid or barrel-shaped, when fully developed each fertile portion cylindric with 25–50 flowers tightly packed in ca. 8 poorly defined vertical files. **Staminate flower:** polygonal in bud, at anthesis ca. 0.8 mm across; **perianth** of 3–4 segments, segments pointing inward and not overlapping (valvate) but slightly gaping and exposing style of aborted pistil, broadly triangular, 0.4–0.5 \times 0.7–0.8 mm, fleshy, orangish yellow, short-hairy on outer surface; **stamens** 3–4, opposite bases of perianth segments; filaments absent (anther sessile); anthers dithecal, \pm 0.4 mm long, greenish, longitudinally dehiscent; pollen colorless; **pistil** 1, abortive; ovary inferior, broadly top-shaped and shallowly 3-ridged, green, with short colorless style. **Pistillate**

inflorescence: the lowest segment sterile, 2–3 mm long, other segments fertile, 3–7 mm long, fertile portion broadly club-shaped to obovoid or barrel-shaped, when fully developed each fertile portion spheroid to barrel-shaped with 10–19 flowers arranged in 6 \pm vertical files. **Pistillate flower:** circular in bud, at anthesis ca. 1 mm across; **perianth** of 3(–4) segments, segments attached to rim of ovary, oriented inward and not overlapping (valvate) but slightly gaping and exposing style, broadly triangular, 0.4–0.5 \times 0.5–0.8 mm, fleshy, greenish yellow aging orangish and blushed red, short-hairy on outer surface and with ring of short hairs at base; **pistil** 1; ovary inferior, barrel-shaped to broadly top-shaped, at anthesis ca. 0.8 mm long, green, minutely cobblestonelike, 1-chambered, chamber gelatinous without clearly defined ovules; style conic, very short, aging orangish with red stigmatic surface. **Fruit:** berry, several-“seeded” (embryo without seed coat), \pm broadly ovoid-elliptic, 3–4 mm, white to pinkish, glabrous below midpoint + papillate-hairy approaching persistent perianth, fruit wall (exocarp) leathery; pulp gelatinous, very sticky when drying, colorless. Early July–mid-September.

Native. Perennial parasitic mistletoe in range attacking oaks (*Quercus*), in particular the evergreen *Q. agrifolia* and *Q. berberidifolia*. In California *P. villosum* has also been reported on other evergreen dicotyledons as host plants, including *Adenostoma*, *Arctostaphylos*, *Rhus*, and *Umbellularia*. Oak mistletoe flowers during summer, whereas the other species flowers during winter and early spring. This mistletoe has also been referred to *P. serotinum* subsp. *villosum*, and its proper name is yet unsettled because oak mistletoe does not appear to be a sister taxon to the other mistletoe in range, with which there are numerous, significant morphologic features.

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