

Persicaria lapathifolia (L.) S. Gray, WILLOW WEED, PALE SMARTWEED. Annual, taprooted, often with prominent ascending branches from successive nodes, ascending to erect from older, decumbent stems, in range to 175 cm tall; shoots with only cauline leaves, with or without a central, purplish triangular to crescent-shaped blotch on upper surface of blade, sparsely short-strigose with upward-pointing hairs, conspicuously gland-dotted or not gland-dotted; mostly lacking adventitious roots at basal nodes. **Stems:** cylindric, to 25 mm diameter, distinctly swollen above each node, greenish with elongate, deep rose or purplish red spots (forming at glands), dark rose or purplish red at nodes, internodes to 95 mm long, appearing jointed and somewhat zigzagged, sparsely short-strigose with hairs aging orangish; internodes hollow or with loosely tangled, filamentous pith. **Leaves:** helically alternate, simple, petiolate, with stipules; stipules (2) fused into cylinder and sheathing stem (ocrea) and attached to petiole, 1.5–30 mm long, truncate at tip, membranous and later with pinkish to purplish red veins and later becoming brownish and scarious and fracturing, lacking glandular dots, with 11–14 parallel veins above midpoint, splitting, essentially glabrous, lacking bristles or cilia on top margin; petiole at base winged and closed-sheathing, above ocrea hemi-cylindric 2–15 mm long, closed winged and purplish red with raised veins and an oblique ridge beneath ocrea, upper petiole purplish red with pale, raised vein on lower side, short-strigose including on margins; blade narrowly lanceolate to lanceolate, in range 80–215 × 20–47 mm, flat, tapered at base, entire and short-strigose ciliate on margins, acuminate at tip, conspicuously pinnately veined with principal veins slightly sunken on upper surface (midrib slightly raised) and raised on lower surface, upper surface glabrous, lower surface conspicuously gland-dotted (or not), midrib conspicuously raised, with short hairs along principal veins and slightly scabrous. **Inflorescence:** spikelike panicle, terminal and axillary, arching to nodding, with 1–several panicles, panicle cylindric, in range 25–60 × 3–6.5 mm, of clustered, several-flowered cymes, ± uninterrupted and dense or the lowest cyme slightly separated, bracteate, with stalked glandular hairs having amber-yellow heads; bract subtending peduncle leaflike; peduncle slender, to 50 mm long, glabrous or with glandular hairs; bract subtending branch of peduncle with membranous, ocrealike base to 2.5 mm long and a linear, green tip to 9 mm long; axis with scattered glandular hairs; bract subtending and sheathing cyme membranous and triangular to deltate, 2.5–3 mm long, acuminate at tip, with a green midvein and membranous margins often tinged rose, glabrous and without bristles but with scattered glandular hairs; bractlet subtending pedicel < bract; pedicel ± flattened on inner side, at anthesis 0.9–1.3 mm long increasing slightly in fruit, green, glabrous. **Flower:** bisexual, radial but slightly compressed front-to-back, 1.2–1.5 mm across; ± closed; **perianth** 4–5-lobed, 1.5–2.2 mm long, with scattered, amber-yellow glands or lacking glands; tube cup-shaped, 0.3–0.7 mm long, green; lobes overlapping, somewhat dimorphic, roundish to oblong, 1.2–1.6 × 0.7–1.3 mm, outer 2 lobes roundish and ± hooded, whitish at anthesis faintly greenish veined becoming conspicuously 3-veined in fruit with veins 2-forked and recurved near tip (anchor-shaped), inner 3 lobes rounded at tip, 2(–3)-veined; **nectary** (5–)6-lobed, mostly fused to perianth tube, lobes slightly free at tips, tips semicircular, ca. 0.1 × 0.2 mm, pale green or yellowish green, fleshy at anthesis; **stamens** (4–)6, fused to perianth tube above and alternate with nectary lobes; filaments ± 0.7–1.1 mm long, white, flat, tapered to tip; anthers dorsifixed, dithecal, 0.2–0.35 mm long, white to rose or pale yellow, longitudinally dehiscent; pollen white or

pale yellow; **pistil** 1, 1.1–1.7 mm long, included; ovary superior, compressed-ovoid, 0.7–1 × 0.6–1 mm, green, 1-chambered with 1 ovule; styles 2 but fused at base 0.2 mm, whitish, the branches spreading, ca. 0.7 mm long, becoming recurved like handlebar mustache and tardily abscised in fruit stigmas capitate. **Fruit:** achene, in range disc-shaped with a depression on each face, 1.7–2.1 × 1.4–1.8 mm, 0.5–0.7 mm thick, glossy or dull dark brown to black, smooth; enclosed by persistent perianth at maturity. Late June–late September.

Native. A tall annual found growing in wet mud along ponds (e.g., Malibou Lake) and in drainage channels, notably Conejo Creek on the western boundary of the range.

Persicaria lapathifolia is a highly variable species, having gland-dotted leaves and perianth, or lacking glands on either structure, but the stems generally have conspicuous, purplish red spots. Each inflorescence is narrow and overall greenish and white, and the flowers typically do not open, producing disclike achenes.

B. A. Prigge & A. C. Gibson