

Lythrum californicum Torrey & A. Gray, CALIFORNIA LOOSESTRIFE, HIERBA DEL CÁNCER. Perennial herb, rhizomatous, many-stemmed at base from woody rhizome, repeatedly forked in upper canopy, ± erect, to 70(–180) cm tall; shoots glabrous. **Stems:** angled with 4–6 ridges, to 2.5 mm diameter, with 2 winglike ridges descending from each leaf, tough, green. **Leaves:** helically alternate but often opposite at lower nodes of axillary lateral shoots, simple, sessile, without stipules, but having 4 or 6 club-shaped glands in each leaf axil; petiole typically < 1 mm long; blade narrowly elliptic to oblanceolate (lower cauline leaves) and linear to linear-elliptic or narrowly lanceolate (upper cauline leaves), 10–55 × 1.5–8 mm, minutely toothed on margins (10×), acute at tip, pinnately veined with midrib finely sunken on upper surface and raised on lower surface, dull. **Inflorescence:** racemelike, terminal, flowers 1 per axil of each sessile, leaflike bract; pedicel 1–2.5 mm long; bracteoles 2, on lower pedicel, awl-like, ± 1 mm long, reddish, decurrent on pedicel, short-papillate at tip, bractlet and bracteoles early-deciduous. **Flower:** bisexual, radial, suberect to ascending, 7–12 mm across; heterostylous; hypanthium (floral tube) at anthesis cylindric, 4–7 × 1–1.5 mm, 10-ribbed or 12-ribbed, with minute, winglike, colorless appendages (epicalyx lobes) on alternating ribs; **sepals** 5–6, terminal on alternating ribs, deltate, 1 mm (≈ hypanthium appendage length), rose-lavender, with red midrib and papillate on tail-like tip (caudate); **petals** 5–6, opposite hypanthium appendages, oblanceolate, 3–8 × 1–1.7 mm, orchid to light purple; **stamens** 5–6, alternate to petals, ≈ hypanthium length (pin form) or exerted ca. 4 mm (thrum form), free; filaments whitish; anthers dorsifixed, dithecal, 0.6–0.7 mm long, whitish aging reddish, longitudinally dehiscent; pollen white; **pistil** 1; ovary superior, sausage-shaped, 1/2 of hypanthium length, green, glabrous, 2-chambered, each chamber with many ovules attached to center; style exerted (pin form) or ≈ hypanthium length (thrum form), rose to white; stigma capitate. **Fruit:** capsule, dehiscent by 2 toothlike valves from top, many-seeded, torpedo-shaped, ± 5.5 mm long, hidden by hypanthium, light brown, with bulging seeds. **Seed:** ± ovoid, 1 mm long, biconvex with 1 or 2 edges, tannish. Late May–early September.

Native. Perennial herb occasionally found growing in damp ground along streams and creeks. *Lythrum californicum* has ridged, typically four-sided stems. This species is heterostylous, so it is important to observe that individual plants produce either pin or thrum flower forms. Each form is self-incompatible, and therefore outcrossing is required to form mature fruits.

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