

Delphinium cardinale Hooker, SCARLET LARKSPUR, CARDINAL LARKSPUR. Perennial herb, with several-branched rhizome, rosetted, 1–several-stemmed at base, erect, 60–300 cm tall; shoots with basal leaves and cauline leaves, basal leaves absent at flowering and cauline leaves present but soon drying; rhizome erect, taprootlike, to 10 mm diameter.

Stems: cylindric to ± angled approaching inflorescence, especially lower stem red-purplish, internodes long (to 280 mm), sparsely short-hairy with downward-arching hairs.

Leaves: helically alternate, deeply palmately lobed with 3–7 principal divisions (lower leaves) to unlobed (upper cauline leaves), long-petiolate, without stipules; petiole spreading (basal leaves) to ascending (cauline leaves), U-shaped at base, 70–220 mm long, commonly > blade, somewhat angular with flat side, with downward-arching hairs; blade kidney-shaped to roundish in outline, 100–150(–200) × 100–160(–200) mm, often length < width, decreasing upward, principal divisions deeply pinnately 2–5-lobed, cordate at base, lobes broad and obovate in outline (basal leaves) to tapered (cauline leaves), sublobes and teeth of basal lobes ovate with acute-obtuse at tip with a short, dark point, having a light-colored gland on upper surface at each sinus of lobes, sublobe, and tooth, palmately veined with many principal veins at base slightly sunken on upper surface and raised on lower surface, sparsely short-hairy mostly along raised veins. **Inflorescence:** panicle of racemes (terminal) and racemes (axillary), panicle open, with spreading lateral branches, each raceme with several–15 flowers, having most flowers open about the same time, bracteate; bract subtending peduncle leaflike but smaller and principal divisions unlobed or less divided than leaves; axes sparsely pubescent with downward-arching hairs, internodes between pedicels 10–25 mm long; bractlet subtending pedicel linear to awl-shaped, (3.5–)7–20 mm long, reduced upward, entire; pedicel ascending, 12–45 mm long increasing to 55 mm long in fruit, with 1–2 bracteoles above midpoint, with arched to curly short hairs, the bracteoles like bractlet but shorter, axis above bracteoles curved and also expanded at tip so that flower spur oriented ± horizontal. **Flower:** bisexual, bilateral, 25–35 mm across, spurred, 25–40 mm long; **sepals** 5, petal-like, scarlet, dimorphic; lateral and lower sepals spreading, ± oval, 11–18 mm long; upper sepal with limb + spur, limb spreading, 13–18 × 13–15 mm, spur enclosing 2 nectar-producing petal spurs, narrowly conic and projecting backwards, 15–24 mm long, often bent near tip, transversely wrinkled, with inconspicuous, widely scattered hairs; **petals** 4, dimorphic; lateral 2 petals (attached laterally on upper part of receptacle) clawed, oblanceolate, 10–14 × 3.5 mm, claw ca. 6 mm long, green and whitish at base, with a rudimentary sac at base, twisted so that pubescent outer surface faces down toward anthers, limb scarlet, obtuse or notched at tip, with scattered, yellowish, gland-based hairs; upper 2 petals (attached to upper side of receptacle) with limb and spur, limbs touching and projecting forward, arching slightly upward and outward, ± mitten-shaped (with 1 minor side lobe), 13–16 × 3–5 mm, on inner (upper) surface mostly yellow except scarlet at tip, mostly scarlet on outer (lower) surface except for yellow on margins, spurs slender, nearly as long as sepal spur and enclosed within it, yellowish, with **nectaries** at bases; **stamens** 25–33, helically alternate, free, with anthers positioned mostly below petals; filaments 8–10 mm long (within each flower), pinkish white, winged to midpoint and appressed to pistils, with raised midvein, commonly with a twist or coil above wing; anthers basifixed, dithecal, elliptic, 1.8–2.4 × 1–1.4 mm, yellow and rose, sparsely short-ciliate on margins, longitudinally dehiscent; pollen white; **pistils** 3, free to base; ovaries superior, appressed to each other, ± conic, 4–7 mm long,

white to pale green, each chamber with many ovules; style pink, stigmatic at tip. **Fruits:** follicles, 3; each follicle dehiscent at top on inner side, to 30-seeded, erect, caterpillar-shaped, 12–18 × 4–5 mm with terminal beak, golden tan, round, ± inflated and slightly bulging by seeds, conspicuously netted-veined; beak spreading, pointed, persistent, with conspicuous midvein and lateral veins converging at tip. **Seed:** variously polygonal, 2–2.5 mm long, dull dark brown and rough, sharply angled along each edge, most faces ± concave, 1 face convex. Late May–mid-August.

Native. Perennial herb common in chaparral, isolated mostly on slopes and in openings. *Delphinium cardinale* has vegetative growth during springtime then begins blooming at the onset of dry, summer conditions. Basal leaves wither before anthesis of the first flowers; the flowers become a reliable source of nectar for hummingbirds. A single yellow-flowered individual of *D. cardinale* has been observed in range, and should be expected elsewhere.

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