

Lupinus L. LUPINE

Lupinus hirsutissimus Benth., STINGING LUPINE. Annual, taprooted, rosetted with spreading to ascending basal leaves, 1–several-stemmed at base, ± erect with ascending to decumbent lateral shoots, 30–100 cm tall; shoots with basal leaves and cauline leaves, densely hirsute with long, irritating, mildly stinging hairs having blisterlike bases (pustulate); roots nodulated. **Stems:** cylindrical, to 15 mm diameter, green, strigose and hirsute, bearing radiating stiff, sharp hairs 3–5 mm long; narrowly hollow. **Leaves:** helically alternate, palmately compound with 5–7(–8) leaflets, petiolate, with stipules; stipules 2, fused to petiole to about stipule midpoint, ascending, long-acuminate, 5–15 mm long, green and dying back from tip; petiole of lower cauline leaves ± cylindrical, mostly to 120(–180) mm long, lacking pulvinus at base; petiolules < 1.5 mm long, whitish, wrinkled like pulvinus but not swollen; blades of leaflets obovate to oblanceolate, 10–49 × 7–25 mm, thickish, tapered and folded upward at base, entire, rounded to truncate at tip and often with short point, pinnately veined with midrib raised on lower surface, dull, with scattered, conspicuous, pustulate hairs. **Inflorescence:** raceme, terminal on major shoots, 100–250 mm long increasing 2× in fruit, 20–60+ flowered, flowers mostly alternate and not clustered into distinct whorls, bracteate, with pustulate hairs; peduncle cylindrical, 50–80 mm long, peduncle and rachis densely hirsute and strigose, hollow; bractlet subtending pedicel narrowly elliptic to narrowly lanceolate, 4–6 mm long, hirsute, deciduous but with a persistent base ca. 1 mm long; pedicel 3–6 mm long, purplish to dark purple turning green in fruit, with bractlet base becoming part of swollen pedicel in developing fruit. **Flower:** bisexual, bilateral, pealike (papilionaceous), 11–14 mm across; **calyx** 2-lipped and 3-lobed, hirsute with pustulate hairs; tube 2–3.5 mm long, greenish and lavender; upper 2 lobes acuminate-lanceolate, 5.5–7.5 mm long, green or tinged purple or purplish; lower lobe keeled, 8–9 mm long, acute or minutely 3-toothed at tip; **petals** 5; banner lacking claw and ± round, 12–15 × 10–14 mm, strong purple with lighter margins aging darker and more violet, keeled, initially folded but eventually curling backward forming a pair of longitudinal ridges along keel, central patch (partially revealed) yellowish to yellowish green, with a pattern of reddish to purple spots along ridges, glabrous on back and front; wings 2, weakly fused along margins near tip (concealing part of keel), claws 1.5–2 mm long, limbs ± oblong to obovate, 12–16 × 8 mm (including claw), strong purple aging darker sometimes with scattered white dots toward the tip, paler to whitish below midpoint; keel of 2 partially fused petals, clawed, 13–15 × 5 mm, keel portion pale green to yellow at very tip and strong reddish purple and deep reddish purple behind tip, light purple or paler around midpoint to whitish at base, ciliate on lower edge from below midpoint back to claw with short, crisped hairs, not ciliate on upper margins; **stamens** 10, monadelphous (10 filaments fused into column); filaments unequal, column ± 8.5 mm long, whitish, free portions 2.5–4 mm long, mostly pale green; anthers basifixed, dithecal, dimorphic, 5 anthers 1.6–2 mm long alternating with 5 anthers 0.4–0.5 mm long, orange, longitudinally dehiscent; pollen orange to orange-yellow, copious, sticky; **nectary** at base of staminal column next to banner, inconspicuous, nectar-producing; **pistil** 1, subsessile; ovary superior, lanceoloid but arching, to 7 mm long, green, with appressed, upward-pointing colorless hairs, 1-chambered with < 10 ovules attached to upper side; style strongly curved, ca. 7 mm long, green, with hairs just below stigma asymmetrically longer

on 1 side; stigma terminal, green, short-papillate. **Fruit:** pod (legume), dehiscent by valves separating lengthwise or sometimes twisting open, typically 6–7-seeded, oblong, 25–35 × 7 mm, bristly. **Seed:** ± spheric, 4 × 3.5 mm, dull, mottled brown and tan. Late January–early May.

Native. Annual occurring occasionally throughout the range, especially on recently burned and recovering chaparral or coastal sage scrub but also present along road cuts. *Lupinus hirsutissimus* is an easily recognized lupine species by having relatively sharp, irritating hairs throughout and racemes of spectacular flowers, which change color dramatically, light to dark from first exposure in bud until old corollas when the fruits have started to form. As plants age and start to dry out, the hairs become more irritating.

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