

Lupinus formosus Greene var. *formosus*, SUMMER LUPINE. Perennial herb, rhizomatous, with several, decumbent or ascending stems, 50–80 cm tall; shoots with only cauline leaves, weakly sericeous and pubescent with mostly appressed to ascending hairs (some spreading hairs); rhizomes 3–7 mm diameter. **Stems:** faintly ridged aging cylindrical, 3–4 mm diameter, with 3 ridges descending from each leaf; solid. **Leaves:** helically alternate, palmately compound with 6–8 leaflets, petiolate without pulvinus, with stipules; stipules 2, attached to petiole for < 5 mm, narrowly triangular-acuminate, in range 3.2–8 mm long, moderately white-sericeous; petiole cylindrical but slightly flattened on upper side (channeled), in range 15–35 mm long, flared at base, sparsely strigose to moderately sericeous; petiolules pulvinuslike, 0.5–1 mm long, pale green; blades of leaflets oblanceolate, in range 8–37 × 2.1–10 mm, curved or folded upward from midrib, tapered at base, entire, cupped and acute and sometimes fine-pointed at tip (apiculate), pinnately veined with midrib raised and pale green on lower surface, weakly sericeous. **Inflorescence:** raceme, terminal on principal shoots, 90–270 mm long, many-flowered, flowers mostly in oblique pseudowhorls of 4–6 flowers, bracteate, long-hairy; peduncle (30–)45–70 mm long, greenish, sericeous; rachis ridged and angular, with a ridge descending from each bractlet, pubescent with ascending hairs, having pseudowhorls 15–25 mm apart, sometimes with 1–2 flowers between pseudowhorls; bractlet ascending, lanceolate to narrowly lanceolate, 3–9 mm long, sericeous, early-deciduous; pedicel in range 3–5 mm long increasing to 5–7 mm long in fruit, densely pubescent with ascending hairs. **Flower:** bisexual, bilateral, pealike (papilionaceous), 7–12 mm wide, 11–13.5 mm tall; **nectary** nectar-producing receptacle below ovary; **calyx** 2-lipped, with a triangular tooth 0.3–0.7 mm long at base of each sinus between upper and lower lips, greenish but becoming reddish purple on exposed areas, ± sericeous; tube cup-shaped compressed side-to-side, 1–1.3 × 2.4–3.5 mm, bulging on upper side and approaching upper lip; upper lip obovate, 5–6 mm long, notched to 0.5 mm deep at tip, obscurely 6–8-veined on inner surface; lower lip triangular to lanceolate, 6.3–6.8 mm long, acute at tip, obscurely 6–8-veined on inner surface; **petals** 5, 13.5–15.5 mm long, mostly strong violet with some white in center and darker violet at keel tip; banner roundish to oblate (when flattened) and broadly tapered at base, 12–13.7 × 12–14.2 mm, above midpoint ascending to ca. 45°, reflexed from central pair of ridges, deep violet, glabrous, with midfurrow whitish to pale yellow between pair of ridges, dark purple-dotted in upper center, short-toothed at rounded tip; wings 2, partially fused on outer margins, appressed to keel, clawed, ± hatchet-shaped, 14.3–14.8 × 6.7–8.4 mm (including claws 1.5–3 mm long), mostly deep violet but lighter toward base, broadly acutely lobed above claw, slightly concave on upper edge, gradually curving on lower edge from claw to ca. 3/4 way to tip, then sharply curved up to tip, glabrous; keel of 2 partially fused petals, clawed, ca. 14 mm long (including claw ca. 2.5 mm long), dark violet on 1/3 approaching tip, pale green to white on proximal 2/3 except for a patch of violet ± in middle of lower edge, concave and glabrous on upper edge but obtusely angled above claw, curving from top of claw to tip on lower edge, narrowly acute at tip; **stamens** 10, monadelphous (10 filaments fused into column); filament column ca. 6.5 mm long, light green, filament free portions alternately 7–8.5 mm long (long filaments) and 3–4 mm long (short filaments); anthers basifixed, dithecal, ca. 0.4 mm long (long filaments) and narrowly triangular to linear and ca. 1.6 mm long (short filaments), orange, longitudinally dehiscent; pollen orange-

yellow; **pistil** 1, ca. 17 mm long; ovary superior, 6.5–7.5 mm long, greenish, sericeous, 1-chambered with 5–7 ovules attached to upper side; style arched upward 90°, green, glabrous except for a slightly oblique ring of hairs just below stigma, the hairs whitish, with longest hairs on inner side; stigma narrow, slightly domed, yellowish green, minutely papillate. **Fruit:** pod (legume), dehiscent, 1–7-seeded, laterally compressed, ellipsoid to lanceoloid or oblanceoloid compressed side-to-side, 22–35(–45) × 8.5–11 mm, sericeous. **Seed:** lens-shaped to D-shaped, 4–7 mm long, mottled brown.

Native. Perennial herb known historically in range from Griffith Park. *Lupinus formosus* is the perennial in range that has a glabrous keel.

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