

Lupinus truncatus Nutt., COLLAR LUPINE. Annual, taprooted, rosetted, typically 1-stemmed at base, unbranched or with ascending lateral branches, erect, 20–90 cm tall; shoots with basal leaves and cauline leaves, strigose throughout; taproot strongly nodulated; cotyledons petiolate. **Stems:** ± cylindric, to 12 mm diameter, with a pair of low ridges descending from each leaf, conspicuously purple at plant base, green often aging purplish above; hollow (except at stem base). **Leaves:** helically alternate, palmately compound with 5–7 leaflets, long-petiolate without pulvinus, with stipules; stipules 2, attached to petiole near base, spreading to ascending, narrowly triangular to awl-shaped, 0.7–2.3 mm long, reddish, strigose; petiole cylindric (3-angled), 16–85 mm long, > blade; petiolules to 1 mm long, nongreen; blades of leaflets linear-oblong to linear-oblong, 6–40 × 1.2–5.4 mm, central leaflet the largest decreasing to basal leaflets, thickish, long-tapered at base, entire, truncate to slightly notched at tip or rounded on wide leaflets, only midrib distinct, dull, upper surface glabrate, lower surface and margins sparsely strigose. **Inflorescence:** raceme, terminal on primary shoots, 75–415 mm long, 10–60-flowered, flowers strictly helically alternate and ± evenly spaced (never pseudowhorled or clustered), bracteate, strigose; peduncle cylindric, 30–65 mm long, hollow; bractlet subtending pedicel narrowly triangular and slightly keeled, 1.5–4.5 × 0.5–1 mm, persistent or withering from persistent base, the base becoming part of swollen pedicel in developing fruit; pedicel 1.5–3 mm long increasing 2× in fruit, purplish turning green in fruit. **Flower:** bisexual, bilateral, pealike (papilionaceous), 4.5–6.5 mm across; **nectary** nectar-producing receptacle below ovary, some nectar present; **calyx** 2-lipped, 3-lobed, 4.5–6.5 mm long, purple and green, strigose; tube bell-shaped, 1.5–1.7 × 2.2 mm; upper lip 2-lobed, lobes triangular, 1.5–3 mm long; lower lip triangular, 3–4.8 mm long, minutely 3-toothed with middle tooth the largest; sometimes with a pair of purplish, lateral appendages near base and below sinus, to 0.3 mm long, tipped purplish red; **petals** 5; banner ± heart-shaped, 8.5–9.5 mm, ± lacking claw, initially folded but at anthesis bent upward ca. 45° at midpoint and with upwardly curved, back-inrolled margins forming a pair of longitudinal ridges along midfurrow, strong purple at margins grading to light purple and then whitish centrally (whitish center often not exposed), spotted with deep maroon-purple between central and peripheral area; wings 2, weakly fused on outer margin (hiding part of keel) aging free, asymmetrically short-clawed, claws 1.5–2.4 mm long and white, limbs obovate to ± oblong, 9–10.5 × 4–5.5 mm (including claw), strong purple to paler approaching base, conspicuously veined; keel of 2 petals partially fused on lower edge, clawed, 9.3–9.6 mm long (including claw), claws 2.2–2.5 mm long and whitish, limb deep purple along lower fused edge to tip, deep reddish purple in middle, white on inner edge of tip and base above claw, densely ciliate with short, crisped hairs on upper margin from claw to below upturned tip; **stamens** 10, monadelphous (10 filaments fused into column), fused with base of banner; filament column ± 5.5 mm long, white, tapering, filaments free portion unequal, 3.5–4.5 mm long increasing 2× after anthesis (long stamens) and 1–1.5 mm long (short stamens), white; anthers basifixed, dithecal, ± 0.5 mm long (long stamens) and 0.8–1 mm long (short stamens), dark orange-yellow, longitudinally dehiscent first with short stamens while in bud; pollen orange-yellow, copious, sticky; **pistil** 1, to 10 mm long, not stalked; ovary superior, oblong compressed side-to-side, 5 × 1 mm, green, pubescent to strigose with whitish, upward-pointing hairs, 1-chambered with ca. 10 ovules attached to upper side; style strongly curved, whitish, with

hairs just below stigma asymmetrically longer on 1 side; stigma dome-shaped, minutely papillate. **Fruit:** pod (legume), dehiscent by 2 valves separating lengthwise typically twisting to open, mostly 6–8-seeded, linear-oblong, 25–40 × 5–5.5 mm, soft-pubescent. **Seed:** ± spheric-rectangular, 7 × 5 mm, dull, mottled brown and tan. Mid-December–early June.

Native. Annual occasionally found on burns and in disturbed places throughout the range, always occurring in comparatively small populations. *Lupinus truncatus* gets its name from the leaflets, which tend to be truncate at the tips, and the plant superficially may appear glabrous, so it is easily distinguishable from the conspicuously hairy species. Overall *L. truncatus* is easy to identify because its deep reddish purple flowers are widely spaced and never clustered into whorls or pseudowhorls.

B. A. Prigge & A. C. Gibson