

*Lupinus excubitus* M. E. Jones var. *hallii* (Abrams) C. P. Smith, HALL'S BUSH LUPINE.

Subshrub with herbaceous shoots from woody caudex, several-stemmed at base, with ascending lateral branches, erect, 90–150 cm tall; shoots with only cauline leaves, sparsely to densely sericeous and somewhat silvery having ascending, straight hairs and some spreading hairs; roots nodulated. **Stems:** cylindrical to faintly ridged, to 7 mm diameter, with 2 ridges descending from each leaf, green, sparsely short-sericeous; hollow. **Leaves:** helically alternate, palmately compound with (6–)8–11 leaflets, long-petiolate without pulvinus, with stipules; stipules 2, attached to petiole for 2.5–5 mm, narrowly awl-shaped to threadlike, 3–9 mm long, reddish to light orange, moderately to densely white-sericeous; petiole mostly flat on upper side except slightly grooved at base and cylindrical approaching blade, 25–190 mm long, sparsely to moderately sericeous; petiolules of leaflets pulvinuslike, < 1 mm long, greenish white, hairy; blades of leaflets oblanceolate, 30–66 × 9–16 mm, terminal leaflet the longest and basal leaflet pair the shortest, dull green, long-tapered at base and folded upward from midrib, entire, broadly acute at tip, pinnately veined with midrib sunken on upper surface and strongly raised and pale green on lower surface, initially silky sericeous aging with sparser hairs. **Inflorescence:** raceme, terminal on principal shoots, mostly > 60-flowered and > 400 mm long in fruit, flowers often in 6–16 pseudowhorls, pseudowhorls mostly 20–25(–30) mm apart, each pseudowhorl of 6–7 flowers (poorly defined at base), bracteate, sericeous like shoot; peduncle mostly (50–)70–110 mm long; rachis ridged, in range mostly 145–260+ mm long, each ridge descending from bractlet and red or reddish to brownish; bractlet subtending pedicel lanceolate, 5–6.2(–7.3) mm long, keeled, densely sericeous, early-deciduous (often before anthesis) but with persistent, truncated, shelflike base; pedicel at anthesis ascending and ± straight, 1.5–4.5 mm long increasing in fruit, densely short-villous to pilose. **Flower:** bisexual, bilateral, pealike (papilionaceous), 5–12.5 mm across; strongly fragrant; **nectary** nectar-producing receptacle below ovary; **calyx** 2-lipped, moderately to densely pilose, greenish with reddish tinge along veins; tube cup-shaped, 2–2.5 mm long, 3.5–4 mm diameter at orifice, with appendages at lip sinuses; upper lip ovate 2-toothed at tip, 5–7 mm long, folded upward from midvein, 6-veined, the teeth ± 1 mm long; lower lip lanceolate, 6.5–8.5 mm long, folded upward from midvein, acute at tip, 3-veined with midvein somewhat raised; appendages 2, ascending, lanceolate, ± 0.5 mm long, greenish and hairy, easily detached in bud or during flowering; **petals** 5, wings mostly concealing keel; banner ascending and having thinner limb spreading or flexed backward, roundish, 12–13 mm, pale yellow and tinged with purple to violet or pale coppery yellow to golden buff, glabrous (occasionally hairy on back surface), central region from base humped forward with a pair of longitudinal ridges along midfurrow, having a pair of bright yellow marks at end of ridges bordering midline and in middle of blade, broadly tapered at base, entire or slightly notched at obtuse tip; wings 2, ascending sharply, limbs fused along outer margin with or without tip of keel protruding between wings and above fused area, clawed, asymmetrically obovate, 12–14 × 6.5–8 mm, claws upcurved, 1.5–2.5 mm long, limbs pale yellow tinged purple or violet on margin and fading toward base or pale coppery yellow to golden buff, 15–20-veined, each limb with ± right-angle lobe at base on upper side, convex on lower margin and curving up to a slightly upturned, rounded tip, straight to slightly concave along upper margin between angled base and rounded tip, upper margins of wings (including basal lobe) inserted into and clasped by midfurrow of banner, glabrous; keel of

2 petals fused on lower edge from midpoint to tip, 13.3–15 mm long, clawed, claw relatively narrow, 2–4 mm long, limb wide sickle-shaped  $\pm$  tapered on lower edge at base and ca. 90° on upper edge, mostly pale yellow but approaching tip dark red to dark reddish purple with a short, light yellow tip and sometimes yellow along narrow upper margins, otherwise the darkest at tip with ca. 8 longitudinal veins, ciliate on upper margin with short-pilose hairs from angle to within 2 mm of tip, having shorter hairs below midpoint and longer hairs above midpoint, glabrous along lower keel margin; **stamens** 10, monadelphous (10 filaments fused into column); filament column 5–8 mm long, whitish, free filament portions alternating long and short, 4.5–8.5 mm long (long stamens) and 3.5–4 mm long (short stamens), orange to orange-yellow, glabrous; anthers basifixed, dithecal, heart-shaped and 0.5–0.7 mm long (long stamens) and narrowly triangular and 1.6–2.4 mm long and dehiscent in bud (short stamens), light orange, longitudinally dehiscent; pollen orange-yellow, sticky; **pistil** 1, 12.5–15 mm long; ovary superior, lanceoloid compressed side-to-side, 3.5–5.5  $\times$  1 mm, green, finely pubescent, 1-chambered with 7–8 ovules attached to upper side; style arching to 90°, 8–10 mm long, green, mostly glabrous but with an asymmetric ring of short, whitish hairs just below stigma, the hairs 0.15–0.4 mm long with the longest hairs on inner side; stigma narrowly domed, ca. 0.25 mm tall, yellowish green, minutely papillate. **Fruit:** pod (legume), dehiscent by 2 valves, to 8-seeded, ellipsoid or ovate to lanceoloid or oblong compressed side-to-side, in range 20–35  $\times$  8.5–11 mm, densely sericeous. April–early July.

Native. Subshrub with its most characteristic population on SMMNRA Palo Comado (SH) growing in phases of coastal sage scrub, but also known from SMM, e.g., Griffith Park, Topanga Canyon, Tapia State Park, and Laurel Canyon. *Lupinus excubitus* var. *hallii* dies back to ground level every year, so that it would never be mistaken for the shrub *L. longifolius*. Simi Hills populations mostly have pale flowers in comparison with the other perennials, but flower color alone is not sufficient for proper identification. Probably the best indicator for this species is presence of hairs on the back surface of the banner.  
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