

Lathyrus odoratus L., SWEET PEA. Annual vine, tendril-bearing, taprooted, forming lateral branches from most nodes, sprawling and climbing over other plants, sometimes in dense stands; shoots with leaflike, green-winged axes, every leaf tendrilar, pubescent and short glandular-hairy, the nonglandular hairs thin with moundlike bases, the glandular hairs short-stalked with colorless, spheric heads, glaucous; tendrils = modified leaflets, 3–12 per leaf, typically paired along leaf rachis (= lateral leaflets) and 3 at tip (= 2 lateral leaflets + terminal leaflet), cylindric, 25–80+ mm long, tough, at maturity 1 mm diameter, with scattered nonglandular and glandular hairs; roots nodulated. **Stems:** angled top and bottom of stem and with 2 conspicuous, green (photosynthetic) wings per internode, internodes 50–135 mm long, each wing to 4 mm wide and decurrent from a stipule, ridge descending from petiole; large stems hollow. **Leaves:** helically alternate, odd-1-pinnately compound typically with 1 pair of \pm sessile lateral leaflets (sometimes 3 or 4 leaflets) and others replaced by tendrils, with stipules; stipules 2, attached to stem wings, asymmetric with ascending lobe and 1 shorter, narrower lobe diverging backwards or to the side, axis lanceolate, 10–25 mm long, green, acuminate, lobe to 11 mm long; petiole 2-winged like stem internodes, to 85 \times 10 mm, with midvein conspicuously raised on lower side, having nonglandular hairs and short glandular-hairy; petiolule = pulvinus, 1–3 mm long and wide; blades of leaflets often ascending, broadly elliptic to ovate or \pm rhombic, 24–105 \times 12–75 mm, entire, acute with fine point at tip, palmately veined with 5 or more principal veins from base raised mostly on lower surface, dull, with scattered hairs, lower surface conspicuously blue-glaucous; rachis above leaflets channeled and ridged changing to several-ridged; tendrils to 85 mm long. **Inflorescence:** raceme, axillary, (1–)2–4-flowered, bracteate, with nonglandular hairs and short glandular hairs; peduncle to 200 mm long, > tendril-bearing leaf, mostly ca. 10-ridged and angled, green, glaucous approaching raceme, with hairs along ridges and ridges sometimes reddish; rachis to 55 mm long, strongly ridged, hairy and glaucous; bractlet subtending pedicel on a flaring base, narrowly acuminate to linear, 1–3 mm long; pedicel spreading, at anthesis and in fruit 5–10 mm long, not ridged, paler than rachis, hairy and abscising from raised bases. **Flower:** bisexual, bilateral, pealike (papilionaceous), 17–35 mm across, 25–30 mm long, typically with strong, sweet fragrance; **nectary** nectar-producing receptacle below ovary, nectar copious, thin; **calyx** 5-lobed, green, somewhat glaucous, with scattered nonglandular and glandular hairs, the nonglandular hairs with moundlike bases; tube bell-shaped, 6–8 mm long, to 7 mm wide, with 5 raised ribs extending to lobes and 5 inconspicuous ribs to sinuses, ribs with ascending hairs; lobes narrowly triangular, 6–9 mm long, wavy to rolled back on margins, internally with only widely spaced glandular hairs; **petals** 5, corolla 1-colored or 2-colored, in range pale to dark pink, rose, deep purple to dark red with or without white (rarely all white or mottled), faintly veined but darker than background; banner (rarely 2 banners) often spreading to tentlike, roundish, 21–35+ mm wide, narrow base to 4 mm long and not stiff, shallowly notched at tip; wings 2, narrowly obovate to obovate with uneven surface, clawed, claws flat, 4–5 mm long, greenish, somewhat glossy, with a conspicuous midvein, limbs to 25 mm long, lighter colored than banner (white), at base with backward-pointing lobe 2.5–3 mm long; keel of 2 petals fused on lower edge from midpoint of limbs to tip, deeply hatchet-shaped, \pm 18 mm long, white, claws 5 mm long, greenish, glabrous, limbs of keel at base with a pair of backward-pointing, \pm deltate lobes 2.5–3 mm long, with minute teeth along upper edges; **stamens** 10, diadelphous (9

filaments fused and 1 free), 22–24 mm long; filament sheet 14–16.5 mm long, white, filament free portions arched to match contour of keel, 7–9 mm long alternating short and longer, the longer filaments compressed approaching anther, pale orange, glabrous; anthers basifixed, dithecal, 1.5–1.8 mm long, orange, longitudinally dehiscent; pollen light to pale orange, sticky and clumping; **pistil** 1, with stigma touching anthers; ovary superior, oblong, 10.5–12 mm long, green, sericeous and with scattered glandular hairs, 1-chambered having to 11 ovules attached to upper side; style bent sharply upward from ovary, translucent and essentially glabrous at base, vertical portion compressed front-to-back and narrowly club-shaped, 6–7 mm long, twisted slightly so the upper villous face and the lower glabrous face are turned sideways; stigmatic on villous side. **Fruit:** legume, dehiscent by 2 twisting valves, to 10-seeded, oblong and canoe-shaped, 50–65(–75) × 7–11 × 6–7 mm, tannish, upper edge ± straight, villous but rough due to persistent conic hair bases, having beads of exudates on glandular hairs. **Seed:** spheroid, 5.5–6 mm, dull dark brown; hilum lanceolate, continuous with a whitish groove 2.5 mm long along raphe. Mid-May–mid-June.

Naturalized. Annual vine cultivated in range but also occasionally established on unattended properties in scattered localities, such as Topanga and Calabasas, where plants reseed year-after-year. *Lathyrus odoratus* gets its specific epithet from the sweetly fragrant flowers, which in range are typically two-colored, mostly dark pink to rose or dark red with white. This annual garden plant is easy to recognize because its green organs are pubescent (including glandular hairs) and conspicuously glaucous, whereas the green organs of the perennial *L. latifolius* are always glabrous and less glaucous.

B. A. Prigge & A. C. Gibson