

Solanum L. NIGHTSHADE

Solanum xanti A. Gray, PURPLE NIGHTSHADE. Subshrub, drought-deciduous, many-stemmed at base, ascending to decumbent, 40–110 cm tall; shoots pubescent with unbranched nonglandular and glandular hairs (in range rarely with some branched hairs), typically not sticky. **Stems:** ridged or angled, ca. 5 mm diameter, with 2 ridges descending from each leaf, conspicuously pubescent with spreading glandular and nonglandular hairs. **Leaves:** helically alternate, simple (rarely with basal lobes), petiolate, < 140 mm long, without stipules; petiole 6–20 mm long, with ridged edges; blade ovate to broadly lanceolate or elliptic, 25–80(–115) × 15–35(–70) mm, ± oblique at base (symmetric), entire and somewhat wavy to soft-crested on margins, acute at tip, pinnately veined with principal veins conspicuously raised on lower surface, pubescent with soft-glandular and unbranched (rarely some branched) nonglandular hairs. **Inflorescence:** panicle of 2–3 cymes, axillary, commonly 10–20+-flowered, cymes often zigzagged and ± 1-sided, flowers nodding, lacking bracts; axes densely pubescent with spreading nonglandular and glandular hairs; bractlets absent, but with a green, bowl-like swelling beneath pedicel; pedicel typically 6–20 mm long not increasing in fruit, dark to light purple (green with white flowers), glabrous. **Flower:** bisexual, radial, 15–30 mm across, ± pleated in bud (plicate); **calyx** 5-lobed, at anthesis broadly bell-shaped and pentagonal, 3–3.5 mm long; tube ≥ lobes, purple or green with purple highlights, 5-veined with each vein extending to lobe tip; lobes spreading, equal or not, broadly triangular, 1–2.3 × 1.9–2.5 mm, obtusely acuminate at tip becoming broader and spreading with enlarging fruit, short-hairy or not at tip; **corolla** weakly 5-lobed or 5-toothed, cymbal-shaped (rotate) and pentagonal; tube short, ca. 1 mm long, completely in calyx; limb violet to lavender (rarely appearing as a white mutant), with a pair of spots or 2-lobed spot at base of each major vein, the spots white with large green or yellow center, the major vein purple ending in each lobe tip or teeth and sometimes a fainter vein to each sinus, minutely pubescent on lower surface where exposed in bud; **stamens** 5, fused to base of corolla; filaments erect, 1.5–1.8 mm long, green or yellowish, sparsely villous on inner side; anthers erect and touching, basifixed, dithecal, 4–5.5 mm long, yellow, dehiscing via terminal pores or longitudinal slit on inward-facing side; pollen pale yellow to whitish; **pistil** 1, 7–10 mm long; ovary superior, spheric to ovoid, ca. 1.5 mm long, glabrous, 2-chambered, each chamber with several ovules attached to center; style exerted ± 2 mm above anthers, greenish, glabrous, expanding slightly approaching tip; stigma diffuse. **Fruit:** berry, fleshy, ± 10-seeded, spheric, 6–7 mm, green turning brownish with drying; exocarp leathery and persistent; calyx star-shaped, to 10 mm across, green. **Seed:** discuslike and ± circular, 2 mm diameter, brownish tan, glabrous. Early December–late June.

Native. Subshrub occurring in small populations within many plant communities and local habitats, including those damaged by fire or human use. *Solanum xanti* typically has densely pubescent shoots with unbranched hairs, and the corolla most commonly has green spots. In range a white mutant flower form, having the green spots, was found along Mulholland Highway near Route 23 (SMM). *Solanum umbelliferum*, very closely related to *S. xanti*, characteristically has branched hairs; to date, plants with some branched hairs are known only from lower Franklin Canyon. Some workers have discussed that perhaps

all of these purple nightshades should instead be combined as one species, which would then have to be called *S. umbelliferum*, but an intensive investigation, using populations of all related species, would be required to resolve that taxonomic issue.

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