

Vascular Plants of Williamson County

Solanum ptychanthum – BLUE-FLOWERED BUFFALO-BUR, AMERICAN NIGHTSHADE
[Solanaceae]

Solanum ptychanthum Dunal, BLUE-FLOWERED BUFFALO-BUR, AMERICAN NIGHTSHADE. Annual, taprooted, not rosetted, mostly 1-stemmed at base, often bushy with ascending branched, in range 30–65 cm tall; shoots with only cauline leaves, foliage \pm velveteen with simple, short hairs, stellate hairs absent. **Stems:** several-ridged, to 7 mm diameter, with 2 well-defined ridges descending from each leaf (margins). **Leaves:** helically alternate, simple, short-petiolate (appearing long-petiolate), without stipules; blade ovate, (10–)35–110+ \times (5.5–)25–60+ mm, extremely long-tapered at base (“winged-petiolate”), low-dentate on margins with obtuse teeth, obtuse at tip, pinnately veined with midrib and several principal veins raised and other veins sunken on upper surface and principal veins raised on lower surface. **Inflorescence:** cyme, “axillary” but arising from internode, umbel-like, 3(–several)-flowered, lacking bracts, short-hairy with upward-arching hairs on axes; peduncle spreading from internode, straight with diverging pedicels at top, cylindrical, at anthesis mostly 10–13 \times 0.5 mm increasing to 20 mm long in fruit, yellow-green, short-hairy; pedicel often spreading and curving or somewhat deflexed (orienting flower), cylindrical, 5–9 \times 0.35 mm but flared 2 \times at top, yellow-green, with purplish red ring at base just below constriction of abscission zone, short-hairy. **Flower:** bisexual, radial, star-shaped, in range 6–8 mm across (corolla); **calyx** 5–6-lobed, at anthesis funnel-shaped and ca. 2 mm long becoming stretched in spreading and \pm rotate in fruit, outer (lower) surface short-hairy with upward-pointing hairs; tube at anthesis cup-shaped, ca. 1 \times 1.5 mm, green, with weakly raised veins to lobes, inner surface glabrous; lobes equal to subequal, acute-ovate to obtuse-ovate, ca. 1 \times 0.6 mm (if 6 lobes, 1 is slightly smaller) increasing in fruit ca. 2 \times in length and width, darker green than tube, upper surface nearly glabrous and with minute glandular hairs; **corolla** 5-lobed from below midpoint; tube + throat funnel-shaped, ca. 2 mm long, greenish yellow, tube to midpoint paler, throat with several puberulent hairs on outer surface, inner surface somewhat glossy appearing as a 5-pointed star extending into base of lobes along midvein, lacking hairs; lobes triangular-ovate, to 3 mm long, pure white with faint yellowish green midstripe below midpoint, conspicuously puberulent on lower surface and on margins, upper surface with puberulent hairs only approaching tip; **stamens** 5, attached at top of corolla tube, with anthers erect and closely touching but not fused; filaments flattened front-to-back, flared at base and tapered to top, 1.2–1.5 mm long, greenish yellow to light yellow, somewhat fleshy and with shaggy hairs on edges from base to midpoint; anthers basifixed, dithecal, 1.5–1.7 mm long, light yellow or aging blushed red at top, glabrous, dehiscent by a pair of pores at top but then splitting longitudinally toward base; pollen whitish; **nectary disc** surrounding base of ovary, short-lobed, thin, green; **pistil** 1; ovary superior, obovoid-subspheroid (slightly compressed), 0.8–1 mm long, pale green, glabrous, 2-chambered, each chamber with many ovules attached to center; style exerted to 0.5 mm beyond anthers, erect, straight, ca. 2.5 mm long, pale cream-colored but exerted portion pale green, densely puberulent to midpoint; stigma terminal, capitate, inconspicuously 2-lobed, 0.25 mm across, light green. **Fruit:** berry, many-seeded, spheric, 5.5–7.5 mm, blackish purple; pulp juicy, green; calyx 5-

lobed, platelike, 6 mm across, lobes unequal, triangular to ovate, 1.2–2.6 mm long, obtuse at tip. **Seed:** biconvex ovate, 1.1–1.3 × 0.8–0.9 mm, white.
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