

## Vascular Plants of Williamson County

*Physalis angulata* – PURPLE-VEIN GROUND-CHERRY, SOUTHWEST GROUND-CHERRY, CUT-LEAF GROUND-CHERRY [Solanaceae]

*Physalis angulata* L., PURPLE-VEIN GROUND-CHERRY, SOUTHWEST GROUND-CHERRY, CUT-LEAF GROUND-CHERRY. Annual, taprooted, 1-stemmed at base, repeated forked, decumbent with branches spreading to ascending or with several procumbent lower shoots, in range to 40 cm tall; shoots leafy, with unequal axes at forks, initially puberulent with upward-pointing, short, nonglandular hairs, not sticky. **Stems:** conspicuously several-ridged, to 6 mm diameter, usually with 3 conspicuous ridges descending from each fork, striped green or violet and often deep violet at base of plant, with short hairs along ridges. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole 2-channeled with raised midvein (not at base), to 40 mm long, raised edges somewhat violet; blade ovate to broadly lanceolate,  $< 25\text{--}60 \times < 15\text{--}28$  mm, blade  $>$  petiole, tapered at base, somewhat dentate to serrate and wavelike on margins, acute at tip, pinnately veined with midrib somewhat raised and other veins slightly sunken on upper surface and principal veins raised on lower surface, veins not ending in teeth, inconspicuously puberulent, especially along veins and margins. **Inflorescence:** leafy cyme with solitary flower appearing axillary at each fork (alternatively interpreted as solitary axillary flowers), flower nodding, lacking bracts; axes stemlike, puberulent with upward-pointing hairs; pedicel ascending but hooked approaching flower, slender, at anthesis 12–17 mm long increasing 2 $\times$  and pendent in fruit, often dark violet, puberulent to glabrous. **Flower:** bisexual, radial, 8–9 mm across; **calyx** 5-lobed, ca.  $3.5 \times 3$  mm; tube broadly bell-shaped but depressed at pedicel, 10-veined with a principal vein from base to each lobe tip and partially toward each sinus, dark violet or violet and green becoming expanded, ribbed, and dark violet in fruit, lobes appressed, deltate, 1 mm increasing 2 $\times$  in fruit, green with violet margins, puberulent as on pedicel; **corolla** 5-lobed, pleated in bud, initially broadly bell-shaped becoming spreading, cymbal-shaped (rotate) and star-shaped, lacking a conspicuous spot below each lobe, limb not wavy; tube  $< 1$  mm long, yellowish but with some inconspicuous rose-colored cells; throat broadly flaring, ca. 4 mm long, with inverted deltate pleats and papillate-hairy lines alternate with filaments, minutely ciliate along sinuses; lobes deltate, 1 mm, densely puberulent on surfaces; **stamens** 5, fused to corolla  $\pm 1$  mm above base, alternate with corolla lobes; filaments erect,  $\pm$  cylindrical,  $\pm 3$  mm long, light yellow or somewhat greenish below midpoint aging with rose-colored cells, glabrous; anthers basifixed, dithecal, ca. 1.25 mm long, bluish green, longitudinally dehiscent; pollen white; **nectary disc** a band surrounding ovary base, 0.35–0.4 mm tall, darker green than ovary; **pistil** 1, 4 mm long; ovary superior,  $\pm$  broadly ovoid,  $1.5\text{--}1.6 \times 1.2\text{--}1.3$  mm, green, 2-chambered with many ovules attached to center; style narrowly club-shaped, ca. 2.5 mm long, green but speckled below midpoint and with pale purple approaching stigma, glabrous; stigma exerted, terminal, capitate,  $0.25 \times 0.5$  mm, green, positioned at midpoint of anthers. **Fruit:** berry, fleshy, pendent and enveloped by expanded calyx tube, fruit completely hidden by calyx with tiny opening at top; berry many-seeded, spheric, 10–12.5 mm, green or partially purple, appearing smooth but viscid with minute glandular hairs; wall firm, pulp light green to whitish, with bladderlike cells (not juicy); calyx truncate-ovoid, ca.  $25 \times 20$  mm, mostly deep violet especially to midpoint and prominent veins with green but drying papery, 10-ribbed with raised, netlike veins between ribs, lobes

converged, acute, to 2 mm long, scarcely parted. **Seed:** biconvex lens-shaped compressed side-to-side, ca.  $1.8 \times 1.4 \times 0.6-0.7$  mm, length > width, yellowish tan to tan, minutely bumpy.

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