

## Vascular Plants of Williamson County

*Physalis mollis* var. *mollis* – FIELD GROUNDCHERRY [Solanaceae]

*Physalis mollis* Nutt. var. *mollis*, FIELD GROUNDCHERRY. Perennial herb, with horizontal root, several-stemmed at base, forked at midplant and branched in canopy, to 45 cm tall; shoots with only cauline leaves, densely soft-pubescent with erect, treelike, branched hairs (dendritic) having 2–10 arms, foliage velveteen but green surfaces still visible between individuals hairs. **Stems:** ridged, to 4 mm diameter, with 2 ridges descending from each leaf, internodes to 100 mm long. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole channeled, < 10–35 mm long, flexible, green, not purplish; blade ovate, 25–61 × < 20–55 mm, oblique and broadly tapered at base, subentire to broadly dentate on margins, acute to obtuse at tip, pinnately veined with principal veins sunken on upper surface and raised on lower surface, surfaces grayish green. **Inflorescence:** flowers solitary, axillary at branch forks, pendent on long pedicel, lacking bracts, soft-pubescent with dendritic hairs; pedicel lax, cylindrical and slender, at anthesis to 15 × < 0.8 mm increasing 2× in fruit, often tinged purplish. **Flower:** bisexual, radial, 13–15 mm across; **calyx** bell-shaped appearing truncate at base but indented and reflexed ca. 1 mm, at anthesis ± 8 mm long (including indentation) increasing in fruit, at anthesis green, densely dendritic-tomentose; tube barrel-shaped with parallel sides above base, 4.5–5 × 4.5–5 mm, 10-ridged; lobes suberect, triangular, ± 3 × 2–2.5 mm, acute at tip, inner surface with hairs above midpoint (some unbranched); **corolla** broadly and shallowly 5-lobed, platelike (rotate) to broadly funnel-shaped, pleated in bud, 12–14 mm long, white to 4 mm from base, above pale light yellow with 5 purple blotches on throat below each lobe; tube funnel-shaped, 2–2.4 mm long, fleshy, above midpoint having a zigzagged arrangement of long-stalked stellate hairs, tomentum below each filament and then on throat bordering and beneath each purple blotch, stalks erect, ca. 1 mm long, colorless, above forming white tomentum of intertangled arms; throat blotches somewhat semicircular, ca. 1.5 × 2 mm, inner (upper) surface without hairs; lobes broadly triangular, ca. 4 mm long, on outer (lower) surface stellate hairy on purple blotches upward to lobes but glabrous within pleats; **stamens** 5, free, fused to corolla 1 mm from base; filaments erect, club-shaped, ± 3.5 × 0.6 mm, 3-sided with ridge on inner side and rounded on back, purple; anthers opposite yellow corolla, basifixed, dithecal, 3 mm long, purplish-red, sacs plump, longitudinally dehiscent; pollen white, copious; **nectary disc** around base of ovary, 5-lobed; **pistil** 1, ca. 9 mm long; ovary superior, conic, ± 2 × 2 (including nectary), green, glabrous; style from tiny depression at top of ovary, straight, ca. 7 × 0.35 mm, purple but faded above anthers; stigma exerted 1+ mm above anthers, terminal, shallowly 2-lobed, green. **Fruit:** berry, juicy, pendent on slender pedicel and concealed by expanded, papery calyx; berry 3–35-seeded, subspheroid, 6–13 × 5.5–10 mm, green when immature when abscised satiny yellow-orange to dark mustard, glabrous, minutely textured; pulp (mesocarp) watery yellow; calyx balloonlike, 5-angled, 20–38 mm long (stretched), 17–28 mm diameter (intact), green drying straw-colored, with 10 principal veins to sinuses and lobes and veins raised on both surfaces, ± truncate recessed to pedicel, orifice to 7 mm across, lobes downward-pointing, triangular, outer (lower) surface with dendritic hairs, inner surface glabrous; pedicel straight, to 40 × 0.7 mm, with dendritic hairs, with fruit abscising at top

of pedicel. **Seed:** kidney-shaped compressed side-to-side, ca.  $2 \times 1.5 \times 0.7\text{--}0.8$  mm, tannish.

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