

Vascular Plants of Williamson County

Toxicoscordion nuttallii – NUTTALL'S DEATH CAMAS [Melanthiaceae]

Toxicoscordion nuttallii (A. Gray) Rydb., NUTTALL'S DEATH CAMAS. Perennial herb, geophytic, bulb-bearing, fibrous-rooted, 1-stemmed at base, rosetted, ascending to ± erect, 30–80 cm tall; shoots with 1–5 arching basal leaves and several cauline leaves well-developed below inflorescence while dying backward from tip, glabrous; bulb solitary, ovoid, to 40 × 30 mm, with dark brown outer layers; roots adventitious and contractile. **Stems:** ± cylindrical, to 8 mm diameter, white but pale green above the uppermost cauline leaf with a sheath, not glaucous; solid with many scattered vascular bundles in firm white tissue. **Leaves:** helically alternate, simple, sessile with basal and lower cauline leaves sheathing stem; sheath closed, of cauline leaves ± U-shaped, membranous, and veinless on the lowest side and aging often split nearly to base; blade of basal leaves arching, linear strap-shaped, 330–460 × 13–22 mm, folded upward from midline, minutely toothed and wavy on margins, parallel-veined with principal veins somewhat sunken on upper surface and midrib raised and somewhat keel-like on lower surface, both surfaces having stomates in longitudinal rows; blade of cauline leaves similar to basal leaves but shorter and narrower, decreasing upward, about midheight along stem (peduncle) without sheath (bracts) having warty base and a thin, linear blade, 150+ mm long decreasing upward to < 30 mm long; bract at flowering papery and persistent, with short, hairlike bracts and bractlets in each axil. **Inflorescence:** raceme or on robust plant a panicle with the lowest branch or branches = several-flowered raceme, raceme of main axis many-flowered, ± ovoid (flowering portion) and 30–60 mm across, flowers crowded and overlapping while buds forming a narrow, dense, terminal cone, bracteate, glabrous; peduncle > 1/2 plant (above the highest cauline leaf having a closed sheath); rachis short-ridged with a short ridge descending from the warty base of each bractlet; bractlet subtending pedicel 3/4 sheathing axis, to midpoint cupped and boatlike and above midpoint rapidly tapered to linear, at maturity to 12 mm long, initially membranous broad portion (to 2.5 mm wide) often 5-veined and cupping young flower bud, aging scarious with ascending inner portion; pedicel cylindrical, at anthesis ascending and 8–10 × 0.7–0.8 mm increasing 2× and often spreading in fruit, light green. **Flower:** bisexual, radial, 10–15.5 mm across, when crowded bell-shaped aging rotate; **tepals** 6 in 2 whorls, ovate, in range 6–7 mm long, 4.5–5 mm wide and 9(11)-veined (outer tepals) and 3.2–3.8 mm wide and 7-veined (inner tepals), not distinctly clawed but “claw” ca. 1.5 mm long, basal portion of outer tepals flatter and more wedge-shaped and of inner tepals more cupped with a pair of minute colorless lobes at top, basal portion green with colorless margins and broad portion white, in green tissue an obovate, depressed **nectary** gland secreting nectar, parallel-veined and veins raised but only central vein continuous to tip; **stamens** 6 in 2 whorls, ± free, attached at basal edge of each tepal; filaments ascending to suberect aging spreading, 5–6 mm long, outer < inner, white, tapered base-to-tip, glabrous; anthers dorsifixed, dithecal, 1.8–2.2 mm long, in range light yellow faintly tinged orange, somewhat glaucous, longitudinally dehiscent; pollen yellow to golden yellow; **pistil** 1, ca. 2 mm long; ovary superior, conspicuously 3-lobed, white aging light green, glabrous, 3-chambered, each chamber with a stack of ovules attached to center; styles 3, opposite outer tepals, at anthesis fingerlike 0.7–0.8 mm long increasing to 3.5 mm long, at first somewhat twisted around each other at

base later straight and ascending after most pollen shed; stigmas blunt, not papillate.

Fruit: capsule, septicidal later loculicidal, to 39-seeded, strongly 3-lobed ovoid, in range (< 13–)16–21 × 9–11 mm + curved, persistent beaks on segments, straw-colored and when immature with 3 green lines per valve, having 6–14 seeds per chamber in 2 stacks, midvein conspicuous on each chamber and 2 laterals often not continuous base-to-tip; tepals and filaments persistent dry and ± appressed. **Seed:** irregularly angled, rhomboid to polygonal or parallelogramlike, (3.5–)4.5–6 × 2.5–3 mm, dark brown to black, 1 face round (touching curved valve wall) and other faces ± flat, edges not winged, with oblique end walls.

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