

## Vascular Plants of Williamson County

### *Tradescantia occidentalis* – PRAIRIE SPIDERWORT [Commelinaceae]

*Tradescantia occidentalis* (Britt.) Smyth (incl. varieties), PRAIRIE SPIDERWORT. Perennial herb, fibrous-rooted, several-stemmed at base, with ascending to suberect shoots, in range 15–65 cm tall; shoots with several basal leaves and cauline leaves, internodes with conspicuous, long-stalked glandular hairs (piloselike) having a swollen basal cell and small glandular head, mucilaginous when peeled; belowground stem to 10 mm diameter and white, having internodes 1–4 mm long and from each node with a triangular axillary bud flattened front-to-back; adventitious roots belowground, thick and fleshy, 3–5 mm diameter, brown, not tomentose. **Stems:** ± broadly elliptic in ×-section, densely glandular hairy; solid, white with scattered vascular bundles. **Leaves:** helically alternate, simple with sheath, without stipules; prophyll = membranous, closed sheath, 10–21 mm long, having 2 pairs of veins converging at tip; sheath closed 9–23 mm, often colorless striped with pale yellow-green veins, without hairs or sometimes glandular-pilose; blade folded or curving upward from midrib, strap-shaped to linear or triangular-linear long-tapered to tip, in range < 120–320 × 6–17 mm, the widest at base, minutely-ciliate to sparsely short-ciliate on margins, long-tapered to tip, with ca. 20 parallel veins sunken on upper surface and midrib somewhat raised on lower surface, upper surface essentially glabrous (with occasional pilose hairs to 4 mm long), lower surface with some glandular hairs to some longer nonglandular hairs. **Inflorescence:** cyme, condensed, terminal and later terminal on axillary branches, subtended by 2 conspicuous, unequal, leaflike bracts concealing flower buds and bases of pedicels, consisting of 2 cymes at top, together often 20+-flowered with only 1–2 flowers per inflorescence open each day, having the oldest flower of each cyme in the center and progressively younger flowers and buds toward both flanks, each flower at pollination on and ascending pedicel and horizontally positioned, corolla ephemeral and lasting only several hours before shriveling and liquidifying on top of ovary, pedicel soon becoming spreading then recurved in fruit, bracteate, glandular-hairy; peduncle stemlike, light green, conspicuously glandular-hairy; lower bract subtending cymes with open sheath clasping sheath of upper bract, widely spreading, blade linear-lanceolate and folded upward (not keeled), < 80–160 × to 9 mm, green or with purple margins to midpoint, short-ciliate on margins, upper surface lacking hairs, lower surface glandular-hairy or appearing pilose especially on basal portion, blade of upper bract acuminate-narrowly ovate to lanceolate, < 60–130 × to 8 mm, << lower bract and smaller on axillary inflorescences, inner (upper) surface close to stem glossy green and glabrous and exposed surfaces with some glandular-pilose hairs; bractlet subtending pedicel concealed by bases of leaflike bracts, membranous, overlapping in row on 2 broad sides of paired cymes, the longest bractlets paired at the center (the oldest flowers) mirror-images and somewhat folded, asymmetric and acute, to 7 mm long mm, shorter and wider outward and mostly with principal lobe acute ovate; pedicels touching, at anthesis ca. 25 mm long increasing to 40 mm in fruit, mostly red-purple with colorless stripes, densely glandular-hairy with radiating hairs. **Flower:** bisexual, radial, 19–24 mm across; **sepals** 3, widely spreading, ovate and boat-shaped, in range 7–12 × 3.5–4.1 mm, green with narrowly membranous margins and tip, (9)11(13)-veined, lower (outer) surface conspicuously glandular-hairy with hairs to 0.35 mm long, with nonglandular pilose hairs to 2 mm long approaching tip, on some shoots sometimes glandular hairs mixed with some long pilose

hairs to 2 mm long, green or reddish approaching tip; **petals** 3, widely spreading, broadly ovate to nearly roundish, 12–16 × 11–16 mm, in range violet, dark blue, or rose-violet to magenta or rose-magenta, paler on lower surface, veins inconspicuous, often roundish at tip, glabrous, easily wilted and shriveled over top of ovary; **stamens** 6 in 2 whorls, free; filaments ascending, 5.5–8 mm long (outer < inner stamens) touching base of ovary, violet to rose-magenta (same color as petals) but yellow next to anther at top, having conspicuous, pigmented beaded hairs from base-to-tip or lacking at filament base, the hairs spreading-ascending, 2.3–4.5 mm long, abundant but not densely tufted; anthers dorsifixed, dithecal with wide connective, butterfly-shaped, 1–1.5 × 1.8–2 mm with sacs flexed in fresh anthers, bright yellow, longitudinally dehiscent; pollen bright yellow; **pistil** 1; ovary superior, ± ellipsoid 3-lobed, 2–2.5 × 1.5–1.7 mm, translucent, densely glandular-hairy with swollen basal cells, with ovules bulging slightly or not, 3-chambered, each chamber with 2 stacked ovules; style 4.5–6 mm long, pale violet at base but mostly violet to purple, glabrous; stigma truncate, 0.35 mm across, colorless, short-papillate. **Fruit:** capsule, loculicidal, 3-chambered, 2–6-seeded, 3-lobed with bulging seeds, mostly 6–7.5 × 4.5–5 mm, when immature having some stalked glandular hairs. Seed: plump with 1 end sometimes flattish (touching adjacent seed in chamber), in range mostly 3–3.6 mm long, length > width, having elongate hilum where attached to central axis.

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