

Vascular Plants of Williamson County

Tradescantia gigantea – GIGANTIC SPIDERWORT [Commelinaceae]

Tradescantia gigantea Rose, GIGANTIC SPIDERWORT. Perennial herb, not rhizomatous, fibrous-rooted with thick, relatively smooth, brown roots, not rosetted, 1-stemmed at base, initially without lateral branches but later with lateral branching nearly to ground level but not erupting through sheath, suberect, in range to 90 cm tall; shoots with basal leaf and to 7 cauline leaves below peduncle of inflorescence, belowground stem with helically alternate axillary buds, the buds flattened, deltate, white axillary bud of previous basal leaves, with only nonglandular hairs; adventitious roots to 300 mm long, 4–5 mm diameter. **Stems:** ± cylindric, to 17 mm diameter, green (including fine stripes), internodes to 200 mm long, of lower plant essentially glabrous or with inconspicuous, sparse puberulent hairs, of upper internode puberulent to short-pilose and lacking glandular hairs, ± glaucous approaching node; solid, pith colorless and watery (root pressure). **Leaves:** helically alternate, simple with sheath; sheath closed, 15–35 mm long, green, glabrous; blade strap-shaped to narrowly lanceolate-linear, 100–400 × 5–39 mm, folded upward but not sharply from midrib, tapered at base with base narrower than sheath (cut open and spread), entire and green on margins puberulent-ciliate below midblade and short-ciliate above midblade, acuminate at tip, parallel-veined with veins sunken on upper surface and midrib somewhat raised on lower surface, surfaces appearing glabrous to midblade but short-pilose and pilose above midblade and sometimes densely so approaching tip. **Inflorescence:** condensed cyme, terminal and axillary at the next lower node, terminal inflorescence subtended by (1–)2 conspicuous, unequal, leaflike bracts concealing flower buds and bases of pedicels, consisting of 2 cymes at top, many-flowered with to 6 flowers per inflorescence open each day, having 2 parallel rows of flowers with the oldest flower of each cyme in the center and progressively younger flowers and buds toward both flanks, each flower at pollination on an ascending pedicel and positioned horizontally, corolla ephemeral and lasting only several hours before shriveling and liquidifying on top of ovary, pedicel soon becoming recurved for fruit development, bracteate, velveteen with pilose and short-pilose and lacking glandular hairs; peduncle stemlike, green, short-pilose; peduncle to 85 mm long, green, velveteen and densely soft-hairy; lower bract subtending cymes with closed sheath ca. 4 mm long and sheath ca. 20 mm long, clasping base of upper bract (if present), horizontally spreading, blade horizontally spreading, similar, and folded upward (not keeled) but sheath open, blade to 50 × 3 mm and > lower bract, green, densely short-pilose, sheath pouchlike to saclike, inner (upper) surface close to stem glossy green and glabrous and exposed surfaces short-pilose; 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, ca. 7 × 3 mm, shorter and wider outward and mostly acute ovate; pedicels touching, at base whitish changing shortly to red-purple, initially glandular-hairy with radiating hairs but on upper portion some becoming pilose nonglandular hairs. **Flower:** bisexual, radial, 17–21 mm across; lacking **nectaries**; **sepals** 3, equal or subequal, during pollination widely spreading with tips visible between petals, otherwise erect and touching, acute-ovate and somewhat cupped, in range 6.5–9 × 2.5–4.1 mm, green, margins narrowly membranous and colorless, obtuse at tip, outer (lower) surface velveteen, densely short-hairy with nonglandular hairs, inner (upper) surface glabrous and

glossy green with several parallel veins; **petals** 3, not clawed, widely spreading (midday), broadly ovate to round, 10.5–15 × 10–11 mm, intermediate blue to violet on upper surface and pale blue or pale violet on lower surface, with faint parallel veins, glabrous; **stamens** 6 in 2 whorls, free, all fertile (no staminodes); filaments ascending to suberect with one anther next to style and stigma, 8–8.5 mm long, light violet bright yellow beneath anther and white only at base, each having a conspicuous tuft of violet hairs along margins and on back, the spreading to ascending hairs 2–4 mm long, beadlike; anthers basifixed, strongly dithecal and butterfly-shaped with wide connective, 1.1–1.2 × 1.6–2.6 mm, bright yellow, longitudinally dehiscent; pollen yellow; **pistil** 1; ovary superior, 3-sided lacking bulging ovules, 3-lobed ovoid or not, ca. 2.5 × 1.5 mm, white, covered with short villous-hirsute hairs but longer at top and lacking glandular hairs, 3-chambered, each chamber with 2 ovules; style erect, narrow at base but mostly uniform in width, ca. 5 mm long, white at base and violet above; stigma terminal, truncate, whitish, conspicuously papillate. **Fruit:** capsule, loculicidal, 3-valved, 3–6-seeded, slightly 3-sided and shallowly 3-lobed (in range not ovoid), 6.5–7.2 × 4–4.5 mm, green before drying brown, with colorless nonglandular hairs (longer on top), with persistent style base (beak). **Seed:** ± tonguelike in outline truncate at 1 end and roundish at other end, 2.5–3.1 × 1.8–2 mm, tan, with linear hilum ± the length of seed and somewhat raised like a broad ridge with coarse, radiating ridges (rugose), on opposite side having coarse ridges and pits and the center portion deeply sunken and when dry with a fragile, parasol-like structure (embryotega).

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