

Vascular Plants of Williamson County

Tradescantia humilis – TEXAS SPIDERWORT [Commelinaceae]

Tradescantia humilis Rose, TEXAS SPIDERWORT. Perennial herb, not rhizomatous, fibrous-rooted with thick, brown, “tomentose” roots, many-stemmed at ground level having a branch from each aboveground node, axillary shoot not erupting through sheath, with ascending and spreading shoots closely packed at ground level, in range < 20 cm tall; shoots with basal leaf and several cauline leaves, each principal shoot arising from a white axillary bud below ground level, vegetative shoot with mostly nonglandular hairs radiating to leaning (appressed if covered by sheath) and each with short basal cell, changing to stalked glandular hairs mixed with nonglandular hairs and mostly glandular-hairy in inflorescence, glandular hairs radiating to 0.75 mm long with minute, colorless heads; adventitious roots fleshy, ± cylindric, to 3.5 mm diameter, brown, with a surface tangle of brown, fine root hairs. **Stems:** lacking ridges but not cylindric, to 7 mm diameter, white belowground and aboveground hidden by leaves (not purple or striped pink-purple), internodes to 24 mm long, aboveground internodes short-pilose to pilose; solid, pith colorless when first cut and watery (root pressure). **Leaves:** helically alternate, simple with sheath; sheath closed, to 8 mm long, sometimes appearing 1-pleated, at rounded or with V-notch, white-membranous (not purple), with scattered stalked glandular hairs; blade strap-shaped to narrowly lanceolate-linear, mostly 150–230 × 13–21 mm, folded upward but not sharply from midrib, with whitish base narrower than sheath (cut open and spread), entire and colorless to pale purplish on margins, long-acuminate at tip, parallel-veined with veins slightly sunken on upper surface and midrib somewhat raised on lower surface, pilose (where not crushed) with hairs to 4 mm long, having short hairs on margins. **Inflorescence:** condensed cyme, terminal, subtended by 1 conspicuous, leaflike bract partially concealing flower buds and bases of pedicels, consisting of 2 cymes at top, together 20+-flowered with only 1–2 flowers per inflorescence 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 horizontally positioned, corolla ephemeral and lasting only several hours before shriveling and liquidifying on top of ovary, bracteate, glandular-hairy but in range mixed with some nonglandular hairs; peduncle stemlike, to 75 mm long, green and glandular-hairy with radiating stalked hairs; bract subtending cymes with narrowly closed sheath and not pouchlike, widespreading, blade leaflike and folded upward (not keeled), to 175 × 14 mm, green mostly with colorless margins, pilose and with stalked glandular hairs; bractlet subtending pedicel concealed by base of leaflike bract, membranous but the lowest with green center, overlapping in row on 2 broad sides of paired cymes, the longest bractlets paired at the center (the oldest flowers) mirror-images not folded, the largest ovate and to 11 × 4 mm, others oblong to triangular, to 4 mm long, shorter and wider outward, acute or 2–3-toothed at tip; pedicels touching, at base whitish changing to green sometimes tinged purplish approaching tip, densely glandular-hairy with radiating hairs mixed with some pilose hairs. **Flower:** bisexual, radial, in range 20–24 mm across, lacking **nectaries**; **sepals** 3, equal, during pollination widely spreading, otherwise erect and touching, cupped acute-ovate and boat-shaped, in range 9–11 × 4–4.5 mm, green with margins narrowly membranous and colorless to purplish, outer (lower) surface pilose and stalked glandular-hairy and glandular hairs ± bulbous at base, inner (upper) surface with 3 conspicuous veins

at base and glabrous and glossy; **petals** 3, not clawed, widespreading, cupped broadly ovate, 11–13+ × 13–15 mm, length ≤ width, violet to violet-blue, finely many-veined at base, rounded, glabrous; **stamens** 6 in 2 whorls, free, all fertile (no staminodes); filaments ascending to suberect, 5.5–6.5 mm long, in bud white aging violet, each having violet hairs from base to midpoint, the hairs spreading, 3.2–4.5 mm long, beadlike above midhair; anthers dorsifixed, strongly dithecal, butterfly-shaped with wide connective, 1–1.2 × 2 mm, bright yellow with yellow-orange connective, notched at top, longitudinally dehiscent; pollen bright yellow; **pistil** 1; ovary superior, 3-sided ovoid, 3-lobed, 2–2.5 × 1.5 mm, white, with nonglandular and stalked glandular hairs above midpoint, 3-chambered, each chamber with 2 ovules; style erect, ca. 5 mm long, violet with yellow at narrow at top next to anther; stigma terminal, truncate, violet, conspicuously papillate. **Fruit:** capsule, loculicidal, 3-valved, 3–6-seeded, 3-sided and shallowly 3-lobed, in range oblong bulging from seeds (not ovoid), before drying 7.5–9.4 × 3.8–4.3 mm, green before drying light brown, with many colorless, long-stalked glandular as well as some nonglandular pilose hairs on top surrounding slender style, dehiscing from tip downward but not to base with valves shrinking and somewhat spreading releasing seeds from top. **Seed:** vertebralike, 3–3.5 mm long, brownish white, with conspicuous ridge on side attached to placenta and deep depression opposite side, with t0 20 ribs around seed and honeycombs.

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