

## Vascular Plants of Williamson County

*Desmodium paniculatum* – TALL TICKSEED, TALL TICK TREFOIL [Fabaceae]

*Desmodium paniculatum* (L.) DC., TALL TICKSEED, TALL TICK TREFOIL. Perennial herb, not rosetted, several-stemmed at base, having a branched canopy, ascending, in range 30–80 cm tall; shoots with only cauline leaves, grasping with hooked hairs < 0.4 mm long (uncinate). **Stems:** 5-angled including a deep furrow, to 5 mm diameter, with 3 ridges descending from each leaf, tough, straight, green or aging purplish red, with persistent raised bases of stipules and petioles, with occasional pilose hairs. **Leaves:** helically alternate, pinnately-3-foliolate, petiolate with pulvinus, with stipules; stipules 2, attached to stem at node adjacent to petiole, long acuminate-triangular, 3–5.5 × 1–1.2 mm, basal portion flared and cupped to lower side, ± ciliate on margins with straight hairs, surface with scattered, minute, hooked hairs; petiole pulvinus conspicuous, to 4 mm long, often strongly bent, above pulvinus upper side 2-ridged defining low channel, in range to 30 mm long; rachis 2-ridged, to 17 mm long, having some long, straight hairs; stipels subtending petiolule of lateral leaflet 1 ascending from petiole ridge, of terminal leaflet 2 at end of rachis, slender acuminate, 1.2–3 mm long, sparsely glandular-puberulent and with several long hairs approaching tip, tip often aging purple-red; petiolule arising from rachis ridge, pulvinus ± 2–3 mm long, initially appearing short-villous aging with hooked hairs; blades of leaflets subequal or terminal leaflet slightly longer and wider, ovate to broadly elliptic, < 25–69 × < 7–30 mm, terminal leaflet < lateral leaflets, broadly tapered to subtruncate or rounded at base, of lateral leaflets sometimes slightly asymmetric, entire, obtuse to acute at tip, pinnately veined with principal veins somewhat raised on upper surface and raised on lower surface, upper surface having mostly hooked hairs to midblade and longer, straight hairs above midblade, lower surface mostly loosely strigose with upward-pointing hairs with mostly hooked hairs along principal veins. **Inflorescence:** panicle of several racemes, terminal and axillary in canopy, open, to 200 mm long, on raceme on slender axis having helically alternate nodes, many-flowered with a pair of side-by-side flowers at each node, bracteate; rachis angular and 5-ridged, with short hairs descending hooked upward (uncinate); bract subtending pair of flowers cupped acuminate-ovate, ± 2.5 × 1 mm, whitish at base and green above, ca. 7-veined at base, having stiff hairs to 0.6 mm long on outer (lower) surface and margins ± strigose, and with minute, stalked glandular hairs, upper surface glabrous, early-deciduous; bractlet subtending pedicel ± linear, ca. 1.5 × 0.4 mm, with hairs like bract, early-deciduous; pedicel ascending, cylindrical, 3–4 mm long increasing in fruit, with glandular short-pilose mixed with nonglandular, shorter uncinat hairs. **Flower:** bisexual, bilateral, ca. 5 mm across; **nectary** tissue on receptacle surrounding stalk of pistil, producing thin nectar around pistil; **calyx** 4-lobed, 4.5–5 mm long, green, outer surface with stiff, straight short hairs and minute glandular hairs, inner surface lacking hairs; tube widely funnel-shaped, 1–1.5 mm long; upper lobe boat-shaped, ca. 2 mm long, with narrow, purple-red margins, lower lobes 3, central lobe acuminate-triangular and somewhat keeled, 3–3.5 mm long, lateral lobes triangular, ca. 2 × 1.3 mm, < central lobe; **petals** 5, clawed, the claws unequal and white; banner obovate, ca. 7.5 × 5.5 mm, claw U-shaped, 1.5 mm long, white, limb light blue-violet, with a pair of green blotches (aging brown) next to white central patch next to claw; wings 2, projecting forward, 6.5 mm long, claw ca. 0.5 mm long, white, limb oblong-obovate, ca. 6 × 2–2.3

mm, white above and light blue-violet below; keel of 2 petals fused along lower edge of limbs to form a scooplike structure rounded on bottom, keels triangular,  $2 \times 0.8$  mm, limbs white and light blue-violet; **stamens** 10, diadelphous (9 fused + 1 free); filaments  $\pm 7.5$  mm long, whitish, sheath cupped around pistil, free portions on each flower 0.5–0.9 mm long alternating short and longer; anthers dorsifixed, dithecal, 0.35–0.4 mm long, greenish, longitudinally dehiscent; pollen colorless; **pistil** 1, stalked, the stalk (stipe) at anthesis ca. 1 mm long, pale green, glabrous; ovary superior, linear, ca.  $4 \times 0.4$  mm, green, short-strigose with upward-pointing hairs mixed with minute, stalked glandular hairs, 1-chambered with 5 ovules attached to upper side; style strongly bent upward and then backward, ca. 2 mm long, pale green, bulbous at base, glabrous, with minute terminal stigma. **Fruit:** pod (legume), indehiscent, stalked, breaking into (1–)4–5, flat (side-to-side), 1-seeded segments (loments), intact fruit overall  $\pm$  straight, deeply indented between seeds, brownish, uncinata with dense, hooked hairs; stalk (stipe) to 4.5 mm long = fruit exerted from calyx; segments somewhat rhombic to elliptic in outline, mostly  $5\text{--}7.5 \times 3\text{--}5$  mm truncate at both ends or 1 end tapered, with a raised vein network, slightly bulging at seeds. **Seed:** kidney-shaped in outline strongly flattened side-to-side,  $3\text{--}3.5 \times 2\text{--}2.5 \times 0.5\text{--}0.65$  mm, brown, smooth, hilum close to midpoint and brown.

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