

Vascular Plants of Williamson County

Desmodium sessilifolium – SESSILELEAF TICK TREFOIL [Fabaceae]

Desmodium sessilifolium (M. Curtis) Torrey & A. Gray, SESSILELEAF TICK TREFOIL. Perennial herb, rhizomatous, fibrous-rooted from rhizome, not rosetted, 1-stemmed at base, principal ascending to suberect, to 100 cm tall; shoot with cauline leaves, mature shoot with well-developed axillary bud with exposed stipules, villous; rhizome \pm horizontal, to 3 mm diameter. **Stems:** somewhat angled, to 5 mm diameter, striped green and tan, having projecting ledges of stipules at nodes, villous, lower stem with periderm. **Leaves:** helically alternate, pinnately 3-foliolate, petiolate with pulvinus, with stipules; stipules 2, attached to stem at base of petiole, acuminate-linear, 4.5–5.5 mm long, with 5 parallel veins, hirsute; petiole pulvinus 2–2.5 mm long, above pulvinus channeled, to 4 mm long; rachis channeled, to 6.5 mm long; stipel subtending petiolule for lateral leaflet and 2 for terminal leaflet, ascending, linear, 1.5–2.5 mm long, aging purple-red, short-hairy; petiolule jointed from rachis, pulvinus 1 mm long, above axis $<$ 1 mm long; blades of leaflets oblong or narrowly elliptic to narrowly lanceolate or obovate, 15–63 \times 2.5–13 mm, tapered at base, entire, acute at tip, pinnately veined with midrib raised on upper surface and principal and minor veins raised on lower surface, villous. **Inflorescence:** panicle of condensed, racemelike cymes, terminal, with to 5 flowers of different ages at each node and often a late developing axillary raceme, bracteate; bract (bractlet) subtending lateral branch cupped acuminate-ovate, 1.5–2.5 \times 0.9–1.1 mm, reddish, parallel-veined with 5–9 veins from base raised on lower surface, short-hairy and with minute glandular hairs, early-deciduous; bractlet awl-shaped, $<$ 1 mm long, with short hairs but not hooked; pedicel ca. 3 mm long increasing to 10 mm long, purple-red, with short hooked hairs and glandular hairs, the hooks upward, abscised beneath calyx. **Flower:** bisexual, bilateral, ca. 4 mm across; **nectary** on receptacle surrounding ovary; **calyx** 4-lobed, ca. 1.8 mm long; tube bell-shaped, ca. 1.3 \times 1.3 mm, green to purplish above midpoint; lobes unequal, upper lobe deltate, lower 3 lobes triangular; **petals** 5, pealike (papilaceous); banner fan-shaped, 5 \times 4 mm, pink and light pink-purple with a pair of light green lines at midpoint; wings 2, 4.5 mm long, clawed, claw 0.8–1 mm long, white, limbs obovate, 1.5 mm wide, white at base to light purple above midpoint, with basal lobe; keel of 2 petals fused on lower side, clawed, claws 0.8–1 mm long, limbs scooplike, 4 \times 3 mm, white at base with light purple above midpoint and on margin; **stamens** 10, monadelphous (all fused); filament column cylindric, 1 mm long + sheet of 9 stamens 3 mm long, surrounding stalk of pistil, filaments ca. 0.5 mm long, white, glabrous; anthers dorsifixed, dithecal, ca. 0.25 \times 0.3 (from sheet) and \pm 0.45 \times 0.4 mm of solitary stamen), pale yellow, longitudinally dehiscent; pollen pale yellow; **pistil** 1, ca. 4 mm long, stalked (stipe), stalk 1 mm long, whitish, glabrous; ovary superior, \pm cylindric compressed side-to-side, green and tinged reddish, with short, hooked hairs on upper margins and faces, 1-chambered with to 4 ovules attached to upper side; style curved, 1 mm long, pale to light green, glabrous; stigma terminal. **Fruit:** pod (legume) breaking into 1–2(–4) indehiscent 1-seeded units (loments), intact pod strongly constricted at chamber subunits, covered with short, hooked hairs (dispersal mechanism); loment \pm elliptic lens-shaped compressed side-to-side bulging at seed, 5–6.2 \times 3.4–4 \times 1–1.5 mm, with tough, thickened margins, faces conspicuously veiny and with hooked hairs, terminal loment with beak. **Seed:** D-shaped (kidney-shaped) compressed side-to-

side, $3.5-4 \times 2.5-2.8 \times 1$ mm, smooth and dull olive to green not mottled, with hilum centered on flat edge; stalk to 1.5 mm long in fruit, reddish.

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