

Vascular Plants of Williamson County

Trifolium nigrescens – SMALL WHITE CLOVER, BALL CLOVER [Fabaceae]

Trifolium nigrescens Viv., SMALL WHITE CLOVER, BALL CLOVER. Annual, taprooted, not rosetted, 1(–several)-stemmed at base, ascending to spreading, with axillary branch arising from successive nodes in canopy, in range to 35 cm tall; shoots with only cauline leaves at flowering, glabrous; nodulated. **Stems:** initially angular aging cylindric, to 2 mm diameter, tough, green, internodes to 70 mm long, often tinged reddish. **Leaves:** helically alternate, palmately 3-foliolate, petiolate without pulvinus, with stipules; stipules 2, fused, each stipule fused to lower petiole and pair fused (closed) with membranous tissue 1.5–4 mm long splitting when axillary inflorescence produced, triangular lobe with narrow-acuminate tip (subulate) to 5 mm long, the tip often purple-red and drying dark, having 3 green veins diverging from petiole into tip, not ciliate on free margin, having no hairs; petiole ascending, channeled, straight, 5–45 mm long, glabrous; petiolules pulvinuslike, < 1 mm long, light green, with several hairs; blades of leaflets symmetrically obovate to fan-shaped, in range < 20 × 13 mm, terminal leaflet wider than lateral leaflets, initially folded upward from midrib opening flat, tapered at base, at least above midblade sharply serrate on margins with fine point on each tooth, roundish to truncate at tip, pinnately veined with midrib raised on lower surface, dull, having evenly spaced and parallel lateral veins from midrib and each one terminating in a tooth, glabrous. **Inflorescence:** headlike raceme, axillary on peduncle > leaf, hemispheric, in range 10–15 mm across, of < 40 flowers alternate (lacking defined whorls), bracteate, glabrous; peduncle ascending, channeled to 3-ridged above midpoint, to 40 mm long, glabrous; **involucre** of bractlets subtending the lowest whorl of flowers absent; rachis strongly ridged, with each ridge descending from bractlet, whitish, glabrous; bractlet subtending and cupping base of pedicel, sheathing base with acuminate tip, ca. 1 mm long, whitish scarious, persistent (at least basal portion); pedicel initially ascending to suberect, cylindric, ca. 1 mm long and white increasing 3× and recurved to spreading-arching and reddish in fruit. **Flower:** bisexual, bilateral, pealike (papilionaceous), 2 mm across (spreading banner); **nectary** nectar-producing receptacle below ovary, green, nectar thin; **calyx** 5-lobed, in range 4–4.5 mm long, glabrous; tube ± bell-shaped compressed side-to-side, ca. 2 × 1 × 0.7 mm, colorless tissue except with 1 prominent green line, 10-veined alternating narrow to sinuses and thicker to lobes, sinuses narrowly V-shaped; lobes acuminate-triangular, subequal, 1.5–2.5 mm long on each flower, 2 lobes opposite banner longer, at anthesis ascending and ± recurved in fruit; **petals** 5, white or banner above midpoint sometimes pale lavender with darker nectar lines; banner without claw, oblanceolate initially folded later widely spreading, in range 7–8 × 2 mm, if pale lavender with several purplish nectar lines above midpoint, cupped at base, often minutely notched or with remote teeth at tip; wings 2, ⊥ banner, 4–4.5 mm long, claws slender but flared approaching limb, white, limbs obovate, ca. 3 × 1.2 mm, white, with a basal, bladderlike backward-pointing pouch 0.4 mm long; keel of 2 petals partially fused on lower edge 1.5 mm, clawed, ± scoop-shaped but folded and flattened, claws ca. 2.5 mm long, whitish, limb ca. 2.5 mm long, < wings, white; **stamens** 10, diadelphous (9 filaments fused and 1 free); filament to 2.5 mm long, sheet 0.8 mm long, white; anthers dorsifixed, dithecal, oblong, < 0.1 mm long, yellow, longitudinally dehiscent; pollen yellow; **pistil** 1, 4 mm long, short-stalked (stipe); ovary superior, oblong

with 2 bulging ovules, 1×0.3 mm, greenish, glabrous, 1-chambered with 2 ovules attached to upper side; style colorless becoming greenish upcurved at tip into stigma; stigma terminal. **Fruit:** pod (legume), essentially not stalked, 1–2-seeded, often dehiscent and with papery fruit wall, oblong breaking between bulging seeds, ca. $3 \times 1 \times 1$ mm, with bulging seeds and slight constrictions between them, with curved, persistent style 2 mm long extending from upper edge; persistent calyx and papery corolla. **Seed:** plump ovoid to subspheroid, $0.85\text{--}1.15 \times 0.6\text{--}0.8 \times 0.5\text{--}0.6$ mm, light yellow, smooth.

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