

Vascular Plants of Williamson County

Desmanthus acuminatus – SHARPPOD BUNDLEFLOWER [Fabaceae]

Desmanthus acuminatus Benth., SHARPPOD BUNDLEFLOWER. Subshrub, winter-deciduous, not spinescent, not rosetted, several-stemmed at base, with spreading to decumbent principal branches, in range mostly < 30 cm tall; shoots with compound cauline leaves, secondary leaflets folding together when touched (thigmotropic), short-hairy without glandular hairs. **Stems:** 5-ridged and 5-sided, to 3 mm diameter, with 3 ridges descending from each leaf, swollen at nodes, aging striped. **Leaves:** helically alternate, even-2-pinnately compound with 4–6 pairs of primary leaflets and 9–17 pairs of secondary leaflets, petiolate with pulvinus, with stipules; stipules 2, attached to leaf base below pulvinus, basal portion with several short, reflexed and fringed basal lobes, a triangular base and threadlike upper portion to 7 mm long, upper portion light strawberry-colored, conspicuously short-hairy, deciduous; petiole pulvinus to 3 mm long, short-hairy, above pulvinus \pm 4-sided, to 5 mm long, short-hairy, at top with extrafloral nectary cup next to the lowest pair of primary leaflets, 0.3–0.4 mm diameter, green with rose rim or crimson, outer surface puberulent; rachis \pm 4-ridged, with pairs primary leaflets to 4 mm apart; stipel subtending primary leaflet absent; primary leaflet petiolule pulvinus 1 mm long, often purple-red, above pulvinus 0.5–1 mm long, short-hairy; rachilla to 16 mm long + extension to 3.5 mm long, pairs closely spaced (to 1.3 mm apart), flat on upper side, lower side short-hirsute and glaucous; secondary petiolule pulvinus 0.25 mm long, green; blades of secondary leaflets oblong-lanceolate to oblong, 2.3–4.8 \times 0.7–1.2 mm, the lowest pair 1/2 of other leaflets, asymmetric at base, entire and short-ciliate on margins, acute at tip, 1-veined at base not raised on surfaces, midrib closer to leading edge. **Inflorescence:** headlike spike, axillary, subspheroid in bud later with a mass of twisted and overlapping exerted stamens, (6–)10–16-flowered, flowers helically alternate, on most spikes the lowest flowers (to midpoint) staminate, above midpoint flowers bisexual, bracteate, short-hairy; peduncle pulvinus at base, 5-ridged, to 16 mm long increasing 2 \times in fruit, short-hairy; rachis < 1 mm long, glabrous; bractlet subtending flower < 1 mm long, stalked with upper portion diamond-shaped, fringed, crisped, veiny and short-hairy on back. **Staminate flower:** radial, variable = spreading crooked filaments; **calyx** 5-lobed, 1 mm long; tube bell-shaped, colorless with 5 faint greenish veins; lobes (teeth) unequal, \pm deltate, 0.3 mm long, often purple-red; **petals** 5, narrowly spatulate, \pm 2 \times 0.4 mm, white with green above midpoint and narrow colorless margins; **stamens** 10, free; filaments never straight, 6.5–8 \times 0.1 mm, white; anthers dorsifixed, dithecal, 0.5–0.65 mm long, light yellow, longitudinally dehiscent; pollen light yellow; **pistil** absent. **Bisexual flower:** radial, variable = spreading crooked filaments; **calyx** 5-lobed, 2.3–2.5 mm long; tube narrowly funnel-shaped, 2 mm long, colorless with 5 faint greenish veins; lobes (teeth) unequal, \pm deltate, 0.2–0.5 mm long, often rose and with red point at tip, the largest lobe rounded on back; **petals** 5, oblanceolate, \pm 3.5 \times 0.7 mm, white with green above midpoint; **stamens** 10, free; filaments never straight, 6.5–8 \times 0.1 mm, white; anthers dorsifixed, dithecal, 0.5–0.65 mm long, light yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1, 6.5–8 mm long, the uppermost flower with the longest pistil and stamens, stalked (stipe), stalk 0.25 mm long, greenish; ovary superior, narrowly oblong, ca. 2 mm long, green, glabrous, 1-chambered with < 20 ovules attached to upper side; style cylindrical, 4.5–6 mm long, white;

stigma terminal, recessed in funnel-shaped tip. **Fruit:** pod (legume), dehiscent by 2 valves, to 17-seeded, linear and slightly curved strongly flattened side-to-side slightly bulging at seeds, 26–45 × 3.5 mm, valves dark brown, acute-acuminate at tip, seeds somewhat overlapping; stalk stout and short, < 1 × 1 mm. **Seed:** ± ovate to trapezoidal in outline and compressed side-to-side, 3–4.3 × 2–3 mm, brown to reddish brown and not mottled, smooth.

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