

Vascular Plants of Williamson County

Baptisia leucophaea – WILD INDIGO, PLAINS WILD INDIGO [Fabaceae]g

Baptisia leucophaea Nutt., WILD INDIGO, PLAINS WILD INDIGO. Perennial herb, from woody caudex, several-stemmed at base, unequally forked at many nodes, branched at ground level in late summer, ascending to spreading, in range to 45 cm tall; shoots with only cauline leaves, foliage tough, somewhat glaucous. **Stems:** ± cylindric, initially 1 mm diameter, at base with periderm to 5 mm diameter, glabrous. **Leaves:** helically alternate, palmately 3-foliolate, short-petiolate lacking pulvinus, with stipules; stipules 2, leaflike (photosynthetic), firmly and broadly attached to well-developed ledge on stem, sessile, somewhat asymmetric lanceolate to arrow-shaped, (10–)15–52 × 7–20 mm (smaller on the diminutive earliest leaf of each shoot), entire, acuminate (acute) at tip, pinnately veined with midrib not raised and having a fine network of minor veins, initially villous aging ciliate on margins, persistent; petiole broadly channeled, < 2–10 mm long, glabrous; blades of leaflets obovate with lateral leaflets slightly asymmetric, < 35–70 × < 15–35 mm, tapered at base, entire, obtuse (acute) at tip, pinnately veined with midrib raised on lower surface, villous aging glabrescent. **Inflorescence:** raceme, 1 branch of shoot fork, several–25+-flowered, ca 40 mm diameter, spreading and horizontal near ground level or drooping, flowers alternate but cluster 1-sided with flowers reoriented on upper side and relatively flat, bracteate; peduncle to 20 mm long; rachis at flowering < 150 mm long, somewhat ridged with ridge descending from each bractlet, glabrous, glaucous; bractlet subtending pedicel conspicuously leaflike, sessile and firmly attached, acute-ovate, to 25 × 10 mm, photosynthetic, several-veined at base, ciliate on margins; pedicel cylindric, at anthesis to 15 mm long increasing 2× in fruit, with a tuft of soft hairs in the axil at the base. **Flower:** bisexual, bilateral, pealike (papilionaceous), ca. 20 mm across, flowers suberect from horizontal raceme, lacking fragrance; **nectary** on flat receptacle surrounding stalk of pistil, nectar-producing and collecting to the inside of stamens; **calyx** 4-lobed, 9–10 mm long, green with purplish patches at receptacle; tube bell-shaped slightly compressed side-to-side, 3.5–4.5 × 6.5 × 5.5 mm, 10-veined at base; upper lobe 2-toothed at tip (= 2 fused lobes), lower 3 lobes acute-triangular, < upper lobe, lobes soft short-hairy on both surfaces; **petals** 5, free, all projecting upward, clawed; banner ca. 22 mm long, projecting upward (not strongly bent or reoriented), claw flaring and channeled, 4.5–5 mm long, whitish, limb roundish, ca. 17.5 × 22 mm, pale light yellow sometimes with small purple spots in center, having fine radiating veins but inconspicuous, notched 2 mm at top; wings 2, 26–28.5 mm long, claw 6–6.5 × 2 mm, whitish, limb ± oblong, 20–22 × 11.5 mm, pale light yellow, with 2 backward-pointing basal lobes, upper lobe somewhat spongy with expanded surface tissue and whitish, lower basal lobe 1 mm shorter positioned at sinus of calyx lobes, rounded at tip; keel of 2 petals free, 3.5–4 mm < wings, claw 6–6.5 × 2 mm, white, flat, somewhat hatch-shaped with backward-pointing basal lobe on upper side, ca. 18 × 11 mm, pale light yellow; **stamens** 10 in 1 whorl, free; filaments butted tightly unequal, flat on outer side, 17–21 mm long within each flower, the 2 shortest the last to discharge pollen, pale green; anthers dorsifixed, dithecal, subequal, 1.6–2 mm long, light yellow-orange, longitudinally dehiscent; pollen yellow-orange; **pistil** 1, stalked (stipe), stalk ca. 2.5 mm long, white short-hairy approaching ovary; ovary superior, narrowly ovoid, ca. 4 × 1.3 mm, green but densely sericeous with upward-pointing hairs, 1-chambered with 12+ ovules

attached to upper side but not in a single row; style gradually tapered and curved upward, greenish to green, sericeous to midpoint and glabrous above midpoint; stigma terminal, at level of the longest stamen, short-papillate. **Fruit:** pod (legume), dehiscent, 2-valved, several(-many)-seeded, ovoid, 17–30 × 8–16 mm long + long, persistent, flexible beak (style), dark brown, rough with irregular network of short, low ridges, ± strigose with upward-pointing hairs, valves dehiscing by also splitting beak, wall hard, chamber pubescent. **Seed:** ± kidney-shaped, 5–5.5 × 2.8–3.1 mm, resinous glossy brown to mustard with brown, surface with warty bumps beneath resin; hilum in center, 1 mm long.
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