

Vascular Plants of Williamson County

Catalpa speciosa – NORTHERN CATALPA, CATAWBA TREE, CIGAR-TREE [Bignoniaceae]

Catalpa speciosa Warder, NORTHERN CATALPA, CATAWBA TREE, CIGAR-TREE. Tree, winter-deciduous, 1-trunked, in range to 6 m tall (cultivated tree in range to 15 m tall); shoots with only cauline leaves, foliage suedelike and lower surface somewhat velveteen. **Stems:** cylindric or occasionally internodes channeled. **Leaves:** ± whorled but leaves often not equal nor perfectly whorled, simple, long-petiolate with pulvinus, without stipules; petiole pulvinus to 6 mm long, green, glabrous, above pulvinus cylindric but channeled approaching blade, < 20–160 mm long, tough, with scattered, short-villous hairs; blade ovate, in range (20–)80–270 × (6–)70–190 mm, > petiole, broadly tapered to truncate or subcordate at base, entire, acute to acuminate at tip, having 3 principal veins at base and ± pinnately veined with veins sunken on upper surface and raised on lower surface, upper surface initially with sessile glandular hair having colorless heads and short-hairy along principal veins aging glabrescent, lower surface soft-hairy and initially have sessile glandular hairs. **Inflorescence:** panicle, terminal, open with lateral branches mostly 3 per node but spreading branches often unequal, to 350 mm long, lateral branches often 3-forked, many-flowered, flowers horizontal or drooping, bracteate, glabrate; peduncle cylindric, to 75 mm long; rachis not straight; bractlet subtending pedicel oblanceolate-linear to linear, 6–7 × 0.8 mm, green; pedicel to 16 mm long, green or purple, having scattered short-villous hairs, with 1–2 bractlets along axis, < 5 mm long. **Flower:** bisexual, bilateral, ca. 40 mm across; **calyx** 2-lipped, 10–11 mm long, lips lateral and sinuses shallow but splitting downward, green and tinged and dotted purplish; **corolla** 2-lipped, 40–52 mm long, white, easily wilted; tube 1.5–2 mm long, yellowish; throat ± bell-shaped, 18–21 mm long, white but inside (except opposite filaments) with hundreds of deep purple spots and dots forming as ca. 11 nectar lines of floor of throat; upper lip 2-lobed, semicircular in outline with V-shaped notch, ca. 20 × 27 mm, notch to 8 mm deep, lobes obtuse, wavy on margins, lacking purple pigment; lower lip 3-lobed, lobes oblate, ca. 20 × 20 mm, central lobe on inner surface shallowly notched and having 2 bright yellow patches outside several dark purple nectar lines, outward from yellow mostly white, wavy on margins; **stamens** 2 fertile and 3 staminodes; fertile stamens fused to top of corolla tube projecting outward, filaments arched somewhat downward, 18.5–21 mm long, white with deep purple specks mostly near base, somewhat compressed approaching anther, glabrous; anthers with sacs divergent ca. 90°, sacs 3–3.2 mm long, cream-colored with purple connective, longitudinally and sideways dehiscent; pollen cream-colored; staminodes lacking anthers, fused to corolla slightly above fertile anthers, slender-cylindric, 4–6 mm long, white, often curled at tip, glabrous; **nectary disc** surrounding base of ovary, 1.7 mm across, 0.35–0.4 mm long, white, producing copious nectar; **pistil** 1, ca. 25 mm long; ovary superior, barrel-shaped, ca. 3 × 1.5–1.6 mm, green, glabrous, 2-chambered, each chamber with many ovules attached in 2 rows to center; style cylindric, white, 2-branched, ± puberulent near base, the branches spreading, stigmatic, ca. 2 mm long. **Fruit:** capsule, loculicidal, pendent, 2-valved, many-seeded, cylindric, 190–480 × 6.5–12 mm when green, valves drying dark brown and flattened to 9–15 mm wide, with longitudinal ridges, with narrower dry septum. **Seed:** oblong to oblong-elliptic and strongly flattened, 35–50 × 5–8 mm, light brown, 2-lobed having seed chambers with tuft

of parallel, light brown long hairs at each end, to midpoint fused into papery extension from seed chamber with free hairs as tips.

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