

Vascular Plants of Williamson County

Diospyros texana – TEXAS PERSIMMON, BLACK PERSIMMON [Ebenaceae]

Diospyros texana Scheele, TEXAS PERSIMMON, BLACK PERSIMMON. Shrub to small tree (in range), tardily winter-deciduous, in range < 8 m tall; monoecious; shoots with leaves somewhat velveteen, soft short-hairy. **Stems:** cylindric. **Leaves:** helically alternate, simple, short-petiolate, without stipules; petiole to 1 mm long, short-hairy and inconspicuously minutely glandular-hairy; blade obovate to elliptic or lanceolate, 15–35 × 7–16 mm, tapered at base, entire often with margins slightly inrolled under (revolute), obtuse to rounded or with small notch at tip, pinnately veined with principal veins sunken on upper surface and conspicuously raised on lower surface; lower surface short-tomentose. **Inflorescence:** on short shoots or old buds 1–3 staminate flowers and solitary pistillate flower formed on young growth, short-hairy on axes; pedicel 3.5–4.5 mm long (staminate flower) and short (pistillate flower), of staminate flowers puberulent with flower abscising at top. **Staminate flower:** radial, 5–6 mm across; **calyx** 5-lobed, 3.5–5 mm long, green, short-hairy; tube cup-shaped, ± 1.5 mm long; lobes narrowly triangular and appressed or with tips spreading to reflexed, 2.5–3.5 mm long, acuminate to acute at tip, often with 3 raised veins on lower surface; **corolla** 5-lobed, urn-shaped constricted at bases of lobes, ca. 7.5 mm long, white aging light apricot; tube to midpoint, somewhat fleshy, inner surface puberulent; lobes ± erect aging reflexed, roundish and overlapping at midpoint, 2–2.5 mm long, truncate and obscurely notched at tip; **stamens** mostly 16–17, free or some attached to lower corolla tube at different levels, included and oriented toward the center of the flower, some appearing sterile without pollen; filaments 0.2–0.8 mm long, white, often puberulent; anthers basifixed, dithecal, lanceolate in outline to a narrow point, 2.5–2.9 mm long, white aging apricot, dehiscent by 2 slits only next to tip; pollen white; **pistil** 1, rudimentary, ± tack-shaped, ca. 0.5 × 1 mm, green, densely short-hairy, lacking well-developed chambers and without a style. **Pistillate flower:** radial, 13–14 mm across (fully expanded calyx); **calyx** 5-lobed, green, short-hairy; tube cup-shaped, ca. 1 mm long; lobes spreading, elliptic, 6–7 × 3.5–4 mm, obtuse to rounded at tip, parallel-veined from base, persistent; **corolla** 5-lobed, urn-shaped, ca. 8 × 9 mm, white aging light apricot, short-hairy on outer surface; tube to midpoint, somewhat fleshy, inner surface glabrate; lobes overlapping and twisted in bud (imbricate), obovate, 3.8–4.2 × 3.7–4 mm, usually notched at tip, appearing parallel-veined; **stamens** and staminodes absent; **nectary disc** beneath ovary ca. 2 mm wide and 0.25 mm high and raised below ovary; **pistil** 1, ca. 4.5 mm long; ovary superior, spheroid, 2.3–2.5 mm, green, densely covered with ascending stiff hairs, 4-chambered each with 2 ovules attached in the center at the top; style ca. 0.8 mm thick, fleshy, green, forked at midpoint with 4 fan-shaped and compressed stigmas, those often 2-lobed. **Fruit:** berry, (2–)5–6(–8)-seeded, oblate spheroid, 17–20 × 18–22.5 mm, starchy black, short-hirsute; pulp dark brown aging black at maturity and staining skin; calyx ca. 18 mm across, lobes (4–)5 and initially ± appressed at maturity spreading from mature fruit, ca. 8 × 3.5 mm, with to 9 parallel veins from base; pedicel ± 0.5 mm long and densely short-hairy. **Seed:** 3-sided (3–8-seeded fruit) or roundish (2-seeded fruit), ca. 12 × 7 × 5.5 mm, glossy brown having lengthwise gap filled with tan tissue, back rounded and side ± flattish, finely textured.

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