

Vascular Plants of Williamson County

Triadica sebifera – CHINESE TALLOW TREE [Euphorbiaceae]

Triadica sebifera (L.) Small, CHINESE TALLOW TREE. Small tree, winter-deciduous, 1-trunked, in range to 6 m tall; monoecious; shoots with only cauline leaves, glabrous; latex milky. **Stems:** cylindrical, internodes 8–20 mm long, somewhat glaucous. **Leaves:** helically alternate, simple, long-petiolate, with stipules; stipules 2, attached on node at base of petiole, 0.6–0.8 mm long, pale green with red margin of glandular tissue; petiole shallowly channeled, 21–63 mm long, at top with a pair of dimpled glands (extrafloral nectaries) associated with blade margins; blade \pm diamond-shaped with acuminate tip, 45–110 \times (< 30 –)40–83 mm including acuminate tip 15–20 mm long, tapered at base, entire, round at the widest part, pinnately veined with midrib somewhat raised on upper surface and midrib and lateral veins raised on lower surface. **Inflorescences:** flowering axis of 1800+ staminate flowers and 3–7 pistillate flowers, terminal, proterogynous, at anthesis of pistillate flowers spikelike, mostly 80+ \times 6–7 mm increasing with opening of staminate flowers, pistillate flowers helically alternate at base of axis, above staminate flowers in closely spaced, helically alternate, condensed cymes, bracteate, glabrous; axis strongly ridged, with a prominent ridge descending from each lateral cyme; staminate cymes ca. 120, each cyme with 15+ pedicillate flowers, pistillate flower with pedicel and sometimes with a lateral, several-flowered staminate cyme; bract subtending pistillate inflorescence or staminate inflorescence poorly defined but with a pair of conspicuous, large stipule glands, bract widely triangular or somewhat dissected from the top margin, sometimes red on top margin, stipule glands elongate mounds to sluglike, (< 1 –)1.2–1.7 \times 0.6–0.8 mm, green and yellow, rounded on back and ends. **Staminate inflorescence:** on short peduncle ascending from ridged axis, stout, 1–1.5 mm long and wide, flowers sequentially exerted from cluster; bractlet subtending pedicel boat-shaped and somewhat keeled cupped around pedicel, green to greenish, fan-shaped to pointed at tip, papillate to fringed on margins; pedicel compressed side-to-side, 0.8–3 mm long, yellow-green. **Staminate flower:** bilateral, ca. 1 mm across; **calyx** 3-lobed at or above midpoint, ca. 1.2 mm long, yellow-green, lobes triangular with jagged margins, often the lobe on the upper side keeled; **corolla** absent; **stamens** 2, free; filaments to 0.7 mm long, yellow-green; anthers basifixed, dithecal, hemispheric, 0.6 mm long, greenish aging yellow-orange, longitudinally dehiscent; pollen yellow-orange; **pistil** absent. **Pistillate inflorescence:** 1-flowered cyme or the upper ones sometimes with a lateral, several-flowered staminate cyme, bracteate, glabrous; bract (bractlet) with stipule glands subtending pedicel, in whorl with 2 bracts on upper side, upper bracts without stipules, acute-triangular to obtuse-triangular, ca. 1.5 \times 1 mm, greenish, with thin, irregular margins, 1 bract sometimes subtending a reduced staminate cyme; pedicel of pistillate flower stout, 1 mm long increasing to 5–7 mm long and spreading in fruit, yellow-green. **Pistillate flower:** \pm radial, 4–5 mm across (spreading stigmatic lobes); **calyx** irregularly 3–5-lobed, fused only at base, appressed tightly to ovary to above midpoint, 3 lobes dominant and \pm triangular, green, 1 with 2 sublobes or those narrower and thin as lobes distinct to base of lobe; **petals** absent; **stamens** absent; **pistil** 1, ca. 8 mm long; ovary superior, broadly ellipsoid to spheroid and subtly 3-lobed, 1.5–1.8 \times 1.5 mm, yellow-green, glabrous, 3-chambered, each chamber with 1 ovule attached to center; style columnar, conspicuously 3-branched, below

fork 1.5×1 mm with 3 fine grooves, the branches ascending becoming recurved or slightly downward coiled, 3–4 mm long, yellow-green with stigmatic upper (inner) side fleshy and orangish. **Fruit:** schizocarpic capsule, strongly 3-lobed, $10\text{--}11 \times 12\text{--}13$ mm, immature dark green and glaucous, valves dropped leaving persistent seeds attached to pedicel and fruit axis. **Seed:** lacking caruncle, 3-sided, rounded on back and flattish on inner 2 faces, ca. 9×7 mm, grayish cover of soft, fatty wax > 1 mm thick, when wax removed the seed coat black.

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