

Vascular Plants of Williamson County

Funastrum crispum – WAVYLEAF MILKVINE, WAVY-LEAF TWINEVINE
[Apocynaceae/Asclepiadaceae]

Funastrum crispum (Benth.) Schlechter, WAVYLEAF MILKVINE, WAVY-LEAF TWINEVINE. Perennial vine, twining (stem internodes), several-stemmed at base, with twining and trailing herbaceous stems cclimbing on neighboring vegetation or trailing in open habitat, to 150+ cm long; shoots with only paired cauline leaves, leaves at each node somewhat unequal (anisophyllous), foliage blue-green to green with or without crisped margins, axes and young leaves puberulent to short-hairy and with minute and inconspicuous glandular hairs, foliage when crushed not offensively foul-smelling; latex white, copious. **Stems:** cylindrical, to 2 mm diameter, green, internodes to 60 mm long, short nonglandular hairs mostly 0.1–0.2 mm long and arched or curved, glandular hairs with minute, colorless heads. **Leaves:** opposite decussate, simple, petiolate, without stipules; petiole conspicuously channeled, to 10 mm long but unequal in each pair, uniformly short-hairy; blade triangular to narrowly triangular, $< 25\text{--}75 \times < 10\text{--}42$ mm (more narrow in open, full-sun habitats), cordate at base, subentire and sometimes wavy to crisped on margins, acute to acuminate at tip, pinnately veined with principal veins \pm raised on both surfaces, initially distinctly pubescent becoming less apparent on fully expanded blades. **Inflorescence:** umbel-like cyme, axillary with only 1 cyme per node, cyme hemispheric, ca. 50 mm across, to 9-flowered, bracteate, puberulent; peduncle slender, < 30 mm long increasing slightly in fruit; bractlets subtending pedicels (not perfectly positioned), linear, $1\text{--}3.5 \times 0.1\text{--}0.25$ mm, green with purplish red at base and tip, puberulent, abscising after pollination; pedicel slender, 17–22 mm long and flexuous, increasing slightly and becoming rigid in fruit, light green, glabrous. **Flower:** bisexual, radial, ca. 20 mm across; **calyx** 5-lobed, in range to 4 mm long, green, puberulent on lower surface and with scattered minute glandular hairs; tube 0.5 mm long; lobes appressed to corolla, in bud acute-triangular aging lanceolate to narrowly ovate, $(2\text{--})2.8\text{--}3.5 \times 0.7\text{--}1$ mm, green aging purplish red, outer (lower) surface puberulent, inner surface glabrous except with several hairs approaching tip; **corolla** deeply 5-lobed, rotate; tube 2 mm long, inner surface light yellow-green; lobes spreading at anthesis, ovate, ca. $10 \times 4.5\text{--}5$ mm, orangish aging brown and green (upper surface) and yellowish green (lower surface), entire and short-ciliate on margins, obtuse to irregular at tip, 9-veined at base, upper surface glabrous, lower surface sparsely puberulent with appressed hairs; attached to base of corolla tube = thin ring 0.5 mm tall, pale green; **stamens** 5, fused into column with filaments surrounding lower pistils but free from them while anthers completely fused to stigma as an enlarged stigmatic head (gynostegium), with a whorl of elaborate appendages (corona) arising from filament column; filament column fused at base to corolla tube, ca. 2.5 mm long, light yellowish green to greenish; corona of 5 thumblike lobes alternate with corolla lobes, without an aperture, ca. 1.5 mm long, rose at top with white on axis and flared base; anthers dithecal, \pm trapeziform, < 1 mm long (broad at base), laterally winged, flat and fused to stigma except for wings and terminal appendage, dehiscent at top; anther sacs and connective yellowish green; lateral wing triangular, ca. 1.2 mm long, the widest at base, horny, light yellow on margin, appressed on sides (laterally) to adjacent wing of neighboring anther and forming a slit having a gland (corpusculum), the terminal appendages appressed to top of gynostegium, membranous, roundish to obovate, ca. 0.8–1 mm long; pollen united into

pollinia, each pollinium narrowly U-shaped, ca. 0.65×0.25 mm, glossy light yellow, united by orangey translator arms (ca. 0.25 mm long) to a ruby, ovoid corpusculum (ca. 0.3 mm long); **pistils** 2; ovaries superior, barely fused at base to free, obovoid but flattened on common side, 1 mm long, light yellow-green, glabrous, 1-chambered with many ovules attached on inner side; styles free, ca. 1.3 mm long, light yellow-green, fused at stigma (gynostegium); gynostegium capitate (includes some stylar tissue), domelike, ca. 1 mm wide, light yellow-green on top. **Fruit:** follicle (typically only 1 ovary develops), dehiscent on inner side, many-seeded, lanceoloid, $70\text{--}120 \times 11\text{--}13$ mm, narrowly tapered to tip, when dry often gray, bearing seeds below midpoint, lacking prickles and not bumps, above midpoint filled only with long silky hairs. **Seed:** ovate truncate at end with hairs, ca. 7×3 mm, dark brown, lacking wing, coarsely wrinkled (rugose and rugulose) on surfaces and edges, rounded at base, truncate at finely hairy tip; hairs < 50 , spreading, fine, 11–20 mm long, silky white, weakly united at base, deciduous.

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