

Vascular Plants of Williamson County

Cissus incisa – MARINE-IVY, IVY TREEBINE, COW-ITCH [Vitaceae]

Cissus incisa (Nutt.) Des Moul, MARINE-IVY, IVY TREEBINE, COW-ITCH. Perennial climber with slender woody principal stems and herbaceous new shoots, winter-deciduous, with tendrils, from succulent, tuberlike root, several–many-stemmed at base, climbing (including tree trunks), trailing, and attaching to surrounding plants; shoots with widely spaced, somewhat fleshy cauline leaves, sometimes crisped, glabrate or glabrous to sparsely puberulent aging glabrescent, when cut foul-smelling like rue (*Ruta*); tendril opposite leaf base, unbranched, to 80+ × 0.6 mm, with 5+ coils, having hemispheric pulvinus at base, on vegetative shoots at 2 successive nodes and usually absent from third node, acting as attachment catching in rough bark on trunks and large branches, when blooming forming flowers on inflorescence on the tendril axis resembling a compound umbel. **Stems:** initially 5-sided and 5-angled, when formed ± zigzagged aging less obviously so, tough, flexible, to 100 mm long, aging 5-ridged; old, woody stems cylindrical, to 6 mm diameter, flexible, with dull brownish, non-peeling bark having lens-shaped, reddish brown lenticels. **Leaves:** helically alternate, mostly 3-foliolate, petiolate, with stipules; stipules 2, attached to stem at petiole base, ascending, narrowly triangular to triangular, 3–6 mm long, mostly translucent, subentire to remotely toothed, deciduous; petiole strongly ridged, channeled with 2 prominent ridges on upper side, to 40 mm long, tough, at least ridges purple-red, persistent after blade abscises from top; blade with lateral leaflets turned and somewhat ascending relative to terminal leaflet, terminal leaflet sessile or on short, 2-ridged petiolule + raised midrib, symmetric, ovate in outline often with pair of lateral lobes, < 25–95 × < 15–70 mm, coarsely serrate, acute at tip, pinnately veined with most lateral veins paired and principal veins raised on upper and lower surfaces (domatia absent); lateral leaflets subsessile and developing somewhat after terminal leaflet, asymmetrically ovate or mitten-shaped to fan-shaped or oblong, equal and ± mirror images in pair with trailing half larger, having raised midrib on upper surface at base, pair somewhat raised (twisted forward) above plane of terminal leaflet, 2–3-lobed or unlobed and coarsely toothed to cut, shorter than terminal leaflet. **Inflorescence:** resembling a compound umbel, opposite leaf at node, to 50 mm across, typically with 5 primary rays and to 5 secondary rays with terminal cymes, terminal cymes 10–20-flowered, bracteate, glabrous; bract subtending peduncle leaflike, < 20 mm long; peduncle and primary rays cylindrical, < 60 mm long, bract subtending primary ray deltate-triangular, < 1 mm long; bract subtending secondary ray ellipsoid in ×-section, < 15 mm long; bractlet subtending pedicel triangular, < 0.5 mm long, often minutely jagged on margin; pedicel 3–4 mm long, yellow-green, glabrous, abscising at base. **Flower:** bisexual, radial, 1.7–2 mm across; **calyx** 4-lobed on an inconspicuous ring, green with pale margin; lobes shallow and broad, to 0.2 × 1 mm; **petals** 4, caplike and coherent on margins but separated at bases and tips, ovate to oblong, ± 2.4 × 1.1–1.3 mm, white at base and yellow-green above, thicker and acute to obtuse and hooded at top, lower surface with domed cells; **stamens** 4, free, opposite petals; filaments erect, 1.7–2 mm long, white, glabrous; anthers dorsifixed, dithecal, ± 1 mm long, whitish, longitudinally and sideways dehiscent; pollen light yellow; **nectary disc** adherent to midpoint of ovary, conspicuously 4–5-lobed, swollen and thick having lobes alternate with stamens and a collarlike rim slightly elevated to collect nectar

on top of ovary, 0.6–0.7 mm diameter, yellow-green, filaments at sinuses; producing copious nectar; **pistil** 1, ca. 1 mm long; ovary superior but appearing half-inferior covered by adherent nectary disc, exposed portion domelike, 1 mm diameter and glossy yellow-green, glabrous, 2-chambered, each chamber with 2 ovules; style fingerlike, \pm 1 mm long, dull pale green; stigma terminal, \pm truncate. **Fruit:** berry, pointing downward or drooping on recurved pedicel, 1-seeded, ovoid, 8–9 \times 7 mm, purple, obtuse at tip with short persistent style, smooth, glabrous; mesocarp thin, watery; with persistent calyx appressed at base. **Seed:** ovoid, 5.4–6 \times 4.1–4.5 mm, veiny.

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