

Vascular Plants of Williamson County
Vitis mustangensis – MUSTANG GRAPE [Vitaceae]

Vitis mustangensis Buckl., MUSTANG GRAPE. Woody climber (liana), tendril-bearing, winter-deciduous, when robust covering canopies of shrubs and small tree; appearing androdioecious and probably functionally dioecious (pistillate flower structurally bisexual); shoots with only cauline leaves, axes and especially lower surfaces of blades white woolly-tomentose on vegetative shoots, blades conspicuously bi-colored being essentially green on upper surface and densely matted, velveteen, and white on lower surface; tendril paired with leaf at node 180° apart, 2-forked above midpoint, 45–80 mm long below fork and ca. 1 mm diameter, branches 20–60 mm long and unequal, the longer branch subtended by a bract, the bract ± membranous aging papery, obtuse-oblong, ca. 3 mm long, with appressed woolly hairs on lower (outer) surface. **Stems:** angled aging cylindric, with 2 angles descending from each leaf and 1 angle from tendril, purplish red when young and covered with appressed, loosely matted, woolly hairs, twigs woody with periderm. **Leaves:** helically alternate, unlobed, palmately 3-lobed or with a pair of weak shoulders, conspicuously 5-lobed with deep and rounded sinuses, and occasionally 7-lobed (lobing variable within a population), petiolate, with stipules; stipules 2, attached at node, obovate or ovate to semicircular, (2–)4–8 × 3–3.5 mm, mostly papery aging brownish, pubescent on outer (lower) surface; petiole appearing cylindric but narrowly channeled under dense pubescent, light green, 40–70 mm long, with white woolly hairs oriented lengthwise along axis; blade broadly ovate to inversely heart-shaped, 80–145 × 75–145 mm, mostly length > width, cordate at base and resembling basal lobes to truncate, coarsely dentate on margins with blunt callus at top of each tooth, the calluses to 15 per edge, acute at tip, palmately 3-veined at base with principal and minor veins sunken on upper surface and having an elaborate vein network and principal veins raised on lower surface, upper surface green having fine woolly hairs thickest along principal veins, lower surface white to gray-green but typically totally hidden by dense, white tomentum. **Inflorescence:** dense panicle, at anthesis to 75 mm long, replacing tendril at a node paired with petiolate leaf (not axillary), having alternate lateral branches and alternate, unexpanded secondary branches each terminated by an umbel-like cluster of flowers, branchlets to 20-flowered, bracteate, woolly-hairy on axes and bracts; bracts subtending absent; peduncle cylindric, at anthesis to 15 mm long, often rose to reddish, woolly-hairy with brownish fine hairs; bract subtending primary branch 1/2-sheathing, ovate, ca. 3 mm long, bract subtending branchlet cupped-oblong to cupped-ovate, ca. 3 × 1.2 mm, papery; branch and branchlet axes light raspberry, loosely woolly hairy; bractlet subtending pedicel ± triangular, to 1 mm long, papery becoming withered; pedicel of staminate flower cylindric, 1–3.5 mm long, not swollen at base, pedicel of pistillate/bisexual flower, 2–4.5 mm long, with abscission zone next to swollen base, green, glabrous. **Staminate flower:** radial, 2.5–3 mm across, flower bud obovoid, ca. 2 mm long, pale green and greenish with rose at depressed top, truncate at base; receptacle ± 0.7 mm across; **calyx** papery wing, 0.15–0.2(–0.4) mm long, ± entire lacking obvious lobes, aging with a reddish vein network; **corolla** (4–)5(–6)-lobed, abscised as a unit around base inverted and bell-shaped, 2 × 2 mm, light green and smooth drying with recurved lobes and papery; tube fused ca. 0.5 mm, in bud depressed and blushed rose-red at top, reinforced by internal ridges; lobes wedge-shaped truncate at

narrower base; **stamens** (4–)5(–6), free, opposite petals; filaments ascending, straight, 1.5–2 mm long, whitish; anthers dorsifixed (medifixed), dithecal, 0.5–0.7 mm long, pale yellow, longitudinally and upwardly dehiscent; pollen pale light yellow; **nectary disc** (4–)5(–6)-lobed and scalloped, 0.3–0.35 mm long, suberect leaning inward and ca. 0.7 mm across, light green and light yellow-orange including gland for each lobe; **pistil** vestigial and lacking stigma, hidden by nectary disc. **Pistillate/bisexual flower:** radial, 2.5–3 mm across; **calyx** papery wing, 0.15–0.2(–0.4) mm long, ± entire lacking obvious lobes, aging with a reddish vein network; **corolla** (4–)5(–6)-lobed, abscised as a unit around base inverted and bell-shaped, 2 × 2 mm, light green and smooth drying with recurved lobes and papery; tube fused ca. 0.5 mm, in bud depressed and blushed rose-red at top, reinforced by internal ridges; lobes wedge-shaped truncate at narrower base; **stamens** (4–)5(–6), free, possibly producing fertile pollen; filaments aging flat and decurved, 0.7–0.8 mm long, whitish; anthers dorsifixed (medifixed), dithecal, 0.4–0.5 mm long, pale yellow, longitudinally dehiscent; pollen pale yellow; **nectary disc** (4–)5(–6)-lobed and scalloped, appressed to lower portion of ovary, 0.4–0.6 mm long, 1.2–1.4 mm across, light green with light yellow to yellow-orange, nectar-producing; pistil 1, 1.5–2 mm long; ovary superior, ovoid, glaucous light green, 2-chambered, each chamber with 2 ovules; style short; stigma capitate and thick, 0.5 × 1–1.3 mm, translucent aging pale green. **Fruit:** berry, 1–4-seeded, spheric, 14–20 mm, blackish purple to purple, pulp fleshy-colored to cherry red. **Seed:** obovoid and plump, 6–8 × 4–5 mm, brown, narrow at base with lateral elliptic scar, on 1 face with midline and a lateral pair of furrows from midseed to base, on other face with a circular recessed ring midseed connected with furrow to top of seed, broad top often slightly depressed.

A. C. Gibson