

Vascular Plants of Williamson County

Gonolobus suberosus var. *granulatus* – ANGLEPOD MILKVINE, LONGPETAL MILKVINE
[Apocynaceae/Asclepiadaceae]

Gonolobus suberosus (L.) R. Brown var. *granulatus* (Scheele) Krings & Q. Y. Xiang (syn. *Mateleia gonocarpos*), ANGLEPOD MILKVINE, LONGPETAL MILKVINE. Perennial climber, twiner, not rosetted, several-stemmed at base, 100 cm–meters long and high climbing; shoots flattened and 2-dimensional (plagiotropic) with only cauline leaves, somewhat velveteen having soft hairs ca. 1 (< 2) mm long and an inconspicuous understory of glandular hairs, pairs of leaves widely spaced, on rapidly growing shoots the youngest portions twining around adjacent axes and supports; latex milky. **Stems:** cylindric, to 4 mm diameter, tough, green and sometimes with poorly defined purplish stripes and streaks, internodes to 250+ mm long and twining around its own shoots and neighboring plants, with abundant \pm radiating hairs < 2 mm long and minute glandular hairs. **Leaves:** opposite decussate, simple, petiolate, without stipules; petiole weakly ridged-cylindric, to 65 mm long, green with reddish tinge, pubescent with soft hairs and minute glandular hairs; blade inversely heart-shaped, in range < 50–160 \times < 45–120 mm, cordate at base with a pair of rounded basal lobes to 30 mm long, occasionally with a pair of smaller, separate, earlike to obovate lobes 8–9.5 mm long next to petiole, entire on margins and having margins slightly inrolled (including on margins of earlike basal lobes), rounded with short acute point at tip, pinnately veined with special veins slightly raised on upper surface and principal and many minor veins raised on lower surface. **Inflorescence:** umbel-like cyme, axillary, arising from only 1 axillary bud per node and eventually a lateral shoot from the other axillary bud, in range 2–11-flowered, inconspicuously bracteate, hairy mostly lacking on axes and flower; peduncle cylindric curved upward, to 5 \times 1.3–1.5 mm and < petiole, green, with obscure glandular hairs, with projecting, short scars of abscised; bractlet subtending pedicel awl-shaped to linear, 0.7–1.5 mm long, green, flared at base, outer (lower) surface with ascending short hairs and minute glandular hairs and a tuft of short hairs approaching tip; pedicel spreading to ascending, cylindric but broadly ridged approaching flower descending from calyx lobes, 4–16 mm long, green, initially with puberulent and minute glandular hairs. **Flower:** bisexual, radial, 16–25 mm across; bud narrowly pyramidal with 5 dimples; **calyx** 5-lobed, green; tube 0.5–1.1 mm long, grooved at sinuses, glabrous; lobes widely spreading appressed to corolla, acute-ovate, 2–4 \times 1–1.4 mm, 1 lobe somewhat wider, sometimes with several hairs at tip; **corolla** deeply 5-lobed, in range 8–12 mm long, green, totally lacking hairs; tube short-platelike, to 1 mm long, with low, green rim on upper surface forming a collar of column; lobes widely spreading, somewhat triangular, in range 7–11 \times 2.5–3.9 mm, solid green with narrow white margins, scarcely overlapped at base, obtuse-rounded and somewhat cupped at tip; **stamens** 5, fused into staminal column with filaments surrounding lower pistils but free from them while anthers completely fused to stigma as an enlarged stigmatic head (gynostegium), gynostegium 2 mm tall, having a ring of 4 dull green mounds (anther appendages), the ring 3 mm across, the individual appendages touching, ca. 0.5 \times 1.5 mm and domed in center, base of column flaring and glossy light yellow-orange; anthers dithecal, dehiscent along tip, flat and fused to sides of stigma except for a lateral wing and a terminal appendage; anther sacs and connective on face of column,

lateral wing sideways appressed to adjacent wing of neighboring anther and forming a slit ca. 0.9 mm long; tips of anthers (terminal appendage) papery, folded, and appressed to top of gynostegium, folded portion 0.2–0.25 mm wide; pollen united into pollinia, each pollinium hemi-ovoid, 0.5×0.25 mm, pale pink-orange, 2 pollinia from adjacent anthers united by orangey translator arms to an exposed red-purple gland (corpusculum) at top of slit, translator arms twisted ribbonlike and 0.4 mm long, gland 0.25 mm long and having a minute groove. **pistils** 2, fused at top of styles with 1 broad stigma; ovaries superior, free at base and united by receptacle, hemi-ovoid flattened on inner face, $\pm 1.3 \times 1$ mm, pale green, with 4–5 bumpy ridges, lacking hairs and prickles, 1-chambered with many ovules in compact vertical rows; styles 2, tapered to stigma, ca. 0.6 mm long, pale green; stigma capitate (including some stylar tissue), 2.2–2.4 mm across, green, the top flat to low-convex, 5-angled and 5-cornered. **Fruit:** follicle (typically only 1 ovary matures), pendent, many-seeded, conspicuously 5-angled ovate, ca. 100×45 mm, initially light green, lacking hairs and prickles. **Seed:** flat elliptic-ovate with a tuft of long fine hairs at tip, 6–9.5 mm long, dark brown, with wing, the wing having minute teeth, the hairs spreading, ca. 30 mm long, silvery white, silky.

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