

Vascular Plants of Williamson County
Mitreola petiolata – LAX HORNPOD [Loganiaceae]

Mitreola petiolata (J. F. Gmelin) Torrey & A. Gray, LAX HORNPOD. Annual, taprooted, somewhat rosetted (having short internodes between pairs of basal leaves, lower leaves absent at flowering), 1-stemmed at base, unbranched later with ascending lateral branches having terminal inflorescence in canopy, in range 10–25+ cm tall; shoots with cauline leaves, glabrous. **Stems:** low 4-ridged aging cylindric, to 2.5 mm diameter, having a pair of ridges descending less than 1/2 internode from petiole-stipule margins on opposite sides, internodes to 50 mm long, near node ridges sometimes papillate. **Leaves:** opposite decussate, simple, petiolate, with stipules; stipule 1 pair at each node, attached to node between petioles and fused with adjacent ridge of each petiole, \pm deltate, 1.2–1.4 mm, colorless, thick, \pm blunt at tip; petiole hemicylindric or shallowly concave, 4–8 mm long, indistinct from blade, whitish and pale green; blade obovate or ovate to elliptic, 15–35(–50) \times 9–16(–20) mm, tapered at base, entire, blunt acute to obtuse at tip, pinnately veined with principal veins slightly raised on upper surface and conspicuously raised on lower surface, upper surface somewhat glossy and having several stalked glandular hairs along white midrib, lower surface at maturity lacking hairs. **Inflorescence:** cyme, terminal, 30+-flowered, branches 1-sided, flowers alternate, closely spaced at anthesis, and oriented to upper side, primary branches in fruit to 80 mm long and often with several secondary branches, bracteate, glabrous; peduncle stemlike, 4-ridged with paired ridges on opposite sides, 40+ \times < 1 mm, ridges vesicular-papillate; at basal node having 2 opposite, diminutive stipules and a pair of opposite bracts subtending diverging primary branches of cyme, bracts appressed, awl-shaped, 2.5–3 mm long, green; diverging from base of first terminal flower 2–3 spreading branches, first internode to 5 mm long and at node forked with a flower and continuing axis, internodes increasing in fruit, axis ridged, at node with 2 appressed bracts (bractlet + bract) on lower side; bractlet subtending pedicel and paired bract awl-shaped, to 2.5 mm long, green; pedicel ca. 0.5 mm long. **Flower:** bisexual, radial, 2–2.5 mm across; **calyx** 5-lobed, 1.6–2 mm long, green, glabrous; tube bell-shaped to midpoint; lobes erect in bud and fruit, ascending at anthesis, ovate, 0.8–1 \times 0.5–0.55 mm, with colorless narrow margins; **corolla** 5-lobed, 2.5–2.8 mm long; tube + throat 1 mm long increasing to 1.3 mm long when stretched, in bud throat having 5 longitudinal dimples, throat enlarging to barrow-shaped as ovary grows, white and throat initially or aging pink to rose, at top with a dense ring of inward-leaning, white, minutely beadlike hairs 0.3–0.4 mm long hiding throat and nectar; lobes widely spreading, triangular, 1.4–1.6 \times 0.5 mm, white, veins obscure; **stamens** 5, attached ca. 0.3 mm from corolla base, included; filaments 0.4 mm long, pale yellow; anthers dorsifixed, dithecal, 0.4–0.5 mm long, pale yellow aging with rose, longitudinally dehiscent; pollen pale yellow; **nectary disc** surrounding base of ovary, 0.25–0.3 mm long, greenish, producing copious nectar filling corolla throat; **pistil** 1, 1 mm long, included; ovary superior, hemispheroid, ca. 0.7 mm long, green, glabrous, 2-chambered, each chamber with 40+ ovules, after pollination separating and 2-lobed (2-horned) from top to below midpoint; style 1 but often splitting lengthwise with ovary, erect, green, with terminal stigma. **Fruit:** capsule, septicidal, many-seeded, deeply 2-lobed (2-horned), 3–4 mm long. **Seed:** elliptic to subspheroid in

outline and compressed top-to-bottom, 0.2–0.4 mm long, somewhat glossy brown, 1 face convex and rounded and other face concave with hilum in center.

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