

Vascular Plants of Williamson County
Dicliptera brachiata – FALSE MINT [Acanthaceae]

Dicliptera brachiata (Pursh) Spreng., FALSE MINT. Perennial herb, 1–several-stemmed at base, suberect to ascending, to 70 cm tall; shoots with only cauline leaves, short-hairy, not aromatic. **Stems:** conspicuously 6-ridged and somewhat angled, to 4 mm diameter, with 3 ridges descending from leaf, 6 ridges at each node (1 ridge descending from a leaf), internodes to 75 mm long, hairy along a pair of low ledges across nodes short-hairy, having appressed short hairs along ridges with downward-pointing hairs, shallow furrows between ridges with short-stalked glandular hairs having colorless heads, often with a pulvinuslike swelling just above node on outer side of bend. **Leaves:** opposite decussate, simple, petiolate with ledges across node, without stipules; petiole broadly channeled to hemicylindric, $< 3\text{--}25 \times 1.5$ mm (scaling with blade size), with colorless ribs, having long to short hairs on margins and lower side and short-hairy in channel, with narrow blade edges approaching blade; blade narrowly ovate, $15\text{--}55 \times 8\text{--}23$ mm, dull, tapered at base and often unequal, entire to subentire on margins, obtuse to acute with short point at tip, pinnately veined with principal veins slightly raised on both surface, soft short-hairy with upward-arched hairs, the longest hairs along veins and especially on margins.

Inflorescence: condensed cyme, paired and axillary, at node with 1–2 short axillary shoots with flowers, each cyme 2–several-flowered, chasmogamous or totally cleistogamous (after summer), bracteate; bracts subtending panicle of cyme 2, obovate (broadly elliptic), $5\text{--}10 \times 2.6\text{--}7$ mm (the smallest on cleistogamous individuals) increasing $2\times$ in fruit, bracts fused across node and at base ca. 0.5 mm, hairs longer in fruit, obovate bracts sessile to short-petiolate, mostly 5-veined (not pinnately veined), green with narrow membranous margins below midpoint, rounded at tip with short point, inner (upper) surface glabrous and outer surface with short hairs along principal veins and scattered above midpoint, on lower surface often with 3 slightly raised veins and hairs upward-pointing; peduncle initially to 1 mm long increasing to 4 mm long in fruit, 6-ridged, short-strigose with downward-pointing hairs; bractlet subtending pedicel sessile, narrowly elliptic-ob lanceolate or oblanceolate to acuminate-lanceolate, ca. $3.5\text{--}4 \times 0.8\text{--}1$ mm, 1-veined, short-ciliate on margins above midpoint and with scattered short hairs; pedicel short, 0.4 mm long. **Chasmogamous flower:** bisexual, bilateral, $3.5\text{--}4.5$ mm across $\times 10$ mm (spreading lips), ca. 16 mm long; **calyx** 5-lobed, light green; tube 1 mm long; lobes acuminate-triangular, $2.5\text{--}3 \times 0.5\text{--}0.6$ mm increasing in fruit, 3-veined, papillate short-ciliate on margins, with short hairs; **corolla** 2-lipped; tube + throat ca. 7 mm long, white, tube glabrous, throat short-villous + several glandular hairs on sides; lips elliptic, $8.5\text{--}9 \times 4\text{--}4.4$ mm, mostly light purple, upper lip horizontal and lower lip diverging downward ca. 60° , upper lip with 3 short teeth, concolor with solid color, upper surface short-villous + glandular hairs; lower lip upper surface white at base with purple to dark purple spots approaching midpoint, light purple above midpoint, glabrous, lower surface pale purple, short-villous + glandular hairs; **stamens** 2, fused to sides of corolla 4–5 mm from base, exerted but $<$ upper corolla lip; filaments \pm straight, ca. 8 mm long, light purple, sparsely short-hairy and glandular-hairy; anthers dorsifixed, monotheical, 2 mm long, purple and white, longitudinally and downwardly dehiscent; pollen creamy white; **nectary disc** 2-lobed, appressed to base of ovary, $0.5 \times 0.7\text{--}0.8$ mm, green; **pistil** 1; ovary superior,

narrowly ovoid, $1.1\text{--}1.3 \times 0.7\text{--}0.8$ mm, green, glabrous, 2-chambered, each chamber with 2 ovules; style 7.5–8 mm long, white, subequally 2-branched, the branches fingerlike, 0.25–0.3 mm long and stigmatic tip, with scattered short stiff hairs to midpoint.

Cleistogamous flower: bisexual, radial, 1 mm across (calyx), ca. 2 mm long; **calyx** 5-lobed, light green, at pollination ca. 2.5 mm long; tube cup-shaped, 0.5 mm long; lobes acuminate-triangular, ca. 2 mm long increasing 2× in fruit, with minute stalked glandular hairs at least to midpoint; **corolla** bullet-shaped, 2×0.6 mm, lacking veins, with circumscissile abscission at base (calyptrate); tube cylindrical, white, glabrous; throat from midpoint, lower portion white like tube and upper hemispheric portion light rose and conspicuously short-hairy; **stamens** 2, totally enclosed within sealed corolla and fused to top of corolla tube; filaments ± straight, 0.3 mm long, colorless, glabrous; anthers touching dorsifixed, monotheical, 0.25 mm long, pinkish, longitudinally and inwardly dehiscent; pollen pinkish; **nectary disc** absent; **pistil** 1, on wedge-shaped stalk 0.2–0.25 mm long, pale green; ovary superior, ovoid, ca. $0.9 \times 0.6 \times 0.5$ mm, pale green, glabrous, 2-chambered, each chamber with 2 ovules; style 0.6–0.75 mm long, minutely 2-lobed (stigmas) touching anthers, greenish. **Fruit:** capsule (developing from every persistent flower), 2-valved, to 4-seeded in 2 unclosed chambers (with cartilaginous partition), explosively dehiscent, ovoid somewhat compressed ⊥ septum, ca. $6 \times 3 \times 2.5$ mm (excluding stalk tissue), greenish and membranous, epicarp tissue of valve thin, short-pilose on capsule edges or above midpoint; calyx tube cup-shaped, ca. 1.5 mm long, lobes acuminate-triangular, ca. 3×0.8 mm, pale green. **Seed:** disclike to waferlike, $1.6\text{--}2.1 \times 1.6\text{--}2.1 \times 0.5\text{--}0.7$ mm (of cleistogamous flower to 2.5 mm), dark brown, flat surfaces low-bumpy, papillate along raphe.

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