

Vascular Plants of Williamson County

Physostegia correllii – CORRELL FALSE-DRAGONHEAD [Lamiaceae]

Physostegia correllii (Lund.) Shinn., CORRELL FALSE-DRAGONHEAD. Aquatic perennial herb, rhizomatous and stolon-bearing, fibrous-rooted, not rosetted, 1-stemmed at base (from rhizome and stolon), commonly erect, in range with inflorescence to 70 cm tall; shoots with only cauline leaves, gland-dotted with sessile glands in surface appearing glabrous but young organs puberulent with nonglandular and stalked glandular hairs with colorless heads, foliage not aromatic when crushed; rhizome short and erect; stolons radiating from axillary buds at plant base, horizontal, white or greenish on upper side, internodes to 20 mm long, with a pair of diminutive, petiolate leaves at each node, leaves to 12 mm long with white petiole to midpoint and green blade; adventitious roots on rhizome, stolons, and from nodes of submersed lower stem. **Stems:** 4-sided, to 6 mm diameter aging cylindric and red-purple above rhizome, tough, edges rounded, internode enlarged approaching node, gland-dotted and initially puberulent, submersed internodes aging with persistent hairs. Leaves: opposite decussate, sessile fused across node as thickened ledge, without stipules; blade ascending to suberect, obovate or elliptic to ovate, mostly $< 30\text{--}75 \times 15\text{--}38$ mm, tapered at base, serrate on margins, acute at tip, 5-veined at base with midrib slightly sunken on upper surface and principal veins slightly raised on lower surface, surfaces gland-dotted with sunken glands. **Inflorescence:** spikelike raceme, terminal, erect, with flowers to 45 mm across, having to 40+ nodes, flowers opposite decussate (at a node sometimes subopposite), ascending-spreading, and short-stalked, bracteate, green tissues puberulent with nonglandular and glandular hairs; bracts subtending raceme 2, sessile, diminutive, ovate, to 8×5.5 mm, serrate; peduncle and rachis 4-sided with 4 furrows, puberulent with nonglandular and glandular hairs; bractlet subtending pedicel acuminate-ovate cupping calyx, to 6×3.5 mm, gland-dotted on both surfaces with sparse, stalked glandular hairs; pedicel to 1.5 mm long, green, puberulent. **Flower:** bisexual, bilateral, to 10 mm across, ca. 30 mm long; **calyx** 5-lobed, light green, 7–8 mm long, outer surface densely puberulent including stalked glandular hairs to 0.2 mm long, gland-dotted on both surfaces, inner surface with sparse stalked glandular hairs; tube \pm funnel-shaped, ca. 3.5 mm wide at top, sinuses narrowly V-shaped; lobes appressing corolla, subequal, triangular, $2.5\text{--}3.3 \times 1.1\text{--}1.4$ mm on each flower; **corolla** 2-lipped, appearing dark lavender, outer surface with subsessile, colorless glands (gland-dotted) and short-hairy, in bud with upper lip covering top of corolla; tube + throat appearing inflated and obovoid, to 25×10 mm, tube funnel-shaped likely 10 mm long, white at base and above lavender, upper throat and limbs on the inside nearly white to pale lavender with an elaborate pattern of crimson spots, inner surface with some raised and pigmented veins; upper lip = hood (cupped), shallowly 2-lobed notched ca. 1 mm with an acute to obtuse sinus, ca. $9\text{--}10 \times 9\text{--}10$ mm, mostly concealing anthers and stigmas; lower lip 3-lobed, central lobe shallowly 2-lobed with short point in sinus, ca. 5×6.5 mm, lateral lobes with short point at tip, $\pm 4.5 \times 3.5$ mm; **stamens** 4, fused to corolla throat in 2 pairs arising at different points and decurrent on throat, at anthesis not exerted; filament free portion appressed to ceiling of throat and hood, of lower (lateral) pair ca. 14 mm long and of upper (central) pair ca. 10 mm long, pale lavender, curved downward approaching anthers, soft-hairy above midpoint; anthers dorsifixed, dithecal, horseshoe-shaped, 1.5×1.3 mm, white on downward side and rose-crimson on back side, swollen connective with subsessile

glands, longitudinally and downward dehiscent; pollen white; **nectary disc** = narrow ring beneath ovary base on the lower side with a fleshy, triangular, toothlike projection ca. 1.2 mm long greenish white but purple-red at tip; **pistil** 1; ovary superior, strongly 4-lobed, lobes 3-sided elliptic in outline, ca. 0.6×0.55 mm, pale green, 2-chambered, each lobe with 1 ovule; style at anthesis not exerted from hood, attached to ovary base at center of ovary lobes (gynobasic), ca. 30 mm long, white or pale lavender approaching top, soft-hairy above midpoint appressed ceiling of throat and upper lip adherent to the adjacent pair of filaments via intertwined hairs, equally 2-forked approaching tip, the branches divergent and arching, 1.5–2 mm long, stigmatic at tips. **Fruits:** nutlets, 1–4, conspicuously 3-sided elliptic to ovate in outline, $2\text{--}2.5 \times 1.5\text{--}2$ mm mm, pale green aging light brown, rounded and gland-dotted on back, \pm flattish on 2 lateral faces, raised on edges.

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