

## Vascular Plants of Williamson County

### *Polygala lindheimeri* var. *parviflora* – ROCK MILKWORT [Polygalaceae]

*Polygala lindheimeri* A. Gray var. *parviflora* Wheelock, ROCK MILKWORT. Perennial herb, several-many-stemmed at base, not rosetted, principal shoots ascending, in range < 20 cm tall; shoots with only cauline leaves. **Stems:** ± cylindrical, to 1 mm diameter, green, short-hairy (puberulent) with numerous upward-arching hairs. **Leaves:** helically alternate, simple, short-petiolate, without stipules; petiole hemicylindric, < 0.8 mm long, light green; blade lanceolate-linear to narrowly elliptic-linear, < 10–25 × 1.5–3 mm, tapered at base, entire, acute at tip, 1-veined with midrib visible and slightly raised on lower surface, lower surface sparsely short-hairy. **Inflorescence:** raceme, terminal (paired at fork with new axillary shoot), several–15+-flowered, bracteate, short-hairy with upward-arching hairs; peduncle cylindrical or broadly 1-ridged (ridge descending from the lowest bractlet), 0.5 mm diameter; rachis ± zigzagged, internodes to 8 mm long, often with ridge descending from bractlet; bractlet subtending pedicel, cupped-ovate, 0.8–1 mm long, margins and tip often purple, short-hairy on lower surface, persistent; bracteoles 2 at base of pedicel, opposite, lateral to bractlet and spreading, short-oblong, < 0.6 × 0.2–0.25 mm, < bractlet, margins and tip often purple, short-hairy on lower surface, persistent; pedicel cylindrical, 1.5–2.5 mm long, green or with light purple. **Flower:** bisexual, bilateral, ca. 4 mm across, 6 mm long; **sepals** 5, heteromorphic; upper sepal boat-shaped, 3 mm long, green with purple with pale pink membranous margins, short-hairy on outer (lower) surface, persistent and often aging keeled and folded; lateral 2 sepals petal-like, obovate, 4.5–5 × 2.2–2.5 mm, green and pale pink at base becoming rose or light pink-purple approaching to tip, with reddish midvein visible above midpoint and short-hairy on outer (lower) surface; lower 2 sepals, ovate, ca. 2 × 1 mm, green and purple with pale pink membranous margins; **nectary** small protrusion of reception, at base of upper sepal; **petals** 5 (appearing as 3), dimorphic; upper 2 petals, ca. 4.5 mm long, whitish and fused to staminal tissue below midpoint on lower margin, free and inrolled on upper margin, the lobes with green and pink-purple tips; lateral 2 petals fused with and indistinct from staminal tissue; lower petal highly modified above midpoint expanded into pouch containing stigma and anthers, the pouch 2 × 1.5 mm, pinkish purple and white but part of upper margin green, pouch with greenish projection 1 mm long exserted from flower; **stamens** 7–8, fused at base to form a sheet, enveloping ovary and lower style, ca. 2.5 mm long, mostly white, opened along upper side and constricted at tip, glabrous; free filaments to 1 mm long, white, strongly curved upward and surrounding upper style; anthers basifixed, appearing monotheical, 0.2–0.3 mm long, orange-yellow, dehiscent at tip; pollen yellowish; **pistil** 1, ca. 4 mm long (unstraightened), short-stalked (stipe), stipe to 0.4 mm long, green, glabrous; ovary superior, roundish and flat, 1.5 mm long, green, densely short-hairy, 2-chambered, each chamber with 1 ovule attached to center near top; style included, strongly bent within corolla pouch, straight portion whitish, upward portion flared and green, 1.3 mm long, at tip with concave and oblique stigma 0.6 mm across. **Fruit:** capsule, loculicidal, 1–2-seeded, dehiscent by 2-valved, roundish and strongly flattened, 3.5–4 mm. **Seed:** with aril, aril birdheadlike (side view), with aril 3 mm long; seed oblong, 2.5 × 1.2 mm, densely covered with descending, hirsute white hairs; aril firmly attached near hilum, fleshy, to 1.5 mm long, whitish, with 2 descending flaps (lobes).

A. C. Gibson