

*Polygala cornuta* Kell. var. *fishiae* (C. Parry) Jepson, FISH'S MILKWORT. Shrub, rhizomatous, much-branched with arching branches, < 200 cm tall; shoots weak-stemmed, glabrous. **Stems:** cylindric, slender, tough, green. **Leaves:** helically alternate, simple, short-petiolate, without stipules; petiole somewhat appressed to stem, 1–3 mm long, purplish, some pulvinuslike; blade narrowly elliptic to narrowly lanceolate, 15–45 × 3.8–8 mm, broadly tapered at base, entire and minutely ciliate on margins, rounded and weakly pointed at tip, pinnately veined. **Inflorescence:** raceme, 5–15-flowered, bracteate, mostly puberulent; bract subtending peduncle = cauline leaf; peduncle 5–35 mm long, with projecting bases beneath pedicels; bractlet subtending pedicel lanceolate, 1.7–4 mm long, greenish to purplish, closely associated with 2 stipulelike, early-deciduous bracteoles, bractlet and bracteoles puberulent especially on margins, bracteoles awl-shaped to triangular, ± 1 × 0.3–1 mm, ± colorless or greenish; pedicel several-ridged, 2–4 mm long increasing 2× in fruit, puberulent. **Flower:** bisexual, bilateral, resembling legume papilionaceous flower, ca. 5 mm across, 7–11 mm long; **sepals** 5, dimorphic, ± ovate, upper sepal and 2 lower sepals 3.5–4 × 1.7–2.6 mm, mostly grayish purplish pink to rose but yellowish green at base, slightly cupped, acute at tip or sometimes rounded for 1 or 2 lower sepals, upper and lower surfaces pubescent; 2 lateral sepals spreading, 7–8.5 × 5–5.8 mm, pink to light rose or purplish pink; **nectary** ± tongue-shaped protrusion of receptacle, at base of upper sepal and extending as a rim at bases of upper petals toward pistil, ± 1.5 × 0.7 mm, green, cupped, the free, tongue-shaped extension ± 0.5 mm long; **petals** 5 (appearing as 3), dimorphic, appearing free but fused to staminal column, upper 2 petals fused to staminal column below midpoint on lower margin, free on upper margin, oblong or strap-shaped, 9–9.6 × 1.7–2 mm, 1.5–2 mm > lateral sepals (wings), off-white with pink or dark purplish red with pale yellow at base, typically 2-toothed at tip, glabrous, internally pubescent with colorless hairs adjacent to stamens; lateral petals (wings) 3–3.5 × 0.3–0.6 mm, mostly fused to staminal column but free for 0.5–0.7 mm at acute tip, pale yellow to whitish but becoming tinged purplish red at tip; lower petal fused to staminal column, keel-like, clawed, and hooded, 8.5–9 mm long, exceeding wings by ± 1.5 mm, claw 3–4 mm long, light yellow with reddish vein, pubescent on outer surface, expanded approaching tip, hood enclosing stamens and style, 5–5.5 mm long, 3–4 mm deep, rose to dark purplish red on exposed parts, compressed side-to-side, convex along keel, beaked at tip, prominently but shortly wavy on upper margin near claw, the beak narrowly triangular and flattened side-to-side, ± 1.2 mm long, 0.5 mm tall at base; **stamens** 8, fused at base to form a column (column fused with petals); staminal column enveloping ovary and lower style, 5–5.5 mm long, pale yellow or pale yellowish green, opened along upper side and constricted at tip, pubescent; free filaments 1.5–2 mm long but separating from column at different levels, whitish, strongly curved upward and surrounding upper style; anthers mostly positioned below level of the stigma, basifixed, appearing monothecal, urn-shaped, ± 0.6 × 0.3 mm, whitish or yellow, dehiscent at tip by a 2-lipped opening with 1 lip larger than other lip; pollen whitish translucent or yellow; **pistil** 1, ± 9 mm long, short-stalked; ovary superior, lenticular compressed side-to-side, 2–3 × 1.5–2.5 mm, green, 2-toothed at tip, 2-chambered, each chamber with 1 ovule attached to center near top; style 6.5–7+ mm long, pale green or yellowish green, expanding and curved upward above midpoint; stigma triangular-ovate or elliptic, ± 0.75 × 0.5 mm, yellowish green, truncate and slightly concave, with a papillate, yellow-orange area on upper edge. **Fruit:** capsule, loculicidal,

1–2-seeded, dehiscing completely along 2 outer edges, broadly ovate-lenticular and winged,  $9\text{--}10 \times (6.5\text{--})8\text{--}9$  mm, green turning brown, 1 or 2 chambers swollen by seed, notched at tip; after dehiscing valves widely spreading and appearing 4-winged, revealing glossy and veiny inner wall. **Seed:** with aril, including aril birdheadlike (side view),  $\pm 7$  mm long; seed ellipsoid,  $3\text{--}3.5 \times 2$  mm, dark brown with lighter stripe, whitish hirsute; aril firmly attached near hilum, fleshy, to 5.5 mm long, whitish aging tannish, with 2 flaps (lobes) to 2.5 mm long covering lower portion of seed, somewhat hairy, axis grooved on lower side. Mid-May–late September.

Native. Shrub occurring occasionally in shady riparian woodland along creeks or in southern oak woodland. *Polygala cornuta* var. *fishiae* has slender stems with evenly spaced, elliptic leaves. From the canopy arise arching reproductive branches with racemes of showy, intricately designed flowers. In our populations sepal colors and sizes fit variety *fishiae*, but sepal pubescence is more like that described for variety *cornuta*.

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