

Vascular Plants of Williamson County

Lathyrus pusillus – LOW PEAVINE, SINGLETERARY VETCHLING, TINY PEA [Fabaceae]

Lathyrus pusillus Elliott, LOW PEAVINE, SINGLETERARY VETCHLING, TINY PEA. Annual vine, tendril-bearing, taprooted, not rosetted, typically 1-stemmed at base, latently forming lateral branches from consecutive nodes, sprawling to ascending and climbing over other plants; shoots having narrow leaflike, green-winged axes (absent on diminutive individuals), leaves tendrilar, in range appearing glabrous or sparsely glabrescent, lacking glandular hairs; tendrils = modified leaflets, (1)3 per leaf, if 3 paired = 2 lateral leaflets + terminal leaflet, cylindric, stalk 8–20 mm long, arms widely divergent, \leq stalk, to 2-coiled at tips; young roots nodulated. **Stems:** sharply 3-angled and 3-sided, in range to 2 mm diameter + (0)2 internode wings to 1.3 mm wide and green, conspicuously zigzagged, wings when present decurrent from a pair of stipules, leafy tissue sometimes glaucous, initially sparsely soft short-hairy along edges with upward-pointing or \pm appressed appearing glabrous in fruit. **Leaves:** helically alternate, odd-1-pinnately compound, appearing pinnately 2-foliolate typically with only a basal pair of lateral leaflets and other leaflet or leaflets replaced by tendrils borne at the end of a rachis internode, petiolate without pulvinus, with stipules; stipules 2, attached to base of petiole at node, asymmetric with 2 unequal basal lobes (lower leaves) the larger outward-pointing and the smaller inward-pointing, or 1 outward-pointing basal lobe (upper leaves), 10–20(–26) mm long overall, principal stipule acute-lanceolate, 6.5–20 \times 2.5–6.3 mm with soft tip, outward basal lobe acuminate-lanceolate 2.5–9 mm long and other lobe acuminate and 1.5–5 mm long; petiole channeled without wings, 5–20 mm long; petiolule = pulvinus, arising from upper side of petiole, 1 mm long and $<$ 1 mm wide, greenish, mostly glabrous; blades of leaflets elliptic, 10–40 \times 2.5–15 mm, tapered at base and slightly cupped from stout pulvinus, entire, acute at tip, palmately veined with 3 veins at base and principal veins somewhat raised on lower surface, dull, not glaucous; rachis above leaflets = tendril stalk below diverging arms, to 20 mm long. **Inflorescence:** raceme, axillary typically from successive nodes once flowering begins, in range 1-flowered, solitary flower appearing terminal (helically alternate), bracteate, essentially glabrous; peduncle ascending, at anthesis $<$ 16 mm long and ascending increasing 2 \times and spreading in fruit, light green, pulvinus at base, sparsely short-hairy nearly glabrous aging without hairs; bractlet subtending pedicel (not observed) somewhat sheathing pedicel base, awl-shaped, ca. 1 mm long, green, glabrous; pedicel cylindric, at anthesis 1.5–2 mm long increasing 2 \times in fruit, pale green. **Flower:** bisexual, bilateral, pealike (papilionaceous), ca. 2.5 mm across (banner), lacking fragrance; **nectary** nectar-producing receptacle below ovary; **calyx** 5-lobed, 5–6 mm long, green; tube funnel-shaped, 2 mm long, with 5 slightly raised veins to lobes; lobes subequal, acuminate-triangular, 3–4 mm long, green with narrow whitish margins, 1-veined and \pm keeled, sparsely short-ciliate near tube, likely with subsessile glandular hairs on inner surface; **petals** 5, clawed, glabrous, claws to 2 mm long; banner folded forward along midline and somewhat spreading, obovate, ca. 7 \times 2.5 mm, blue-violet fading to red-purple with whitish claw; wings 2, \pm 6 mm long, limb oblong, ca. 3.5–4 \times 1 mm, whitish at base to blue-violet approaching tip; keel of 2 petals fused from top of claw to tip along entire lower edge, low hatchet-shaped, 3.5–4 \times 1.5 mm, compressed side-to-side, whitish; **stamens** 10, diadelphous (9 filaments fused and 1 free);

filament sheet membranous, ca. 5 mm long, free filament 1.5–2 mm long, white with fine short hairs approaching anthers; anthers becoming basifixed, dithecal, monomorphic, 0.15 mm long, light orange, longitudinally dehiscent; pollen pale orange, released in bud; **pistil** 1, included, with stigma glued to wet stigma with hairs, sessile; ovary superior, oblong compressed side-to-side, 4 × 1 mm, pale green, glabrous, 1-chambered in range with ca. 10 ovules attached to upper side, style curved upward from ovary, < 2 mm long with terminal stigma. **Fruit:** legume, dehiscent by 2 twisting valves, in range ca. 10-seeded, immature fruit initially compressed side-to-side maturing cylindric (flattened only with aborted seeds) with slight bulging at seeds, 28–40 × 3.5–4 mm, brown and somewhat veiny, straight on upper edge ascending at tip, glabrous and somewhat glaucous. **Seed:** in range spheroid, ca. 2.5 mm, dull olive, highly textured with abundant short projections.

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