

Vascular Plants of Williamson County

Vicia ludoviciana subsp. *ludoviciana* – BROADPOD VETCH, DEERPEA VETCH [Fabaceae]

Vicia ludoviciana Torrey & A. Gray subsp. *ludoviciana*, BROADPOD VETCH, DEERPEA VETCH. Annual vine, taprooted, with leaf-tendrils, several-stemmed at base, branched, sprawling and climbing over other plants; shoots somewhat 2-dimensional (plagiotropic) or not, short-villous (villous); tendril = terminal portion of blade, unbranched to unequally 3–5-branched, the branches modified leaflets; roots nodulated. **Stems:** 5-angled, in range < 2 mm diameter, with 3 ridges descending from petiole midvein and stipules, flexible, internodes to 50 mm long, green or ridges purplish. **Leaves:** helically alternate, 1-pinnately compound mostly with 7–10 alternate and subopposite leaflets, short-petiolate, with stipules; stipules 2, ± equal in a pair, spreading, 2-lobed, asymmetric, triangular principal lobe commonly with an outpointing, ⊥ basal lobe, ca. 5.5 × 1.5 mm and basal lobe to 2 mm long, green with red-purple, soft-hairy; petiole channeled and with 2 strong ridges, to 5 mm long, green or tinged red-purple, soft-hairy; rachis channeled with leaflets attached to the edges of channel, to 50 mm long below tendril, green but red-purple where leaflets attached, short-villous; petiolules 0.6–1 mm long, pale green (whitish) and purple at base, soft-hairy; blades of leaflets elliptic or oblong to ovate, 6–15 × 3–5.5 mm, tapered at base, entire, rounded to obtuse with short point at tip, pinnately veined with midrib slightly raised on lower surface, dull green, in range surface soft-hairy; tendrils shallowly channeled at base to nearly cylindrical approaching tip, principal axis to 12 mm long, sometimes pinkish. **Inflorescence:** mostly 8–13-flowered raceme, axillary, in range nearly as long as adjacent leaf, some flowers on rachis in pairs, lacking bracts, soft-hairy and green tissue with minute glandular hairs; peduncle 6-ridged, at anthesis 40–65 mm long not increasing in fruit, green with purplish ridges, flexible, short-strigose; rachis ridged with ridge descending from each pedicel, short portion extending beyond top flower; pedicel 0.6–1 mm long, green and purplish, hairy, with decurrent base along rachis. **Flower:** bisexual, bilateral, pealike (papilionaceous), 5.5–6 mm across, 5–8.5 mm long; **calyx** 5-lobed, 3.5–3.8 mm long, short-villous with minute glandular hairs; tube bell-shaped, 1.8–2 × 1.3–1.6 mm, green (5 veins) and tinged purplish, not inflated or pouched; lobes unequal, acuminate-triangular flared at base, 1.1–2 mm long, the lower lobe the longest; **petals** 5; banner widespreading, lacking claw, broadly obovate and shallowly 2-lobed or not, to 6 mm across, violet with white at base and having ascending darker nectar lines; wings 2, adherent to keel, clawed, claws linear, ca. 2 mm long, white, limb oblong-obovate, ca. 4 × 1.3 mm, whitish trimmed light violet, lobed at base, the lobe basally pointed on upper edge of wings ca. 1 mm long, white; keel of 2 petals fused base to tip on lower side, curved upward, claw ca. 2 mm long, white, limb with backward-pointing lobe, limb pale violet to dark purple above midpoint, notched or not at tip; **stamens** 10, diadelphous (9 filaments fused and 1 free); filament sheet ca. 3.5 mm long, whitish, free portions 1–1.3 mm long, white, arching upward 90°, the free filament flat and flared tapered from broad base; anthers dorsifixed, dithecal, of 2 sizes, 0.25–0.3 mm long and 0.4 mm long, light orange, longitudinally dehiscent; pollen pale orange; **pistil** 1, with short stalk (stipe); ovary superior, oblong compressed side-to-side, 3–3.2 × 0.7 mm, green, glabrous, 1-chambered with to 7 ovules attached to upper side; style to 1.5 mm long, bent sharply (90°) at base, white above bend, short-hairy on 0.5 mm of style and tip; stigma

minute-capitate. **Fruit:** pod (legume), dehiscent, 2-valved, mostly to 3-seeded, \pm oblong slightly compressed side-to-side, $14\text{--}18 \times 2.5$ mm, \pm brown, prowlike and short-beaked at tip, valves remaining attached on lower side only at base twisted ca. $1/4$, not veiny, not bulging at seeds. **Seed:** subspheroid somewhat compressed side-to-side, ca. $2.5 \times 2.5 \times 1.5$ mm, dull blackish to deep olive-brown, color often solid, having hard seed coat; hilum oblong-linear on edge $> 1/3$ around seed, 0.4 mm wide.

A. C. Gibson