

Vascular Plants of Williamson County

Vicia sativa subsp. *nigra* – NARROW-LEAVED VETCH [Fabaceae]

Vicia sativa L. subsp. *nigra* (L.) Erhart, NARROW-LEAVED VETCH. Annual vine, with tendrils, taprooted, several-stemmed mostly near base, sprawling and climbing over neighboring plants, in range < 100 cm long; shoots with flexible stems and only cauline leaves, sparsely short-hirsute (hirtellous) or also short-strigose; tendrils terminal + 1(–2) pairs of lateral tendrils at end of leaf rachis; roots nodulated. **Stems:** 6-angled usually with 2 angles winged, axis to 3 mm diameter, with wings on 2 lateral vein descending from each leaf for 1 internode and continuous with wings of adjacent internodes, with ridge or angle descending from each leaf midrib, internodes 20–60(–120) mm long, sparsely to moderately short-strigose. **Leaves:** helically alternate, even 1-pinnately compound with 4–6 pairs of opposite to subopposite lateral leaflets (rarely with leaflets unmatched; on basal leaves with as few as 2 pairs of leaflets), petiolate without pulvinus, with stipules; stipules 2, attached to descending lateral veins from petiole, ovate with a long basal lobe on trailing edge and a central extrafloral nectary, 4–5.7 × 2–3.5 mm (excluding basal lobe), green but with a large, very dark, red-purple nectary, commonly with a tooth above basal lobe, margin with smaller teeth below pointed acuminate tip, 3–6-veined, the nectary elliptic or ovate to oblong, 1.3–2 × 0.8–2.3 mm, colored on both surfaces but on lower surface nectar-producing and bordered by a narrow, darker rim on lower surface, the basal lobe mostly lanceolate, 4.2–8 × 0.7–2 mm, ⊥ axis of bractlet, entire or with tooth 0.1–1.7 mm long on leading edge below middle, sometimes also with a tooth to 1 mm long on trailing edge; petiole 0–3.5 mm long, with thick margins, villous to short-strigose; rachis channeled, 7–45(–80) mm long (= first to last leaflet), villous (short-strigose) with some hairs having small papillate bases; petiolules 0.5–1.2 mm long, pale green, villous; blades of leaflets attached to thick margins bordering rachis channel, elliptic, 8–20(–35) × 4–8(–16) mm, tapered to broadly tapered at base, entire and short-ciliate on margins with hairs having papillate bases, broadly rounded to truncate at tip with midrib continuing as a tooth 1.2–2 mm long, pinnately veined with 7–12, ascending lateral veins, upper surface dull green and glabrate, lower surface paler green and whitish hirtellous. **Inflorescence:** raceme, axillary, in range 1–2-flowered, lacking bracts; peduncle 0.7–2 mm long; rachis < 3 mm long or absent if only 1 flower; pedicel 0.8–2 mm long, defined by constriction at base, short-hairy just above constriction. **Flower:** bisexual, bilateral, pealike (papilionaceous), at anthesis 6–8 mm wide (spreading wings and banner), in range 14.5–16 mm long; **nectary** tongue-like protruding from receptacle on lower side of ovary, ca. 0.4 mm long, green; **calyx** 5-lobed, in range 9–11(–14.3) mm long, green, nearly glabrous or short-villous along veins and short-strigose between veins; tube compressed-cylindric, in range 4.8–6 × 2–2.7 × 3–3.9 mm, eccentrically cupped at base with pedicel attached basally but toward lower side or slightly oblique, 20-veined with 5 conspicuous and ribbed; lobes subequal, linear-triangular, in range 3–4.5 × 0.8–1.2 mm, narrowly acute at tip, short-ciliate with upcurved hairs on margins, with a few strigose hairs at base of midvein on outer surface; **petals** 5, clawed; banner broadly obovate, in range 14.5–16 mm long, claw folded-obovate, 6–7 mm long, broadly tapered from base of limb with curved base, whitish, limb spreading outward and curving upward at anthesis, in range 8.8–9.5 × 8.2–9 mm (flattened), heart-shaped to cleft at tip but with a small tooth 0.2 mm long in

notch, strong reddish purple to strong purple on inner surface, paler on outer surface, with a whitish to yellowish basal area intruding from claw, with ca. 23 veins midway between margin and claw, the veins commonly forking near margin and darker than lamina; wings 2, in range 11.5–13 mm long, < banner, claws 6–7 × 0.8–1 mm, whitish, limbs ± ovate, ca. 5 × 3.5–4 mm, mostly strong reddish purple to strong purple but whitish at base, with a backward-pointing lobe at base above claw, rounded at tip, 10-veined, basal lobe acute, 1.5–1.9 × 0.8–0.9 mm; keel of 2 petals fused along most of lower edge to form an inflated, prowlike tip, 9.8–10.5 mm long, < wings, claws 6.7–7 mm long and nearly free from base, whitish to pale yellow, limbs 2.8–3 mm long, 2–2.7 mm tall, strong reddish purple on outer curve, very dark purple on upper edge near tip, pale yellowish on inner above claw to midpoint, with a small rounded tooth or a rounded angle at base of limb and claw; **stamens** 10, diadelphous (9 filaments fused and 1 free), < style; filaments 9.5–10.5 mm long, whitish, sheet 8.5–9 mm long, free portions alternating long (1–1.4 mm long) and short (0.7–0.8 mm long), whitish, arching upward 90° from base, free filament also arching upward 90° at tip; anthers basifixed, dithecal, 0.3–0.4 × 0.15–0.2 mm, greenish yellow, longitudinally dehiscent; pollen white to pale yellow; **pistil** 1, subsessile (glabrous); ovary superior, linear and compressed side-to-side, 8.5–9.5 × 0.8 × 0.9 mm, tapered at ends, green, short-hairy and glandular with spheric hairs, 1-chambered with 10 ovules attached to upper side; style 1.3–1.5 mm long, bent sharply (90°) at base, hairy for ca. 0.5 mm below stigma, with the longer hairs (0.5 mm long) on outer edge of style tip; stigma ± capitate, 0.2 × 0.3 mm, slightly wider than style, greenish yellow, papillate. **Fruit:** pod (legume), 1 or 2 per node, dehiscent by divergent and strongly twisting valves, ca. 10-seeded, ± linear, 25–57 × 5.2–5.5 mm, dark brown, broadly tapered at base, ribbed on top and bottom, slightly constricted along diagonal veins, long-tapered and sometimes with short, upturned beaked at tip, minutely puberulent. **Seed:** spheroid, 3–3.5 × 3–3.7 mm, olive green with brown squiggly-reticulations and mottled, sometimes with black dots, smooth; hilum linear, 2–2.3 mm long.

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