

*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, to 175 cm long; shoots with flexible stems and only cauline leaves, sparsely white-strigose and short-hirsute (hirtellous); tendrils terminal + 1–2 pairs of lateral tendrils at end of leaf rachis; roots nodulated. **Stems:** 6(8)-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 20–120 mm long, sparsely to moderately 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, purplish red nectary, commonly with a tooth above basal lobe, margin with smaller teeth below 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 face nectar-producing, generally redder, and bordered by a narrow, darker rim on lower face, 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 strigose; rachis channeled, 7–80 mm long (= first to last leaflet), villous to 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, 10–35 × 4–16 mm, broadly tapered at base, entire and strigose-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 0.7–3 mm long; rachis < 3 mm long or absent if only 1 flower; pedicel 0.8–2 mm long, strigose just above base. **Flower:** bisexual, bilateral, pealike (papilionaceous), at anthesis 6–8 mm wide (spreading wings and banner), 16.5–19 mm long; **nectary** tongue-like protruding from receptacle on lower side of ovary, ca. 0.4 mm long, green; **calyx** 5-lobed, 10–14.3 mm long, green, nearly glabrous or strigose along veins; tube compressed-cylindric, 5.8–7.3 × 2–2.7 × 3–3.9 mm, eccentrically cupped at base with pedicel attached basally but toward lower side or slightly oblique, 10-veined, 5-ribbed; lobes subequal, linear-triangular, 4.5–7.5 × 0.8–1.2 mm, narrowly acute at tip, ciliate with upcurved hairs on margins, with a few strigose hairs at base of midvein on outer surface; **petals** 5, clawed; banner broadly obovate, 16–16.8 mm long, claw 7–7.5 mm long, broadly tapered from base of limb, whitish, limb spreading outward and curving upward at anthesis, 8.8–9.5 × 9.2–10.3 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 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, 14–16 mm long, claws 6.5–7.5 × 0.8–1 mm, whitish, limbs ± semi-obovate to obovate, 8.5–9.5 × 4.2–5.3 mm, mostly strong reddish purple to strong purple but whitish at base, with a small backward-pointing lobe at base above claw, rounded at tip, 10-veined, basal lobe oblong, 2–2.3 × 0.8–0.9 mm; keel of 2 petals fused along most of

lower edge to form an inflated, prowlike tip, 9.8–10 mm long, claws 6.7–7 mm long and free for 6.2–7 mm 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 8.5–10.5 mm long, whitish, 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 pale yellow; **pistil** 1, sessile; ovary superior, linear and compressed side-to-side, 8.5–9.5 × 0.4 × 0.9 mm, tapered at ends, green, minutely pubescent 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), dehiscent by divergent and strongly twisting valves, ca. 5-seeded, ± linear, 45–57 × 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, 3.3–4 × 3.1–3.7 mm, olive green with brown squiggly-reticulations and mottled, sometimes with black dots, smooth; hilum 2–2.3 mm long. Mid-May–late June.

Naturalized. Annual vine supporting itself by attaching to other plants via tendrils, growing in shady, grassy areas in riparian woodland. *Vicia sativa* subsp. *nigra* is less common in our range than *Vicia sativa* subsp. *sativa*. Although often separated by having darker fruits (*nigra*), it is more reliably distinguished from the typical subspecies by shape of stipules (ovate with a basal lobe versus crescent-shaped to semicircular and ± jagged in subsp. *sativa*), flower length (< twenty millimeters versus > twenty millimeters), and length of the calyx (< fifteen millimeters versus > fifteen millimeters), and in subsp. *nigra* the ratio of calyx lobe length to tube length is generally less than one versus longer in subsp. *sativa*.

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