

Vascular Plants of Williamson County

Houstonia nigricans var. *nigricans* – PRAIRIE BLUETS, NARROW-LEAVED BLUETS,
DIAMOND FLOWER [Rubiaceae]

Houstonia nigricans (Lam.) Fern. var. *nigricans* (syn. *Hedyotis nigricans* and *Stenaria nigricans*) PRAIRIE BLUETS, NARROW-LEAVED BLUETS, DIAMOND FLOWER. Perennial herb, taprooted, not rosetted, (3) several-stemmed at base, principal branches to 40 mm long with occasional branches, spreading to ascending, in range to 35 cm tall; shoots with only cauline leaves, appearing fascicled at some nodes with young leaves on unexpanded axillary shoots, nearly glabrous with widely scattered and ephemeral minute hairs, including some appearing glandular. **Stems:** 4-ridged, initially < 1 mm diameter aging to 4 mm diameter (knobby nodes on old stems), tough, opposite faces low-convex or flat, internodes > leaves, to 65 mm long, enlarged at nodes, glabrous. **Leaves:** opposite decussate, simple and sessile, with stipules; stipules 2 per node (each – 2 fused adjacent stipules), fused across node connecting leaves, membranous, triangular to slender 2-lobed, 1–1.5(–3.5) mm, margin sometimes jagged, splitting by enlargement of node; blade linear, < 13–48 × 0.5–2(–4) mm, margins somewhat inrolled under (revolute) or wide leaves often not revolute, acute with point at tip, 1-veined with midrib sometimes slightly sunken on upper surface and raised to slightly raised on lower surface, upper surface of immature leaves often minute hairy along midrib, with minute hairs near margins. **Inflorescence:** dichasial cyme, terminal and axillary, open of spreading axes, (3–)9–many-flowered, bracteate, glabrous with widely scattered, minute glandular hairs; peduncle pulvinus to 1 mm long; green, above pulvinus stemlike and 4-ridged, < 15–30+ mm long; bracts 2 and opposite at each node with 2 opposite stipules, bracts leaflike with revolute margins, 1.5–2.5 mm long, stipules shorter than of foliage leaves, decreasing upward and often not fused with bracts, fringed and mostly with 2 short- linear lobes; axes 3 per node, low 4-ridged, decreasing upward, with pulvinus at base; bractlets 2 and opposite, subtending terminal cluster of 3 flowers, blades leaflike, to 2.5 mm long, stipules < 0.3 mm long and not fused with blades; pedicel cylindrical, 1.5–8 mm long. **Pin flower:** bisexual, radial, 7–8 mm across; **calyx** deeply 4-lobed, finely fused at base, green, glabrous; lobes erect to ascending, triangular-ovate, 0.9–1.7 × 0.6–0.7 mm, sometimes margin or both margins with to 5 minute, red-based teeth (hairlike), sometimes reddish at lobe tip; **corolla** 4-lobed; tube cylindrical, 1–1.3 × 0.35–0.4 mm, green, glabrous; throat funnel-shaped, 2 × 2 mm, green at base to white above, 4-sided with 3 ribs on each side, short-hairy on outer and inner surfaces; lobes widely spreading, ± triangular to ovate-triangular, 3.3–4 × 1.5–1.6 mm, lavender to light violet on upper surface and paler on lower surface with short white midline from base (rarely entirely white), upper surface conspicuously papillate short-hairy; **stamens** 4, attached at top of corolla tube; filament erect, ca. 1 mm long, white, minutely papillate; anthers somewhat exserted, versatile, dithecal, 1.6–1.8 mm long, crimson to purple red, longitudinally dehiscent; pollen white; **pistil** 1; ovary inferior, top-shaped flat on top, ca. 0.8 × 1 mm, faintly 8-ribbed, 2-chambered, each chamber with several ovules; **nectary disc** on top of ovary inconspicuously 4 low mounds, nectar-producing; style exserted, cylindrical, 4–6 mm long, 2-branched, white base-to-tip, minutely papillate below fork, the branches stigmatic, 1 mm long, somewhat curved, thick and conspicuously papillate. **Thrum flower:** bisexual, radial, 7–8 mm across; **calyx** deeply 4-lobed, finely fused at base, green, glabrous; lobes erect to ascending, triangular-ovate,

0.9–1.7 × 0.6–0.7 mm, sometimes margin or both margins with to 5 minute, red-based teeth (hairlike), sometimes reddish at lobe tip; **corolla** 4-lobed; tube cylindric, 1 × 0.35–0.4 mm, green, glabrous; throat funnel-shaped, 2 × 2 mm, green at base to white above, 4-sided with 3 ribs on each side, short-hairy on outer and inner surfaces; lobes widely spreading, ± triangular to ovate-triangular, 3.3–4 × 1.5–1.6 mm, lavender to light violet on upper surface and paler on lower surface with short white midline from base (rarely entirely white), upper surface conspicuously papillate short-hairy; **stamens** 4, attached near top of corolla throat below each sinus; filaments erect, 1.8–2.2 mm long, white, flattish on inner side, minutely papillate above midpoint; anthers exserted, versatile, dithecal, 1.6–1.8 mm long, pinkish lavender, white, and with red connective, longitudinally dehiscent; pollen white; **pistil** 1; ovary inferior, top-shaped flat on top, ca. 0.8 × 1 mm, faintly 8-ribbed, 2-chambered, each chamber with several ovules; **nectary disc** on top of ovary with 4 inconspicuous, low mounds, nectar-producing; style included, cylindric, 3–3.3 mm long, 2-branched, green from base to white at fork, minutely papillate below fork, the branches stigmatic, 0.7–0.8 mm long, white, thick and conspicuously papillate. **Fruit:** capsule, loculicidal, to 12-seeded, obovoid compressed ⊥ septum, 2.5–3.3 mm long, notched with 2 rounded lobes at top. **Seed:** ± oval, 0.7–0.8 × 0.4 mm, burgundy drying black, textured by raised and collapsed cells.

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