

## Vascular Plants of Williamson County

*Erodium texanum* – TEXAS FILAREE, HERONBILL [Geraniaceae]

*Erodium texanum* A. Gray, TEXAS FILAREE, HERONBILL. Annual, taprooted, rosetted, 1–several-stemmed at base, with decumbent branches axillary to basal leaves = inflorescences, in range 7–25 cm tall; shoots with alternate basal leaves but opposite bracts (cauline leaves) on flowering lateral branches, short-hairy, foliage lacking glandular hairs and not scented. **Stems:** cylindric (also inflorescence axis), at base of plant. **Leaves:** helically alternate, ± pinnately 3-lobed with 2 basal lobes (“palmately”), long-petiolate, with stipules; stipules 2, = wings at the base of petiole, fused 2–3 mm, narrowly triangular, 7–9 × 1.5–2 mm, opaque white or with some green and rose, short-ciliate on margins, acuminate at tip, 1-veined; petiole cylindric above compressed white portion with stipules, < 30–75 mm long, green or reddish on exposed side, short-hirsute with downward-pointing hairs; blade symmetric ovate to triangular in outline, 14–40 × 10–31 mm, often with a pair of basal lobes having sinus to midpoint from midrib, basal lobes often with 2 sublobes, the lower sublobe often overlapping and concealing petiole, other lobes of margin more weakly defined and having shorter sinuses, cordate to truncate or subtruncate at base, crenate on lobe margins, ± obtuse at tip, pinnately veined with principal veins sunken on upper surface and raised on lower surface, upper surface dull green or with purplish principal veins, lower surface paler, short-strigose with denser hairs along veins.

**Inflorescence:** cymelike array with umbel, axillary shoot from a basal leaf, umbel 2–4-flowered, flowers erect at anthesis nodding by nightfall, bracteate, stiff-hairy and lacking glandular hairs; axes cylindric, internodes to 90 mm long; flowering shoot with 1–several nodes having opposite bracts (cauline leaves) with stipules fused between petioles into 2 triangular, = 2 2-lobed stipules 6–7 mm long, stipules colorless except each with 2 green veins, surfaces short-hairy; peduncle axillary to bract, cylindric, at anthesis to 30 mm long increasing in fruit, densely short-strigose; **involucre** of bractlets subtending pedicels of an umbel, bractlets 4, somewhat fused at base, lanceolate to narrowly ovate stipules, ca. 4 × 1.2–2 mm, scarious and colorless except for green veins, each stipule 1-veined; pedicel with pulvinus at base, initially ascending with hook at tip, at anthesis 5–5.5 mm long, becoming strongly bent > 90° in fruit, green aging purple-red just before maturity, densely short-hairy. **Flower:** bisexual, radial, 19–28 mm across; **sepals** 5, at anthesis spreading, outer 2 sepals overlapping inner 3 sepals, with short points at tip (apiculate); outer sepals ovate, 7–9 × 3.2–4 mm increasing to 12 mm long and erect in fruit, green with 5 darker stripes from base (veins) and colorless margins 0.3–0.4 mm wide, short-ciliate on margins, having 5 raised veins on outer (lower) surface and densely white short-strigose with upward-pointing hairs, inner surfaces sparsely short-strigose; inner sepals ± elliptic, slightly smaller than outer sepals, with 3 raised veins on lower surface and 1 or 2 wide membranous margins; **petals** 5, ovate, 13.8–15.5 × 8.5–11.8 mm, purple with white at narrowed base, having 7–9 veins raised on lower surface, between white and purple having hirsute hairs on upper surface; **nectaries** 5, appressed to bases of stamens (alternate with petals), small domes, green, nectar-producing forming droplets; **stamens** 5 fertile opposite sepals, staminodes 5 opposite petals, free; filaments erect, 5–6 mm long, with colorless wings to midpoint, ca. 0.5 mm wide lobed at top, cylindric above wings ± 2.5 mm long, greenish; anthers dorsifixed, dithecal, 1.5–1.7 mm long, orangish strawberry-colored,

longitudinally dehiscent; pollen yellow-range; staminodes fused in ring at base, 2.5–3.5 mm long; **pistil** 1, at anthesis 4–7 mm long; ovary superior, 5-lobed, ca. 2 mm diameter, lobes hemispheroid, green but covered with dense, upward-pointing, whitish hairs (appearing sericeous), 5-chambered, each chamber with 1 ovule attached to center; style a column with 5 free, suberect to ascending tips, column short-hairy with upward-pointing hairs, the branches stigmatic, 0.7–0.9 mm long, purple-red, short-papillate. **Fruit:** schizocarp, of 5 dry, 1-seeded mericarps, before dehiscence erect to ascending, needlelike (= beaks of style column) with swollen base (= seed bodies) and style column 5-sided with channels, mericarps separating from base initially by coiling downward (= awn) from the persistent portion of style column, 53–73 mm long before splitting; seed body oblanceoloid, 7–9 × 1.5 mm, sharply pointed and curved at base, brown, narrowly open on inner edge, densely appressed hirsute with upward-pointing hairs, with deep concavity at top forming a diagonal collar above a series of other indentations, surface of seed body hairs with circular depressions, brown, becoming tightly helically twisted forming an erect shaft with ca. 5–6 gyres to below midpoint and having a long, horizontally curved terminal portion, brown, short-strigose on outer surface and with long, straight fibers to 4 mm long on inner side; filaments and staminodes erect in immature fruit; peduncle in fruit to 50 mm long and ascending. **Seed:** tightly fitting within seed chamber, oblanceoloid, ca. 4 × 1 mm, dark orange, seed coat thin, hilum slender line ca. 1.5 long on narrow portion.

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