Erodium moschatum (L.) L'Hér., WHITESTEM FILAREE. Annual, taprooted, rosetted and either flat with spreading leaves or when crowded with arching to ascending leaves, ± "acaulous" and several-stemmed at base, each spreading or ascending branch = a leafy inflorescence axillary to a basal leaf, 15–70 cm tall; shoots with basal leaves (so-called cauline leaves treated here as bracts), unevenly hirsute with some surfaces becoming ± glabrescent, the hairs colorless. **Stems:** cylindric, to 5 mm diameter, fleshy, at base of plant white and sparsely hairy. **Leaves:** helically alternate, odd-1-pinnately compound with 4–7 leaflets per edge and the lateral leaflets widely spaced and mostly opposite or subopposite (alternate), 70–220(–500+) mm long, petiolate, with stipules; stipules 2, attached to stem at node, ovate-deltate, 6.5–10.5 mm long, entire or with several teeth and short-ciliate on margins, ± obtuse at tip, membranous aging scarious, glabrous, persistent; petiole ± hemi-cylindric approaching blade becoming elliptic in ×-section, 15–145+ mm long, mostly sparsely hirsute but densely hairy on flat upper side (channel), without glandular hairs; rachis ± compressed top-to-bottom, densely hairy on flat upper side; petiolules deeply channeled, 1–2 mm long, channel and upper surface of blade at base with inconspicuous sessile glandular hairs; blade in outline oblong to oblanceolate, 45–120 mm long; blades of leaflets ± ovate, 8–25 × 5.5–15 mm, the lowermost leaflets lobed or unlobed, the terminal leaflet often deeply lobed and having lobes further divided having ultimate segment with 2–3 teeth, asymmetric at base, serrate on margins, acute to obtuse at tip, pinnately veined with principal veins sunken on upper surface and raised on lower surface, 1 vein for each major lobe, lower surface with nonglandular hairs along veins. **Inflorescence:** leafy, cymelike array with several umbel-bearing branches, axillary from each basal leaf of rosette, with 1–several branches, each branch or branchlet with a long peduncle (internode) and an ultimate axis with a terminal, (1–)6–10-flowered umbel, flowers of umbel opening mornings over 2–3 days with petals typically abscising before noon, bracteate, glandular-pubescent; peduncle cylindric, 70–150+ mm long increasing in fruit, swollen at base, typically light green, long-hirsute with hairs to 2 mm long; axes at each fork unequal and subtended by an unequal pair of leaflike bracts (cauline leaves of some authors), the larger bract subtending the continuing axis, the smaller bract subtending a short lateral branch having a narrower axis; bracts at first node opposite, unequal, leaflike, petiolate (at subsequent nodes bracts commonly sessile), with stipules broadly fused to stem; bract stipules 2 but 1 of each pair fused across node, unfused stipules triangular, to 10.5 mm long, fused stipules broadly triangular, entire to short-ciliate on margins, acute at tip, membranous aging scarious, surfaces glabrous, flat, central area often with 1 or 2 green stripes; bract petiole and blade leaflike, decreasing upward; axes above basal bracts 9–35 mm long increasing to 4× in fruit, successive ones decreasing, each swollen at base, mostly hirsute at base to mostly short glandular-hairy above, axes at fork unequal and subtended by an unequal pair of bracts, the main axis subtended by the longer bract; **involucre** of bractlets subtending pedicels, of 6–10 stipulelike bractlets in 2–3 whorls, free or sometimes fused at bases, ovate to broadly lanceolate, 2–3 mm long, membranous aging scarious, entire, glabrous or with some sessile glandular hairs near base; pedicel at anthesis ascending and 4–8 mm long (= flower erect) increasing to 2× and reflexed in fruit, 0.3 mm diameter and swollen at base and tip, erect or bent outward 90° at base and then to 90° at tip (= fruit erect), green with reddish tinge soon becoming strawberry red in fruit, conspicuously canescent on upper (inner) side with strongly arched, whitish hairs and glandular-hairy. **Flower:** bisexual, ± radial with petals unevenly

arranged, 10–12 mm across; **sepals** 5, spreading (morning) soon becoming erect, overlapping, lanceolate or shallowly boat-shaped, 5–7 mm long increasing to 2× in fruit, (3–)5–7-veined at base with veins darker green, membranous and ciliate on margins, the overlapping margins broadly membranous and the exposed margins very narrowly membranous, acute and white-fringed at tip and ± with subterminal appendage, upper surface short-hairy at thickened base, lower surface glandular-hairy along veins and canescent at base (at least 3 outer sepals), the appendage fingerlike, 0.5–1 mm long increasing in fruit, lacking bristly hairs or having 1 short-bristly hair at tip; **petals** 5, ascending, unequal with 2 shorter petals, lanceolate to elliptic with a short-claw; claw 0.5–1 mm long; limb 4.5–8.5 × 1.5–3 mm, thin, rose-pink, 3-veined from base with darker pigmentation along base veins, upper surface glabrous, lower surface mostly glabrous but sparsely ciliate, early-deciduous and easily dislodged (fugacious); **nectaries** 5, appressed to bases of stamens, raised, ± crescent-shaped, 0.4–0.6 mm wide, brownish to maroon or dull red; **stamens** 5 fertile opposite sepals, staminodes 5 opposite petals, free; filaments erect, cylindric, 3.5–4.5 mm, pink, translucent-winged and soft-hairy at base; anthers exserted and slightly above stigma lobes, dorsifixed, dithecal, ellipsoid, ca. 0.8 mm long, deep rose to purple with yellowish stripe along dehiscence zone and with reddish ridge on upper side, longitudinally dehiscent; pollen golden yellow; staminodes 2-lobed, 2.5–3 × 0.8 mm, flattened, broad-tapered and somewhat keeled, translucent below to pink above; **pistil** 1, 3–4.5 mm long, densely hairy; ovary superior, 5-lobed, the lobes hemispheric and short-hispid with upward-pointing, colorless hairs, 5-chambered, each chamber with 1 ovule; style 2–3 mm long, with 5 free, spreading tips ca. 0.3 mm long, greenish at base, reddish purple and densely white-strigose above; stigmatic on side of style tips. **Fruit:** schizocarp, of 5 dry, 1-seeded mericarps, before dehiscence sharply erect from a reflexed pedicel, needlelike (beaks) with 5 swollen bases (seed bodies), to 43 mm long, dry mericarps orangish light brown and abscising lengthwise having a beak (style) becoming strongly coiled; seed body narrowly oblanceoloid, ± 6 mm long, long-tapered and sharp at base, open on inner edge, hirsute with ascending, whitish to tawny hairs, transversely wrinkled on surface, below the style with a Λ-shaped ridge defining a chevronlike trough and a highly inclined, circular pit above, both depressions before drying with conspicuous, spheric beads of exudate; beak (style column) ± 37 mm long, brown, hygroscopic, with coil tight below midpoint, minutely strigulose with whitish hairs < 0.1 mm long, inner surface long-strigose with hairs 3–13 mm long. **Seed:** narrowly obovoid, 3–4 × 0.8–1.2 mm, brown. Mid-December–early May.

Naturalized. Annual somewhat common throughout the range in disturbed habitats, mostly occurring in dense stands mixed with *Erodium cicutarium*, both which may begin to flower in December. *Erodium moschatum* is a distinctive species; it has one-pinnately compound leaves with mostly unlobed leaflets, and its stems and petioles tend to be white or whitish, hence the common name whitestem filaree. Under well-watered conditions, plants of *E. moschatum* can produce leaves exceeding half a meter in length, but plants in the wild are less robust. Immature fruits are easy to distinguish from *E. cicutarium* because in *E. moschatum* there are conspicuous beads of colorless exudate in the troughs and pits at the base of the style, whereas there is no such reward provided to ants in the other species.
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