

Vascular Plants of Williamson County

Eryngium leavenworthii – LEAVENWORTH ERYNGO [Apiaceae]

Eryngium leavenworthii Torrey & A. Gray, LEAVENWORTH ERYNGO. Annual, tough (sclerophyllous), spinescent, taprooted, not rosetted, 1-stemmed at base, typing unbranched below inflorescence canopy (occasionally with 1–2 late, lateral branches below midplant), 30–145 cm tall; shoots with several, short-lived basal leaves and many cauline leaves, lower foliage initially soft-spined, cauline leaves sharp-spinose and withering and persistent with upper portion brittle. **Stems:** many-ridged, 9 to mm diameter, mostly with 9 major and minor ridges descending from each cauline line, hollow nodes and internodes. **Leaves:** helically alternate, the first basal leaves mostly unlobed grading to the uppermost cauline leaves palmately-lobed, most basal leaves and the lowest cauline leaves pinnately-lobed with 1–3 pairs of diminutive lobes approaching base, grading upward to 9 principal lobes at top of principal axis, petiolate (the earliest basal leaves) and sheathlike, but most leaves sessile to 3/4 sheathing at node, without stipules; sheathlike petiole to 3.5 mm with several parallel veins and narrow membranous margins; blade of basal leaves obovate in outline to 110 × 35 mm, upper cauline blades palmately lobed having 7 or 9 principal lobes with deep sinuses and to 110 × 75 mm, bright green but having weakly tannish fibrous margins and spines, many-veined at base and palmately veined to each lobe and sinus, the lobes obovate to oblanceolate or oblong in outline, to 75 mm long (central lobes) decreasing to basal lobes, conspicuously spinose-deltate with each tooth having a terminal spine (soft when young), the point 2–4 mm long, straw-colored, on lower surface having a spine cluster at each principal sinus and shorter ones at minor sinuses, palmately veined from base with principal veins raised on both surfaces but not ending in tips or sublobes, surface bright green or upper cauline leaves with upper surface green or purple, green with purple veins on lower surface, glabrous. **Inflorescence:** headlike spikes, 1 short-stalked spike per fork, in a terminal, cymelike array (sympodial) with 2–20 widely spaced spikes and sometimes with an axillary array having < 5 spikes, each spike to 200-flowered, to 30 × 20 mm, flowers helically alternate without internodes and having a terminal tuft of several–15 diminutive, ascending, purple to grayish green, spinescent leaves, terminal leaves to 35 mm long, having an involucre at each node consisting of to 9 principal, widely spreading, spinescent, leaflike bracts often purple on upper surface, flowers many, helically alternate, bracteate, glabrous; bracts subtending peduncle and ascending axes at each node, in dense pseudowhorl of deeply pinnately-divided blades; peduncle straight, erect, ca. 15-ridged, 10–35 mm long, whitish or often purple, hollow; involucre bracts central lobe to 45 mm long, basal portion white, above intense purple on upper surface and greenish on lower surface; bractlet subtending flower stiff, pinnately 4–5-spined above midpoint with membranous wings to above midpoint (to base of spines), ca. 12 mm long, ± purple but fleshy and greenish at base. **Flower:** bisexual, radial, 2–3 mm across; **sepals** 5, erect, stiff, 5-spined above midpoint, axis ± keeled, ca. 4 mm long, green with membranous wings, spines to 3 mm long, purple; **petals** 5, 2-lobed and conspicuously keeled, ca. 5 mm long, white with 2 membranous internal wings and lobes purple and papillate, with a pair of fringed basal lobes; **stamens** 5, attached to rim at top of ovary, exerted; filaments in bud coachwhiplike becoming erect, ca. 7.5 mm long, green at base and purple above, glabrous; anthers dorsifixed, dithecal, ± 2 mm long, purple, longitudinally dehiscent;

pollen pinkish; **pistil** 1; ovary inferior, fusiform, (2–)2.5–3 mm long, green, hidden by inflated, club-shaped white hairs closely spaced in many vertical files, hairs short–1.5 mm long \pm increasing upward on ovary, having vertical rows of papillate cells and hair drying papery, 2-chambered, each chamber with 1 ovule; styles 2, ascending, cylindrical, 4–4.5 mm long, light green aging purple above, with minute terminal stigma, at base of each style with an ascending, green, scalloped appendage (stylopodium), somewhat fan-shaped cupped upward, ca. 1.3 mm long, green and minutely papillate. **Fruit:** schizocarp, of 2 dry, 1-seeded halves (mericarps), oblong, to 4 mm long, brown, outer surfaces covered with appressed, upward-pointing, inflated, papery scales in vertical rows, hairs to 1.5 mm long; mericarps concealed by papery hairs, seed chamber portion half-narrowly obovate, ca. 3 \times 1 mm, sterile tissue above, flat on inner face, at top with persistent ascending stylopodium and spinescent sepals to 7 mm long having to 5 sharp spines to 3 mm long.

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