

Vascular Plants of Williamson County

Oenothera triloba – STEMLESS EVENING PRIMROSE, THREE-LOBED PRIMROSE [Onagraceae]

Oenothera triloba Nutt., STEMLESS EVENING PRIMROSE, THREE-LOBED PRIMROSE. Annual, taprooted, 1-stemmed at base, flat-rosetted, acaulous, < 10 cm tall; shoots with only basal leaves to 180 mm long, short-strigose with upward-pointing hairs; taproot fleshy, white surrounded by pink phloem and cortex. **Stem:** short and concealed by petioles of basal leaves. **Leaves:** helically alternate, irregularly pinnately lobed, cut, petiolate, without stipules; petiole compressed top-to-bottom, to 60 mm long, fleshy and indistinct from blade with narrow, green wings and short, narrow lobes and teeth, rose-red at base and paler approaching blade; blade oblong to oblanceolate, terminal lobe lanceolate, to 35 × 20 mm, toothed and with or without sublobes, midlobes asymmetric and < 25 mm long, toothed and crisped, the lowest lobes linear to threadlike, formed along channeled, white midrib rounded and fleshy on lower surface. **Inflorescence:** leafy spike, compact and terminal, of helically alternate, axillary flowers. **Flower:** bisexual, radial, 50–55 mm across, to 120 mm long; hypanthium above ovary forming a long floral tube, tube sharply 4-angled and 4-sided (square), to 97 × ± 2 mm with terminal portion expanded and narrowly funnel-shaped to 5 mm wide at orifice, cream-colored aging rose, sparsely short-strigose with upward-pointing hairs and scattered longer, glandular hairs, thick-walled most of length, upper portion lined with short papillae and several long-based hairs; **nectary** at the base of hypanthium surrounding style base, with copious nectar; **sepals** 4, partially fused but free at tip 1.5–2.5 mm, ca. 42 mm long, pale green with fine pink midstripes, splitting from pressure of expanding petals along 1 suture line, splitting with 4 sepals as unit reflexed them spreading, short-strigose with upward-pointing hairs and scattered, longer red hairs, each sepal 4–4.5 mm wide with raised midvein, inner surface yellowish; **petals** 4, spreading ⊥ from rim of hypanthium, fan-shaped, 26–32 × 25–31 mm, light yellow aging reddish, palmately veined with 3 principal veins at base; **stamens** 4 in 1 whorl, arising from rim of hypanthium, monomorphic, exserted; filaments ascending, < 15–19 mm long, light yellow, somewhat S-shaped at base and narrow at top; anthers versatile, dithecal, 10–12 mm long, light yellow, longitudinally dehiscent; pollen light yellow, pollen grains 3-pointed, held in mass by minute threads (viscin threads); **pistil** 1; ovary inferior, ± 4-sided with irregular ridges, ca. 5.5 × 3.5 mm, rose-red, with dense patches of short-strigose hairs along ridges and long hairs with red, exaggerated, fingerlike bases, 4-chambered, each chamber with stack of many ovules; style to 115 mm long + stigma lobes, axis straight and 0.6 mm diameter, white, glabrous, stigmatic lobes divergent-spreading, exserted to 22 from hypanthium and 4–5 mm above the level of the highest versatile anther, not straight, 4–5.3 × 0.6–0.85 mm (variable), yellow to yellow-green, papillate and sticky. **Fruit:** capsule, loculicidal, 4-winged, 70+-seeded, ± obovoid compressed top-to-bottom, ca. 25 × 10 × 5–6 mm, wings mostly < 3 mm wide decreasing to absent at base, with 4 ascending to spreading lobes at top alternating with wings, lobes triangular, ± 5 × 3 mm, short-strigose with some scattered long hairs. **Seed:** angular club-shaped to oblique wedge-shaped, to 3.3 × 1.6 mm, brown, narrowly winged along 1 edge and approaching top, with basal hilum, faces with domed cells (minutely beaded).

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