

Ludwigia peploides (Kunth) P. H. Raven subsp. *peploides*, WATER PRIMROSE, YELLOW WATER WEED. Aquatic perennial herb, fibrous-rooted, forming a branch from just above the base of each pedicel, branches floating on water to creeping and ascending on shoreline, < 40 cm tall; shoots to 300 cm long, with cauline leaves, glabrous to subglabrous; adventitious roots nodal. **Stems:** cylindrical, 3–7.5 mm diameter; the submerged stems light green tinged pink or rose, with large air cavities (aerenchyma) in cortex. **Leaves:** helically alternate, simple, petiolate, with stipules; stipules 2, attached to base of petiole, ovate to deltate, < 1 mm long, sharply pointed at tip, glabrous; blade elliptic or oblong to obovate or roundish, 15–95 × 9–30 mm, ≥ petiole, broadly tapered to tapered at base, entire or with callused indentations on margins, obtuse to rounded at tip, conspicuously pinnately veined with principal veins slightly raised on lower surface, upper surface often glossy, lower surface sometimes reddish along midrib. **Inflorescence:** flowers solitary, axillary, essentially glabrous; pedicel erect, typically 12–15 mm long, with 2 bracteoles staggered or paired at base of ovary, deltate, 1 mm, early-deciduous. **Flower:** bisexual, radial, 25–40 mm across; hypanthium absent, **nectary** at the base of each stamen, arc-shaped to V-shaped, pubescent; **sepals** 5(–6), spreading, lanceolate, 8–12 mm long, green, with 3 parallel veins, glabrous or sparsely hairy on lower surface; **petals** 5(–6), obovate, 10–18 mm long, bright yellow, glabrous, pinnately veined; **stamens** 10(–12) in 2 sets, unequal; filaments ± 4 mm long, yellow; anthers dorsifixed, dithecal, 1.5–2.3 mm long, anthers of outer whorl < inner whorl, light yellow, longitudinally dehiscent; pollen light yellow, permanently united in tetrads, sticky and held in a mass by minute threads (viscin threads); **pistil** 1; ovary inferior, straight, ± 5-angled, 6–8 mm long, green, subglabrous, 5-chambered; each chamber packed with a single stack of many ovules; style much thicker than filaments, 4–5 mm long and extended slightly above anthers, yellow, lower style with scattered hairs; stigma hemispheric. **Fruit:** capsule, ± indehiscent, many-seeded, narrowly funnel-shaped to cylindrical, 15–35 × 4–5.5 mm, straight to somewhat curved, top truncate with 5 U-shaped hairy ridges (= persistent nectary), seeds embedded in fruit wall, glabrous to short-pilose; sepals abscised. **Seed:** rhomboid-polyhedron, ca. 1.5 × 1 mm, tan, with mostly flat rectangular faces but roundish ends where seeds touched. (Late May) Late July–late October.

Naturalized. Perennial herb growing on shorelines of ponds and creeks throughout the range, but not common enough to be considered a weed, as it is elsewhere. In full sun, *Ludwigia peploides* typically forms very long, floating shoots covering open shallow water, and the upper blade surface is glossy and repels water. During summer months, bright yellow flowers appear along the floating shoots, or on the ascending terrestrial shoots. In range fruits appear to be indehiscent; the light-colored polyhedral seeds are arranged in a vertical stack in each chamber and somewhat embedded in the fruit wall. B. A. Prigge & A. C. Gibson