

Vascular Plants of Williamson County

Ludwigia repens – CREEPING PRIMROSE-WILLOW, CREEPING WATER PRIMROSE
[Onagraceae]

Ludwigia repens Forst., CREEPING PRIMROSE-WILLOW, CREEPING WATER PRIMROSE. Aquatic perennial herb, fibrous-rooted, mat-forming, procumbent with ascending to spreading branches from horizontal axes, < 16 cm tall; shoots with cauline leaves, essentially glabrous, not glutinous on young growth; adventitious roots nodal. **Stems:** cylindric, to 3.5 mm diameter, green with reddish tinge and short white streaks (crystal aggregates), internodes to 30 mm long. **Leaves:** opposite decussate, simple, petiolate, with stipules; stipules 2, attached to base of petiole, ± ovate, 0.3–0.4 mm long, not secreting liquid, mostly purplish red, withering; petiole hemicylindric to flattened on upper side, < 5 mm long and indistinct from leaf blade, glabrescent; blade obovate (elliptic), < 10–35+ × 3–19 mm, long-tapered at base, entire or minutely toothed on margins above midblade, acute at tip lacking a small glandular point on the lower surface, pinnately veined with principal veins slightly raised on lower surfaces, surfaces ± glossy green with narrow reddish margins, glabrous. **Inflorescence:** flowers solitary and axillary (leafy spike), subsessile, at each node having 1 flower, 2 flowers, or eventually 2 branches, glabrous; pedicel at anthesis < 0.5 mm long increasing to < 1.5 mm long in fruit and constricted at base, with 2 opposite bracteoles at base of ovary, bracteoles oblanceolate-linear to linear with swollen base, at anthesis 3–4.5 × 0.45–0.6 mm increasing slightly in fruit (to 5 × 1 mm in fruit), green with 2 minute purple-red stipules concealed on inner side ± 0.2 mm long, acuminate at tip, not wet or secreting, ± persistent in fruit. **Flower:** bisexual, radial, ca. 6 mm across; hypanthium < 0.6 mm long, aging red where petals formerly attached, **nectary** 4-lobed, yellowish green, glabrous, producing copious nectar on top of ovary; **sepals** 4, spreading, acute-triangular to deltate, 3 mm long increasing slightly in fruit, green, with 3 parallel veins, glabrous; **petals** 4, obovate to elliptic, to 3.1 × 1.5–1.8 mm, yellow with raised white midvein, rounded and not shallowly notched at top, glabrous, 1-veined; **stamens** 4 in 1 whorl, opposite sepals; filaments ± 1.5 mm long, pale green, leaning inward and tapered from base; anthers dorsifixed, dithecal, 0.8–1 mm long, ± cream-colored with broad connective, longitudinally and inwardly dehiscent; pollen white, permanently united in tetrads, sticky and held in a mass by minute threads (viscin threads); **pistil** 1; ovary inferior, funnel-shaped strongly 4-sided and 4-angled, ca. 1.5 mm long, green, with rib on each face and short hairs curled upward along angles, 4-chambered, each chamber with many small ovules; style < 2 mm long, pale green; stigma at same level as and touching anthers, subspheroid and inconspicuously 4-lobed, ca. 0.6 mm diameter, yellow-green. **Fruit:** capsule, irregularly dehiscent, many-seeded, bell-shaped and 4-sided, 6–7.5 × 3.5–4 mm, each face with a broad rib, top truncate and 4-lobed but lacking hairs, glabrescent; sepals persistent, erect to ascending or folded over fruit, 3-veined; style abscised. **Seed:** ± ellipsoid, 0.4–0.8 × ± 0.4 mm, tannish.

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