

## Vascular Plants of Williamson County

*Packera tampicana* – GREAT PLAINS RAGWORT, YELLOWTOP [Asteraceae]

*Packera tampicana* (DC.) C. Jeffrey, GREAT PLAINS RAGWORT, YELLOWTOP. Annual, taprooted, rosetted, typically 1-stemmed at base, erect, 40–80 cm tall; gynomonoecious; shoots with basal leaves and cauline leaves, basal leaves withered at flowering, cauline leaves widely spaced along stem, mostly glabrous but some long hairs in axils of leaves, the hairs weak and white. **Stems:** strongly 5-angled with 5–6 principal ridges, to 5 mm diameter, with 3 ridges descending from each leaf having 1 lateral ridge fused immediately with another stem ridge and the other lateral ridge closely parallel to its stem ridge and fusing with it at the bottom of the internode, striped with purplish pink to reddish purple ridges and greenish furrows, becoming purplish red at base; solid. **Leaves:** helically alternate, deeply pinnately lobed with to 6 lateral lobes per side and having a larger terminal lobe, petiolate, without stipules; petiole shallowly channeled, to 25 mm long, not ridged or winged; blade  $\pm$  oblong in outline, 40–120  $\times$  10–30 mm, leaf axis channeled with lobes arising singly or in pairs from ridges and not prominently winged between lobes, lobes somewhat fan-shaped with prominent teeth, < 20 mm long, often the narrowest at base and long-tapered, the largest lobes often with pinnate sublobes, pinnately veined, sometimes sparsely cobwebby but mostly glabrous or appearing so. **Inflorescence:** heads, in terminal, flat-topped, cymelike arrays (corymbiform) with sets of 6+ heads, terminal and afterwards with an array forming downward from successive leaf axils, array to 150 mm long, with ascending branches, head radiate, 15–18 mm across, in range of 13 pistillate ray flowers and 30–46 bisexual disc flowers, bracteate; bract subtending principal peduncle partially sheathing with acuminate tip, 1.2–1.5 mm, entire on margins, acuminate, minutely hairy at tip; peduncle ridged, with ridge descending from each bract along the axis, green with pink-purple ridges and stripes like stem, bracts several, helically alternate, appressed, acuminate with raised base, 0.9–1.3 mm long, colorless or with purple-red tips, at top of peduncles with several appressed bracts subtending head (calyculus), resembling bracts along peduncle but to 0.8 mm long; **involucre** bell-shaped, 4.5–5  $\times$  4 mm, phyllaries in range 21, linear-oblong, with bodies ca. 4 mm long raised on back and having an acuminate-triangular tip ca. 1.5 mm long, 13 phyllaries (with ray flowers) having spreading tips and 8 unassociated phyllaries with ascending tips, phyllaries interlocked and overlapped margins of phyllaries narrowly membranous, medial portion of each phyllary and green aging thicker, fleshy, and more rounded, glabrous except for a tuft of short, club-shaped hairs at red-purple tip; receptacle flat, without bractlets (paleae), with a short crown of colorless, fleshy teeth surrounding each ovary of disc flowers, hollow beneath receptacle. **Ray flower:** bilateral, 1.2–1.6 mm across; **calyx (pappus)** of 50–60 capillary bristles in 1 series, at anthesis ca. 3 mm long, thin, silky white, with minute ascending barbs (visible at 30 $\times$ ); **corolla** (2–)3-toothed; tube cylindric, 2–2.5  $\times$  0.25–0.3 mm, white at base yellowish above aging greenish; limb oblong-elliptic to strap-shaped, in range 5.5–8 mm long, bright yellow aging with 4 fine, reddish veins and strongly coiled; **stamens** absent; **nectary disc** surrounding style at base, 0.15 mm long, yellowish; **pistil** 1; ovary inferior, columnar, 0.6  $\times$  0.3 mm, white, 5-ribbed with ascending short-hirsute hairs along ribs, 1-chambered with 1 ovule; style 2.5–3 mm long, 2-branched, white to yellowish, the stigmatic branches scarcely exerted, short, orange-yellow aging purple-red. **Disc flower:**

bisexual, radial, ca. 0.5 mm across, ca. 3 mm long, not extending beyond phyllaries; **calyx (pappus)** of 50–60 capillary bristles in 1 series, at anthesis ca. 3 mm long, thin, silky white, with minute ascending barbs (visible at 30×); **corolla** 5-lobed, ca. 3 mm long; tube cylindric,  $1.5 \times 0.3$  mm, white at base to yellowish above; throat gradually flared, orange-yellow above midpoint; lobes ascending, triangular,  $\pm 0.4$  mm long, orange-yellow; **stamens** 5, fused to base of corolla throat, 1.8 mm long; filaments nearly colorless below a whitish swelling; anthers fused into cylinder surrounding style, basifixed, dithecal, ca. 1 mm long with appendages, orange-yellow, basal appendages ovate-triangular, appendages at tip triangular and whitish, longitudinally dehiscent; pollen orange-yellow; **nectary disc** surrounding style at base, 0.15 mm long, yellowish; **pistil** 1; ovary inferior, columnar,  $0.6 \times 0.3$  mm, white, 5-ribbed with ascending short-hirsute hairs along ribs, 1-chambered with 1 ovule; style ca.  $2.6 \times 0.2$  mm, 2-branched, colorless at base to orangy yellowish below fork, the stigmatic branches 0.8 mm long, orange-yellow, glabrous but papillate on outer surface approaching truncate tips. **Fruits:** cypselae (achenes),  $\pm$  monomorphic, with pappus; cypselae  $\pm$  columnar and straight (disc flowers) or slightly curved (ray flowers),  $1.1\text{--}1.3 \times 0.4\text{--}0.5$  mm, 5-ribbed, reddish or drying brown, ribs with ascending short-hirsute hairs, of ray flowers outer side with a central low rib mostly rounded; pappus of 50–60 minutely barbed, capillary bristles, in range 3–4 mm long, silky white, early-deciduous; when fruits released phyllaries fully reflexed.

A. C. Gibson