

## Vascular Plants of Williamson County

### *Plectocephalus americanus* – AMERICAN BASKETFLOWER [Asteraceae]

*Plectocephalus americanus* (Nutt.) D. Don, AMERICAN BASKETFLOWER. Annual, taprooted, initially rosetted, 1-stemmed at base, unbranched or with 1–2 ascending branches in canopy, erect, in range with inflorescence 22–95+ cm tall; shoots with basal leaves and cauline leaves, basal leaves usually withered at first flowering, scabrous with short-backward-curved, stiff hairs and glandular hairs with colorless, spheric heads.

**Stems:** conspicuously ridged, to 4 mm diameter, with several ridges descending from leaf including a prominent midrib, tough, green, internodes to 45 mm long. **Leaves:** helically alternate, simple and petiolate (basal leaves) and sessile (most cauline leaves), without stipules; petiole flat, indistinct from blade, to 20 mm long, parallel-veined with midvein raised on the lower surface; blade narrowly oblanceolate and long-tapered at base (basal leaves) to narrowly acute-ovate, elliptic, and lanceolate and tapered at base (most cauline leaves) or linear-lanceolate and acuminate at tip (approaching head), in range < 15–95 × 3–26 mm, entire or minutely dentate to midblade, pinnately veined with midrib somewhat raised on upper surface, midrib conspicuously raised on lower surface and principal veins slightly raised on lower surface, with uniformly distributed scabrous hairs and gland-dotted with sunken glandular hairs. **Inflorescence:** solitary head, terminal, on 1–3 shoots in canopy, heads disciform, 35–95 mm across, with many sterile peripheral flowers and 50+ bisexual central flowers, sterile flowers initially ascending then widely spreading, sweetly fragrant, bracteate, not spinescent; peduncle to 95 mm long, leafless axis to 30 mm long, strongly ridged, upper internode of large head somewhat inflated (hollow = enlarged pith), short-hairy and with glandular hairs, with some woolly hairs next to involucre, on leafy portion with 1–7 green, helically alternate bracts, the bract closest to head with (3)5 thin, straw-colored lobes at top of bract decreasing downward along peduncle to cauline leaves with purple point at tip; **involucre** bell-shaped (hemispheroid), 15–21 × 13–32 mm wider in fruit, phyllaries many in 6+ series, lower portions of phyllaries tightly appressed, green with wide, colorless margins, upper portions ascending (not appressed), straw-colored and scarious with acuminate lobes, of outer series lower portion 4–6 × 2–2.5 mm and upper portion longer and to 6 mm across, with to spreading 7 lobes, of middle series lower portion lanceolate, to 9 × 4 mm and upper portion with to 19 spreading lobes, of inner series lower portion strap-shaped, to 12 × 1.5 mm and upper portion narrowly triangular with fewer ascending lobes, margins and surfaces of lower portion and lower upper portion with fine white hairs; lower portions with fine parallel veins, at top with red band (inner phyllaries purple), upper portions fringed and minutely ciliate on lobe margins, with red parallel veins intending from veins of lower portion; receptacle flat, hollow beneath, with ovaries of central flowers sunken in receptacle and each flower surrounded by long, white hairs lacking barbs, the hairs 12–17 mm long. **Peripheral flower:** ± initially radial but bent outward or twisted (corolla tube) and corolla lobes variously spreading; **calyx** (pappus) absent; **corolla** 4–6-lobed, 35–52 mm long, not resin-dotted; tube cylindric, bent and twisted, 20–27 mm long, pale pink to white and pale pink-purple approaching lobes, with pulvinuslike swelling at base of sinuses; throat absent; lobes ascending to spreading, mostly not straight, linear-oblanceolate to linear, 8–22 × 1–1.8 mm, glossy pink-purple to light pink-purple or pink; **stamens** absent; **nectary disc** absent; **pistil** 1, sterile; ovary

inferior, strap-shaped flattened front-to-back, ca.  $4 \times 0.6$  mm, pale pink to white, lacking ribs, glabrous; style and stigma absent. **Central flower:** bisexual, radial, to 36 mm long; **calyx (pappus)** of many bristles in 1–3+ series, conspicuously unequal, straight and stiff, ( $< 1$ )3.5–9 mm long, the innermost series the shortest, with ascending teeth; **corolla** ca. 20–32 mm long; tube cylindric, ca.  $8 \times 0.5$  mm, colorless; throat ca.  $6.5 \times 1$  mm, cream-colored to whitish, at top with pulvinuslike swelling at base of sinuses; lobes 5, ascending to somewhat spreading, acute-linear, ca. 6.5 mm long, cream-colored, 2-veined, 3-ridged at top; **stamens** 5, fused to base of corolla throat; filaments elastic, ca. 5 mm long, white, papillate, snapping downward when anthers touched; anthers fused into cylinder surrounding style, exerted from below midpoint, basifixed, dithecal,  $\pm 6.5$  mm long + appendages 1 mm long at tip + triangular tails 0.3–0.6 mm long, cream to about midpoint and purple above and on appendages, longitudinally dehiscent; pollen white; **nectary disc** surrounding base of style, columnar minutely 5-lobed at top,  $\pm 0.7$  mm long, light yellow, nectar-producing for corolla tube; **pistil** 1, attached obliquely on receptacle; ovary inferior, somewhat wedge-shaped in outline and 3–4-sided (rhombic in  $\times$ -section) with well-defined edges and weak ribs, ca.  $3.5 \times 1.5 \times 1$  mm, white, having rim on top concealing bases of pappus, at base with bulging, white, conic “aril” (elaiosome), essentially glabrous with several short, fine hairs near base, 1-chambered with 1 ovule; style 22–25 mm long, 0.7 mm diameter, white, and 5-ribbed at base decreasing upward, when 0.25 mm diameter smooth cylindric, at upper anthers and exerted portion minutely barbed and pale pink to purplish, 2-branched at tip, the branches stigmatic, exerted above anthers to 5 mm, arching sideways, tongue-shaped, ca. 0.4 mm long. **Fruit:** cypselae, ovoid compressed side-to-side,  $4\text{--}5.4 \times 2\text{--}3.5$  mm, dark brown and black (before drying light to moderate brown changing to straw-colored at point of attachment), top of cypselae caplike defined by recessed, circular scar, sides weakly ribbed, the ribs not evenly distributed but present along edges and only on half of both faces, mostly darker than fruit wall, sides dull and finely wrinkled, often with fine short-pilose hairs on fruit wall in the vicinity of the hilum (2-celled); at point of attachment lateral half of fruit wall missing and occupied by aril-like, bulging hilum (elaiosome) drying conic; pappus easily dislodged, of off-white, unequal, stiff bristles 2–10 mm long in several series, conspicuously barbed, the outer series fused at base.

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