

Vascular Plants of Williamson County

Ambrosia artemisiifolia – ROMAN WORMWOOD, COMMON RAGWEED [Asteraceae]

Ambrosia artemisiifolia L., ROMAN WORMWOOD, COMMON RAGWEED. Annual, taprooted, not rosetted, 1-stemmed at base, erect with ascending primary and secondary lateral branches, in range to 100 cm tall; monoecious; shoots with only cauline leaves, short-hairy with scattered long hair, strongly aromatic when crushed of short-stalked glandular hairs. **Stems:** low-ridged aging cylindric, in range to 15 mm diameter, with 3 principal descending from each leaf, green later on woody lower plant forming light brown periderm, internodes to 110 mm long, on secondary lateral branches the first internode mostly long and slender; internodes solid. **Leaves:** opposite decussate (lower stem and lower nodes of some ascending branches) fused by a pair of curved ledges across node, subopposite to helically alternate (canopy), deeply 1–2-lobed and toothed, petiolate, without stipules; petiole flared at base, shallowly sunken on upper side and rounded on lower side, with green lines on sides, in range several–29 mm long, ± short-strigose with upward-pointing hairs with several longer hairs and many glandular hairs, nonglandular hairs somewhat enlarged; blades deltate to ovate or lanceolate in outlines, in range 25–95 × 20–60 mm, primary lobes opposite to subopposite or alternate and spreading to ascending, secondary lobes mostly ascending and lanceolate in outline, pinnately veined with principal veins with mostly principal veins slightly sunken on upper surface and raised on lower surface with midrib strongly raised, especially upper midrib lined with nonglandular short hairs. **Inflorescence:** unisexual heads, in terminal, racemelike arrays, initially upper portion with 20–80+ helically alternate, ± evenly spaced, reflexed staminate heads, later (at the time of first anthesis of staminate flowers) at the base of the inflorescence forming several pistillate cymelike shoots of 1–several flowers, staminate portion to 130 mm long and flexible with stalked heads, staminate head discoid, staminate head having 5–15+ flowers, pistillate head sessile on short lateral shoot and 1-flowered, bracteate, overall short-hairy and glandular-hairy and having some nonglandular hairs to 2 mm long. **Staminate inflorescence:** rachis straight except at flexible tip, scarcely ridged with 1 inconspicuous ridges descending from each lateral peduncle, light yellow-green; bract not present subtending peduncle; peduncle ascending to spreading with involucre + head at top facing downward (± pendant), slender, in range 1.5–2.5 mm long, short-hairy, glandular-hairy, and occasionally with longer nonglandular hairs; **involucre** broadly funnel-shaped (caplike or inverted cup-shaped) somewhat asymmetric, mostly 1.5–2 × 2.5–3 mm, green and lacking black veins, with 3–9 shallow blunt lobes (teeth) on margin, outer surface with short nonglandular and glandular hairs; bractlet subtending flower (palea) threadlike, 1–1.5 mm long, colorless. **Staminate flower:** radial, ca. 0.8 mm across, 1.5–2 mm long; **calyx (pappus)** absent; **corolla** (4–)5-lobed, colorless (whitish), club-shaped; tube narrowly funnel-shaped, ca. 0.6 × 0.35 mm, glabrous and without glandular hairs; throat broadly funnel-shaped, to 0.5 mm long, having short nonglandular hairs and glandular hairs; lobes triangular to deltate, 0.35–0.4 mm long, lacking hairs; **stamens** (4–)5, free; filaments ca. 0.2 mm long, whitish; anthers not fused, basifixed, dithecal, 1 mm long including tail-like appendage at tip (caudate) arching inward, light yellow, longitudinally dehiscent; pollen light yellow; **pistil** vestigial and inconspicuous below corolla. **Pistillate inflorescence:** unexpanded shoot at base of peduncle, typically having a pair of opposite bracts with lower

portion fused and mostly concealing involucre, lower portion bell-shaped, ca. 1.6×2 mm slightly compressed, pale green, blades of bracts ascending to suberect, leaflike, unlobed to inconspicuously 1-lobed, subequal, 4–5 mm long, along the sinuses with erect tuft of nonglandular hairs 1–2 mm long; involucre \pm spindle-shaped, at anthesis $2\text{--}2.5 \times 1.3$ mm, white below midpoint then blue-green with tapered pale green beaklike with a narrow orifice at top, from the wide midpoint having a ring of ca. 8 conelike projections (burs) 0.3–0.35 mm long, above midpoint short-hairy and with glandular hairs having colorless heads. **Pistillate flower:** sessile, having only style visible exerted from orifice of involucre; **perianth (pappus)** absent; **corolla** absent; **stamens** absent; **pistil** 1; ovary inferior but appearing superior, spheroid, ca. 1 mm, whitish to midpoint and red-purple above, lacking hairs, 1-chambered with 1 ovule; style 2-branched, lower portion ca. 1 mm long, the upper portion exerted from involucre orifice ("beak"), the stigmatic branches divergent, ca. 2.5 mm long, white. **Fruit:** cypsela 1, surrounded by a thin-walled involucre; involucre subspheroid to obovoid, $2.5\text{--}3.3 \times 2\text{--}3$ mm including tapered "beak," straw-colored to tannish light brown, somewhat veiny with interconnected low ridges and having a ring of ca. 8–9 blunt knobs (incipient burs) at the wide midpoint, gland-dotted, above midpoint with nonglandular short hairs; cypsela tight within involucre, subspheroid to obovoid, to 1.8 mm diameter, black, smooth.

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