

Ambrosia acanthicarpa Hooker, ANNUAL BURSAGE. Annual, taprooted, several-stemmed at base, main axis with spreading to ascending lateral branches often at every node, erect, in range 40–150 cm tall; monoecious; shoots with only cauline leaves, gray to gray-green, densely canescent, short-strigose, and with spreading hirsute hairs + colorless, short, spheric glandular, strongly aromatic (sesquiterpene lactones). **Stems:** low-ridged, to 15 mm diameter, with 3 fibrous ridges descending from each leaf, becoming cylindric, striped dark green and light green aging brown, hairy, old stems longitudinally and irregularly fissured with grayish brown tissue; solid. **Leaves:** opposite at plant base, helically alternate above, deeply 1- or 2-pinnately dissected and sublobed with 3–9 primary lobes, petiolate, without stipules; petiole narrowly winged, expanded and channeled at base and flat or slightly convex on upper side, 8–25(–55) mm long, striped dark and light green, densely hairy; blade ovate to trowel-shaped in outline, 15–50(–110) × 10–45(–90) mm, basal pair of lobes often sharply defined by a deep sinus to < 1 mm from midrib, the larger lobes with sublobes, broadly acute to roundish at tips of lobes and sublobes, pinnately veined with principal veins raised on lower surface with vein terminating in each lobe and tooth, upper surface grayish green and short-strigose, lower surface lighter gray and densely hairy. **Inflorescences:** unisexual heads, in terminal racemelike arrays of 0–6 short, cymelike shoots at base with up to 7 pistillate heads per shoot and upper portion with 15–40+ alternate, reflexed staminate heads, pistillate portion with ± sessile heads, staminate portion 15–50+ mm long and flexible with stalked heads, heads discoid, pistillate head 1-flowered, staminate head 2.5–5 mm across and 6–25-flowered, bracteate, sparsely villous and glandular-hairy. **Staminate head:** bract subtending peduncle absent (basal head may have 1 hairy bract < 2 mm long), peduncle spreading-ascending, (0.5–)1–2 mm long, pale green, sharply bent at tip making head reflexed ⊥ inflorescence axis, with scattered hairs and glandular-hairy; **involucre** cup-shaped, 1.5–2.5 mm long, of fused phyllaries, green, tube dark green with 1–several black midveins on exposed surface; exposed lobes 5–9, subequal, deltate to ovate; receptacle with threadlike bractlet subtending each flower (palea), = flower length, colorless or with black midvein and glands on margins. **Pistillate head:** bract subtending each head, oblong to oblanceolate, the longest ± 10 mm long, lobed or unlobed, dark green and the longest typically with black midvein, with scattered hairs; **involucre** present but indistinguishable, of fused phyllaries with minute free tips eventually developing as sharp-tipped spines, at anthesis < 2 mm long. **Staminate flower:** radial, 1 mm across; **calyx (pappus)** absent; **corolla** (4–)5-lobed, bell-shaped, ± 1.5 mm long, translucent white, with glandular hairs; lobes ascending, deltate, 0.3 mm; **stamens** (4–)5, fused to base of corolla; filaments short; anthers ± free, basifixed, dithecal, 1 mm long, bright yellow, longitudinally dehiscent and after with ascending, long-acuminate tips; pollen light yellow; **pistil** 1, sterile, colorless with a cylindric style 1 mm long and having an umbellalike ring of radiating, colorless hairs at tip. **Pistillate flower:** ± radial, 1 mm across; **calyx (pappus)** absent; **corolla** absent; **stamens** absent; **pistil** 1, 3 mm long; ovary inferior, obovoid, 1 mm long, greenish, 1-chambered with 1 ovule; style 2-branched, the branches exerted through cylindric “beak” 1 mm long, = 2 threadlike stigma lobes 1 mm long, persistent. **Fruit:** cypsela 1, surrounded by hard, burlike involucre; spinescent involucre body ± fusiform, 3–5 mm long + beak, straw-colored to golden tan, with 8–18+ radiating spines, the spines awl-shaped, 2–4 mm long, rigid, grooved on upper side, sharply pointed typically with straight tips,

indented and somewhat sculptured between spines, often sparsely hairy and sometimes with some persistent glandular hairs; cypsela fusiform, ca. 5×1.3 mm, dark brown; beak erect, spinelike, 4 mm long, open most of length. Early August–mid-November.

Native. Strongly scented annual growing in waste areas and roadsides in scattered locations throughout the range, so it appears like a weed rather than a native. *Ambrosia acanthicarpa* is variable in leaf color, from gray to gray-green, and may occur in mixed stands with *A. psilostachya*. Annual bursage begins flowering during mid-summer drought, and produces spinescent burs.

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