

Vascular Plants of Williamson County

Cardiospermum halicacabum – HEARTSEED VINE, COMMON BALLOONVINE, FAROLITOS
[Sapindaceae]

Cardiospermum halicacabum L., HEARTSEED VINE, COMMON BALLOONVINE, FAROLITOS. Perennial herbaceous vine, tendrilar, deep-taprooted, several-stemmed at base, long branches often unbranched, growing on itself and surrounding plants to prostrate and trailing on bare ground; shoots with only cauline leaves, flexible-stemmed; tendrils axillary, produced at base of emerging inflorescence or itself with a terminal 3-branched inflorescence, slender, several-ridged and often 3-sided, basal axis 30–45 × 0.5 mm, yellow-green, swollen at base and often \perp stem, forked at the top with an opposite pair of coiled branches, the branches hemi-cylindric flat on the upper side, with pulvinus on upper side, having bracts at branches, bracts awl-shaped like stipules. **Stems:** strongly 5-ridged, to 3 mm in diameter, with 3 ridges descending from each leaf, yellow-green, \pm tough, internodes to 55 mm long, short-hairy with hairs arched upward. **Leaves:** helically alternate, 2-compound 3-foliolate (biternate), petiolate, with stipules; stipules 2, narrowly triangular to awl-shaped, ca. 1 mm long, sparsely short-ciliate on margins; petiole channeled and ridged, to 28 mm long, sparsely short-strigose; blade ovate in outline, to 80 mm long, stipules of primary leaflets absent, petiolule of primary leaflets with a central ridge and pair of winglike margins having photosynthetic tissue, 3–17 mm long, of terminal leaflet > lateral leaflets, secondary leaflets sessile, narrowly ovate to lanceolate in outline, to 45 × 22 mm, of lateral secondary leaflets asymmetric and < terminal secondary leaflet ca. 1.5 \times , thin and easily wilted, long-tapered at base, coarsely serrate and lobed, the deepest sinuses never reaching midrib, with teeth acute to rounded and having a pale green callus at tip, acuminate to acute at tip, pinnately veined with principal veins raised on lower surface, surfaces dull with scattered, upward-pointing short hairs, principal lateral veins ending at tip of tooth or lobe, the lowest pair of lobes on lateral leaflets rounded with a gland at tip; prophyll (bract subtending lateral shoot near base of tendril) awl-shaped, < 1 mm long. **Inflorescence:** umbel-like or racemelike cyme, terminal from between pair of tendril branches, several-flowered and flowers overlapping (short axis internodes) and crowded on racemelike tip, 3-forked superficially appearing whorled, bracteate, glabrous; peduncle 4–7 mm long, 3-forked at top; bract subtending each branch above fork, awl-shaped to triangular, 1.1–1.4 mm long; branchlets < peduncle, with pulvinus at base, flattish on inward-facing side above pulvinus; bractlet subtending pedicel awl-shaped, 0.8–1 mm long, decreasing upward, appressed to persistent basal, longer portion of pedicel, glabrous; pedicel at anthesis 2.5–3 mm long with abscission zone < tip of bractlet, pale green, glabrous. **Flower:** bisexual, bilateral, 6–7 mm across (vertically); **sepals** 4, opposite decussate, dimorphic, greenish, palmately veined, outer, lateral pair ascending, smaller, \pm roundish or shallowly notched, ca. 2 × 1.5 mm, margins and tip whitish and sometimes on outer surface minutely purplish spotted, inner, pair spreading, \pm cupped to boat-shaped (acute-obovate), 3.5–4.5 × 2.5–3 mm, upper sepal enclosing lower sepal in bud; **petals** 4, overlapping in bud, \pm fan-shaped, ca. 3.6 × 1.9 mm, white (pale yellow in bud), with appendage, truncate to shallowly notched at tip, the appendages attached near base on inner surface and petal-like, appendages of 2 upper petals \pm ovate to heart-shaped and asymmetric, with partition near midline and wavy margins, ca. 2/3–3/4 length of petal,

inconspicuously hairy at base, appendages of 2 lower petals (next to lower sepal) scalloped to reflexed-lobed and bright yellow (white below yellow), ca. 2 mm long, conspicuously short-villous and adherent with hairs; glands attached to base of sepals below bases of stamens, projections ca. 0.25 mm long, pale green but at anthesis colorless; **stamens** 8 in 2 whorls, 3 lower stamens, 3 on one side, 2 on other side; filaments appressed to 3-sided ovary, flattened front-to-back and tapered to tip, 1.4–1.7 mm long, pale white aging pink, channeled on inner side, short-ciliate above midpoint, conspicuously papillate; anthers dorsifixed, dithecal, 0.4–0.7 mm long, white, arrow-shaped at base, longitudinally dehiscent; pollen white; **nectary** below ovary mostly on the lower side, platform with 2 projections; **pistil** 1; ovary superior, 3-sided and 3-angled, ellipsoid in outline, ca. 2.3 × 1.3 mm, yellow-green, short-hirsute along edges, 3-chambered, each chamber with 1 ovule on an ascending stalk with an enlarged funiculus, ovule greenish; style arising at right angles with 3 descending branches from midpoint, ca. 1 mm long; stigma positioned close to anthers. **Fruit:** capsule, conspicuously inflated, loculicidal, 3-chambered, 1–3-seeded, obovoid 3-lobed, ca. 25–30 × 25–30 mm, papery brown and veiny, short-stalked (on carpophore) with stalk short-hairy, lobes rounded and uniformly short-pilose, with slender ridges and short-ciliate, depressed at top; persistent 4 sepals obovate, 1.7–2 × 1.4–2 mm; with persistent style and stigmas. **Seed:** spheroid, 4–4.3 mm, glossy bright green aging dull black, smooth; aril pale broadly heart-shaped aril on the lower 1/3 of seed, pale yellow and minutely roughened.

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