## Vascular Plants of Williamson County

*Galium aparine* – COMMON BEDSTRAW, STICKWILLY, CLEAVERS, GOOSE-GRASS [Rubiaceae]

Galium aparine L., COMMON BEDSTRAW, STICKWILLY, CLEAVERS, GOOSE-GRASS. Annual, viney, taprooted, 1-several-stemmed at base, prostrate or decumbent, trailing and climbing over low plants; shoots weak-stemmed, extremely scabrous with minute, hooked prickles (barbs) along internode stem edges and blade margins and midribs. Stems: 4-sided and 4ridged, to 2 mm diameter, never woody, sides convex, edges raised, nongreen and fibrous, with backward-pointing or hooked, very short stiff prickle-hairs (adhesive to itself and clothes). Leaves: whorled, 6 or 8 per whorl, simple and sessile, with stipules; stipules 2, indistinguishable from leaves (treated here as leaves); blade linear to narrowly oblanceolate, in range  $(4-)13-30+ \times 1.5-4+$  mm, bright green, margins somewhat inrolled under with downward-projected, hooked prickle-hairs (retrorsely hispid), short-acuminate with sharp point at tip, midrib only conspicuous and raised on lower surface, shortscabrous with hooks facing toward tip, lower surface scabrous along midrib. Inflorescence: dichasial cyme, axillary and paired at all branchless nodes, or unequal dichasia forming a leafy panicle, commonly congested at tip of main axis and appearing indeterminate, sometimes with a secondary dichasium in leaf axis and below an existing axillary dichasium, dichasium 15–130 mm long, to 4 orders of branching, typically with 1 pedicillate flower + 2 branchlets per node, bracteate (whorled at each node), with pricklehairs as on shoot; peduncle 6-80 mm long, higher order axes reduced ca. 1/2 length of previous internode, axes 4-sided with retrorsely hooked prickle-hairs along ridges; bracts at each node whorled, leaflike, decreasing at higher order nodes; pedicel at anthesis < 0.5mm long increasing to 15 mm long in fruit. Flower: bisexual, nearly radial, 2.2–3 mm across; **perianth** (corolla) 4-lobed, of 1 whorl, cymbal-shaped (rotate), whitish; tube  $\pm 0.2$ mm long, greenish at base; lobes spreading, widely ovate,  $0.65-1.1 \times 0.55-0.9$  mm, pairs slightly unequal, white, often slightly upturned at acute to acuminate tip, short-papillate below tip on inner surface; stamens 4, fused to corolla tube at or slightly below sinuses between lobes; filaments  $\pm$  cylindric aging flattened front-to-back, 0.35–0.6 mm long, whitish; anthers dorsifixed, dithecal, oblong to heart-shaped,  $0.2-0.3 \times 0.15-0.3$  mm, light yellow, longitudinally dehiscent; pollen yellow; nectary disc 2-lobed (initially appearing as a circular disc but separating into 2 distinct semicircular ridges),  $\pm$  flush with top of corolla tube, 0.15–0.4 mm diameter, green; **pistil** 1; ovary inferior, 2-lobed, lobes subspheric-oblong, ca.  $0.8 \times 1 \times 0.6$  mm, green, each half ellipsoid, with a light green, semicircular ridge at top, with upward-hooked bristles, 2-chambered, each chamber with 1 ovule; styles 2 (fused) ascending to erect, very short, 2-branched, base < 0.2 mm long, the branches unequal, 0.2–0.3 mm long; stigmas spherically capitate, whitish prior to pollination, papillate. Fruit: schizocarp, 2-chambered forming 2 dry, 1-seeded nutlets (mericarps) with fruit wall  $\pm$  fused to seed coat; mericarp subspheroid to kidney-shaped,  $2.2-2.8 \times 1.9-2.3$  mm, brownish, densely bristly with hooked prickles having swollen bases, the prickles to 0.6 mm long.

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