

## Vascular Plants of Williamson County

### *Argythamnia humilis* – LOW WILDMERCURY [Euphorbiaceae]

*Argythamnia humilis* (Engelm. & A. Gray) Müller Arg., (syn. *Ditaxis humilis*), LOW WILDMERCURY. Perennial herb, with woody caudex and taproot, several-stemmed at base, branches prostrate to widely spreading or trailing, in range < 20 cm tall; shoots with only cauline leaves, pubescent with closely appressed, 2-armed (T-shaped, malpigheaceous) hairs, the arms to 1 mm long. **Stems:** ridged, slender, < 1.5 mm diameter, with 3 ridges descending from each leaf, tough, yellow-green. **Leaves:** helically alternate, simple, petiolate, with stipules; stipules 2, attached to base of petiole,  $\pm$  awl-shaped, 0.7–1.5 mm long, membranous and short-ciliate on margins; petiole channeled base-to-top, to 3 mm long; blade obovate or elliptic to oblanceolate or oblong-oblanceolate, < 10–35  $\times$  < 5–12 mm, dull, tapered and slightly asymmetric at base, entire, obtuse to rounded at tip, 3-veined at base with principal veins raised slightly, arms of hairs parallel with long axis.

**Inflorescence:** racemelike, axillary, of unisexual flowers, the lowest flower pistillate + 3–6 staminate flowers, proterogynous on each raceme, bracteate, pubescent with T-shaped hairs; axis forked at each node; bractlet of staminate flower persistent and spreading on short pedicel, awl-shaped, 1–1.5 mm long, of pistillate flower awl-shaped, ca. 1.5 mm long, colorless, short-ciliate on margins; pedicel at anthesis < 0.5 mm long increasing to 2.5 mm long and thicker in fruit. **Staminate flower:** radial, 3.5–4 mm across; **calyx** 5-lobed, to 2.4 mm long, with T-shaped hairs on lower (outer) surface; tube short; lobes overlapping in bud, somewhat unequal, ovate-lanceolate to triangular, ca. 0.5 mm wide; **petals** 5, clawed, ca. 3 mm long, > calyx, limb lanceolate, whitish or greenish with green vein, essentially glabrous; **nectary glands** 5, opposite calyx lobes, ascending, fingerlike, ca. 0.7 mm long; **stamens** 8–9, fused into short column, to 1.2 mm long, with 5 stamens in lower whorl, column green, free filament < 0.4 mm long; anthers versatile, dithecal, 0.25 mm long, pale yellow to yellowish green, longitudinally dehiscent (several days after pistillate flower); pollen pale yellow (greenish); **pistil** absent. **Pistillate flower:** radial, 2 mm across; **calyx** 5-lobed; tube cuplike, < 0.5 mm long increasing 2 $\times$  in fruit; lobes oblanceolate to lanceolate, at anthesis overlapping bases, acut, ca. 3.2  $\times$  1.2–1.9 mm, with minute glandular teeth below midpoint, 3-veined with midvein raised on lower surface, lower surface pubescent; **petals** usually 5, linear, to 1.3  $\times$  0.2 mm, colorless with green vein; **nectary glands** 5 in whorl opposite calyx lobes, fingerlike,  $\pm$  0.7 mm long, whitish, irregularly tapered from wide base; **stamens** absent; **pistil** 1, erect, at anthesis ca. 1.5 mm long; ovary superior, 3-lobed, 0.6  $\times$  0.6 mm, surface hidden by dense cover of T-shaped hairs, 3-chambered, each chamber with 1 ovule; styles 3 forked at midpoint, the branches spreading, pale green aging reddish, with several stiff, erect hairs in center of styles; stigmas flared to crest-shaped. **Fruit:** capsule, pointing downward and away from stem, loculicidal, 3-seeded, 3-lobed, 3.7–5  $\times$  5 mm, schizocarpic by dehiscing along septa and splitting from persistent central axis into 3 segments with persistent valve, covered with upward-pointing, stiff hairs to 1.2 mm long; styles persistent, 3 each 2-forked at midpoint, yellow-green with red stigmas at tips, with several erect, crescent-shaped hairs in center at base of styles. **Seed:** subspheroid, 2.3–2.5 mm, brown to pale brown, elaborately sculptured with each set of outgrowths ribcagelike (pectinate).

A. C. Gibson