

## Vascular Plants of Williamson County

*Polygonum ramosissimum* subsp. *prolificum* – BUSHY KNOTWEED [Polygonaceae]

*Polygonum ramosissimum* Michx. subsp. *prolificum* (Small) Costea & Tardif, BUSHY KNOTWEED. Annual, taprooted, 1(–several)-stemmed at base, with ascending to spreading lateral shoots, principal shoots often with widely spreading lateral branches (sometimes at successive nodes) and those lateral branches flowering and often unbranched, in range to 100 cm tall with principal stems to 165 cm long; shoots not 2-dimensional, in range with basically 1 leaf form (homophyllous) but with the leaves in canopy (bracts) smaller than on the vegetative shoots, superficially bluish green, glabrous. **Stems:** finely ridged, to 6 mm diameter (old, cylindric, woody lower stem), with to 12 ridges descending from each leaf, tough but not wiry, axis flowering lateral shoots mostly < 1.5 mm diameter, appearing somewhat striped with furrows having rows of cells with crystal aggregates (druses), straight (generally not zigzagged), internodes 12–27 mm long, nodes not obviously swollen and scar circular on old stems, furrows slightly glaucous; periderm on lower old stem split with dark reddish brown and corky orange-brown + some persistent green patches. **Leaves:** helically alternate, simple with sheath (short-petiolate), with stipules; stipules (2) fused to petiole as a closed sheath around stem node, membranous portion (ocrea) to 7 mm long, aging colorless, papery (scarious), and persistent, having raised fibers from petiole and splitting downward to tip of each vein, veins aging orangish; petiole with conspicuous fibers, 1.5–2 mm long, aging often with 1 or 2 splits to base; blade narrowly oblanceolate-linear to elliptic-linear, < 10–25 × < 1–4 mm, flat, long-tapered at base, entire with domed cells on margins, acute at tip, pinnately veined with midrib and sometimes lateral veins raised on lower surface, upper surface minutely bumpy with domed cells. **Inflorescence:** spikelike cyme, with an axillary cyme at every node throughout canopy but having reduced bract (cauline leaf) and upper shoot appearing nearly leafless, each axillary cyme (1–)2–4-flowered, bracteate, glabrous; bract subtending cyme leaflike, overtopping flowers or not, with herbaceous closed sheath 1.5–2 mm long, a membranous, cylindric portion of bract ocrea, and a diminutive blade, the cylindric, membranous ocrea to 4 mm long, > pedicels, the blade 2.5–12 mm long, entire but margin often inrolled under and with a raised midrib on lower surface; bractlet subtending pedicel (bracteole of some authors) ocrealike and membranous aging scarious, ca. 3 mm long, parallel veins fine and not raised, splitting downward; pedicel enclosed within herbaceous lower portion of ocrea, 1–2.5 mm long, pale green, glabrous, persistent aging dark red. **Flower:** bisexual, radial, somewhat open, 2–3 mm across; **nectary** absent; **perianth** 6-lobed with subequal lobes in 2 whorls, perianth ca. 2 mm long slightly increasing in fruit, glabrous; tube vase-shaped, ca. 0.5 mm long (perianth fused less than 1/4); lobes petal-like and exerted from ocrealike bract, whorls overlapping, subequal, lobes of outer whorl broadly elliptic and cupped, ca. 1.7 × 1.2 mm, mostly green with white margins < 0.4 mm wide wilting with patches of dark rose, in fruit cupped around edges of achene and appearing saclike at base; lobes of inner whorl elliptic to ovate, white with some green at base, wavy but not cupped; **stamens** 3, free, opposite lobes on inner whorl, included, lacking staminodes; filaments arising from rim of perianth tube, ascending, semicircular to midpoint and linear above, ± 1 mm long, white, glabrous; anthers dorsifixed, dithecal, 0.2–0.25 mm long, yellow-green, longitudinally dehiscent; pollen pale light yellow; **pistil** 1; ovary superior, conspicuously 3-sided, ca. 0.8 × 0.4 mm, green, glabrous, 1-chambered with 1 ovule; styles 3, fused at base, ca. 0.2 mm long, colorless, persistent on fruit but not forming beak; stigma minute, capitate. **Fruit:** achene, abscised within persistent perianth, ovoid and 3qually 3-sided, in range summer 1.6–2 × 1.2–1.3 mm, in fall +2× larger (heterocarpic, not observed), glossy dark brown to brown, faces concave, minutely bumpy (tuberculate), with smooth edges.

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