

Vascular Plants of Williamson County

Marshallia caespitosa var. *signata* – BARBARA'S BUTTONS [Asteraceae]

Marshallia caespitosa DC. var. *signata* Beadle & Boynt., BARBARA'S BUTTONS. Perennial herb, fibrous-rooted, rosetted, several-stemmed at base, not branched above base, leafy at base of peduncle, to 45 cm tall; shoots with basal leaves withering at flowering and 8+ cauline leaves, appearing glabrous with microscopic hairs. **Stems:** conspicuously 8-ridged, to 3.5 mm diameter, with 3 coarse ridges descending from each leaf, having a large bump on each ridge at leaf base, along ridge with upward-arching hairs < 0.3 mm long.

Leaves: helically alternate, simple, petiolate (basal leaves) and sessile (cauline leaves), without stipules; petiole partially sheathing, thin, and white at base, indistinct from blade; blade linear or narrowly oblanceolate to narrowly oblong or narrowly elliptic, < 20–95 × 3–14 mm, long-tapered (basal leaves) to tapered at base, entire, ± rounded at tip, 3(5)-veined at base with midrib sunken on upper surface and midrib or 3 principal veins raised on lower surface, when young with inchwormlike small hairs arching toward the tip and scattered sessile glandular hairs with colorless heads, stomates on both surfaces.

Inflorescence: head, hemispheric, of showy, discoid flowers, head in range 22–29 mm across, 100+-flowered, marginal flowers widely spreading from involucre, bracteate, with inchwormlike hairs and glandular hairs on exposed green tissues; bract subtending peduncle leaflike; peduncle ± 13-ridged descending from phyllaries, in flower 90–150 mm long increasing in fruit, with inchwormlike hairs along ridges and sessile glandular hairs in furrows; **involucre** hemispheric, phyllaries to 21 in several close series, appressed, subequal, narrowly lanceolate, 11–12 mm long, light green with membranous margins to 2/3, keeled with inchwormlike and sessile glandular hairs on green tissue; bractlet subtending flower (palea) grading from inner phyllaries, erect and conspicuous above flower buds, mostly linear, 9–10 × 0.6 mm, keeled with membranous margins, acute at tip (in range not notched), with fewer hairs than phyllaries; receptacle domed, glabrous, hollow beneath. **Flower:** bisexual, radial, 7–8 mm across; sweetly fragrant; **calyx (pappus)** of 5–6 scales in 1 whorl, scale ± triangular, 1.5–3.4 × 0.6–1 mm, colorless (purple rarely at base), overlapping at base, often minutely jagged at least above midpoint, with fine point at tip, persistent; **corolla** 5-lobed; tube + throat ca. 10 mm long, cylindrical to midpoint and ca. 0.4 mm diameter, with dense arching hairs, throat funnel-shaped to 1.3 mm diameter at orifice; lobes spreading, oblong and rounded at tip, in range ± 4 × 0.7–0.8 mm, pure white or aging purplish only at base; **stamens** 5, fused to corolla at base of throat, exerted from corolla throat; filaments 2 mm long, white; anthers fused into cylinder surrounding style, basifixed, dithecal, 3–4.5 mm long including ovate appendages at tip, with 10 fine, purple stripes, appendages folded outward from centerline; pollen white; **pistil** 1; ovary inferior, wedge-shaped and 5-ribbed, 1 × 0.6–0.7 mm, green, with ascending, straight short hairs along ribs and sessile glandular hairs in furrows, 1-chambered with 1 ovule; style exerted, 9.5–10 mm long, white, **nectary** surrounding base of style, 0.3 mm long, and white, style 2-branched, the branches spreading above anther appendages, oblong conspicuously grooved on upper surface and papillate on lower surface. **Fruits:** cypselae, monomorphic, wedge-shaped and strongly 5-ribbed, 3–4 × 1.5 mm, tannish, ribs with dense strip of ascending, straight short hairs and furrows with

abundant sessile, reddish glandular hairs; pappus of 5–6 ascending, colorless, triangular scales to 1.5–2.5(–3.4) mm long.

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