

Vascular Plants of Williamson County

Monarda punctata var. *intermedia* – SPOTTED BEEBALM, SANDY-LAND SAGE, YELLOW HORSE MINT [Lamiaceae]

Monarda punctata L. var. *intermedia* (E.M. McClint. & Epling) Waterf., SPOTTED BEEBALM, SANDY-LAND SAGE, YELLOW HORSE MINT. Perennial herb, densely fibrous-rooted from buried stem, 1–several-stemmed at base, robust plants with opposite decussate, ascending lateral branches along principal axis, in range to 45 cm tall; shoots with only cauline leaves, primary leaves along axis widely spaced but at nodes often with tufts of leaves from unexpanded axillary shoots, having curved short hairs and sessile and subsessile glandular hairs with colorless heads, foliage aromatic when crushed. **Stems:** strongly 4-sided, to 4.5 mm diameter, internodes < 70 mm long, canescent with downward-curved short hairs and many sessile glandular hairs. **Leaves:** opposite decussate, simple, petiolate and forming weak ledges across node, without stipules; petiole channeled, to 11 mm long, broadly attached to stem, with curved short hairs and several long hairs along edges; blade lanceolate, 20–55 × 6–9 mm, narrowly tapered to tapered at base, mostly low-serrate on margins except at base, acute to acuminate at tip, pinnately veined with principal veins sunken on upper surface and raised on lower surface, uniformly short-hairy with curved hairs, glandular hairs sunken in pits on both surfaces. **Inflorescence:** paired condensed cymes at node (verticils), verticils to 40 mm apart, verticil hemispheroid, ca. 35 mm across (not including subtending bracts), each cyme (4-) mostly many-flowered, in dense cymes several peripheral flowers vestigial, bracteate, puberulent and with sunken glandular hairs; principal axis 4-sided; bract subtending cyme leaflike, < 70 mm long decreasing upward (sometimes > lower foliage leaves); the lowest bracts of cyme 2, opposite, leaflike, lanceolate, to 30 × 7 mm decreasing upward, with 5 parallel veins, ciliate to midpoint and low-serrate above midpoint on margins, the teeth with purplish red points, acuminate at tip, surfaces with sunken glandular hairs, upper surface frosty and densely papillate, lower surface puberulent; next order of bracts usually 8 in 2 whorls, ± descending or somewhat recurved, of outer whorl rhombate-elliptic, ca. 20–22 × 10–12 mm, white at base and green above, ciliate below midpoint and serrate (often coarsely serrate) above midblade, acuminate at tip, upper surface frosty papillate, lower surface with raised principal veins; of inner whorl blade broadly lanceolate, to 22 × 7–9 mm, 3-veined, entire or with few teeth on 1 margin, with midvein somewhat raised on lower surface; bracts within cyme at subtending forks, slender, ± linear long-tapered to tip, to 9 mm long (as long as adjacent calyx), white at base and green above midblade, 1-veined, puberulent and with glandular hairs; bractlet subtending flower and of vestigial peripheral flowers slender and threadlike, < 5 mm long, with barblike short hairs and with or without glandular hairs. **Flower:** bisexual, bilateral, ca. 4 mm across, mildly scented like honey; **calyx** narrowly funnel-shaped, ± 6 mm long; tube cylindric, whitish at base to green above, 15-ribbed, puberulent along ribs with glandular hairs between ribs, inner surface with several short hairs at orifice but not in ring; lobes triangular, in range 0.5–1 × 0.7 mm, 3-veined, green and reddish, long-ciliate on margins, not stiff-pointed, puberulent and with glandular hairs on outer surface; **corolla** strongly 2-lipped, 5-lobed, ca. 20 mm long; tube cylindric, ± 6 × 0.4 mm (slightly expanded around ovary), colorless at base to yellowish at top, 10-veined with reddish veins, inside top of tube defined by dense border of hairs; throat funnel-shaped, light yellow on inner with purple spots next to rings of hairs, outer

surface gland-dotted; lips light yellow, upper lip inconspicuously 2-lobed, arching forward and keeled, ca. 12 mm long, inner surface with purple spots above midpoint, notched at tip with lobes to 0.5 mm long, outer surface short-hairy with several long hairs and gland-dotted with heads aging red; lower lip 3-lobed, descending nearly \perp upper lip, central lobe hourglasslike, 2.5–3 mm long, lateral lobes ovate and < 1 mm long, having purple spots floor of lip with a beard of colorless papillate hairs; **stamens** 2, attached to top of corolla tube adjacent to ring of hairs; filaments 10.5–11.5 mm long, \pm cream-colored to pale yellow, puberulent approaching anther; anthers with sacs divergent 180°, rose-purple and rose, longitudinally dehiscent; pollen white; **nectary disc** below ovary, barrel-shaped, 0.8 \times 0.8 mm, greenish, nectar-producing; **pistil** 1; ovary superior, deeply 4-lobed, lobes 0.6 \times 0.7 mm, colorless, mildly textured, each lobe with 1 ovule; style attached to base of ovary between lobes (gynobasic), \pm 20 mm long, curved upward and then backward approaching tip, colorless, having short hairs above the level of the corolla tube, unequally 2-branched, the branches stigmatic, ca. 1.5 mm long (lower) and 0.4–0.5 mm long (upper).
Fruits: nutlets (microbasidia), 1–4, \pm ovoid 3-sided, 1–1.25 \times 0.8 mm, light brown to light yellowish brown, rounded on top and edges, with 2 whitish pits at base, glabrous.

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