

Vascular Plants of Williamson County

Lithospermum onosmodium – BEXAR MARBLESEED [Boraginaceae]

Lithospermum onosmodium J. I. Cohen, BEXAR MARBLESEED. Perennial herb, not rosetted, several–many-stemmed at base, with ascending, mostly unbranched shoots from base before branching in canopy, in range 40–85+ cm tall; shoots with cauline leaves and leaflike bractlets, initially somewhat velveteen becoming conspicuously hispid with spreading hairs 1–3+ mm long and strigose with upward-pointing hairs, the largest hairs having bulbous bases (pustulate). **Stems:** cylindrical, in range to 5 mm diameter, not straight, with an inconspicuous pair of ridges descending from each leaf, tough aging woody; internodes hollow. **Leaves:** helically alternate, simple and \pm sessile, without stipules; blade oblanceolate or elliptic to lanceolate, 40–110 \times 13–20 mm, long-tapered at base, entire and wavy on margins, acuminate to acute at tip, conspicuously pinnately veined with 5–7 principal veins sunken on upper surface and raised on lower surface, upper surface strigose and \pm appressed-hispid, lower surface strigose but with hispid hairs along veins and on margins. **Inflorescence:** leafy cyme, terminal on main and lateral stems, many-flowered on each branch, 1–sided with 2 rows of flowers on upper side and buds and open flowers on coiled tip, flowers at anthesis sessile, with alternate leafy bractlets, strigose and hispid with appressed hairs but also ascending thicker hairs; peduncle cylindrical, stemlike; internodes of rachis at anthesis short increasing and becoming straight in fruit; bractlet subtending pedicel, at anthesis = length of flower and increasing in fruit, lanceolate and sessile with conspicuously decurrent base, at anthesis ca. 11 \times 3.5 mm, pinnately veined with principal veins strongly raised on lower surface and only midvein sunken on upper surface, stiff long-ciliate on margins, surfaces mostly strigose with longer hairs along principal veins; pedicel at anthesis ca. 2 mm long increasing 2 \times in fruit, hispid. **Flower:** bisexual, radial, 4–5 mm across; homostylous; **calyx** 5-lobed, at anthesis 10–11 mm long increasing in fruit, exposed green tissue strigose and hispid with upward-pointing stiff hairs; tube cup-shaped, ca. 1 mm long; lobes subequal, linear, 4 lobes \pm 0.8 mm wide and 1 lobe \pm 0.5 mm wide, green, blunt at tip, conspicuously 1-veined, vein white and raised on lower (outer) surface; **corolla** 5-lobed, narrowly funnel-shaped; tube + throat 5-sided, 5.8–6.3 mm long, gradually expanding from 2 mm diameter at base to 4 mm diameter at orifice, white, 10-veined, on outer surface glabrous to midpoint and short-hairy above midpoint especially along principal veins, lacking internal appendages; lobes erect, acute-ovate, 4–4.4 \times 2.5–2.8 mm, green with narrow whitish margins, lobes with overlapping margins but 1 lobe outside adjacent lobes, somewhat keeled with appressed hairs mostly to midpoint of midvein on lower surface, upper surface glabrous; **stamens** 5, fused to corolla tube 4 mm above base of corolla from internal ribs; filaments erect, ca. 1 mm long, white; anthers included, at same level to sinuses of corolla, dorsifixed, dithecal, 3–3.2 mm long, pale yellow, longitudinally and inwardly dehiscent; pollen white; **nectary disc** beneath ovary, \pm 1.2 mm wide but slightly wider on 2 (opposite) sides; **pistil** 1; ovary superior, deeply 4-lobed, lobes 3-sided ovoid, ca. 0.5 \times 0.5 mm, pale green, smooth at anthesis, each chamber with 1 ovule; style arising from center of ovary lobes, long-exserted (4+ mm), straight, at anthesis 15–17 mm long, white, 4-sided at attachment but cylindrical above, glabrous; stigma terminal, minutely 2-lobed, white. **Fruits:** nutlets, typically 1–2, ovoid, 3.5–4 \times 2.4–2.8 mm, glossy pale green

drying whitish, broadly attached above nectary, obtuse at tip, with widely spaced, minute pits; persistent calyx with lobes to $11 \times 1-1.4$ mm, 1 slightly wider.
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