

Vascular Plants of Burnet County

Heterotheca canescens – HOARY GOLDENASTER [Asteraceae]

Heterotheca canescens (DC.) Shinn., HOARY GOLDENASTER. Perennial (subshrub), winter-deciduous, taprooted, not rosetted, several-stemmed at base, canopy much branched, new growth often with unexpanded axillary shoots (appearing fasciculate), in range 15–30 cm, tall; shoots with only cauline leaves, grayish (silvery whitish) and densely strigose and strigose-canescenscent and on some structures with longer hispid hairs, in range having inconspicuous stalked glandular hairs with colorless spheric heads somewhat concealed beneath tomentum, strongly aromatic when crushed. Stems: cylindric, lower stem canescenscent-strigose, upper stem more densely strigose with upward-pointing hairs. **Leaves:** helically alternate, simple, petiolate (lower plant) to sessile (canopy), without stipules; petiole (lower leaves on spring growth) flared at base and \pm flat, to 5 mm long decreasing upward; blade oblanceolate, $7\text{--}29 \times 2\text{--}6$ mm, the larger leaves spring leaves on new growth, the smaller leaves of the canopy and late-summer growth, tapered at base, entire, acute with short hard point at tip (mucron), the tip and initially the hard point red-purple (mucron aging whitish above midpoint), pinnately veined but only midrib visible and somewhat raised on both surfaces, green tissue visible on larger leaves and mostly concealed on densely pubescent blades. **Inflorescence:** head, solitary or in leafy cymelike array of several heads on surface of canopy, head radiate, 11–14 mm across, in range of (10–)12–17(–20) pistillate ray flowers and 14–25+ bisexual disc flowers, strigose on green surfaces; peduncle indistinct bearing small leaves and bracts approaching head, 2–10 mm long, densely strigose and bracts often having sparse hispid hairs to 2 mm long diverging from margins, in range especially bracts having stalked glandular hairs; **involucre** bell-shaped (cylindric), $5\text{--}7 \times 4$ mm, with ca. 35 appressed phyllaries in 4–6 series, 1-veined, mostly pale green covered with conspicuous strigose hairs upward-pointing but in range exposed tissue of the inner phyllaries also having stalked glandular hairs (stipitate-glandular), outer phyllaries 8–10, lanceolate, to 1.5 mm long, middle phyllaries lanceolate to linear-lanceolate, $2\text{--}3 \times 0.4$ mm long, tips red-purple aging blackish, inner 2 series of phyllaries oblong, to $4.5\text{--}5 \times 0.7\text{--}1$ mm, with green center having a raised midvein and colorless scarious margins, flat tip red-purple and with jagged margins, inner surface of phyllaries smooth and glossy but purple tips of inner phyllaries having some short nonglandular hairs; receptacle low-convex, lacking bractlets (paleae), ovary slightly sunken (“pitted”) with crownlike structure with several teeth 0.25–0.3 mm, the teeth sparsely short-hairy. **Ray flower:** bilateral, ca. 2 mm across; **calyx (pappus)** of inconspicuous short scales (outer series) and conspicuous capillary bristles (several inner series), scales ca. 20, linear, 0.25–0.5 mm, bristles (25–)30–45, subequal, in range (4.1–)5–6.2 mm long, white to off-white (straw-colored), persistent; **corolla** ca. 8 mm long; tube low 5-ribbed, ca. 1.5×0.25 mm, \pm translucent, with several inconspicuous and ephemeral glandular hairs near top, limb narrowly ovate, $5\text{--}7(9) \times 1.5\text{--}1.7$ mm, bright yellow, with 3 minute triangular teeth at tip having the central tooth $>$ lateral teeth, faintly 4-veined slightly sunken on upper surface; **stamens** absent; **pistil** 1; ovary inferior, inversely conic concealed by hairs, ± 0.5 mm long, the hairs ascending, straight, soft, and white, 1-chambered with 1 ovule; **nectary disc** inconspicuous around base of style; style ca. 4 mm long, 2-branched, light orange-yellow, the stigmatic branches fully exerted,

1.1–1.3 mm long. **Disc flower:** radial, ca. 2 mm across; **calyx (pappus)** of inconspicuous short scales (outer series) and conspicuous capillary bristles (several inner series), scales < 20, linear, 0.25–5 mm, bristles (25–)30–50, subequal, in range (4.1–)5–6.2 mm long and collectively > corolla, white to off-white (straw-colored), persistent; corolla narrowly club-shaped in bud, 4–4.5 mm long; tube $\pm 1.2 \times 0.3$ mm but indistinct from throat, greenish to colorless, throat $\pm 2.5 \times 0.7$ mm, finely 5-veined to sinuses; lobes 5, triangular, 0.75–0.8 mm, orangish yellow, in bud each lobe with several inconspicuous and ephemeral glandular hairs; **stamens** 5, attached at top of corolla tube; filaments 1.6–2 mm long, yellow-orange; anthers fused into cylinder surrounding style, ca. 2.3 mm long including triangular appendages, yellow-orange, longitudinally and inwardly dehiscent; pollen orangish yellow; **pistil** 1; ovary inferior, inversely conic concealed by hairs, ± 0.5 mm long, the hairs ascending, straight, soft, and white, 1-chambered with 1 ovule; **nectary disc** inconspicuous around base of style; style ca. 4.5 mm long, 2-branched, pale green, the stigmatic branches flattened, ca. 1 mm long. **Fruits:** cypselae (achenes), inversely conic somewhat compressed, in range 1.2–2+ mm long, low-ribbed beneath dense, upward-pointing short hairs; pappus ca. 6 mm long, dusty brown.

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