

Achyrachaena Schauer

Achyrachaena mollis Schauer, BLOW-WIVES. Annual, taprooted, 1–several-stemmed at base, with ascending lateral shoots, erect, 5–60 cm tall; shoots with mostly cauline leaves, densely villous to hirsute and sparsely capitate glandular-hairy primarily on leaf bases and peduncles, the longest nonglandular hairs 3+ mm and often bulbous at base. **Stems:** cylindric becoming ridged (especially when dried), to 5 mm diameter, with ridge descending from each leaf, yellowish green; hollow. **Leaves:** helically alternate but also opposite or subopposite at shoot base (mostly below the lowest branches), simple, sessile and short-sheathing wherever pair fused across node, without stipules; blade ascending, linear, 20–120 × 2–8 mm, entire or minutely toothed on margins, obtuse at hard tip, several-veined from base (conspicuous on old, drying, papery blades) with conspicuous midrib raised on the lower surface, velveteen with long and short hairs. **Inflorescence:** heads, terminal and mostly solitary (rarely several-headed with a loose and ± flat-topped array), head radiate, ca. 8 mm across, with 3, 5, or 8 ray flowers and 9–35 disc flowers, bracteate, pubescent as shoot but becoming more glandular approaching head; peduncle 5–110 mm long, tough, hollow, flaring below receptacle and at anthesis with hollow chamber beneath receptacle; bracts on peduncle typically lacking, but subtending each lateral peduncle when several-headed, leaflike; **involucre** cylindric-ellipsoid (bell-shaped), 12.5–15.5 × 6–8 mm, phyllaries 3, 5, or 8 in 1 series, narrowly lanceolate to lanceolate-linear, 12–15 × 3–3.8 mm, green, each with margins incurved and enveloping ovary of ray flower, the margins narrowly overlapping along their narrowly membranous edges, acute and reddish at tip, villous and hirsute as well as glandular-pubescent but not resinous or glutinous; receptacle flat, with 5, 8, or 13 bractlets (paleae) between ray and disc flowers, the outer 5 paleae lanceolate, 11–13.5 × 2.5–6 mm, strongly cupped and 3-veined, the transitional paleae slightly cupped and 2-veined, the 5 inner paleae flat and 1-veined, either acute at tip or fused below midpoint and therefore appearing 2–3-toothed at tip, green with wide membranous margins, villous, paleae absent among central disc flowers, short-hairy between ovary bases. **Ray flower:** pistillate, bilateral, 2 mm across, 15–16.5 mm long, exposed several mm above phyllary; **calyx** reduced to a small ring, ± 2.5 × 0.6 mm, light green, sometimes with 1 or 2 narrow, whitish teeth < 0.2 mm long; **corolla** 3–4-lobed, 9–11 mm long; tube 6–7.5 mm long, pale yellow to light greenish yellow, sparsely pubescent; limb erect or sometimes spreading, 2.7–7 × 2 mm, bright yellow aging reddish with conspicuous veins, lobes acute, with 2–4-veins per lobe, conspicuously veined on lower surface, glabrous; **stamens** absent; **pistil** 1; ovary inferior, narrowly inversely conic and slightly compressed front-to-back, ca. 6 mm long, at anthesis dark brown or blackish, faintly 10-ribbed, glabrous or minutely scabrous along ribs, 1-chambered with 1 ovule; style 7.5–8 mm long, 2-branched, the branches ± 1 mm long and tapered, yellowish and spreading aging reddish and coiled; stigmas minutely papillate near tip on inner side. **Disc flower:** bisexual, radial, ca. 2 mm across, ≥ phyllaries; **calyx** of 10 scales in 2 whorls on a small, light green ring, ± 2.5 × 0.6 mm, scales erect, scarious, the outer scales lanceolate to elliptic, 3–9 mm long, the inner scales oblong, 6–11 mm long, inner scales typically 2× outer scales, obtuse at tip with minutely toothed on margins, outward-facing (lower) surface short-hairy; **corolla** 5-lobed, narrowly funnel-shaped, 5.5–6.5(–10) mm long, at anthesis barely visible above calyx; tube green with upper 1/3 yellow aging reddish,

externally finely pubescent; lobes erect, equal, lanceolate-deltate, 0.5–1 mm long, strigose; **stamens** 5, fused to middle of corolla tube or higher; filaments 1.5–2 mm long, mostly yellow but paler below anthers; anthers fused into ring surrounding style, slightly exerted or not, basifixed, dithecal, \pm 1.3 mm long, deep purple to maroon, longitudinally dehiscent; pollen light yellow; **pistil** 1; ovary inferior, cylindric-inversely conic compressed slightly side-to-side, ca. 7 mm long, dark brown or blackish, 10-ribbed, minutely scabrous with colorless upward-pointing short hairs on ribs and in grooves, surfaces appearing frosted, 1-chambered with 1 ovule; style slightly exerted, 6–6.7 mm long, glabrous, 2-branched, the branches \pm 1 mm long, yellow aging deep purple; stigmatic at tips. **Fruits:** cypselae, dimorphic, straight club-shaped, black, 10-ribbed; cypselae of ray flowers abscising with and enclosed by phyllary, with calyx ring but lacking pappus scales, compressed front-to-back, 6.3–7.5 mm long, not scabrous to sparsely short-scabrous, with stiff hairs only on some of ribs; cypselae of disc flowers with conspicuous pappus scales, (4.5–)7.5–8.2(–8.5) mm long, notably short-scabrous with golden brown to brown teeth along ribs and in grooves, long-tapered to a persistent, dish-shaped, whitish base (receptacle tissue); pappus scales in 2 distinct whorls of 5, spreading (initially) to ascending, the outer scales typically 5.5–6.5 \times 2–2.5 mm, the inner scales typically 8–10.5 \times 2–2.5 mm, scarious and appearing shiny white, with veins ascending from base, conspicuously short-serrate on margins, short-hairy on lower surface. Early March–early May.

Native. Annual commonly encountered in somewhat natural grasslands, especially on clay soils. *Achyrachaena mollis* has heads with erect ray flowers having unexpectedly small limbs, and is easy to distinguish this species from other Asteraceae. Its fruits are also easily recognized as having two whorls of five conspicuous, spreading, scarious scales that appear shiny white in sunlight but individually are translucent.

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