

ular-bristly; involucre 5 to 8 lines high; achenes oblong, 1½ lines long, flattish, bordered by a marginal rib and also 5-ribbed in each side, the middle rib forming a keel, all the ribs transversely rugulose; pappus 4 to 5 lines long.—Nat. from Eur.: Santa Ana.

18. MALACÓTHRIX DC.

Herbs or sometimes woody at base. Leaves all basal and the stems scapose, or the stems leafy. Heads peduncled, commonly nodding in the bud. Flowers yellow, white, or pinkish. Receptacle bristly or naked. Achenes short, glabrous, terete, 10 to 15-ribbed, or 4 or 5 of the ribs stronger than the others, truncate at apex and with an entire or denticulate border. Pappus-bristles soft, scabrous, more or less united at base and falling away together, or with 1 to 4 stronger ones which are more persistent and smoother. (Greek malakos, soft, and thrix, hair, in reference to the long wool on *M. californica*, type of the genus.)

Bracts orbicular or ovate to linear, very obtuse, silvery-scarious with a broad dark median line, imbricated in several series; receptacle with slender persistent bristles; persistent pappus-bristles 1 to 4.....1. *M. coulteri*.
Bracts lanceolate to linear, only sparingly imbricated; receptacle with few deciduous bristles or none.

Annuals (or *M. altissima* sometimes biennial).

Plants less than 2 ft. high.

Persistent pappus-bristles 1 or 2; leaves or their lobes narrowly linear to filiform, elongated.

Stems scapose, the scapes simple or commonly so, one-headed; leaves all basal; persistent pappus-bristles 2; heads large, the outer ligules 7 to 10 lines long.....2. *M. californica*.

Stems freely branched, bearing many or numerous heads; leaves mainly basal, some cauline; persistent pappus-bristle 1; heads small, the outer ligules 2½ to 3 lines long.....3. *M. clevelandii*.

Persistent pappus-bristles none.

Margins of leaves with tufts of white wool.....4. *M. obtusa*.

Margins of leaves without tufts of wool.

Stems sparsely leafy; desert species.....5. *M. sonchoides*.

Stems densely leafy throughout; insular or coast species.

Involucre 5 to 6 lines high; leaves and their lobes acute.....

6. *M. foliosa*.

Involucre 2½ to 3 lines high; leaves with their lobes mostly obtuse.....7. *M. indecora*.

Plants more than 2 (usually 3 to 6) ft. high.....8. *M. altissima*.

Perennials, wholly herbaceous or woody at base; persistent pappus-bristles none; south coast.

Herbage essentially glabrous; involucre bracts linear-lanceolate, attenuate.....

9. *M. saxatilis*.

Herbage densely white-tomentose when young; involucre bracts obtuse, often purplish or pinkish.....10. *M. incana*.

1. *M. coulteri* Gray. SNAKE'S HEAD. Stem branching at or above the base, 5 to 14 in. high, the branches bearing mostly single heads; herbage glabrous and glaucescent; basal and lower cauline leaves narrowly oblong, sinuately pinnatifid or toothed, or dentate, 2 to 4 in. long; upper cauline leaves ovate to lanceolate or oblong, irregularly toothed or shallowly pinnatifid, sessile with an auricled or broad base, ½ to 3 in. long; heads subglobose, ¾ to 1¼ in. broad; involucre 4 to 7 lines high; bracts silvery-scarious, the linear central portion green (changing to brown), regularly imbricated in several ranks, the short outer ones orbicular, the inner oval to lanceolate or linear; achenes 4 or 5-angled, 15-ribbed, 1 line long, the summit obscurely denticulate by projection of the ribs; pappus white or faintly tawny, with 1 to 4 stouter pappus-bristles persistent.—Sandy valleys, 500 to 7400 ft.: coastal S. Cal.; upper San Joaquin Valley; Mohave Desert; Inyo Co. Mar.-May. Var. COGNATA Jepson n. var. Leaves pinnately parted into remote linear-lanceolate divisions.—Santa Cruz Isl. (T. Brandegee, type).

2. *M. californica* DC. Stems scapose, few to many, diffuse or erect, one-headed, 3½ to 12 in. high, the leaves all basal; herbage remarkably woolly when young, glabrate in age or the wool somewhat persistent on the involucre and often in conspicuous tufts among the leaf bases; leaves laciniately pinnatifid into narrowly linear or almost filiform lobes, 2 to 6 in. long; heads 1 to 1¾ in. broad; involucre 4 to 6½ lines high, their bracts narrowly linear or subulate, in about 3 ranks; bristles of the receptacle delicate, usually