

akene attenuate above almost into a beak: pappus silvery white; very delicate awn barely half the length of the more deeply notched palea. — *Calais linearifolia*, DC. l. c., excl. syn. *Uropappus linearifolius* & *U. grandiflorus*, Nutt. Trans. Am. Phil. Soc. vii. 425. — Open low grounds, throughout California, to Nevada, Arizona, and New Mexico.

M. Lindléyi, GRAY, l. c. Peduncle little or not at all thickened upward: akene gradually and slightly attenuate toward the summit: pappus sordid; paleæ bearing a stronger and more exserted awn from a shallow notch, sometimes those of the marginal flowers villous, and their akenes pubescent. — *Calais Lindleyi*, DC. l. c., excl. syn. *Uropappus Lindleyi* & *U. heterocarpus*, Nutt. l. c. — California, from San Francisco Bay to San Diego; apparently less common than the preceding.

* * Paleæ of the sordid or merely whitish pappus entire, surmounted by the awn, conspicuous except in the second species: scapes slender, a span to 18 inches high: akenes mostly upwardly scabrous on the 10 equal ribs, occasionally the outermost villous. — *Calais* § *Eucalais*, DC., &c.

+ Akenes attenuate-fusiform, the upper and slightly narrowed half not occupied by the seed!

M. attenuata, GREENE. Leaves mostly pinnately parted into narrow linear lobes: scapes a span or two high: involucre half-inch high, barely calyculate at base: pappus of the length of the akenes (nearly 4 lines); the paleæ oblong-lanceolate, about half the length of the awn, externally either lightly or conspicuously villous. — Proc. Am. Acad. xix. 65. — California, at Berkeley and hills north of Monte Diablo, *Greene*.

+ + Akenes from slender-subclavate to turbinate, the cell filled by the seed.

+ + Paleæ of the pappus very small (not over half-line long) or obsolete, glabrous, and the slender bristles fragile or deciduous.

M. aphantocarpa, GRAY, l. c. Involucre merely calyculate: akenes ($1\frac{1}{2}$ to 2 lines long) oblong-clavate, with usually some constriction or rounding of the summit, shorter than the rigid capillary awns of the pappus: these merely deltoid-dilated at base, or hardly so. — *Calais aphantocarpa*, Gray, Proc. Am. Acad. vi. 552. — California, in Alameda and Contra Costa Co.; first coll. by *Brewer*.

Var. tenella, GRAY, l. c. Depauperate in the original specimens: bristles of pappus 2 to 5, sometimes with manifest broadly-ovate palea at base, sometimes deciduous. — *Calais (Aphanocalais) tenella*, Gray, Pacif. R. Rep. iv. 114, t. 17. — Same range, and along the Napa and Lower Sacramento; first coll. by *Bigelow & Fitch*.

+ + Paleæ of the pappus conspicuous, persistent.

= Akene (with truncate summit) little over a line long and the long-awned paleæ of the pappus of not more than half its length, both glabrous: head small.

M. elegans, GREENE, in herb. A span to a foot high, slender: head in fruit less than half-inch high: akenes tapering gradually from very summit to base: paleæ of the pappus ovate-deltoid or sometimes rather narrower, either obscurely emarginate or more attenuate into a slender awn of about 4 times the length: sometimes a minute villosity covering the truncate summit of the akene. — California, common in Contra Costa Co., *Hall, Lemmon, Parry, Greene, &c.* Between *M. aphantocarpa* and *M. Bigelovii*.

= = Akenes 2 or 3 lines long, some of the outermost not rarely villous: paleæ of the pappus seldom shorter, in the same species and even in the same head disposed to be either glabrous or scabro-puberulent, or externally villous.

M. acuminata, GREENE. A span or two high: head in fruit about inch high: akenes apparently all glabrous, slenderly somewhat fusiform-turbinate (obscurely contracted between middle and summit), almost 3 lines long, not half the length of the pappus: paleæ narrowly lanceolate, gradually attenuate into a rather shorter awn. — Bull. Torr. Club, x. 88. *Calais Douglasii*, Gray, Pacif. R. Rep. iv. 113, not DC. — California, on Mark West's Creek, *Bigelow* (has passed for the following species; pappus nearly glabrous). Foot-hills of the Sierra Nevada, *Mrs. Curran*, with paleæ minutely silky-villous externally.

M. Bigelovii, GRAY. A span to a foot or more high: head half-inch or more high: involucre inclined to be somewhat imbricated: akenes oblong-turbinate, not contracted under the truncate summit, only 2 lines long; outermost sometimes villous: paleæ of the pappus oblong-to ovate-lanceolate, mostly if not always glabrous, or scaberulous, varying considerably in size, only half or a third the length of the awn. — Proc. Am. Acad. ix. 209. *Calais Bige-*