

CALAIS, DC. sens. restr.

Involucre conical, scarcely calyculate, bracts imbricate, the outer successively shorter, all thin and scarious-margined. Receptacle flat, centrally more or less alveolate-chaffy. Akenes terete, 8—10 costate, the basal callosity not enlarged. Paleæ of the pappus 5, elongated, flat, bifid at apex and short-awned.—Subaculescent annuals, all West North American, with laciniately-lobed or pinnatifid leaves, and erect heads, on strict, erect peduncles which are fistulous-thickened above. Akenes all alike, glabrous, with scabrous costæ. Paleæ of the pappus glabrous and more or less denticulate. Genus of few species but of wider range than the last, the typical species occurring eastward to the borders of Colorado and Texas, and on the Pacific shores, from British Columbia to the island of Guadalupe. *Calais* § *Calocalais* DC. Prod. vii. 85; Torr. & Gray, Fl. N. Am. ii. 471; Gray, Pac. R. Rep. iv. 112. Species of *Microseris*, Gray, Proc. Am. Acad. ix, Bot. Cal. i. and Syn. Fl. ii.

**Paleæ bright, white, soft, deciduous from the nearly black akenes.*

C. LINEARIFOLIA, DC., Prod. l. c.—Species of the widest range, and of much variability as regards the height of the stem and the number of flowers in each head. Sometimes nearly acaulescent, and with very large heads; but around San Diego the stem is slender and often more than a foot high, the heads being few-flowered; but the bright pappus, promptly deciduous from the mature, almost rostrate-attenuate, black akenes readily distinguishes the species in all its forms, whether on Guadalupe or in New Mexico, Washington Territory, or California.

***Paleæ brownish, of firm texture, persistent on the light colored akenes.*

+ *Awn of pappus shorter than the palea.*

C. LINDLEYI, DC.—Glabrous, a foot or two high: akenes 5—6 lines long, slightly attenuate toward the summit; palea

linear-lanceolate, 4 lines long, the awn very little shorter.—
Prod. l. c.; *Microseris*, Gray, l. c.

From San Francisco to San Diego; equally as common as the first species.

C. PARRYI, Gray. Furfuraceous-puberulent, 6—8 inches high: akenes 3 lines long, and not at all attenuate; palea softer than in the last, its awn less than half as long.—Pac. R. Rep. iv. 112; *Microseris*, Gray, l. c.

Common from the plains back of Mt. Diablo to San Diego: easily mistaken for small *C. Lindleyi*, but, on closer inspection, appearing clearly distinct. The fruit is here for the first time described. The species does not appear to have been collected save by Dr. Parry, in a very immature condition, and by the present writer; but it is no rarity in the field.

+ ÷ *Awn of the pappus longer than the palea.*

C. MACROCHÆTA, Gray.—Like *C. Lindleyi* in size and aspect, but akenes shorter and more attenuate at summit; palea short, only a third as long as the awn, and cleft to the middle.—Pl. Fendl, 112; Pac. R. Rep., l. c.

From Oregon to San Diego, but very rarely collected.

C. KELLOGGII.—Also resembling *C. Lindleyi*: akenes 3—4 lines long, attenuate at each end: palea a third the length of the awn, and with a shallow notch.

San Bruno Mountains, near San Francisco, Dr. Kellogg.

SCORZONELLA, Nutt.

Involucre campanulate; bracts herbaceous, imbricated in several series, the inner long-acuminate, the outer successively shorter and acute. Receptacle flat or convex, foveolate or alveolate. Akenes linear, or somewhat turbinate, 8—10-costate or -striate, truncate at summit, the basal callosity acute and not expanded, areola lateral. Pappus of about 10 (in one species 5) ovate or lanceolate paleæ, tipped