

margins arachnoid-woolly, the inner long and lance-linear, acute, marginally naked: achenes nearly cylindrical below the rather long beak, those of the outer series pubescent, the inner all glabrous; pappus copious, soft but not fragile, its length about that of achene inclusive of the beak.

At 8000 feet, near Marysvale, Utah, collected by Marcus Jones, 2 June, 1894; fine sheet of type specimens in U. S. Herb.

AGOSERIS CAUDATA. Low rather slender subalpine perennial, the leaves and scapes from a strong but herbaceous taproot with sometimes a branched crown, this not in the least woody or caudex-like; herbage glaucous, glabrous: leaves much depressed, or else ascending, of about the length of the scapes, all from somewhat above the middle cut deeply into narrow strongly deflected segments, but the upper part of one entire narrowly linear and caudate-acuminate piece: scapes only 2 or 3 inches high, erect, each surmounted by a head rather narrow and few-flowered, but of extraordinary length, being $1\frac{1}{2}$ inches high in mature fruit, including the pappus, the involucre alone 1 inch high or more; its bracts rather few, the outer oval and acuminate, the very long inner ones lance-linear: achenes very slender, linear-fusiform, 7 lines long inclusive of the slender and not short hollow beak; pappus firm, smooth, not fragile.

Singularly well marked species, from 8000 feet in Salina Cañon, Utah, collected by Marcus Jones, 15 June, 1894; type in U. S. Herb.

AGOSERIS CONFINIS. Subalpine low stoutish perennial with branching caudex; herbage pale and glaucous, in the main glabrous also: leaves lance-linear, mostly entire, glabrous: scapes 3 to 6 inches high, ascending, or even at base quite strongly decumbent, somewhat sparsely or loosely flocculent at base, also strongly so under the involucre, this broad and many-flowered but scarcely $\frac{3}{4}$ inch high; short outer bracts triangular-ovate, the innermost lanceolate, none acute, all

purple in the middle and glabrous except marginally, there somewhat white-woolly: achenes including the short stout beak $\frac{1}{2}$ inch long, the pappus soft, dull white, nearly as long.

Marysvale, Utah, and Buckskin Mountains, Arizona, at altitudes of 9000 and 10000 feet, Marcus Jones, Aug. & Sept., 1894; specimens in U. S. Herb.

AGOSERIS LONGIROSTRIS. Crown of root simple or branching but fleshy like the root, not subligneous; scapes erect, a foot high; herbage very pale and glaucous, mainly glabrous: leaves ascending or suberect, 4 to 6 inches long, very narrowly linear, attenuate to a long almost filiform summit, mainly entire, some with a few remote short teeth, others as many short slender lobes, all perfectly glabrous: scapes slender, showing a few long soft hairs almost throughout, but more conspicuously below the middle, terminally under the head scantily white-woolly; involucre an inch high, subcylindric, the bracts very white but showing purple dots, the outer oblong, acute, scantily and even interruptedly woolly-ciliate: achenes long and slender, tapering very gradually to a slender beak (not pappus stipe) of their own length.

At 9000 feet, near Fish Lake, Utah, Marcus Jones, 4 Aug., 1894. An elegant plant by its almost filiform foliage, remarkable for the length of the beak of the achene, for the plant is of the *A. glauca* group.

AGOSERIS LONGULA. Scapes stout, 2 feet high, but foliage only one-third as long, the whole plant glaucous, also glabrous as to all the vegetative organs: leaves narrowly linear to lance-linear, acute, often entire, as often with here and there a short salient tooth: involucre many-flowered, $1\frac{1}{4}$ inches high, bracts more numerous than in the last, in three series, all triangular-lanceolate, acuminate, the outermost series of about one-third the length of the innermost, the tapering upper part of the middle series more or less distinctly bristly-ciliate: achenes 6 lines long, extremely slender, the beak though slender striated, nearly half as long as the body; pappus fragile.