

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.

Type specimens collected by myself on prairies of the Humboldt River at Deeth, Nevada, 14 July, 1896. Mr. Heller's 9130, from Deeth, in 1908, has oblong-linear rather short foliage, but scapes and heads as in *A. longula*, though the bracts of the involucre are wholly naked. The achenes in his specimens are far from mature.

**AGOSERIS LAPATHIFOLIA.** Large and rather coarse perennial, with stout scapes 2 feet high, and rather ample foliage of 4 to 8 inches length; herbage glabrous and greenish, not glaucous but glaucescent only: leaves lanceolate, acute, entire, narrowed very gradually below to a short winged petiolar part not amounting to a petiole; heads broad and many-flowered, but the involucre barely an inch high, their bracts lanceolate, acute, glabrous, the outer only shorter and more herbaceous than the inner: achenes with stout beak one-third as long as the body; pappus rather firm, scaberulous, much longer than the achene.

Above Houston, Idaho, L. F. Henderson, 1896; his n. 3681 as in U. S. Herb; the broad foliage remarkably green rather than pale and whitish, and quite recalling the foliage of dock.

**AGOSERIS LACERA.** Tall and rather slender perennial, the scapes erect from the very base and 2 feet high, the foliage suberect, more than half as high, this and the scapes below the middle clothed thinly with long sordid crisped hairs, but all the herbage very pale as with bloom: leaves linear, long-attenuate at apex, usually entire below the middle, above it cut deeply into a few subulate-linear nearly straight and ascending or suberect segments: heads very small for the plant, the involucre only  $\frac{3}{4}$  inch high, its bracts all lance-linear and consimilar, the outer as usual shorter, but in proportion not much broader, all attenuate-acute and villous-ciliate: achenes short and shortly beaked, the whole hardly as long as the fine barbellulate white pappus.

Pullman, Washington, 28 July, 1899, C. V. Piper, in U. S. Herb., under the collector's n. 3027.