

AGOSERIS MICRODONTA. Coarse and tall perennial of low meadows, the stout scapes 1 to 2 feet high and more supporting large many-flowered heads, the leaves not rarely a foot long and more; herbage pallid and glaucescent, glabrous in the main, the scapes and leaf-margins at least, sometimes the leaf surface, more or less crisped-hairy: leaves lanceolate, narrowed gradually to a distinct winged petiole, its margins lanate-ciliate even in leaves otherwise glabrous, most leaves saliently if even remotely denticulate, in some plants with few and larger teeth: involucre 1½ inches high, 1 inch broad at summit, the summit of the scape under them either tomentose or scarcely so; bracts many and imbricated, none very broad, the outermost triangular-lanceolate, the rest more and more narrowly lanceolate, all villous-ciliate, sometimes also appressed-villous on the back, all the pubescence brownish: achenes 7 lines long including the hollow beak, this more than half as long as the body, the outer series dark-colored and very strongly serrulate-scabrous at summit, those next in order pale, less scabrous, the central all abortive; pappus not as long as the achene, very fine and fragile.

Coarse large species of southeastern Washington, said to be common about Pullman, in low meadows, where it has been collected and distributed by Mr. Piper and by Miss Hardwick. There are three good sheets of it in U. S. Herb., of the years 1901 to 1905.

AGOSERIS PROCERA. Very large and stout, the scapes 2 feet high, the foliage ample, upright, a foot high or more; herbage wholly glabrous, of a dull pallid green, merely glaucescent, blackening in the drying: leaves narrowly lanceolate above the long and rather wide petiolar basal part, sparingly and variously toothed, attenuately acute at apex: involucre many-flowered, an inch high only, but quite as broad, the numerous bracts all narrow, much imbricated, triangular-lanceolate, slenderly acuminate, some obscurely villous-ciliate toward the apex, otherwise glabrous; ray-flowers apparently more or less villous-arachnoid externally: achenes not known,

but by inference from the shortness of the broad heads, little elongated and shortly if at all beaked.

Largest of the genus as far as known, and from near Ellensburg, Washington, 17 June, 1897, by Kirk Whited; his n. 507 as in U. S. Herb. By the much imbricated and slender involucre bracts the plant recalls the genus *Scorzonella*.

AGOSERIS LANULOSA. Low perennial with branching caudex above a deep-seated taproot; scapes rather slender, 2 to 4 inches high; foliage half as long or less, inclined to be depressed, the whole plant pale as with bloom and almost canescent with a thin coat of fine downy-looking tomentellous pubescence: leaves oblong and lance-oblong, acutish, mostly entire, some with a few short salient teeth, some retrose, others falcately ascending: involucre many-flowered, not small for the plant, nearly $\frac{3}{4}$ inch high, their bracts rather definitely in 3 series, the outermost ovate, the middle oval, the inner narrowly lanceolate, all except the inner finely tomentellous, most strongly so on the margin: achenes, slender-fusiform, their stout hollow beak of nearly half the length of the body; pappus uncommonly short.

Kittitas Co., Washington, J. S. Cotton, his n. 1752 as in U. S. Herb. No special part of the county is named. The plant is evidently subalpine in the mountains there.

AGOSERIS VESTITA. Stout low subalpine perennial, older plants with branching caudex, the branches covered below with a scaly coat of old leaf-bases, the stout scapes 2 to 6 inches high and of about twice the height of the foliage, the herbage merely glaucescent underneath a thin coat of tomentellous pubescence: leaves elongated-oblong, most of them entire or but obscurely denticulate, a few with several salient triangular teeth: involucre broad, $\frac{3}{4}$ inch high, the bracts broad and much imbricated, the outer ovate, acute, the very innermost series broadly lanceolate, all much obscured by a dense woolly tomentum most copious on and along the margins, thinner on the back of the bracts: achenes short,