

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,

subcylindric, hardly even narrowed at summit, the long firm pappus sessile on the body of the achene.

Rocky ground at 8000 feet on Mt. Rainier, Washington, C. V. Piper, 1895; his n. 2149 as in my herbarium.

AGOSERIS ANGUSTISSIMA. Tufted perennial, with numerous upright slender scapes about a foot high, and the narrowest of leaves about half as long, either upright or ascending, not depressed; the whole plant pale and glaucescent: leaves very narrowly linear, attenuate-acute, glabrous above, but basally crinite-ciliate, the whole leaf commonly quite entire, yet very often showing one or more pairs of narrow subfalcate lobes or segments an inch long or less: peduncles lanulose under the involucre, the woolliness extending up along the margins of the bracts, these lance-linear and elongated, not even the outer series much wider than the inner, but only shorter: flowers few in the head, apparently rose-red: achenes con-similar, slenderly fusiform, much exceeded by the slender beak, the very delicate and fragile pappus still longer.

Fir glades, bordering the eastern shore of Diamond Lake, extreme southeastern Oregon, collected by Coville and Applegate, 6 August, 1897; also by the same collectors, on 17 August in the same year, shore of lake south of the Three Sisters, in the Cascade Mountains; copious and fine specimens in U. S. Herb. The plant has been taken by some one for *A. aurantiaca*, and the specimens are so labelled, but the nearest affinity is *A. gracilens*, a name which better befits this plant than it does the real thing that is so named.

AGOSERIS VULCANICA. Stout, low, the upright scapes and ascending foliage from a branching caudex, the scapes not greatly surpassing the leaves and 6 inches high or less: leaves glabrous, oblong-linear, rather blunt at apex, though tipped with a gland-like mucro, mostly entire, some with an obscure tooth or two on either margin: flowers unknown: scapes sparingly hairy above the middle, densely so under the head, the bracts woolly-ciliate, otherwise glabrous or nearly so, the