

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 consimilar, 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

outer oblong-lanceolate, the inner lanceolate, all dark-purple except as to the green margins: achenes fusiform, purple, stoutly short-beaked, the pappus long, not very delicate, yellowish-white.

Strongly marked low glaucous species known only as collected by Mr. F. V. Coville, 14 Sept., 1902, "on a slope of firm pumice gravel," in the Crater Lake National Park, Oregon.

*AGOSERIS COVILLEI*. Size of the preceding, but caudex mostly simple: leaves linear to lanceolate, acutish, not gland-tipped, glabrous, some entire, others variously somewhat crisped and irregularly toothed: scapes little surpassing the leaves, sparsely curled-hairy throughout: involucre broad, its outer bracts ovate-lanceolate and short, the others gradually narrower, all sparsely curled-hairy on the back, naked or nearly so marginally: flowers large, yellow: mature achenes unknown, but without doubt short-beaked.

Collected by Mr. Coville at the same place and date as the foregoing, this one in full flower, the other in fruit only; the two species notably dissimilar.

*AGOSERIS DECUMBENS*. Low perennial with depressed leaves and decumbent scapes resting on a simple taproot without definite intermediary caudex: leaves glaucous, entire, linear but above the middle tapering to a long acute apex, glabrous except as showing a few long loose marginal hairs near the base: scapes stoutish, not notably striate, the longest 4 or 5 inches long, loosely hairy at base and to above the middle: involucre  $\frac{3}{4}$  inch high, glabrous, the bracts in about 3 series, all lanceolate, the inner series not narrower than the outer, those of no series acute, not yet notably obtuse: achenes whitish, narrowly fusiform, with distinct but very short white beak, this supporting a copious firm shining-white pappus that is longer than the achene as a whole.

Fir glade on east bank of Diamond Lake, Douglas Co., Oregon, 6 Aug., 1897, by Messrs. Coville and Applegate.