A. MODOCENSE. Allied to the last, the somewhat larger leaves apparently as constantly 5-lobed and with lobes radiant rather than pointing forward, the surface not wholly glabrous, some soft hairs appearing along the veins in some: flowers rather small, sepals, petals and even the anthers green, or greenish-white; sepals mostly (all the outer ones) merely oval, little exceeding the whitish petals, both sepals and petals sparingly hairy; fruit unknown.

Represented by only some flowering branches, with young foliage, collected near the Warm Springs, Modoc Co., California, 4 June, 1892, by M. S. Baker and Frank Nutting. While the leaves here are almost those of A. Macounii the flowers are very notably different; for in both that and A. circinatum the sepals are narrow, elongated to twice or thrice the length of the petals, and are of a dark red-purple. In A. Modocense they are not only green, but very short for those of any maple at all.

## A NEW STUDY OF MICROSERIS.

Ahough the type of this genus is Chilian, the species are most numerous in California. My first critical study of them was made in San Francisco twenty years ago. I proposed then the two new species, M. attenuata, and acuminata, both of which have since obtained universal recognition.

The researches of three more seasons carried on in that field led to the expression of views that were published in 1886, according to which, out of the heterogenous "Microseris" of Gray's Synoptical Flora, Calais of De Candolle, and Scorzonella of Nuttall were restored, and two new genera, Ptilocalais and Nothocalais were proposed; while for the genuine Microseris, the new discovery was made that its species fell into two natural groups, according as the paleæ of the pappus are triangular and plane, or rounded and cymbiform. In this paper I added but

<sup>&</sup>lt;sup>1</sup> Bull. Calif. Acad. ii, 41-55.

species herein proposed, are founded, as will be seen, on specimens collected by herself only, and in remote or obscure parts of California.

M. MELANOCARPHA. Plant stoutish, a foot high or less: leaves simply pinnatifid into ten or more linear-falciform entire segments, the terminal segment scarcely larger than or different from the others: round-ovoid or even almost subglobose; achenes short, barely two lines long, the outer ones broadest at summit, incurved, densely villous, the others oblong-linear, their ribs slenderly spinulose-serrulate; paleæ of pappus round-obovate, very obtuse, scarcely a line long, almost as broad at the obtuse summit, of a dark smoky-brown or dull-blackish, more or less villous externally, as well as appressed-scaberulous, the whitish barbellulate awn about twice as long.

The exactly typical specimens of this, were collected by myself on the grounds of the University of California, near the library building, 1 May, 1882, and were labelled as new, under the above name, soon after. Owing to "improvements," the plant disappeared from that spot from that year; but a year or two later I again saw it on the hills near the University. Two specimens of the original collection remain in the California Academy herbarium. I think some were sent to Asa Gray at the time. An excellent specimen, closely enough matching these originals, was taken by myself near Midway, in the hills east of Livermore, 3 May, 1895. The species is not otherwise known to me. From its habitat, I hold it almost certain that this plant did not enter into the composition of original M. Douglasii. Nor could any author have been likely to omit mention of so noteworthy a character as the dark blackish hue of the pappuspales.

M. TENUISECTA. As tall as the last, or taller, but slender; leaves more deeply cut into very narrowly linear and widely spreading segments: heads only oval or oblong: achenes more slender, all straight, nearly or quite 3 lines long, the outer much less densely villous, the ribs of the others more shortly and not

spinulosely serrulate: paleæ of pappus of oval outline, a line long, glabrous and straw-colored, but strongly appressed-acaberrulous, the barbellulate awn about 1½ lines long.

Known in only a single specimen; this obtained by myself, somewhere on the plains of Fresno Co., California, in April, 1884, and now in the herbarium of the California Academy.

M. CONJUGENS. Leaves shorter than in the foregoing, deeply pinnatifid, the segments oblong-linear, obtusish, spreading: scapes many, 8 to 12 inches high, heads ovoid: achenes slender, 2½ lines long, between columnar and fusiform, all being slightly narrowed under the summit as well as above the base, the outer ones very rarely villous, but always smooth (lacking the ribs), the others brown and scabrous-serrulate on the ribs; pappuspaleæ 1½ lines long, ovate-oblong, acute under the awn, glabrous, ultimately of a dark dull-brown, the awn paler, 2 lines long.

Collected by the writer, at Byron Springs, California, 24 March, 1889, and near Midway, Alameda Co., 3 May, 1895. This as to foliage and habit closely enough simulates *M. melanocarpha*, and its pappus is almost as nearly black, but the achenes are of quite a different character, in respect to which it makes an approach to *M. attenuata*.

M. Leucocarpha. Decumbent scapes 3 to 7 inches high, at flowering fully equalled by the slenderly pinnatisect foliage; involucres oblong or ovoid; achenes scarcely 2 lines long, linear-fusiform, all glabrous, chestnut-color with darker linear flecks, the ribs only very delicately scaberulous; pappus much longer than the achene, the paleæ oblong-lanceolate, of a clear shining white, glabrous, the awn somewhat longer, barbellulate.

My type of this handsome species is a plant collected at Woodside, San Mateo Co., California, 4 May, 1902, by Mr. C. F. Baker, and to be distributed by him under n. 808. I also provisionally refer to the same, a sheet of my own collecting at Byron Springs in the interior of the State as long ago as 24 March, 1889. This differs from the type only in having slightly villous paleæ. Yet another sheet obtained by me near Midway,