

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.

Although the type of this genus is Chilean, 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 1886,¹ 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

¹ Bull. Calif. Acad. ii, 41-55.

spinulosely serrulate: paleæ of pappus of oval outline, a line long, glabrous and straw-colored, but strongly appressed-accaberrulous, the barbellulate awn about $1\frac{1}{2}$ 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, $2\frac{1}{2}$ 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; pappus-paleæ $1\frac{1}{2}$ 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; involucre 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,

Alameda Co., 3 May, 1895, has paleæ more villous, and also villous outer achenes.

M. BREVISETA. Small and slender, the foliage in reduced plants lance-linear and merely toothed, in other pinnatifid; scapes few, 3 to 6 inches high; involucre somewhat turbinate, achenes short and columnar, less than 2 lines long, the outer densely villous, the others dark chestnut-brown, their ribs rather coarsely and very roughly serrulate; paleæ of the pappus ovate-oblong, longer than the achene, distinctly cymbiform, dull-white, scaberulous, tapering to a very short barbellulate awn.

Collected by myself at San Diego, California, April, 1885, and made a part of my *M. Parishii*, Bull. Calif. Acad., ii, 46; but the type of that species has very different achenes and an almost black pappus. By the form of its involucre no less than by its very short pappus-awn does this species ally itself with *M. platycarpa* notwithstanding its narrow and elongated palea.

M. ALICIÆ. Scapes many, stoutish, decumbent, 4 to 10 inches high, the loosely pinnatifid leaves half as long; involucre round-ovoid: achenes short-columnar, $2\frac{1}{2}$ lines long, the very villous outer ones and some next them more less curved, the glabrous ones all of a light ash-gray hue, their obtuse ribs very slenderly and delicately spinulos-serrulate: paleæ of the pappus round-obovate, very obtuse, barely a line long, villous without and dull smoky-brown; awn slender, scarcely barbellulate, $1\frac{1}{2}$ lines long.

Santa Lucia Mountains, Monterey Co., California, May, 1897, Miss Alice Eastwood. Another ally of *M. platycarpa*.

M. PROXIMA. Near the last but much taller, the scapes few erect from the base and slender: involucre subcylindric: achenes nearly 3 lines long, slender-fusiform, all straight, the glabrous ones of a light chestnut-brown, with acute ribs that are scabrous-serrulate; round-obovate pappus-paleæ villous as in the last, the awn more barbellulate.

This also is known only from Miss Eastwood's specimens obtained at Warthau, Fresno Co., Calif., 11 May, 1893. I could