

representatives to *C. occidentalis*, but differs from both in bearing no glandular hairs. Dr. Kellogg's *C. occidentalis nevadensis* was subsequently united with his *C. occidentalis subacaulis* by Dr. Gray, and with this view of their relation the writer is inclined to concur, but a good series of specimens may show that the former belongs rather with *C. occidentalis*. *Crepis subacaulis* is closely related to *C. scopulorum*, but it differs from that species in its usually lower stature, stem branching more nearly to the base with the branches more widely spreading, usually more tomentose leaves and stems, commonly broader lobes of the leaf blades, and its costate achenia, which are similar to those of *Crepis occidentalis*. The achenium character appears to constitute the crucial distinction between the two species.

SYNONYMY.

Crepis occidentalis subacaulis Kellogg, Proc. Cal. Acad. v, 50 (1873). Type specimen in the Harvard University Herbarium, collected June 27, 1870, by Albert Kellogg and S. Brannan, jr., in the Sierra Nevada of California, at the altitude of about 2,100 meters, near Cisco, Placer County. The specimen is a depauperate one, rising about 6 cm. above the ground and bearing a single anthodium. Besides its rather dense tomentum, it bears a few nonglandular bristles on its petioles and stem. The small outline figure in plate 23 is a drawing of this type specimen.

Crepis occidentalis nevadensis Kellogg, Proc. Cal. Acad. v, 50 (1873). Type locality, the "summit of the Sierra Nevada," in California. Type specimen, which appears to have been lost, said to have been collected June 16, 1870, in California, "at the summit of the Sierra Nevada, * * * altitude 7,000 or 8,000 feet (2,133 to 2,438 meters)," presumably along the line of the Central Pacific Railway. There is a specimen in the Harvard University Herbarium and another in the herbarium of the California Academy, dated July 10, 1870, from the Sierra Nevada, presumably collected at the type station, and it is probable that these are the specimens upon which, in part, Dr. Kellogg based his description. In this specimen the bristles usually present in the species are entirely wanting. Jones's specimens from Nevada County have the characters of the original *nevadensis*.

Crepis modocensis Greene, Erythra, iii, 48 (1895). Type specimen in the herbarium of the Catholic University, Washington, collected in June, 1894, on lava beds, under juniper trees, Modoc County, California, by Mrs. R. M. Austin. The plant is doubtfully referred here on account of its pubescence, achenia, and the form of its leaves, notwithstanding its large stature, which gives it a general resemblance to *C. scopulorum*. These specimens and those of Lemmon from Sierra Valley, in neither of which are the achenia mature, render the question of intergradation between this species and *C. scopulorum* uncertain. Both localities are on transition ground geographically, and only fuller series of mature specimens can decide the matter.

SPECIMENS EXAMINED.

California:

- Placer County, Cisco, alt. 2,100 meters, *Kellogg and Brannan*, 1870.
 Emigrant Gap, *M. E. Jones*, 1882 (No. 2784).
 Sierra County (?), *J. G. Lemmon*, 1875-76 (No. 1274).
 Sierra County, Sierra Valley, *J. G. Lemmon*, 1880 (No. 80).
 San Bernardino Mountains, Bear Valley, alt. 1,800 meters, *S. B. Parish*, 1886.
 Nevada County (?), "Summit of Sierra Nevada," *Albert Kellogg*, 1870; "Summit," *Bolander and Kellogg*, 1872.
 Nevada County, Soda Springs, *M. E. Jones*, 1881.
 Modoc County, *Mrs. R. M. Austin*, 1894.

CREPIS SCOPULORUM Coville, sp. nov.

Perennial, 10 to 25 (rarely 40) cm. high; stem single, or rarely two from the same caudex, bearing one to five anthodia cymosely arranged (the lower peduncles sometimes arising near the ground), scantily tomentose, usually glabrate in age, and bear-

ing toward the base scattered eglandulose bristles; leaves similar in pubescence to the stem, the blades cleft almost to the midrib, the divisions linear-lanceolate and sharply toothed or lobed; peduncles slender, usually thicker just beneath the anthodium; involucre 10 to 12 mm. high, scantily tomentose, bearing a few greenish black or green eglandulose hairs usually 2 to 3 mm. long; achenia 7 to 9 mm. long, fusiform, truncate at the apex, olive-green or sometimes reddish brown in color at maturity, not costate but sometimes marked with lines of paler color in place of costæ.

PLATE XXIV.

Type specimen in the United States National Herbarium, collected August 16, 1893, in the Yellowstone National Park, by J. N. Rose.

This plant is distinguishable from *Crepis occidentalis* by its uniformly deeply cut glabrescent leaves, the eglandulose bristly hairs of its stem and involucreal bracts, and its noncostate achenia. Red achenia have been seen only in Hillman's specimens from Reno, Nevada.

SPECIMENS EXAMINED.

Oregon:

Blue Mountains, *T. T. Howell*, 1885.

Idaho:

Boise City, *A. Isabel Mulford*, 1892.

Montana:

Without definite locality, *F. D. Kelsey*, 1887.

Helena, *F. W. Anderson*, 1887.

Near Jefferson River, *F. Lamson-Scribner*, 1888 (No. 126b).

Beaverhead County, *Frank Tweedy*, 1888 (No. 221).

Deer Lodge, *F. W. Traphagen*, 1888.

Wyoming:

Yellowstone National Park, *J. N. Rose*, 1893 (No. 680); *Frank Tweedy* (No. 736).

Wind River Mountains (?), *J. C. Fremont*, 1843 (No. 680).

Uinta-County, La Barge, *E. Stevenson*, 1894.

Utah:

Wasatch Mountains, *Sereno Watson*, 1869 (No. 715, in part).

Kane County, *A. L. Siler*.

Sevier County, Glenwood, *Lester F. Ward*, 1875 (No. 107).

Nevada:

West Humboldt Mountains, *E. L. Greene*, 1894.

Near Reno, foothills, *F. H. Hillman*, 1894.

CREPIS ROSTRATA Coville, sp. nov.

Plant perennial, 15 to 30 cm. high, with one to three stems from each caudex; stems striate-angulate, with little or no tomentum, sparingly hirsute, especially below, with glandless hairs; leaves with similar pubescence (the bristles often confined to the midrib and petioles), their blades deeply pinnatifid into linear-lanceolate, toothed or pinnatifid divisions; anthodia one to three on each stem, on long, stout peduncles, these slightly contracted just beneath the anthodium; involucre 12 to 15 mm. high, devoid of tomentum (except in some cases at the very base), either densely clothed or only scantily provided with long glandless hairs (of a milk-white color in our freshly dried specimens); achenia 7 to 11 mm. long, not costate, olive-green at maturity and usually marked with lines of fainter color, the upper part contracted into a distinct beak 2 to 3 mm. long.

PLATE XXV.

Type specimen in the United States National Herbarium, collected June 18, 1893, near Crab Creek, Douglas County, Washington, at the altitude of about 750 meters, by J. H. Sandberg and J. B. Leiberger.

This plant differs from *C. occidentalis* in the same characters as those given under *C. scopulorum*, and is a close relative of that species. Its conspicuously beaked achenia, the milk-white color of the involucreal hairs, and the usual absence of tomentum



CREPIS SCOPULORUM Coville.