

Artemisia Natronensis.

A. Ludoviciana integrifolia Aven Nelson, First Rep. Fl. Wyo. 138. 1896.

Stems herbaceous, from a woody persistent crown, suberect, simple, virgate, silvery white-tomentose as are also the leaves, floriferous for nearly half their length, 3–6 dm. high: leaves broadly linear to lanceolate, nearly equally tomentose on both sides, in age the margins revolute, the midrib becoming conspicuous below and the tomentum looser: panicle narrow, its raceme-like clusters in the axils of the leaves which become gradually smaller and bract-like upward or wholly wanting on the summit: heads rather large, campanulate, about 5 mm. high, in small axillary racemes (often only 1–3 heads in each cluster), erect or nearly so even at maturity, about 20-flowered; the bracts ovate to oval: corolla resinous-dotted on the tube only or but sparsely so on the throat and lobes.

A. Ludoviciana as represented in the herbaria is, as every one knows, a composite. Nuttall's description excludes several forms that are often included but are undoubtedly distinct. The species now proposed is one of the forms that I think is clearly separable by valid characters. Possibly it may be *A. integrifolia* Pursh but that name is much antedated. That it is *A. Purshiana* Bess. or *A. Hookeriana* Bess. seems, from the descriptions, improbable. From *A. Ludoviciana* its entire leaves, narrow, virgate panicles, large erect heads and broad involucre bracts distinguish it. The numerous small, crowded heads of the inflorescence of *A. Ludoviciana* are on more or less recurved pedicels and the florets are smaller and resin-dotted throughout.

Type no. is 568, Willow Creek, July 20, 1894, distributed as a variety of *A. Ludoviciana* as given above. Excellent specimens have been collected by Mr. Elias Nelson, Wallace Creek, July 30, 1898, no. 5002—from Natrona county, whence the name.

Malacothrix runcinata

Annual or possibly biennial, leafy on the crown and sparingly so on the stems, mostly glabrous and somewhat glaucous, rarely with small patches of woolly pubescence: stems one to several from the crown of the slender tap-root, erect or, when several, decumbent at base, 5–15 cm. long: leaves rather small, 2–4 cm. long, oblanceolate to linear in outline, from dentate to runcinate: heads one to several on each stem, 8–12 mm. high: involucre

broadly campanulate, its bracts in about three series, some of them dark or purplish-tipped, scarious-margined; linear-lanceolate, sub-acute, the innermost slightly acuminate: pappus of 12-18 sub-equal bristles all deciduous together in a ring, 2-3 times as long as the akene: receptacle apparently naked: akenes linear-columnar, about 3 mm. long, the 15 striae subequal, minutely denticulate around the summit.

Probably most nearly allied to *M. sonchoides* T. & G. but the two plants when seen side by side present a very different appearance. The dentate rachis and lobes of the leaves, the dentate outer involucre bracts, the unequally striate akenes and double pappus of *M. sonchoides* are marks easily distinguishing it from *M. runcinata*.

It occurs on dry, sandy slopes, mostly in the protection of the undershrub. Green River, June 15, 1898, no. 4727; Fort Steele, June 18, 1898, no. 4819.

Lactuca sylvatica

Perennial from rootstocks: stem slender, leafy, the internodes gradually shorter upward, glabrous: leaves entire, oblong-lanceolate, the lower tapering into a margined petiole, the upper sessile, thin and wholly glabrous, the largest 10-14 cm. long and 2-3 cm. wide, gradually smaller upward (the uppermost scarcely more than bracts): panicle rather close, of 10-20 heads, its branches more or less short-bracteate: heads 2 cm. high, about 15-flowered: the involucre bracts in about 4 series; the outer short, ovate; the inner linear-lanceolate: flowers blue or lilac: akenes 5 mm. long, lanceolate-oblong, distinctly margined and conspicuously beaked, 4-nerved on each side: the beak nearly half as long as the body of the akene.

Probably to be associated with *Lactuca pulchella* but differing in its entire leaves and margined akenes. The larger akene, longer beak and its broadly expanded summit are also at variance with that.

Collected at Elk Mountain on Medicine Bow River in the copses on the bank, August 1897, no. 4257.

Crepis riparia

Tap-root semi-fleshy, comparatively small, mostly less than 1 dm. long: stems one or more, 2-4 dm. high, subscapose (linear, bract-like leaves at the base of the lower branches of the panicle