

New Plants from Wyoming.—1.

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(PLATE 341.)

In my work in the Red Desert of Wyoming during part of the season of 1897 a number of rather unusual and interesting plant forms were secured and some plant ranges were greatly extended. To me one of the most interesting finds was a perfectly yellow flowered *Oreocarya*, which may be described as follows :

OREOCARYA FLAVA.

Perennial, tufted from a branched, lignescent caudex, 1-2.5 dm. high: stems numerous, simple, white pubescent below, fulvously hirsute upwards: leaves numerous, basal ones scale-like and densely white hirsute, lower stem leaves somewhat crowded, linear to narrowly oblanceolate-petiolate, appressed pubescent or hirtellous, upper leaves slightly broader with broader base, 3-5 cm. long: inflorescence crowded, glomerate spicate; calyx yellow-hirsute, lobes linear, half the length of the corolla-tube; corolla a decided yellow, tube about 12 mm. long, lobes suborbicular, 3-4 mm. in diameter, crests conspicuous, emarginate; essential organs strikingly dimorphic; stamens inserted just below the throat or just below the middle of the tube, anthers linear; style the length of the tube or half the length; mature nutlets not seen but seemingly smooth, ovate, one or more sometimes smaller and possibly not maturing.

A remarkably distinct species, not comparable to any form known to the writer. *Krynitzkia leucophaea* Gray may be suggested by it but from that it is more than distinct. In the possession of decidedly yellow flowers it probably stands alone. A beautiful and striking plant as observed on the otherwise often naked hillsides in the Red Desert. Two collections were secured June 1, 1897, one at Point of Rocks, the other at Bitter Creek Station. These differ in that all the specimens in one have long stamens, and in the other they are all short.

Type specimen in Herb. Univ. of Wyoming, no. 3074.

In recent years there has been much seeking after plants that

would thrive in soil heavily impregnated with alkali. A number of imported species have been highly recommended and have been tried with varying success. Since those that give greatest promise are species of *Atriplex* it is interesting to find some native species in this genus that look as if they might prove profitable, or at least worthy of trial. These species, one a perennial and the other an annual, both inhabit saline basins or banks even to places actually encrusted with the prevailing salt. They may be named and described as follows:

ATRIPLEX PABULARIS.

Dioecious, perennial, persisting by the very short woody base which branches freely at or just above the surface of the ground; the annual branches numerous and somewhat fascicled, strict and usually but slightly branched, 2-5 dm. high; entire plant with closely appressed white scurf: leaves oblong to almost linear, obtuse, cuneate at base, sessile or very short-petioled, 1-5 dm. long, 1-12 mm. broad: staminate panicle leafy, dense and short (5-15 cm.): pistillate panicle leafy, dense and long (more than half the length of the stem): fruit uniformly triangular-cuneate, decidedly compressed, 4-5 mm. long, almost as broad at summit: bracts united, marginless, the somewhat truncate summit three-toothed, the middle one slightly longer and the lateral ones bearing an inconspicuous rudimentary one; the teeth of the otherwise closely appressed bracts slightly divergent, their sides perfectly smooth, *i. e.*, not crested nor muricate.

From the Desert of Wyoming where it is found in abundance on the highly saline soil of the low flats immediately adjacent to such streams as Bitter Creek and Salt-Wells Creek. It endures the strongest alkali soil, making a dense growth and a large amount of forage which is highly prized as sheep fodder.

In general appearance it most resembles *A. Nuttallii* S. Wats., but is easily distinguished by its less woody base, its denser growth, its more strictly erect habit, its habitat and especially by the very distinct character of its fruiting bracts.

Numbers 3712 and 4429 from Point of Rocks, Wyo., 1897.

ATRIPLEX VOLUTANS.

Annual, silvery-scurfy throughout, divaricately and most intricately branched; branches ascending; the plant at maturity a