

PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON.

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DESCRIPTIONS OF NEW PLANTS FROM SOUTHERN  
CALIFORNIA, NEVADA, UTAH, AND ARIZONA.

BY FREDERICK VERNON COVILLE.\*

In January, 1891, an expedition was sent out by the United States Department of Agriculture to make a biological survey of Death Valley, in southeastern California, and the adjacent regions. As several months must elapse before the report on the botany of the expedition can be presented to the public, the following descriptions of new plants are now published with the consent of the department authorities.

***Aplopappus interior* sp. nov.**

Related to *A. linearifolius* DC., but differing in its shorter leaves (12 to 20 mm.), subulate-bracteate peduncles, shorter acute involueral bracts, and smaller rays 9 to 11 mm. long. In *A. linearifolius* the larger leaves are 30 to 40 mm. long, the peduncles leafy-bracted, the involueral bracts 11 to 14 mm. long, including the filiform-subulate acumination, and the rays 13 to 15 mm. long.

Type specimen in the United States National Herbarium, No. 794, Death Valley Expedition; collected May 20, 1891, about four miles southeast from Mill Cañon divide, at the northern

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**Potentilla purpurascens pinetorum** var. nov.

Plant caespitose from a many-branched caudex; stems about 3 cm. high; inflorescence loosely cymose; radical leaves very numerous, 7 to 14 cm. long; lower leaflets about 7 mm. long, 2-divided, the divisions often 2-lobed; upper leaflets merely 2-lobed; divisions in both oblong-oblancoate, glabrous or very scantily villous; otherwise as the type form.

In aspect our plant is quite different from Rothrock's specimens of the type form,\* they being but 5 to 16 cm. high, with shorter leaves, and shorter, broader, more congested, villous-hirsute leaflets. The characters of the flowers are identical. The following references to *Potentilla purpurascens* may be helpful: Wats. Proc. Amer. Acad. XI 148 (1876) under *Horkelia*; Greene, Pittonia I 105 (1887).

Type specimen in the United States National Herbarium, No. 1579, Death Valley Expedition; collected August 10, 1891, at Trout Meadow, Sierra Nevada, Tulare County, California, by Frederick V. Coville.

Our plant was abundant throughout the valley of the north fork of Kern River, in forests of *Pinus jeffreyi*, along the rather dry margins of meadows. Rothrock's came from a higher altitude, 9,000 feet, "on the head-waters of Kern River," and is undoubtedly a derivative form modified by changed conditions.

**Sarcobatus baileyi** sp. nov.

Shrub .5 to 1 m. high; bark dark gray after the first year; branches divaricate, closely interlocking, the ultimate branchlets always spinescent; leaves 8 to 14 mm. long or shorter, pubescent, especially near the apex, with short, flattened, branched, reflexed hairs, the later leaves often glabrate in age; male spike not seen; fertile spikes infra-axillary on old wood, consisting of 2 female flowers at the base (one often wanting), each in the axil of a leaf, and a terminal spiciform portion of male flowers, the whole axis 1 to 1.5 cm. long; fruit very large: body 8 to 9 mm. long, about 5 mm. broad at its widest point; wing oblong-orbicular, crose, 10 to 15 mm. by 8 to 10 mm. in diameter; seed not developed.

The plant differs from *S. vermiculatus* in its smaller size, always spinescent branchlets, intricate and compact growth, smaller and

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\* Bot. Wheeler Surv., 1876, pl. III.

usually pubescent leaves, larger fruit, and different inflorescence. *S. vermiculatus* usually grows, in Nevada, 1.2 to 1.8 m. high, with branches less intricate and often not spine-tipped, and leaves when well developed 12 to 20 or even 30 mm. long and almost invariably glabrous. Its fertile flowers are described by Benthams and Hooker\* as axillary and solitary, but the axis on which they are borne is really continued into a rudimentary male spikelet similar to that of *S. baileyi*, but each floral axis, instead of bearing 1 or 2 female flowers as in that species, commonly has from 4 to 8. In *S. vermiculatus* the body of the fruit is 4 to 5 mm. long, 2.5 to 3.5 mm. broad, and the wing 7 to 13 mm. by 5 to 8 mm. in diameter.

Type specimen in the United States National Herbarium, No. 1994, Death Valley Expedition; collected June 2, 1891, in a valley near Thorpe's quartz-mill, Nye County, Nevada, by Vernon Bailey.

The plant was first seen by Mr. Bailey at Cloverdale, Esmeralda County, Nevada, in 1890, and recognized by him as different from *S. vermiculatus*. In company with Dr. Merriam he afterward found it in a valley in Nye County, Nevada, southeast by east from Gold Mountain, near Thorpe's quartz-mill, and later in Fish Lake Valley westward from the other localities, on the California state line. There is in the National Herbarium a specimen of the same plant collected by J. G. Lemmon in 1875, probably in western Nevada. The species is therefore confined, so far as known, to the counties of Esmeralda and Nye, in Nevada, and Mono and Inyo, in California. I take pleasure in associating Mr. Bailey's name with this shrub, both as a mark of his earnest and invaluable labors in the field of natural history and as a reminder of a warm friendship established among the vicissitudes of a desert exploration.

***Saxifraga integrifolia sierræ* var. nov.**

Blades of larger leaves 8 to 12 cm. long, oblong-lanceolate to elliptical-lanceolate, acute, conspicuously serrate-denticulate, from glabrous to sparingly clammy-hairy above and beneath, thinner and more distinctly veined than in the type; petiole and margin of the leaf toward the base ciliate with clammy hairs; otherwise as the type form.

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\* Gen. Pl. III, 1880, 76.