

PROCEEDINGS
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RIBES COLORADENSE, AN UNDESCRIBED CURRANT
FROM THE ROCKY MOUNTAINS OF
COLORADO.

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Several months ago in examining a collection of *Ribes* made by Mr. C. L. Shear in Colorado in 1896 and 1897, I found a fruiting specimen of the Rocky Mountain plant that has hitherto been identified by botanists with the species of the eastern United States, *R. prostratum* L'Her. The specimen had, however, black instead of red fruit, and on a critical examination other differences were developed. A search in the herbarium brought to light a few other specimens of this plant, in flower as well as in fruit, which have furnished excellent material for description, but the surprising fact was developed that the fruiting specimens on the type sheet of *Ribes wolffi* Rothr., which is in the National Herbarium, were identical with our plant. It became necessary, therefore, to make a critical examination of Dr. Rothrock's species.

*Ribes wolffi** was described from specimens collected in Colorado, those in flower from Mosquito Pass, those in fruit from

*Rothrock, Am. Nat. 8 :358. 1874.

Twin Lakes, † and these specimens are now known to represent two distinct species. Dr. Rothrock cited also, as synonymous, a third plant, Watson's *Ribes sanguineum variegatum*, ‡ a citation which led Dr. Watson later to reject Dr. Rothrock's species. § The name *Ribes wolfii* has consequently disappeared from most botanical works. In this confusion it becomes necessary to restrict the use of the name and I therefore designate as the type of *Ribes wolfii* the flowering specimen in the National Herbarium collected by John Wolf in June, 1873, at Mosquito Pass, a few miles east of Leadville, Colorado, at an elevation between 10,000 and 11,000 feet. I have found *Ribes wolfii* in herbaria under the names *prostratum*, *viscosissimum*, and *hudsonianum*, with none of which species is it very closely related. Its nearest relative is Watson's *Ribes sanguineum variegatum*, a plant centering about the northern Sierra Nevada of California and distinct from true *sanguineum*. There is a question as to the proper name of this plant, which at the present time can not be satisfactorily determined. It may, therefore, continue to be called *Ribes sanguineum variegatum* until its correct name as a species can be definitely ascertained. Both *variegatum* and *wolfii* are plants with unarmed stems, almost smooth, maple-like leaf-blades, racemose inflorescence, the bracts ovate or obovate and with thin hyaline margins, ovaries and fruit bearing glanduliferous hairs, flowers greenish or reddish, and calyx-tube not more than 3 mm. long and shorter than the lobes. *Wolfii* differs from *variegatum*, however, in its usually greenish-white calyx about 5 mm. long, its tube about 1 mm. long and the lobes about 3 or 4 times the length of the tube; petals broadly rhombic-obovate, about a third the length of the calyx lobes; and anthers, when fully expanded, a little broader than long. I have seen no mature fruit of the species. *Ribes sanguineum variegatum* has a usually red calyx about 6 mm. long, the tube about 2 mm. long, and the lobes about 1½ to 2 times

†The localities are attached to the proper specimens through a comparison of the data furnished by Rothrock's original description, by the label on the specimens, and by the references to Wolf's itinerary given in the Report of the Secretary of War for 1873, volume 2, part 2, pages 483 and 484.

‡Wats. Bot. King Surv. 100. 1871.

§Wats. Bibl. Ind. 337. 1878

the length of the tube; petals oblong-ovate, about two-thirds the length of the calyx lobes; and anthers when expanded usually much longer than broad.

The specimens of *Ribes wolffi* that I have examined, in the National and Columbia University herbaria, and that of Mr. Frank Tweedy, are as follows:

Colorado:

Mosquito Pass, near Leadville, alt. 10,000 to 11,000 feet,
John Wolf, 1873.

Hinsdale County, *F. N. Pease*, 1878.

Ouray County, near Silverton, on the headwaters of the
Rio Las Animas, alt. 9,600 feet, *Frank Tweedy*, 1895
(No. 195).

Ouray County, Mt. Abram, alt. 10,500 feet, *C. L. Shear*,
1897 (No. 3195).

West La Plata Mountains, Bear Creek Divide, alt. 11,500
feet, *Baker, Earle, and Tracy*, 1898 (No. 220).

Utah:

Wasatch Mountains, alt. 9,000 feet, *Sereno Watson*, 1869
(No. 377).

Wasatch Mountains, American Fork Canyon, alt. 9,500
Marcus E. Jones, 1880.

Mountains east of Gunnison, alt. 9,500 feet, *Lester F.*
Ward, 1875 (No. 274).

“Central Utah, &c.,” *C. C. Parry*, 1875.

Ribes wolffi having thus been delimited, the plant confounded with it by Rothrock, and by most authors referred to *Ribes prostratum* L’Her., is here described.

***Ribes coloradense* sp. nov.**

Plant apparently procumbent; stems devoid of spines and prickles, at first minutely pubescent and bearing some sessile glands, the thin silvery epidermis persisting for a few years over the brown bark; petioles commonly 3 to 6 cm. long, usually smooth on the back, the upper sides pubescent and glandular like the young twigs, the margins of the sheathing portion provided with a few large, gland-tipped bristles; leaf-blades

commonly 4 to 7 mm. in width, cordate-reniform in general outline, 5-lobed, smooth on both surfaces, except sometimes for a very sparse pubescence on the veins beneath and on the margins, and with scattered minute sessile glands, the lobes ovate-triangular, bluntly acute or obtuse, doubly crenate-dentate; flowers from buds situated below those producing the leaves, but occasionally developing a single rudimentary leaf; racemes loosely 6 to 12-flowered, the pedicels commonly 4 to 8 mm. long and like the main axis glandular-hairy and minutely pubescent; bracts narrowly linear to lanceolate-subulate, thick and herbaceous, not exceeding half the length of the pedicel, the lowermost one occasionally developing into a miniature leaf-blade; ovary glandular-hairy; calyx lobes widely spreading, slightly united at the base, ovate-rotund, slightly narrowed below to a very broad base, sparingly hairy on the outside with both gland-bearing and glandless hairs, greenish or somewhat purplish, the diameter of the open flower about 6 to 8 mm.; petals smooth, purplish, about 1 mm. long by 1.5 to 2 mm. broad, slenderly fan-shaped with much incurved sides; filaments smooth, of nearly uniform width throughout, about 1.2 mm. long, the anthers orbicular, a little less than 1 mm. in diameter; styles smooth, separate to the base, about 1.2 mm. long; fruit spherical, black without bloom, sparingly glandular-hairy, in our dried and flattened but not crushed specimens 6 to 10 mm. in diameter.

Type specimen in the United States National Herbarium, collected July 27, 1896, in a moist shady place in Marshall Pass, Colorado, at an altitude of about 10,500 feet, by C. L. Shear (No. 1156).

With *Ribes wolffi* the present species has no immediate relationship. Its racemes are developed from usually leafless lateral buds on one-year-old wood and its calyx has widely spreading lobes and no evident tube. It has several other distinguishing characters, perhaps the most conspicuous of which are the subulate-lanceolate thick green bracts of the inflorescence, and the sparsity of the ovary hairs tipped with purple glands. *Wolffi* has its racemes borne on short leafy branches, the calyx tube well defined though short, and the lobes only moderately spreading, the ovate or obovate-lanceolate, obtuse or broadly acute bracts with thin semi-transparent margins, and the ovary densely covered with yellowish-green stalked glands. To *Ribes prostratum*, however, and to *Ribes laxiflorum* Pursh our new species is closely related. From the former it may be distinguished by the rarity of leaves from the flower buds, the blunter character of its leaf lobes, a difference difficult to describe but better understood by a comparison of figures or specimens; its larger flowers, with calyx lobes sparingly hairy and about 3 mm. long; petals slenderly fan-shaped and much broader than long; and

black instead of red fruit. *Prostratum* has leaf-bearing flower buds, leaves with sharply acute to acuminate, serrate-dentate lobes, flowers with calyx lobes smooth, about 2 mm. in length, and obovate-oblong in outline, petals with rhombic blade on a rather broad stalk, the whole much longer than broad, and fruit red. From *laxiflorum* our new species may be distinguished by the lack of bloom on the fruit, by its usually blunter leaf-lobes and teeth, the scattered glanduliferous hairs on the calyx lobes, and the petals nearly twice as broad as high. *Laxiflorum* has its fruit black with a bloom, leaf lobes usually acute, no glandular hairs on the calyx lobes, and petals commonly a little longer and a little narrower than those of *coloradense*, therefore only slightly broader than long.

The specimens of *coloradense* consulted are as follows:

Colorado:

“Rocky Mountains,” *George Vasey*, 1868.

Mosquito pass, near Leadville, alt. 10,000 to 11,000 feet,
John Wolf, 1873.

Marshall Pass, alt. about 10,000 feet, *C. L. Shear*, 1896
(No. 1156).

“Southwestern Colorado,” [La Plata Mountains ?] Slide
Rock Canyon, alt. 10,500 feet, *Baker, Earle*, and
Tracy, 1898 (No. 289).

San Miguel County, near Telluride, on the headwaters of
San Miguel River, alt. 10,000 feet, *Frank Treedy*,
1894 (No. 190).

These three species, *prostratum*, *laxiflorum*, and *coloradense*, are very closely related and form a group which might be called, after the practice of the zoologists, a superspecies, or after the practice of some European botanists, a *species collectiva*. They differ in minor but well-defined characters, apparently do not intergrade, and each has a characteristic range distinct from that of the other two. *Prostratum* centers in eastern Canada, extending across the Great Lake and St. Lawrence region into the United States, continuing southward in the Appalachian district to North Carolina and westward in British America to Manitoba, Saskatchewan, Athabasca, and Mackenzie, and speci-

mens have been collected at Quesnelle in British Columbia. *Laxiflorum* is a characteristic species of the coast region of Alaska, reaching northward into the Yukon Valley and southward along the coast to Washington and Oregon, extending inland to the Selkirk Mountains of British Columbia and the Cascade Mountains of Washington. Westward *laxiflorum* occurs on the Alaska peninsula, in some of the Aleutian Islands, and in eastern Asia. *Coloradense* is known only from high elevations in the Rocky Mountains of Colorado, and is thus separated by several hundred miles from the known range of either of the others. *Laxiflorum* and *prostratum* apparently meet in British Columbia. All three species appear to belong to the Canadian zone, with a tendency to overrun into the Hudsonian.