

## DESCRIPTIONS OF THREE MEXICAN VIOLETS.

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Although the number of known violets in Mexico is comparatively small, the few that have been observed are not well understood. Those who have been studying the Mexican flora have long wished for a revision of the species. In the United States National Herbarium considerable material has been brought together for this purpose, but much more is needed before a satisfactory presentation can be made. It is hoped that much information will be obtained by Mr. Rose in his field work the present season in Mexico. The following notes, however, need not be held for the formal paper which we hope to present at some future time.

### VIOLA FLAGELLIFORMIS Hemsley.<sup>a</sup>

Excellent specimens of this rare species have recently been collected at Alvarez in the region of San Luis Potosi and distributed by Dr. Edward Palmer (no. 117, 1902). The type of *V. flagelliformis* is Palmer's no. 1033, collected in 1879, "en route from San Luis Potosi to Tampico." *Viola pubescens* Ait.<sup>b</sup> is credited to Mexico by Hemsley<sup>c</sup> upon the strength of Parry & Palmer's no. 36, collected in the region of San Luis Potosi in 1878, which, however, proves to be identical with the present species.

*V. flagelliformis* is densely pubescent with spreading hairs; the root leaves are conspicuous by their number, long petioles, and large orbicular-reniform blades. It differs in many important particulars from the northern *V. pubescens*, but is more nearly related to that than to the following new species from the higher altitudes of central Mexico.

### VIOLA PAINTERI Rose & House, sp. nov.

Cauliscent; apparently glabrous but more or less puberulent as seen under the lens; stems 2 to 5 from a slender, vertical, perennial

<sup>a</sup>Hemsley, Biol. Cent. Am. Bot. 1: 49. 1879.

<sup>b</sup>Aiton, Hort. Kew. 3: 290. 1789.

<sup>c</sup>Hemsley, l. c. 51.

root, spreading or ascending, 6 to 20 cm. long; stem leaves 3 to 8, ovate, 1.5 to 3.5 cm. long, shallowly cordate, acute, dark green, paler beneath, the margins irregularly but not conspicuously crenate-dentate, petioles longer than the blades, the lower ones longest; root leaves few or none, small, rounded-ovate, crenate; stipules somewhat toothed, ovate or ovate-lanceolate, obtuse or acute, 4.5 to 8 mm. long; pedicels filiform, equaling or exceeding the blades, 3 to 9 cm. long, bibracteolate above the middle with linear bractlets; sepals glabrous, linear-lanceolate, acute, 6 to 7 mm. long, 1 to 1.5 mm. broad at the base, the auricles very short, rounded or subtruncate; petals bright yellow, veined and the two upper strongly tinged with reddish-brown, equal, 8 to 10 mm. long, the odd petal broadly spatulate and truncate or somewhat emarginate, the paired petals obovate-lanceolate, the lateral pair with truncate ends, the upper pair with rounded ends; capsules subglobose-ovoid, 8 to 9 mm. long, slightly exceeding the spreading sepals.

*Specimens examined:*

Hidalgo: Sierra de Pachuca, Rose & Painter, September 1, 1903 (no. 6731), sheet no. 450286 in the U. S. National Herbarium (type); Rose & Hay, 1901 (no. 5580); Rose & Hough, 1899 (no. 4470).

Mexico: Sierra de las Cruces, under firs, 3,030 meters, C. G. Pringle, 1892 (no. 4193) and 1903 (no. 11373); near Salazar, Rose & Painter, 1903 (nos. 6999 and 8028); near Cima, Rose & Painter, 1903 (no. 7161).

All of the specimens examined are from an altitude of about 3,000 meters or more in the States of Mexico and Hidalgo. The species is usually found under firs.

*Explanation of plate IV.*—Fig. *a*, plant two-thirds natural size; *b*, petals, natural size.

**VIOLA PRINGLEI** Rose & House, nom. nov.

*V. reptans* Robinson, Proc. Am. Acad. 27: 165.1892, not *V. reptans* Presl. in Reichb. Fl. Germ. Excurs. 705.1830-32.

From its stoloniferous character and white flowers, *V. pringlei* is related, but by no means closely, to *V. blanda* Willd.<sup>a</sup> of the northern United States and Canada. The type of *V. reptans* Robinson, and therefore of *V. pringlei*, was collected by C. G. Pringle near Patzcuaro, Michoacan, November, 1890 (no. 3591) and is in the Gray Herbarium. Pringle's no. 4148, 1892, from the same locality is identical.

<sup>a</sup> Willdenow, Hort. Berol. pl. 24. 1806.



VIOLA PAINTERI ROSE AND HOUSE.

FOR EXPLANATION OF PLATE SEE PAGE 443.

