



ECHEVERIA GUATEMALENSIS ROSE.



ECHEVERIA MAXONII ROSE.

THREE NEW SPECIES OF CRASSULACEAE FROM GUATEMALA.

By J. N. ROSE.

In 1906 Mr. William R. Maxon was sent to Guatemala by the United States Department of Agriculture. At my request he collected and sent to Washington living and herbarium specimens of all the Crassulaceae he could find. Three of these proved to be undescribed. They have all flowered here in Washington, and small plants are available for distribution. One of the illustrations here used was made from a photograph taken in Guatemala, while the other was taken from a potted plant in Washington.

Echeveria guatemalensis Rose, sp. nov.

PLATE XLVII.

Stems branching especially at base, resembling somewhat both in habit and foliage *Sedum praealtum*, 10 to 15 cm. high; leaves equally distributed on the stem, alternate, spreading nearly at right angles to the stem, fleshy but flattened and thinner than in most species of this genus, 2 to 4 cm. long, 2 cm. or less broad, spatulate, with a flat surface above, rounded at apex but with a decided micro, rounded below into a broad petiole, pale green, slightly glaucous, the margins sometimes tinged reddish; flowering branch 20 to 30 cm. long, from the axil of a leaf near the middle of the stem, reddish, bearing numerous reddish leaves; inflorescence an equilateral raceme bearing 20 or more flowers; pedicels 3 to 4 mm. long; sepals linear, acute, spreading nearly at right angles to the pedicels; corolla buds broadly ovoid, acute, the corolla when open 10 mm. long and broad in proportion, pinkish below, yellowish above, the lobes acute; stamens 10, shorter than the corolla.

Collected by Mr. William R. Maxon, on Volcan de Agua, at an altitude of 2,700 to 3,000 meters, Guatemala, March 22, 1905 (no. 3726) and flowered in Washington, May, 1907.

U. S. National Herbarium no. 399713.

EXPLANATION OF PLATE XLVII.—A potted plant. Scale about $\frac{1}{2}$.

Echeveria maxonii Rose, sp. nov.

PLATE XLVIII.

Stems glabrous, frutescent, at first erect, becoming decumbent, 60 to 80 cm. long, naked below, very leafy near tips; leaves on young or slowly growing plants massed near the top but in vigorous shoots rather distant, standing at right angles to the stem, 3 to 10 cm. long, spatulate, narrowed at base into a more or less definite petiole, rounded below, decidedly trowel-shaped above.

obtuse or acutish, green on the under surface, not at all glaucous, the margins more or less purplish; inflorescence an equilateral raceme or sometimes becoming a narrow panicle; peduncle elongated, 20 to 30 cm. long, leafy (in our herbarium specimens often naked); sepals distinct, semiterete, acute, glaucous, unequal, spreading with age; petals distinct nearly to the base, erect except the tips, these spreading, salmon-pink in color; stamens 10; scales white.

Collected by William R. Maxon, at Chuacús, between Salama and Las Canoas, January 22, 1905 (no. 3406, type), and at Zúmil, Department of Quezaltenango, Guatemala, February 24, 1905 (no. 3605). Ample living material of the first number was sent to Washington and has been used in drawing up this description. These plants grew in the pockets of nearly solid rocky slopes, falling down over the surface, as shown in the accompanying illustration. Here they were fully exposed to the sun and were surrounded by starved shrubs and grasses and a species of *Mamillaria*.

This species must be near *E. australis*, but it has different foliage and flowers.

Type U. S. National Herbarium no. 473390.

EXPLANATION OF PLATE XLVIII.—Plant in its natural habitat. From a photograph taken by Mr. Maxon.

***Villadia guatemalensis* Rose, sp. nov.**

Very much branched, spreading, generally procumbent, the flowering branches erect or ascending; leaves closely set, standing nearly at right angles to the stem, pale yellowish green, terete, 1.5 to 2 cm. long, pointed; flowers few, the first terminal, the others from the axils of the leaves, all sessile; sepals ovate, green, nearly distinct; corolla lemon-yellow, its tube short but definite, its lobes spreading; styles slender; carpels erect even in age.

Collected by William R. Maxon near Chuacús, between Salama and Las Canoas, Guatemala, January 22, 1905 (no. 3411), and flowered in Washington, January, 1906.

Type U. S. National Herbarium no. 473398.