



*Chamaecrista* (L.) Greene

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## LENOPHYLLUM, A NEW GENUS OF CRASSULACEÆ

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**LENOPHYLLUM** Rose, gen. nov.

Perennials, branching at base. Leaves a few opposite pairs, clustered near the base, very thick, somewhat flattened, more or less deeply concave on the upper surface. Inflorescence erect, of a few equilateral racemes or interrupted spikes; flowers sessile or nearly so. Calyx of 5 erect equal nearly distinct sepals. Corolla yellow or drying reddish; lobes erect, only the upper portion spreading or recurved, narrowed at base and therefore not touching each other. Stamens 10, the five opposite the sepals distinct, the other five borne on the petals; carpels narrow, erect; styles slender, at first erect, only a little spreading in age.

Four species, all of northeastern Mexico and southern Texas.

Type species, *Sedum guttatum* Rose.

The type of this genus was first described by Mr. Rose as a doubtful *Sedum*, its distinct petals excluding it from all the other related genera. Living specimens show little connection with *Sedum*, but in foliage and habit more resemble *Echeveria*, from which, however, they are clearly distinct.

The discovery in 1903 of two additional species of similar habit, foliage, inflorescence, petals and carpels, together with the recognition of a fourth in the hitherto doubtful *Villadia texana*, justifies the segregation of the genus from *Sedum*.

While this paper is going through the press a fifth species has been received. Flowering material has not yet been obtained and we have thought best not to publish the species at this time. We have living material from which a full description may be drawn and published later.

*Key to Species of Lenophyllum*

Leaves obtuse or rounded at apex.

Leaves broad at base.

1. *L. guttatum*.

Leaves narrow at base.

2. *L. weinbergii*.

Leaves acute.

Pairs of leaves distant; corolla greenish-yellow.

3. *L. acutifolium*.

Pairs of leaves not distant; corolla "rosy yellow."

4. *L. texanum*.

1. **LENOPHYLLUM GUTTATUM** Rose

(PLATE XX)

*Sedum guttatum* ROSE, Bull. N. Y. Bot. Garden 3: 42. 1903.

Much branched at base; shortly caulescent; leaves glabrous, opposite, of 2 to 4 pairs, 2 to 3 cm. long, thickish, rounded on the back, broadly channeled on the face, of a sage-gray color blotched with purple-black, obtuse; inflorescence 3- or 4-branched; pedicels very short or wanting; sepals free nearly to the base, oblong, 3 to 4 mm. long, equal, green, obtuse; petals narrowly oblong, 5 mm. long, obtuse, yellow but in old flowers drying reddish, free to the base; stamens 10, shorter than the petals; the 5 opposite the sepals free to the base, the other 5 borne on the petals, attached about one-third the way up from the base; scales small, obtuse; carpels 5, distinct to the base, erect; styles about as long as the carpels, slightly spreading in age.

Common in the crevices of the most exposed rocks on summit of hill at Saltillo, Mexico.

Collected by Dr. E. Palmer, in 1902 (no. 309), and now in cultivation in Washington and at the New York Botanical Garden. It has repeatedly flowered at both places.

The original description of the species was drawn from vegetating plants and poorly preserved flowering specimens, and this has necessitated some slight changes in the description, especially with respect to the inflorescence and color of the flowers.

*Explanation of Plate XX.*—Fig. *a*, plant with well-developed inflorescence; *b*, another plant with inflorescence not developed; *c*, flower; *d*, petals and stamens; *e*, carpels; *f*, cross-section of leaf. Fig. *a*, *b*, *f*, natural size; *c*,  $2\frac{1}{2}$  times natural size; *d*, *e*, 3 times natural size. (All the illustrations in this paper are from drawings by the late F. A. Walpole.)

2. **LENOPHYLLUM WEINBERGII** Britton, sp. nov.

(FIGURE 18)

Glabrous, pale green; plants flowering from cuttings at the height of 5 cm., and in that stage unbranched; lower leaves rhombic-obovate, very fleshy, trough-shaped, about 1.5 cm. long and 1 to 1.5 cm. wide, narrowed but blunt at the apex, cuncate-narrowed at the base, oppo-

site, ascending, the upper pair much smaller; bracts 3 mm. long or less; sepals distinct, spatulate-oblongate, obtuse, narrowed below, 3 to 4 mm. long, obtuse; petals oblanceolate, obtusish, yellow, a little

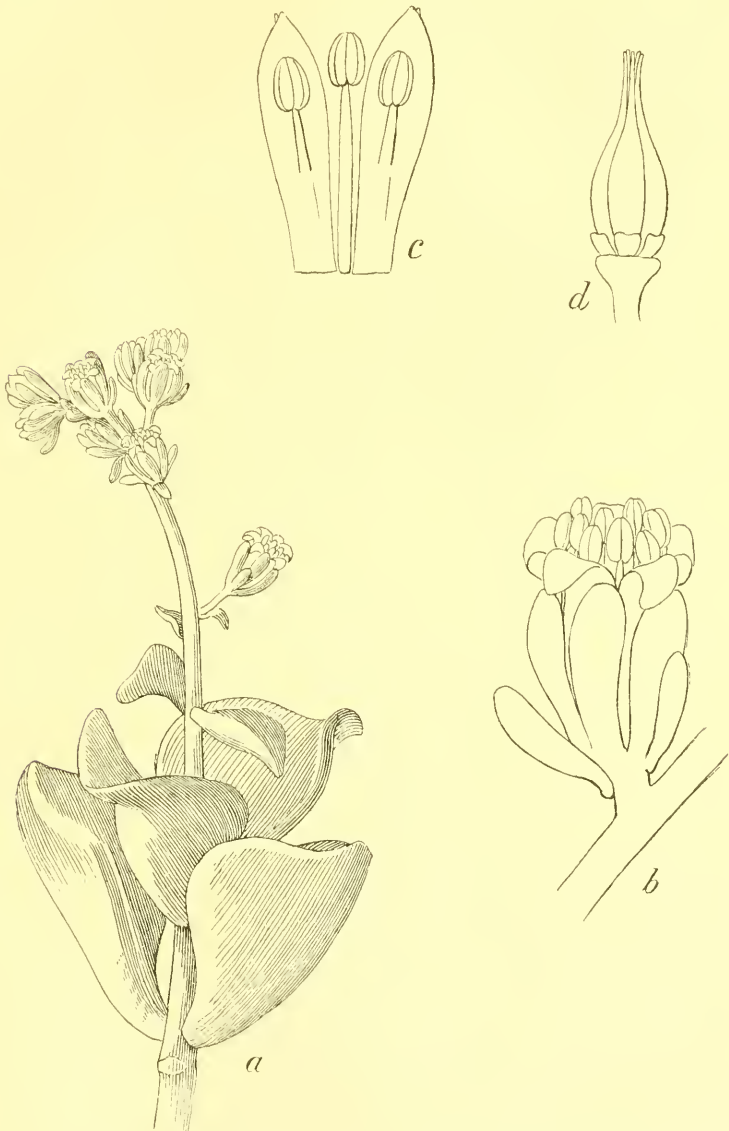


FIG. 18.—*Lenophyllum weinbergii* Britton. *a*, Plant (twice natural size); *b*, flower (five times natural size); *c*, petals and stamens (six times natural size); *d*, carpels and scales (six times natural size).

longer than the sepals, erect with reflexed tips; stamens a little shorter than the petals; young carpels erect, the styles subulate.

In cracks of rocks on high mountains in the northeastern part of Mexico, State of Coahuila, from the collections of Mr. McDowell in the City of Mexico, transmitted to the New York Botanical Garden, December, 1903, by Mr. Frank Weinberg.

### 3. *LENOPHYLLUM ACUTIFOLIUM* Rose, sp. nov.



FIG. 19.—  
*Lenophyl-  
lum acuti-  
folium* Rose.

Perennial, much branched at base; leaves opposite, 6 or 8 pairs, thickish, deeply channeled above, acute; flowers scattered in an interrupted spike or equilateral raceme, sessile or subsessile, borne in the axils of small bracts; sepals subequal, thickish, acute; petals greenish-yellow, distinct, erect below, the upper spreading or reflexed, acute; the 5 stamens opposite the sepals distinct, the other five borne on the petals; scales broad, truncate at apex; carpels erect; styles slender.

Collected by C. G. Pringle near Monterey, Mexico, in 1903.

Type in U. S. National Herbarium (no. 396,786) and living plants in succulent house, Department of Agriculture.

### 4. *LENOPHYLLUM TEXANUM* (J. G. Smith) Rose

*Sedum texanum* J. G. SMITH, Rep. Mo. Bot. Gard. 6: 114, pl. 50. 1895.

*Villadia texana* ROSE, Bull. N. Y. Bot. Gard. 3: 3. 1903.

*Sedum texanum* was very reluctantly referred by Mr. Rose to his new genus *Villadia*, but as it possessed a slender spike-like inflorescence, small flowers, erect carpels, etc., there seemed to be no other place for it. A reëxamination, though of rather poor material, shows that Mr. Smith's illustration and description are somewhat faulty, for the scars on the stems indicate opposite leaves, which are thick and fleshy like those of *Lenophyllum acutifolium*, while the inflorescence is not secund but equilateral. It differs from *Villadia* in having distinct petals, opposite, broad, trough-shaped leaves, etc.

Type in Herb. Mo. Bot. Gard.; duplicate type in U. S. National Herbarium.