TRELEASEA, A NEW GENUS OF COMMELINACEAE.

By J. N. Rose.

Treleasea Rose, gen. nov.

Sepals distinct, concave, subequal, greenish or scarious. Petals distinct, tapering at base into a slender claw, cohering and forming a slender tube. Stamens 6, all perfect, subequal, more or less hairy, borne on the petals. Style slender, 3-lobed. Capsule stipitate, 3-celled. Cells dehiscent, 2-seeded. Perennial herbs from tuberous roots. Cymes sessile, many-flowered, either in terminal or axillary clusters.

This name is given in honor of Dr. William Trelease, director of the Missouri Botanical Garden, whose well known services to botany and horticulture deserve this recognition.

This genus differs from Tradescantia, especially in the corolla and the position of the stamens. Tradescantia has always an open flower spreading from the base, with petals broad at base, while Treleasea has the petals tapering into a claw, forming a tube and only spreading toward the top. The stamens, too, are always free in Tradescantia, while in Treleasea they are borne on the petals.

The genus seems nearer Cyanotis than Tradescantia, but differs from that in its stipitate fruit, concave sepals, etc. It is perhaps nearest Zebrina, differing chiefly in the fact that the petals are not united into a tube, but merely cohere at the edges.

I have long been dissatisfied with the reference of the species brevifolia to Tradescantia, having had the plant under cultivation since 1895. While in Mexico in 1897 I found another plant of similar habit with the same flower structure, showing that this is a good generic type. T. leiandra, although the flower structure is doubtful, possesses the stipitate fruit and otherwise suggests that it belongs here also.

The genus, as I now understand it, consists of the three following species, of which brevifolia is the type:

Treleasea brevifolia (Torr.) Rose, nom. nov. Tradescantia (?) brevifolia Rose, Contr. Nat. Herb. 3:323. 1895. Tradescantia leiandra brevifolia Torr. Bot. Mex. Bound. 225. 1859. T. speciosa Buckley, Proc. Acad. Phila. 1862:9. 1863. Not L. or H. B. K. Zebrina (?) leiandra Clark, in DC. Monogr. Phan. 3:318. 1881. T. leiandra Wats. Proc. Am. Acad. 18:167. 1883. Not Torr. Same, Hemsley, Biol. Centr. Am. 3:393. 1885. T. leiandra ovata Coulter, Contr. Nat. Herb. 1:50. 1890. Same, l. c., 2:444. 1894.

Stems prostrate, leafy to the top; leaves approximate, ovate, 2.5 to 7.5 cm. long, 2.5 cm. wide, thickish, glaucous and glabrous, except the ciliate-scabrous margins, acute; margin of sheath ciliate; involucral leaves 2, like the lower leaves, but smaller; umbel sessile, many-flowered; corolla white, petals ovate, obtuse, somewhat spreading, tapering at base into a slender claw, stamens erect, longer than the petals, hairy near the middle, attached to petals; ovary hairy near the top.

For a number of years past this species has been cultivated in Washington, both in the greenhouses and in the gardens. In the greenhouses it grows luxuriantly under the benches. The foliage is of a glossy bright green, and in all cases the flowers have been white, usually appearing singly.

For a full discussion of this species and its relationships with T. leiandra see Rose in volume 3 of this publication, pages 322, 323.

Treleasea leiandra (Torr.) Rose, nom. nov. Tradescantia leiandra Torr. Bot. Mex. Bound. 224. 1859.

Roots slender, fibrous-thickened; stems erect, somewhat branching, slender, glabrous, somewhat naked above; leaves distinct, narrowly lanceolate, 7.5 to 12.5 (perhaps more) cm. long, 12 mm. wide, sharply acute, with margins not scabrous; margin of sheath glabrous or nearly so; involucral leaves 2, ovate, acuminate, 2.5 to 3.5 cm. long, very unlike the lower leaves; umbel sessile, many-flowered; pedicels and sepals densely villose; filaments smooth; capsule oval, somewhat 3-lobed, stipitate; cells 3, 2-seeded; seeds 1 mm. in diameter, slightly rugose.

Collected by Bigelow in mountains and moist rocky places at Puerto de Paysano, Tex., September 18, 1854 (†) (No. 1500), and by V. Havard at Capote Creek, Texas, September, 1883 (No. 79).

Treleasea tumida (Lindley) Rose, nom. nov. Tradescantia tumida Lindley, Bot. Reg. 26:t. 42. 1840. Tradescantia virginiana tumida Clark, in DC. Monogr. Phan. 3:291. 1881.

The figure cited above, although very unsatisfactory, seems to represent the same species as I collected on the western border of the Mexican table-lands. It has the same reddish flowers borne in dense axillary clusters, and the petals-taper down into claws (here represented as united). The leaves are also described as purple beneath. This illustration of Lindley's was made from a plant which flowered in the garden of the Horticultural Society in 1839.

Nothing more of the history of the plant is given than that it came from Mexico. It is not unlikely that this plant was sent in by Hartweg from the same region from which mine came. In 1836 and 1838 he visited Bolaños and the neighboring region and was sending many plants home to the Horticultural Society, by whom he had been sent to Mexico. I should state, however, that I have looked through Hartweg's lists of plants, which he said were growing in the gardens, without finding any mention of a Tradescantia.

The following redescription of this species is based upon my own specimens, both herbarium and living:

Stem from tuberous-thickened roots, rather low, very succulent, often very compact; leaves oblong, 12 to 18 cm. long, acute, more or less pubescent; flowers borne in dense axillary and terminal clusters; pedicels about 10 mm. long, glabrous; sepals glabrous or nearly so, oblong, 8 mm. long; petals pink; stamens slightly hairy; capsule stipitate, reflexed; hairy at tip.

This species seems to be common in damp, sheltered places in the western tableland regions of Mexico, especially in canyons and along cliffs. It was first brought in by Mr. Goldman, and afterwards collected by myself.

Collected by J. N. Rose at San Juan Capistrano, Zacatecas, August 23, 1897 (No. 2486); near Monte Escobedo, Zacatecas, August 27 (No. 2660), and at Bolaños, September 10 to 19 (No. 2890).

Specimens are now growing in the Botanical Garden at Washington. This species is so common in the table-land region of Mexico that it seems strange that it is not in the recent collections from Mexico.

Clark's reference of this species as a variety of T. virginiana and statement that it can hardly be distinguished from var. flexuosa (T. pilosa) can not be entertained.