



A. GYMNOCALYCIUM MULTIFLORUM



*M.E. Eaton*

B. GYMNOCALYCIUM MOSTII



**A. GYMNOCALYCIUM MULTIFLORUM****Many-flowered Gymnocalycium***Native of Argentina*

Family CACTACEÆ

CACTUS Family

*Echinocactus multiflorus* Hook. Bot. Mag. pl. 4181. 1846.*Gymnocalycium multiflorum* Britton & Rose.

Plants solitary or growing in clumps up to 10 individuals, each one and one half to five inches in diameter, usually globose but sometimes depressed or short-cylindric. The ribs are ten to fifteen, broad and rounded, with low tubercles, each with a small chin below its spine-cluster; the areoles are only a few to each rib, elliptic, sometimes two fifths of an inch long; the spines are five to ten in a cluster, all radial, yellow, sometimes brownish or reddish at base, subulate, spreading, often recurved, the longest sometimes over an inch long. The flower-bud is ovoid, and covered with imbricate scales; the expanded flowers are short-campanulate, pinkish to nearly white; the scales on the calyx-tube are broad, rounded, naked in their axils. The stamens and style are included; the stigma-lobes are white, linear.

The plant here illustrated is a small specimen received from the Berlin botanical garden in 1901, which flowered in the New York Botanical Garden, June 1, 1913. The cluster of spines is from a specimen collected by J. N. Rose in Argentina in 1915. The species has been reported from Brazil and other South American countries, but is doubtless restricted to northern central Argentina, where the writer collected it on the high grassy plains of Cordoba in 1915.

J. N. ROSE.

EXPLANATION OF PLATE. Fig. 1.—Flowering plant. Fig. 2.—Portion of a rib, showing an areole and a cluster of spines.

**B. GYMNOCALYCIUM MOSTII****Most's Gymnocalycium***Native of Argentina*

Family CACTACEÆ

CACTUS Family

*Echinocactus Mostii* Gürke, Monatsschr. Kakteenk. 16: 11. 1906.*Gymnocalycium Mostii* Britton & Rose.

Plants solitary, one and one half to three inches high, five inches or less in diameter. The ribs are nine to fourteen, broad and obtuse;



the tubercles are rounded, with a small sharp chin below the spine-cluster; the small areoles are circular; the brownish spines are slender and subulate, the seven to nine radial ones spreading, the central one solitary. The flowers are central, bell-shaped, about three inches long, pale red to pinkish white; the scales on the calyx-tube are few.

The plant here illustrated is a small one collected by J. N. Rose at Cassaffousth, Cordoba, Argentina, in 1915, which flowered in the New York Botanical Garden, June 16, 1917. Its native habitat is on dry hills under low bushes.

The genus *Gymnocalycium*, to which the two species here illustrated belong, appeared first in the catalogue of A. Schelhase's garden at Kassel in 1843, but was not formally published until 1845 when Pfeiffer referred to it three species; the following year he illustrated one of these. Although Dr. Ludwig Pfeiffer was the most distinguished cactologist of his time, this genus has heretofore not been accepted, nor have the species of which it is composed ever been brought together even as a sub-genus. Schumann has treated the species known to him in his subtribe *Notocactus*, but in this tribe he has included other species which are not closely related to *Gymnocalycium*. The genus has no close relatives in South America, being very unlike *Malacocarpus* and *Discocarpus* of that region. In its flowers it resembles some of the Mexican species referred to *Echinocactus*, but is very unlike the true species of that genus.

The species of *Gymnocalycium* are among the most satisfactory cacti for greenhouse cultivation, for they grow well under glass and frequently flower. They are day bloomers and the flowers last for several days. The genus contains about twenty-three species, and is confined to southern South America east of the Andes. Bolivia, Paraguay, and Uruguay, have each two or three species, the remainder being found in the plains and mountain valleys of Argentina. Most of them are small, usually simple plants, but sometimes they are cespitose, with few broad somewhat tubercled ribs. The flowers are central or rarely lateral, with a more or less definite tube, bearing a few scattered broad scales, and these always naked in their axils; the seeds are dome-shaped and tuberculate.

J. N. ROSE.

EXPLANATION OF PLATE. Fig. 1.—Flowering plant. Fig. 2.—Portion of a rib, showing an areole and a cluster of spines.