MISSOURI

BOTANICAL GARDEN

TWENTY-FIRST ANNUAL REPORT

ST. LOUIS, MO.
PUBLISHED BY THE BOARD OF TRUSTEES
1910

The plant belongs to the Opuntia macrorrhiza group, but, as will be noticed from the description of the plant body, it is very different from that or any other of the related species. The flowers are exceedingly variable in character. At times they are pure lemon yellow throughout with no indication of red at base of the petals. At other times the lower one-third may be red and all degrees of variations between these two extremes may be found. Sometimes the red is confined to the mid-rib of the petal, being uniformly distributed throughout its length.

The description is drawn from a cultivated plant grown from a single joint cutting set July 11, 1908. It was collected on that date near Milano, Texas. The description of the flowers and the notes on the flowers were made in the type locality from the type plants May 15, 1910. The type specimen is No. 9355 D. G., prepared May, 1910, from cultivated specimens bearing the same number.—Plate 20, lower figure.

Opuntia Gomei sp. nov.

Plant ascending with main branches commonly on edge and secondary ones erect from them, mostly about 1 meter or less high and often 3 or more meters in diameter, the old centers containing much dead material when plants are large; joints sub-circular to ovate, rarely blue-green, varying to sometimes slightly yellowish green, 80 to 40 cm. in diameter, or often in last year's joints only 20 cm. in diameter and then almost invariably sub-circular, more or less raised at areoles and larger joints always more or less wavy; areoles obovate, 6 to 10 mm. in diameter, bright brown when young, changing to dirty brown and finally to gray-black, mostly raised and surrounded by an irregular, dry, brown-gray, slightly cracked rim or area, varying from 2} to 5 cm. apart; spicules yellow, abundant, very prominent, about 1 cm. long, more abundant above, but often filling entire areole; spines yellow, somewhat flattened, often faintly annular, not twisted, 3 to 5 cm. long, erect, divergent, sometimes increasing irregularly with age, 1 to 5 in number, mostly 2 to 4; flowers yellow, stigms. large, bright deep green, 9 to 10 parted; fruits reddish purple.

This species belongs to the O. Lindheimeri group. It inhabits the lower edges of the slight elevations in the delta of the Rio Grande River and often extends both into the huisache flats and the mesquite areas of higher elevations.

It is, therefore, in all probability, able to thrive upon land containing considerable soluble salts. It is often found growing scatteringly upon land entirely devoid of brush and which periodically overflows. In these areas, however, it frequently gets killed out on account of the overflows which occur at irregular intervals, and again becomes established thinly before another period of overflow occurs.

The description was drawn in the field when the type specimen was collected, notes on the flowers being subsequently secured. The type specimen is No. 9913 D. G., collected near Brownsville, Texas, March 13, 1910. It is named in honor of Mr. William Gome, whose assistance it is a pleasure to acknowledge.—Plates 21 and 22, lower figure.

Opuntia pachona sp. nov.

Plant tail, arborescent, widely branching but not as divergent as O. streptacantha, with distinct cylindrical trunk 1 to 1.5 meters long, the whole plant normally 8 to 5 meters high; joints about 20 by 82 cm., obovate, deep dark green, with often a white bloom, similar to O. streptacantha in color but on the whole a little lighter; areoles 21 to 8 cm. apart, ovate to sub-circular; spicules bright dark reddish brown, often formidable, in compact tufts in upper part of areoles, increasing in numbers and length with age, about 2 mm. long; spines white with bonelike tips, flattened or triangular, often slightly twisted, mostly slightly but never tightly recurved, 2 to 5 or 6 in number, mostly 2 to 4 on last year's joints, increasing on old trunks to 6 or 8 and becoming larger and stouter than on young joints, diverging in all directions upon old trunks although upon young joints they are slightly recurved or sloping downward; fruits about 40 to 45 by 50 to 55 mm. bright, glossy, purplish-red when mature, beset with rather large circular areoles containing formidable reddish brown spicules surrounded by the blackened ends of the dark tawny wool.

Opuntia pachona belongs to an important group of prickly pears of the highland of Mexico in which the expressed juice contains a large amount of solids in suspension. It is, therefore, one of the forms used in the manufacture of queso. Although similar in color to O. streptacantha, it can hardly be considered as closely related to this species, but should be looked upon as representing the Opalillo-Lionero group none of which, so far as I am aware, have satisfactory descriptions.

The description is a compilation from two sets of char-