

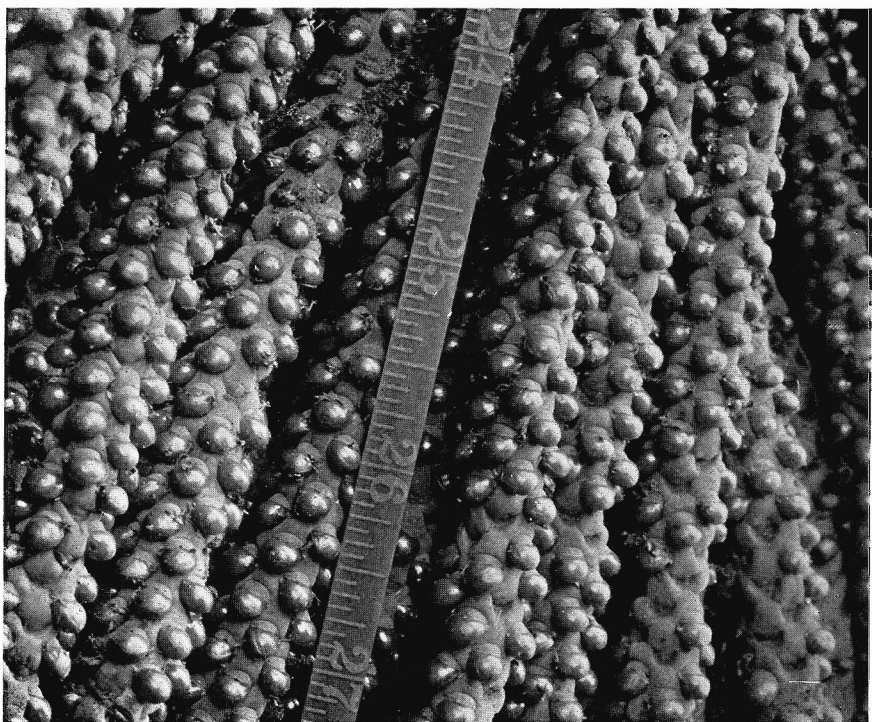
99. THE PUERTO RICAN MANAC in deep valley between San Sebastián and Lares. *Calyptronoma rivalis*.

species and there appear to be no original specimens in the Martian herbarium: to this problem I hope to return.

- † 4. *Calyptronoma rivalis*, trans. nov. PUERTO RICAN MANAC. Figs. 89, 90, 91, 92, 94, 99, 100.

*Cocops rivalis*, O. F. Cook, in Bull. Torr. Bot. Club, xxviii, 568, t. 47 fig. 2 (1901).

Stout tree to 8 m. tall, the obscurely ringed trunk 2-3 dm. in diameter near base, carrying a heavy head of horizontal side leaves from which the many closely placed pinnæ droop gracefully, a few of the spent leaves finally hanging along the trunk: leaves 2-3 m. long; petiole with expanded ascending base as it stands on the tree, the rachis strongly angled in cross-section and in its lower length ridged in middle above; pinnæ not stiff, 5 cm. more or less broad and 1 m. or more long, dull in color, but lighter underneath, glabrous unless scaly on midrib underneath, the several side ribs prominent, points long-attenuate: spadix usually more than 1 m. long at full extension, the long rounded peduncle with



100. PORTION OF A FRUIT-CLUSTER of *Calyptronoma rivalis*, slightly enlarged; fruits not mature.

a conspicuous collar and usually without bracts; rachillæ closely flowered, terete and not becoming strongly angled or ridged when dry; primary spathe 6 dm. or less long, 7-8 cm. broad, thick in substance, 2-edged: fruit 5-6 mm. long at maturity, carrying with it when it falls some of the dry dead floral parts like projecting points at its base; seed-case with oblique ridges on one or both faces; seed adherent to its case or envelope.

Puerto Rico, along a deep valley stream near San Sebastián, Aguadilla, in an isolated colony and extending toward Lares, *O. F. Cook, Bailey, C. L. Horn*; the only station known on the island.