

with cones weighing 70 pounds. *Bowenia* sometimes forms a dense but easily penetrated undergrowth in the *Eucalyptus* bush at Maryvale and Byfield, on the Tropic of Capricorn; and 700 miles to the north is found the dense jungle of the Cairns district. Of this, Chamberlain says (62):

"The profusion of palms, tree ferns, and various vines and epiphytes was bewildering. Along the streams *Angiopteris*, a remarkable fern, small specimens of which are occasionally seen in greenhouses, reaches a tremendous size, with leaves nearly twenty feet long and stalks as large as a man's arm. At Herberton, near Cairns, a beautiful tree fern, *Dicksonia Youngii*, is so abundant that it forms almost impenetrable jungles. Besides, in open places, all three genera of cycads found in Australia may be secured within a single day's tramp."



FIG. 86.—*Zamia paucijuga* n. sp. $\times 0.83$. Frond of a subterraneous stem about 8 cm. in diameter, from north of Minizo, on the Pacific coast, Oaxaca, Mexico.

The pinnules are of a papery thinness, also noted in *Bowenia spectabilis* (Vol. I, Fig. 50), and have not been found included in described forms, reference to a new species being arbitrarily made. Study of the illustration (made in transmitted light) shows a certain tendency to a netted venation.

The very general though capricious distribution of the Cycads within the limits of the thermal tropics has been sufficiently noted for present purposes, and would in itself seem to indicate a widely dispersed ancestry. But it is also clear that the Cycadaceæ seldom