

AN UNDESCRIBED AUSTRALIAN CYSTIPHYLLID—
MICTOCYSTIS—FROM THE UPPER SILURIAN ROCKS
OF THE MOUNT CANOBALAS DISTRICT.

By R. ETHERIDGE, JUNR., Curator.

(Plates iv.-v.)

To Mr. C. A. Süßmilch, of the Technical College, Sydney, I am indebted for the loan of specimens, and presentation of others to the collection, of a very interesting Cystiphyllid coral from the Upper Silurian rocks in the neighbourhood of the Canobalás. So far as Australian literature is concerned, it is certainly undescribed.

The essential feature of this coral consists of a mass of coarse blister-like vesicular tissue surrounding a series of cylindrical and parallel visceral chambers, apparently without mural investment other than the convex oblique surfaces of the vesicles in question. On the upper or external surface of the corallum these vesicles have a very marked blister-like appearance and are not traversed by radiating or geniculate septal costæ at all.

The visceral chambers are provided with numerous well-developed lamellar septa which proceed almost to the middle of each chamber, cutting through the horizontal tabulate centres; these septa are confined to the visceral chambers, and do not in the least impinge on or pass over the blister-like vesicular tissue; again they do not appear to quite reach the calicinal centre, nor can I distinguish any columelarian structures; indeed there seems to be a small free central tabulate area to each visceral chamber. The tabulæ are on the whole complete, although here and there lenticular vesicles are formed.

The affinities of this coral form a difficult problem. In the first place the vesicular tissue constituting the general mass is essentially that of the Cystiphyllidæ, blister-like vessels closely superimposed on one another. Any further affinity with this family can only be traced to some extent through *Actinocystis*, Lindström, and *Mesophyllum*, Schlüter. In the former the centres of the corallites are septate, but the septal areas small, and I believe not tabulate; the whole of the broad external zones being entirely vesicular in the usual cystiphyllid manner. The visceral chambers also appear to be formed in the same way as