

Length 17 mm., diameter 5 mm., body form depressed so that a fairly well defined ventral surface can be distinguished from a more convex dorsal side; body wall thin, translucent and densely crowded with calcareous particles, so that it feels, in many of the preserved specimens, stiff and rough. Pedicels relatively

large not numerous and pretty closely restricted to the ambulacra, converging at the anus into a rather conspicuous group, those of the dorsal ambulacra taper more or less to a tip which is not so truncate as might be; hence the dorsal pedicels are often quite like papillae; in some particularly well preserved specimens this distinction between the dorsal and ventral sides is very well marked but in other cases, it is scarcely noticeable; it is probably however, more a matter of preservation than of individual diversity. On the dorsal interambulacra are a few widely scattered small pedicels. Tentacles 20, surrounding an oral disk somewhat ven-

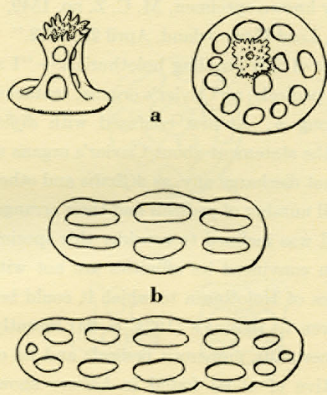


Fig. 57. *Holothuria macroperona*. Calcareous particles. x 425. a. Tables. b. Buttons.

trally placed, and themselves surrounded by a marginal fold which includes a number of pedicels; the whole is much like the oral disk in *Stichopus* and of course is evident only in fully expanded individuals; it is not well shown in the holotype. Calcareous ring low, rather stout relatively, with the radial pieces having the usual wide truncate anterior projections to which the longitudinal muscles are attached and the interradial pieces with short anterior points. No madreporite or polian vessel noted in the holotype, but the single genital tuft on the left hand side is very evident and in the two specimens examined contained numerous relatively large eggs. Cuvier's organs well developed.

Calcareous particles excessively abundant in the form of tables and buttons. Tables (fig. 57a) with disks about  $70\mu$  in diameter, usually with smooth more or

less circular margins but some of the largest tables, in the walls of the pedicels, have the margin more irregular and somewhat dentate; the disks have a peripheral series of 9-11 holes, which are unequal in size and irregular in position; occasionally there are perforations outside this circle; spires about  $40-50\mu$  high, commonly with only one cross-bar and with numerous teeth all over the top. Buttons (fig. 57b) notably long and narrow, with 3 or more pairs of elongated, more or less slit-like, perforations; typical buttons are  $100\mu$  or more in length and their width about one-third as much, but many buttons exceed  $130\mu$  in length and their width may be only one-fourth as much; the longer buttons often have a single small perforation at each end. Pedicels with a well-developed end plate and supporting rods which are wide and perforated on each side, and which appear to intergrade with the long buttons.

Color in life pale gray or sand color in harmony with the surroundings; the preserved specimens range from almost white, quite uniform, to light brown; some are distinctly gray; tentacles light brown.

Holotype, M. C. Z. no. 1546, from cove at Northeastern corner of Rottneest Island, Western Australia, October 19, 1929.

Besides the holotype there is a good series of paratypes all from Rottneest Island. They live on the under surface of rock fragments on sandy bottom and might easily escape observation if the search were not keen. There is little diversity in size of the individuals, except such as is caused by the difference in the amount of contraction. The *Stichopus*-like appearance of some of the specimens, and the calcareous particles are very suggestive of *H. hartmeyeri* and I have seriously considered calling these little holothurians, the young of that large species. But the presence of mature ova in these little individuals seems to preclude such a course.<sup>1</sup> Furthermore the differences in the calcareous particles are not such as can well be explained by the youthfulness of the specimens. On the whole it seems best to regard *macroperona* as a distinct and perhaps local species, but it would be most interesting to compare young *hartmeyeri* of the same size with this little Rottneest Island form.

The material at hand is made up of the following lots:  
Western Australia: Rottneest Island, cove at northeastern corner of island, Oct. 19, 1929. 8 specimens.

<sup>1</sup>Dr. Deichmann calls my attention to the fact that some unpublished observations on *Thyone briareus* (Les.) indicate that very small, and presumably young, individuals may have a few fully grown eggs in the gonads. Hence the presence of such eggs is not evidence of bodily maturity. However in *macroperona*, the eggs are fairly numerous in the gonads.