

## APPENDIX B.

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### DESCRIPTION OF A NEW SPECIES OF PSAMMAPLIDIUM.

After the greater part of this Report had been printed and the plates finished, I received from the Challenger Office a small bottle containing some sandy masses obtained on the north coast of Australia, which proved on examination to be specimens of a new species of the genus *Psammaplidium*. As it was too late to insert this species in its proper place in the body of the Report, a description of it is given here.

*Psammaplidium pyriforme*, n. sp.

*External Appearance.*—The shape of the colony is rudely pyriform. The upper end is wide and usually flattened, while the lower part tapers to a small area of attachment. The sides vary in shape, they may be convex or almost flat. The surface is irregular and rough. The colour is yellowish-grey.

The length is 2 cm., the greatest breadth is 1.3 cm., and the thickness is 1 cm.

*The Ascidiozooids* are not large. They are placed at right angles to the upper surface of the colony, but do not show any regular arrangement in systems. The body is elongated antero-posteriorly, and the post-abdomen is distinctly separated from the anterior part.

*The Test* is very stiff and hard but brittle. It is densely crowded with sand-grains and other foreign particles. The matrix is clear and transparent. The test cells are small and inconspicuous.

*The Mantle* is thick, and the musculature is very strong. The muscle bands run chiefly in a longitudinal direction.

*The Branchial Sac* is long and narrow. The stigmata are numerous. They are of fair size and are arranged regularly.

*The Endostyle* is large and conspicuous.

*The Tentacles* are numerous but rather short. They are all of one size.

*The Alimentary Canal* forms a narrow loop. The stomach is globular and smooth-walled.

*The Post-Abdomen* is long and narrow.