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# STUDIES ON BRYOZOA.

## PART 2.<sup>1</sup>

BY

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(Figures 1-2.)

### 1. ON A COLLECTION OF BRYOZOA FROM 26-38 FATHOMS OFF NORAH HEAD, NEW SOUTH WALES.

By the courtesy of Mr. A. P. Summergreene, General Manager of the State Trawling Industry, Messrs. F. A. McNeill and A. A. Livingstone, of the Australian Museum, were afforded the opportunity of accompanying the State trawler "Goonambee" on her cruise of June 15-19, 1921. Among the material obtained from the trawl was a small collection of Bryozoa, which is interesting since it includes two new species, and also forms that have not hitherto been recorded from the coast of New South Wales. The collection contains:—

*Catenaria cornuta* Busk.

*Caberea grandis* Hincks.

*Bugularia dissimilis* MacGillivray.

*Porina larvalis* MacGillivray.

*Craspedozoum roboratum* Hincks.

*Lunularia rubra* sp. nov.

*Conescharellina magniarmata* Maplestone.

„ *philippinensis* Busk.

„ *conica* Haswell.

*Selenaria livingstonei* sp. nov.

*Retepora monilifera* MacGillivray, form *munita* Hincks.

*Adeonellopsis foliacea* MacGillivray.

Some interesting forms of a new species of *Bipora* are also in the collection, but the description of this species which is being dealt with elsewhere, is not included here.

*Lunularia rubra* sp. nov.

(Fig. 1.)

*Polyzoary*.—A top-shaped structure with a flat base, 3.5 mm. in height and 4 mm. at the diameter of the base.

*Diagnosis*.—The zoecia are roundly quadrangular and are arranged in radiating rows. The orifice, enclosed in a sloping peristome, is orbicular in shape and is protected by a yellowish operculum. The areas between

<sup>1</sup> For Part 1 see Records of the Australian Museum, Vol. xiii., No. 4, 1921, p. 157.

the orifices are granulated. Oœcia are absent. The vibraculæ are very plentiful and issue from small vibracular chambers situated between neighbouring zoœcia. The flagellæ are very long and golden, and are directed upwards and sideways, lying against the surface of the polyzoary.

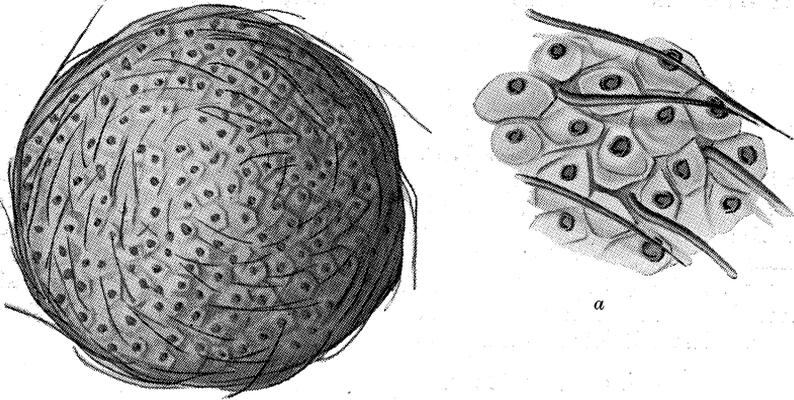


Fig. 1—*Lunularia rubra* sp. nov. a Zoœcial detail.

The basal surface is polished and is decorated with furrows, which radiate from the centre, and a number of which again divide into two about half way between the centre and the edge.

*Colour* (dry and in alcohol) red.

*Locality*.—Off Norah Head, New South Wales, 26-38 fathoms.

*Holotype* in the Australian Museum. (U. 951.)

*Selenaria livingstonei* sp. nov.

(Fig. 2.)

*Polyzoary*.—A strong discoid growth 11 mm. in diameter and from 4 to 5 mm. in height. The zoœcia, arranged in radiating rows, are superficial and occupy the outer surface. The basal or inner surface is smooth, though decorated with occasional radiating lines of minute punctations, which can be seen under a microscope. A cross section of the polyzoary shows the zoœcia to be remarkably shallow and superficial; the structure other than these is entirely made up of fibrous calcite. The greatest thickness, that is at the apex, is 2.5 mm., and this slopes evenly to a thickness of 1 mm. at the edges.

*Diagnosis*.—The zoœcia are roundly quadrangular and are covered with a yellowish depressed cryptocyst, the distal borders of which are overlapping. They are arranged in a radiating series of thirteen from the apex to the edge. The orifice is minute and is orbicular in shape. Oœcia are absent. Vibraculæ are very plentiful, and small circular vibracular cells are situated between the zoœcial rows over the entire

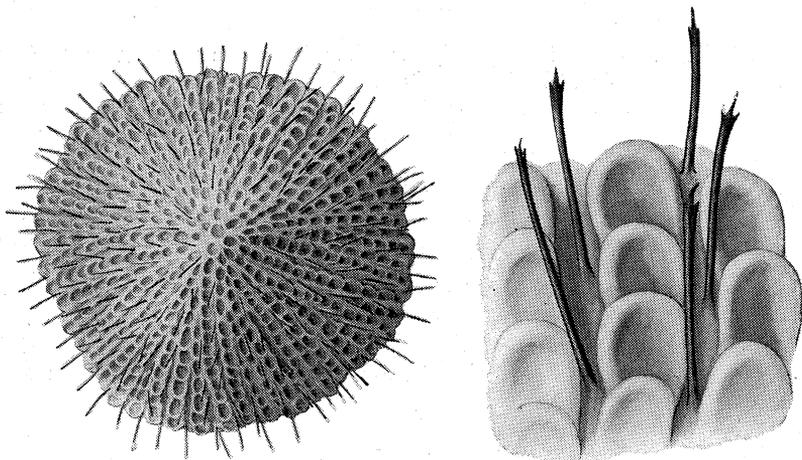


Fig. 2—*Selenaria livingstonei* sp. nov. a Zoecial detail.

surface. The flagellæ are almost rigid, deep brown in colour, with yellowish tips. Avicularia are absent.

*Colour and general appearance.*—Light brown and prickly.

*Locality.*—Off Norah Head, New South Wales, 26-38 fathoms.

*Holotype* in the Australian Museum. (U. 952.)

## 2. ON SOME SPECIES ALLOTTED TO THE GENUS *Bipora*.

An examination of the material detailed above has caused me to re-examine the specimens collected by H.M.C.S. "Miner" and described by Maplestone.<sup>2</sup> This author has followed Whitelegge's diagnosis<sup>3</sup> of his genus *Bipora*, which reads in part "Zoarium uni-or bilaminar, conical, or forming lobate or flabellate expansions." But the differences between the conical or top-shaped forms and those that are plate-like or fan-shaped are so marked, that one must give preference to the generic restrictions and emendations as proposed by Levinsen.<sup>4</sup> From my examination of the types then, the following species are removed from *Bipora* to the genus *Conescharellina*.

- Bipora biarmata* Maplestone.
- „ *multiarmata* Maplestone.
- „ *magniarmata* Maplestone.
- „ *anpulla* Maplestone.
- „ *mamillata* Maplestone.
- „ (*Conescharellina* ?) *eburnea* Maplestone.

<sup>2</sup> Maplestone—Rec. Aust. Mus., vii., 4, 1909, pp. 267-273.

<sup>3</sup> Whitelegge—Proc. Linn. Soc., N. S. Wales (2), ii., 1888, p. 340.

<sup>4</sup> Levinsen—Morph. and Syst. Stud. Cheilostomatous Bryozoa, 1909, p. 311.

3. ON SOME *Nomina nuda* IN JELLY'S CATALOGUE.

Mr. W. M. Bale, of Kew, Victoria, has drawn my attention to some names of *Catenicella* and *Claviporella* in Jelly's "Synonymic Catalogue of the Recent Marine Bryozoa" that are credited to Goldstein. No literature reference is attached to these species, and I am at a loss to know how they could have been included. Prior to his decease Goldstein disposed of his collection of Bryozoa and I am at present unable to trace it, though I believe it to have been sent to England. Those who were closely associated with Goldstein in his work were unaware that he had these new species under consideration, though, referring to his observations on living Bryozoa in conjunction with Maplestone, he states<sup>5</sup> "We have a goodly number of new species to describe." Be that as it may, the names or descriptions of these species do not appear in any paper published by this author, and they should therefore be deleted from the catalogue.

The species referred to are:—

- Catenicella constricta* Goldstein, p. 35.  
 ,, *inflata* Goldstein, p. 37.  
 ,, *maccoyi* Goldstein, p. 37.  
 ,, *monstrosa* Goldstein, p. 38.  
 ,, *perplexa* Goldstein, p. 38.  
*Claviporella bicorne* Goldstein, p. 63.  
 ,, *cucutna* Goldstein, p. 63.

Perhaps the most remarkable feature of these *nomina nuda* is that the two last mentioned have MacGillivray's names attached to them as probable synonyms.

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<sup>5</sup> Goldstein—Quart. Journ. Mic. Soc. Vict., i., 2, 1880, p. 49.