

have been detected in their natural habitat. The *Huxleya* grew in a tank of my own filled, of course, with water from the Bay, which had not been changed for many months. The other beautiful Polyzoan was found by my friend Mrs. Brett, in a tank devoted to *Actinæ*, but of which the water was changed pretty frequently.

I had long observed the presence of the *Huxleya* in my tank, but fully believing it to be *Eucratea chelata*, had never taken the trouble to examine it, and, unfortunately, when I did so, the polypides were dead, and nearly decomposed. They appear to communicate very freely with the general sarcodæ of the polyzoary, as much so as in *Laomedæa* and other hydroid Polypes. The retractor muscles are very long. The nearest form to *Huxleya* would probably be *Hiatophila*, Gray ('B. M. Cat.,' p. 43, pl. xxx).

In the case of *Brettia*, its discoverer laid it aside after gathering it, and it was not examined till after death; but there is no reason to suppose that there is anything distinctive about the polypide.

---

On some MADEIRAN POLYZOA.  
Collected by J. YATES JOHNSON, Esq.  
(Continued from No. XXII, p. 129.)

WE here give figures and descriptions of some species of Madeiran Polyzoa, additional to those contained in a former part of the Journal.

I. FAMIL. BICELLARIADÆ, Busk.

1. Gen. *Bugula*, Oken.

1. *B. ditrupæ*, n. sp., Busk. Pl. XX, figs. 7, 8.

Cells biserial, elongate, fusiform. Aperture wide, elongated, with two or three marginal spines on the outer and one on the inner side of the aperture above. Avicularia capitate, attached to the side of the cell below the middle.

*Hab.* Madeira, Johnson. On the shell of *Ditrupa acuminata*.

The present species is distinguished from *B. flabellata* by the biserial arrangement of the cells, and from *B. dentata* by their elongated and fusiform shape. Independently, however, of these characters, the general habit and very peculiar site of growth of *B. ditrupæ*, formerly noticed, would alone suffice to indicate its specific independence.

## 2. Fam. MEMBRANIPORIDÆ, Busk.

2. Gen. *Membranipora*, Blainville.1. *M. antiqua*, n. sp., Busk. Pl. XX, figs. 1, 2.

Area of cell pyriform, irregular, arched above, and either pointed or truncate below. Aperture sub-trifoliate, or somewhat contracted on the sides below the middle. Septa simple, not grooved. Numerous vibracular cells irregularly scattered throughout the polyzoary among the others, of an ensiform or falciform figure.

*Hab.* Madeira, Johnson (on shell).

A considerable number of fossil species of *Membranipora*, and several of *Eschara*, are characterised by the presence in various points of the polyzoary of cells differing in form and size from the common polypide-cells. From analogy with similar cells in several species of Lunulites, which are known to be vibracular organs, there is little or no doubt that the cells in question in the *Membranipora* and *Eschara* are of the same kind. And this supposition is further confirmed by the circumstance, that in *M. stenostoma*, Busk ('B. M. Cat.', p. 60, pl. c, fig. 1), avicularian cells are present, similarly disposed with relation to the polypide-cells.

This peculiar character in the present species, by which it is distinguished from all other recent *Membranipora* with which I am acquainted, with the single exception above noticed, renders it a form of particular interest, when compared with many fossil species, occurring as it would seem in the Cretaceous formation. Instances of these will be found in the 'Paléontologie Française' of M. D'Orbigny, and more especially in the forms described and figured as—

- Cellepora Xiphia*, pl. dcxxiii, figs. 3, 4.
- „ *Xanthe*, ib., figs. 5—7.
- „ *Michaudiana*, pl. dcxxii, figs. 3, 4.
- „ *Xelimia*, ib., figs. 15, 16.
- „ *Parisiensis*, ib., figs. 13, 14.
- Semieschara simplex*, pl. dcxix, figs. 1—4.
- „ *excavata*, dcxx, figs. 6—9.

As well as in Hagenow's 'Bryozoen der Maastrichter Kreidebildung,' in the forms denominated—

- Cellepora Koninkiana*, pl. xi, fig. 10,
- „ *depressa*, ib., fig. 13,
- „ *camerata*, ib., fig. 9,

and others.

3. Gen. *Leprotia*, Johnston.1. *L. sceletos*, n. sp. Busk. Pl. XX, fig. 3.

Outline of cell oval; anterior wall constituted of rib-like spines, six or seven on each side, which meet and interdigitate on the median line. An

ascending spine at each lower angle of the aperture. Avicularia of a blunt, rounded, elliptical form, scattered over the polyzoary among the cells.

*Hab.* Madeira, Johnson.

A very peculiar and well-marked species, characterised not only by the skeleton-like appearance of the cells, some resemblance to which may be occasionally observed in *L. nitida*, but more especially by the large blunt avicularia scattered irregularly among the cells, as in *L. monoceros*, Busk, and *L. margaritifera*, Quoy and Gaim ('B. M. Cat.,' pl. ci), in which latter the avicularia, though far smaller, are of pretty nearly the same shape as those of *L. sceletos*.

2. *L. radiata*, Moll. Pl. XX, figs. 4, 5. ('Quart. Journ. Microsc.,' vol. vi, p. 128.)

3. Fam. CELLEPORIDÆ.

4. Gen. *Cellepora*, Fab.

1. *C. Hassallii* (var.  $\alpha$ ). Pl. XX, fig. 6.

The only difference apparent between the present form, and that taken as the typical species in the 'B. M. Cat.,' p. 86, pl. cix, figs. 4, 5, 6, is the absence in it of the punctures in the ovicell. Whether this is alone sufficient to constitute a specific distinction, may be considered doubtful. For the present, I am inclined to regard the Madeiran form simply as a variety of the British.

---