

## POLYZOA.

*Cellaria setigera*.  
*Cellaria grandis*.  
*Flustra episcopalis*.  
*Calwellia sinclairii*.  
*Dimetopia spicata*.

*Membranipora spinosa*.  
*Lepralia imbellis*, B.=*pertusa*.  
*Catinicella ventricosa*.  
*Catinicella cribraria*.

*Scrupocellaria simplex*.  
*Cabarea texta*.  
*Cabarea rostrata*.  
*Burgula, sp.*

Professor W. B. Benham, D.Sc., reports as follows:—

The number of smaller invertebrates are few in proportion to the number of hauls; this is owing to the absence of a suitable dredge. Nevertheless, amongst those that were gathered there are quite a number of interesting species, some of which have not been recorded since the reports on the early voyages published by Quoy and Gaimard, by Schmarda, and others, while a considerable number are new to science. In the brief period since they arrived in Dunedin it has been impossible to identify with accuracy all the species of these lower forms, and, in the case of new species, it is inadvisable to publish their names without a description sufficient to characterize them. Hence only a few of these new ones will be enumerated at the present time.

## CŒLENTERA.

Of the few species obtained, two are new to science—one belonging to the Anthozoa, the other to the Ctenophora.

1. A handsome, Indian-red species of *Alcyonium* was obtained in Tasman Bay. It is attached to shells, &c., by a very short, broad stalk, which bears a number of short, rounded lobes or branches covered with the polyps, which are white, with an orange band just below the white tentacles. The cœnenchyme is so densely crowded throughout with spicules as to be extremely hard.

2. A single specimen of a species belonging to the genus *Euplokamis* of Chun was captured in the tow-net between D'Urville Island and Farewell Spit. It is an ovoid, transparent organism, with the eight comb-bearing ridges extending along its whole length, which is a little less than an inch. The two tentacles issue from their sacs close to the aboral pole. At the same time a number of young ctenophores, belonging to a different genus and another order, were captured.

Mention may also be made of *Flabellum rubrum*, Quoy and Gaimard, of which half a dozen specimens were obtained in Tasman Bay.

## ECHINODERMA.

Representatives of all the classes, except Crinoids, were gathered, and amongst them there are two, or perhaps three, starfishes which appear to be new. Of the rest we obtained *Asterias scabra*, *Astrogonium abnormale*, *Madracis globosa*, *Echinocardium zealandicum*, as well as a few ophiurids and some large holothurians, which have not been worked over.

## BRACHIOPODA.

Three common species were obtained from various localities—*Magellania* (*Waldheimia*) *australis*, *Terebratula cruenta*, *Terebratella rubicunda*.

## ANNELIDA.

The marine segmented bristle-bearing worms (or Polychætes) occurring round our coasts have never been systematically worked at, and, except for a few scattered records in older memoirs, we know nothing of this group, whose genera and species are very abundant. Many of those described by earlier writers are scarcely recognisable nowadays, owing to the brevity of their accounts, so that it is not surprising that out of the score of species so far examined with care, that were collected during the cruise, at least fifteen are new to science. Of these I mention a few only:—

*Lepidonotus giganteus*, Kirk.—A very handsome polynoid or scale-bearing worm was obtained at several stations, and it appears to be widely distributed along, at any rate, the east coast of the South Island.

*Aphrodita maorica*, n. sp., is chiefly remarkable for the absence of the iridescent hairs so generally present in the genus. The animal is  $2\frac{1}{2}$  in. long by about  $1\frac{1}{2}$  in. across; the grey felt which covers the back is penetrated by long bronze-coloured bristles forming two irregular rows on each side, directed backwards and upwards, while a third bunch of similar bronze bristles, directed outwards and backwards, in each segment forms a brown margin to the body. The position of the usual iridescent hairs is occupied, on each foot, by a bunch of short, delicate, flexible, yellow hairs, which are covered with mud; these do not project far enough to be visible from above. The ventral lobes of the foot bears about fifteen stout brown chaetae, arranged in three tiers. Two specimens were obtained off Blind Bay and Golden Bay, 8–17 fathoms.

*Aphrodita talpa*, Quatrefages, and several small polynoids were also obtained at various stations.

Of the genus *Eunice* three new species have to be recorded, one of which may be briefly characterized, as it is a very common worm round the coast.

*Eunice leuconuchalis*, n. sp., is a rich, reddish brown, darker anteriorly than posteriorly, where the colour may fade to nearly white. The nuchal segment is white (hence the name). The worm measures 3 in. to  $4\frac{1}{2}$  in. by about  $\frac{1}{2}$  in. across, and consists of a considerable number of segments. The prostomium, deeply coloured, is bifid, and carries five moniliform tentacles, which are coloured with alternate brown and white rings. The median tentacle is as long as the peristomium and following four segments; the lateral tentacles are smaller. The gills commence on the 7th foot, and cease at the 35th. They are longest on the 12th to the 22nd feet, where they bear about fifteen