ARAFURA SEA.

Molleria cornuta, Cleve. Lauderia annulata, Cleve.

" moseleyana, Castracane.

Rhizosolenia robusta, Norman.

indica, Peragallo.

" arafurensis, Castracane.

,, striata, Greville (= R. imbricata, Brightwell).

" calcar-avis, Schultze.

" cochlea, Brun.

" styliformis, Brightwell.

,, var. polydactyla, Peragallo.

" temperei, Peragallo.

stolterfothii, Peragallo.

Guinardia flaccida, Peragallo (= Rhizosolenia, Castracane).

Cerataulina bergonii, Peragallo.

COPEPODA (Brady, Zool. pt. 23).

Calanus valgus, n.sp.

Eucalanus setiger, n.sp.

Undina vulgaris, Dana.

Euchæta prestandreæ, Philippi.

Temora dubia (Lubbock).

Centropages furcatus (Dana).

Pontella acuta (Dana).

,, kröyeri, n.sp.

AMPHIPODA (Stebbing, Zool. pt. 67).

Tetrathyrus arafuræ, n.sp.

Amphithyrus sp. (?).

Chætoceros boreale, Bailey.

" peruvianum, Brightwell.

.. lorenzianum, Cleve.

,, coarctatum, Lauder.

,, diversum, Cleve.

" incisor, Ralfs.

, protuberans, Lauder.

,, javanicum, Cleve.

" secundum, Cleve.

, compressum, Lauder.

., distans, Cleve.

sp. (?).

Bacteriastrum varians, Lauder (incl. B. spirillum, Castracane).

wallichii, Ralfs, var. hispida,

Castracane. brevispinum, Castracane.

Schizopoda (Sars, Zool. pt. 37).

Euphausia latifrons, n.sp. Siriella gracilis, Dana.

MACRURA (Spence Bate, Zool. pt. 52).

Lucifer typus, Thompson.
, reynaudii, M.-Edwards.

PTEROPODA (Pelseneer, Zool. pt. 65 ).

Clio (Creseis) acicula (Rang).

The tow-nets were filled with a yellowish slime, which proved to be a mass of Diatoms, having the same general aspect as those obtained on March 3, 1874, towards the Antarctic, but the species were different; Rhizosolenia was the most abundant. The Diatoms were sometimes massed together, looking like some of the compound Radiolaria; one jelly-mass observed seemed to be covered with small cylindrical forms, containing inside of these two or three lanceolate or fusiform varieties, which exhibited motions. The masses were of a brown-green colour, and were sufficiently numerous to colour the water to some extent. Many of the Diatoms had attached to them Epistylis, Carchesium, and Vorticella with contractile threads, Stentor sessile on the large forms, all living and very beautiful under the microscope. Rhizosolenia became less plentiful, and species of Coscinodiscus more abundant, on approaching the Arrou Islands, and