great length of the pereiopoda, more especially the three posterior pairs, which is chiefly caused by the enormous length of the ischium, meros, and carpos. The articulation between the ischium and meros is, moreover, of peculiar and unique character, and seems probably adapted for the great muscular strain consequent upon the length of the joints. The extremity of the ischium lies longitudinally under the meros, so that these joints overlap and support each other. The propodos, coxa, and basis are very short, and the last supports a short two-jointed ecphysis.

The ventral surface of the pereion in the male carries on each of the three posterior somites a flat anteriorly projecting plate or process on each side of the median line, and the female carries a similar process on the fourth somite, but not on either the fifth or sixth.

The branchial arrangement consists of a series of pleurobranchiæ and rudimentary mastigobranchiæ, as may be seen from the following table :-

| Pleurobranchie, | . | - | $\ldots$ | $\ldots$ | 1 | 1 | 1 | 1 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arthrobranchix, | . | . | $\ldots$ | 1 | 1 | 1 | 1 | 1 | $\ldots$ |
| Podobranchiæ, |  |  | 1 | $\ldots$ | ... | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| Mastigobranchiæ, |  |  | 1 | 1 | r | r | r | r | $\cdots$ |
|  |  |  | h | i | k | 1 | m | n | 0 |

Geographical Distribution.-Several species of this genus have been found in different parts of the globe. It was first taken by the Challenger in the Southern Indian Ocean at the depth of 1200 fathoms, and again near the Kermadec Islands and the Fiji Islands at 600 fathoms ; in the narrows between Borneo and Celebes, specimens are recorded from 255 fathoms. Off Yedo in Japan others were taken at depths of 350, 560 , and 1875 fathoms. Specimens have also been recorded from the Gulf of Mexico and the Mediterranean by A. Milne-Edwards. In all instances excepting one the bottom was either mud or ooze; in the exceptional case it was rocky. The bottom temperature varied from $35^{\circ} \cdot 3$ to $41^{\circ} .8$.

I am inclined to believe that the animals live at an average depth of between 300 and 500 fathoms in mid-water.

## Nematocarcinus undulatipes, n. sp. (Pl. CXXX.).

Rostrum horizontally straight, one-third the length of the carapace, armed on the upper margin with twelve or thirteen small teeth, and on the lower margin with one small tooth near the apex; beyond this tooth the margin suddenly curves towards the extremity.

Ophthalmopoda short and orbicular.
First pair of antennæ having the peduncle short and stout, and the flagella subequally slender, extending to about three times the length of the animal.

