MISCELLANEA

GENERAL.

MIMICRY OF A MUTILLID BY A SPIDER.—On a railway embankment about two miles south of Cuttack I recently collected a curious spider which I mistook at first sight for a female Mutillid. It was running about on bare soil in a manner peculiarly like that of a Mutillid; the "cephalothorax" was reddish and the "abdomen" black with white spots. The white spots have unfortunately disappeared entirely in spirit, leaving the "abdomen" uniformly black, but even now the rough red "cephalothorax" blackened over an area in front corresponding to the head of a Mutillid, the apparently velvety (in reality somewhat polished and finely punctured) black "abdomen," and the general shape of the specimen give it a very *Mutilla*-like appearance. A few minutes before finding this specimen I had obtained a specimen of *Mutilla pondicherensis*, which it resembles closely in form and general colour, differing however in the markings on the abdomen, those of the spider consisting in life, to the best of my recollection, entirely of white spots without any bands. There were, I believe, three (or two ?) transverse rows of these round spots, each row consisting of one median and two lateral spots, those of the anterior row being much larger and more widely separated from each other than the rest. The spider and the *Mutilla pondicherensis* found near it are preserved together in spirit, in the Indian Museum collection, and as it is impossible for us at present to get the spider identified I publish this note as a record of its appearance in life for the benefit of whoever may ultimately work out the collection. Mr. E. E. Green informs me that he has observed a similar phenomenon in Ceylon; he has already published a note on it in *Spolia Zeylanica* (vol. iv, 1907, pp. 181-2), and a further note is in preparation which will be accompanied by a coloured figure. My specimens have been submitted to him for examination and he tells me that he believes the spider to be the same as his, in which case its name is *Coenoptichus pulchellus*, Simon (= *Mycterocryptus mutillarius* of a later paper by Karsch).

F. H. GRAVELY.

XIPHOSURA.

CAPTURE OF *Limulus* ON THE SURFACE.—From time to time, as more and more observations on the planktonic fauna of the ocean are carried out, the occurrence of unusual constituents are reported and it seems worthy of being placed on record that on the night of the 19th of December, 1911, an adult specimen of *Limulus muluccanus*, Latreille (= *Tachypleus gigas* (Müller)[1]),

[1] *Vide* Pocock, *Ann. Mag. Nat. Hist.* (vii), vol. ix, 1902, p. 262.

measuring approximately 39 cm. in length, was captured in a large surface tow-net by the R.I M.S.S. "Investigator." The net had been shot at 6-30 p.m., shortly after the ship had been anchored for the night at a spot about 4 miles west of the entrance to Hinzé Basin on the south Burma coast (97° 45½′ E., 14° 43½′ N.) in about 10 fathoms, and had been allowed to drift with the tide, being kept on the surface by means of a bamboo float.

How an animal, so obviously a bottom-dweller, had been carried or made its own way to the surface, must, I fear, remain a mystery.

R. B. SEYMOUR SEWELL.

BRACHIOPODA.

NOTE ON THE DEVELOPMENT OF THE LARVA OF *Lingula*.—Up to the present time, of the various contributions to our knowledge of the development of the *Lingula* larva that have been published, only two can be considered in any way to approach completeness, to wit, those of Brooks[1] and Yatsu.[2] The accounts given by these two observers in the main agree very closely though differing in slight details, of which one of the most important is the length of the peduncle that is formed before protrusion from the shell takes place: according to Brooks the peduncle attains considerable length before it is protruded from the shell, whereas according to Yatsu only a short peduncle is formed. This difference may have been due either to the fact that Yatsu's specimens were kept in captivity during the latter part of their development or to a specific difference in the larvae obtained, those of Brooks's being the larvae of *Glotidia pyramidata*, whereas Yatsu's examples were those of *Lingula anatina*.

During the months of December and February, 1911, several of these larvae were captured in the surface tow-net off the mouth of Hinzé Basin and the neighbouring waters of the south Burma coast about four miles from shore and as they differ in one or two particulars from the previous accounts it has been thought that a brief account of these discrepancies may be of some little value.

The chief differences noted are two in number:--

1. *The stage of formation and protrusion of the peduncle.*—Both Yatsu and Brooks agree in stating that the peduncle first makes its appearance at the end of the 6-, or commencement of the 7-pairs of cirri stage, and the former observer found that in his specimens, in captivity, protrusion took place at the commencement of the 10 p.c. stage. The youngest specimens obtained by me in December had already reached the 9 p.c. stage

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[1] W. K. Brooks, "The development of *Lingula* and the systematic position of the Brachiopoda," *Chesapeake Zool. Lab.* Scientific Results of the Session of 1878, p. 35. Baltimore, 1879.

[2] N. Yatsu, "On the development of *Lingula anatina*," *Journal of the College of Science*, Tokyo, vol. xvii, art. 4.