

inferior margins finely serrated, the third segment with the postero-inferior angle produced into a long, spinous process, the angle of the first and second segments square behind, not produced." Claus, on the other hand, for his species gives "die Seitenflügel der Abdominal-segmente unbewaffnet," yet he figures the postero-inferior angle of the third pleon-segment produced into a sharp point, the same angle on the two preceding segments being well rounded.

1877. THÉEL, HJALMAR.

Relation de l'expédition Suédoise de 1876 au Yénissei. Upsala, 1877. p. 33.

"*Gammarus pulex* found in lakes of the Tundra, near Dondino, Siberia, at 69° N. lat." (Dr. von Martens, Zool. Record for 1877.)

1877. THOMSON, C. WYVILLE.

The Voyage of the 'Challenger.' The Atlantic. A preliminary account of the general results of the exploring voyage of H.M.S. 'Challenger' during the year 1873 and the early part of the year 1876. Vol. I. London, 1877.

There is but one passage specially referring to the Amphipoda (pages 129-132). On January 28, 1873, the trawl was employed successfully "at a depth of 1090 fathoms, about 90 miles to the south-east of Cape St. Vincent." "The trawl on this occasion contained a single example of the female of a very large amphipod crustacean, briefly described under the name of *Cystosoma neptuni* by Guérin-Méneville from a single specimen obtained in the Indian Ocean. We have since taken several specimens at different stations in the Atlantic; and as a small male was in one case captured in the towing-net, there can be little doubt that, like *Phronima*, to which genus it is allied, *Cystosoma* is a pelagic animal, probably retiring during the day to a considerable depth, but occasionally coming to the very surface of the water. The male example figured (Fig. 27), which is 103 mm. in length, was taken in Lat. 1° 22' N., Long. 26° 36' W., a little to the east of St Paul's Rocks, where the depth was 1500 fathoms.

"The animal presents a very remarkable appearance. It is absolutely colourless and transparent, so that by transmitted light the internal organs can be perfectly seen through the test—the cephalic ganglion with the nerve-fibres running to the antennæ and the eyes; the ganglia of the double ventral cord with the filaments passing to the appendages; the heart, an elongated tube with three openings; the stomach, a large sac with a small intestine leading from its base to the excretory opening in the telson; in the female two large rose-coloured ovaries, the oviducts passing to an opening covered by two small lamellæ, at the base of the first segment of the pereion; in the male two elongated testes, their ducts opening between the appendages of the seventh segment.

"The head is large and greatly inflated, and its upper surface is entirely occupied by two enormous faceted eyes, reminding one of the eyes of *Æglina* among trilobites. There are two rows of spines along the lateral borders of the head, and some spines are placed round the mouth, which is in the usual position at the base of the cephalic segment on the lower surface of the body. The first pair of antennæ only are developed in either sex. The antenna consists of two joints, and is attached to the anterior margin of the head.

"The parts of the mouth and the maxillipeds are very small; the two gnathopods are terminated by claws as in the Typhids, and act functionally as second and third maxillipeds.

"The pereion consists of seven segments; and the pleon of five, to the two last of which the