

the length of the next succeeding joint, which consists most probably of the ischium and meros united, and is curved to leave space for the oral appendages. The next joint is long and narrow, and probably represents the carpos, and the terminal joint is long, slender, and straight, obliquely truncate, and laterally fringed with a soft fur of short hair.

The first and second pairs of pereopoda are chelate, the anterior pair is slightly shorter than the succeeding, and a little more robust; the carpos is long, nearly as long as the propodos, which is not larger in diameter, and terminates in two closely impinging fingers, of which the movable dactylos is more curved than the fixed pollex. The third, fourth, and fifth pairs of pereopoda are simple and rather short, being scarcely longer than the first two pairs; the ischium and meros are rather stout, and the carpos is long; the third and fourth pairs terminate in a long and slender dactylos, while in the fifth pair it is short and supported by a brush of hair. All the pereopoda, including the chelate pairs, and also the gnathopoda, carry a slender basephysis that lessens in length on each posteriorly, but is never rudimentary, and all excepting the posterior pair carry a mastigobranchial appendage, which, though small, is sufficiently long to penetrate to about half their length between the branchial plumes, and fulfil, we may assume, some efficient duty connected with respiration.

The pleopoda are biramose, having a short basal joint and narrow, subfoliaceous, flexible branches; the inner in the female carries a long stylamblys tipped with a bundle of cincinnuli, except in the case of the first pair, which has the inner ramus reduced to a rudimentary condition and thickly fringed with plumose hairs, and without a stylamblys such as is present in *Acantheephyra armata*. The posterior pair of pleopoda, which forms the lateral plates of the rhipidura, is narrow and subequal in length to the telson, and the outer angle of the diæresis is armed with a tooth and small spinule.

The eggs are ovate and numerous, and of moderate dimensions.

The branchiæ are generic in character.

*Observations.*—This species appears to be both abundant and widely distributed; it was taken by the Challenger at eleven stations, more or less distant from one another,—in the Atlantic and Pacific Oceans, as far north as Japan, and as far south as New Zealand. It is a more perfect representative of the genus than *Acantheephyra armata*. Its bathymetrical range is also great, since it has been taken at a distance of from less than half a mile to about three miles from the surface of the ocean. It appears to be very prolific also, since some of the females that were captured carry a large number of small eggs.

The specimen taken at Station 318 in the South Atlantic Ocean is a variety that approximates somewhat both in size and features to *Acantheephyra acanthitelsonis*, which was taken in Mid Atlantic near the equator. It differs from the typical form in being larger, in having only three teeth on the lower margin of the rostrum, two of which