

armed on the outer or smooth side near the apex with a very long and narrow tooth, slightly serrate at the margins, and on the inner side with long ciliated hairs.

The oral appendages are advanced in development.

The third pair of siagnopoda or maxillipede is biramose, and has the several joints fringed with hairs.

The first pair of gnathopoda consists of a long basal joint, which supports two branches; that which represents the permanent limb is four-jointed, while the branch is a slender, feeble appendage.

The second pair differs from the first in being longer and in having the branch or ecpysis larger.

The five pairs of pereopoda are all similarly developed, but become slightly shorter posteriorly.

The pleopoda exist as long, narrow, bud-like sacs, except the sixth pair, which is large and well developed. Its two branches are subequal in length, fringed with long hairs, and not longer than the telson. The outer plate has the external margin smooth in its basal half, where it is armed with a long and slender tooth.

Length, 7 mm. (0.28 in.).

*Habitat.*—The South Pacific Ocean.

This form, as well as *Acanthosoma brevitelsonis*, should be studied in connection with the younger stages of *Mastigopus* (Pl. LXV. figs. 3, 4), and compared with *Sergestes brachyorrhos* and *Sergestes caudatus*, Kröyer, in which the short and long telson respectively is persistent in the adult.

Another specimen was taken in the Atlantic, on the 13th April 1876, which corresponds in several respects with the present form, but differs in certain details that may depend upon a slight difference in age, and in others of more or less importance.

The form of the rostrum and carapace is the same as in the preceding, but the latter bears a large smooth tooth on each side of the gastric region, and a small tubercle in the median line between them, and just within the posterior margin; also in the median line there is another long anteriorly curved tooth.

The pleon corresponds in its adornment with that of the previous specimen, except that the posterior somite is dorsally armed with a long, serrate, spine-like tooth, and each of the postero-lateral angles terminates in a short, sharp, plain tooth, instead of in a long ornate one.

The appendages correspond with those of the specimen taken in the South Pacific, except that the pleopoda are a little more developed, and the outer plates of the rhipidura are slightly spatuliform, and have the tooth that arms the outer margin somewhat nearer to the distal extremity than to the base, and standing at the broadest diameter of the plate, which is furnished distally and on the inner side with very long ciliated hairs.