

small circular foramen, the rudiment of the future phymacerite, connected with which is the incipient green gland. The appendages of the mouth are assuming the permanent form, but as yet I have not been able to determine the future synnhipod, but the calcified tendon is seen as a long thread reaching to the second pair of antennæ. The first pair of siagnopoda, so far as I can make out, is the only pair of oral appendages yet present.

The small two-jointed appendage attached to the anterior angle of the pereion is still a feeble and unimportant organ. The next in succession is unbranched and pedi-form, but appears not to have increased in length or in importance.

The next five pairs are of the same relative value. The penultimate pair has increased until in size and appearance it resembles the preceding pairs, while the ultimate still remains in the form of a small elongated vesicle, to the proximal extremity of which small muscles are attached. It is more distant from the angle that is formed by the union of the pereion with the pleon than in the form shown in fig. 3, Pl. XIIA.

The pleon exhibits on the ventral surface five pairs of marginal papillæ that increase but little in size posteriorly until the sixth pair, which is more developed and exhibits signs of being pendulous and bilobed.

The next specimen was taken off Kandavu, one of the Fiji Islands, and is 15 mm. in length.

The difference between this specimen and the preceding is very slight, none being appreciable in the progressive development, but the carapace is somewhat broader in proportion to its length, which is probably due to its being the young of an approximate or variable species.

Our next specimen in point of size, was taken at the Cape Verde Islands. It is 22 mm. in length, or 7 mm. longer than the previous one which was taken off the Fiji Islands. It differs little in structure, but the oral appendages have approached nearer to the pereion, and the other pairs assimilate to those of the preceding stage except the posterior pair of periopoda which have increased in length but are still unbranched, biarticulate, and in an immature condition. The pleopoda are all produced as biramose appendages, the branches being each attached to a small basal joint. The posterior pair is the largest, as might be anticipated from its earlier appearance and future condition. The pleon has increased from 1 to 4 mm. in length.

The other specimens in the collection are from St. Thomas Island, West Indies. There are three of the same species, one of which is 15 mm. in length and corresponds in development with the preceding; another is 30 mm., and the third is 35 mm. in length; a fourth specimen (Pl. XIIc. fig. 1) evidently belongs to another species. None of these probably are the young of those species which are known in the more western longitudes, but their study must throw some light upon the relative growth of parts during the development of the animal.

The length of the smallest of these specimens is double that of the largest of the preceding, and consequently we should expect to find a considerable amount of progressive change,