

No doubt there are large numbers in the sea, and these are occasionally taken, but though the adult is common<sup>1</sup> on our south western coast, yet the *Phyllosoma* form has only been taken occasionally as solitary specimens. In the warmer latitudes they have been more frequently captured, from the length of 1.5 mm. to that of 30 mm., but these being from different as well as distant localities are undoubtedly the young of different species or perhaps even genera.

The smallest, and as we may suppose the youngest form (Pl. XIIA. fig. 2), taken by the Challenger off Samboangan, is about 1.5 mm. in length, corresponding to that of the young when it quits the egg. It differs from the more immature form (fig. 1) that I have taken from the ovum of the European species, in having the vitellus entirely absorbed, and in having the various hairs that fringe the appendages liberated from the embryonic case and freely extended. The central eye or ocellus is distinct; close behind (fig. 4) and connected with it, is a small circular transparent body that I take to be a lens, posterior to this again and lying transversely is a narrow line of rigid integument that I take to be the ventral surface of the first or ophthalmic somite. It extends from the base of one ophthalmopod to that of the other, where it probably blends with the membranous articulation. The ophthalmopod is long and cylindrical, and suddenly expands at the base of the ophthalmus. On each side of the median line, a little posterior to the ventral ridge of the first somite, are two small bodies that appear to be the nuclei of a mass of nerve matter that surrounds them. This neural substance passes back in two gradually narrowing lines, one on each side of the oral apparatus, from whence I was not able to trace it until it reaches the pereion, where it reappears in the form of three double lobes corresponding with the three posteriorly developed pairs of pereiopoda. The mandibles possess a rigid character and a long calcified tendon that extends nearly to the base of the second pair of antennæ. I have not been able to determine whether the synnhipod be present, neither can I determine in this solitary specimen whether the first pair of siagnopoda be developed. The first pair of pereiopoda consists of a small, unbranched, well-formed appendage, it has only six joints, very short, and terminates in a sharp pointed dactylos.

The second pair is also six-jointed, it is very much longer than the first, is biramose, and terminates in a long and slender dactylos.

The third and fourth pairs of appendages are seven-jointed and resemble each other, except that I could only determine the presence of a long spine-like tooth at the distal extremity of the ischium in the third pair, whereas in the fourth there is a prominent one present on the basis, ischium and meros also. There is, moreover, a small branch attached to the coxa; this is homologous with the mastigobranchia in the adult animal, and exists on the third and fourth pairs of pereiopoda, but not, so far as I could deter-

<sup>1</sup> The late Mr. Laughrin of Polperro informed me that one man took, a short time since, as many as sixty-four in one night off Kedgwith near the Lizard, and frequently as many as fifty.