

“And very similar to that of *Sergestes* is the development of *Leucifer*. Here the earliest *Zoëa* of a species from the Western Pacific has at first no eyes, then sessile ones come out, and the animal then presents the form which Dana has called *Erichthina demissa*, and which Claus suspected to be not a Stomatopod but a Schizopod larva. After the second moulting this *Erichthina* gets stalked eyes and very long setæ on all its appendages, becoming a rather long, very delicate *Zoëa*. It now enters the *Amphion* stage, but never gets more than four pairs of pereopods, and loses another pair of these when it moults for the youngest *Leucifer* stage, in which two pairs of pereopods are absent.

“The next question, after having found this out, was, of course, whether *Amphion*, *Sergestes*, and *Leucifer*, leave the egg as a *Zoëa*, or whether there is a preceding *Nauplius* stage. My own impression is that in the two first-named genera this is not the case, as the youngest *Zoëas* which I caught had all the same size, and as none of them was without the large lateral stalked eyes. As for *Leucifer*, the question appears to me to be doubtful;<sup>1</sup> for it is, from what I have seen, quite possible that my youngest *Zoëa*, which has only got a central eye, may be preceded by a *Nauplius*. Of course the simplest thing would be to get the eggs; but there is the difficulty, for *Amphion* is caught very rarely, and has never been obtained at any other time but between 8 and 12 P.M., when it is extremely difficult by lamp-light to find out the youngest stages. *Sergestes* larvæ are commoner, appearing also in the day-time, and *Leucifer* is sometimes caught in abundance. I hope, therefore, that I shall succeed in completing my researches about this question, especially as far as the latter two genera are concerned.

“H.M.S. ‘Challenger,’ Honolulu, Sandwich Islands, July 30, 1875.”

### *Petalidium*,<sup>2</sup> Spence Bate.

*Petalidium*, Sp. B., Ann. and Mag. Nat. Hist., ser. 5, vol. viii. p. 194, 1881.

External tissue membranous. Carapace about one-third of the length of the animal, dorsally elevated above the frontal region to a laterally compressed crest, and anteriorly produced to a small point. The cervical fossa is well defined. The rest of the animal is smooth. Pleon with the somites subequal, the fifth being a little shorter than those anterior to it, and the sixth somewhat longer.

The ophthalmopoda are uni-articulate, long, subcylindrical, and slightly compressed, and stand upon their own somite, which projects between them in advance of the frontal margin.

First pair of antennæ with the first joint excavated on the upper surface, and

<sup>1</sup> This has since been cleared up by Professor Brooks (*Phil. Trans.*, pt. i. p. 57, 1882), who has shown that the brephalos of *Leucifer* is in the Nauplius-stage.

<sup>2</sup> πεταλίδιον, a small leaf.