

the fact that the stained specimen has been largely denuded of its epidermis, which can be seen in places adhering to the tentacle and also to the circumoral region.

In addition to this, there was a small Cephalopod in the collection preserved in spirit, which there can be no reasonable doubt is identical with the three specimens above discussed although it was taken in the Atlantic. From the figure of it here given (Pl. XXXII. fig. 10) it is seen to have the same stalked eyes and long process carrying the mouth and arms, the same form of body, and (so far as can be seen) of pen, and the same distribution of chromatophores. Also since the figure just referred to was drawn I have received another specimen from Dr. Pelseneer, who found it among the collection of Pteropods on which he is engaged, and it is of special importance because it was taken at the same locality as the three examples mounted by Suhm. It resembles the Atlantic specimen so closely that the drawing might have been equally well made from either.

The arms are rudimentary and carry each one sucker, and here it may be observed that in every Cephalopod the arms pass through a stage in which they have each only one sucker. In the case of *Cranchia* and allied genera, where even in the adult the sessile arms are very short, it is only reasonable to expect this one-suckered stage at a much later period of development than in such forms as *Loligo*, where they reach a comparatively greater length, and as above mentioned (p. 185), specimens of *Cranchia reinhardtii* have been seen in the present collection, in which the arms were quite rudimentary, although the animals had attained more than one-third of their usual dimensions. In the present example the suckers stand upon small papillæ, which are obviously rudimentary arms, an arrangement not visible in the mounted specimens (see fig. 10).

Furthermore the correspondence between these small spirit specimens and the two larger ones from the Southern Ocean, which must be regarded as the types of the species, is so close that it is impossible to do otherwise than consider them as identical. The resemblance is especially great in the form of the body, and of the fin and of the head, though the neck and the ocular peduncles are not so long in the less as in the more mature specimen. This last, however, is a phenomenon seen in the development of every Cephalopod; for example, in *Sepia* the eye is much more prominent in the embryo than in the adult (compare Kölliker's drawing<sup>1</sup> with any of the illustrations in Pls. XVI. to XXII.) and in the case of Grenacher's pelagic larva<sup>2</sup> one of the stages observed (fig. 8) has the eyes distinctly pedunculate, while in a somewhat later stage this appearance is almost entirely lost (fig. 12).

If the identifications above made be correct there is no doubt that the only character by which the genus *Procalistes* can be differentiated from *Taonius* disappears, and the two genera must therefore be regarded as synonymous.

Before leaving this subject, however, it is only right to mention that Professor

<sup>1</sup> Entwickel. d. Cephalop., taf. iii. figs. xxvii.-xxx., Zürich, 1844.

<sup>2</sup> Zeitschr. f. wiss. Zool., Bd. xxiv pl. xi.