

Cyrtopia stages, and in the first post-larval stage all of the globules have been fully developed.

*The Internal Organs* (Pl. XXIX.).—As regards the development of the internal organs, the following observation may be here added:—

The ganglia of the nervous cord are at first imperfectly defined from one another, forming merely a continuous ganglionic mass, exhibiting but slight intumescences at regular intervals. Not till the tail has been fully segmented are the commissures connecting the caudal ganglia distinctly seen, though at first very short.

The digestive system would not seem to commence performing its functions till after the Metanauplius stage, or when the oral organs have become mobile and armed with bristles and spines, a considerable supply of food-yolk having been left within the body of the Nauplius to be at first absorbed. In the earliest Calyptopis stage, however, the intestinal tube is distinctly seen traversing the whole length of the body, and, in living specimens, exhibiting energetic peristaltic movements. Anteriorly, at the junction of the intestine with the stomach, a well-marked rounded cæcum, also present in the adult animal, is seen protruding above. The liver constitutes at first only two or three simple cæciform appendages on either side (see Pl. XXIX. fig. 1). These appendages become in the following stages subdivided into short lobes (see fig. 2), which increase gradually in number, forming at length the compound lobular masses constituting this organ in the adult animal (see following figures). The anal opening is found in the early Calyptopis stages at the base of the spathulate extremity of the tail (telson), in the form of a short longitudinal fissure, bounded by two thickened lips (Pl. XXX. fig. 36).

The heart, even in the earliest Calyptopis stages (and also in the Metanauplius stage), can be distinctly seen beneath the posterior part of the carapace, and resembles, at least as regards form, in every respect that of the adult animal. In living specimens it may at once be detected by reason of its quick and rhythmical pulsations. Furthermore, the chief arteries would seem to be developed even in these early stages, as shown by Professor Claus in his treatise referred to above (page 149).

*Development of Thysanopoda tricuspidata*, Milne-Edwards (Pl. XXXI. figs. 1–22).

The development of this form differs in certain points distinctly from that of *Nyctiphanes* and *Euphausia*, and the general appearance of the larvæ is so very unlike that of the adult animal, that I certainly should not have been able to refer them to the above named form, if there had not, fortunately, been in the Challenger collection a considerable number of specimens in different stages of development, thus connecting the larval forms with the adult form. The specimen described by Dana as *Cyrtopia rostrata* I regard as belonging to this species. In the following pages I purpose describing some of the most characteristic stages.