

somewhat shorter than the rest. Beneath the outer integument can be faintly traced at the base of the telson two oval plates, the budding uropoda.

The cellular masses, representing the compound eyes, are somewhat more distinctly defined, and exhibit the fascicle of luminous fibres unaltered, whereas in the anterior part a small pigmentary spot has appeared, the first trace of the ocular pigment.

The antennulæ (fig. 21) have now become divided into a cylindrical, triarticulate peduncle, and two rudimentary flagella, the outer of which represents the terminal joint of the antennulæ in the preceding stage, whereas the much smaller inner flagellum has appeared in the present stage.

In the structure of the other limbs no difference can be observed from that in the preceding stage.

Third Calyptopis Stage (figs. 23–26).—This stage corresponds very nearly with the earliest stage of *Euphausia*, as figured by Professor Claus. The animal measures 2.20 mm. in length, and has (see fig. 23) the tail still more developed, appreciably exceeding the carapace in length.

The eyes, still completely covered over by the hood-like anterior expansion of the carapace, are almost globular, and exhibit, besides a somewhat more extensive accumulation of pigment, also the first faint trace of visual elements.

The antennulæ (fig. 24) are more powerfully developed, and from the outer corner of the basal joint juts forth a strong, anteriorly pointing spine, denticulate along the inner edge.

The other limbs belonging to the anterior division have remained nearly unaltered, with this exception, that the outer masticatory lobe of the first pair of maxillæ (fig. 25) has a greater number of spines, viz., five.

At the base of the telson (see fig. 26) the uropoda have developed, but are still very small and without any marginal setæ, exhibiting, however, their two terminal plates though not yet defined from the basal part. Of these, the outer is much the larger, and juts out at the end exteriorly as a strong spine, whereas the inner plate is very small and merely papillar in form.

No trace whatever either of legs or pleopoda can as yet be detected.

Of the inner organs in this and the preceding stages but little can of course be observed in the spirit-specimens. Having, however, thoroughly examined in this respect corresponding stages of the northern species, *Nyctiphanes norvegica* (M. Sars), in a living state, I am enabled to confirm the correctness of the statements respecting the inner organisation of the larvæ given by Professor Claus in his above quoted treatise.

DEVELOPMENT OF *EUPHAUSIA PELLUCIDA*, Dana (Pls. XXIX., XXX.).

Of this form, the most frequent of all the Challenger Euphausiidæ, numerous larvæ in different stages of development were found in the surface-gatherings sent me for