

*Homology of the Carapace.*—As above mentioned, the carapace in *Nebalia* has been adduced as a character showing the affinity of this genus to the Podophthalmia, and especially the Schizopoda. On closer examination we shall, however, find that according to this character it might with quite as good reason be classed among the Phyllopoda; for both the finer structure of the carapace and the manner in which it is connected with the body are rather more in accordance with the latter Crustacea than with the Podophthalmia. Moreover, the presence of a well-developed adductor muscle, never found in any Podophthalmia, gives the carapace in the Nebaliidæ a very marked phyllopodous character. As to form and relation to the body, it exhibits, as it were, an intermediate condition between the carapace in *Apus* and the bivalved shell in *Limnadia*. The jointed rostral plate is a character neither found in the Podophthalmia nor in the Phyllopoda, whereas a quite similar movable rostral projection is met with in some Copepoda of the Harpactoid group, and in the latter forms, moreover, the lateral parts of the so-called cephalic segment are found to extend more or less down the sides, so as to include between them the bases of the antennæ and most of the oral parts, thus assuming the character of a bivalvular carapace, though being still connate with the body along the dorsal surface. The greatly developed carapace, by which the Nebaliidæ at first sight seem to be so very sharply distinguished from the Copepoda, may thus be found to have in fact its homologue also in the latter Crustacea.

*Homology of the Eyes.*—The eyes form another character wrongly adduced to show the affinity of *Nebalia* to the Podophthalmia. In reality the eyes in the Nebaliidæ, though properly termed stalked and mobile, differ essentially from those in the Podophthalmia by their much simpler structure and by the want of a distinct faceted cornea. On the other hand, they are found to agree, both as to form and structure, very closely with the eyes in a well-known family of the Phyllopoda, the Branchipodidæ.

*Homology of the Antennulæ.*—These limbs certainly exhibit a structure very different from that met with in other Branchiopoda, but they are also quite dissimilar to the corresponding limbs in the Podophthalmia, differing essentially as well by the abnormal number of joints in the peduncle, this being in all higher Crustacea invariably but three, as also by the peculiar setose lamella appended to the end of the peduncle. To compare this lamella, as proposed by some authors, to the so-called antennal scale belonging to the succeeding pairs of limbs, the antennæ, in Decapods and Schizopods, is, in my opinion, quite unreasonable. Neither can it properly be regarded as homologous with the inner flagellum in these Crustacea or to the accessory flagellum in the Amphipoda, since it is affixed outside the true flagellum, which latter undoubtedly answers to the outer flagellum in other Crustacea, bearing, as it does, the characteristic sensory appendages, generally termed olfactory cilia. Thus the lamella under consideration cannot properly be compared to anything met with in the higher Crustacea, but apparently represents a characteristic feature peculiar to the Nebaliidæ. I think we may better understand the