

smooth on its inner margin, or only slightly denticulated. Second gnathopoda very slender. Posterior pleopoda bearing a smooth sickle-shaped finger, with a few long cilia at its base. Terminal uropoda almost as long as antennæ, five-jointed, and with numerous setæ. Length 0·18 inch.

Hab. Dredged along with the previous species in Dunedin Harbour, in 4-5 fathoms.

EXPLANATION OF PLATE XIX. FIGS. 1-6.

- Fig. 1.* *Arcturus tuberculatus* (male). $\times 13$.
Fig. 2. The same (female), head and part of body. $\times 13$.
Fig. 3. The same, superior antennæ. $\times 56$.
Fig. 4. The same, lamellar plate of abdomen. $\times 28$.
Fig. 5. *Tanais novæ-zealandiæ*. $\times 13$.
Fig. 6. The same, extremity of last pair of legs. $\times 28$.

XLVII.—*On a new Species of Nebalia from New Zealand.*

By GEORGE M. THOMSON.

[Plate XIX. figs. 7-9.]

IN dredging during the past summer in Dunedin Harbour I obtained a single specimen of a *Nebalia* differing from any species hitherto described, and which, from the great length of its inferior antennæ, I have named *N. longicornis*.

In a paper in the Linnean Society's Transactions for 1875 (ser. ii. vol. i.), "On some Atlantic Crustacea of the 'Challenger' Expedition," Dr. Willemoes-Suhm described a new species of *Nebalia* from Bermuda (*N. longipes*), in which the phyllopodal character of the legs has been entirely lost, and the schizopodal character approached more than in any other species of the genus. Taking this fact in conjunction with the characters of several new deep-sea genera of Schizopods examined by him, he reopened the whole question of the position which *Nebalia* occupies in reference to other groups of Crustacea, and proposed to unite it with these new forms, the Mysidæ, &c., in the enlarged group of the Schizopoda. Seeing, however, that it differs from all others of the family in the number of its segments, in the well-developed phyllopodal character of the thoracic appendages in the majority of the species, and also in its development, it seems a better plan to adopt the proposition made by Dr. A. S. Packard, Jun. (in the 'American Naturalist,' vol. xiii. p. 128), viz. to make it the type of a new order, the Phyllocarida. As he points out, *Nebalia* probably represents a persistent form of a very

generalized type of great antiquity, and thus unites in itself characters of Phyllopoda, Copepoda, and Decapoda.

The specimen found by me, which was over $\frac{1}{8}$ inch in length, has the carapace extending back to about the third abdominal segment on the sides, but with a rather wide dorsal sinus. The beak is large and well developed. The eyes are similar to those of *N. bipes* of Europe, being situated on movable peduncles, and formed of numerous crystalline bodies under a common cornea. The antennæ are furnished with numerous hairs on their peduncles. The superior pair have a peduncle of two joints, the last of which bears two appendages, consisting of:—(1) a short triangular joint, with spines on its outer margin, and an oval ciliated plate; and (2) a slender flagellum of several articulations, the number of which were not made out. The inferior antennæ consist of a peduncle of three stout joints (the second of which bears a large tooth on its upper margin, while the terminal one is furnished with rows of spines and hairs on its outer margin and a bunch of hairs at its extremity), and a long slender flagellum, consisting of between 70 and 80 articulations, and almost equal in length to the whole body. The branchial feet, which were apparently very slender, were completely concealed beneath the carapace. The third to the seventh (inclusive) abdominal segments have their posterior margins finely dentated. The four pairs of natatory feet have the peduncles largely developed; and their branches bear a row of spines on each outer margin. The caudal appendages also have a row of spines on each side, and are terminated by several long filaments, which are minutely plumose.

Pale yellow in colour and semitransparent. Length 0.35 inch.

EXPLANATION OF PLATE XIX. FIGS. 7-9.

Fig. 7. *Nebalia longicornis*. $\times 10$.

Fig. 8. The same, base of superior antennæ. $\times 20$.

Fig. 9. The same, base of inferior antennæ. $\times 20$.

XLVIII.—*More Moot Points in Ornithological Nomenclature.*

By ALFRED NEWTON, M.A., F.R.S., &c.

NOMENCLATURE is so trifling an adjunct to zoology that no true student of the science can fail to grudge the time which he is, on certain occasions, compelled to bestow upon it, or ought to be ungrateful to those who have expended their toil in preparing some rules for his guidance through the intricate maze



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