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G. O. SARS

ON A NEW (PLANKTONIC) SPECIES OF THE GENUS APHERUSA

WITH A PLATE

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ON A NEW (PLANKTONIC) SPECIES. OF THE GENUS APHERUSA

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BY G. O. SARS

WITH A. PLATE

THE Amphipod described below has been forwarded to me from Prof. P. T. CLEVE, who recognizing it as a hitherto undescribed species, asked me to give a short description of it with figures, to be inserted in the publications of the Bureau for the international investigations of the northern seas. The species is indeed of considerable interest on account of its peculiar habits, and I have much pleasure in naming it in honour of its discoverer, the distinguished Swedish naturalist, to whom we owe so many valuable papers on the nature and distribution of the marine plankton-organisms.

Apherusa Clevei G. O. SARS, n. sp.

Specific Characters. - Body of slender and elegant form, somewhat resembling that of A. bispinosa (Sp. Bate). The 2 anterior segments of metasome each produced dorsally to a comparatively small, posteriorly-pointing projection. Cephalon rather large, fully equalling in length the 3 anterior segments of mesosome combined; rostral projection well-marked, lateral corners rounded, postantennal ones produced to a short deflexed point. Anterior pair of coxal plates comparatively small, not nearly as deep as the body; 1st pair slightly expanded distally, with the anterior corner subangular; 4th pair rounded quadrangular in form, but very slightly emarginated behind. First pair of epimeral plates of metasome rounded off; the 2 succeeding pairs each produced at the lateral corners to a small recurved projection; posterior margin of last pair evenly convex, not serrate, nor divided, only exhibiting a few very slight crenulations. Eyes large, rounded, with numerous visual elements forming a clear border around the dark pigment. Antennae very slender and elongated, the superior ones in female considerably exceeding half the length of the body, the inferior ones about 1/3 longer than the superior. Both pairs of antennae in male still more elongated, and having the opposite edges of the peduncles clothed with fascicles of delicate sensory bristles. Gnathopoda less slender than in the other species

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G. O. SARS: On a new species of Apherusa

of the genus; with the propodos more largely developed, exceeding in both pairs somewhat the 3 preceding joints combined; that of 1st pair a little larger than that of the 2^{nd} ; palm in both pairs imperfectly defined behind, and about the length of the hind margin. Pereiopoda slender and only sparingly edged with bristles, propodal joint rather much elongated, dactylos strong and curved; the 3 posterior pairs rapidly increasing in length. the last pair being nearly twice as long as the 1st, basal joint but slightly expanded, oval in form, with the hind edge scarcely at all serrate. Uropoda and telson of much the same structure as in *A. bispinosa*.

Colour not yet stated. Length of adult ovigerous female scarcely exceeding 3 mm; that of male about the same.

Remarks. — The present species is closely allied to A. bispinosa (Sp. Bate), and at the first sight may be easily mistaken for young specimens of that form. On a closer examination, it is, however, found to exhibit several well-marked differences, proving it to be in reality a distinctly defined species. Besides its much inferior size, it differs very conspicuously in the very slender form of the antennae and pereiopoda, whereas, on the other hand, the gnathopoda are comparatively more powerfully developed than in any of the other known species. Moreover, the form of the last pair of epimeral plates of the metasome exhibit a form very different from that in A. bispinosa.

Occurence. — All the hitherto known species of the genus *Apherusa* are pronouncedly littoral in their occurence, being found close to the shores among algæ, often even in pools left by the tide. The habits of the present species seem to be very different, occurring, as it does, like other true pelagic animals, in the open sea, far from the shores, and, as a rule close to the surface.

Distribution. — Prof. CLEVE found this interesting form in great abundance during the month of November 1903, throughout the whole Skagerak and the Gullmarfjord, in the *Didymus-Plankton* taken at the surface of the sea.

EXPLANATION OF THE PLATE

Fig. 1. Adult, ovigerous female, viewed frem left side; magnified 48 diameters.

- , 2. Head of adult male, with its several appendages; same amplification.
- , 3. Left anterior gnathopod.
- 4. Left posterior gnathopod, with branchial lamella and incubatory plate.

, 10. Telson.

- , 5. Second pereiopod.
- , 6. Third pereiopod, with branchial lamella and incubatory plate.
- , 7. Last epimeral plate of metasome. Fig. 8. Urosome, dorsal view.
- " 9. Last uropod.

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Apherusa Clevei,

Ċ, Fra Sorr. S.D. Cruitace. The Norwegion North Voler Expedition 1893-1896. Scient Results. F. Nonun(ed) Vol-1

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INTRODUCTION.

Of the zoological collections brought home from the Norwegian North Polar Expedition, those relating to the marine invertebrate animals have been placed in my hands for examination and description, and I now propose to report on the results of my investigations as far as the Crustacea are concerned. Indeed, by far the greater number of the animals collected belongs to this extensive class, and there is comparatively little to report of other animals. As, however, all knowledge of the fauna in this far remote, and hitherto unexplored part of the North Polar Sea may be of considerable interest, it is my intention in a subsequent paper also to give a short account of the other marine invertebrates found during the Expedition.

The collection in question consists of several tubes and bottles from different localities, each, as a rule, labelled with date, depth and mode of preservation. I have carefully gone through the contents of all the samples, in order to gain both a general view of the character of the fauna, and more special information about the several species. Only one of the bottles contained true bottom-animals taken up by the aid of the trawl; all the other samples have been procured by the aid of the tow-net, and of course contain exclusively pelagic animals, chiefly Crustacea. Of these again Copepoda, chiefly belonging to the Calanoid group, are predominant, having been taken in nearly every haul and in considerable numbers along the whole route of the "Fram". This peculiar character of the collections is due to the unexpected physical conditions found in the Polar Sea traversed. As is well known, it has until recently been the general assumption of geographers, that the Polar basin, north of Siberia and Franz Josef Land,

40

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