Crustacea.

No class of multicellular animals in the ocean is represented by anything like such countless forms and individuals as that of the Crustaceans; in the life of the ocean they play, according to Haeckel, a part corresponding to that of the insects in the land fauna. The Entomostraca include the most important groups, first the Copepoda, then the Ostracoda, and the Cladocera. Among the larger Crustacea, the Schizopoda, the Amphipoda, and the Decapoda are also very important, but in abundance and specific variation they can never be compared to the groups of smaller crustaceans.

Copepoda.

The Copepoda, as a rule, attain only a few millimetres in length, and are adapted to feed on the small plants of the oceanic flora in the upper layers of all oceans. It may safely be asserted that they are the chief consumers of these minute plants, and in turn serve as food for larger animals.

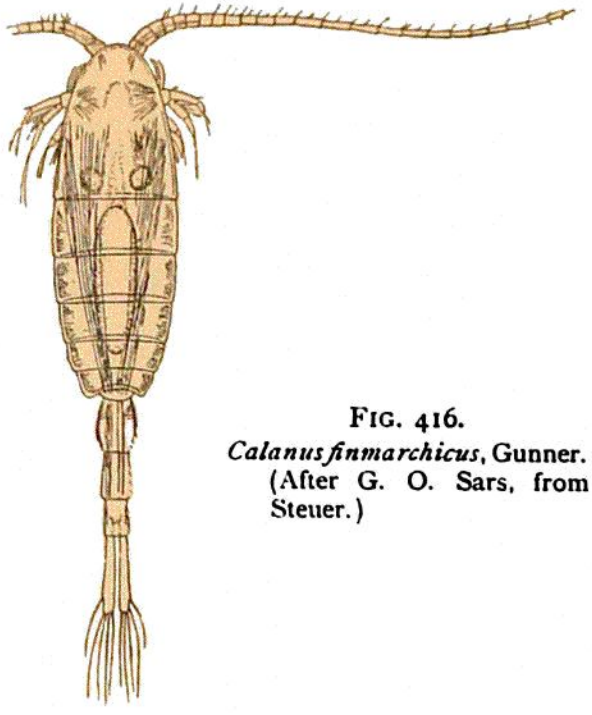

FIG. 416.
*Calanus finmarchicus*, Gunner. (After G. O. Sars, from Steuer.)

Giesbrecht[1] discusses the geographical distribution of 299 species of Copepoda, and divides the area of their distribution into three regions: (1) a warm region between 47° N. and 44° S., (2) a northern region, and (3) a southern region. The warm region comprises all the oceans, the warm-water species throughout the world being more alike than the species of warm and cold regions in the same ocean. Of the 299 species, no less than 254 belong exclusively to the warm region; there are besides a few widespread forms and others peculiar to the northern or southern region. About 85 per cent of the species belong to the warm region, 5 per cent to the northern, and 2 per cent to the southern region.

As characteristic of the warm region Giesbrecht mentions the following genera: *Augaptilus*, *Calocalanus*, *Copilia*, *Euchirella*, *Hemicalanus*, *Monops*, *Pleuromma*, *Pontella*, *Pontellina*, *Sapphirina*. Peculiar to the northern area are: *Acartia bifilosa*, *Calanus hyperboreus*, *C. cristatus*, *Centropages hamatus*, *Euchæta norvegica*, *Pseudocalanus elongatus*, and perhaps *Temora longicornis*. Some forms are common to the warm region and one of the cold regions, such as *Anomalocera patersoni* and *Centropages typicus*, while *Calanus finmarchicus* and *Oithona similis* occur in all the three regions.

The warm and cold water forms differ in structure, the body, legs, and antennæ of the warm water forms being generally provided with wonderful feather or fan-shaped attachments, which greatly enlarge the

[1] Giesbrecht, "Systematik und Faunistik d. pelag. Copepoden," *Fauna und Flora des Golfes von Neapel*, Bd. 19, 1892.