

A CONTRIBUTION TO THE STUDY OF SURFACE AND SUBSURFACE ZOOPLANKTON
IN THE STRAIT OF SICILY

by

M. Soenen
Bureau d'Etudes Océanographiques
Toulon, France

Analysis of 34 hauls of plankton in the Strait of Sicily, from 5 to 21 May 1970, enabled us to make a systematic, quantitative and ecological study of all zooplankton systems present.

Vertical fishing was performed with a standard "A" type closing net and sampling of the zooplankton was carried out by the techniques already utilized in 1970 and 1971.

Species of Atlantic origin were found throughout the Strait but they were fished in greater number in those places where the influence of the Atlantic water mass was most felt.

It was established that the bathygeography of the Strait, as well as the local circulation within the water mass, causes bathymetrical inversions among the deep species with some interference of diurnal migrations.

The stenothermia of certain species, particularly the Copepoda, Chaetognatha, Euphausiids and Thaliacea was demonstrated and confirmed.

Though the continental shelf is quite extensive, the neritic species are scarce; on the other hand, as compared to oceanic species, their percentage is rather important, owing mainly to the presence of two Copepoda: the Centropages typicus and the Clausocalanus Arcuicornis.

Finally a comparison between the northern and southern parts of the Strait of Sicily showed that the north is much richer in plankton. The difference is due mainly to the Atlantic water, the influence of which diminishes gradually as the flow penetrates the southern parts of the Strait.