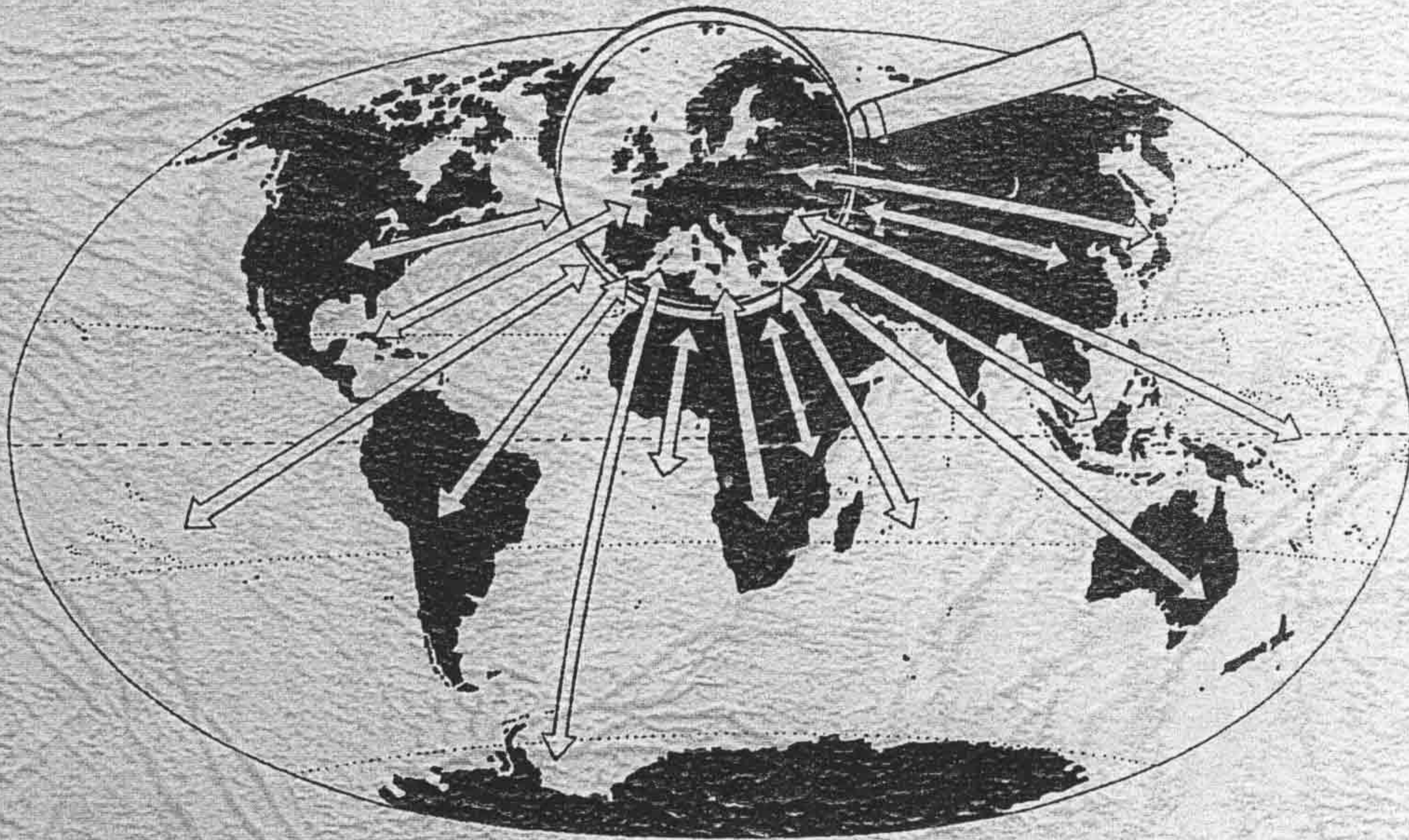


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primers are developed to facilitate ecological investigations. Worldwide studies on occurrence of ectomycorrhizal types, not depending on the occurrence of fruitbodies, will contribute fundamental knowledge on geographical distribution and diversification of the fungi involved.

Diversity of the macrobenthic fauna in the Aegean Sea and its relationships with those of other neighbouring areas: Present status, similarities, influences

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Intensive sampling of the macrofauna of the Aegean Sea, which has been carried out since 1970, gave a lot of qualitative and quantitative information on several taxa such as Porifera, Hexacorallia, Octocorallia, Polychaeta, Sipuncula, Polyplacophora, Gastropoda, Cirripedia Thoracica, Amphipoda, Tanaidacea, Cumacea, Decapoda, Echinodermata and Ascidiacea.

This information, in combination with that given in the relevant literature, gave the general pattern of the distribution of the macrobenthic fauna in the various Mediterranean areas, as a whole and separately for each taxon. As a result of this, the main Mediterranean areas were classified in order of decreasing macrobenthic faunal diversity as follows: Western Mediterranean, Aegean Sea, Adriatic Sea, Central Mediterranean, Levantine Basin and Black Sea.

The examination of the general distribution of the examined taxa has showed that the species with an Atlanto-Mediterranean distribution dominate in the most taxa, followed by the Mediterranean endemics or the cosmopolitan species.

The participation of each zoogeographical category differs slightly among the various Mediterranean areas.

Deep-sea molluscan fauna of the Cretan Sea (eastern Mediterranean)

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The deep-sea molluscan fauna of the Cretan Sea (Eastern Mediterranean) was investigated from living material collected by the R/Vs "Aegeon" and "Philia" cruises on a seasonal basis (May, 1994 - September, 1995) in the framework of the MTP/MAST EU research programme CINCS carried out by the I.M.B.C. The main goal of the CINCS programme was to achieve a better understanding of the structure and function of the oligotrophic Cretan Sea. In order to do so, an intensive multidisciplinary investigation covering both environmental and biological parameters was carried out over a shelf-to-slope transect (with 7 standard depth stations at 40, 100, 200, 540, 700, 940 and 1570m).

The examination of the deep-sea benthos with particular reference to the phylum Mollusca revealed the presence in the area of a diverse fauna consisting of 138 species belonging to 6 different classes: Caudofoveata (2); Polyplacophora (1); Gastropoda (57); Bivalvia (61); Scaphopoda (7); Cephalopoda (10).

The majority of the species exhibit a wide bathymetric distribution from the continental shelf region to the bathyal slope. However many species e.g. *Putzeysia wiseri* (CALCARA, 1842); *Alvania cimicoides* (FORBES, 1844); *Drilliola emendata* (MONTEROSATO, 1872); *Crenilabium exile* (FORBES in JEFFREYS, 1870); *Nuculana pella* (L., 1767); *Bathyarca philippiana* (NYST, 1848); *Cyclopecten hoskynsi* (FORBES, 1844); *Limatula subauriculata* (MONTAGU, 1808); *Notolimea crassa* (FORBES, 1844); *Thyasira flexuosa* (MONTAGU, 1803); *Abra longicallus* (SCACCHI, 1834); *Kelliella miliaris* (PHILIPPI, 1845), are considered as deep-sea species and have been reported at depths over 100m in the Mediterranean and the Eastern Atlantic (DI GERONIMO & PANETTA, 1973; BOUCHET & WAREN, 1980, 1986; JANSSEN, 1989; ZENETOS & VAN AARTSEN, 1995). Most of the deep-sea mollusc species collected in the Cretan Sea are distributed from the Mediterranean to the Atlanto-Mediterranean and Boreal province while no species with an Indo-Pacific origin were found.

An important number of species (30) are new elements of the mollusc fauna of the Cretan Sea while another 5 species (3 Gastropods and 2 Bivalves) have not been reported so far from the Aegean or the Eastern Mediterranean. If we take into consideration the results from studies on the mollusc fauna of the shallow waters of the Cretan Sea (KOUTSOUBAS et al., 1992) then we could conclude that although the Cretan Sea is an oligotrophic system, it hosts a rather enriched and diverse molluscan fauna numbering more than 400 species.