

DISTRIBUTION OF COPEPODS IN AEGEAN SEA DURING MARCH 2012

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Horizontal and vertical distributions of copepods were investigated based on zooplankton samples collected during March 2012 at 10 stations in Aegean Sea. A total of 83 copepod species were identified. Copepods dominated the zooplankton assemblages at almost all stations. More than 70% of copepods were found in the upper 100 m layer. Using cluster analysis, five groups of samples differing on distribution of adult and copepodite stages of copepods and hydrological characteristics were determined.

Keywords: Zooplankton, copepods, Aegean Sea

Horizontal and vertical distributions of copepods were investigated during March 2012 in Aegean Sea. Samples were collected by using WP2 net with 100 µm mesh size from different depth strata at 10 stations (Fig.). Flowmeter was used to estimate filtered volume.

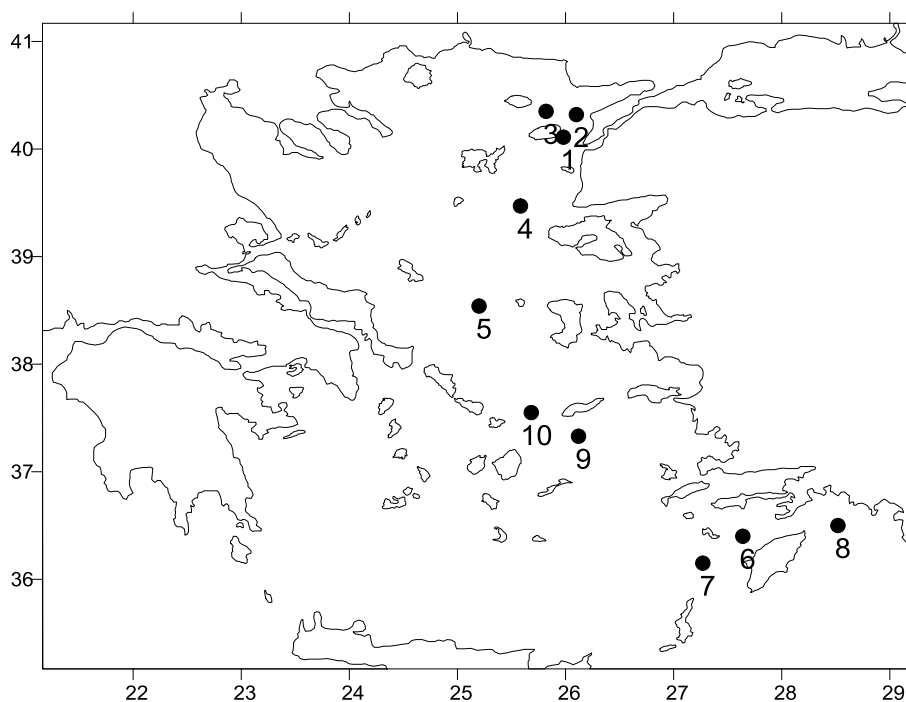


Fig. Locations of sampling stations

Minimum ($2513 \text{ ind.}\cdot\text{m}^{-3}$) and maximum ($14479 \text{ ind.}\cdot\text{m}^{-3}$) values in zooplankton abundance were observed in the northern part where under the influence of the Black Sea waters. The average abundance was 5262 and 4673 $\text{ind.}\cdot\text{m}^{-3}$ in the center and the southern part of the Aegean Sea, respectively. Copepods dominated the zooplankton assemblages at almost all stations, other dominant groups were crustacean larvae/nauplii, appendicularians, cladocerans, chaetognaths and bivalve larvae. Most of the zooplanktonic organisms were observed in the first depth strata where includes beginning of seasonal thermocline.

A total of 83 copepod species were identified during the sampling period. The contribution of *Clausocalanus* spp. to the total copepod abundance was > 9% at almost all station although the contributions of species varied by stations. *Acartia clausi* was one of the most common 4 species in the northern part and the contribution of *Centropages typicus* to St 2 and St 3 was 40 and 45%, respectively. *Oithona similis*, *O. plumifera*, *Ctenocalanus vanus*, *Paracalanus nanus*, *Oncaea obscura* and *O. media* were the common species observed during the sampling period. More than 70% of copepods were found in the upper 100 m layer. Cluster analysis was performed on adult and copepodite stages of copepods and 5 groups of samples were determined at 48% similarity level: group A, upper layers of St 2 and St 3 that under the influence of the Black Sea waters; group B includes only St 1, with coastal and epi- and mesopelagic species; group D, epipelagic (0–100 m) layers of the stations; group C, more heterogeneous group includes intermediate layers and the deep layers of some stations; group E, deep waters of the Rodes, these waters have Levantine Deep Water characteristics.

РАСПРОСТРАНЕНИЕ КОПЕПОД В ЭГЕЙСКОМ МОРЕ В МАРТЕ 2012 ГОДА

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Исследовано горизонтальное и вертикальное распределение копепод на основе зоопланктонных проб, собранных в марте 2012 года на 10 станциях в Эгейском море. 83 вида копепод были идентифицированы. Они доминировали в зоопланктонном сообществе почти на всех станциях. Более 70% копепод были обнаружены в верхнем 100-метровом слое воды. С помощью кластерного анализа выделены пять групп проб, различающихся распределением взрослых и личиночных стадий копепод и гидрологическими характеристиками.

Ключевые слова: зоопланктон, Copepoda, Эгейское море