

Vertical distribution of zooplankton and copepod community structure in the Straits of Malacca.

ABSTRACT

Vertical distribution of zooplankton biomass and abundance, copepod taxonomic composition and species diversity were analyzed at eight stations during an oceanographic expedition along the Straits of Malacca. Samples were collected in vertical hauls (140 μ m mesh using 45 cm diameter NORPAC net) from four depth strata. Zooplankton biomass was higher at 10-20 m depth in the central and southern parts of the Straits compared to the other depth layers, but the differences were significant ($p < 0.05$) only in the southern part. A total of 96 species of planktonic copepods belonging to 35 genera were identified in the surveyed area. Except for the 10-20 m depth layer in the northern part of the Straits, copepods were the major fraction of the total zooplankton at all depths. In the northern and central parts of the Straits, the deeper layers had higher species diversity indices than in the surface waters, mainly due to higher evenness in the deeper layers. The lower species diversity in the deeper layers of the southern region was attributed to the dominance of a few species.

Keyword: Biomass; Copepods; Vertical distribution; Diversity; Malaysia.