

PHYSICAL-CHEMICAL CHARACTERISTIC AND ITS RELATION TO MACROZOOBENTHOS COMMUNITY STRUCTURE IN JAKARTA BAY WATER

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The abundance and distribution of macrozoobenthos community structure in Jakarta Bay has been investigated by using Principal Component Analyzes (PCA) and data processing based on biological, physical and chemical parameters data. The aim of this research was also to use the macrozoobenthos as a bioindicator to estimate the pollution condition of Jakarta Bay waters. Data processing has been conducted on August 1999(dry season) and March 2000(wet season). The results of PCA showed that the distribution of biophysical-chemical characteristic water on August 1999 was represented by depth, surface and bottom salinity, DO and pH parameters and on March 2000 by pH, depth, transparency and surface and bottom salinity, respectively. The high number of abundance of macrozoobenthos on August 1999 was found at west part of Tanjung Priok Harbor, while on March 2000 near Ciliwung River, Tanjung Priok Harbor, Marunda River and Blencong River. Total number of abundance of macrozoobenthos was fluctuated by seasons i.e. 11.8 thousands ind/m² and 590 thousands ind/m² in the dry and wet seasons, respectively. The diversity of macrozoobenthos species during March 2000 was low with diversity index between 0.07-3.00 and wider range in August 1999 (0.28-4.04). In general for all stations in both seasons, the value of similarity index was small, in the contrary with the dominance index that became high. So, it can be concluded that some part of Jakarta Bay waters, especially in the coastal zone was polluted,