ZOOPLANKTON BIODIVERSITY RELATIVE TO LONG-TERM ECOLOGICAL VARIATIONS IN THE SOUTHEASTERN MEDITERRANEAN

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The construction of the High Dam on the River Nile caused a drastic drop of the amount of fresh water, which was discharged to the southeastern Mediterranean during the Nile flood every year. This situation resulted in marked decrease of nutrient levels and phytoplankton production, followed by the disappearance of very condensed shoals of sardines for long time. A few years ago, the nearshore waters restore its fertility due the increase of nutrients load brought by discharged agricultural, domestic and industrial wastes. These conditions enhanced again the phytoplankton production and relatively large amounts of sardines appeared along the Egyptian coastal waters. However, the offshore waters are still lacking the high nutrient supply, which were reaching them before the High Dam during the flood season. In addition, the frequent variability of quality and quantity of discharged wastes led to several changes in the environmental conditions along the southeastern Mediterranean coast during the past 50 years, reflected in serious changes in the water quality as well as the biotic components of the ecosystem. Zooplankton was influenced by such changes and experienced pronounced temporal and spatial variations in its species composition, biodiversity, seasonality of production, relative abundance of the major groups and succession of the dominant species.