

عنوان مقاله:

Seasonal variations in primary productivity and biomass of phytoplankton in the waters of the southern part of the general estuary / Dhi Qar/Iraq

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خلاصه مقاله:

The Current study estimated the primary productivity and identified the biological characteristics associated with it by measuring chlorophyll-a and phytovitin-a in the southern part of the general estuary in Dhi Qar Province, Iraq on a seasonal basis for the period from autumn ۲۰۲۰ to summer ۲۰۲۱. three stations were selected: The first station (St. ۱) was located beside the Al-Hollandi bridge, the second (St. ۲) was ۲۰ km far from the south of St. ۱, adjacent to the siphon pump, and the third (St. ۳) was ۲۰ km from the south of St. ۲, close to the sub-channel that feeds the marshes. The biological characteristics indices showed an obvious variation in the different stations and seasons. The productivity values in the general estuary, south of Nasiriyah City ranged between ۳۸.۹۹ - ۱۳۰.۰۵ mg carbon m^{-۳} hour^{-۱}. These values showed two peaks during the fall and spring. The chlorophyll-a and phytovitin-a concentrations ranged between ۳-۶.۴۴ μg L^{-۱} and ۰.۶۶-۳.۲۲ μg L^{-۱}, respectively. The highest concentrations of both pigments were found in St. ۱. In addition, the highest concentration of chlorophyll-a (۶.۴۴ mg L^{-۱}) during autumn at St. ۱, while the highest concentration of phaeophytin-a (۳.۲۲ mg L^{-۱}) during winter at St. ۲. The lowest concentration of chlorophyll-a (۳ mg L^{-۱}) was at St. ۱, in winter, while the lowest of phaeophytin-a (۰.۶۶ mg L^{-۱}) during spring at St. ۳. In general, the autumn and spring was marked by the highest concentration of chlorophyll a, while the winter and summer by the highest phaeophytin

کلمات کلیدی:

Primary productivity, Biomass, Chlorophyll -a, Phaeophytin - a, General estuary

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