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Seasonal Variations of Some Ecological Parameters in Tigris River Water at Baghdad Region, Iraq

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ABSTRACT

This study aimed at using nine ecological parameters in evaluating the quality of the Tigris River for public usage, by choosing five sampling sites along the river in Baghdad area. These parameters included temperature, pH, the saturated ratio by dissolved oxygen (%sat), biological oxygen demand (BOD5), nitrate (NO₃⁻), phosphate (PO₄⁻³), fecal coliform (FC) turbidity and total dissolved solids (TDS), and these parameters were used for calculating overall water quality index in the Tigris River at study area. The results showed high values of turbidity and TDS, as well as high count of FC in all study stations, while other studied parameters were within permissible limit defined by world health organization and Iraqi criteria. The results of the overall water quality index indicated that the Tigris River was in class medium, therefore the Tigris River water in study area is relatively not safe for direct domestic use in all seasons.

KEYWORDS

Ecological Parameters, Fecal Ccoliform, Tigris River, Water Pollution

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