



Impact of Diyala Tributary on the Quality of Tigris River Water

AyadGh. Hashim, Adel M. Rabee*

Department of Biology, College of Science, Baghdad University, Baghdad, Iraq

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Abstract: The present study was designed to explain the possible effects of Diyala tributary on several ecological properties of Tigris River water by using the Canadian Water Quality Index (CWQI). Bimonthly sampling was carried out from October 2013 till August 2014 from four stations. Twenty five parameters were studied such as air and water temperature, turbidity, pH, dissolved oxygen, biological oxygen demand, electrical conductivity, salinity, total dissolved solids, total hardness, total suspended solids, calcium, magnesium, chloride, nitrate, sulphate, phosphate, lead, cadmium, zinc ions, total bacterial count, total coliform bacteria, Fecal coliform, *Escherichia coli* and fecal Streptococcus. The results of water quality index showed that the quality of Diyala River located in poor category especially at station 2. Also, according to water quality index, the Tigris River is located in marginal category at station 3, while located in poor rank (30.15) at station 4 which is the contact point of the two rivers, that may indicate to the extent of the impact of Diyala River on the water quality of the Tigris River.

Keywords: *Water quality, CCME, Water Quality Index, Tigris River*

*Corresponding: E-Mail: adelmashaan@yahoo.com; Tel: +7901209570