



## Epipelion Community Structure in Tigris River within Baghdad City, Iraq

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**Abstract:** Five sites were selected along the river within Baghdad city during November 2019 to July 2019, to study the qualitative and quantitative of epipelion diatoms. A total number of 186 species of epipelion diatoms belong to 59 genera were identified. These genera are belong Bacillariophyceae with relative abundance of (79-85.8%), followed by Fragilariophyceae (8.61-12.7%) and Coscinodiscophyceae (3.5-8.9%). Temporal and spatial variations were observed. The lowest total cell number of diatoms ( $270 \text{ cells} \times 10^4/\text{cm}^3$ ) was at site 2 for Coscinodiscophyceae and the highest number ( $315 \times 10^4/\text{cm}^3$ ) at site 5 for Bacillariophyceae. *Achnanthydium minutissima*, *Cocconies placentula*, *Gomphonema parvulum*, *Aulacoseira granulata*, *Nitzschia frustulum*, *Navicula radiosa* and *Ulnaria ulna* were recorded in a high cell number throughout the study period, Most abundant species belonged to Bacillariophyceae which reflect the impact of pollution on water quality of the river.

**Keywords:** Lotic ecosystems, Algae, Benthic, Diversity, Pollution

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