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Ecological study of some macroinvertebrates in the intertidal sediments of Khor Al Zubair, Basra City, Iraq

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ABSTRACT

To investigate the species and the relative abundance of the community of aquatic macroinvertebrates (mollusks, crustaceans, and annelids) in the intertidal Khor Al- Zubair area, the dominant species and distribution of macroinvertebrates at three stations on the Khor Al Zubair were studies. Sampling from January to May 2024, the parameters of physical and chemical analysis including water temperature, pH, dissolved oxygen, and salinity. Results showed that all values were within the range of normality except for salinity, which was the highest at 62 ppt .The presence of many macroinvertebrate species was not recorded in the data set, and the data were superficial which was attributed to a strong effect of high salinity in reducing the macroinvertebrate diversity of Khor Al-Zubair. Based on species that were found to contribute to the ecological pattern we categorized 4 different types of macroinvertebrates: Dominant taxa included the crabs *species Scylla serrata*, the annelid *Namalycastis annandalei* ,the Oyster *Crassostrea*. cucullata, and the barnacle *balanuse amphitrite*.

INTRODUCTIO

The Arabian Gulf, an open area with many ships, ports, and oil wells, has undergone dramatic environmental changes due to oil pollution and depletion, becoming one of the world's most important conduits to transport oil

pollutants (**Asadi, 1996**). This human impact has caused ecological disturbances that have affected the diversity of sediment biota (**Montana *et al.*, 2023**). Macroinvertebrates have distinct characteristics that distinguish them from