

Effect of salinity changes on the biodiversity of microalgae in the mesopotamian marshes, southern Iraq

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Mesopotamian marshes were the largest wetlands in the Middle East with its unique fauna and flora. The great cut of freshwater discharge coming from Tigris and Euphratis during 2008 - 2010, together with climate change, has led to salinity elevation which in turn caused a remarkable change in the aquatic biodiversity of the region. Among these changes, new taxa of microalgae and macrophytes were introduced and marine forms were found in places where they have never been observed before, such as *Actinocyclus subtilis*, *Amphora robusta*, *Hydrosira triquetra* and others. In fact the later species has not been previously recorded from the whole Arabian Gulf. The possibility that such species were drifted from the Gulf is eliminated because these taxa were found as epiphytes indicating favorable conditions for their survival. With the continuous decline of watershed in Southern Iraq, biodiversity, not only of microalgae, may suffer from irreversible changes, a condition may require a considerable attention.

Biography

Adil Al-Handal is a professor at the department of Marine Biology, marine Science Center, Basra University, Iraq. He obtained his B.Sc in Marine Biology from the University of Basra, 1972, his M.Sc. in Oceanography from the department of Oceanography, Alexandria, Egypt 1979 and his Ph.D. from the Department of Oceanography, University of Swansea Wales, United Kingdom on 1985. He worked as phytoplankton expert at the Swedish Institute of Meteorology and Hydrology and at the Department of Marine Ecology, University of Gothenburg, Sweden. His research focus is on the ecology and taxonomy of microalgae, particularly diatoms where he has discovered several species new to science. He is also interested in investigating past climatic changes using diatoms as bioindicators. Al-Handal also enrolled in studying the effect of ultraviolet radiation on microalgae in Antarctica. He also participated in Environment Impact Assessment studies for development projects in South Iraq.

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