

J. of Basrah Researches, (accepted 2005).

**Biofacies and sedimentary environments of recent sediments
of southern part of Mesopotamian plain**

A. Al-Baidhany and B. Albadran

*Dept. of Geology, College of Science, Univ. of Basrah, Basrah – Iraq.
(E-mail: badir5759@yahoo.com)*

Abstract

Three boreholes were chosen and distributed around Basrah region in the southern part of Mesopotamian plain. The depth of these boreholes ranged between 27 and 30 meters below the ground surface. Faunal assemblages have been applied to identify the biofacies. Three biofacies have been identified; biofacies A presents as a surface layer in the southern extremity of Mesopotamian plain. It could belong to local transgressive period. Biofacies B underlies the first biofacies, it covers the southern part of Mesopotamian plain. This facies could indicate a subsidence period and let the environment to be isolated marked by reduction associated with pyritization. Biofacies C underlies the second biofacies, it is observed in the southern part of Mesopotamian plain. The life was completely absent in this biofacies and combined with the presence of gypsum grains, which means that the evaporation was high. The vertical and aerial distribution of these biofacies could be highly related to tectonic events in this region.