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Potential Ecological Risk Index of the Northern Egyptian Lagoons, South of Mediterranean Sea, Egypt

M.S.M. EL-Bady

elbady_nrc@yahoo.com
m.elbady71@yahoo.com

*Dep*artment of Geological Sciences, National Research Center, Dokki, Cairo, Egypt

Abstract: The Northern Egyptian Lagoons are (from east to west) Bardawil Lagoon, Manzala Lagoon, Burullus Lagoon, Edku Lagoons and Mariute Lagoon.These lagoons have been received the bulk of drainage water from the lands of Delta and from the other coastal areas. where, the heavy metals can be occur in Lagoons environments through a variety of sources, including industries, wastewaters and domestic effluents. The potential ecological risk index (RI) calculation of the bottom sediments of the northern lagoons depends contamination factor (CF), potential ecological risk factor and proposed toxic response factor (Tr). The average degree of contamination and modified degree of contamination of the northern lagoons were in the following descending order Bardawil>Mariute>Manzal>Edku>Burullus, while, the potential ecological risk index in the following descending order Bardawil>Manzal>Mariute>Edku>Burullus.
Keywords: Northern Lagoons – Nile Delta – Ecological Risk Index – Contamination Factors.

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