Oceanography/Vol.7/No.26/Summer 2016/1/3-3

A Study on Some Heavy Metal Concentrations in Coral Ecosystems of Hengam Island, Persian Gulf

Pourkhabbaz, Alireza[1*]; Nazeri, Marzieh[2]

1- Associate Professor, Department of Environmental Science, University of Birjand, Birjand, Iran. Email: apourkhabbaz@birjand.ac.ir

2- Departemnet of Environmental Science, University of Birjand, Birjand, Iran. Email: apourkhabbaz@birjand.ac.ir

Received Date: July 31, 2015 **Corresponding Author* *Accepted Date: June 21, 2016*

Abstract

Coral reefs are the most diverse of all marine ecosystems. Because of their environmental and scientific importance as bioaccumulator, the concentrations of Al, Cd, Ni and Pb in sediments, water and coral samples in Hengam Island were assessed using AAS. The elevated levels of heavy matels were observed in *Acropora clathrata*, *Echinipora* sp. and *Sinularia* sp. Calculated BAF resutls showed that all corals have a good ability to absorb Cadmium and Lead from water compared with sediments which is due to filter feeding nature of corals. The maximun and minimum concentration of heavy metal was observed in the stations 1 and 3 respectively in most studied corals. Considering water flows in the Persian Gulf, it can be concluded that station 1 is in contact with sea flows coming from Hormoz Strait, in contrast with station 3 which is located in a closed and confine area. Fossil fuels from fishing and passing boats seem to be the most important contaminating factor in Hengam Island.

Keywords: *Sediments, Coral, Heavy metal, Hengam Island, Persian Gulf.*