Oceanography/Vol.7/No.28/Winter 2017/1/10-10

Investigation of Heavy Metals in Feathers and Eggs of Female *Larus genei* from the Musa Estuary

Hashemi, Eshagh[1*]; Safahieh, Alireza[2]; Nasoori, Alireza[3]

1- MSc. in Marine Biology, Khorramshahr University of Marine Sciences and Technology, Khorramshahr, Iran. Email:eshagh.hashemi@gmail.com

2- Assistant Professor, Marine Biology Department, Faculty of Marine Sciences and Oceanography, Khorramshahr University of Marine Sciences and Technology, Khorramshahr, Iran. Email: safahieh@kmsu.ac.ir

3- MSc. in Marine Biology, Khorramshahr University of Marine Sciences and Technology, Khorramshahr, Iran. Email: nasoorialireza@gmail.com.

Received Date: April 10, 2015 **Corresponding Author* *Accepted Date: February 18, 2017*

Abstract

In this study, the levels of heavy metals concentration (mercury, zinc, copper, cadmium and lead) were measured in the feathers, egg contents and eggshells of *Larus genei* from Musa Estuary. For this purpose, twenty eggs and fifteen *Larus genei* were collected at the locations during 2013. To do the process, after drying and digestion of samples, the concentration of mercury in samples was measured by cold vapor. In general, except for Pb, the level of whole metals in feathers was higher than egg contents and eggshells. The metal concentrations in feathers were according to the following order Zn> Hg > Cu > Pb> Cd, in egg contents were Zn> Cu > Hg > Pb> Cd and in eggshells were Pb > Zn > Cu > Cd > Hg. Also, comparing our results with the standard of World Health Organization, we found that mercury levels in in feathers and eggs of *Larus genei* were flying above mentioned standards. High accumulation of mercury in the feathers and eggs has likely originated from mercury sources such as petrochemical plants.

Keywords: *Heavy metals, Mercury, Feathers and eggs, Larus genei, Musa Estuary.*