EuroSciCon

12th Edition of International Conference on

Oceanography & Marine Biology

December 03-04, 2018
Rome, Italy

J Mar Biol Oceanogr 2018, Volume 7
DOI: 10.4172/2324-8661-C2-015

Heavy metals in *Melongena melongena* and in sediment as indicators of pollution, in the coastal lagoon of the Morro De Porlamar, Isla De Margarita, Venezuela

Daniela E Yepez Solorzano and **Juan Lopez**
Regional Center for Environmental Studies, Venezuela

The Morro de Porlamar lagoon is an important natural reservoir which serves as a habitat for species of economic interest; subjected to continuous environmental deterioration due to urban development and demographic growth. Constitute this, an important natural reservoir which serves as a habitat for many marine species of fishing and economic interest. Currently, *Melongena melongena* gastropod is being exploited for commercial purposes in this area. For this reason, the objective of the present study was to evaluate the concentrations of heavy metals (Zn, Cd, Cr, Cu, Pb and Fe) *Melongena melongena* and in the sediment where it lives. To do this, six monthly samplings were carried out for the mollusc during the period October 2011-March 2012, in three stations distributed within the lagoon mirror. To measure the physical-chemical variables *in situ*, an YSI 600R multiparameter probe was used. For the determination of metals, the methodology of dry digestion and atomic absorption spectrophotometry was used. In *Melongena melongena* concentrations were reported: Zn 19.5 µg/g; Cd 0.18 µg/g; Cr 0.30 µg/g; Cu 12.52 µg/g; Pb 0.12 and Fe 40.24 µg/g. In sediment: Zn 12.31 µg/g; Cd 0.06 µg/g; Cr 0.64 µg/g; Cu 5.23 µg/g; Pb 0.17 and Fe 143.8 µg/g. The granulometry of the sediment constituted by 44% fine sand in the channel and molluscum concentrations were presented in the following decreasing sequence: Fe>Zn>Cu>Cr>Cd>Pb. Observing a relation between the Cd, Pb, Cr and Zn and physical-chemical variables. These values exceed the range established by WHO. The concentrations of metals present respond to urban development, discharge of wastewater, waste of urban origin that flow directly into this lagoon body without being treated and the interaction of natural factors such as: drying and renewal of the lagoon waters.

Danie.yes.27@gmail.com