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Assessment of Polycyclic Aromatic Hydrocarbons (PAHs) Pollution Effects on Blood Metabolic Factors of Periophthalmus waltoni from Northern Coast of the Persian Gulf

Authors: Majid Afkhami, Maryam Ehsanpour

Abstract : The present study provides information about the nature of adverse effects on fish and the ecological impact that polycyclic aromatic hydrocarbons (PAHs) pollutant are having in the northern coast of Hormuz Strait. The glucose and cholesterol levels were higher in fish from the St3 than in Walton's mudskipper from other stations however St3 samples had lowest total proteins levels. There was a significant positive correlation between glucose and cholesterol with PAHs concentrations in sediment and tissue samples (P<0.05). However, total proteins had adverse significant correlation with PAHs concentrations (P>0.05). The adverse correlation was seen between length and body weight of fish samples with PAHs concentrations. According to the results of this study, the monitoring of contaminants bioaccumulation in the northern part of Hormuz Strait is necessary, because this will give an indication of the temporal and spatial extent of the process, as well as an assessment of the potential impact on aquatic organisms health.

Keywords: PAHs, blood metabolic factors, Periophthalmus waltoni, Hormuz Strait

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