

IDENTIFICATION OF THE MOST APPROPRIATE *CALLINECTES DANAE* TISSUE TO BE USED IN THE BIOMONITORING OF METALS

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Biomonitoring (the use cosmopolite organisms to assess pollution) has considerably increased in the last few decades. Its development depends on the identification of new biomonitors, organisms that absorb contaminants and may be used as indicators of environmental quality. Thus, this study aimed to determine the most appropriate tissue of the blue crab *Callinectes danae* for biomonitoring approaches by using absorbed metal content in sediment as a possible source of contamination. The concentrations of Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb and Zn were determined in muscle, gills and hepatopancreas of organisms collected along the Santos estuarine system, Sao Paulo State, Brazil. Also, samples of sediment from these sites were collected in triplicate. In general, the concentrations of metals in blue crabs tissues were much lower than concentrations obtained in sediment samples. The results suggested that muscle content is composed by available metals after metabolism processes. Thus, the analysis of muscles may not reflect the sediment content. Except Hg, most metals presented high concentrations in gills, suggesting that respiration is the main pathway for metal incorporation. The discriminant analysis was applied and confirmed that sediment content was similar to hepatopancreas content due to the overlapping of confidence ellipses. It could be inferred that there was a fingerprint in the hepatopancreas related to metals absorbed by the sediment.



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TO WHOM IT MAY CONCERN

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On behalf of the Organizing Committee,

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