ID: W1967252685

TITLE: Metals in sediments and fish from Sea Lots and Point Lisas Harbors, Trinidad and Tobago

AUTHOR: ['Azad Mohammed', 'Thomas W. May', 'Kathy R. Echols', 'Mike Walther', 'Anton Manoo', 'Dexter Maraj', 'John Agard', 'Carl E. Orazio']

ABSTRACT:

Concentrations of heavy metals were determined in nearshore marine sediments and fish tissue from Sea Lots area on the west coast, at Caroni Lagoon National Park, and in the Point Lisas harbor, Trinidad. The most dominant metals found in sediments were Al, Fe and Zn with mean concentrations highest at Sea Lots (Al-39420 ?g/g; Fe-45640 ?g/g; Zn-245 ?g/g), when compared to sediments from Point Lisas (Al-11936 ?g/g; Fe-30171 ?g/g; Zn-69 ?g/g) and Caroni (Al-0400 ?g/g; Fe-19000 ?g/g; Zn-32 ?g/g), High concentration of Cu, Al, Fe and Zn were also detected in fish tissue from Point Lisas and Caroni. Metal concentrations in fish tissue showed significant correlation with sediment metals concentration, which suggests that tissue levels are influenced by sediment concentration. Of the metals, only Zn, Hg and Cu had a bioaccumulation factor (BAF) greater than one, which suggests a high bioaccumulation potential for these metals.

SOURCE: Marine pollution bulletin

PDF URL: None

CITED BY COUNT: 17

PUBLICATION YEAR: 2012

TYPE: article

CONCEPTS: ['Bioaccumulation', 'Sediment', 'Environmental chemistry', 'Fish <Actinopterygii>', 'Environmental science', 'Heavy metals', 'Chemistry', 'Fishery', 'Geology', 'Biology', 'Geomorphology']