Title of Article: Organochlorine Pesticide Residues in Water and Sediments from Oworonshoki, Lagos Lagoon

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Abstract: Microlayer water, mixed layer water, surface and bottom sediments were collected from Oworonshoki, Lagos Lagoon to analyse for organochlorine pesticide residues. Sampling was conducted between December 2008 and September 2009 during the dry and wet seasons. Water samples were subjected to liquid-liquid extraction while the sediments were subjected to cold extraction and clean-up. The samples were analysed for aldrin, dieldrin; endrin, DDT, heptachlor and their metabolites; HCH and endosulfan isomers; α, γ-chlordane and methoxychlor. A gas chromatograph was used for the detection and determination of the pesticide residues. Pesticide residues in the surface and bottom sediments were higher than the residues in the water. The mixed layer water showed enhanced levels of residues when compared with the microlayer water. The residue levels were higher during the dry season than the wet season. The levels of residues in the water and sediments were within the permissive limits as prescribed by WHO and USEPA.