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Concentration of Copper (Cu) in Tinfoil Barb Fish *(Barbonymus schwanenfeldii)* of Kuantan River and Pinang River, Pahang, Malaysia

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The study was conducted to determine of copper (Cu) in muscle tissue of Tinfoil Barn Fish (Barbonymus schwanenfeldii) and surface water at Kuantan River and Pinang River, Pahang. The study also determine the water quality parameters and water quality index (WQI). The fish was caught by using gill net and they were digest using acid digestion method and analysed by Inductive Coupled Plasma Micro Spectrometer (ICP-MS). The mean concentration of Cu in fish muscle was 0.5070 ± 0.01748 mg/kg for Kuantan River and 0.4732 ± 0.01807mg/kg for Pinang River which below the permissible limit set by Malaysia Food Act (MFA) and Food and Agriculture Organization (FAO). Cu concentration were 0.0052 ± 0.0004390 mg/kg in Kuantan River and 0.0017 ± 0.00006669 mg/kg in Pinang River. The level of Cu in both rivers were not harmful to the fish as the concentrations are below the permissible limit set by US Environmental Protection Agency (USEPA) and National Water Quality Standard (NWQS). There was no significant difference ($p < 0.05$) in the concentration of muscle tissue for Cu between rivers. In contrast, there showed a significant difference ($p < 0.05$) in the concentration of Cu in water between rivers. Kuantan River and Pinang River have been classified in Class II according to the Department of Environment (DOE) that the water must require conventional treatment for water supply purpose.

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