

**DETERMINATION CONCENTRATION OF HEAVY METALS IN
CAGE SILVER CATFISH FROM SUNGAI PAHANG AND SUNGAI
TEMBELING BY USING ENERGY DISPERSIVE X-RAY
FLUORESCENT (EDXRF)**

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ABSTRACT

DETERMINATION CONCENTRATION OF HEAVY METALS IN CAGE SILVER CATFISH FROM SUNGAI PAHANG AND SUNGAI TEMBELING BY USING ENERGY DISPERSIVE X-RAY FLUORESCENT (EDXRF)

The research study is to investigate the presence of heavy metals concentration in cage silver catfish and the study involved in analysis of heavy metals in fish, fish feed and water, thus the Concentration Factor that effect on the accumulating metals in the silver catfish from Sungai Pahang and Sungai Tembeling. The Energy Dispersive X-Ray Fluorescence (EDXRF) used to determine heavy metals concentration in fish. Unfiltered water samples collected from the study areas and analysed on Inductively Coupled Plasma Mass Spectroscopy (ICP-MS). Fish samples prior to measurement were dried, grind and kept in desiccator. Arsenic is the highest metal concentration from Sungai Pahang River followed by copper, manganese, cadmium and nickel. While from Sungai Tembeling, manganese showed highest concentration followed by copper, arsenic, cadmium and nickel. The Concentration Factor from water mostly showed highest value for all metals compared Concentration Factor from the fish feed. Hence, the accumulation metals in fish from both locations are mostly from the river water.

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