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Metal uptake and bioaccumulation potentials of *Clarias buthupogon* and *Heterobranchus longifilis* collected from Asa River, Ilorin, Nigeria

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Despite the existence of environmental legislations in Nigeria, aquatic environment has remained the sewer for wastes not minding its implications on the resident resources. Heavy metals pollution has become a worldwide concern and this may be due to their ability to bio-accumulate in aquatic organisms which is a source of livelihood for human populations. Therefore, this work aimed at assessing heavy metal accumulation in Clarias buthupogon and Heterobranchus longifilis in Asa River, Nigeria. After reconnaissance survey, fish samples were collected using hooks, traps and cast nets of various sizes twice monthly between April, 2011 and March, 2013 and were identified immediately. The samples were processed and heavy metal concentrations were determined in the gill, liver and muscle using atomic absorption spectrophotometer. Different metals were analyzed in the gill, liver and muscle of the sampled fish species and the data obtained were subjected to statistical analysis using the T-test statistical package to determine the level of difference between means. The result (mg kg-1, dry weight) showed different levels of the analyzed metals in the two fish species. The order of heavy metals accumulation in the two fish species are gills>liver>muscle and the levels of heavy metals bioaccumulation varied significantly ($p<0.05$) among season, sample locations, fish species and fish organs. All metals analyzed vary significantly in the two fish species examined, seasons and across sampling sites. The results suggest that Asa River has high pollution loads of these heavy metals in fishes due to an indiscriminate of discharge of effluents in the river and could pose a health hazards to man. Consequently, close monitoring of heavy metal loads in Asa River is recommended with a view of minimizing the risks to health of the population that depend on the river for their water and fish supply.

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