

Heavy Metals (Pb, Cu, Fe, and Zn) Level in Shellfish (*Etheria elliptica*), Water, and Sediments of River Ogbese, Ondo State, Nigeria

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Abstract : Investigations on the accumulation of heavy metals in water and sediments of River Ogbese were carried out between December 2010 and February 2011 using Atomic Absorption Spectrophotometer. *Etheria elliptica* a sessile organism was also used to determine the concentration of heavy metal in the aquatic environmental. In water, Cu had the highest concentration (0.55-0.13 mg/l \pm 0.1) while in sediments, the highest value obtained was in Fe (1.46-3.89mg/l \pm 0.27). The minimum concentrations recorded were in Pb; which was below detectable level. The result also revealed that the shell accumulated more heavy metals than the flesh of the mussel with Cu in the shell exhibiting a negative correlation with all the metals in the flesh. However, the condition factor (K) value is 6.44, an indication of good health. The length-weight relationship is expressed as $W=-0.48xL^{1.94}$ ($r^2=0.29$) showing the growth pattern to be negatively allometric.

Keywords : condition factor, *Etheria elliptica*, heavy metals, River Ogbese

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