COMPARATIVE ASSESSMENT OF THE LEAD CONTENT IN Oreochromis nilotica. AND WATER OF IMUS RIVER

An Undergraduate Thesis Presented to the Faculty of Biological Science Department De La Salle University- Dasmariñas Dasmariñas, Cavite

> In Partial Fulfillment of the Requirements for the Degree Bachelor of Science Major in Human Biology

> > Jozelle Mariz V. Medina Natasha Nicole A. Selma

March 2009

ABSTRACT

Water pollution is the contamination of streams, lakes, underground water, bays or oceans by substances harmful to living things. If severe, water pollution can kill large numbers of fish and other animals. Fish harvested from polluted waters may be unsafe to eat. People may become ill when exposed to this. Heavy metals like lead are one of the causes of these problems. Lead can get into water through industrial wastes, automobile exhaust, mines and even natural soil. When lead reached high levels, it can become toxic on water, animals and people who ingested it. Imus River is the main river tributary of water in the municipality of Imus Cavite. Studies show that lead can be found on this river because of the wastes present. The study is about the Comparative Assessment of Lead Content in Oreochromis nilotica and Water of Imus River. Its objective is to know the amount of lead present in Tilapia and Water and if there is any correlation between the two. The study is a descriptive correlation study. Replication of the experiment was done twice after the preliminary testing. Random sampling was made in each individual site. The stations chosen were Binakayan (upstream) and Palico III (downstream). This two are both located along Imus River. Collection of water and fish samples was done first. Water samples were submitted to JEFCOR laboratory for lead analysis using Atomic Absorption Spectrophotometer. The fish samples were dissected and the muscles are subjected for dry ashing and afterwards it was submitted to JEFCOR laboratory for lead analysis using Atomic Absorption Spectrophotometer. The statistical tools used in this research were

One-Way ANOVA and Pearson Correlation. The results shows that the F value does not exceed to F critical which means that both sites show no difference when put into statistics. The results of the ANOVA were subjected to Pearson correlation wherein the result shows a correlation of zero. This means that there is no relationship between the amount of lead present in tilapia and water. Low quantities of lead are found in Imus River and tilapia. The hypothesis was not accepted since low amounts of lead are present. The results show zero correlation which means tilapia and water have no association.

