



**LEAD CONCENTRATION OF *Caranx ignobilis* (MALIPUTO)
IN TAAL LAKE WATERS
AND ITS CORRELATION TO PHYSICO-CHEMICAL FACTORS**

An Undergraduate Research Presented to the
Biological Sciences Department
College of Science and Computer Studies
De La Salle University-Dasmariñas
City of Dasmariñas

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

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March 2014



ABSTRACT

The study was done to know the risk quotient of lead present in *Caranx ignobilis* in terms of amount of lead that was poisonous to human health. To determine if there was significant relationship in the amount of lead in physico-chemical factors and the amount of lead in *Caranx ignobilis* and Taal Lake water. To determine the Physico-chemical Factors of Taal Lake water. The researchers have collected *C. ignobilis* and water samples from open water in Taal Lake, Zone 8, Brgy. Aya, Talisay, Batangas within three sites. The samples were used for Atomic Absorption Spectroscopy for the determination of the lead concentration, measurement of the risk quotient, and determination if those fishes and water were good for consumption. The *C. ignobilis* samples were 15 g each. Those samples were ashed in the furnace for 3 hours with the temperature of 900°C. The samples were digested with 4 ml of nitric acid and 1 ml of hydrochloric acid per sample. The samples were diluted by heating it on the hot plate until the ashed samples melted. 5 ml of distilled water was poured on each sample then were filtered using the filter paper. The physico-chemical factors of water were determined, the temperature, dissolved oxygen, pH, transparency, TDS, salinity, and conductivity. The result of the lead concentration in water of Taal Lake did not exceed the standard amount of lead which was 0.5ppm and the *C. ignobilis* samples did not exceed the standard level of lead which was 22ppm. The physico-chemical factors of water in Taal Lake were tested and were correlated to the amount of lead in water of Taal Lake. There was no direct effect



on the solubility of metal in water. The DO was low which meant lead might increase. The pH was low which meant lead might increase. Salinity did not have a relation with lead concentration. The clearer the water or the higher the transparency, the lower the lead was. The lower the TDS, the lower the lead concentration was. The conductivity was low which meant lead concentration was also low. There was a correlation between the lead of water and physico-chemical factors. The higher the water temperature, the greater the biological activity was. The DO tested from water samples of Taal Lake was more than 3 mg/L which meant that the water was safe for aquatic organisms.

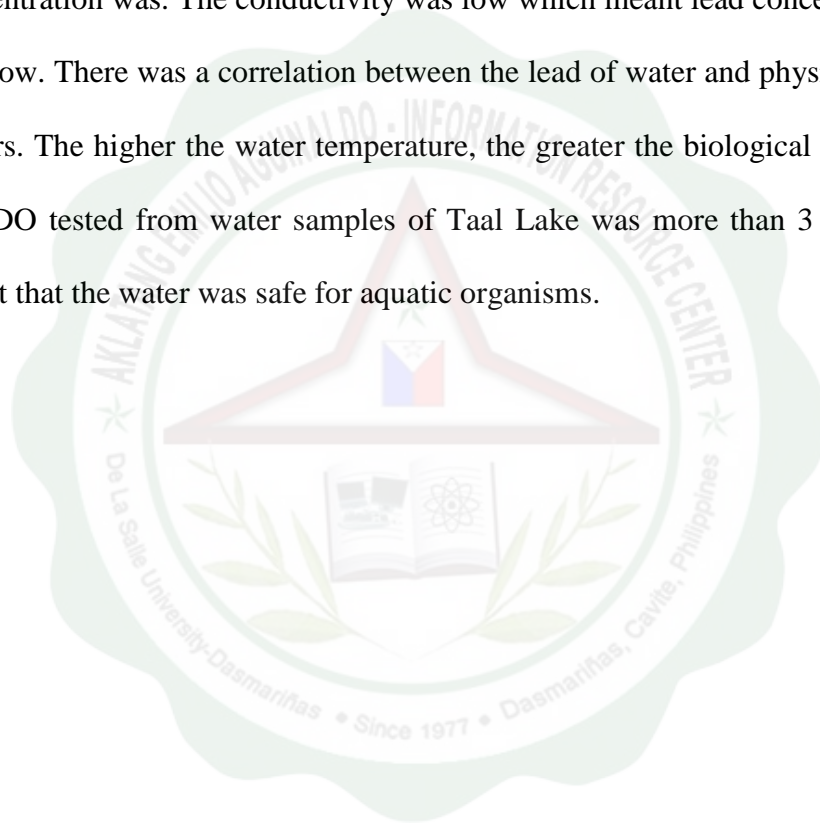




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