



**CORRELATION BETWEEN THE AMOUNTS OF LEAD INCLAMS,
MARINE WATER, AND BENTHIC SEDIMENTS OF
ANG PULO MANGROVE RESERVE
IN CALATAGAN, BATANGAS**

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ABSTRACT

The aim of this study is to identify the different collected species of clams from Ang Pulo and correlate the amount of lead found in the clams to the amount of lead found in the water and benthic sediments in Ang Pulo Mangrove Reserve, Calatagan, Batangas. Clams are bivalves that are able to absorb heavy metals such as Lead in the environment by filtering the water. The collection of samples were done on the months of April, May and October to observe the difference in the amount of lead found in the samples during pre- wet and post- wet seasons.

Samples from Ang Pulo Mangrove Reserve, Calatagan, Batangas were collected by performing the convenient sampling method using quadrat method in three sampling stations once a month for three months. The clams were identified in the Institute of Environmental Science and Meteorology in the University of the Philippines Diliman. The samples underwent dry ashing and acid digestion before being subjected to the Atomic Absorption Spectrophotometer for the detection of Lead.

Seven (7) species of clams were collected from Ang Pulo Mangrove Reserve, Calatagan, Batangas. There is a very strong relationship between the amounts of lead found in the clams and the water samples. Similarly, the correlation between the amount of lead in the clams and the benthic sediments is very strong. The risk quotients of the clam and water samples were high while the risk quotient of the benthic sediments was low. The data also showed that there is a noticeable increase in the amount of lead found in the samples during the post wet season due to the accumulation of pollutants carried by the runoff from the wet season.