

ABSTRACT

Purnawati, Indah. 2010. **Content Analysis of Heavy Metals (Cd and Hg) and the Structure of Gills Histology Blood On Shellfish (*Anadara granosa*) On the Beach Bangil Pasuruan**. Supervisor: Ir. Liliek Hariani M.P and Dr. drh. Bayyinatul Muchtaromah, M. Si

Keywords: Blood Shellfish (*Anadara granosa*) and heavy metals

Bangil Beach Pasuruan including five major coastal fish and shellfish producer in Pasuruan. Around the coast the situation is quite alarming as it gets the flow of waste from industrial centers Bangil and Rembang, which is alleged to have contaminated coastal areas of heavy metal. Waste is likely to contain toxic and hazardous chemicals. One of the waste is estimated to contain heavy metals Cd and Hg.

This research is a descriptive study aims to determine the average concentrations of metals Cd and Hg in blood clam and its influence on the histological structure of gills. Chemical analysis of heavy metals using AAS method and making gill preparations done at the Laboratory of Chemical UMM. This study consists of three observation stations. The average value of Cd and Hg metal shells Blood compared with a threshold value based on the WHO that cadmium should not exceed 1 ppm and Hg 0.5 ppm. Data gill histology compared with normal gill histology. This research was conducted from July 27-August 23 2010.

The results of this study indicate that the average cadmium levels higher than Hg. The highest cadmium levels in blood Shell is at station 3: 6.949 ppm and the lowest at station 1: 3.563 ppm. While the highest levels of Hg is located at station 3: 0.939 ppm and the lowest at station 1: 0.465 ppm. Results tesebut has exceeded the threshold value according to WHO. Histological observations gills have been damaged in the form of edema, hyperplasia, necrosis and atrophy in all stations. Data results of physical parameters include water chemistry: pH, DO, salinity and temperature is still in normal range and can be tolerated by aquatic biota.