

DISTRIBUTION OF MERCURY IN SEDIMENT AND OYSTER OF SETIU
LAGOON, TERENGGANU

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FACULTY OF MARITIME STUDIES AND MARINE SCIENCE
UNIVERSITI MALAYSIA TERENGGANU
2008

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Distribution of mercury in sediment and oyster of Setiu Lagoon,
Terengganu / Anies Aznida Sa'ari.



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**DISTRIBUTION OF MERCURY IN SEDIMENT AND OYSTER OF SETIU
LAGOON, TERENGGANU.**

By

Anies Aznida binti Sa'ari

**Research Report submitted in partial fulfillment of
the requirements for the degree of
Bachelor of Science (Marine Science)**

**Department of Marine Science
Faculty of Maritime Studies and Marine Science
UNIVERSITY MALAYSIA TERENGGANU (UMT)
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DEPARTMENT OF MARINE SCIENCE
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**APPROVAL AND CERTIFICATION FORM
RESEARCH PROJECT I AND II**

I certify that the research report entitled The Distribution of Mercury in the Sediment and Oyster of Setiu Lagoon, Terengganu by Anies Aznida Binti Sa'ari, matric number UK12502 has been read and all corrections recommended by the examiners have been done. This research report is submitted to the Department of Marine Science in partial fulfillment of the requirements for the degree of Bachelor of Science (Marine Science), Faculty of Maritime Study and Marine Science, University Malaysia Terengganu.

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ABSTRACT

This study was conducted in order to determine the concentration of mercury in sediment and oyster from the Setiu Lagoon. Mercury was analyzed by Inductively Coupled Plasma Mass Spectrometry (ICP-MS). The mean concentration of mercury in the sediment during the dry season ranged from 0.024 ppm to 0.086 ppm and from 0.037 ppm to 0.337 ppm for the wet season. Sediment mercury concentrations were generally higher than the average of earth crust value (0.08 ppm) at four of the six sampling sites in the lagoon. For the first sampling, the mercury concentration in oyster ranged from 0.074 ppm d.wt to 0.037 ppm d.wt and from 0.160 ppm d.wt to 0.075 ppm d.wt for the second sampling. There was no relationship in mercury concentration between sediment and oyster sample as $r=0.141$. While $p>0.05$ indicate that there is no significant difference in mercury content in sediment and oyster. In addition to that, Setiu oyster mercury content was compared with permissible levels of the Malaysia Food Act. The samples were collected in the dry (August) and wet (November) seasons. The mercury concentration of oyster tissue in wet weight basis was still below the permissible levels of the Malaysia Food Act (0.5 ppm) which was 0.012 ppm and 0.019 ppm for the dry and wet season respectively. Thus oyster from Setiu Lagoon are safe for human consumption with respect to mercury.