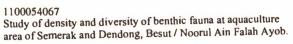
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STUDY OF DENSITY AND DIVERSITY OF BENTHIC FAUNA AT AQUACULTURE AREA OF SEMERAK AND DENDONG, BESUT

By Noorul Ain Falah Binti Ayob

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

Department of Marine Science Faculty of Maritime and Marine Science UNIVERSITI MALAYSIA TERENGGANU 2007

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PENGAKUAN DAN PENGESAHAN LAPORAN PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

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LIST OF ABBREVIATIONS AND SYMBOLS

DO Dissolved oxygen

m² Meter square

St. Station

mg/L Milligram per liter

% Percentage

ppt Part per thousand

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ABSTRACT

Samples of benthos and sediment collected at Semerak and Dendong aquaculture area were used to study the density and diversity of benthos and the alteration in species composition. Physico-chemical parameters such as water temperature, salinity, dissolved oxygen and pH also were recorded. From the study, total density of benthos inhabited Semerak ranged between 202.29 individual/m² to 1262.08 individual/m². Almost all stations were dominated by Annelida. Recorded indices were, Richness index, d =0.8548-1.5465, Evenness index, J' =0.5636-0.8325 and Diversity index, H' =1.1829-1.842. Macrobenthos community at Dendong on the other hand ranged between 28.57 individual/m² to 188.82 individual/m². The reference station showed higher value of total density and was dominated by Arthropoda. However the diversity was lower than impacted stations. Recorded indices were, d =0.6730-1.043, J' =0.2575-0.6855 and H' =0.4024-0.6171. The total density of meiobenthos showed higher density at reference station and totally dominated by Nematode. Unlike the pattern of diversity index for macrobenthos at same station, meiobenthos showed consistent value. Recorded indices were, d=1.0427-0.5639, J'=0.8060-0.0.8337 and H'=0.4024-1.300. Semerak and Dendong sediment were characterized as fine sand. Multivariate analyses showed that Semerak and Dendong indicated each station had difference species of benthos and not resemble other station.