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A study on the changes of beach profile and sediment characteristics at Setiu Coastline / Khairol Ehsan Razali.

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Lihat sebelah



**A STUDY ON THE CHANGES OF BEACH PROFILE AND
SEDIMENT CHARACTERISTICS AT SETIU COASTLINE**

BY

KHAIROL EHSAN RAZALI

A thesis submitted in partial fulfillment of the
requirements for the award of the degree of
Bachelor of Science (Marine Science)

FACULTY OF MARITIME STUDIES AND MARINE SCIENCE

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DECLARATION AND APPROVAL FOR FINAL YEAR PROJECT (I & II)

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Hereby I confirm that I have read, checked and all errors has been repaired. This thesis is to fulfill the condition to achieve Bachelor of Science (Marine Science), Faculty of Marine Studies & Marine Science, University Malaysia Terengganu (UMT).

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ABSTRACT

A study on the changes of beach profile and sediment characteristics has been conducted along the Setiu Wetland Coast. This study was divided into 8 main stations which is Station 1 to Station 8. Two samplings were done on September 2006 and February 2007. Beach profile shows drastic changes on all stations especially in February 2007. This is due to the Northeast Monsoon period. From the profiles, we may get a picture of varied strength of the physical factors with time. For having an accurate results, Benchmark data (Batu Aras) were collected from Jabatan Ukur dan Pemetaan Malaysia (JUPEM). Leveling was conducted along the coastal to bunch together with beach profile data. A sea floor mapping (Bathymetry) will also be conducted to get the latest beach slope. All of above data will be combined together to get the most precious data accordingly to JUPEM standards. The statistical analyze shows that the changes monthly at each stations. The statistical analyze include the values of min, standard deviation, skewness and kurtosis. This analysis data also can be used to determine the Net Shore Drift (NSD) directions. The Northeast Monsoon also affects the statistical values. However, there exist some similarities and differences between all the stations, either during the monsoon period or in normal weather condition. This is caused by several factors such as waves, winds, currents, tidal circulations and the differences on the environment.

ABSTRAK

Kajian terhadap perubahan profil pantai dan taburan saiz sedimen telah dijalankan disepanjang pantai Setiu Wetland. Kajian ini telah dibahagikan kepada 8 stesen. Dua penaympelan telah pun dijalankan, iaitu pada bulan September 2006 untuk penyampelan pertama dan penaympelan kedua dijalankan pada Februari 2007. Profil pantai telah menunjukkan perubahan yang amat ketara pada kesemua stesen terutamanya selepas mounsun Timur Laut melanda iaitu kira-kira pada bulan Februari 2007. Dari profil pantai akan menunjukkan kesan dari tindakan faktor-faktor fizikal yang seiring dengan perubahan masa. Bagi mendapatkan keputusan yang tepat dan boleh diguna pakai, maklumat Batu Aras telahpun diambil dari Jabatan Ukur dan Pemetaan Malaysia (JUPEM). Proses pendataran (Leveling) telah dijalankan dan maklumat mengenai pengelasan ini akan digabungkan bersama data profil pantai yang terkini mengikut standard pempiawaan JUPEM. Data analisa statistik akan menunjukkan perubahan bulanan setiap stesen. Data statistik akan disertai dengan nilai Min, Sisihan Piawai, Kecerunan dan Kurtosis. Maklumat ini juga boleh digunakan dalam proses penentuan arah hanyutan pantai bersih (NSD). Mounsun Timur Laut ini juga akan memberikan kesan kepada keputusan mengenai analisa statistik ini. Walaubagaimanapun, masih wujud persamaan dan perbezaan terhadap setiap stesen kajian pada musim biasa dan musim mounsun melanda. Ini adalah kerana beberapa faktor semulajadi seperti ombak, angin, arus, pasang surut dan perbezaan alam persekitaran.