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Perpustakaan Sultanah Nur Zahirah (UMT) Universiti Malaysia Terengganu





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Feeding behavior of rockhopper penguin (Eudyptes chrysocome) in captivity / Syed Muhammad Danial Syed Ismail.

#### PERPUSTAKAAN SULTANAH NUR ZAHIRAH UNIVERSITI MALAYSIA TERENGGANU (UMT) 21030 KUALA TERENGGANU

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# FEEDING BEHAVIOUR OF ROCKHOPPER PENGUIN (Eudyptes chrysocome) IN CAPTIVITY

By

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

Department of Marine Science Faculty of Maritime Studies 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

°C	-	celsius
%	÷.	percentage
cm	÷	centimeters
g	-	gram
kg	-	kilogram
Stdev	-	standard deviation
Ppt	-	part per thousand
Am		morning
Pm	-	evening

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#### ABSTRACT

The feeding behaviour of 19 penguins (10 males and nine females) Ropckhopper penguin (Eudyptes chrysocome) was studied at Underwater World Langkawi. The average air temperature in the tank was 16.04 <sup>o</sup>C and the average water temperature was 8.28°C. All the penguins were fed twice a day, at 10 am and 3 pm with Sardines (Decapterus maruadsi). The objectives of this study were to determine the daily fish intake of captive Rockhopper penguin, to compare the fish intake between males and females Rockhopper penguin and to study the correlation between the timing of molting to the body weight changes. Comparison between morning (41901  $\pm$  457 fishes) and evening (37465  $\pm$  404 fishes) fish intake showed no significant difference (t-test, t = 1.33, df = 46). In term of sexes, male penguins consumed slightly more (38287  $\pm$  484 fishes) than female penguins (36973  $\pm$  417 fishes) but did not exhibit significant difference in the amount of fish intake (t-test, t =0.42, df = 46). The average weight for male penguins  $(3.044 \pm 0.259 \text{ kg})$  did not differ significantly from females  $(3.007 \pm 0.261 \text{ kg})$  (*t*-test, t = 0.38, df = 22). The weight of the penguins did not correlate with the fish intake ( $R^2 = 0.0133$  for males and  $R^2 =$ 0.0358 for females). The molting period was between November 2005 until March 2006. There was also no correlation between the amount of fish intake and water temperature ( $R^2 = 0.0922$ ) and air temperature ( $R^2 = 0.00357$ ).