

THE EFFECTS OF RETENTION PERIOD, INCUBATION PERIOD AND
INCUBATION METHOD ON TURTLE HATCHLING VIGOUR

PUSHPALATHA A/P M. PALANIAPPAN

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By

PUSHPALATHA A/P M. PALANIAPPAN

This project report is submitted as a partial requirement
for the degree of Bachelor Science of Fisheries.

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1100023815

PREFACE

Releasing animals, releasing turtles, is pleasurable - watching how they crawl over the sand, struggle through the surf and breaking waves and then swim out beyond to the open sea. It is not so easy to define exactly why this is pleasurable. Perhaps it has something to do with the desire for a freer simpler existence, with an element of going beyond the present situations well as back to childhood.

A.D. Graham

The Gardeners of Eden

Om Sarva vigna haram Devam

Sarva vigna vivarjitham

Sarva siddhi pradataram

Vardeham gnana Nayakam

ACKNOWLEDGEMENTS

I am deeply indebted to Lord Muruga for the strength and perseverance in being able to complete this project. This would also be impossible without the support and encouragement from my beloved parents, Mr. and Mrs. M. Palaniappan and brother Anand as well as Ms. Lee Shiau Chin.

I would like to express my gratitude for all the guidance and advice given by both my supervisors, Mr. Liew Hock Chark and Assoc. Prof. Dr. Chan Eng Heng. Much appreciated also is all the assistance given by "Big Brother" Syed Zainuddin bin Engku Chik Abdullah, Shahbudin Saad, Roslam Abd Ghani, Ms. Ivy Wong Ling Ling, Ms. Panawon Jirawong, Mazalina bt. Ali, Abdul Talib Sulaiman, the Redang Island project pioneers, my 19 macho fellow course-mates, the third year students and all the other faculty staff. I would like to give special thanks to Jabatan Perikanan Terengganu as well as the Rantau Abang Turtle Sanctuary Manager and staff for providing the turtle hatchlings and allowing me to use their facilities. Lastly, to Muhamad Saini bin Suliansa, thank you for starting me off on the journey into this astonishing world of sea turtles.

ABSTRACT

A study on turtle hatchling vigour upon emergence in relation to parameters such as retention period, incubation period and incubation method was conducted. Six different retention periods and three methods of incubation were used in this study. Incubation period was determined by the number of days the hatchlings took to emerge from their nests. Terrestrial locomotion of the hatchlings traversing the beach from their nest to the surf was used as a measure of their vigour. A total of 24 leatherback, *Dermochelys coriacea* and 180 green turtle, *Chelonia mydas* hatchlings were tested. The results obtained indicated that hatchlings released immediately upon emergence had maximum vigour in comparison to those that were retained. There were significant differences in hatchling vigour in relation to the various incubation periods and incubation methods that were used in the study.

penyeragaman dan cara pengurusan yang berlainan digunakan.

ABSTRAK

Kajian mengenai kekuatan merangkak anak penyu yang baru menetas telah dijalankan. Ianya dilakukan dengan menggunakan parameter jangkamasa kurungan, jangkamasa pengeraman dan cara pengeraman yang berbeza. Enam jangkamasa kurungan dan tiga cara pengeraman yang berbeza telah dikaji. Jangkamasa pengeraman ditentukan oleh masa yang diambil untuk kemunculan keluar anak penyu dari sarangnya. Kekuatan anak penyu diukur semasa ianya merangkak dari sarang sehingga ia sampai ke gigi air. Sejumlah 24 ekor anak penyu belimbing (*Dermochelys coriacea*) dan 180 ekor anak penyu agar (*Chelonia mydas*) telah digunakan di dalam kajian ini. Keputusan menunjukkan bahawa anak penyu yang dilepaskan sebaik sahaja ia muncul dari sarang adalah yang paling kuat jika dibandingkan dengan anak penyu yang terkurung. Perbezaan yang ketara di dalam kekuatan anak penyu telah dikesan apabila jangkamasa pengeraman dan cara pengeraman yang berlainan digunakan.