

CURRENT CIRCULATION AND PHYSICAL PROCESSES  
ALONG THE COAST OF TERENGGANU

EVELYN NGIENG KING CHIN

FACULTY OF MARITIME STUDIES AND MARINE SCIENCES  
UNIVERSITI MALAYSIA TERENGGANU

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**CURRENT CIRCULATION AND PHYSICAL PROCESSES ALONG THE  
COAST OF TERENGGANU**

**EVELYN NGIENG KING CHIN**

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

**Department of Marine Science  
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**DEPARTMENT OF MARINE SCIENCE  
FACULTY OF MARITIME STUDIES AND MARINE SCIENCE  
UNIVERSITI MALAYSIA TERENGGANU**

**DECLARATION AND VERIFICATION REPORT  
FINAL YEAR RESEARCH PROJECT**

It is hereby declared and verified that this research report entitled:

Current circulation and physical processes along the coast of Terengganu  
by Evelyn Ngieng King Chin, Matric No.15194 have been examined and all errors identified have been corrected. This report is submitted to the Department of Marine Science as partial fulfillment towards obtaining the Degree Bachelor of Science (Marine Science), Faculty of Maritime Studies and Marine Science, Universiti Malaysia Terengganu.

Verified by:

Principal Supervisor

Name: Dr. Mohd Fadzil Mohd Akhir

Official stamp: **DR. MOHD FADZIL MOHD AKHIR**  
Lecturer  
Department of Marine Science  
Faculty of Maritime Studies and Marine Science  
Universiti Malaysia Terengganu (UMT)  
21030 Kuala Terengganu.

Date: 8/4/2010

Second Supervisor (where applicable)

Name: En. Idham Khalil

Official stamp:

**IDHAM KHALIL**  
Lecturer  
Department of Marine Science  
Faculty of Maritime Studies and Marine Science  
Universiti Malaysia Terengganu (UMT)  
21030 Kuala Terengganu

Date: 8/4/2010

Head of Department of Marine Science

Name: Dr. Razak bin Zakariya

Official stamp: **DR. RAZAK ZAKARIYA**  
Ketua Jabatan Sains Marin  
Fakulti Pengajian Maritim dan Sains Marin  
Universiti Malaysia Terengganu  
(UMT)

Date: 8/4/10

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## LIST OF ABBREVIATIONS

%	-	Percentage
m	-	Meter
mm	-	Millimeter
g	-	Gram
mg	-	Milligram
mg/L	-	Milligram/Liter
mg/kg	-	Milligram/kilogram
cm	-	Centimeter
mL	-	Millilitre
m/s	-	Meter per second
ppt	-	Parts per thousand
ppm	-	Parts per million
ppb	-	Parts per billion
v/v	-	Volume/volume

## **ABSTRACT**

This study was conducted along the coast of Terengganu to observe the current circulation and determine the distribution of temperature, salinity and dissolved oxygen (DO). The dynamics of the current circulation and its impact toward the temperature and salinity distribution also been investigated. The cruise data were collected with Hydrolab and Current Meter during September 2002. All the data were collected in 30 sampling stations from 25 till 29 September 2002. With this data, research on the current system and the profile of water in Terengganu coastal areas can be identified. By having these set of data, we could know the current system and specific properties of water in our region. The variability of the current circulation and physical processes along the coast of Terengganu was investigated. The dynamics of the mixed layer of the South China Sea (SCS) during SW monsoon season also reviewed. The observations showed the difference characteristic of seawater either influenced by the Terengganu rivers outflow or the effect from open system of SCS circulation.

**PEREDARAN ARUS DAN PROSES FIZIKAL SEPANJANG PERSISIRAN  
TERENGGANU**

**ABSTRAK**

Kajian mengenai peredaran arus dan taburan suhu, kemasinan dan oksigen terlarut telah dijalankan sepanjang persisiran Terengganu. Dinamik tentang peredaran arus dan kesannya terhadap taburan suhu dan kemasinan juga telah diselidiki. Data lapangan diperolehi melalui penggunaan Hydrolab dan Current Meter dalam bulan September 2002. Semua data yang dikumpul di 30 stesen sampling dari 25 hingga 29 September 2002. Dengan menggunakan data ini, kajian tentang sistem arus dan profil air di kawasan persisiran Terengganu dapat dikenalpasti. Daripada set data ini, kita mampu mengetahui sistem arus dan sifat-sifat khusus air di perairan kita. Kebolehubahan peredaran arus dan proses fizik di sepanjang pantai Terengganu juga diselidiki. Dinamik daripada lapisan campuran Laut China Selatan (SCS) dalam monsoon Barat Daya juga diperiksa. Pengamatan menunjukkan perbezaan ciri-ciri air laut yang dipengaruhi oleh aliran sungai Terengganu atau kesan daripada sistem terbuka atau peredaran dari SCS.