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Studies of gut contents of marine fish larvae using light traps in Terengganu waters / Julius Yong Fu Siong.



#### PERPUSTAKAAN

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# STUDIES OF GUT CONTENTS OF MARINE FISH LARVAE CAUGHT USING LIGHT TRAPS IN TERENGGANU WATERS.

Ву JULIUS YONG FU SIONG

# FACULTY SCIENCE AND TECHNOLOGY KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA 2006

# STUDIES OF GUT CONTENTS OF MARINE FISH LARVAE CAUGHT USING LIGHT TRAPS IN TERENGGANU WATERS.

By

### JULIUS YONG FU SIONG

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

# FACULTY SCIENCE AND TECHNOLOGY KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA 2006

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## JABATAN SAINS SAMUDERA FAKULTI SAINS DAN TEKNOLOGI KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

# PENGAKUAN DAN PENGESAHAN LAPORAN PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

Studies of Gut Contents of Marine Fish Larvae Caught Using Light Traps In Terengganu Waters oleh Julius Yong Fu Siong No. Matrik UK 8782 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Samudera sebagai memnuhi sebahagian datipada keperluan memperolehi Ijazah Sarjana Muda Sains (Biologi Marin) Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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#### **ABSTRACT**

A study was conducted to compare the gut contents of fish larvae in Setiu Waters, Mengabang Waters and Redang Island in Terengganu. Sampling started in early July 2005 and ended in January 2006. Light traps with green light source were used to catch the fish larvae. The samplings were done during the night and each sampling lasted 5 hours. A total of 253 fish larvae were analyzed during the whole project. Fish larvae were from the Family of Microcanthidae, Eleotrididae, Siganidae, Kraemeriidae, Alosinae and Ptereleotrinae. The standard length of the fish larvae ranged from 8.0 mm to 19.0 mm. The gut contents of the fish larvae caught consisted of Calanoid and Cyclopoid copepod fragments, which means the fish larvae mainly feeding on copepods. In another words, they are selective feeder. As in this situation, the ability of the fish larvae to see their prey is an important aspect. For Calanoid fragments in Setiu Wetlands and Mengabang Waters, their median sizes were 158.724 µm and 145.559 µm respectively. As for Cyclopoid fragments, the average fragments length for Setiu Wetlands and Mengabang Waters were 152.511 μm and 141.888 μm respectively.

#### **ABSTRAK**

Suatu kajian telah dijalankan untuk membandingkan bahan makanan dalam perut larva ikan dari Setiu, Mengabang Telipot dan Pulau Redang. Penyempelan telah bermula pada awal bulan Julai 2005 dan telah berakhir pada bulan Januari 2006. Perangkap cahaya dengan batang kimia (chemical light stick) yang berwarna hijau telah digunakan untuk menarik perhatian larva ikan untuk memasuki perangkap cahaya. Sampel hanya dikutip pada waktu malam sahaja dan setiap penyempel memakan masa lima jam. Sejumlah 253 ikan larva telah didapati dan dikaji isi kandungan perutnya. Sample-sampel berasal dari Famili Microcanthidae, Eleotrididae, Siganidae, Kraemeriidae, Alosinae dan Ptereleotrinae. Kesemua ikan larva ini berukuran dari 8.0 mm hingga 19.0 mm. Daripada kajian ini, isi kandungan perut ikan larva terdiri daripada serpihan kopepod dari Famili Calanoid dan Cyclopoid.