

ECTOPARASITE IDENTIFICATION ON SEA BASS (*Lates calcarifer*) IN  
CAGE CULTURE IN SEMERAK, KELANTAN

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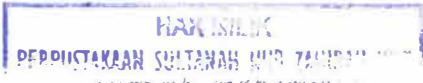
Ectoparasite identification on sea bass (*Lates calcarifer*) in cage culture in Semerak, Kelantan / Mahazan Muhammad.



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**ECTOPARASITE IDENTIFICATION ON SEA BASS (*Lates calcarifer*) IN  
CAGE CULTURE IN SEMERAK, KELANTAN**

**By**

**Mahazan Bin Muhammad**

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

**Department of Marine Science  
Faculty of Maritime Studies and Marine Science  
UNIVERSITI MALAYSIA TERENGGANU  
2008**

This thesis should be cited as:

Mahazan, M. 2008. Ectoparasite Identification on Sea Bass (*Lates Calcarifer*) in Cage Culture in Semerak, Kelantan. Undergraduate Thesis, Bachelor of Science in Marine Biology. University Malaysia Terengganu. Terengganu, Malaysia. 65p.

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110006184<sup>2</sup>



**JABATAN SAINS MARIN  
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**PENGAKUAN DAN PENGESAHAN LAPORAN  
PROJEK PENYELIDIKAN I DAN II**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

**Ectoparasite Identification on Sea Bass (*Lates Calcarifer*) in Cage Culture in Semerak, Kelantan** oleh **Mahazan bin Muhammad**, No. Matrik **UK12254** telah diperiksa dan semua pembeduan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Marin sebagai memenuhi sebahagian daripada keperluan memperoleh ijazah **Sarjana Muda Sains (Biologi Marin)**, Fakulti Pengajian Maritim dan Sains Marin, Universiti Malaysia Terengganu.

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## ACKNOWLEDGEMENTS

IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

Bless be to Allah (S.W.T), the Almighty who had created me and then gave me such an opportunity to conduct a research and to complete its thesis as my bachelor.

First and foremost, ever lasting gratitude goes to my supervisor, Prof. Dr. Faizah bt. Shaharom for her assistance, supervision, support and guidance. Similarly, I would like to extend my sincerest gratitude and completely wholehearted acknowledgements to all staff of Biodiversity Laboratory assistants and most important person, Mrs. Kartini for her helping, guidance and comments to complete this thesis. Many thanks also to Semerak cage culture fish farmer Mr. Hassan and Mr. Faizal for providing fresh samples which were used in my study.

My special appreciation also goes to our project coordinator, Dr. Juanita Joseph for her advices and support. Thanks were also dedicated to all my friends for their kindness and for helping me to complete this project.

To my parents, Muhammad bin Talib and Fauziah bt. Ismail, and all my family member, my heartfelt gratitude to them for their love, encouragement and support to complete my study successfully. Not forgetting to all peoples who are involved directly or indirectly throughout my study. All the kindness and hard work is well appreciated.

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## LIST OF ABBREVIATIONS

µm/mic	Micrometer
mm	Millimeter
cm	Centimeter
g	Gram
°C	Degree Celsius
ppt	Part per thousand
%	Percentage
±	Plus-minus sign
Mg/L	Milligram per liter
L	Liter
SL	Standard length
TL	Total length
W	Weight
N	North
E	East
UMT	Universiti Malaysia Terengganu
SEM	Scanning Electron Microscopy
sp.	Species

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## ABSTRACT

Nowadays sea bass, *Lates calcarifer* has become one of the most promising commercial marine fish in Malaysia's aquaculture industry. In this study, a total number of 40 sea bass from net floating at Semerak have been used to identify the ectoparasites of the fish. Seven species of ectoparasite are found in examined sea bass, they are from three big group namely 1) protozoan parasites; *Cryptocaryon irritans*, *Trichodina* sp. and cysts of *Henneguya* sp., 2) parasitic crustacean; *Lernanthropus latis*, *Caligus* sp., and *Ergasilus* sp., and 3) monogenetic trematodes; *Pseudorhabdosynochus* sp.. The prevalence and mean intensity of *Cryptocaryon irritans* was 65% and 132.5, *Trichodina* sp. 37.5% and 8, cysts of *Henneguya* sp. 10% and 1.3, *Lernanthropus latis* was 95% and 14, *Caligus* sp. 60% and 12.3, *Ergasilus* sp. 37.5% and 6.3, and lastly *Pseudorhabdosynochus* sp 57.5% and 29.9. Ectoparasites infection is the reason for mass mortality of fish in Malaysia's aquaculture industry. Hope, the information about this study might help us to generate more information to reduce threats and risks to cultured sea bass.

Pengecaman Ektoparasit Pada Ikan Siakap (*Lates calcarifer*) Dari Sangkar Ikan  
Semerak, Kelantan

**ABSTRAK**

Pada masa sekarang, ikan siakap *Lates calcarifer* merupakan satu daripada ikan marin komersial yang menjanjikan pulangan lumayan dalam industri akuakultur di Malaysia. Dalam kajian ini, sejumlah 40 ekor ikan siakap daripada sangkar terapung di Semerak digunakan dalam kajian pengecaman spesies ektoparasit pada ikan tersebut. Tujuh spesies ektoparasit telah dijumpai pada ikan siakap semasa kajian, parasit tersebut adalah daripada tiga kumpulan besar iaitu 1) parasit protozoa; *Cryptocaryon irritans*, *Trichodina* sp. dan cysts *Henneguya* sp., 2) parasit krustasia; *Lernanthropus latis*, *Caligus* sp., dan *Ergasilus* sp. dan 3) trematoda monogenea; *Pseudorhabdosynochus* sp.. Prevalen dan min keamatan *Cryptocaryon irritans* adalah 65% dan 132.5, *Trichodina* sp. 37.5% dan 8, cysts *Henneguya* sp. 10% dan 1.3, *Lernanthropus latis* 95% dan 14, *Caligus* sp. 60% dan 12.3, *Ergasilus* sp. 37.5% dan 6.3, dan *Pseudorhabdosynochus* sp. 57.5% dan 29.9. Jangkitan ektoparasit ialah merupakan sebab kematian ikan bagi industri akuakultur Malaysia. Diharap, maklumat daripada kajian ini dapat membantu kita dalam usaha mengumpulkan lagi maklumat untuk mengurangkan ancaman dan risiko dalam mengkultur ikan siakap.