

THE STUDY OF ECTOPARASITES IN *Leptobarbus hoeveni*,
Barbonymus gonionotus AND *Oreochromis mossambicus*

AZAM ARNI BINTI MGHD NOOR

SCHOOL OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
2006

LP
1
FASM
1
2006

THE STUDY OF ECTOPARASITES IN *Leptobarbus hoevenii*, *Barbonymus gonionotus*
AND *Oreochromis mossambicus*

AZAM ARNI BINTI MOHD NOOR

This project report is submitted in partial fulfillment of the requirement of the degree of
Bachelor of Applied Science (Fisheries Science)

FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

2006

This project should be cited as:

Arni, A. M. N. 2006. The study of ectoparasites in *Leptobarbus Hoevenii*, *Barbonymus Goniionotus* and *Oreochromis Mossambicus*. Undergraduate thesis, Bachelor of Applied Science (Fisheries Science), Faculty of Agrotechnology and Food Science, Kolej Universiti Sains dan Tcknologi Malaysia, Terengganu. 35p.

No part of this project report may be reproduced by any mechanical, photographic, or electronic process, or in the form of phonographic recording, nor may it be stored in a retrieval system, transmitted, or otherwise copied for public or private use, without written permission from the author and the supervisor(s) of the project.

ACKNOWLEDGEMENTS

My foremost gratitude goes to my ever patient and supportive supervisor; *Prof. Dr. Faizah Shaharom*, whose amazingly generous with her warmth and wisdom. My sincere appreciation also goes to all lecturers, especially *En. Shahreza* and *Pn. Asma*, supplier of fish, all staffs and laboratory assistants, especially *Pn. Kartini Mohamad*, *En. Che Zan* and *En. Abdul Aziz* for their help and assistance throughout the study. To my beloved family; *Abah*, *Ma*, siblings and little *Qistina*, my niece, for their unspeakable love, concern and moral support, to my buddies and fellow friends, “Home of Stars, Pak Tuyu”, and *Vaani*, the most cute friend, for always standing besides me. And also to all lecturers for these three years, for their guidance and knowledge that they shared with me...to my thirty-six beloved course mates: I cherished our camaraderie these years and it will be never fade away. Thank you so much to everyone for those things that makes me felt that I am one of the fortunate one and to everyone who would refer to this thesis one day, I wish you all good luck!

- *Azam Arni Bt. Mohd Noor*
March 2006

ABSTRACT

This study aims to determine and identify the ectoparasites in *Leptobarbus hoevenii*, *Barbonymus gonionotus* and *Oreochromis mossambicus*. It is also to determine the mean intensity and prevalence of ectoparasites and compare between these three freshwater cultured fish species. Methodology starts with microscope examination and collection of the parasite from different part of the body such as skin, fins and gills. Specimen was stained and drew. Four species of ectoparasites were found and they are *Ichthyophthirius multifiliis*, *Trichodina sp.*, *Thelohanellus sp.* and a monogenea. This monogenea cannot be identified because of damage during staining. From the results, parasitic infection in these freshwater commercial fingerling fishes is not under the serious condition. There are no big differences between two from the three species; *Leptobarbus hoevenii* and *Oreochromis mossambicus* but *Barbonymus gonionotus* shows high prevalence of infection. This may lead to aquaculture problem in future if no prevention or treatment is being carried out (Scholz, 1999). Proper management should be implemented in order to prevent this parasitic problem. In conclusion, fish is a potential source of protein to human. Therefore, it is important that the fishes are free from any parasites for aquaculture importance.

ABSTRAK

Kajian ini dijalankan untuk menentukan dan mengenalpasti jangkitan ektoparasit pada rega tiga spesies ikan air tawar iaitu *Leptobarbus hoevenii*, *Barbonymus gonionotus* dan *Oreochromis mossambicus* yang diternak secara komersial. Objektif lain merangkumi penentuan keamatan dan kekerapan jangkitan ektoparasit seterusnya membuat perbandingan diantara ketiga-tiga spesies ikan atau perumah tersebut. Kaedah kajian meliputi pemeriksaan dengan mikroskop, pengasingan parasit, pewarnaan serta melukis parasit yang ditemui. Secara keseluruhannya, kajian ini menunjukkan jangkitan parasit yang tidak serius. Walaubagaimanapun, *Barbonymus gonionotus* menunjukkan kekerapan jangkitan Myxozoa yang tinggi yang akan membawa masalah dalam industri akuakultur jika tidak dicegah melalui pengurusan sistem ternakan yang sempurna (Scholz, 1999). Oleh kerana ketiga-tiga spesies yang dikaji adalah merupakan spesies komersial dan sumber utama protein, spesies-spesies rega tersebut mestilah bebas dari sebarang jangkitan untuk kepentingan akuakultur pada masa hadapan.