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**SITE- SPECIFICITY STUDY OF MONOGENEANGILL PARASITES IN
POND CULTURE FISH OF IKAN PATIN BUAH (*Pangasius nasutus*)
AT PUSAT PENGEMBANGAN AKUAKULTUR
PERLOK, JERANTUT PAHANG**

**By
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**Research Report submitted in partial fulfillment of
the requirements for the degree of Bachelor of
Agrotechnology Science (Aquaculture)**

**Department of Fisheries Science and Aquaculture
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE (FASM)
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**FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN
UNIVERSITI MALAYSIA TERENGGANU**

**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK ILMIAH I DAN II**

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk:

'Site-specificity study of Monogenean Gill Parasite in Pond Culture Fish of Ikan Patin Buah (*Pangasius nasutus*) at Pusat Pengembangan Akuakultur Perlok Jerantut Pahang'
oleh **Surzanne Binti Mohd Agos**, No.Matrik **UK 13816** telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Perikanan dan Akuakultur sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda **Sains Agroteknologi Akuakultur**, Fakulti Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

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DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

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I hope that this thesis will perform in way not only for the purpose of references but also a simple readable material to be enjoyed with.

ABSTRACT

From August to September 2008, 30 fishes of *Pangasius nasutus* (Ikan Patin Buah) were collected from the pond culture farm, number B8 at Pusat Pengembangan Akuakultur (PPA), Perlok Jerantut Pahang. The fish was used to identify the monogenean gill parasite infecting the gill of *Pangasius nasutus* (Ikan Patin Buah) in freshwater pond culture in Perlok according to their specific characteristic because monogenea often cause many problems in aquaculture practice all over the world. Monogenean can become a serious threat when fish are crowded together, as in hatcheries and farming operations like pond. This study was performed to determine the site specificity, prevalence, and mean intensity of monogenean in different size classes of *Pangasius nasutus* in freshwater pond cultures. The condition of the fish and water quality of the pond water were taken. Histological process was carried out to study the structure of the gill and to examine the structural changes on the gill because of the heavily infected by monogenea. Scanning Electron Microscope (SEM) was done to observe more clearly the specimen and the site attachment of the parasite on the gill. This project was conducted in Biodiversity Laboratory, Anatomy Physiology Laboratory and Histology Laboratory at Universiti Malaysia Terengganu.

ABSTRAK

Dari bulan Ogos hingga September 2008, sebanyak 30 ekor ikan Patin Buah (*Pangasius nasutus*) telah di ambil dari kolam ternakan ikan yang bernombor B8 di Pusat Pengembangan Akuakultur (PPA), Perlok Jerantut Pahang. Ikan digunakan untuk mengenalpasti parasit insang iaitu monogenea yang menyerang *Pangasius nasutus* (Ikan Patin Buah) pada kolam ternakan ikan air tawar di Perlok mengikut ciri-cirinya yang spesifik kerana monogenea seringkali mendatangkan banyak masalah dalam sektor akuakultur di seluruh dunia. Monogenea boleh menjadi masalah yang serius apabila ikan dikumpulkan bersama, seperti hatcheri dan ladang-ladang operasi seperti di kolam. Kajian ini juga dijalankan adalah untuk mengenalpasti lokasi yang spesifik, kelaziman dan min intensiti monogenea pada ikan patin buah yang mempunyai saiz yang berbeza di kolam ternakan ikan air tawar. Keadaan ikan dan kualiti air kolam diambil. Proses histologi juga dijalankan untuk mempelajari struktur insang dan mengkaji perubahan struktur insang disebabkan oleh serangan monogenea yang terlampau banyak. 'Scanning Electron Microscope' (SEM) digunakan untuk melihat dengan lebih jelas lagi specimen yang dikaji dan tempat perlekatan parasit pada insang. Kajian ini dijalankan di Makmal Biodiversiti, Makmal Anatomi Fisiologi dan Makmal Histologi di Universiti Malaysia Terengganu.