

EFFECTS OF GENETIC DIVERSITIES ON GROWTH AND
SURVIVAL OF WEANLING
Bovine Sumbroddos

MONILZA MURAH MERANG

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FAKULTAS TEKNOLOGI DAN SAINS ANIMASIAN
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2009

EFFECTS OF STOCKING DENSITIES ON GROWTH AND
SURVIVAL OF KELAH,
Tor tambroides.

By
MONILIZA MUJAN MERANG

Research Report submitted in partial fulfillment of
the requirements for the degree of
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**FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN
UNIVERSITI MALAYSIA TERENGGANU**

**PENGAKUAN DAN PENGESAHAN LAPORAN AKHIR
PROJEK PENYELIDIKAN I & II**

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk: **EFFECTS OF STOCKING DENSITIES ON GROWTH AND SURVIVAL OF KELAH, *Tor tambroides***, oleh **Moniliza Mujan Merang**, No. Matrik **UK14628** telah diperiksa dan semua pembedaan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Perikanan dan Akuakultur sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda Sains Agroteknologi (Akuakultur), Fakulti Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

Disahkan oleh:

Penyelia Utama

Nama:

ASSOC. PROF. DR. ABOL MUBIN ABOK BOLONG
Deputy Dean (Research & Post Graduate)
Faculty of Agrotechnology and Food Science
Universiti Malaysia Terengganu
21030 Mengabang Telipot
Kuala Terengganu, Terengganu.

Cop Rasmi:

Tarikh: **4 Mei 2009**

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Penyelia kedua

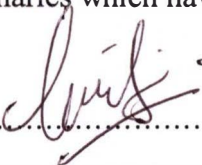
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DECLARATION

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

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Name : Moniliza Mujan Merang

Matric No : UK 14628

Date : 14th May 2009

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ABSTRACT

Studies were conducted to determine optimum stocking density for kelah, *Tor tambroides* juvenile during hatchery rearing. Juveniles with range of 2.79cm length (prior eight weeks after hatched) were obtained from induced breeding, and were cultured inside an aquarium that has been prepared a day before. The stocking densities are 26, 78 and 130 juveniles per tank, is 1 juvenile L⁻¹ (T1), 3 juveniles L⁻¹ (T2) and 5 juveniles L⁻¹ (T3), three replicate tanks constituted for each stocking density according to volume of the water which 26 L⁻¹ each aquarium. The fishes was cultured in 35 days to evaluate the effect of stocking density on growth and survival of juvenile kelah, *Tor tambroides*. The sample of 30 juvenile were collected randomly in each densities at day 0, 7, 14, 21, 28 and 35 considering on weight and length of fish. After 35 days experiment, it have significant different in final growth rate between stocking density in 5 fish L⁻¹ and other stocking densities, 1 fish L⁻¹ and 3 fish L⁻¹. The experiment whereby stock at lowest density were 1 fish L⁻¹ attained the highest growth rate at the end of study, followed by 3 L⁻¹ the intermediate stocking fish and 5 fish L⁻¹ which the fish stocked at the highest density showed the lowest growth of all. From the economy point of view the best stocking densities were in 3 fish L⁻¹ is recommended to farmers. The percentage of survival for all treatments was high 97.55% and was not affected by stocking densities. Stocking densities influence growth and survival of *Tor tambroides* juvenile during rearing and the best performance was obtained when larvae were stocked at lowest densities.

ABSTRAK

Kajian adalah mengenai kesan kepadatan stok yang berbeza ke atas juvenile kelah, *Tor tambroides*. Juvenile ikan dengan purata panjang 2.79cm telah digunakan dan jumlah juvenile ikan bagi setiap kepadatan adalah 26 ekor, 78 ekor dan 130 ekor dimana setiap kepadatan mewakili 1 ekor ikan. L⁻¹, 3 ekor ikan L⁻¹ dan 5 ekor ikan L⁻¹, setiap pelakuan mempunyai tiga replicat dimasukkan ke dalam akuarium segi empat panjang berdasarkan voleum air. Kajian terhadap kepadatan juvenile ikan telah dijalankan selama 35 hari untuk mengetahui perkembangan pertumbuhan ikan dan ketahanan hidup terhadap kepadatan yang berbeza. Sebanyak 30 ekor ikan telah di ambil untuk disamplingkan pada setiap minggu iaitu pada minggu 0, 7, 14, 21, 28 dan 35 untuk mengetahui perkembangan pertumbuhan bera badan dan panjang badan juvenile ikan. Pada akhir kajian didapati terdapat perubahan ketara untuk pertumbuhan ikan diantara kepadatan 5 ekor ikan .L⁻¹ dengan yang lain iaitu pada 1 ekor ikan L⁻¹ dan 3 ekor ikan L⁻¹. Juvenile ikan yang di simpan pada kepadatan yang rendah mempunyai kadar pertumbuhan yang tinggi diikuti oleh 3 ekor ikan. L⁻¹ manakala juvenile ikan yang di simpan pada kepadatan yang tinggi mempunyai kadar pertumbuhan yang agak rendah. Dari sudut ekonomi pula, kepadatan yang sesuai dicadangkan untuk juvenile ikan adalah pada kepadatan 3 ekor ikan. L⁻¹. Kepadatan juvenile ikan kelah, *Tor tambroides* memberi pengaruh terhadap tumbesaran dan ketahanan hidup terhadap kepadatan semasa penjaannya dan seperti mana diketahui kepadatan yang rendah adalah sesuai untuk kadar pertumbuhan yang baik.