DIVERSITY OF FISHES UTILIZING SUNGAI KELADI, KOTA BHARU, KELANTAN

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

2006

Diversity of fishes utilizing Sungai Keladi,Kota Bharu,Kelanta
Mohd Sahar Ghani.

Lihat sebelah

DIVERSITY OF FISHES UTILIZING SUNGAI KELADI, KOTA BHARU, KELANTAN

Mohd Sahar Bin Ghani

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

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This project report should be cited as:

Sahar, M.G. 2006. Diversity of fishes utilizing Sungai Keladi, Kota Bharu, Kelantan. Undergraduate thesis, Bachelor of Applied Science (Fisheries), Faculty of Agrotechnology and Food Science, Kolej Universiti Sains dan Teknologi Malaysia, Terengganu. 65p.

ACKNOWLEDGEMENT

First of all, I would like to express my sincere appreciation and deepest gratitude to my supervisor, Prof. Dr. Mohd Azmi Ambak for his guidance, assistance and comments that has aided in the completion of this project. I also like to extend my gratitude to Mr. Johari and Mr. Amirrudin for their confirmation on fish species identification. Thanks also go to Mr Sharol for his permission to use equipments in laboratory. I especially want to thank Mr. Wan Nasarruddin and Mr. Azizi for their time, equipment, and helps during sampling periods. Sincere thanks also to Dr. Chuah Tse Seng for his guidance on data analysis. Appreciation is also extended to Mr. Shahreza and Mrs. Nur Asma for their guidance, patience and support throughout the course of this project. I am forever grateful to all my friends especially Azran, Faisal, Shukri and Tamimi for their constant support and inspiration during the course of this project. Last but not least, my greatest appreciation go to my beloved mother for her sacrifices and encouragement throughout all these years. You will always be in my heart.

ABSTRACT

The purpose of this study was to determine fish communities in Sungai Keladi and their relationships with water quality parameters. Fishes were sampled monthly at four sampling station using gill nets, cast net and scoop net from August to September 2005. A total of 242 fish representing 27 species from 16 families were collected during the study period. The species were dominated by *Arius maculatus, Dermogenys pusillus, Rasbora paucisqualis* and *Trichogaster trichopterus*. *Hemibagrus nemurus*, *Channa micropeltes, Leptobarbus hoevenii, Oxyeleostris marmoratus, Liza subviridis, Osphronemus goramy* and *Megalops cyprinoides* can be classified as rare in Sungai Keladi because each species composition percentage is less than 1%. Water quality parameters: dissolved oxygen, temperature, pH, salinity, conductivity, BOD were measured. Diversity indices such as species richness, evenness and Shannon's index were calculated using PAST version 1.10. Non-parametric analysis of variance test (Kruskal-Wallist) performed using SPSS 11.0 for Windows showed that conductivity and pH differ significantly among sites ($P<0.05$). One-way ANOVA analysis indicated that species richness and Shannon's Index did not differ among sites. Species richness and Shannon's Index showed a negative correlation with BOD and conductivity ($P>-0.5$). It showed that the species diversity was affected by organic pollution.

ABSTRAK

Tujuan kajian ini dijalankan adalah untuk menentukan komuniti ikan di Sungai Keladi dan perhubungannya dengan parameter kualiti air. Ikan disampel di empat stesen kajian menggunakan pukat tiga lapis, jala dan tangguk sekali dalam setiap bulan dari Ogos hingga Oktober 2005. Sejumlah 242 ekor ikan mewakili 27 spesis dari 16 famili telah ditangkap sepanjang kajian dijalankan. Komposisi spesis didominasi oleh *Arius maculatus, Dermogenys pusillus, Rasbora paucisqualis* dan *Trichogaster trichopterus*. Spesis seperti *Hemibagrus nemurus*, *Channa micropeltes, Leptobarbus hoevenii, Oxyeleostris marmoratus, Liza subviridis, Osphronemus goramy* dan *Megalops cyprinoides* boleh dikelaskan sebagai jarang dijumpai di Sungai Keladi kerana peratusan komposisi masing-masing tidak melebihi 1%. Parameter kualiti air: oksigen terlarut, suhu, suhu, saliniti, kekonduksian dan BOD diukur untuk menentukan perbezaan habitat di antara kawasan kajian. Penunjuk kepelbagaian seperti kekayaan spesis, kesamarataan spesis dan Indeks Shannon dikira menggunakan PAST versi 1.10. Ujian bukan-parametrik (Kruskal-Wallis) dijalankan menggunakan SPSS 11.0 for Windows mendapati perbezaan parameter air antara kawasan kajian dikesan pada kekonduksian dan pH ($P<0.05$). Analisis ANOVA satu-hala menunjukkan kekayaan spesis dan Indeks Shannon adalah tidak berbeza antara kawasan kajian. Kekayaan spesis dan Indeks Shannon menunjukkan perkaitan negatif dengan BOD dan kekonduksian air ($P>-0.5$). Ini menunjukkan kepelbagaian ikan dipengaruhi oleh pencemaran organik.