

FOOD PREFERENCES AND COMMUNITY STRUCTURE
OF SHARP NOSE FISH (PISCES: CYPRINIDAE) AT
LATA BAYONG, TERENGGANU

MOR SANGSI SUPRI AND LANS

FAKULTI SAINS DAN TEKNOLOGI
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**FOOD PREFERENCES AND COMMUNITY STRUCTURE OF CYPRINID FISH
(PISCES: CYPRINIDAE) AT LATA PAYONG, TERENGGANU**

By

Nor Shasha Zura Binti Md Lajis

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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: FOOD PREFERENCES AND COMMUNITY STRUCTURE OF CYPRINID FISH (PISCES: CYPRINIDAE) AT LATA PAYONG, TERENGGANU oleh Nor Shasha Zura Binti Md Lajis, no. matrik: UK 8104 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh ijazah Sarjana Muda Sains (Sains Biologi), Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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LIST OF ABBREVIATIONS

FO	Frequency of Occurrence
N	Number of fish
%	Percentage
TL	Total Length
SL	Standard Length
mm	Millimeter
g	Gram
α	Diet Overlap Index

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ABSTRACT

The main objectives of this study are to determine the food preferences, diet overlapping and trophic levels of cyprinid fishes. Seven species which are *Crossocheilus oblongus*, *Garra cambodgiensis*, *Neolissocheilus soroides*, *Poropuntius smedleyi*, *Osteocheilus enneaporos*, *Rasbora argyrotaenia* and *Rasbora notura* were captured using generator-powered electrofisher with two copper electrodes on wooden handles that generate by 250-300 W of direct current (DC) and the gut contents were analyzed. The abundance and present of each food item were represented by frequency of occurrence and relative abundance. The food preferences of cyprinid were algae (38%) followed by insects (33%), plant material (8%) and others (21%). The overlap between each species according to the food types are highly overlapped in feed on algae between most of the seven species of cyprinid that were caught except for the *Rasbora notura* which feed predominantly on insects. The trophic levels of cyprinid were represent according to the four food items (algae, insects, plant material and others) and three major of groups which are herbivore (*Crossocheilus oblongus*, *Garra cambodgiensis* and *Osteocheilus enneaporos*), carnivore (*Rasbora notura*), and omnivore (*Neolissocheilus soroides*, *Poropuntius smedleyi* and *Rasbora argyrotaenia*). *Crossocheilus oblongus*, *Garra cambodgiensis* and *Osteocheilus enneaporos* were considered as bottom feeders (feed primarily on algae), *Neolissocheilus soroides*, *Poropuntius smedleyi* and *Rasbora argyrotaenia* were pelagic feeders (food resources bottom and surface) and *Rasbora notura* were water surface feeders (feed primarily on insects)

KECENDERUNGAN PEMAKANAN DAN STRUKTUR KOMUNITI IKAN CYPRINID (FAMILI: CYPRINIDAE) DI LATA PAYONG

ABSTRAK

Objektif utama kajian ini adalah untuk menentukan kecenderungan pemakanan, pertindihan pemakanan dan aras trofik ikan cyprinid (Pisces: Cyprinidae). Tujuh spesies yang telah ditangkap dengan menggunakan dua elektrod kuprum yang diaktifkan menggunakan kuasa generator 250-300 Watt adalah *Crossocheilus oblongus*, *Garra cambodgiensis*, *Neolissocheilus soroides*, *Poropuntius smedleyi*, *Osteocheilus enneaporos*, *Rasbora argyrotaenia* dan *Rasbora notura*, kemudian analisis perut ikan dilakukan. Kehadiran dan kelimpahan setiap jenis makanan diwakili dengan frekuensi kehadiran and kelimpahan relatif. Kecenderungan pemakanan ikan cyprinid adalah alga (38%) diikuti serangga (33%), serpihan tumbuhan (8%) dan lain-lain (pepasir, ranting) iaitu 21% kecuali *Rasbora notura* kecenderungan pemakanannya adalah serangga. Pertindihan pemakanan alga adalah tinggi di antara spesies-spesies yang hadir. Aras trofik bagi cyprinid diwakili oleh gambarajah aras trofik dan berdasarkan empat pemakanan utamanya iaitu alga, serpihan tumbuhan, serangga dan lain-lain. ia juga berdasarkan tiga kumpulan utama iaitu herbivor, karnivor dan omnivor. *Crossocheilus oblongus*, *Garra cambodgiensis* and *Osteocheilus enneaporos* dikategorikan sebagai pemakan makanan dasar (alga), *Neolissocheilus soroides*, *Poropuntius smedleyi* dan *Rasbora argyrotaenia* adalah pemakan pelagic (sumber makanan di dasar dan permukaan air) dan *Rasbora notura* adalah pemakan pada permukaan air (serangga).