

UNIVERSITI TEKNOLOGI MARA

**THE DISTRIBUTION AND
ABUNDANCE OF FRESHWATER
FISHES OF THE KENIYAM RIVER,
TAMAN NEGARA PAHANG**

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ABSTRACT

This study was conducted at the Keniyam River, Taman Negara Pahang, Malaysia. The aim of the study was to determine and quantify the fish species richness, diversity, and community structure of the Keniyam River. Fish sampling was conducted from March 2011 to June 2012 utilising gill nets, traps, cast net, and hook and line. A total of 34 fish species from 11 families were recorded. The Cyprinidae was the most represented with 20 species while the abundant fish was *Mystacoelucus obtusirostris*. Canonical Correspondence Analysis showed that river features (water speed, water depth and riverbed structure) and water chemical parameters (dissolved oxygen and pH) were the main factors affecting fish distribution and abundance. Water turbulence of the rapids increased DO levels which contributed to the higher fish diversity ($H' = 2.65$) at the upper reaches. The abundance of sub-adult and adult fishes, and higher fish biomass (mean = 266.52 ± 580 g/hr) suggested the rapids as fish growth areas. Larger game fishes like *Tor tambroides*, *Hampala macrolepidota*, and *Hemibagrus gracilis* were recorded from the rapids. Fish species richness ($D'' = 4.67$) and fish density (mean = 0.401 ± 0.3 no/hr) were higher from the deeper water bodies of the middle reaches. The pools were dominated by juvenile fish and also recorded higher abundance of female fish, signifying its importance as nursery grounds. Fish diet was mainly plant material and detritus. The length-weight relationship for the 10 most abundant fish showed negative allometric growth while their condition factor, k varied from the different sampling zones. The lack of proper guidelines for the recreational fishing activity may in future affect game fish populations and requires further studies to formulate fish conservation management strategies to sustain the fish biodiversity of the Keniyam River.

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