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#### THE BALITORID FISH OF SABAH

Abdullah Samat and Chin Phui Kong

#### **ABSTRACT**

The ballitorid fish is a small cyprinoid native to Sunda region and widely distributed in Asia and Europe. They occupy headwaters with the help of external morphological adaptations. A total of 19 species from this family were found in Sabah. All of them except Nemacheilus selangoricus are endemic to Borneo. None are listed as endangered species. Human activities bring some negative impacts on their population. Commitment in protecting their habitat is a necessity to conserve their genetic diversity.



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by

Abdullah Samat and Chin Phui Kong

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The balitorid fish is a small cyprinoid native to Sunda region and widely distributed in Asia and Europe. They occupy headwaters with the help of external morphological adaptations. A total of 19 species from this family were found in Sabah. All of them except *Nemacheilus selangoricus* are endemic to Borneo. None are listed as endangered species. Human activities bring some negative impacts on their population. Commitment in protecting their habitat is a necessity to conserve their genetic diversity.

## INTRODUCTION

At least 20% of the state of Sabah is 500 m above sea level. As part of the Bornean equatorial region which receives not less than 2000 mm of annual rainfall, the area is permanently wet throughout the year. It is mainly drained by small streams to small rivers. They are characterized by a relatively high gradient, bottoms of rock and gravel; shallow (< 2 m) water, fast-flow and highly fluctuating currents. There is little aquatic vegetation and nutrients level is low. This environment is inhabited by a group of small fish of the family Balitoridae. They are part of the tropical rain forests of Southeast Asia where biodiversity is at its greatest (Bawa, Primack and Woodruff, 1990). Although economically not very important, they play an important role in the dynamics of the headwaters ecosystem. The possible impacts upon them due to either natural or artificial disturbances have to be fully understood. The objective of this report is to present some base-line information on ecological aspects of this group of fishes. The study is based on the previous records of primary freshwater fish of Sabah and the specimens deposited in the Museum of Zoology, UKM Sabah and Fisheries Research Centre, Likas.

#### BIOGEOGRAPHY

Distribution of the balitorid fish is not restricted to the island of Borneo. They also have some phylogenetic relationships in Asia and Europe. In the study on zoogeography, Sawada (1982) speculated that the centre of origin