

Environmental influences on fish assemblages of the upper Sungai Pelus, Kuala Kangsar, Perak, Malaysia

ABSTRACT

This study evaluates the current environmental influences on fish assemblages of the upper Sungai Pelus, Kuala Kangsar, Perak. Fish samplings and habitat characterizations were conducted at three significant different months, which were on dry (June 2014), wet (August 2014) and moderately wet seasons (April 2015). A total of 510 individual fish were collected from the study, which consist of four orders, nine families, 20 genus and 21 species of fishes. Cyprinidae was the biggest family, followed by Bagridae, Balitoridae and Sisoridae. *Neolissochilus hexagonolepis* was the only species documented under the nearly threatened list, even their individual number and occurrences were the highest recorded. The readings of environmental variables, such as water temperature, pH, conductivity, dissolved oxygen, total dissolved solids, biological oxygen demand and total suspended solids were regarded as normal for upper river area. However, the water turbidity and chemical oxygen demand (COD) were quite high, which we believed was due to seasonal variation and current anthropogenic activities of the nearby river area. Canonical correspondence analysis showed that the water conductivity, river width, COD and water velocity were the main factors in influencing the fish assemblages of this upper Sungai Pelus. The findings can be utilized as a guideline to manage, protect and conserve this upper river area in the near future.

Keyword: Environmental influences; Fish assemblage; Fish diversity; Perak; Upper river