

ABSTRACT

FEEDING HABIT OF ARCHERFISHES IN SUGUT FOREST RESERVE

This study was conducted to see feeding habit of archerfishes in Sabang river, Sugut Forest Reserve, Beluran, Sabah. The objectives of this study were to determine (1) the diet composition of archerfishes in Sugut Forest Reserve, (2) the Frequency of Occurrence (FO) of archerfishes based on categories size such as juvenile, sub-adult and adult, and (3) the relationship between the categories size and types of diet of the archerfishes. Sampling method were done using gill nets in January 2015. A total of five samplings were conducted at five stations along Sabang river. In order to see diet composition of archerfishes, the archerfishes abdomen were dissected and stomach content examined. A total of two species of archerfishes were recorded in this study; *Toxotes jaculatrix* and *Toxotes chatareus*. Overall, a total of 22 individuals of *Toxotes jaculatrix* and 28 individuals of *Toxotes chatareus* were sampled. The diet composition in terms of number were dominated by Hymenoptera with 69 individuals in *Toxotes jaculatrix* and 26 individuals in *Toxotes chatareus*. But, the Frequency of Occurrence (FO) recorded the highest in the both species of archerfishes were Decapoda with 75% in *Toxotes jaculatrix* dan 76.19% in *Toxotes chatareus*. Based on categories size with types of diet, juvenile *Toxotes jaculatrix* tend to choose a less diverse type of diet which were only two types of diet (Hymenoptera dan Decapoda). However, sub-adult *Toxotes jaculatrix* recorded only selected five types of diet (Hymenoptera, Isopoda, Decapoda, Mollusca and Arachnida) and adult *Toxotes jaculatrix* recorded were six types of diet (Hymenoptera, Isopoda, Decapoda, Mollusca, Arachnida and Diptera). Adult *Toxotes chatareus* tend to choose diet less diverse which were three types of diet Hymenoptera, Decapoda dan Reptilia) compared to sub-adult *Toxotes chatareus*, which were four types of diet selected (Hymenoptera, Decapoda, Perciformes dan Arachnida). Pearson correlation analysis showed a significant correlation ($p < 0.05$) and positive correlation between the categories size of *Toxotes jaculatrix* with FO. Thus, the increase of categories size of *Toxotes jaculatrix* with the increase of types of diet. Whereas, *Toxotes chatareus* have no significant correlation ($p > 0.05$) as juvenile *Toxotes chatareus* were not found during sampling.