

THE MACROINVERTEBRATE COMMUNITY OF THE FAST FLOWING RIVERS IN THE CROCKER RANGE NATIONAL PARK SABAH, MALAYSIA.

Shabdin Mohd. Long, Fatimah Abang and Khairul Adha A. Rahim¹

ABSTRACT

The macroinvertebrate community of the fast flowing rivers of the Crocker Range Park examined consists mainly of insects. All the six rivers surveyed demonstrated excellent water quality. The assemblages of taxa reported from the study sites are considered as that typical of the macroinvertebrate fauna in tropical rivers. Out of the existing ten orders of insects that contain aquatic species, a total of 7 orders of aquatic insect species were encountered in the rivers surveyed. These are Ephemeroptera, Odonata, Plecoptera, Hemiptera, Coleoptera, Trichoptera and Diptera. In addition to these insects, the hexapodan Collembola was also encountered. The overall macroinvertebrate density ranges from 71 to 303 individuals per $lm\ sq$ and all sampling sites were found to sustain at least three groups of taxa with the exception of Sg. Tikolud, which only contains the dipteran chironomids. The dipteran chironomid fauna was dominant and found at all stations and forms the highest density of up to 250 individuals per m^2 in Sg. Tandulu and Balayo.

INTRODUCTION

The Crocker Range is a tropical highland dividing the west coast and the interior regions of Sabah. This mountainous range is the home of the famous Mount Kinabalu (13,455ft), the highest mountain in Southeast Asia. Crocker Range Park (CRP) was enacted as a conservation area (National Park) in 1984 covering an area of 139,919 hectares. The CRP serves to preserve and protect the watershed of four main rivers in the west coast and 8 rivers from the interior plains. The climate of Sabah is equatorial, that is: relatively uniform temperatures in the range 23 to 28⁰C, high humidity (80-85%) and abundant rainfall, e.g. 1800mm from 1950 to 1963 measured at the Tambunan climate station within the flood plain.

Aquatic habitats are known to support an extraordinary array of species. Most of the aquatic faunas are small invertebrates. As compared to the fish fauna, the invertebrate species diversity in most part of the world, particularly the tropics, is poorly known. The lack of knowledge is caused by a number of factors such as the great diversity of invertebrates and their numerical abundance has contributed to their neglect. In addition to this, invertebrates are small and difficult to identify. In spite of the dearth of studies on the invertebrate fauna, many of the aquatic invertebrates are being lost as their habitats deteriorate; some without ever being discovered and made known to science.