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Biodiversity of Adult Trichoptera and Water Quality Variables in Streams, Northern Thailand

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Abstract

The diversity of adult Trichoptera was surveyed at Mae Tao and Mae Ku watersheds, northern Thailand during July 2011 to May 2012. The aim of the study was to determine the relationship between physicochemical parameters of water quality and adult Trichoptera for monitoring of water quality. A total of 9,475 adult Trichoptera representing 14 families and 126 species were collected. The correlation between the biodiversity of adult Trichoptera and water quality showed that the *Ecnomus jojachin*, *Cheumatopsyche carmentis*, *C. chryseis*, *C. lucida*, *C. chrysothemis*, *C. dhanikari*, *Potamyia dryope*, *Leptocerus dirghachuka*, *L. trophonios*, *L. ganymedes*, *Oecetis scutulata*, *O. armadillo*, *O. raghava*, *O. asmada*, *O. tripunctata*, *Setodes flivialis*, *S. neptunus*, *S. endymion*, *S. okypete*, *Chimarra Chiangmaiensis*, *Paduniella semarangensis*, *Lepidostoma doligung*, *Polyplectropus ahas*, *Psychomyia lak*, *Marilia sumatrana*, *Hydroptila thuna* and *Orthotrichia typhoeus* depended on some physicochemical factors including air temperature, pH, electrical conductivity, turbidity, sulfate, nitrate-nitrogen, orthophosphate, ammonia-nitrogen and alkalinity in water.

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1. Introduction

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