

The Distribution and Species Diversity of Black Flies (Diptera: Simuliidae) In Selected Areas in Ranau, Sabah

ABSTRACT

Blackfly play an important role in the freshwater ecosystem as a biological indicator, as the blackfly prefers clean water area to breed. Certain blackfly species are categorized as vector as it can transmit disease known as Onchocerciasis (river blindness). This study is an entomology research which focuses on the species diversity of blackfly (Diptera: Simuliidae) in Ranau District of Sabah. Eight sampling stations located the highlands and lowlands were chosen. Larvae and pupae were manually collected directly from the substrate in the streams and river. A total of 12 data sets were collected over a period of six months, which started from August 2015 to January 2016. The data collection was done once every fourth night. A preliminary result from this study has so far recorded fourteen species of blackfly. Among the fourteen species recorded, *Simulium* (*Gomphostilbia*) *alienigenum* was the first specimen recorded in Malaysia especially in Sabah. All the fourteen species of black flies recorded in this study belongs to three subgenus which are; *Simulium*, *Nevermania* and *Gomphostilbia*. The highest individual being recorded comes from the subgenus of *Simulium*. The diversity indices result shows a ranged from 1.13 to 1.58, and this indicates low diversity in the eight sampling stations.