

14. Species Diversity of Small Mammals in Lubuk Sembilang Recreational Park, Langkawi Island, Kedah

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Abstract

A brief survey on the species composition and abundance of small mammals at Lubuk Sembilang Recreational Forest, Langkawi Island, Kedah (N 06° 21' 47.97" E 99° 47' 30.17") was conducted in two series of sampling period from 11st August 2008 until 15th August 2008 and 25th July 2009 until 29th July 2009. Ten mist nets, 100 cage traps and two harp traps were used. A total of 128 individuals were collected which comprised of 12 species of small mammals. Six of these species were bats belong to four families, Pteropodidae, Rhinolophidae, Megadermatidae, and Hipposideridae. On the other hand, another six species representing 3 families, Muridae, Tupaiidae, and Sorocidae. Among the bats, a species of the fruit bat (*Cynopterus brachyotis*) and a species of the insectivorous bat (*Megaderma spasma*) were the most commonly netted which represented 75.5% and 11.3% of the total collection of 53 individuals collected relatively. The Muridae comprised of three species namely *Maxomys whiteheadi*, *Sundamys muelleri*, and *Leopoldamys sabanus* which represented 21.1%, 7.0%, and 49.3% of the total non-volant small mammals collected. On the other hand, the Tupaiidae was only represented by *Tupaia glis* while the Sorocidae was only represented by *Crocidura fuliginosa*. The study revealed that the species diversity of small mammals is associated with the trend of catches and environmental changes resulting from increased of human activities.

Introduction

Tropical rainforests are the most species-rich terrestrial ecosystems on earth, but these forests are rapidly disappearing (Meijaard, 2008). Deforestation is known to be one of the main factor causing the loss of biodiversity through habitat loss, fragmentation and degradation (Raoula et al., 2008). Lowland rainforests are one of the most threatened tropical habitats in the world (Padmawathe et al., 2004). Approximately 45% of the total area in Peninsular Malaysia in Malaysia is covered by forest including both logged and secondary forest (M-Azlan, 2006). Nevertheless, only 1.6 million hectares of the forested area is designated as protection forest (M-Azlan, 2006). The impact of forest fragmentation on small mammals is now well documented over a variety of biogeographical

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