Identification of non-volant small mammals of Sungai Rawog conservation area, Segaliud Lokan forest reserve, Sabah, Malaysia

ABSTRACT

Small mammals are varying in Malaysia, and they play important roles in various ecosystems as they help to maintain the forest environment and landscape health, and also important in local food chain as they involve in prey-predator interactions which can affect their distribution and diversity. This study focused on identifying and documenting the species of non-volant small mammals present at Sg Rawog Conservation Area (SRCA) through morphological characteristics and molecular analysis. Sample collections were conducted using 20 cage traps and 25 pitfalls for approximately one week of study period to capture the small mammals for species identification. The morphological characteristics for species identification were derived by looking at their fur characteristics and external body measurements by recording their body size measurements. Furthermore, molecular analysis was done by using BLAST software where the samples' sequences were compared with those in the GenBank database using BLAST software to identify the small mammals' species. A total of 11 individuals of non-volant small mammals captured throughout the sampling period which consists of Maxomys whiteheadi, M. surifer, Rattus sp., Callosciurus notatus, Tupaia tana and Crocidura sp. It is important to identify and document the species of non-volant small mammals in this conservation area as it will aid the plantation management which is KTS Plantation Sdn. Bhd. in improving their management strategies for this region, including the monitoring of species and the conservation of biodiversity.