

Research notes on bats' species assemblage in Madai Cave of Segama Valley, Sabah, Malaysia

ABSTRACT

Insectivorous bats spend approximately half of their lives in the roost. Most of them are cave-dwelling and use the caves as roosting grounds. Roosts are important for mating, hibernation, rearing young, and a place to socialise, while providing protection from predators in a thermo-stable environment. This study aims to assess the diversity of insectivorous bats at Madai caves in Kunak, Lahad Datu, Sabah over a temporal period of 8 years. The sampling of bats was conducted twice i.e. in August 2010 and in December 2018. Harp traps and mist nets were used to sample bats in all sampling sessions. Eighteen species of bats, including two fruit bats, *Cynopterus brachyotis* and *Rousettus spinalatus*, were identified from the study site. Four insectivorous bat species were found in both years consistently i.e. *Hipposideros cervinus*, *Rhinolophus creaghi*, *R. philippinensis*, and *Chaerephon plicatus*. The species list in 2010 and 2018 differed by more than 50%, which may be a cause of concern and warrants further investigation. Most of the listed species are categorised as Least Concern, under the IUCN Red List of Threatened Species, except for *Rousettus spinalatus*, *Hipposideros ridleyi* and *Miniopterus schreibersii* which are listed as vulnerable. Only *Hipposideros dyacorum* is protected under Sabah Wildlife Enactment (1997). These findings will assist policymakers in making decisions on the importance to conserve the natural habitats of bats.