A Morphological Analysis of Malaysian Kerivoula (Chiroptera, Vespertilionidae)

Abstract

Recent identification of new species within the genus Kerivoula from the Southeast Asian region has indicated that this genus was understudied and currently underestimated in terms of its species diversity. Thus, this morphological study was carried out to record and analyse the morphological characters of available specimens of Malaysian Kerivoula from the Museum of Zoology, Universiti Malaysia Sarawak. Thirty-one external, skull and dental characters were taken and analysed using the multivariate analysis, dicriminant function analysis. As the result, six groupings of Kerivoula was identified, namely K. intermedia, K. hardwickii, K. pellucida, K. lenis and K. papulosa which were divided into two distinctive groupings of K. papulosa type large (K. papillosa type L, hereafter) and K. papillosa type small (K. papillosa type S, hereafter). Variable dentary length was identified as the best predictor to characterize each group of Kerivoula. The separation of the K. papulosa specimens into two separate morphotypes were characterised by their different sizes whereby the former group was larger in size compared to the latter. It is suggested that each represents an independent species even though both morphotypes occur sympatrically. The homogenising effect of the previous environmental events might have been the primary factor of the sympatric occurrence of both morphotypes. Nevertheless, further study regarding ecology, morphology and genetics should be carried out to provide a better insight regarding the cryptic population of K. papillosa in Borneo and Malaysia.