

Phylogeography of *Mycalesis roses* (Lepidoptera: Satyrinae) in Sabah, Borneo based on nested clade analysis of mitochondrial DNA variation

Abstract

The main objective of this study was to investigate the phylogeography of *Mycalesis orseis* Fruhstorfer 1906 on Borneo using nested clade analysis of mitochondrial DNA variation. Nine individuals of adult *M. orseis* were collected from each of the 10 study sites: two sites in contiguous forest (Maliau, Danum) and eight sites in fragments of different sizes (Tabin, Tawau Hill, Lungmanis Virgin Jungle Reserve (VJR), Sepilok VJR, Keruak VJR, Ulu Sapa Payau VJR, Sg. Sapi VJR, Labuk VJR). MtDNA from thoracic material was analysed using 'George' and 'Btyls' primers from a 796bp sequence on the cytochrome oxidase II (COII) gene. The significant associations between clades and geography observed in this study were only detected within the 0-step clade level of the nested analysis. The lack of any significant effects at any other levels of the nested clade analysis indicated very recent gene flow and historical associations among subpopulations of *M. orseis*.