

Phylogenetic Relationships of the Malaysian Primates Cercopithecine Based on COI Gene Sequences

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Abstract : We conducted molecular research to portray phylogenetic relationships of Malaysian primates particularly in the genus of *Macaca*. We have sequenced cytochrome C oxidase subunit I (COI) of mitochondrial DNA of several individuals from *M. fascicularis* and *M. arctoides*. PCR amplifications were performed and COI DNA sequences were aligned using ClustalW. Phylogenetic trees were constructed using distance analyses by employing neighbor-joining algorithm (NJ). We managed to sequence 700 bp of COI DNA sequences. The tree topology showed that *M. fascicularis* did not clump based on phyleogeography division in Peninsular Malaysia. Individuals from Negeri Sembilan merged together with samples from Perak and Penang into one clade. In addition, phylogenetic analyses indicated that *M. arctoides* was classified into *sinica* group instead of *fascicularis* group supported by genetic distance data. COI gene is an effective locus to clarify phylogenetic position of *M. arctoides* but not in discriminating *M. fascicularis* population in Peninsular Malaysia.

Keywords : cercopithecine, long-tailed macaque, *Macaca fascicularis*, *Macaca arctoides*

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