



EVOLUTION AND PHYLOGENETICS OF THE SUMATRAN RABBIT *Nesolagus netscheri* (SCHLEGEL, 1880) USING MULTILOCUS APPROACH

By

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21/475113/BI/10727

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ABSTRACT

The Sumatran Striped Rabbit (*Nesolagus netscheri*), a rare endemic species in Sumatra, Indonesia. Despite its historical recognition and occasional sightings, significant gaps continue in understanding its evolutionary relationships and genetic diversity. This study aims to clarify the evolutionary relationships of *Nesolagus netscheri* within the *Nesolagus* genus and the family Leporidae. Lastly, the study will use muti-locus approach by reconstructing the phylogenetic several methods to compare each marker's variability and consistency of the species' evolutionary history. DNA amplification focused on the *12S* rRNA, *CYTB*, *COI* and *18S* rRNA genes with successful amplification and sequencing and analysed for marker characteristics, genetic distance, species delimitation using the Automatic Barcode Gap Discovery (ABGD) method, and phylogenetic reconstruction using Neighbor-Joining (NJ), Maximum Likelihood (ML), and Bayesian Inference (BI). Results showed monophyletic relationship between *Nesolagus* genus across all markers, *CYTB* and *COI* gene as most informative and variable, while *18S* rRNA as unsuitable due to its low variability.

Keywords: evolutionary relationships, genetic diversity, multi-locus approach, *Nesolagus netscheri*, phylogenetic analysis.