

**HAPLOTYPE DIVERSITY OF THREE SPECIES OF *Anguilla* (FRESHWATER
EELS) IN WEST SUMATRA BASED ON *CYTOCHROME B* GENE**

UNDERGRADUATE THESIS



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ABSTRACT

Research about haplotype diversity of three species of *Anguilla* freshwater eels in West Sumatra based on *cytochrome b* gene has been conducted from April to August 2021 in Genetics Laboratory, Biology Department, Faculty of Mathematics and Natural Sciences, Universitas Andalas. Freshwater eel samples were collected from four locations includes Padang, Lubuk Basung, Pesisir Selatan, Pasaman Barat, and isolated DNA of glass eels from South Pagai Island in Mentawai. The survey method and molecular method using PCR technique were used and the Network app vers. 5.0.0.3 for haplotype network analysis. There were 12 haplotypes of 22 *Anguilla* species shows the haplotype diversity of *A. marmorata* was 0.294 showing that the genetic variation of *A. marmorata* in West Sumatera was in the low category, while the genetic variation of *A. bicolor bicolor* was in the high category due to the value of haplotype diversity of 1.0.

Keywords : *Anguilla*, *Cytochrome b Gene*, *Haplotype Diversity*, *Haplotype Network*, *PCR*

