

KERAGAMAN HAPLOTIPE *Rasbora tornieri* (Ahl, 1922) DI PAPARAN

SUNDA BERDASARKAN GEN CO1



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ABSTRAK

Rasbora tornieri merupakan salah satu spesies yang terdistribusi di pulau Sumatera dan Kalimantan. Pemisahan Paparan Sunda pada masa lampau menyebabkan terbentuknya *barrier* antara pulau Kalimantan dan Sumatera yang dihubungkan sebagai penyebab timbulnya variasi genetik dalam spesies. Informasi mengenai keragaman haplotipe dengan penanda gen CO1 (*Cytochrome Oxidase Sub Unit 1*) merupakan salah satu analisis molekuler untuk menentukan variasi genetik pada suatu spesies. Penelitian ini telah dilaksanakan selama empat bulan di Laboratorium Genetika dan Biomolekuler, Departemen Biologi, Universitas Andalas. Sampel jaringan *R. tornieri* dan *R. dusonensis* dikoleksi langsung di Sungai Kertapati, Palembang dan Kenten Laut, Banyuasin, Sumatera Selatan. Hasil analisis gen CO1 sepanjang 633 bp diperoleh tiga haplotipe dari 14 individu *R. tornieri* di Paparan Sunda. Nilai diversitas haplotipe (H_d) dan diversitas nukleotida (π) dengan panjang sekuen gen 633 bp masing masing adalah 0,28571 dan 0,00045. Nilai nilai tersebut menunjukkan bahwa keragaman haplotipe *R. tornieri* di Paparan Sunda yang tergolong rendah.

Kata Kunci : *Barrier*, Gen CO1, Keragaman Haplotipe, Paparan Sunda, *Rasbora tornieri*.



ABSTRACT

Rasbora tornieri is a species found on the islands of Sumatra and Borneo. The separation of the Sundaland in the past created a barrier between Kalimantan and Sumatra, which is believed to be the cause of genetic variations within the species. Molecular analysis, such as studying haplotype diversity using the CO1 gene marker (Cytochrome Oxidase Sub Unit 1), provides valuable information for assessing genetic variation in a species. This research was conducted over a period of four months at the Genetics and Biomolecular Laboratory, Department of Biology, Andalas University. Tissue samples of *R. tornieri* were collected directly from the Kertapati River in Palembang and Kenten Laut in Banyuasin, South Sumatra. The analysis of the CO1 gene, which consisted of 633 base pairs, revealed the presence of three haplotypes among the 14 *R. tornieri* individuals sampled from the Sundaland. The calculated values for haplotype diversity (Hd) and nucleotide diversity (π) based on the 633 base pair gene sequence were 0.28571 and 0.00045, respectively. These values indicate that the haplotype diversity of *R. tornieri* on the Sundaland is relatively low.

Keywords : Barrier, CO1 gene, Haplotype diversity, *Rasbora tornieri*, Sundaland.

