Hubungan filogenetik Itik Lokal Indonesia (Tegal, Magelang, Mojosari dan Bali) Berdasarkan Polimorfisme Protein Plasma darah

The Phylogenetic Relationships of Indonesian Local Duck (Tegal, Magelang, Mojosari and Bali) Based on Blood Plasm Protein Polymorphism

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ABSTRACT

Blood plasm protein polymorphism is a result of special expression to the various protein phenotip which are controlled by two or more alleles spesific locus of gene.The objective of this research was to study the blood protein polymorphism of Indonesia local duck **(**Tegal, Magelang, Mojosari and Bali) and the phylogenetic relationships of Indonesian local duck based on blood plasm protein polymorphism. Blood sample were collected from 114 local duck, consisted of 24 samples from Tegal duck and each of 30 samples from Magelang, Mojosari and Bali duck.. Polyacrilamide Gel Electrophoresis (PAGE) was used in the blood plasm protein analysis. Identification of protein bands on gel are determinated by comparing the molecul weight of those test group protein with the marker protein. Analysis of the phylogenetic relationships based on measurment of genetic distance (D) and the dendrogram of phylogenetic relationships by using UPGMA clustering methods. The result showed that the locus albumin, pre-albumin and transferin are polymorphic. The dendrogram phylogenetic relationships of Indonesian local duck showed that Tegal duck and Magelang duck is closely related (D=0.0462) and the longest relationship occur between Tegal, Magelang, Mojosari duck and Bali duck (D= 0.3324).

Key word : phylogenetic, relationship, Indonesian local duck, polymorphism, blood plasm protein

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