

Polymorphisme Gene GH and Morphological Characteristic of *Anas platyrhynchos* and *Cairina moschata*

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Abstract	<p>The aims of this research was to identify the qualitative and quantitative difference of the phenotypes of native mallard and Muscovy, and Muscovy the genetic diversity between Muscovy and mallard using RFLP method with growth hormone primer (GH) gene. The materials were 30-week old male and female ducks from 5 strains of Magelang, Mojosari and Tegal ducks, white-feathered, and black and white-feathered Muscovy. Muscovy Completely Randomized Design was used to analyze parameters 5 strains of ducks based on gender and with 5 replications. The parameters measured were local and Muscovy duck phenotypes and genetic diversity (number of alleles) based on GH gene, heterozygosity and genetic distance. Qualitative properties were analyzed descriptively and quantitative properties were analyzed using Anova followed by HSD in case of significant differences, whereas RFLP analysis was used to determine the allele frequencies, genotype frequencies, genetic diversity, and genetic distance of local ducks. Result showed phenotypic differences between <i>Anas platyrhynchos</i> and <i>Cairina moschata</i>. The dominant feather color of Muscovy was black and white while mallard was brown. The bill color Muscovy was pink with dark brown but black in mallard. The dominant shank color in both Muscovy and mallard was black. Body size of mallard was larger than that of Muscovy Muscovy, and Magelang ducks weighed more than Tegal and Mojosari Duck. The PCR-RFLP results showed lower heterozygosity of mallard compared to Muscovy based on GH gene, and genetic distance of the Tegal duck was closer to Mojosari and Magelang ducks, whereas Magelang and Mojosari ducks had a considerable genetic distance based on the GH gene.</p>
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