

**DENSITY AND POPULATION DIVERSITY OF BIRDS IN INDUSTRIAL TREE
PLANTATION (ITP), SEGALIUD LOKAN FOREST RESERVED,
KTS PLANTATION SDN. BHD.**

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ABSTRACT

This study emphasizes the investigation of all bird species found in Segaliud Lokan Forest Reserve. The objective of this study were to determine the density and diversity of bird species in Segaliud Lokan Forest Reserve (SLFR), especially in the area of industrial tree plantations (ITP). A total of four transect lines have been established in the compartment 9, wherein the length of each transect was 500m into the forest and in each transect, there are 11 points for the observation of birds in every transect. Therefore, as a whole, there were 44 points of observation of birds in the study area of the compartment 9 which is an area of plantation timber industry (ITP) with an area of 1092 ha. This study was conducted starting from 6.30 am until 11.30 am, for 21 days from the date of 16 July 2016 until 16 August 2016. Forest inventory study was also conducted in this study which covers 0.4 ha of the study area, which distributed to 0.1 ha for each transect. Bird diversity was analyzed using Shannon Wiener Index (H'), as well as Simpson index (1-D); bird population density was determined using a distance sampling technique and analyzed using the software "Distance 6.2". The results showed that the high diversity of bird ($H' = 3,217$; $1-D = 0.944$) and the density of the bird population is 2.62 (SE=0.382; AIC= 1501.35; %CV= 14.59). A total of 253 individual birds comprising 43 species of birds and 27 of different bird families, are listed. 'Asian Paradise-Flycatcher' (*Terpsiphone paradise*), and also 'Pied Fantail' (*Rhipidura javanica*) is the most abundant bird species found in this study. Overall, the diversity and density of birds in the forest is affected by forest type, tree species, tree height, girth of the tree, the tree density and water resources that are found in a forest.