

The Impacts of Development on Avifauna at Gaya Island: A Preliminary Survey

ABSTRACT

The aim of this study was to investigate the impacts of development (due to tourism) on the understory avifauna in Gaya Island. Three study sites in Gaya Island were selected on three levels of development (based on anthropogenic noise), i.e., Low, Medium and High. Mist netting was performed for three consecutive days at each of the three study sites. Data from this study was analyzed using descriptive and statistical analysis. Correlation analysis was performed to investigate the strength, association and direction between the development levels with the numbers of birds captured. There were a total of 20 birds netted during the survey that consisted of five families from Turdidae, Muscicapidae, Sylviidae, Timaliidae, and Pycnonotidae. Based on the descriptive analysis, the results show a trend of decline in the number of species and the number of individual as the development level (anthropogenic noise) increases. The correlation results indicated a significant association between development levels and the number of capture at $r = -.423$; $P < 0.05$. The strength of the association in the two variables is moderate at negative direction. The preliminary results of this study show that development (anthropogenic noises) negatively impacts avifauna community by the low species richness and low occurrences of individuals at high developed area. There is an urgent need to conduct further research to incorporate anthropogenic noise into the park management plan for the benefit of sustainable tourism in Gaya Island.