

The Preliminary Survey of Bird Populations in Kinabalu Park with Different Noise Level

ABSTRACT

Birdwatching activity has become one of the main attractions among tourists in Kinabalu National Park. Therefore, the number of tourists that come inside the park were directly contribute to the increasing number of vehicles inside the park. To date, there is no studies that have been done in Malaysia to investigate the response of birds on traffic noise. Therefore, this research was conducted to study the impact of traffic noise on bird population in Kinabalu Park. The study includes two methods, i.e., traffic noise mapping and bird survey. Traffic Noise Mapping involves identifying High Traffic Noise Zone and Low Traffic Noise Zone based on the existing trails by using a digital sound level meter. High Traffic Noise Zone was classified as noise level above $\geq 60\text{dB}$ and Low Traffic Noise Zone was classified as noise level below $< 60\text{dB}$. One control site was selected which was far from the traffic noise. Bird survey was done by using point count method. A total of 1150 birds were recorded of which were 35 species and 20 families. Pearson Correlation shows very significant and negative correlation of traffic noise with bird's species richness and bird abundance of which were ($r = -0.671, p < 0.000$) and ($r = -0.753, p < 0.000$), respectively. The results in this study show birds' population in Kinabalu Park was very significantly reduce both in species richness as well as abundance in High Traffic Noise Zone. We recommend that there should be a mechanism that is established by the Park management to control the number of vehicle that enters the Park. Alternative mode of transportation inside the Park such as electric powered buggy is recommended to address the issue of traffic noise around the park.