

Assessment of Urban Characteristics on the Distribution of Jungle and Grey-Necked, Crows in Kurunegala District, Sri Lanka

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The effect of urbanization on the distribution patterns of corvids has made special interest in urban-wildlife management. The present study investigated the effect of urbanization on the distribution of the jungle crow (*Corvus macrorhynchos*), and grey-necked crow (*C. splendens*) based on five urban characteristics (percentage of vegetation cover; density of residential and dumping units; road traffic and noise levels) which changed along rural to urban habitats in Kurunegala District. Simple linear and multiple regression analyses were used to find out the effect of environmental variables on the population density of jungle and grey-necked crows. Simple linear regression analysis showed that the percentage of vegetation cover had a positive and significant effect ($P < 0.05$) on the population density of jungle crows. Road traffic and noise levels had negative but significant effects ($P < 0.05$) on them. Density of residential and dumping units had negative and non-significant effects ($P > 0.05$) on the population density of jungle crows. The same analysis showed that the percentage of vegetation cover had a negative and significant effects ($P < 0.05$) on the population density of grey-necked crows. Density of residential and dumping units, and road traffic level had positive and significant effects ($P < 0.05$) on them. Noise level had positive but non-significant effects ($P > 0.05$) on the population density of grey-necked crows. The scatter plot of Principal Component Analysis (PCA) showed, three clusters such as forest and rural; exurban and suburban; and urban area. The Cluster Analysis (CA) also identified three similar clusters which broadly agree with the results of PCA. Present study has shown that the population density of jungle crows decreased with urbanization whereas that of grey-necked crows increased.