

IMPORTANCE OF TERRITORIAL MAPPING OF INDIAN BLACK ROBIN (*Saxicoloides fulicata leucoptera*) FOR ITS CONSERVATION

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INTRODUCTION

Black Robin is a small sized bird. Male Black Robin is glossy blue-black, with white lesser wing coverts and chestnut under tail coverts. The female is dark grayish brown, with chestnut under tail coverts and no white in the wing (Henry, 1998). The young ones are Blackish brown with upper tail coverts and tail black; beneath dark brown, with a dusky fulvous stripe down the throat, and under tail coverts. The Robin is one of the few birds that hold a territory all year round (Henry, 1998). A territory is defended by a mated pair, while each bird holds individually within the territory. The importance of this study is to use Black Robin as an indicator to conserve open scrublands and grass vegetation. As this species is a territory marking bird, its worth to observe the behaviors inside a demarcated area. The major drawback of the territory mapping of Indian Black Robin is low information available of the bird in the region. The current study is mainly focused on the diurnal behavioral patterns of male and female black Robin, mapping the spatial distribution of Black Robins in the faculty of Applied Sciences premises and adjacent forest patch in the Rajarata University of Sri Lanka.

MATERIALS AND METHODS

Observations were taken during 120 days in Mihinthale, Faculty of Applied sciences premises and near by forest patch between 06.00 am to 8.00 am, 12.00 pm to 1.00 pm and 4.00 pm to 6.00 pm. Data was collected during the dry season. A few weeks showers were experienced during the study period. Several preliminary *ad-libitum* observations (Altmann, 1975) were done prior to the detailed study. The diurnal behavioral variations were analyzed. Territorial behavior was studied by the mapping method, to identify the different territories of the Black robins. Individual Black robins were marked with colored plastic rings prior to the mapping to enable individual identification. Whole study area was mapped according to scale, using the base map of the faculty premises. Several copies were produced for each field visit. Territorial mapping was done

while regularly traversing the study plot. Bird behaviors were recorded using codes developed with the help of standard BTO (British Trust for Ornithology) codes. All field maps of different visits to the same study plot were copied on to a single map and finally maps of different plots were copied on to the area map. A dummy of a Black robin was made and by that, the behavioral and territory variations were checked.

RESULTS AND DISCUSSION

Territorial behavior of Black Robin

Black Robin is a territory marking bird; as such it doesn't give a chance to another one of its species, other than its family member to enter the territory. If an intruder comes the owner bird turns its back and shows its glossy brownish chestnut to the other and then calls loudly to chase away the intruder.

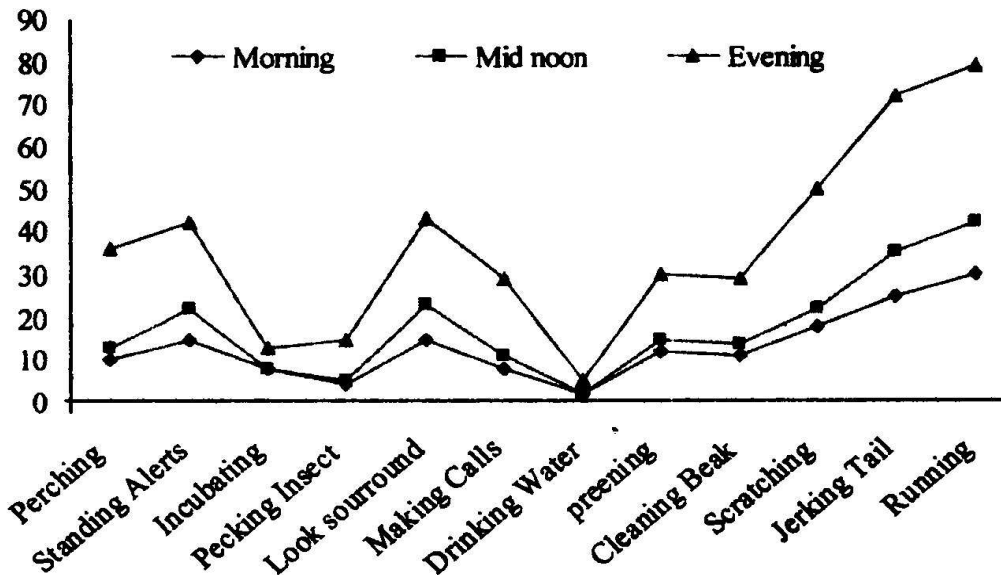


Figure 1 - Diurnal variation of the Behaviors

The diurnal behavior of the Black Robins shows high active behaviors in the evening rather than the morning or mid noon. It was observed that there is less behavioral activities during mid noon. (Figure 1)

Territorial sizes of black Robin

During this research period; four territories of Indian Black Robin were identified (Figure 2). Territory 1 was a couple located around the ICT building. Territory 2 was occupied by 2 females and a male, located in front of the new faculty building. Territory 3 was a couple with additional member occupied a territory

adjacent to the forest patch. Territory 4 was a family of five close to the hostel. The territorial areas were approximately 5050 m² and 3480 m² 7425 m², 4235 m² respectively. Territories of black robins were distributed all over the study area, especially they prefer open or spacious woodlands and grass or scrub lands where there is a good supply of termites, insects and other food materials they look for. Two territories were seen overlapping at their boundaries. Their distribution was mostly limited to the areas which were maintained by man. When the grasses are kept shorter by regular cutting, birds had an easiness of catching insects from land.

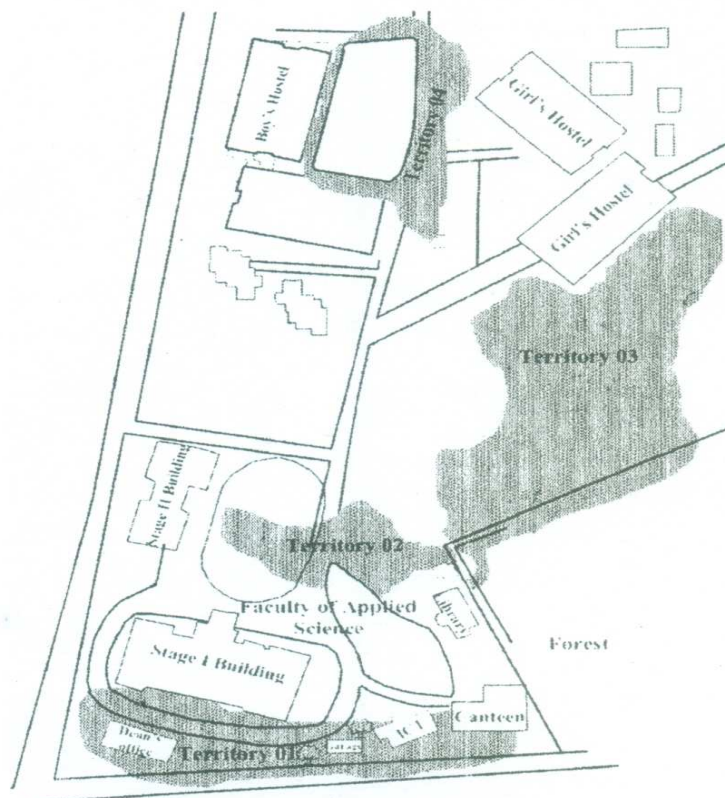


Figure 2 -Territorial sizes of Black Robin

CONCLUSION

The territory area occupied by the Black Robin family is much larger than the Black Robin couple. Mostly Black Robins preferred on open scrublands and grassland vegetation than the forested areas. Among the behavior of these birds, 60% spent for flying and 40% engaged as different activities. The observations indicate that this bird is a very attractive bird. When compare with the females only the male shows aggressive behavior towards the same species within the territory. There is a Strong positive relationship between the size of the territory and the number of individuals occupying each territory.