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ASSESSING HUMAN-PEAFOWL CONFLICT AND DEVELOPING AN ACTION PLAN TO REDUCE THE CONFLICTS IN SELECT ZONES OF TAMIL NADU

Project Final Report

February 2024



Sálim Ali Centre for Ornithology and Natural History
(South India Centre of Wildlife Institute of India, Govt of India)
Anaikatty, Coimbatore – 641108, Tamil Nadu, India

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February 2024

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EXECUTIVE SUMMARY

The Indian Peafowl *Pavo cristatus* is widely distributed in the Indian Subcontinent and is a National Bird of India because of its rich religious and celebrated involvement in Indian traditions. Peafowl is a bird of scrub forests and forest edges, showing affinity to moist and dry deciduous and semiarid biomes. However, in recent years, it has been felt that the population is increasing and expanding its range to all possible habitats leading to the exploitation of crops in the agriculture field that has in turn, increased human-peafowl conflict. Thus, the study was taken up with three goals 1) Assess the population status of Indian peafowl in select locations of Tamil Nadu, 2) evaluate crop depredation by peafowl and find out the current practices of conflict management by farmers, and 3) explore suitable measures to mitigate the crop damage by peafowl and prepare a conservation plan for management of peafowl populations.

The highest mortality was recorded in March (197) followed by August (183), October (136), September (129), and June (120). The main reasons that posed peaks in peafowl mortality in Tamil Nadu are pesticide poisoning, electrocution, and vehicular accidents. The mortality is more biased towards peahens as they travel larger distances for foraging than peacocks and are prone to pesticide-treated croplands. Peacocks restrict themselves to a small territory and forage within that.

Among 38 districts in Tamil Nadu, the peafowls were directly sighted in 32 districts however, eBird data and our detections reveal that peafowls occur in all the districts in the state. During the survey, we obtained 348 detections of peafowls comprising 1025 birds. Based on the total mean detection distance, the estimated population density was 40.45 peafowls/km², while the minimum population density that was calculated using the maximum detection distance was 25.20 peafowls/km². These estimates provide the mean population size of peafowls in the state was about 61 lakhs, however, the minimum population size could be about 38 lakhs. Among 1025 birds, 425 were adult males, 514 were adult females, 68 were sub-adults, and 18 were chicks. The average flock size was 2.9 however it varied highly between the districts from 1 to 5.5 peafowls. If the flock size is one, adult males were more than adult females, while in all other flock sizes, the proportion of adult females was much more than adult males.

About 1136 people were interviewed in 35 districts in Tamil Nadu. The most common meso-carnivore observed by the respondents was a grey mongoose (70.98%) followed by jungle cat, jackal/fox, and small Indian civet. The perception of people revealed that the grey mongoose occurs in 35 districts followed by Jungle cat in 26 districts, jackal/fox in 21 districts, and small Indian civet in 13 districts. The occurrence of crop depredation was reported by 78.70% of farmers. The farmers felt that the major crop depredation occurred in the post-harvest period (31.26%) and during the entire cropping period (30.66%). Many farmers stated that the crop raiding by peafowls occurs in a daily scenario (82.88%) and at all possible times of daylight (80.89%). The other major agricultural pests causing crop damage to farmers are wild boar (51.07%) and rose-ringed parakeet (18.39%). The cultivators opined that the main crops prone to high crop damage are sorghum (100%), flowers (85.71%), paddy (71.29%) and vegetables (80.99%). The crops with minimum damage are coconut, plantain, and cotton. Various methods are used by farmers to avoid crop depredation by birds based on their economic viability, efficiency, and durability. The most common method used is chasing with dogs, changing crops are used by farmers as they are economical and effortless. We used different scaring devices including a few decoys, however, none of them had any greater impact on scaring the peafowls. Some animals have a greater ability to adapt to changes in the environment, and it appears that peafowl is one among such animals thus they can adapt to all possible habitats, flourishing and expanding their range. Thus, this is going to be very challenging in the future to manage them in the agriculture fields. Using our findings from a short study and available literature, we provided the required actions for future management of the peafowl and directions for research to develop an appropriate mitigating strategy and interventions.