BREEDING ECOLOGY OF GREY JUNGLEFOWL (GALLUS SONNERATII), AT GUDULAR RANGE, THENI FOREST DIVISION, WESTERN GHATS, TAMILNADU, SOUTH INDIA

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SUMMARY

Breeding ecology of Grey Junglefowl, (Gallus sonneratii) was carried out at Gudular Range (23 km², 9° 37’ N, 77° 16’ E) in Theni Forest Division, Western Ghats, Tamilnadu, south India. The encounter rate (1.00 ± 0.02 birds/km walk) and density (37.03 ± 2.81 birds/km²) of Grey Junglefowl (Gallus sonneratii) were recorded. 211 flocks with a mean of 6.60 ± 1.01 birds/flock were observed. The sex ratio was 1 : 1.1 and 1.1 : 1 during breeding and non-breeding seasons. A total of 23 breeding pairs were recorded. Eleven (92%) nests were located on ground and one (8%) nest was located on tree’s cavity. The hatching success varied from 0% to 100%. The clutch size was 4 to 5 eggs. One clutch was observed continuously for intensive study. The adult female only incubate the eggs. It went out side only one time per day. Out of 278 hours the female spent 171.46 hours (62%) for incubation and 106.53 hours (38%) for other activities out side the nest. Canopy cover, ground cover, shrub cover, litter cover, litter depth and distance to human foot path were significant variables for nest selection.

Adult male Grey Junglefowl vocalized crowing, alarm and breeding calls. Only alarm call was identified in adult females. Out of 182 days of observation, the Grey
Junglefowl calls were heard for 175 days during breeding season as against 131 days in non-breeding season. The Spectrograph analysis of crowing of adult male’s first two component notes showed a successive rise in pitch while the third and fourth note drops a little below the pitch level. The Grey Junglefowl roost tree height ranged from 12.0 to 22.0 m and the roost height varied between 8.0 and 18.0 m. The frequency of different roost site varied significantly among breeding and non-breeding seasons.

Out of 157 feeding observations, a maximum percentage of feeding activity was observed during breeding season in all age and sex groups and during non-breeding season the feeding activity was moderate. 1,419 Grey Junglefowl droppings were analysed. The diet of the Grey Junglefowl constituted 55.0%, 31.1% and 13.9% of plant matter, animal matter and grit respectively. 894 cattle and 250 goats visited the study area. Forty five firewood collectors visited the forest area to collect 1,125 kgs of fire wood. 12 Non Timber Forest Produces (NTFP) items were collected by the local people. Two hydroelectric projects are having a negative influence in the area. The main attributes of local people that influence conservation attitudes, habitat management and resource harvest should be identified and incorporated in the management strategies.

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