

Comparison of avifaunal diversity in different habitats in Jaffna peninsula

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The Jaffna Peninsula has been identified as an Important Bird Area by the Bird Life International. The overall objective of the present study was to document bird species richness in four different habitats in the Jaffna peninsula. The study was carried out based on vegetation variability in a mangrove ecosystem in Mandaitivu, a coastal area in Araly, a paddy field in Mallakam, and a home garden in Kokkuvil from January to December 2014 using variable width line transect as most of the areas are open habitats. Bird counting was carried out by walking along a two kilometer fixed route transect for one hour between 0630-0830 h and 1530-1730 h. Mean annual temperature varies between 25.24 - 31.60 °C and total annual precipitation was 1368.6 mm in Jaffna in 2014. A total of 75 bird species in 40 families were recorded in the present study. Fifty three species (70.67%) used mangroves (Simpson Diversity Index: 0.96), 45 (60.00%) used coastal area (0.96), 36 (48.0%) used paddy field (0.90), and 21 (28.0%) used home garden (0.90). Mangroves and coastal area showed higher diversity. Sixteen species, including two uncommon breeding residents, the Spot-billed Duck (*Anas poecilorhyncha*) and Little-ringed Plover (*Charadrius dubius*), and three rare migrant species, the Grey Plover (*Pluvialis squatarola*), Eurasian Curlew (*Numenius arquata*) and Whimbrel (*N. phaeopus*) and two uncommon winter migrants, the Greater Flamingo (*Phoenicopterus roseus*) and Western Reef Egret (*Egretta gularis*) were recorded in Mandaitivu. The Common Ringed Plover (*Charadrius hiaticula*) was recorded in Araly and Mandaitivu. This may be due to habitat heterogeneity. A rare breeding resident, the Common Coot (*Fulica atra*) was recorded in Mallakam. Home garden and Paddy field showed lower diversity. This may be due to increased anthropogenic activities. Three bird species that are mostly restricted to the northern and northwestern regions of Sri Lanka, the Black Kite (*Milvus migrans*), Grey Francolin (*Francolinus pondicerianus*) and Black Drongo (*Dicrurus macrocercus*) were also recorded during the present study. The present study indicates that coastal areas in Araly and Mandaitivu support higher numbers of migratory bird species during the migratory season from early September to late April. Hence these are important sites for the conservation of these species. Therefore, further research is essential to study the ecology of birds in the coastal areas of the Jaffna Peninsula.