

## Avian biodiversity of Koonthakulam Bird Sanctuary, Tamil Nadu, India

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The study on Avian biodiversity of Koonthakulam Bird Sanctuary (Tamil Nadu, India) was carried out for a period of two years (May 2009 to April 2011). Our study revealed that, a total of 117 species of birds belonging to 14 orders and 24 families were recorded. Out of which 63 species (53.9 %) were resident, 26 species (22.2 %) were resident migrant and 28 species (23.9 %) were migrant. Koonthakulam The total birds encountered in transects during the first year of study was more (67483 individuals) compared to the second year of study (21252 individuals). Bird Sanctuary is numerically dominated by Ciconiiformes. Considerable variation in the number of birds/species from month to month was observed. Out of 14 orders, the order Ciconiiformes (88.50%) was most abundant followed by the Anseriformes (4.96%) and Passeriformes (3.98%) respectively. Apodiformes, Coraciiformes, Columbiformes, Gruiformes, Cuculiformes, Galliformes, Piciformes, Upupiformes, Strigiformes, Charadriiformes, and Psittaciformes were the orders recorded in less than 1% abundance. Bird species richness and abundance was greater during winter than Southwest and North East monsoon seasons. Birds of the study area showed a bimodal annual seasonality that was related to the rainfall with the peak in a month's time lag. A bimodal annual seasonality with the first peak of abundance was recorded in January to April and the second peak was observed during October, to December. Bird composition observed during study period were analysed by one way ANOVA for dissimilarity. It showed significant variance ( $F = 5.281$   $p = < 0.001$ ) between the monthly observations.

### **KEY WORDS**

*Koonthakulam Bird Sanctuary, Avian diversity, Composition, Seasonality.*