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**MONITORING OF THE ECOLOGY OF THE TROPICAL DRY
EVERGREEN FOREST OF POINT CALIMERE**



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Monitoring the ecology of the Tropical dry evergreen forest of Point Calimere

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CONTENTS

	Page No.
Introduction	1
Objectives	2
Study Area	3
Methods	4
Results	6
Discussion	22
References	25

SUMMARY

Tropical dry evergreen forests (TDEF) once commonly found in the south-eastern coast are now confined to a few pockets. Point Calimere is the only protected area which harbours the TDEF. The Bombay Natural History Society had done extensive research on various ecological aspects of the TDEF in Point Calimere Wildlife Sanctuary and created a baseline document. The present study was conducted in Point Calimere to assess the structure of bird communities in the TDEF and to compare the present status with the past and find out if any changes have occurred in avian community parameters.

In the study area, five transects (T1, T2, T3, T4, and T5) each measuring one kilometer was selected for bird census and breeding biology studies. Of the five transects, four (T1, T2, T3, T4) were used by the BNHS and hence used for comparison. Fortnightly bird censuses were done by using variable width line transect method. Data on nest and breeding biology information of birds were gathered from the above transects by direct observations.

Altogether 55 species of birds comprising both residents and migrants were recorded. Bird species richness and diversity were generally high during October-February, the wet season. It was low during July-September, which is more or less the dry period in Point Calimere. Highest species richness ($n=44$) and diversity (2.91) was recorded in February and lowest species richness ($n=25$) and diversity (2.06) in September. The presence of migratory birds in the wet season contributed to the higher species diversity during this period. From the census data, the following species are observed to be common species, White-browed Bulbul *Pycnonotus luteolus*, spotted dove *Streptopelia chinensis*, White-headed Babbler *Turdoides affinis*, and Common Iora *Aegithina tiphia*. Red-vented Bulbul *Pycnonotus cafer*, one of the most abundant bird species in the study area showed alarming reduction in number.

Eleven species of birds were recorded breeding in the study area. These were White browed Bulbul *Pycnonotus luteolus*, Red vented Bulbul *Pycnonotus cafer*, White-headed Babbler *Turdoides affinis*, Common Iora *Aegithina tiphia*, Spotted Dove *Streptopelia chinensis*, and Eurasian collared Dove *Streptopelia decacto*, Purplerumped Sunbird *Nectarinia zeylonica*, Loten's Sunbird *Nectarinia lotenia*, Common Wood Shrike *Tephrodornis pondicerianus*, Brahminy Kite *Haliastur indus* and Pied Cuckoo *Clamator jacobinus*. Most of the bird species were cup-nesters and platform-nesters, preferring shrubs of average 3.6m height. Among the 28 nests observed, only 25% successfully hatched and fledging success was recorded to be only 18%. Egg predation was recorded for 68% nests and 7% nests were affected by hatchling predation.

Transects that are found in close proximity to human habitations are affected by human disturbances such as firewood collection, grazing and poaching of eggs by tribal boys. A detailed investigation is suggested to find out the reasons for the decline of a common species, particularly the Red vented Bulbul.