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Avifauna of Confined Area of Tarapur Atomic Power Station (T.A.P.S.) Colony, Boisar, Palghar District, M.S., India

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ABSTRACT

Birds are very sensitive to environmental changes and used as a bio-indicator. The present study was conducted at confined area of T.A.P.S colony of Boisar from January 2016 to December 2020. During this study period 39 species of birds were recorded which were spread in 10 orders, 26 family and 4 subfamilies. It was found that order Passeriformes was dominating having 12 families with 4 sub family and 19 bird species. Followed by Ciconiiformes, Coraciiformes, Choriformes and Columbiformes with 5, 4 and 3 species respectively. This confined area provide the sustainable urban micro-ecosystem. This study will open the new strategy for conservation in the new urban set up.

Key word : Avifauna, Urban Micro-ecosystem, Boisar, Palghar

Introduction

The richness of India's biodiversity and its rapid erosion in the last few decades need no telling. Most ecosystems have been degraded, fragmented and depleted to an extent that their conservation requires intense and informed management. India has approximately 1300 species of birds constituting 13% of the world bird assembly and thus is an area of high avian diversity (Grimmett *et al.*, 1988).

Birds are some of the most prominent species of the Earth's biodiversity and being sensitive to environmental changes. They act as key indicators for assessing the status of ecosystem health (Taper *et al.*, 1995) and (Olechnowski, 2009). Assessing the bird diversity of a habitat over time and space is one of the key issues for avian community ecologists. Rich-

ness, abundance and community composition are often used by ecologists to understand the diversity of species in their natural occurrence (Magurran, 1988).

During the last few decades considerable studies on avifaunal diversity from different parts of Palghar district have been carried out by researchers, (Singh, 2016). The primary purpose of this paper is to integrate the principles of ecology with the social and environment problems of society. Society still fails to understand her true position in the planet and knowledge of ecology has not yet taken hold to produce the kind of wisdom needed for our own survival. Therefore, there is need of hours for ecological knowledge to be greater than ever in this modern technological advance period. The present study is carried out to find out the avian diversity in

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confined area of human habitation like T.A.P.S Colony and to create the awareness for their conservation and in turn to create the interest in young ornithologist and inhabitant to study appreciate the beauty of the birds in their immediate vicinity.

Materials and Method

This study was conducted at Tarapur Atomic Power

Table 1. Check list of birds in confined area of T.A.P.S Colony Boisar

ORDER	FAMILY	Scientific name	Common name	Sr.no
CICONIIFORMES	ARDEIDAE	<i>Ardeola grayii</i>	Pond heron	.
		<i>Egretta garzetta</i>	Little egret	.
		<i>Bubulcus ibis</i>	Cattle egret	.
	CICONIIDAE	<i>Anastomus oscitans</i>	Asian open bill stork	.
	THRESKIORNITHIDAE	<i>Pseudibis papillos</i>	Black ibis	.
CHARADRINIIFORMES	JACANIDAE	<i>Metopidius indicus</i>	Bronze winged jacana	.
		<i>Hyrophasianus chirurgus</i>	Pheasant tail jacana	.
COLUMBIFORMES	COLUMBIDAE	<i>Streptopelia chinensis</i>	Spotted dove	.
		<i>Colimba livia</i>	Blue rock pigeon	.
		<i>Treron phoenicoptera</i>	Yellow footed green pigeon	.
		<i>Psittacula karameri</i>	Roes ringed parakeet	.
PSITTACIFORMES	PSITTACIDAE	<i>Centropus bengalensis</i>	Lesser coucal	.
CUCLIFORMES	CUCULIDE	<i>Eudynamys scolopacea</i>	Asian koel	.
STRIGIFORMES	STRIGIDAE	Species not identified	Owls??	.
APODIFORMES	APODIDAE	<i>Cypsiurus parvus</i>	Palm swift	.
CORACIFORMES	ALCEDINIDAE	<i>Halcyon smyrnensis</i>	White breasted kingfisher	.
	MEROPIDAE	<i>Merops orientalis Latham</i>	Small bee eater	.
	CORACIIDAE	<i>Coracias benghalensis</i>	Indian roller	.
	UPUPIDAE	<i>Upupa epops</i>	Common hoopoe	.
PICIFORMES	APITONIDAE	<i>Megalaima haemacephala indica</i>	Copper smith barbet	.
PASSERIFORMES	DANIIDAE	<i>Lanius excubitor</i>	Great grey shrike	.
	ORNIOLIDAE	<i>Oriolus oriolus</i>	Indian oriole	.
	DICRURIDAE	<i>Dicrurus adsimilis</i>	Black drongo	.
	STURNIDAE	<i>Acridotheres tristis</i>	Common myna	.
		<i>Sturnia pagodarum</i>	Brahminy starling	.
		<i>Acridotheres gingivanus</i>	Bank myna	.
	CORVIDAE	<i>Corvus splendens</i>	House crow	.
		<i>Corvus macrorhynchos</i>	Jungle crow	.
	IRENIDAE	<i>Aegithina tiphia</i>	Common iora	.
	PYCNONOTIDAE	<i>Pycnonotus cafer</i>	Red vented bulbul	.
	MUSCICAPIDAE			
	SF- MUSCICAPINAE	<i>Terpsiphone paradisi</i>	Paradise flycatcher	.
	SF - TURFINAE	<i>Saxicolodius fulicata</i>	Indian robin	.
		<i>Copsychus saularis</i>	Oriental magpie robin	.
	MOTACILLIDAE	<i>Motacilla flava</i>	Yellow wagtail	.
	NECTARINIIDAE	<i>Leptocoma zeylonica</i>	Purple rumped sunbird	.
	PLOCEIDAE			
SF-PASSERIDAE	<i>Passer domesticus</i>	House sparrow	.	
SF-PLOCENAE	<i>Ploceus philippinus</i>	Baya weaver	.	
SF-ESTRIIDINAE	<i>Lonchura punctulata</i>	Spotted munia	.	
PITTIDAE	<i>Pitta brachyura</i>	Indian pitta	.	

SUBFAMILY—SF

Station (T.A.P.S) colony 1&2, Boisar (W) Maharashtra. It is residential and lush green colony having vegetation with different types of trees and abundant seedlings and saplings of both evergreen and deciduous trees. The study area lying between 19.816117, 72.742959 coordinate. This study was carried out regularly on a daily basis during the study period. All observation were made using a 10 X 50

Nikon binocular and photos by canon 700D.

Birds were identified with the help of noting, standard methods given by (Ali and Ripley, 1969, 1995), (Ali, 2002) and (Grimmett *et al.*, 2016).

Results and Discussion

It was observed that Order Passeriformes (18 species) was the most represented followed by Ciconiiformes (5) Coraciiformes (4), Charadriiformes, Columbiformes (3), Apodiformes, Cuculiformes, Strigiformes, Piciformes, Psittaciformes and Pittidae (1)

Present study on avifauna from the confined habitat of T.A.P.S Colony of Boisar revealed the presence of 39 bird species. In all 10 Orders and 26 families were recorded between January 2016 and December 2018. (Table 1, Diagram and Figure). This study was the first attempted to record the avian biodiversity of TAPS colony in Palghar district of Maharashtra state in which it's exhibits qualitative

variation in avifauna with human habited.

Similar type of study was carried out by (Singh *et al.* 2016), where they observed beneficial aspect of garbage dump of Palghar in terms of avifauna and recorded 33 species of birds belonging to 21 families. (Singh, 2016) studied the avifauna of Waghoba forest of Palghar and recorded 77 species belonging to 31 families. (Singh *et al.*, 2016), listed the 62 species of birds belong to 27 family and 8 orders from the coastal area of Palghar.

In the presence study it was observed that confined area of human habitations like T.AP.S. Colony provides safe haven for birds. These area providing good and source of food, safe habitat and availability of water and in turn are the sustainable urban micro-ecosystem.

Conclusion

Around 39 species of birds were recorded which were spread in 10 orders, 26 family and 5 subfamily.

DIGRAM 1: The Order wise distribution of avian fauna at T.A.P.S. Colony Boisar.



Fig. 1. Birds at T.A.P.S.

This study suggests that vegetative cover in confined urban/ suburban areas should be increased, not by isolated plantings of landscape shrubs, but by recreating or preserving natural islands of complete habitat profiles consisting of vegetative cover in each layer. The aim of this paper is also to make aware the government authorities and specially the town planners to look into the rich heritage and plan to initiate development of confined urban micro-ecosystem which in turn will help in co-existence and Conservancies of diverse species.

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