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Avian fauna for post monsoon period in Tadoba-Andhari Tiger Reserve

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Abstract
The study area located in the Chandrapur district of Maharashtra, Tadoba – Andhari Tiger reserve is an important tiger reserve in Maharashtra. This pristine and unique eco-system, famous for its natural heritage contains some of the best of forest tracks and endowed with rich biodiversity. Tadoba - Andhari Tiger Reserve is the second Tiger Reserve in the State created in 1995 with the combined area of 625.40 sq. km. It is a southern tropical dry deciduous forest with teak as a dominant variety. The current research work includes the enumeration of the bird diversity in the post monsoon period. The survey indicated the presence of 70 avian species within a span of three months from September 2021 to November 2021. The study established that the forest harbours a sizable number of bird species from savannah and other vegetation zones. The study concludes that the birds are excellent indicators of a regions eco health. They assist in maintaining ecological balance but the biodiversity is under threat in the research area. It needs help from all strata of community to conserve this pure wilderness.

Keywords: avian fauna, monsoon period, tadoba-Andhari, tiger reserve

Introduction

The Tadoba – Andhari Tiger reserve is a pristine and unique eco system situated in Chandrapur district of Maharashtra at distance of 40 km from Chandrapur. Tadoba - Andhari Tiger Project is one of the best known tiger reserves in India. Tadoba (116 sq. km.) was established in 1935 and declared as a National Park in 1955. Andhari Wildlife Sanctuary (509 sq. km.) was created in 1986, and in 1995, both the park and the sanctuary were merged to establish the present Tiger Reserve (625 sq. km.). It is Maharashtra's oldest national park. It has been named after the local God, "Taru". Local people offer their prayers to "Tadoba Deo" and they generally believe that by offering prayers to Tadoba Deo and sprinkling the water of Tadoba Lake on agricultural fields, any disease or pests on the crops would be cleared. The Sanctuary is named "Andhari Wildlife Sanctuary" after the river Andhari which flows through the Sanctuary.

Research area: It is the biggest national park of Maharashtra. Thickly clad hills form the northern and western boundary of the Tiger Reserve. To the southwest is a huge lake which acts as a buffer between the park's forest and the extensive farmland which extends up to Irai Lake. The habitat of this protected area, consisting of southern tropical dry deciduous forests, interspersed with several large meadows, is such that it provides a good herbivore density for large cats.

Vegetation: The land vegetation belongs to the sub group of typical Southern Tropical Dry Deciduous Forest dominated by teak (*Tectona grandis)* and bamboo (*Dendrocalamus strictus).* Other associates are Indian Kino Tree *(Pterocarpus marsupium),* Kadamba *(Adina cordifolia),* Salai *(Boswellia serrata),* Tendu *(Diospyros melanoxylon),* Arjun (*Terminalia arjuna),* Crocodile bark tree *(Terminalia tomentosa),* and Ceylon Plum *(Syzygium).* In some areas, patches of Moist Deciduous Forest are present; the prominent species found are Jamun (*Syzygium cumini),* Myrobalan (*Terminalia chebula)* and Rose Sandalwood *(Olea dioica).* Axlewood is a fire-resistant species. Epiphytes, lichens and ferns are also found here.

Materials and Methods: Existing paths were used as line transacts. The bird diversity was assessed using standard walk along the line transects requiring 1hour duration. All the birds visually recognized were systematically recorded in the survey period of three months from September, 2010 to December, 2010. Some birds such as Racket Tailed Drongo are excellent in mimicry with their calls resembling other birds. Hence the birds were not recorded only from their calls to avoid false readings. The birds identified by observing were directly recorded. Unidentified birds were photographed and identified later on using guide books. The Lumix camera with 18X optical zoom was used for photographs.

Results and Discussion

The primary attraction of the forest is the "Royal Bengal tiger". In addition, the tiger reserve showed rich bird diversity, comprising 70 species of birds belonging to 11 orders.

Table 1: Checklist of birds according to their orders in the research area

Order	Species
Galliformes	Quail, Jungle Bush (*Perdicula asiatica*)*

	Junglefowl, Grey (*Gallus sonneratii*)
	Peafowl, Indian (*Pavo cristatus*)*
Piciformes	Barbet, Coppersmith (*Megalaima haemacephala*)
	Woodpecker, Yellow fronted pied (*Dendrocopos mahrattensis*)*
Coraciformes	Kingfisher, White throated (*Halcyon smyrnensis*)
	Kingfisher, Small Blue (*Alcedo atthis*)
	Roller, Indian (Coracias benghalensis)*
	Bee eater, Small (Merops orientalis)
	Bee eater, Chestnut headed (*Merops leschenaulti*)
Cuculiformes	Southern Greater Coucal (*Centropus sinensis*)
	Koel, Asian (*Eudynamys scolopacea*)
Psittaciformes	Parakeet, Rose ringed (*Psittacula krameri*)
	Parakeet, Plum Headed (*Psittacula cyanocephala*)*
Columbiformes	Yellow Legged Green Pigeon (*Treron phoenicoptera*)*
	Pigeon, Blue Rock (*Columba livia*)
	Dove, Emerald (*Chalcophaps indica*)*
	Dove, Spotted (*Streptopelia chinensis*)
	Dove, Collard (*Streptopelia decaocto*)
Apodiformes	Asian palm Swift (*Cypsiurus balasiensis)*
Strigiformes	Owlet, Spotted (*Athene brama*)
	Owlet, Forest (Glaucidium radiatum)
Ciconiformes	Egret, Cattle (*Bubulcus ibis*)*
	Egret, Median (*Mesophoyx intermedia*)*
	Cormorant, Little (*Phalacrocorax niger*)
	Darter (*Anhinga melanogaster*)
	Ibis, Black (*Pseudibis papillosa*)*
	Ibis, Black Headed (*Threskiornis melanocephalus*)*
	Heron, Pond (*Ardeola grayii*)
	Heron, White Bellied (*Ardea insignis*)
	Stork, Openbill (*Anastomus oscitans*)
	Lapwing, Red Wattled (*Vanellus indicus*)
	Kite, Black (*Milvus migrans*)
	Kite, Black Shouldered (*Elanus caeruleus*)
	Eagle, Short toed snake (*Circaetus gallicus*)
	Buzzard, Common (*Buteo boteo*)
	Shikra (*Accipiter badius*)
Passeriformes	Flycatcher, White Browed Fantail (*Rhipidura albicollis*)*
	Tailor bird (*Orthotomus sutorius*)
	Treepie, Rufous (*Dendrocitta vagabunda*)*
	Sparrow-Lark, Ashy Crowned (*Eremopterix grisea*)*
	Munia, Black Headed (*Lonchura malacca*)*
	Sparrow, House (*Passer domesticus*)
	Sunbird, Purple Rumped (*Nectarinia zeylonica*)*
	Sunbird, Purple (*Nectarinia asiatica*)*
	Warbler, Greenish Leaf (*Phylloscopus trochiloides*)
	Warbler, Blyth's reed (*Acrocephalus dumetorum*)
	Pipit, Tree (*Anthus hodgsoni*)*
	Pipit, Paddy Field (*Anthus rufulus*)*
	Babbler, Jungle (*Turdoides striatus*)*
	Blackbird, Eurasian (*Turdus merula*)
	Bulbul, Red Vented *(Pycnonotus cafer)**
	Bulbul, Red Whiskered (*Pycnonotus jocosus*)*
	Bushchat, Pied (*Saxicola caprata*)
	Myna, Common (*Acridotheres tristis*)*
	Myna, Brahminy (*Sturnus pagodarum*)*
	Iora, Common (*Aegithina tiphia*)*
	Robin, Oriental Magpie (*Copsychus malabaricus*)
	Robin, Indian (*Saxicoloides fulicata*)
	Drongo, Black (*Dicrurus macrocerus*)
	Drongo, Ashy (*Dicrurus leucophaeus*)
	Drongo, Racket Tailed (*Dicrurus paradiseus*)*
	Drongo, White Bellied (*Dicrurus caerulescens*)*
	Oriole, Eurasian Golden (*Oriolus oriolus*)*
	Oriole, Black Hooded (Oriolus xanthornus)*
	Prinia, Jungle (*Prinia sylvatica*)
	Crow, Jungle (*Corvus macrorhynchos*)
	Crow, House (*Corvus splendens*)
Gruiformes	Waterhen, White Breasted (*Amaurornis phoenicurus*)
	Purple Moorhen (*Porphyrio porphyrio*)

'*' indicates species protected under Indian Wildlife (Protection) Act, 1972.

The study established that the tiger reserve harbours a sizable number of bird species from savannah and other vegetation zones, even though the primary vegetation is forest. Birds are often considered as vital indicators of a regions eco-health. Birds eat the fruits, seeds and nectar and hence help in pollination and seed dispersal. Some birds devour insects thereby controlling insect population. Rodents are also the food of birds like 'raptors' thereby controlling pest population. Hence birds assist in maintaining ecological balance which is a growing need of conservation and sustainable development.

The forest is a green oasis with a continuous threat of human interventions. It is under regular threats from ever-expanding and ever-demanding human settlements. It is at a risk from about 41644 tribal people in and around the reserve, performing activities that damage the flora and fauna resulting in general forest degradation. There is 41820 livestock population which graze in the buffer zone. It is leading to man animal conflict. This adversely affects the biodiversity.The forest department is taking many steps for conservation measures. They have effectively implemented the plan for rehabilitation of tribal people outside the forest areas. Protection status of the forest is strengthened by providing extra man power, vehicle and communication system and involving local people in protection.

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