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Avian diversity in and around Chaprala wild life sanctuary, District- Gadchiroli, Maharashtra, India

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Abstract

Chaprala Wildlife Sanctuary is home to a variety of wild animals including a few endangered species and is surrounded by Pranhita River. 76 species of avian-fauna recorded in Chaprala Wildlife Sanctuary and of which as many as three bird species are of endangered status. The field survey was made to assess the forest for the avian fauna by conducting daily observations. Total number of 76 birds' species belonging 39 families were recorded. Accipitridae is the dominating family of birds. The study of avian fauna was carried out from December, 2011 to December, 2012 at the interval of ten days. Observations were carried out with the help of binocular and photography was done with Fujifilm finepix camera.

Keywords: Birds, Diversity, Chaprala, forest.

1. Introduction

Chaprala wildlife sanctuary (19°31'24.62"n 79° 49'37.35) is situated in the Gadchiroli district of Maharashtra. The sanctuary covers an area of around **134.78** square kilometers. The larger percentage of the place is woody along with grass growing here and there. There are various tanks and water places around like Murgikunta tank, Raikonta tank, Wainganga river, Komatkunta tank, Chandankhedhi nala etc. The heaven of animals and endangered species, the chaprala wildlife sanctuary, is the place to visit to get the glimpse of the nature at its best. The Flora on the land is enriched with a vast vegetation cover, which mainly comprises of southern tropical dry deciduous forests. There are various species of trees & plants like teak, arjun, salai, mahua, ghoti, bel, dhawada, tendu, sisoo, surya, semal shisham etc and the Fauna of the sanctuary is a dwelling place of around 23 species of mammals like jackal, sambar, common langoor, jungle fowl, spotted deer, black buck, barking deer, peacock, wild boar, blue bull etc. Out of 23, 4 species i.e. Tiger, jungle cat, leopard, sloth bear is the endangered ones. The 2 endangered species of the reptiles that are found here are common Indian monitor and Indian python. One can also find at present around 65 species of birds that includes both domestic as well as the migratory birds. The Indian subcontinent, a part of the vast Oriental biogeographic regions, is very rich in biodiversity. Out of the more than 9,000 birds of the world, the Indian subcontinent contains about 1,300 species, or over 13% of the world's birds (Grimmett, R., *et al* 1998).

Birds of Jaikwadi Bird Sanctuary, Aurangabad have been studied by Yardi in the year 2000 and recorded 264 species of birds. Birds are of great economic importance to the human society and they play an important role in controlling population of different insects and pests. They play the role of scavengers and pollinating agents and also help in the dispersal of seeds of different vegetations. Kasambe, R., 2003 and Savarkar, V.B., 1987 have studied the Birds of Melghat Tiger Reserve and recorded 260 and 252 species of birds respectively.

Chittampali in 1976 studied the Birds of Navegaon National Park. Avian Fauna of Tadoba National Park, Chandrapur has been studied by Rajkondawar in 1991 and recorded 179 species of birds, while avian Fauna of Tadoba Andheri Tiger Reserve, Chandrapur has been studied by Mahabal in 2006 and recorded 182 species of birds.

2. Materials and Methods

The Birds are observed and recorded at various locations in the Chaprala wildlife sanctuary, natural water bodies and adjacent area. Birds noticed were recorded by regular visits. Birds were observed twice a day at morning time and evening time for two-three hours. Birds were

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observed, sighted by using binoculars and spot identification was done by using field guides (Salim Ali & L. Fatehali 2003) and after confirmation of identity those species are reported in

this paper. As per the guidelines given in the checklist of birds, given by (Abdul ali, 1981; Kulkarni *et al.* 2005) then checklist is prepared.



Fig 1: Chaprara Wild life sanctuary

3. Observations

The continued study and observation, let to record 76 birds belonging to 39 families as check listed in table 1. Out of 76 species 68 species are common in the sanctuary, some of they are Black Kite, Common House Sparrow, Common House Crow, Baya, Weaver Bird, Common Myna Parrot, Common Hoopoe, Asian Koel, Black Shouldered Kite, Pariah Kite, Eagle, Golden Backed Woodpecker, Paddy Field Pipit, Red-Vented Bulbul, Indian Rock Owl, Common Swallow, Small Minivet, Shama, Bay-Backed Shrike, Wood Shrike, Black Naped Monarch Flycatcher, Small Minivet, Tailor-Bird, White Bellied Drongo, Scarlet Minivet, Honey Buzzard, Shikra, Brahminy Kite, Crested Serpent Eagle, Magpie Robin, Jungle Crow etc. Rosy starling was migratory and the rarest of rare bird spotted only once on 12nd march 2013 at 14hrs, while 07

species are uncommon, they are Indian peafowl, crested hawk eagle, grey headed fishing eagle, sparrow hawk, black redstar, peregrine falcon, black-headed cuckoo-shrike are rarely seen.

A total of 76 bird species was recorded in the study area, of which 90% were common, 9% were uncommon and 1% were migratory (figure 2). The richest family observed with maximum number of species was Accipitridae with 11 species (14%), Corvidae with 6 species (8%), Passeridae with 5 species (7%), Campephagidae with 4 species (5%), Alcedinidae with 3 species (4%), Columbidae with 3 species (4%) with 3(4%) Muscicapidae with 3 species (4%) Phasianidae with 3 species (4%) Strigidae with 3 species (4%) Sturnidae with 3 species (4%), Ciconiidae with 2 species (3%), Meropidae with 2 species (3%), Psittacidae with 2 species (3%), and 26 other families representing least number of species with 1%.

Table 1: Diversity and Status of Avifauna in and Around Chaprara Wild Life Sanctuary

Sr. No	Common Name	Family	Scientific Name	Local Status
1	Black kite	Accipitridae	<i>Milvus migrans migrans</i>	C
2	Pariah Kite	Accipitridae	<i>Milvus migrans</i>	C
3	Eagle	Accipitridae	<i>Aquila spe.</i>	C
4	honey buzzard	Accipitridae	<i>Pernis ptilorhyncus</i>	C
5	Shikra	Accipitridae	<i>Accipiter badius</i>	C
6	Brahminy Kite	Accipitridae	<i>Haliastur Indus</i>	C
7	Crested serpent eagle	Accipitridae	<i>Spilornis cheela</i>	C
8	Crested hawk eagle	Accipitridae	<i>Spizaetus cirrhatus</i>	U
9	Grey headed fishing eagle	Accipitridae	<i>Ichthyophaga ichthyaetus</i>	U
10	Sparrow hawk	Accipitridae	<i>Accipiter nisus</i>	U
11	White eyes buzzard	Accipitridae	<i>Butastur teesa</i>	C
12	Lesser Pied Kingfisher	Alcedinidae	<i>Ceryle rudis</i>	C
13	Small Blue Kingfisher	Alcedinidae	<i>Alcedo atthis</i>	C
14	White-Breasted Kingfisher	Alcedinidae	<i>Halcyon smyrnensis</i>	C
15	House Swift	Apodidae	<i>Apus affinis</i>	C
16	Indian Pond Heron	Ardeidae	<i>Ardeola grayii</i>	C
17	Small Minivet	Campephagidae	<i>Pericrocotus cinnamomeus</i>	C
18	Scarlet Minivet	Campephagidae	<i>Pericrocotus speciosus</i>	C
19	Small Minivet	Campephagidae	<i>Pericrocotus peregrinus</i>	C
20	Black-headed Cuckoo-Shrike	Campephagidae	<i>Lalage sykesii</i>	U
21	Indian Jungle NightJar	Caprimulgidae	<i>Caprimulgus indicus</i>	C
22	Greater Coucal	Centropodidae	<i>Centropus sinensis</i>	C
23	Red-Wattled Lapwing	Charadriidae	<i>Vanellus indicus</i>	C

24	Asian Openbill Stork	Ciconiidae	<i>Anastomus oscitans</i>	C
25	Black Shouldered Kite	Ciconiidae	<i>Elanus caeruleus</i>	C
26	Tailor-Bird	Cisticolidae	<i>Orthotomus sutorius</i>	C
27	Blue Rock Pigeon	Columbidae	<i>Columba livia</i>	C
28	Spotted Dove	Columbidae	<i>Streptopelia chinensis</i>	C
29	Red Collard-Dove	Columbidae	<i>Streptopelia tranquebarica</i>	C
30	Indian Roller	Coraciidae	<i>Coracias benghalensis</i>	C
31	Common house crow	Corvidae	<i>Corvus splendens</i>	C
32	Black Drongo	Corvidae	<i>Dicrurus adsimilis</i>	C
33	Jungle Crow	Corvidae	<i>Corvus macrorhynchos</i>	C
34	Large Cuckoo-Shrike	Corvidae	<i>Graitcalus javnensis.</i>	C
35	Eurasian Golden Oriole	Corvidae	<i>Oriolus oriolus</i>	C
36	Indian Tree pie	Corvidae	<i>Dendrocitta vagabunda</i>	C
37	Asian Koel	Cuculidae	<i>Eudynamis scolopaceus</i>	C
38	White Bellied Drongo	Dicruridae	<i>Dicrurus caeruleus</i>	C
39	Peregrine Falcon	Falconidae	<i>Falco peregrinus</i>	U
40	Common Swallow	Hirundinidae	<i>Hirundo nustica</i>	C
41	Bay-backed Shrike	Laniidae	<i>Lanius vittatus Valenciennes</i>	C
42	Jungle Babbler	Leiothrichidae	<i>Turdoides striatus</i>	C
43	Coppersmith Barber	Megalamiidae	<i>Megalaima haemacephale</i>	C
44	Small Bee-Eater	Meropidae	<i>Merops orientalis</i>	C
45	Blue-Tailed Bee Eater	Meropidae	<i>Merops philippinus</i>	C
46	Black Naped Monarch FlyCatcher	Monarchidae	<i>Hypothymis azurea</i>	C
47	Indian Robin	Muscicapidae	<i>Saxicoloides fulicatus</i>	C
48	Magpie Robin	Muscicapidae	<i>Copsychus saularis</i>	C
49	Shama	Muscicapidae	<i>Kiltacina malabarica</i>	C
50	Purple-Rumped Sunbird	Nectariniidae	<i>Nectarinia zeylonica</i>	C
51	Common house sparrow	Passeridae	<i>Passer domesticus</i>	C
52	Paddy field Pipit	Passeridae	<i>Anthus rufulus</i>	C
53	White-Wagtail	Passeridae	<i>Motacilla alba</i>	C
54	Yellow-Wagtail	Passeridae	<i>Motacilla flava</i>	C
55	Spotted Munia	Passeridae	<i>Lonchura punctulata</i>	C
56	Little Cormorant	Phalacrocoracidae	<i>Phalacrocorax niger</i>	C
57	Indian Peafowl	Phasianidae	<i>Pavo cristatus</i>	U
58	Painted Francolin	Phasianidae	<i>Francolinus pictus</i>	C
59	Rain Quail	Phasianidae	<i>Coturnix coromandelica</i>	C
60	Golden backed woodpecker	Picidae	<i>Dinopium bengalensis</i>	C
61	Baya Weaver bird	Ploceidae	<i>Ploceus philippinus</i>	C
62	Wood Shrike	Prionopidae	<i>Tephrodornis pondicerianus</i>	C
63	Parrot	Psittacidae	<i>Psittacula eupatria</i>	C
64	Parakeet	Psittacidae	<i>Psittacula krameri</i>	C
65	Red-Vented Bulbul	Pycnonotidae	<i>Pycnonotus cafer</i>	C
66	White breasted waterhen	Rallidae	<i>Amaurornis phoenicurus</i>	C
67	Black Redstar	Saxicolidae	<i>Phoenicurus ochruros</i>	U
68	Common Sandpiper	Scolopacidae	<i>Tringa hypoleucos</i>	C
69	Indian Rock Owl	Strigidae	<i>Bubo bubo bengalensis</i>	C
70	Barred jungle owlet	Strigidae	<i>Glauclidium radiatum</i>	C
71	Oriental Scops Owl	Strigidae	<i>Otus scops</i>	C
72	Common Myna	Sturnidae	<i>Acridotheres tristis</i>	C
73	Asian Pied Starling	Sturnidae	<i>Sturnus contra</i>	C
74	Rosy Starling	Sturnidae	<i>Sturnus roseus</i>	M
75	Common Barn Owl	Tytonidae	<i>Tyto alba</i>	C
76	Common Hoopoe	Upupidae	<i>Upupa epops</i>	C

Common(C), Uncommon (UN) and migratory (m)

Table 2: Species distribution in their respective families

Family	Total No of Species	Percentage
Accipitridae	11	14%
Alcedinidae	3	4%
Apodidae	1	1%
Ardeidae	1	1%
Campephagidae	4	5%
Caprimulgidae	1	1%
Centropodidae	1	1%
Charadriidae	1	1%
Ciconiidae	2	3%
Cisticolidae	1	1%

Columbidae	3	4%
Coraciidae	1	1%
Corvidae	6	8%
Cuculidae	1	1%
Dicruridae	1	1%
Falconidae	1	1%
Hirundinidae	1	1%
Laniidae	1	1%
Leiothrichidae	1	1%
Megalamidae	1	1%
Meropidae	2	3%
Monarchidae	1	1%
Muscicapidae	3	4%
Nectariniidae	1	1%
Passeridae	5	7%
Phalacrocoracidae	1	1%
Phasianidae	3	4%
Picidae	1	1%
Ploceidae	1	1%
Prionopidae	1	1%
Psittacidae	2	3%
Pycnonotidae	1	1%
Rallidae	1	1%
Saxicolidae	1	1%
Scolopacidae	1	1%
Strigidae	3	4%
Sturnidae	3	4%
Tytonidae	1	1%
Upupidae	1	1%

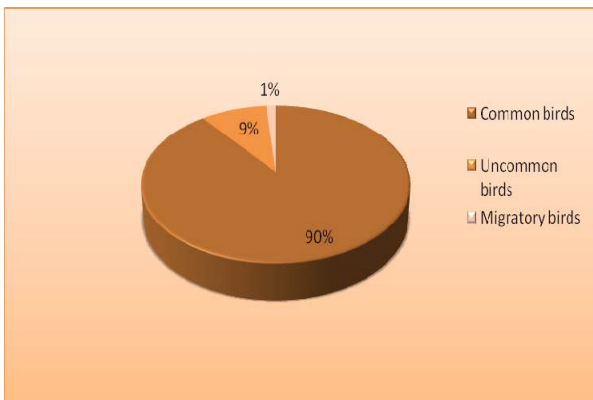


Fig 2: Pie-Diagram Representing Status of Avian Diversity In And Around Chaprala Wild Life Sanctuary, Common(C), Uncommon (Un) and Migratory (M).



Fig 4: Bee eater



Fig 3: Asian Open Bill Stork



Fig 5: Crested Serpent Eagle



Fig 6: Indian Roller



Fig 10: Rosy Starling.



Fig 7: Golden oriole



Fig 11: Black Drongo



Fig 8: Indian tree pie



Fig 12: White-Wagtail



Fig 9: Little Cormorant



Fig 13: Yellow-Wagtail

4. Conclusion and Suggestion

The total number of birds (76 species) suggests a good healthy condition in the study area. The Chaprala wild life sanctuary and the surrounding area support rich avian diversity 90% of common birds (n=68), 9% of uncommon birds (n=7), 1% migratory birds (n=1). The diversity in this area is not very much influenced by anthropogenic activities in the surrounding area but, the increasing anthropogenic is of great concern considering the future existence of these species. Residing birds recorded, are indicative of good breeding and feeding conditions in Chaprala wild life sanctuary, but the migratory birds are very few and it the great area of concern.

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