

Diversity of Birds in Local Ecosystem Aurangabad, Maharashtra, India

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Abstract

Dr. B. A. M. University, Aurangabad is having very good biodiversity having a different type of flora and fauna. It surrounded by hilly area having two small water bodies and different type of flowering and fruit plants on its surrounding campus which provides grounds for feeding, breeding and nesting for avian fauna. The field survey was made to assess the campus for the avian fauna by conducting daily observations. During field survey the about 61 species of birds were recorded in all seasons due to different habitats present at university campus, out of watershed catchments, from flowering tree shelters, and from marshy areas. Out of these, some are common birds which are observed perennially like Pond heron, Cattle egret, White breasted kingfisher, Red wattled lapwing, Indian ring dove, Crow pheasant, Jungle babbler, Common myna, Rose ringed parakeet, Tailor bird, Purple rumped sunbird, Indian robin, Magpie robin. Some birds are seasonal like Black Ibis, European hoopoe, Coppersmith barbet. These are more frequently observed in winter. Grey hornbill, Tree pie are seen in starting of Rainy season. The University campus is having rich diversity of avian fauna.

Key Words: Biodiversity, Migratory birds, Seasonal variation.

Introduction

Aurangabad district is having 10,107 km² Geographic area, with dense forest cover of about 141 km², and about 341 km² area is about open exposed area. Total area under forest cover in the district is 489 km² which is about 4.02 % only out of total land cover in the Aurangabad district. ('State of Forest Report 2001' published by Forest Survey of India, Dehradun). Local range of temperature in Aurangabad city is between minimum temperature 10 °C and Max. is 42 °C. Annual Average Rainfall is 718 mm.

Common tree species observed on the University campus are *Ficus bengalensis*, *Ficus religiosa*, *Peltaphorum pterocarpum*, *Mangifera indica*, *Ziziphus jujuba*, etc. Commonly shrub occurring here are *Lantana camera*, *Ipomoea convolute*, *Calotropis procera*, *Cassia sp.*, etc. These provide nesting, breeding or feeding habitats to several birds.

Birds are of great economic importance to the human society. 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's in dispersal of seeds of different vegetations. They are helpful and help to provide rich food for mankind and are known to man since ages (Chitampally, 1993). Salim Ali (1936) laid the foundation of economic ornithology which promoted the scientific study of avian species. Ramakrishnan (1983) conducted extensive studies on the ecology of bird of Northern western Ghats. Different types of birds are observed at Salim Ali lake in Aurangabad as many visitors enjoy the bird watching. The campus of Dr. Babasaheb Ambedkar Marathwada University is very close to and is adjoined to the city. In the present investigation, efforts have been made to enlist the avian fauna observed on the University campus revealing the bird diversity.

Methodology:

The Birds are observed and recorded at various locations on the campus like botanical garden, history museum garden, fish farm of the university, natural water bodies and adjacent area, wasteland area on the university campus. 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 observed, sighted by using binoculars and spot identification was done by using field guides (Grimmette et al.1999, V. M. Tiwari2005, S. 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 (Abdulali, 1981; Kulkarni et al. 2005) then checklist is prepared.

The status of the bird is categorized as residential (R), Migrant (M), Residential Migrant (RM), Winter Migrant (WM), Breeding Migrant (BM), and Passage Migrant (PM). Abundance of birds was categorized as Common (C), uncommon (U), rare (r) and occasional (O).

Observations, Results and Discussions:

During the study 61 species of the birds recorded is shown Table 1. Out of 23 species are residence common out of some they are Pond Heron, Little Egret, Red Vented Bulbul, Indian Ring Dove, Rose ringed Parakeet, Crow Pheasant, Asian koel, Large Grey Babbler, Brahminy Sterling, Magpie Robin, Indian Robin, Purple Rumped Sunbird, Tailor Bird, White breasted Kingfisher, etc. 20 species are Residential uncommon like Black Ibis, Little Blue Kingfisher, Indian Peafowl, Spotted Dove, Pied Bush chat, Purple Sunbird, Indian Tree Pie, Spotted Owl, Small Minivet, Shikra, Baya weaver Bird, Yellow wattled Lapwing, Coppersmith Barbet, etc. 03 species are Residential migrant common they are Green Bee-eater, Wire Tailed Swallow, Black Drongo, Spot billed Duck. 08 species are residential migrant uncommon they are Indian Grey Hornbill, Red-rumped swallow, Large pied Wagtail, European Hoopoe. 04 species are Great Tit, Red Munia, Golden Oriole, and Lesser Pied Kingfisher are rarely seen and Common Sandpiper, Black winged Silt and Yellow Wagtail are winter migrant seen species.

References:

1. Abdulali, H. (1981). Checklist of birds of Maharashtra. *Bombay Natural History Society*, Mumbai, 1-16pp.
2. Grimmette, K., C. Inskipp and T. Inskipp, (1999) *Birds of Indian Sub continent*. Oxford University Press, New Delhi, 384pp.
3. Tiwari, V.M. (2005). "Joy of Bird watching". *National Book Trust*, India. 2005.
4. Ali, S. and Fatehali, L., (2003). *Bhartiya Pakshi*. National Book Trust, India. 2003.
5. V. Santharam (2005), Birds seen on a trek in the Chansal Pass, Himachal Pradesh, *Indian Birds*, Vol.1 No.2.

Table 1: Checklist of Birds of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

Sr. No.	Common Name	Scientific Name	Occurrence
1.	Pond Heron	<i>Ardoela grayii</i>	RC
2.	Little Egret	<i>Egretta gerzetta</i>	RC
3.	Cattle Egret	<i>Bulbulcus ibis coromandus</i>	RC
4.	Common Sandpiper	<i>Tringa hypoleucos</i>	WM
5.	Black winged Silt	<i>Himatopus himantopus</i>	WM
6.	Black Ibis	<i>Pseudibis papillosa</i>	RU

7.	Large pied Wagtail	<i>Motacilla maderaspalensis</i>	RMU
8.	Yellow Wagtail	<i>Motacilla flava</i>	WM
9.	Spot billed Duck	<i>Anas poecilorhyncha</i>	RMC
10.	Red wattled Lapwing	<i>Vanellus indicus</i>	RC
11.	Yellow wattled Lapwing	<i>Vanellus malabaricus</i>	RU
12.	Little Blue Kingfisher	<i>Alcedo atthis</i>	RU
13.	White breasted Kingfisher	<i>Halcyon smyrnesis</i>	RU
14.	Lesser Pied Kingfisher	<i>Ceryle rudis</i>	Rr
15.	Baya weaver Bird	<i>Ploceus philippinus</i>	RU
16.	Indian Peafowl	<i>Pavo cristatus</i>	RU
17.	Red Vented Bulbul	<i>Pycnonotus cafer</i>	RC
18.	Blue Rock Pigeon	<i>Columba livia</i>	RC
19.	Indian Ring Dove	<i>Streptopelia decaocta</i>	RC
20.	Spotted Dove	<i>Streptopelia chinensis</i>	RU
21.	Rose ringed Parakeet	<i>Psittacula krameri</i>	RC
22.	Crow Pheasant	<i>Centropus sinensis</i>	RC
23.	Asian koel	<i>Eudynamys scolopacea</i>	RC
24.	Jungle Babbler	<i>Turdoides stratus</i>	RC
25.	Large Grey Babbler	<i>Turboides malcolmi</i>	RC
26.	Indian Grey Hornbill	<i>Ocyrceros birostris</i>	RMU
27.	Green Bee-eater	<i>Merops orientalis</i>	RMC
28.	European Hoopoe	<i>Upupa epops</i>	RMU
29.	Coppersmith Barbet	<i>Megalaima haemacephala</i>	RU
30.	Rufousbacked Shrike	<i>Lanius schach</i>	RMU
31.	Black Drongo	<i>Dicrurus adsimilis</i>	RMU
32.	Brahminy Sterling	<i>Sternus pagodarum</i>	RC
33.	Common Myna	<i>Acridotheres tristis</i>	RC
34.	Ashy wren Warbler	<i>Prinia socialis</i>	RU
35.	Magpie Robin	<i>Copsychus saularis</i>	RC
36.	Pied Bush chat	<i>Saxicola carprata</i>	RU
37.	Indian Robin	<i>Saxicoloides fulicata</i>	RC
38.	Great Tit	<i>Parus major</i>	Rr
39.	Purple Rumped Sunbird	<i>Nectarinia zeylonica</i>	RC
40.	Purple Sunbird	<i>Nectarinia asiatica</i>	RU
41.	Red Munia	<i>Estrilida amandava</i>	Rr
42.	Spotted Munia	<i>Lonchura punctulata</i>	RU
43.	White Spotted fantail Flycatcher	<i>Rhipidura albogularis</i>	RU
44.	Indian Tree Pie	<i>Dendrocitta vagabunda</i>	RU
45.	Spotted Owlet	<i>Athene brama</i>	RU
46.	Tailor Bird	<i>Orthotomus sutorius</i>	RC
47.	Common Iora	<i>Aegisthina tiphia</i>	RU
48.	House Swift	<i>Apus affinis</i>	RC
49.	Common Swallow	<i>Hirundo nustica</i>	RMC
50.	Wire Tailed Swallow	<i>Hirundo smithii</i>	RMU
51.	House Swallow	<i>Hirundo tahitica</i>	RC
52.	Red-rumped swallow	<i>Hirundo daurica</i>	RMU
53.	Dusty Crag-martin	<i>Hirundo concolor</i>	RU
54.	Golden Oriole	<i>Oriolus oriolus</i>	Rr
55.	Pariah Kite	<i>Milvus migrans</i>	RC
56.	House Sparrow	<i>Passer domesticus</i>	RC
57.	House Crow	<i>Corvus splendens</i>	RC
58.	Jungle Crow	<i>Corvus macrorhynchos</i>	RU

59.	Small Minivet	<i>Pericrocotus cinnamomeus</i>	RU
60.	Shikra	<i>Accipiter badius</i>	RU
61.	White Breasted Waterhen	<i>Amauromis phoenicurus</i>	RMC

RC: Residential Common, RU: Residential Uncommon, RMC: Residential migrant common, RMU: Residential migrant uncommon, Rr: Residential rare, WM: Winter Migrant.

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