

Checklist of birds of the North Orissa University campus, Baripada, Orissa

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India harbours 1200 species of birds among 13% of the 9600 bird's species of the world (Ali and Ripley, 1987). However, with the new classification coming in to force, the number of species may well be 1300 (Javed and Kaul 2000). Urban biodiversity has received very little attention from conservation biologist as compared to natural and protected ecosystem (Jules 1997, Vandermeer 1997). Patvarthan et al. (2000) have identified educational and defense premises that occupy less than 5% of the total urban area and are the hotspot for the urban biodiversity.

Study of the avifauna in the educational premises of the country (Trirumurthi and Balaji, 1997, Palot and Pramod 2000, Ramitha and Vijayalaxmi 2001, Nazneen et al. 2001, Nayan et al. 2005) have been completed. The main aim of this paper is to make comprehensive based line information of the bird species for the future as well as to create awareness for their conservation.

Study Area

North Orissa University (N.O.U) (21°55'56.5"N and 86°44'47.3"E) is located 5 Km. from south of the District Headquarters, Baripada in Mayurbhanj District at the foothill of the Similipal Tiger Reserve, Orissa. It is the representative ecosystem under Mahanadian Biogeographic Region. Remarkably its flora and fauna composition have some similarities with elements from the Western Ghat and Northeastern India. The University campus encompasses an area of 110 acre land with varied habitat. The area under study is referred as to North Orissa University, which encompasses the main University campus, hostels as well as other associated educational institutes (M.P.C College, Mayurbhanj Law College, etc), tree patches planted by the Royal family, tanks and reed lands, residential plots and paddy fields and scattered with very small numbers of water bodies. The vegetation is dominated by large trees like *Mangifera indica*, *Shorea robusta*, *Azadiracta indica*, *Ficus benghalensis*, *F. religiosa*, the flowering plants including *Radhachura*, *Krishnachura*, *Albizia* spp., *Caesalpinia* spp., etc. However, the campus is mainly dominated by the mango plants which are mainly planted by the erstwhile Royal family.

The temperature ranges from maximum of 46°C in summer to a minimum of 14°C in the winter. The summer is hot and dry which is subsequently followed by a humid rainy season.

Methodology

Observation of the birds in the N.O.U campus and its adjoining areas were made by direct visual count. The observations were made in the morning hours between 6:30 to 8 am and again 4.30 to 6.30 pm during the survey period. However observations were also made during other period according to convenience from July 2007 to May 2008. All the places were visited at least once in a month. Birds were sighted using Binocular (8x40) and on the spot identification using the field guide Grimmett et al., 1999. For nomenclature and classification was followed according to Manakadan and Pittie (2004).

Breeding birds nest were also observed in this study area and subsequently this information was used to assess the status of bird species that are resident to the area. The following formula was used for determining percentage of occurrence of Families (Basavarajappa, 2006)

Percentage Occurrence =

$$\frac{\text{No. of species of each Family}}{\text{Total no. of different species seen}} \times 100$$

Based on the frequency of sighting in the field visits, the birds species are categorized as: Abundant (A): Birds sighted more than 80%; Common (C): Sighted between 20%-80%; Rare (R): Frequency of sighting <20%.

Observations

A total number of 88 species of birds belonging to 42 families (Table-1) were recorded during the survey period. However the low diversity may be due to the human disturbance around the study area.

Most of the family contained 2-3 species. Maximum percent occurrence was found in the Families: Ardeidae (10.23), than Accipitridae (5.68), Motacillidae (5.68) and Sturnidae (5.68), respectively (Table-2). Based on the feeding behaviour from the present data it is apparent that the avifauna of the campus is dominated by insectivore (47.19%) followed by piscivorous (12.36%), carnivorous (8.99%), omnivorous, graminivorous, frugivorous 7.86%, respectively while 5.61% both piscivorous and insectivorous and 2.24% include nectarivorous and insectivorous. Among the total bird species observed in N.O.U, eighty (90.96%) were resident, seven (7.95%) were winter migrant and one (1.13%) was local migrant. Sixty-two species (70.45%) were abundant, 20 (22.72%) were common, four (4.54) were rare and two (2.27) were sighted only once. During the study period we intensively surveyed around 5 km radius of the neighbouring areas to find out the nests. Eighteen species of birds were recorded as resident breeders. A heronry was located around 5 km from the campus. No detail breeding data was collected.

Our study reveals the fact that in and around N.O.U campus has a good avifaunal diversity. Great bittern (*Botaurus stellaris*), a rare bird was not observed from this region earlier. According to Ali and Ripley (1983) the bird is winter visitor to India but most interestingly we had sighted it in the monsoon period. This may be an extra-limital occurrence.

The major influencing factor on the composition and distribution of bird species is the direct human intervention. Diverse tree species should be planted near the campus and creation of awareness among the students, teachers and public is very important for the importance and conservation of birds within and around the University campus. Detailed systematic study has to establish any relation for the present findings.

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Table-1 Checklist of the birds of North Orissa University Campus

Sl. No	Family	Common Name	Scientific name	Frequency	Feeding Habit	Breeding Status	Status
1	Podicipedidae	Little Grebe	<i>Tachybaptus ruficollis</i>	A	P	-	LM
2	Phalacrocoracidae	Little Cormorant	<i>Phalacrocorax niger</i>	A	P	B	R
3	Ardeidae	Little Egret	<i>Egretta garzetta</i>	A	P,I	B	R
4		Large Egret	<i>Casmerodius albus</i>	C	P	B	R
5		Median Egret	<i>Mesophoyx intermedia</i>	A	I	B	R
6		Cattle Egret	<i>Bubulcus ibis</i>	A	P,I	B	R
7		Indian Pond-Heron	<i>Ardeola grayii</i>	A	I,P	B	R
8		Yellow Bittern	<i>Ixobrychus sinensis</i>	C	I,P	-	R
9		Chestnut Bittern	<i>Ixobrychus cinnamomeus</i>	C	P	-	R
10		Great Bittern	<i>Botaurus stellaris</i>	#	P	-	R
11		Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	C	P	-	R
12	Ciconiidae	Asian Openbill-Stork	<i>Anastomus oscitans</i>	A	P	-	R
13	Anatidae	Lesser Whistling-Duck	<i>Dendrocygna javanica</i>	A	P	-	LM
14		Cotton Teal	<i>Nettapus coromandelianus</i>	A	P	-	R
15	Accipitridae	Black-shouldered Kite	<i>Elanus caeruleus</i>	C	Ca	-	R
16		Black Kite	<i>Milvus migrans</i>	A	Ca	-	R
17		Crested Serpent-Eagle	<i>Spilornis cheela</i>	C	Ca	-	R
18		Pied Harrier	<i>Circus melanoleucos</i>	C	Ca	-	WM
19		Shikra	<i>Accipiter badius</i>	A	Ca	-	R
20	Rallidae	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	A	I,P	B	R
21		Common Moorhen	<i>Gallinula chloropus</i>	A	I	-	R
22	Jacaniidae	Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	A	O	-	R
23		Bronze-winged Jacana	<i>Metopidius indicus</i>	A	O	-	R
24	Charadriidae	Red-wattled Lapwing	<i>Vanellus indicus</i>	A	I	-	R
25	Recurvirostridae	Black-winged Stilt	<i>Himantopus himantopus</i>	C	I	-	LM
26	Columbidae	Blue Rock Pigeon	<i>Columba livia</i>	A	G	-	R
27		Spotted Dove	<i>Streptopelia chinensis</i>	A	G	B	R
28		Eurasian Collared-Dove	<i>Streptopelia decaocto</i>	A	G	-	R
29		Yellow-legged Green-Pigeon	<i>Treron phoenicoptera</i>	C	G	-	R
30	Psittacidae	Rose-ringed Parakeet	<i>Psittacula krameri</i>	A	F	-	R
31		Alexandrine Parakeet	<i>Psittacula eupatria</i>	C	F	-	R
32	Cuculidae	Brainfever Bird	<i>Hierococcyx varius</i>	C	I	-	R
33		Indian Cuckoo	<i>Cuculus micropterus</i>	A	I	-	R
34		Asian Koel	<i>Eudynamys scolopacea</i>	A	F	-	R
35		Greater Coucal	<i>Centropus sinensis</i>	A	O	-	R
36	Strigidae Sub-family: Tytoninae	Barn Owl	<i>Tyto alba</i>	A	Ca	-	R
37	Sub-Family: Striginae	Spotted Owlet	<i>Athene brama</i>	C	Ca	-	R
38	Apodidae	Asian Palm-Swift	<i>Cypsiurus balasiensis</i>	A	I	-	R
39		House Swift	<i>Apus affinis</i>	A	I	-	R
40	Alcedinidae	Small Blue Kingfisher	<i>Alcedo atthis</i>	A	P	-	R
41		White-breasted Kingfisher	<i>Halcyon smyrnensis</i>	A	P	-	R
42	Meropidae	Small Bee-eater	<i>Merops orientalis</i>	A	I	-	R
43	Coraciidae	Indian Roller	<i>Coracias benghalensis</i>	A	I	-	R
44	Upupidae	Common Hoopoe	<i>Upupa epops</i>	A	I	-	R
45	Capitonidae	Blue-throated Barbet	<i>Megalaima asiatica</i>	C	F	-	R

Sl. No	Family	Common Name	Scientific name	Frequency	Feeding Habit	Breeding Status	Status
46		Coppersmith Barbet	<i>Megalaima haemacephala</i>	A	F	B	R
47	Alaudidae	Ashy-crowned Sparrow-Lark	<i>Eremopterix grisea</i>	A	I	-	R
48	Hirundinidae	Common Swallow	<i>Hirundo rustica</i>	A	I	-	WM
49		Red-rumped Swallow	<i>Hirundo daurica</i>	A	I	-	WM
50	Motacillidae	Forest Wagtail	<i>Dendronanthus indicus</i>	C	I	-	WM
51		White Wagtail	<i>Motacilla alba</i>	A	I	-	WM
52		Yellow Wagtail	<i>Motacilla flava</i>	A	I	-	WM
53		Grey Wagtail	<i>Motacilla cinerea</i>	C	I	-	WM
54		Paddy field Pipit	<i>Anthus rufulus</i>	A	I	-	R
55	Campephagidae	Large Cuckoo-Shrike	<i>Coracina macei</i>	C	I	-	R
56	Pycnonotidae	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	A	F	-	R
57		Red-vented Bulbul	<i>Pycnonotus cafer</i>	A	F	B	R
58	Irenidae	Common Iora	<i>Aegithina tiphia</i>	A	I	-	WM
59		Jerdon's Chloropsis	<i>Chloropsis cochinchinensis</i>	A	I	-	R
60	Laniidae	Brown Shrike	<i>Lanius cristatus</i>	A	I	-	WM
61	Turdidae	Oriental Magpie-Robin	<i>Copsychus saularis</i>	A	I	-	R
62		Indian Robin	<i>Saxicoloides fulcata</i>	R	I	-	R
63		Black Redstart	<i>Phoenicurus ochruros</i>	A	I	-	WM
64		Indian Chat	<i>Cercomela fusca</i>	#	I	-	R
65	Sub-Family: Timaliinae	Jungle Babbler	<i>Turdoides striatus</i>	A	I	-	R
66	Sub-Family: Sylviinae	Common Tailor bird	<i>Orthotomus sutorius</i>	A	I	B	R
67		Dusky Warbler	<i>Phylloscopus fuscatus</i>	A	I	-	R
68	Paridae	Great Tit	<i>Parus major</i>	C	I	B	R
69	Sittidae	Chestnut-bellied Nuthatch	<i>Sitta castanea</i>	r	I	-	R
70	Nectariniidae	Purple-rumped Sun bird	<i>Nectarinia zeylonica</i>	C	N,I	-	R
71		Purple Sun bird	<i>Nectarinia asiatica</i>	A	N,I	-	R
72	Zosteropidae	Oriental White-eye	<i>Zosterops palpebrosus</i>	C	I	-	R
73	Estrildidae	Spotted Munia	<i>Lonchura punctulata</i>	A	G	B	R
74		Black-headed Munia	<i>Lonchura malacca</i>	A	G	-	R
75	Sub-Family: Passerinae	House Sparrow	<i>Passer domesticus</i>	A	G	B	R
76	Sturnidae	Brahminy Starling	<i>Sturnus pagodarum</i>	C	I	-	R
77		Asian Pied Starling	<i>Sturnus contra</i>	A	I	B	R
78		Common Myna	<i>Acridotheres tristis</i>	A	O	B	R
79		Bank Myna	<i>Acridotheres ginginianus</i>	r	I	-	R
80		Jungle Myna	<i>Acridotheres fuscus</i>	A	O	-	R
81	Oriolidae	Eurasian Golden Oriole	<i>Oriolus oriolus</i>	A	I	-	R
82		Black-headed Oriole	<i>Oriolus xanthornus</i>	A	I	B	R
83	Dicruridae	Black Drongo	<i>Dicrurus macrocercus</i>	A	I	-	R
84		Lesser Racket-tailed Drongo	<i>Dicrurus remifer</i>	r	I	-	R
85	Artamidae	Ashy Woodswallow	<i>Artamus fuscus</i>	r	Ca	-	R
86	Corvidae	Indian Treepie	<i>Dendrocitta vagabunda</i>	A	I	-	R
87		House Crow	<i>Corvus splendens</i>	A	O	B	R
88		Jungle Crow	<i>Corvus macrorhynchos</i>	A	O	-	R

r- Resident, **LM**-Local Migrant, **WM**- Winter Migrant, **Ca**-carnivores, **F**-Forgivers, **G**-Granivores, **I**-Insectivores, **N**-Nectarivores, **O**-Omnivores, **P**-Piscivores, **#** -Recorded only once, **A**-Abundant, **C**-Common, **R**-Rare, **B**- Breed in and around the campus with in a radius of 5 Km

Table-2 Avifauna represented in Families

SL.No.	Families	Percent Occurrence
1	Podicipedidae	1.14
2	Phalacrocoracidae	1.14
3	Ardeidae	10.23
4	Ciconiidae	1.14
5	Anatidae	2.27
6	Accipitridae	5.68
7	Falconidae	2.27
8	Jacaniidae	2.27
9	Charadriidae	1.14
10	Recurvirostridae	1.14
11	Columbidae	4.55
12	Psittacidae	2.27
13	Cuculidae	4.55
14	Family: Strigidae Sub-Family: Tytoninae	1.14
15	Strigidae	1.14
16	Apodidae	2.27
17	Alcedinidae	2.27
18	Meropidae	1.14
19	Coraciidae	1.14
20	Upupidae	1.14
21	Capitonidae	2.27
22	Alaudidae	1.14
23	Hirundinidae	2.27
24	Motacillidae	5.68
25	Campephagidae	1.14
26	Pycnonotidae	2.27
27	Irenidae	2.27
28	Laniidae	2.27
29	Family: Artamidae Sub family: Turdinae	4.55
30	Family: Artamidae Sub family: Timaliinae	1.14
31	Sylviinae	2.27
32	Paridae	1.14
33	Sittidae	1.14
34	Nectariniidae	2.27
35	Zosteropidae	1.14
36	Family: Ploceidae Sub family: Estrildinac	2.27
37	Family: Ploceidae Sub family: Passerinae	1.14
38	Sturnidae	5.68
39	Oriolidae	2.27
40	Dicruridae	2.27
41	Artamidae	1.14
42	Corvidae	3.40

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