

Avifaunal diversity of Pt. Ravishankar Shukla University Campus, Raipur (Chhattisgarh)

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Abstract: A brief study on avifaunal diversity was carried out at Pt. Ravishankar Shukla University Campus, Raipur (Chhattisgarh) during the month of August to mid September, 2015. For this study, we used “watching and visual survey” method. Field binocular (8X40 magnifications) was used for visual surveys and photographs were taken by a digital camera. Our results revealed thirty two (32) bird species in this short period with 29 genera and placed taxonomically under 21 families which were further arranged systematically under 10 orders. Passeriformes was found to be the dominating group with 19 bird species.

Key Words: Avifaunal Diversity, Ecosystem, Geographical Conditions Passeriformes.

I. Introduction:

Our planet has a variety of creatures including micro-organisms like virus, bacteria and macro-organisms viz, plants & animals which constitute the biodiversity. Avifaunal diversity is one of the most important biotic components for any type of ecosystem. (Dhindsa and Saini, 1994).

Birds are found from pole to equator almost everywhere in the world and exhibit great diversity by their habitat and geographical conditions. In temperate and tropical forests, bird communities have well being studied. (Wilson & Comet, 1996 and Blake, 2007). Avian fauna acts as an important bio-indicator. (Bilgrami, 1995; Centrrbury et al., 2000; Mistry, 2008 and Slabbekoorn & Ripmeester, 2008) that assesses different habitats qualitatively as well as quantitatively. Birdlife recorded worldwide over 10,000 different species of birds. Rapoport, 1993; Chen et al., 2011 and Sekercioglu et al., 2012 documented that worldwide decline of avian fauna is due to anthropogenic activities and climatic changes. According to Roy et al., 2012 bird population has declined only because of change in land use patterns. Huges et al., 1997 have reported around sixteen million birds being destroyed annually. India stands at 7th position with 88 threatened bird species over the world. (BirdLife International, 2010). Our purpose for this brief study is to explore the avifaunal diversity of a particular area.

II. Material and Methods:

Pt. Ravishankar Shukla University is the largest and oldest university of Chhattisgarh state. The campus of University is spread over 207 acres of land. The campus has rich presence of flora and fauna. There is a popular temple within the campus and offerings to this temple also attract a number and variety of birds. We used “watching and visual survey” method for this study. Birds were observed in morning 06:00 to 10:00am and in evening 05:30 to 06:30 pm with the field binocular (8X40 magnifications) and photographs were clicked by digital camera (Cannon 12.1 mega pixel). The identification of birds was based on the standard literature and with the help of local people. (Ali, S. 2008, 2012, Kazmierczak, K. 2012).

III. Results:

Present study on avian fauna revealed the presences of thirty two (32) bird species belonging to 29 genera. Observed species were placed taxonomically under 21 families of 10 orders. Order Passeriformes is the dominating group with 19 bird species. Furthermore, our results has documented that order Columbiformes, Coraciiformes, Anseriformes, and Cuculiformes, with 2 species of birds; while remaining 5 orders, Piciformes, Galliformes, Psittaciformes, Suliformes and Pelecaniformes, was represented by just 1 species. This result is summarized in the following table:

During our study period, most abundant species found are Red –Vented Bulbul, House Sparrow, Baya Weaver, Blue-Rock Peginon, Green Bee Eater, Northern Paintail, Coppersmith Barbet, Rose Ring Parakeet and Cattel Egret, all of which were found in more than 20 in number.

LOCAL NAME	SCIENTIFIC NAME	ORDER	FAMILY
• Red-vented bulbul	<i>Pycnonotus cafer</i>	Passeriformes	Pycnonotidae
• Brahminy starling	<i>Sturnus pagodarum</i>	Passeriformes	Sturnidae
• Asian pied starling	<i>Sturuns contra</i>	Passeriformes	Sturnidae
• Common myna	<i>Acridotheres tristis</i>	Passeriformes	Sturnidae
• Black drongo	<i>Dicrurus macrocercus</i>	Passeriformes	Dicruidae
• Bronzed drongo	<i>Dicrurus aeneus</i>	Passeriformes	Dicruridae
• Indian robin	<i>Saxicoloides fulicatus</i>	Passeriformes	Mucicapidae
• Oriental magpie-robin	<i>Copsychus saularis</i>	Passeriformes	Mucicapidae
• Variable wheatear	<i>Oenanthe picata</i>	Passeriformes	Muscicapidae
• House sparrow	<i>Passer domesticus</i>	Passeriformes	Passeridae
• Baya weaver	<i>Ploceus philippinus</i>	Passeriformes	Ploceidae
• Jerdons Bush-Lark	<i>Mirafra affinis</i>	Passeriformes	Alaudidae
• Bay Backed Shrike	<i>Lanius vittatus</i>	Passeriformes	Laniidae
• Scaly breasted munia	<i>Lonchura punctulata</i>	Passeriformes	Estrildidae
• Red avadavat	<i>Amandava amandava</i>	Passeriformes	Estrildidae
• White browed wagtail	<i>Motacilla madaraspatensis</i>	Passeriformes	Motacillidae
• Paddy field pipit	<i>Anthus rufulus</i>	Passeriformes	Motacillidae
• Crimson backed sunbird	<i>Nectarinia minima</i>	Passeriformes	Nectariniidae
• Purple sunbird	<i>Nectarinia asiatica</i>	Passeriformes	Nectariniidae
• Blue Rock Pегion	<i>Columba livia</i>	Columbiformes	Columbidae
• Eurasian collared dove	<i>Streptopelia decaocto</i>	Columbiformes	Columbidae
• Green bee eater	<i>Merops orientalis</i>	Coraciformes	Meropidae
• White Throated kingfisher	<i>Halcyon smyrnensis</i>	Coraciformes	Halcyonidae
• Northern pintail	<i>Anas acuta</i>	Anseriformes	Anatidae
• Large whistling duck	<i>Dendrocyna bicolor</i>	Anseriformes	Anatidae
• The greater coucal	<i>Centropus sinensis</i>	Cuculiformes	Cuculidae
• Lasser coucal	<i>Centropus bengalensis</i>	Cuculiformes	Cuculidae
• Coppersmith barbet	<i>Megalaima haemacephala</i>	Piciformes	Megalaimidae
• Red jungle fowl	<i>Gallus gallus</i>	Galliformes	Phasianidae
• Rose ring parakeet	<i>Psittacula krameri</i>	Psittaciformes	Psittaculidae
• Little Black Cormorant	<i>Phalacrocorax niger</i>	Suliformes	Phalacrocoracidae
• Cattle egret	<i>Bubulcus ibis</i>	Pelicaniformes	Ardeidae

IV. Discussion:

For an ecosystem, birds are an essential component which tells about environment of the particular place that acts as ecological indicator. (Schwartz & Schwartz, 1951, Furness & Greenwood, 1993, Gregory et al., 2003, Padoa-Schioppa et al., 2006). Birds play an important role in scheming insects and pest population. They are also helpful in dispersal of seeds of vegetation. In this way, birds have shown an economic importance for society. (Chittampalli and Bhatkhande, 1993). To define the pattern of local landscape, it is essential to understand the avian fauna. (Kattan and Franco, 2004, Balkhande et al, 2013).

At present our natural ecosystems are destroyed by anthropogenic activities like cutting forests, destruction of natural water bodies and also industrialization of area that produce pollution. All these activities are a threat for the local environmental conditions that finally affects the avifaunal diversity qualitatively as well as quantitatively. (Bilgrami, 1995).

In conservation of biodiversity, green-spaces of urban area have an important role to play. (Zerbe et al., 2003, Alvey, 2006, Mason, 2006, Khara et al., 2009). According to Loss et al., (2009) it is estimated that by the year 2050, the majority of the global population will live in urban areas. Such rapid urbanization will come with a great threat for avian fauna. In maintaining ecosystems, birds play an important role that support biodiversity. In this concern, researchers are trying to work on their protection and conservation.

Short term study on avifaunal diversity is always accepted and it gives much importance to the preparation of checklist of birds. (Charavarthy and Sridhar, 1995, Roy et al., 2011). This is a short span study which documented 32 bird species. For further investigation, a plan with objectives like population abundance,

reproductive behavior, nesting mechanism, nesting site selection, feeding behavior, etc. to gain additional knowledge on avifaunal diversity of present study area.

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