

Occurrence of Some Bird Species in Nga Chauk Kyun Village Environs, Pwint Phyu Township

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Abstract:- The aim of the study was to present the first record of bird species diversity and status in Nga Chauk Kyun Village. The study was conducted during November, 2016 to February, 2017. Nga Chauk Kyun Village is situated western banks of Ayeyarwady River and is flooded for several months (July to October) for each year. In the present study, a total of 31 bird species belonging to 18 families in seven orders were recorded. Among the total species 15 species were aquatic birds comprising under 15 genera, seven families and four orders were collected. The rest of 16 species were terrestrial birds belong to 13 genera, 10 families and three orders were recorded in the study area. Passeriformes dominated the list with 11 species following by Ciconiiformes with eight species, Anseriformes, Coraciiformes and Charadriiformes (three species each), Columbiformes (two species) and Pelecaniformes (only one species). Of the thirty one species about twenty are resident, eight are winter visitors, one are passage migrant, one breeding visitors, and one non-breeding visitor. 16 species of water birds were reported from the study area.

Keywords:- Aquatic Birds, Terrestrial Birds, Migrant, Breeding Visitors.

I. INTRODUCTION

Birds are both visually and acoustically conspicuous organisms of most ecosystems. Because they are comparatively easy to identify, birds have received considerable attention of humans. Most species are found only in particular regions and habitats, whereas other is cosmopolitan. Patterns of abundance and distribution of birds are strongly related to environmental factors, which determine their presence and activity. The power of flight allows them to move easily through the air and they are adapted to every environment that fit their requirements for successful reproduction and survival. Moreover seasonal monitoring is equally important to trace the dynamic movement of birds in such habitats [1].

Riparian vegetation provides habitat for birds, including migratory forms, use river and riparian vegetation as a habitat for feeding, roosting, nesting and breeding. A variety of birds use rivers for their sustenance [2].

Myanmar contains a rich and diverse avifauna, amounting to 1077 species, a greater diversity than only other country in mainland South-east Asia. Myanmar has already recognized six endemics species, 55 globally threatened species and two introduced species [3].

Avifauna is an important component of aquatic systems all over the world and they may be considered as indicators of the water bodies' quality, productivity structure and function. Birds are outstanding consumers within this type of ecosystem, playing a key role in the transfer of energy from aquatic to terrestrial systems. Herons, as other birds can obtain their food from different environmental units within the aquatic system by means of the spatial differential use of ecosystems [4].

Nga Chauk Kyun Village is situated in Pwint Phyu Township which has dry and hot climate. It lies on the western bank of the Ayeyarwady River. Since environs of Nga Chauk Kyun Village is large trees, shrub, bushes and cultivated plants and it is flooded for several months (July to October) at each year, it is needed to assess the distribution and status of birds relating to a variety of habitats in study area. The aim of the present work was to conduct the first record of bird species diversity and status in Nga Chauk Kyun Village. The present work is conducted with the following objectives.

- To identify and record the avian fauna in Nga Chauk Kyun Village
- To investigate the occurrence and composition and status of bird species

II. MATERIALS AND METHODS

Nga Chauk Kyun Village is situated in Pwint Phyu Township, Magway region. It is located 12 miles east of Pwint Phyu Township and west of Ayeyarwady River. It lies between 20° 24' 54.84" N to 20° 24' 56.89" N and 94° 50' 20.43"E to 94° 50' 21.45"E. It has an area of 0.893 km², which has dry and hot climate. It lies on the western banks of Ayeyarwady River. Data collections of field trips were conducted from November 2016 to February 2017. The bird species were identified referring to the taxonomic descriptions [5, 6, 7 and 8]. Study site was visited once a month. The collection of data was made using point count method [9]. At every point observation was made by standing and recording all the birds seen or heard at a fixed distance (25m radius) for 10 minutes. To minimize disturbance 3 to 5 min time lapse was taken prior to

observing. The minimum distance between two points was 200m. All counts were conducted during the first 3 hours after sunrise. Status of the bird has been worked out and different status categories like resident, winter visitor, passage migrant, non-breeding visitor and breeding visitor have been assigned strictly with reference to the study area on the basis of presence or absence method [10].

III. RESULTS

A total of 31 birds' species belong to 27 genera, 17 families and seven orders were recorded during the study period. Among the total species 15 species were aquatic birds comprising under 15 genera, seven families and four orders were collected. The rest of 16 species were terrestrial birds belong to 12 genera, 10 families and three orders were recorded. Out of the total species, *Todorna ferruginea*, *Himantopus himantopus*, *Mesopboyx intermedia*, *Casmerodius albus*, *Egretta garzetta*, *Ardeola bacchus* *Dicrurus macrocerus*, *Motacilla citreola* were

winter visitors, one species, *Calidris canutus* was passage migrant, *Anastomus oscitans* were non-breeding visitor and breeding visitor were *Motacilla alba* (Table 1, Fig 1). In the present study, Order Passeriformes represented by seven orders, 11 species belong to 7 families contribute to about 35.48% of the total avifaunal species richness.

Among the non-passerines, maximum richness was represented by the order Ciconiiformes (eight species), order Anseriformes, Coraciiformes and Charadriiformes (three species of each) and Columbiformes (two species) and Pelecaniformes contained only one species. The Ardeidae family shows the highest species richness (six species) followed by Anatidae (three species), Alcedinidae, Columbidae, Ciconiidae, Dicruridae, Muscipidae Sturnidae and Motacillidae (two species each), only one species were recorded in families Meropidae, Scolopacidae, Recurvirostridae, Charadriidae, Phalacrocoracidae, Corvidae, Cisticolidae and Passeridae (Table 2).

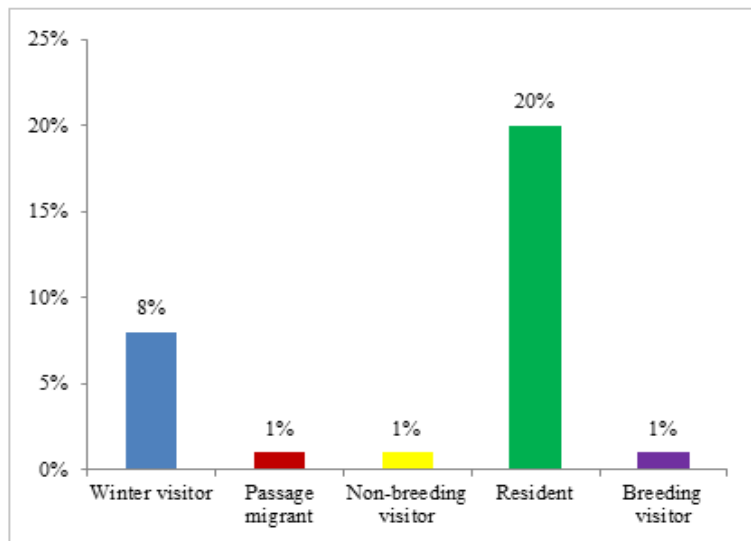


Fig 1:- Residential status of birds at Nga Chau Kyun Village

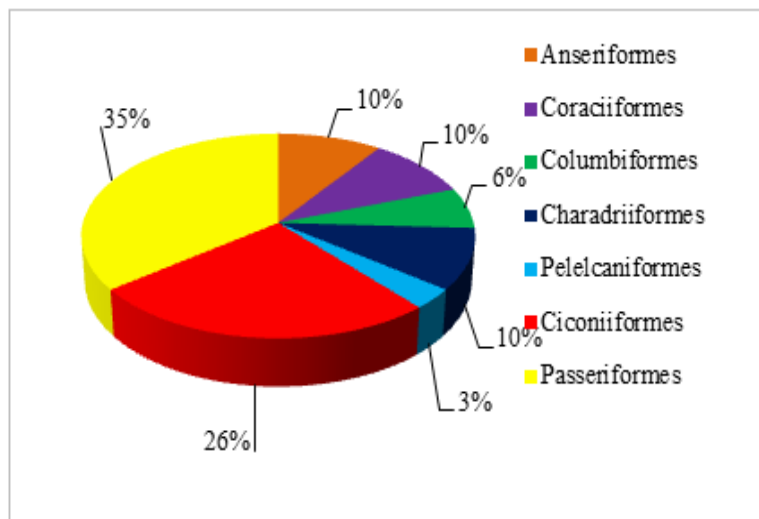


Fig 2:- The percentage species composition in different orders

No.	Family	Species	Status
1.	Anatidae	<i>Tadorna Ferruginea</i>	WV
2.		<i>Dendrocygna Javanica</i>	R
3.		<i>Anas poecilorhyncha</i>	R
4.	Alcedinidae	<i>Alcedo atthis</i>	R
5.	Alcedinidae	<i>Halcyon smyrnensis</i>	R
6.	Meropidae	<i>Merops orientalis</i>	R
7.	Columbidae	<i>Columba livia</i>	R
8.		<i>Streptopelia chinensis</i>	R
9.	Scolopacidae	<i>Calidris canutus</i>	PM
10.	Recurvirostridae	<i>Himantopus himantopus</i>	WV
11.	Charadriidae	<i>Charadrius dubius</i>	R
12.	Phalacrocoracidae	<i>Phalacrocorax niger</i>	R
13.	Ardeidae	<i>Egretta garzetta</i>	WV
14.		<i>Casmerodius albus</i>	WV
15.		<i>Mesophoyx intermedia</i>	WV
16.		<i>Bubulcus ibis</i>	R
17.	Ardeidae	<i>Ardeola bacchus</i>	WV
18.		<i>Ardea cinerea</i>	R
19.	Ciconiidae	<i>Anastomus oscitans</i>	NBV
20.		<i>Ciconia episcopus</i>	R
22.	Dicruridae	<i>Dicrurus macrocerus</i>	WV
23.		<i>Dicrurus annectans</i>	R
24.	Muscicapidae	<i>Saxicola leucura</i>	R
25.		<i>Saxicola caprata</i>	R
26.	Sturnidae	<i>Acridotheres tristis</i>	R
27.		<i>Acridotheres fuscus</i>	R
28.	Cisticolidae	<i>Prinia inornata</i>	R
29.	Motacillidae	<i>Motacilla alba</i>	R/BV
30.		<i>Motacilla citreola</i>	WV
31.	Passeridae	<i>Passer domesticus</i>	R

Table 1:- List of birds recorded in the study area

WV = Winter visitor
R = Resident
PM = Passage migrant
BV = Breeding visitor
NBV = Non-breeding visitor

No.	Order	No. of Family	No. of Genus	No. of Species	Composition of Species in Order (%)
1.	Anseriformes	1	3	3	9.67
2.	Coraciiformes	2	3	3	9.67
3.	Columbiformes	1	2	2	6.45
4.	Charadriiformes	3	3	3	9.67
5.	Pelecaniformes	1	1	1	3.22
6.	Ciconiiformes	2	8	8	25.80
7.	Passeriformes	7	7	11	35.48
	Total	17	27	31	99.96

Table 2:- Composition of bird species in different orders in Nga Chau Kyun Village

IV. DISCUSSION

A total of 31 bird species belong to 27 genera, 17 families and seven orders were recorded during the study period. Among the total species 15 species were aquatic bird comprising under 15 genera seven families and four orders were recorded. The rest of 16 species were terrestrial birds belong to 12 genera, 10 families and three orders were recorded. Out of the total species, *Todorna ferruginea*, *Himantopus himantopus*, *Mesopboyx intermedia*, *Casmerodius albus*, *Egretta garzetta*, *Ardeola bacchus* *Dicrurus macrocerus*, *Motacilla citreola* were winter visitors, one species, *Calidris canutus* was passage migrant, *Anastomus oscitans* were non-breeding visitor and breeding visitor were *Motacilla alba*.

In the present study, order Passeriformes represented by 11 species belong to 7 families contributed to about 35.48% of total avifaunal species richness. Among non-passerines, the maximum richness was represented by the order Ciconiiformes (eight species), orders Anseriformes, Coraciiformes and Charadriiformes (three species of each) and Columbiformes (two species) and Pelecaniformes contained only one species. The Ardeidae family show the highest species richness (six species) followed by Anatidae 3 species, families like Alcedinidae, Columbidae, Ciconiidae, Dicruridae, Muscicapidae, Sturnidae and Motacillidae (two species each) only one species were recorded in families Meropidae, Scolopacidae, Recurvirostridae, Charadriidae, Phalacrocoracidae, Corvidae, Cisticolidae and Passeridae.

Along sides of the river banks many wooded tree species, scrub and bushes were distributed and it provided roosting and nesting-sites for many bird species. Paddy is the main crop of the study area and is cultivated round the year. Birds such as the Black Drongo, Small Bee-eater, White-breasted Kingfishes, Common Myna, Pond Heron, egrets are very common in the agricultural lands.

Ward and Stanford [11] described that the floodplain surface as the aquatic/terrestrial transition zone to emphasize the importance of alternating dry and wet phases in enhancing biotic diversity productivity.

The study area Nga Chauk Kyun Village is situated western bank of Ayeyarwady River and is flooded several months (July to October) for each year. Nga Chauk Kyun Village is in the form of river alluvial plain. Aquatic birds were colonize to take advantage of the high productivity and diverse habitat condition. Moreover, the study area possesses large water bodies that support water birds in the study area.

Johnson *et al.*, [12] stated that estuarine, meadows, estuarine waters and tidal flats, although not used extensive during the breeding season, provide critical food resources for numerous migratory and over wintering species. This suggestion is coincide with the present result; eight winter visitors and one breeding visitor were recorded in the study area.

The flood plain surface of Nga Chauk Kyun Village is aquatic/terrestrial transition zone provide floristically diverse, structurally complex and biologically productive habitats that support rich assemblages of both aquatic and terrestrial bird species. The study area is important not only for aquatic birds but also for terrestrial bird species.

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