

Wintering birds in and around Gharana Wetland Reserve – R.S. Pura, Jammu, J&K, India

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Abstract: A systematic survey of Gharana Wetland Reserve was done from Jan 2012 to Jan 2014 in order to record the status and abundance of the migratory birds. This wetland is home to many migratory waterfowls that travel thousands of kilometres to reach here, such as Bar Headed Geese. This wetland serves as a major aquatic habitat and feeding ground for the migratory birds during the winter season. The study recorded a total of 20 bird species representing 7 orders and 11 families. Gharana wetland is under anthropogenic activities and seeks the attention of biodiversity conservationists so as to preserve the natural aquatic habitat of the wintering birds.

Key words: Wetland, migration, waterfowls, habitat, status.

1. Introduction

Migration can be defined as the seasonal movement of species from one place to another. Migrations of birds which have their breeding range mostly in the Palaeractic region beyond the Himalayas in Central and Northern Asia and Eastern and Northern Europe are winter migratory to India e.g. Coots and Geese. Birds which live and breed in the foothills of Himalayas extending upto northeast and spread over rest of peninsula during winter. These behave as true migrants, wintering in the plains between September and April and get back to their Northern breeding grounds before the summer sets in e.g. starlings and tits. Some birds show local movements. Food supply, seasonal and climatic conditions induce these

movements. The feeding and roosting habitat is very important for migratory species, thus to meet these specific needs, wetlands are the most suitable habitats. The wetland is used by a diverse number of bird species for foraging, nesting and roosting due to their heterogeneity of microhabitats and available rich food resources (Mitsch, 2007; Zakaria, 2009). A wetland is a land area that is saturated with water, either permanently or seasonally such that it takes on the characteristics of distinct ecosystem, which is biologically diverse and serves as home to wide range of plant and animal life. Wetlands are natural areas where water helps in development of aquatic and plant life. As far as our knowledge about the wintering habitat of waterbirds is concerned, it is still very little (Anderson and Batt, 1983). The present study aims at gathering the number of wintering avian species and also to highlight the importance of Gharana Wetland Conservation Reserve which serves as a habitat for the aquatic migratory birds.

2. Material and Methods

2.1 Study area

The study area i.e. Gharana Wetland is situated between the 32°36'51. 52" N latitudes and 74°38'58.15 E longitudes. It is located at an elevation of 270 meters above sea level. The station is situated near the Indo-Pak International Border in R.S. Pura Tehsil of Jammu District and is at a distance of 35 km

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from Jammu City. Main sources of water to this wetland are spill over water from Ranbir Canal and surface run-off from agricultural fields. Village Gharana is situated very near to the wetland and lies along the North-South fly way Palaearctic-Oriental migratory route of waterfowls. This reserve is famous for migratory waterfowls. The notified area of Gharana, barring a small patch of marshy pond and adjoining area, more or less comprises of agricultural fields. It is irregular in shape and is declared as “Important Bird Area” and is under wildlife protection Act J&K (1978). The climate is subtropical. Gharana wetland is a naturally maintained swamp surrounded by various macrophytes like Eicchornia sp, hydrilla sp, and Typha i.e. common reed. Area

is infested with weeds and is rain fed. The bottom surface comprises loamy clay with decaying vegetation. The reserve area is surrounded with crop fields. Paddy and wheat are the main crops grown by villagers.

2.3 Methodology

A through survey was done to study the avian diversity and feeding guilds of the study area from Jan 2012 to Jan 2014. For analysis of avian fauna, Line transect (Sale and Berk-muller, 1988) and point transect (Verner, 1985) methods were used. Identification of the recorded bird species was done with help of field guides and reference books (Ali and Ripley, 1983; Ali, 1996; Bates and Lowther, 1952; Grewal, 2002).

Table 1. Showing the systematic list of migratory avifauna of Gharana Wetland Reserve along with their status and abundance. Where WM- winter migrant, C- Common, F- Frequent, O- Occasional, R- Rare.

S.NO	Common name of the bird	Scientific Name	Status	Abundance
Order: Pelecaniformes Family: Phalacrocoracidae				
1	Large cormorant	<i>Phalacrocorax carbo</i>	WM	R
2	Night Heron	<i>Nycticorax nycticorax</i>	WM	F
Order: Ciconiiformes Family: Ardeidae				
3	Grey Heron	<i>Ardea cinerea rectirostris</i>	WM	R
4	Little Egret	<i>Egretta garzetta garzetta</i>	WM	C
Order: Anseriformes Family: Anatidae				
5	Bar Headed Geese	<i>Anser indicus</i>	WM	O
6	Northern Pintail	<i>Anas acuta</i>	WM	O
7	Northern Shovellar	<i>Anas clypeata</i>	WM	O
8	Common Teal	<i>Anas crecca</i>	WM	C
9	Gadwall	<i>Anas strepera</i>	WM	O
10	Eurasian Wigeon	<i>Anas penelope</i>	WM	O
11	Lesser Whistling Duck	<i>Dendrocygninae javanica</i>	WM	O
Order: Falconiformes Family: Accipitridae				
12	Marsh Harrier	<i>Circus areuginosus</i>	WM	R
Order: Gruiformes Family: Rallidae				
13	Common Coot	<i>Fulica atra</i>	WM	C
Order: Charadriiformes				
Family: Scolopacidae				
14	Common Sandpiper	<i>Actitis hypoleucos</i>	WM	O
Family: Jacanidae				
15	Pheasant Tailed Jacana	<i>Hydrophasianus chirurgus</i>	WM	R
Family: Glareolidae				
16	Collared Pratincole	<i>Glareola pratincola</i>	WM	O
Order: Passeriformes				
Family: Muscicapidae				
17	Dark Throated Thrush	<i>Turdus ruficollis</i>	WM	R
Family: Motacillidae				
18	Indian White Wagtail	<i>Motacilla alba</i>	WM	O
19	Indian Large Pied Wagtail	<i>M. maderaspatensis</i>	WM	O
Family: Nectarinidae				
20	Yellow Backed Sunbird	<i>Aethopyga siparaja</i>	WM	O

Results and discussions

The present study recorded a total number of 20 migratory avian species belonging to 7 orders and 11 families along with their status and abundance enlisted in (Table-1). Wintering birds include those who visit the wetland during their winter migration, utilize the wetland for few months and then return to their native places. Among the twenty species recorded, Bar Headed Geese, Northern Pintail, Northern Shovellar, Common Teal, Gadwall, Eurasian Wigeon, Lesser Whistling Duck and Coot were the migratory waterfowls. They were found to stay in the study area during winter months. The birds usually start arriving in October and leave by mid of March. Coots were the first to arrive and last to leave the study area. The most remarkable winter migrants to the Indian subcontinent are ducks and geese (Anatidae) which constitutes 85% of the migrant bird populations, out of approximately 3 million birds (Scott, 1989).

Gharana is famous for Bar Headed Geese whose winter habitat is cultivated fields. Green forage is most important to Geese and its availability contributes to the increase in Geese population (Krapu, 1995; Abraham and Jefferies, 1997). The availability of food resources and space attributes to the increase in the number of migratory species during the winter months. Water fowls main daily activities during the migration period are feeding, resting, dabbling and preening (Hepp, 1982). Pheasant tailed Jacana was sited only once during the entire study period. This can be attributed to the fact that some migratory birds use the wetland as a transit place. Marsh Harrier was observed to be drifting low over wetland and the adjoining rice fields. Other avian species observed in the months of October, November, December and January were Grey Heron, Night Heron, Indian White Wagtail, and Yellow Backed Sunbird.

Gharana wetland is under continuous anthropogenic pressures as well as man wildlife conflict is also encountered because villagers try to scare of the waterbirds which feed on the nearby agricultural fields. If the wetland habitat

is altered, the ability of this area to sustain bird population will decrease. Wetland habitat loss and degradation poses a significant threat to migratory waterbirds and conservation of this important site of Jammu is essential for their survival. Thus an attempt has been made to record the winter avifaunal migrants so that proper conservational measures can be adopted and strategies be formulated by wildlife authorities for preservation of birds as well as their habitat.

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