

A Study on Distribution of Avifauna in Shallabough Wetland, Ganderbal Kashmir

Humera Imtiaz¹, Bashir A. Ganai^{1*}, G. A. Bhat², Raiees Raja¹ and Suzana Bashir¹

¹Centre of Research for Development, University of Kashmir, Srinagar-190006, J & K, India

²Department of Environmental Science, University of Kashmir, Srinagar-190006, J & K, India

*Corresponding author: bbganai@gmail.com

Abstract

The present study was carried in Shallabough wetland Kashmir during 2014. In this paper emphasis were lead on distribution pattern of birds in the wetland. For the purpose of present study the wetland was divided into different study sites. The birds were identified before counting by studying its characteristic features in accordance with available identification keys. Visual census method was used for observing the birds in wetland. Birds were monitored mostly during morning hours when they used to come out for feeding. A total of 68 species of birds were identified among which 24 were residents, 20 were summer visitors, 19 were winter visitors, and 5 species were identified as local altitudinal migrants during the study period. Most number of birds were recorded from family Anatidae followed by Ardeidae.

Keywords: Birds, ardeidae, laridae, shallbough.

Introduction

Wetlands are complex ecosystems with many interacting organisms and are among the most productive ecosystems in the world (Mitsch *et al.*, 1994). Wetlands have immense socio-economic values as they directly or indirectly support millions of people in providing goods, such as food and raw materials and services, such as flood control, water filtration, aesthetic beauty and recreational benefits (Stuip *et al.*, 2002).

Only after Ramsar convention 1971, the study of wetlands received a tremendous boost and the conservation and management of their faunal elements especially the bird diversity gained momentum. As per the Ramsar convention wetlands are “the areas of marsh, fen, peatland, or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine waters, the depth of which does not exceed six meters.

The avifauna of India includes around 1301 species, of which 42 are endemic, 1 has been introduced by humans, and 26 are rare or accidental. 2 species have been extirpated and 82 species are globally threatened (Grimmett *et al.*, 1999). They show a wide range of variation in size. They have inhabited almost all corners of the earth like woodlands, grasslands, lakes, marshes, swamps, peats, bogs, fens and even oceans. They have retained their ancestral traits of egg laying which they perform either in holes or in constructed nests of varying complexity. Their voices are often the key to their identification and their varied songs in spring and summer are territorial and mating advertisements. Over half a million

migratory birds visit Kashmir wetlands to enjoy favorable temperatures that suit their metabolism and relish the food in which the wetlands abound. The waterfowl migrate to the valley's wetlands and lakes from their breeding grounds in the Palaearctic region, extending from North Europe to Central Asia. Wetlands of the valley including Shallabough wetland serve as important staging / transitional camps for the waterfowl including ducks and geese.

Material and Methods

Study area

The study was conducted from 2014 to 2015 at Shallabough wetland, (34°10'00"N, 74°42'00"E) an important bird area (Islam and Rehmani, 2004) located in Ganderbal, 9 km in the northwest of Srinagar city in Kashmir. The Shallabough wetland is of international importance, due to the large population and diversity of water birds that it supports. It is one of the major wetlands of the valley protected and managed by the Department of Wildlife Protection, Government of Jammu and Kashmir. The wetland remains covered by dense growth of floating and emergent vegetation such as *Phragmites communis*, *Typha angustata*, *Sparganium ramosum*, *Butomus umbellatus* and *Saccharum spontaneum*. The floating vegetation consists of *Nympha sp.*, *Nymphoide speltata*, *Potamogeton natans*, *Trapa natans* etc.

Field procedures

The birds under study were identified before counting by studying their characteristic features in accordance with identification keys, evolved by Ali and Ripley (1968) and Ali (1979). Birds were observed by visual census method. In the initial phase of the study, line transects and point count methods were adopted in addition to visual census but these were later abandoned due to inaccessibility in wetland. Birds were monitored mostly during morning hours when they used to come out for feeding. Suitable vantage points were chosen which provided better visibility and covered maximum area. The birds that used to flew into and out of the study sites were not counted in order to avoid double counting of birds. From each site a fixed point was assigned from which bird flocks were scanned. Counting of birds was done with the help of field binoculars and spotting scope. Data was collected regarding individual species population and composition of bird flock.

Results

Within one year of survey a rich diversity of avifauna was seen in the shallabough wetland. A total of 68 species of birds belonging to 30 families were recorded from different study sites of the wetland (**Table 1**). Most number of birds were recorded from family Anatidae. There were 24 residents, 20 summer visitors, 19 winter visitors and 5 local altitudinal migrants observed during the study period.

Table1: Checklist of birds at Shallabough wetland.

Sl. No	Scientific Name	Common name	Family	Local status
1.	<i>Psittacula himalayana</i>	Himalayan slaty headed	Psittacidae	LAM
2.	<i>Psittacula krameri</i>	Rose ringed parakeet	Psittacidae	LAM
3.	<i>Dendrocopos auriceps</i>	Brown fronted wood pecker	Picidae	LAM
4.	<i>Picus canus</i>	Grey headed wood pecker	Picidae	LAM
5.	<i>Myiophonus caeruleus</i>	Himalayan whistling thrush	Muscicapidae	LAM
6.	<i>Podiceps ruficollis</i>	Dab chick	Podicipedidae	R
7.	<i>Egretta garzetta</i>	Little egret	Ardeidae	R
8.	<i>Bubucius ibis</i>	Cattle egret	Ardeidae	R
9.	<i>Ardeola grayii</i>	Pond heron	Ardeidae	R
10.	<i>Nycticorax nycticorax</i>	Night heron	Ardeidae	R
11.	<i>Ardea cinerea rectirostris</i>	Grey heron	Ardeidae	R
12.	<i>Milvus migrans</i>	Black kite	Accipitridae	R
13.	<i>Gallinule chloropus indicus</i>	Indian moor hen	Rallidae	R
14.	<i>Colombia livia neglecta</i>	Blue rock pigeon	Laridae	R
15.	<i>Alcedo althis pallasii</i>	Central Asian kingfisher	Alcedinidae	R
16.	<i>Halcyon smymensis smymensis</i>	White breasted kingfisher	Alcedinidae	R
17.	<i>Ceryle rudis leucomelanura</i>	Indian pied kingfisher	Alcedinidae	R
18.	<i>Acridotheres tristis tristis</i>	Common Myna	Sturnidae	R
19.	<i>Corvus splendens</i>	House crow	Splendens	R
20.	<i>Corvus macrorhynchos</i>	Jungle crow	Splendens	R
21.	<i>Corvus monedula</i>	Eastern jackdaw	Splendens	R
22.	<i>Molpastes leucogenys</i>	White cheeked Bulbul	Pycnonotidae	R
23.	<i>Tringa ochropus</i>	Green sandpiper	Scolopacidae	WM
24.	<i>Parus major</i>	Great tit	Paridae	R
25.	<i>Passer domesticus</i>	House sparrow	Passeridae	R
26.	<i>Ixobrychus minutus</i>	Little Bittern	Ardeidae	SM
27.	<i>Jacana hydrophasianus</i>	Pheasant tailed jacana	Jacaniidae	SM
28.	<i>Charadrius dubius</i>	European little ringed plover	Charadriidae	SM
29.	<i>Gallinago gallinago</i>	Common snipe	Scolopacidae	SM
30.	<i>Actitis hypoleucos</i>	Common sand piper	Scolopacidae	SM
31.	<i>Himantopus himantopus</i>	Black winged stilt	Recurvirostridae	SM
32.	<i>Chlidonias hybrida indica</i>	Indian whiskered tern	Laridae	SM
33.	<i>Streptopelia decaota</i>	Eurasian collared dove	Laridae	SM
34.	<i>Streptopelia Chinese</i>	Oriental turtle dove	Laridae	SM
35.	<i>Cuculus canorus telephones</i>	Asiatic cuckoo	Cuculidae	SM
36.	<i>Coracias garrula</i>	European roller	Coraciidae	SM
37.	<i>Upupa epops epops</i>	European hoopoe	Upupidae	SM
38.	<i>Hirundo rustica</i>	Common swallow	Hirundinidae	SM
39.	<i>Dicrurus leucophaeus</i>	Ashy drongo	Dicruidae	SM
40.	<i>Oriolus oriolus</i>	Golden oriole	Oriolidae	SM
41.	<i>Lanius schach erythronotus</i>	Long tailed shrike	Lanidae	SM
42.	<i>Sturnus vulgarishumii</i>	Himalayan starling	Sturnidae	SM
43.	<i>Tersiphone paraside</i>	Himalayan paradise fly	Muscicapidae	SM
44.	<i>Acrocephalus stentoreus</i>	Indian great reed warbler	Acrocephalidae	SM
45.	<i>Acrocephalus Agricola</i>	Paddy field warbler	Acrocephalidae	SM
46.	<i>Urocissa flavirostris</i>	Yellow billed blue magpie	Corvidae	SM
47.	<i>Phalacrocorax carbo</i>	Indian large cormorant	Podicipedidae	WM
48.	<i>Anser anser</i>	Greylag goose	Anatidae	WM
49.	<i>Anas platyrhynchos</i>	Mallard	Anatidae	WM
50.	<i>Anas creaca</i>	Common teal	Anatidae	WM
51.	<i>Anas acuta</i>	Northern pintail	Anatidae	WM
52.	<i>Anas strepera</i>	Gadwall	Anatidae	WM
53.	<i>Anas clypeata</i>	Northern shoveller	Anatidae	WM
54.	<i>Anas Penelope</i>	Wigeon	Anatidae	WM
55.	<i>Anas querquedula</i>	Garganey	Anatidae	WM
56.	<i>Anthya ferina</i>	Common pochard	Anatidae	WM
57.	<i>Anthya rufina</i>	Red crested pochard	Anatidae	WM

Sl. No	Scientific Name	Common name	Family	Local status
58	<i>Aythya nyroca</i>	White eyed pochard	Anatidae	WM
59	<i>Tadorna ferruginea</i>	Tufted duck	Anatidae	WM
60	<i>Mergus merganser</i>	Common merganser	Anatidae	WM
61	<i>Porphyrio poliocephalus</i>	Purple moorhen	Rallidae	WM
62	<i>Fulica atra atra</i>	Common coot	Rallidae	WM
63	<i>Motacilla alba</i>	White wagtail	Motacillidae	R
64	<i>Motacilla citreola</i>	Citrine wagtail	Motacillidae	R
65	<i>Motacilla cinera</i>	Yellow wagtail	Motacillidae	R
66	<i>Oenanthe oenanthe</i>	Northern wheatear	Turbidadae	R
67	<i>Circus aeruginosus</i>	Eurasian marsh harrier	Accipatridae	WM
68	<i>Ahinga melanogaster</i>	Dartar	Ahingadae	WM

Discussion

During the one year of study it was observed that the wetland was used mainly by winter migratory birds as they migrate from Siberia to avoid harsh wintering conditions there. A total of 68 species of waterbirds observed at Shallabough wetland confirmed that it supports diverse avifaunal communities and it seems that the wetland provided functional habitats for a wide variety of both seasonal and resident birds. Most of the birds belonged to family Anatidae followed by Ardeidae and Laridae. Foziah (2009) also found anatids to be the most dominant group of birds in Hokersar and Haigam wetlands of Kashmir. Hussain, 2012 also noted Anatids as most leading group in the Wular lake of Kashmir. Same results were found by Gousia (2014) in Dal lake Kashmir. As 19 winter visitors, 24 residents and 20 summer visitors and 5 local altitudinal migrants were recorded during the study period almost same results were found by Shabnum and Ravi (2015) in Wular and Haigam.

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