

Exploring the Avian Fauna of Swat, Khyber Pakhtunkhwa, Pakistan

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Abstract: This survey was conducted from January 2013 to December 2013 to explore the avian fauna of Swat valley and to find out the major threats to the avian fauna of the valley. In this survey total 138 species were recorded belonging to 13 orders and 48 families. The order Passeriformes were recorded much in number that were 31 species. Most of the birds were migratory and few were resident. The fauna was much rich due to the flora of the area and also due to less hunting. Order Anseriformes, Apodiiformes, Charadriiformes, Columbiformes, Pelecaniformes, Phoenicopteriformes, Psittaciformes were found migratory and order Ciconiiformes, Coraciiformes, Galliformes, Piciformes were found resident while some members of Gruiformes and Passeriformes were found migratory and some resident.

Key words: Avian Fauna • Swat • Pakistan

INTRODUCTION

Birds are one of the most popular life forms on the planet and its diversity leads to a richness of life and beauty. Apart from this, birds have always fascinated mankind with their intrinsically beautiful plumage, melodious songs and artistic behavior. There are around 9000 species of birds living in the world today, with a tremendous diversity of life style. Besides this, birds are valuable for many aspects *i.e.* sensitive indicator of pollution and also play great role in pest control.

The bird's species are friend of farmers who believe that bird consumes large numbers of harmful insects, as well as their eggs and larvae which serves as a biological control agent of insect pests in Pakistan [1, 2].

Birds are of great economic importance to the human society. They play an important role in controlling population of different insects and pests. They play the role of scavengers and pollinating agents and also help's in dispersal of seeds of different vegetations. They are helpful and help to provide rich food for mankind and are known to man since ages [3].

Wildlife management and conservation initiatives are only possible with the appropriate information on wildlife

and its habitat [4]. Wildlife habitat basically comprises of food, cover and water. Each species require a particular habitat or the space, food, shelter and other needs of survival so much so that species are said to be the product of their habitat [5].

As regards birds, the total number of birds species in the world today is 9040 and the total number of taxa of birds of Indo-Pakistan sub-continent is 2060 [6]. The variety of avian species in ecosystems reflects the well being of its habitat. Birds are the indicators of environment and are being used for conservation and environmental impact assessment [7].

Of course, the Indian subcontinent, a part of the vast Oriental biogeographic regions, is very rich in biodiversity. Out of the more than 9,000 birds of the world, the Indian subcontinent contains about 1,300 species, or over 13% of the world's birds [8].

Pakistan harbors a wide range of ecosystems which in turn catches the attention of a diverse avifauna to exploit their resources [9]. More than 650 species of birds have been reported in the country and their occurrence in three zoogeographical zones (Oriental, Palearctic and Ethiopian region) is unique in the world [10, 11].

Although the bird is intensively hunted and captured in its native range in Pakistan, owing to which local populations could be declining, but the overall status of the species is regarded as stable [12- 14]. The species is a friend of farmers who believe this bird consumes large numbers of harmful insects, as well as their eggs and larvae and serves therefore as a biological control agent of insect pests in Pakistan [1, 2].

The bird is normally found foraging in open cultivated tracks and grasslands intermixed with scrub forests and are rarely observed above an elevation of 1200 m in Pakistan. The Grey Francolin (*Francolinus pondicerianus*) is widely associated with the drier regions of the Indus plains and has penetrated the Thar Desert in Sindh, as well as the Thal and Chohlistan deserts in Punjab. The species also occurs in the lower hills of the Makran and Lasbela districts in Balochistan, the Cherat and Kohat districts of Khyber Pakhtunkhwa Province, the salt range and agro-forestry tracks of the Pothwar Plateau in the Punjab and in the Margalla hills of Islamabad [15- 17].

In Khyber Pukhtoon Khawa the wild fauna is rich and its wildlife flourishing in forests is a precious heritage of the country but due to motorized and ground hunting these wildlife species were run a point of extinction. For this purpose it is necessary to provide best protection to wildlife in Khyber pukhtoon khawa, therefore several areas were declared as protected areas [18].

The present study was conducted to study:

- The avian fauna of Swat valley
- To find out the major threats to the Avian fauna of the valley
- To differentiate between migratory and endemic birds

MATERIALS AND METHODS

Study Area: The lush green and historic Swat Valley lies between 34°-40' to 35° N latitude and 72' to 74°-6' E longitude and is part of the Federally Administered Tribal Areas (FATA) of the Khyber Pukhtunkhwa Province of Pakistan. Total area is 5,337 km², total population is 1,257,602 and capital is Saidu Shariff.

The survey was conducted from January 2013 to December 2013. The data was collected by using the direct as well as indirect methods in order to study the present status of avian fauna of Swat valley district Swat. Direct data collection will be made by visiting to the study

area once or twice a day early in the morning at 8:00 am till sunset. The bird fauna were observed using Binocular and the status of each bird was stated as M= Migratory, R = Resident, C = Common; r = Rare; WM = Winter Migrant; SM = Summer Migrant.

In indirect data collection: hunters, wildlife staff, local residents, farmers and other knowledgeable persons were interviewed about the present and past status of the birds diversity of the study area. The main focus was made by visiting study area rather to made relay on the data which was collected indirectly.

RESULTS

The survey was conducted from January 2013 to December 2013. In this survey total 138 species were recorded which belong to 13 orders and 48 families. The fauna of the study area was rich. Most of the birds were migratory. Order Anseriformes, Apodiformes, Charadriiformes, Columbiformes, Pelecaniformes, Phoenicopteriformes, Psittaciformes were found migratory and order Ciconiiformes, Coraciiformes, Galliformes, Piciformes were found resident while some members of Gruiformes and Passeriformes were found migratory and some resident.

During the survey total 15 species belonging to family antidae were recorded and all were summer migratory (SM), all the species were rare (r) except (*Mergus merganser*) which was common as shown in Table 1.1.

The species of the family Apodidae were found migratory (M) and were rare (r) in numbers as shown in Table 1.2.

Most of the species of the order charadriiformes were found migratory and were summer migratory (SM) and were noted as common (C) while, *Vanellus vanellus* was winter migratory (WM) and was recorded as rare (r), as shown in Table 1.3.

All species of the family Ardeidae and Ciconiidae were found resident (R) but were rare in numbers as shown in Table 1.4.

The species of the family Columbidae were found migratory (M) and were summer migratory (SM) and all were found as common (C) except *Chalcophaps indica*, *Treron pompadora* and *Treron phoenicoptera* which were rare in numbers as shown in Table 1.5.

The species of the order coraciiformes were resident (R) and were common (C), while *Upupa epops* was found migratory (M) and rare (r) in number, as shown in Table 1.6.

Table 1.1: Order Anseriformes

Famliy	Scientific name	Local name	Status
Anatidae	<i>Aythya baeri</i>	Shingare	M (SM) (r)
Anatidae	<i>Anas Formosa</i>	Shingare	M (SM) (r)
Anatidae	<i>Tadorna ferruginea</i>	Shingare	M (SM) (r)
Anatidae	<i>Anas falcate</i>	Shingare	M (SM) (r)
Anatidae	<i>Anas strepera</i>	Shingare	M (SM) (r)
Anatidae	<i>Anas crecca</i>	Shingare	M (SM) (r)
Anatidae	<i>Anas platyrhynchos</i>	Shingare	M (SM) (r)
Anatidae	<i>Anas poecilorhyncha</i>	Shingare	M (SM) (r)
Anatidae	<i>Anas acuta</i>	Shingare	M (SM) (r)
Anatidae	<i>Anas clypeata</i>	Shingare	M (SM) (r)
Anatidae	<i>Aythya ferina</i>	Shingare	M (SM) (r)
Anatidae	<i>Aythya nyroca</i>	Shingare	M (SM) (r)
Anatidae	<i>Clangula hyemalis</i>	Shingare	M (SM) (r)
Anatidae	<i>Bucephala clangula</i>	Shingare	M (SM) (r)
Anatidae	<i>Mergus merganser</i>	Shingare	M (SM) (C)

Table 1.2: Order Apodiformes

Famliy	Scientific name	Local name	Status
Apodidae	<i>Tachymartys melba</i>	Lagarai	M (r)
Apodidae	<i>Cypsiurus balasiensis</i>	Lagarai	M (r)
Apodidae	<i>Apus apus</i>	Lagarai	M (r)
Apodidae	<i>Apus pacificus</i>	Lagarai	M (r)
Apodidae	<i>Apus nipalensis</i>	Lagarai	M (r)
Apodidae	<i>Apus pallidus</i>	Lagarai	M (r)

Table 1.3: Order Charadriiformes

Famliy	Scientific name	Local name	Status
Scolopacidae	<i>Limosa lapponica</i>	Tum Tel	M (SM) (C)
Scolopacidae	<i>Calidris ferruginea</i>	Tum Tel	M (SM) (C)
Scolopacidae	<i>Lymnocyptes minimus</i>	Chaghat	M (SM) (C)
Scolopacidae	<i>Calidris acuminata</i>	Tum Tel	M (SM) (C)
Scolopacidae	<i>Limicola falcinellus</i>	Tum Tel	M (SM) (C)
Scolopacidae	<i>Actitis hypoleucos</i>	Tum Tel	M (SM) (C)
Scolopacidae	<i>Calidris alpine</i>	Tum Tel	M (SM) (C)
Scolopacidae	<i>Calidris alba</i>	Tum Tel	M (SM) (C)
Scolopacidae	<i>Calidris temminckii</i>	Tum Tel	M (SM) (C)
Dromadidae	<i>Dromas ardeola</i>	Tum Tel	M (SM) (C)
Recurvirostridae	<i>Himantopus himantopus</i>	Tum Tel	M (SM) (C)
Glareolidae	<i>Cursorius cursor</i>	Tum Tel	M (SM) (C)
Glareolidae	<i>Cursorius coromandelicus</i>	Tum Tel	M (SM) (C)
Charadriidae	<i>Vanellus vanellus</i>	Babozai	M (WM) (r)
Charadriidae	<i>Charadrius hiaticula</i>	Tum Tel	M (SM) (C)
Charadriidae	<i>Vanellus leucurus</i>	Tum Tel	M (SM) (C)
Charadriidae	<i>Charadrius mongolus</i>	Tum Tel	M (SM) (C)
Stercorariidae	<i>Stercorarius pomarinus</i>	Tum Tel	M (SM) (C)
Laridae	<i>Larus canus</i>	----	M (SM) (C)
Laridae	<i>Larus heuglini</i>	Tum Tel	M (SM) (C)
Laridae	<i>Larus ridibundus</i>	Tum Tel	M (SM) (C)
Rostratulidae	<i>Rostratula benghalensis</i>	Tum Tel	M (SM) (C)
Haematopodidae	<i>Haematopus ostralegus</i>	Tum Tel	M (SM) (C)

Table 1.4: Order Ciconiiformes

Famliy	Scientific name	Local name	Status
Ardeidae	<i>Ardea modesta</i>	Bagh	R (r)
Ardeidae	<i>Ixobrychus flavicollis</i>	Bagh	R (r)
Ardeidae	<i>Nycticorax nycticorax</i>	Bagh	R (r)
Ardeidae	<i>Ardea cinerea</i>	Bagh	R (r)
Ardeidae	<i>Ardea goliath</i>	Bagh	R (r)
Ardeidae	<i>Ardea purpurea</i>	Bagh	R (r)
Ardeidae	<i>Egretta intermedia</i>	Bagh	R (r)
Ardeidae	<i>Egretta gularis</i>	Bagh	R (r)
Ardeidae	<i>Egretta garzetta</i>	Bagh	R (r)
Ardeidae	<i>Ardeola grayii</i>	Bagh	R (r)
Ardeidae	<i>Bubulcus ibis</i>	Bagh	R (r)
Ardeidae	<i>Butorides striata</i>	Bagh	R (r)
Ardeidae	<i>Ixobrychus minutus</i>	Bagh	R (r)
Ardeidae	<i>Ixobrychus cinnamomeus</i>	Bagh	R (r)
Ciconiidae	<i>Ciconia nigra</i>	Zanrai	R (C)
Ciconiidae	<i>Ephippiorhynchus asiaticus</i>	Zanrai	R (C)
Ciconiidae	<i>Ciconia ciconia</i>	Zanrai	R ©

Table 1.5: Order Columbiformes

Famliy	Scientific name	Local name	Status
Columbidae	<i>Chalcophaps indica</i>	Toti ranga kautara	M (SM) (r)
Columbidae	<i>Streptopelia decaocto</i>	Kautara	M (SM) (C)
Columbidae	<i>Columba livia</i>	Shna Kautara	M (SM) (C)
Columbidae	<i>Columba rupestris</i>	Shna Kautara	M (SM) (C)
Columbidae	<i>Columba leuconota</i>	Kautara	M (SM) (C)
Columbidae	<i>Columba eversmanni</i>	Banj karoro kautara	M (SM) (C)
Columbidae	<i>Columba palumbus</i>	Shna Kautara	M (SM) (C)
Columbidae	<i>Columba hodgsonii</i>	Tapasai kautara	M (SM) (C)
Columbidae	<i>Streptopelia turtur</i>	Kanra kautara	M (SM) (C)
Columbidae	<i>Streptopelia chinensis</i>	Kautara	M (SM) (C)
Columbidae	<i>Streptopelia senegalensis</i>	Spalama kautara	M (SM) (C)
Columbidae	<i>Treron pompadora</i>	Toti ranga kautara	M (SM) (r)
Columbidae	<i>Treron phoenicoptera</i>	Toti ranga kautara	M (SM) (r)
Columbidae	<i>Streptopelia orientalis</i>	Karkorai kautara	M (SM) (C)

Table 1.6: Order Coraciiformes

Famliy	Scientific name	Local name	Status
Alcedinidae	<i>Halcyon pileata</i>	Shentagh	R (C)
Alcedinidae	<i>Alcedo atthis</i>	Shentagh	R (C)
Alcedinidae	<i>Megaceryle lugubris</i>	Mula chargakh	R (C)
Coraciidae	<i>Coracias garrulus</i>	Shentagh	R (C)
Upupidae	<i>Upupa epops</i>	Mula chargakh	M (r)

Table 1.7: Order Galliformes

Famliy	Scientific name	Local name	Status
Phasianidae	<i>Alectoris chukar</i>	Zarka	R (C)
Phasianidae	<i>Francolinus francolinus</i>	Taro	R (C)
Phasianidae	<i>Francolinus pondicerianus</i>	Tanzarai	R (C)
Phasianidae	<i>Coturnix coturnix</i>	Batair	R (C)
Phasianidae	<i>Coturnix coromandelica</i>	Batair	R (C)
Phasianidae	<i>Perdica asiatica</i>	Batair	R (C)
Phasianidae	<i>Lophophorus impejanus</i>	Late	R (C)
Phasianidae	<i>Catreus wallichi</i>	Sham	R (C)
Phasianidae	<i>Lophura leucomelanos</i>	Taro	R (C)

Table 1.8: Order Gruiformes

Famliy	Scientific name	Local name	Status
Turnicidae	<i>Turnix suscitator</i>	Nwaraz	R (C)
Turnicidae	<i>Turnix sylvatica</i>	Nwaraz	R (C)
Gruidae	<i>Grus antigone</i>	Deng	M (C)
Gruidae	<i>Grus nigricollis</i>	Deng	M (C)
Gruidae	<i>Anthropoides virgo</i>	Deng	M (C)
Rallidae	<i>Gallixrex cinerea</i>	Khwar chargai	R (C)
Rallidae	<i>Gallinula chloropus</i>	Khwar chargai	R (C)

Table 1.9: Order Passeriformes

Famliy	Scientific name	Local name	Status
Sturnidae	<i>Sturnus vulgaris</i>	Sakhakha	M (WM) (C)
Sturnidae	<i>Acridotheres ginginianus</i>	Kharoo	R (C)
Sturnidae	<i>Acridotheres tristis</i>	Kharoo	R (C)
Zosteropidae	<i>Zosterops palpebrosus</i>	Zyar chatai	R (C)
Dicaeidae	<i>Dicaeum erythrorhynchus</i>	Chatai	R (C)
Passeridae	<i>Passer domesticus</i>	Chanchanra	R (C)
Corvidae	<i>Corvus splendens</i>	Kargha	R (C)
Corvidae	<i>Corvus corone</i>	Kagha	R (C)
Leiothrichidae	<i>Turdoides caudate</i>	Soorra	R (C)
Hirundinidae	<i>Hirundo rustica</i>	Totakarkai	M (WM) (C)
Dicruridae	<i>Dicrurus macrocercus</i>	Toranakha	M (SM) (C)
Monarchidae	<i>Terpsiphone paradisi</i>	Partoghakhai	M (WM) (C)
Certhiidae	<i>Certhia himalayana</i>	Tak takai	R (r)
Ploceidae	<i>Ploceus philippinus</i>	Tan tanai	R (C)
Laniidae	<i>Lanius vittatus</i>	Teghak	R (r)
Fringillidae	<i>Carpodacus pulcherrimus</i>	Sur sare	M (SM) (C)
Pycnonotidae	<i>Pycnonotus atriceps</i>	Balbala	R (C)
Pycnonotidae	<i>Pycnonotus leucogenys</i>	Balbala	R (C)
Pycnonotidae	<i>Pycnonotus leucotis</i>	Balbala	R (C)
Pycnonotidae	<i>Pycnonotus cafer</i>	Balbala	R (C)
Emberizidae	<i>Emberiza melanocephala</i>	Tan tanai	R (C)
Emberizidae	<i>Emberiza fucata</i>	Chanchanra	R (C)
Emberizidae	<i>Melophus lathami</i>	Tan tanai	R (C)
Motacillidae	<i>Motacilla alba</i>	Sper lakai	R (C)
Motacillidae	<i>Motacilla madaraspatensis</i>	Sper lakai	R (C)
Motacillidae	<i>Motacilla citreola</i>	Sper lakai	R (C)
Motacillidae	<i>Motacilla lugens</i>	Sper lakai	R (C)
Campephagidae	<i>Pericrocotus erythropygius</i>	Tan tanai	R (C)
Regulidae	<i>Regulus regulus</i>	Tan tanai	R (C)
Aegithinidae	<i>Aegithina tiphia</i>	Tan tanai	R (C)
Cinclidae	<i>Cinclus pallasii</i>	Dabagai	R (C)

Table 2.1: Order Pelecaniformes

Famliy	Scientific name	Local name	Status
Phaethontidae	<i>Phaethon aethereus</i>	Batha	M (SM) (C)
Pelecanidae	<i>Pelecanus onocrotalus</i>	Batha	M (SM) (C)
Pelecanidae	<i>Pelecanus philippensis</i>	Batha	M (SM) (C)
Pelecanidae	<i>Pelecanus crispus</i>	Batha	M (SM) (C)
Anhingidae	<i>Anhinga melanogaster</i>	Batha	M (SM) (C)

Table 2.2: Order Phoenicopteriformes

Famliy	Scientific name	Local name	Status
Phoenicopteridae	<i>Phoenicopterus roseus</i>	Deng	M (SM) (r)
Phoenicopteridae	<i>Phoenicopterus minor</i>	Deng	M (SM) (r)

Table 2.3: Order Piciformes

Famliy	Scientific name	Local name	Status
Picidae	<i>Dendrocopos moluccensis</i>	Tak takai	R (r)

Table 2.4: Order Psittaciformes

Famliy	Scientific name	Local name	Status
Psittacidae	<i>Psittacula krameri</i>	Toti	M (C)
Psittacidae	<i>Psittacula himalayana</i>	Toti	M (C)
Psittacidae	<i>Psittacula cyanocephala</i>	Toti	M (C)

The members of the family Phasianidae were resident (R) and found as common (C) as shown in Table 1.7.

The members of the family Turnicidae and Rallidae were resident (R) and were common (C), while the members of the family Gruidae were migratory (M) and were also noted as common (C), as shown in Table 1.8.

Most of the species of the order Passeriformes were resident (R) and were common except *Sturnus vulgaris*, *Hirundo rustica* and *Terpsiphone paradise* were found winter migratory (WM) and were common, while *Dicrurus macrocercus* and *Carpodacus pulcherrimus* were summer migratory (SM) and were common, as shown in Table 1.9.

All members of the order Pelecaniformes summer migratory (SM) and were found common as shown in Table 2.1.

Species of the order Phoenicopteriformes were found summer migratory (SM) and were rare in numbers as shown in Table 2.2.

The *Dendrocopos moluccensis* was the only member of the family Picidae, recorded during the study and was resident (R) and was found as rare (r) as shown in Table 2.3.

Members of the family Psittacidae were found migratory (M) and were common as shown in Table 2.4.

DISCUSSION

The food availability, feeding and habitats may be the main factors of variation in the birds population slightly than any other risk [19]. In our study it was observed that the avian fauna of the study area was rich because the flora of the study area was much thick and we know that the fauna is totally dependant on the flora as it provide shelter, food, habitat so the avian fauna of the study area was much rich.

The birds are intensively hunted and captured in its native range in Pakistan, owing to which local populations could be declining, but the overall status of the species are regarded as stable [12-14]. In our study it was observed that the birds were hunted but the hunting ratio was low due to current situation of terrorism in swat, therefore the bird fauna was rich.

To avoid the severe winter season large number of birds migrate from central Asian countries and Europe towards wetlands of Pakistan. There are seven fly zones all over the world in which the one zone (Indus fly zone) is present in Pakistan. The birds reach Pakistan flying over Karakorum, Suleiman Ranges and Hindu Kush along the Indus river. Falcons, cranes, swans, ducks, flamingos, waders and geese are important migratory birds in host country [20]. Similarly in our study the migratory birds recorded were ducks, geese and swans, which were mostly summer visitor.

Birds are normally found foraging in open cultivated tracks and grasslands intermixed with scrub forests and are rarely observed above an elevation of 1200 m in Pakistan [21].

Rose ringed parakeet, house crow, house sparrow, mynas, bulbuls were common among the resident birds; while, kingfisher, koel, rollers and tree pie were rare in number and have small spread families [22]. House Sparrow, house crow, myna and bulbul were recorded as residential and abundant as also reported previously [23, 24]. In our study the resident birds were chakurs, pheasants, house crow, house sparrow, mynas and bulbuls which are quite similar to the previous studies.

Common sand piper is common winter visitor to Azad Kashmir, Plumbeous redstart and river chats are also common and locally migrant [24]. Similarly in our study sand piper were found winter visitor.

Alectoris chukar has worldwide distribution, found in India, Afghanistan, Middle East and Western Himalayas, east to central Nepal [6]. In Pakistan, Alectoris chukar is very adaptable to all kinds of the arid, rocky and hilly country ascending to the higher mountain valleys of the inner Himalayas ranges [15] and bare, arid hillside of the Punjab and western Himalayas [25]. It is distributed throughout Pakistan in certain places, that is Punjab, Sind, Baluchistan, Chitral, Salt range, Swat, Kohistan and Gilgit [15,25]. This bird is also found throughout the AJK [26]. In our study the Alectoris chukar was found widely in much number due to the less hunting in the study area due to the cease fire in the swat.

The Grey Francolin (*Francolinus pondicerianus*) is widely associated with the drier regions of the Indus plains and has penetrated the Thar Desert in Sindh, as well as the Thal and Chohlistan deserts in Punjab. The species also occurs in the lower hills of the Makran and Lasbela districts in Balochistan, the Cherat and Kohat districts of Khyber Pakhtunkhwa Province, the

salt range and agro-forestry tracks of the Pothwar Plateau in the Punjab and in the Margalla hills of Islamabad [16, 17]. In our study the Grey Francolin was found in much numbers.

The Quail carries out all its vital functions (Feeding, nest-building) in the herbaceous strata of natural coastal grasslands (Abundant grasses), high altitude prairies (e.g. uncultivated land in the Aveyron and Capcir, France) or, as for the Grey Partridge *Perdix perdix*, the grassy areas of open agro-systems (With the notable exception of ryegrass). The Quail prefers cover which, although dense enough to provide protection, allows fluid movements, hence the choice of alfalfa, winter barley and winter wheat when still green and showing abundant basal leaves or early shoots [27]. As the flora of the study area was much thick so the Quails and Grey Partridge were found in large numbers as there were many places of shelters for their breeding and other activities.

Red turtle dove is summer visitor and spotted dove is common [15]. Roberts [24] Reported its status as common. This species is found in Himalaya and Kashmir but locally migrant [23]. In our study the Rock Pigeon, Hill Pigeon, Snow Pigeon, Pale-backed Pigeon, Common Wood-Pigeon, Speckled Wood-Pigeon, Eurasian Turtle-Dove and other members of the same family were recorded as migratory and were found summer visitor.

Common Myna (4.4143), Bank Myna (4.3969), House sparrow (4.1641) and Blyth's Reed Warbler (3.1128), Small Sky-lark (2.3416), Common Babbler (2.6398), Blue-cheeked Bee-eater (2.0016), Small Sky Lark (2.3416), Long Tailed Grass Warbler (1.6631) and Indian Robin (1.6681) have abundance respectively. Herbivorous (2), Grainivorous (15), Omnivorous (12), Insectivorous (32) and Carnivorous (17) birds were founds [28]. Similarly in our study the members of the Passeriformes family were recorded in much numbers while Herbivorous, Grainivorous, Omnivorous, Insectivorous and Carnivorous birds were found in our study.

CONCLUSION

Hunting and habitat destruction are major threat to wildlife. Fauna of an area depend on the flora present in the area because it provide food and shelter to the fauna and destruction of the habitats also results in the elimination or migration of species. The avian fauna of the study area was rich because the flora was thick. Hunting in the study area was very much loss due to the cease fire

in the swat due to the current situation of terrorism in swat. It was concluded from the current study that hunting and habitat destruction are the major threats to the wildlife.

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