

Biodiversity at Patna Bird Sanctuary, Jalesar with Special Reference to Migratory Birds

Arun Kumar Singh¹, Anu Singh², Jyoti Chaturvedi³, Amit Kumar Jangid⁴ and Harshit Sharma⁵

Department of Zoology, Jaipur National University, Jaipur (Rajasthan)-302017, INDIA^{1,3}

Department of Microbiology, Swami Vivekanand University, Sagar (Madhya Pradesh)-470228, INDIA²

Department of Botany, Agrawal P.G. College, Jaipur (Rajasthan)-302003, INDIA⁴

Department of Agriculture, Bhagwant Global University, Kotdwar, Pauri Garhwal (Uttarakhand)- 246149, INDIA⁵

***Corresponding Author:** Arun Kumar Singh
*(Email: aksingh03091980@gmail.com)

ABSTRACT

Indian subcontinent plays host to a number of migratory birds in summers as well as winters. It is estimated that over hundred species of migratory birds fly to India, either in search of feeding grounds or to escape the severe winter of their native habitat. About 200,000 birds of 300 different bird species frequent the sanctuary. More than 106 species of migratory and resident birds are known to have their resting habitats around the lake. Patna bird sanctuary was created in 1991 in order to protect and conserve the natural habitation and surroundings and also the marine vegetation for the migratory birds, as well as for the local people of the region. The term migration is used to describe movements of populations of birds or other animals. There are three types of migrants. One way to look at migration is to consider the distances traveled. The pattern of migration can vary within each category, but is most variable in short and medium distance migrants. The origin of migration is related to the distance traveled. The migratory birds at Patna Bird Sanctuary include Lesser whistling-duck, Graylag goose, Comb duck, Ruddy shelduck, Gadwall, Eurasian wigeon, Indian spot-billed duck, Northern shoveler, Northern pintail, Green-winged teal, Common pochard, Ferruginous duck, Baer's pochard, Tufted duck, Indian peafowl, Common quail, Black francolin, Gray francolin, Little grebe, Asian openbill, Woolly-necked stork, Black-necked stork, Little cormorant, Great cormorant, Purple heron, Cattle egret, Indian pond-heron, Black-headed ibis, Red-naped ibis, Eurasian spoonbill, Black-shouldered kite, Egyptian vulture, Booted eagle, Bonelli's eagle, Shikra, Black kite, Eurasian coot, Sarus crane, Black-winged stilt, Black-tailed godwit, Laughing dove, Greater coucal, Rose-ringed parakeet, Plum-headed parakeet, Long-tailed shrike, Black drongo, Rufous treepie, Ashy-crowned sparrow-lark, Bengal bushlark, Red-vented bulbul, Plain leaf warbler, Ashy prinia, Plain prinia, Common babbler, Oriental magpie-robin, Brahminy starling, Common myna, Bank myna, Purple sunbird, Indian silver bill, Scaly-breasted munia. Richness and diversity of water birds are highest at the end of April. This is because; migratory birds converge at Patna WLS from other areas before the spring migration. It appears that Patna WLS is not only an important refuge but also a stopover site for winter migrants returning to their breeding quarters from peninsular and central India. Waders and other marsh species are far more abundant at the end of April. The migratory birds represent the economic importance of that particular area and faunal biodiversity along with health of ecosystem.

Keywords: Birds, Biodiversity, Migration, Jalesar, Nature, Sanctuary, Uttar Pradesh.

INTRODUCTION

The numerous wildlife sanctuaries set up in the country serve as their temporary habitat. Bird lovers from all over the country visit these sanctuaries to get a glimpse of some of the rarest species of birds in the world. The beauty of the birds, combined with the splendor of the natural environment provides the perfect setting for a nature lover. Usually, birds start migrating towards other areas when they perceive the tailwind to be favorable. However, once they start their migration journey, nothing can stop them, except extremely bad weather. Many birds prefer to fly at a higher altitude while migrating. This is because winds usually prevail at higher altitudes and at the same time, the cold temperature at these altitudes helps them in diffusing the body heat, which is generated by their flight muscles. The timing of the migration is usually a mixture of internal and external stimulus. Migrating birds start on a journey when they feel that they have put on enough fat to provide them energy throughout the journey. Then, the tendency to aggregate into flocks is another determinant of the time of migration. Even after the flock has gathered which has to fly together, the birds keep on feeding till the weather conditions become favorable. Thus, apart from the internal clock of the birds and their flock, it is also the availability of food and the weather conditions that play a role in the determination of the time of migration (Kumar, & Srivastava, 2013 and Kumar & Kanaujia, 2015).

Patna Bird Sanctuary is a protected area in Uttar Pradesh Etah district encompassing a lentic lake that is an important wintering ground for migrating birds. It was founded in 1991 and covers an area of 1.09 km² (0.42 sq mi). With a lake

area of only 1 km² (0.39 sq mi), it is the smallest bird sanctuary in Uttar Pradesh. Patna Bird Sanctuary (WLS) is about 6 km from Jalesar town in Etah district on the Jalesar- Sikandrarao road. An area of 108 ha was declared as a Wildlife Sanctuary in 1991 under the Wildlife Protection Act 1972. It is a typical rainfed wetland of the Gangetic plains, being a natural, freshwater, shallow depression. The shallow parts of the Sanctuary dry up during summer, leaving some puddles in the deeper zones. Patna Bird Sanctuary (WLS) is a classic example of how, within a few years of protection, a long-neglected wetland can become one of the finest wetland habitats of the country. The lake forms a perfect place for the migratory and water birds for a long stay. As a part of conservation of lake and its surroundings. The sanctuary is a representative area of the indo gangetic eco-system. Almost the entire area is a wetland. Wetland vegetation is found in the sanctuary.

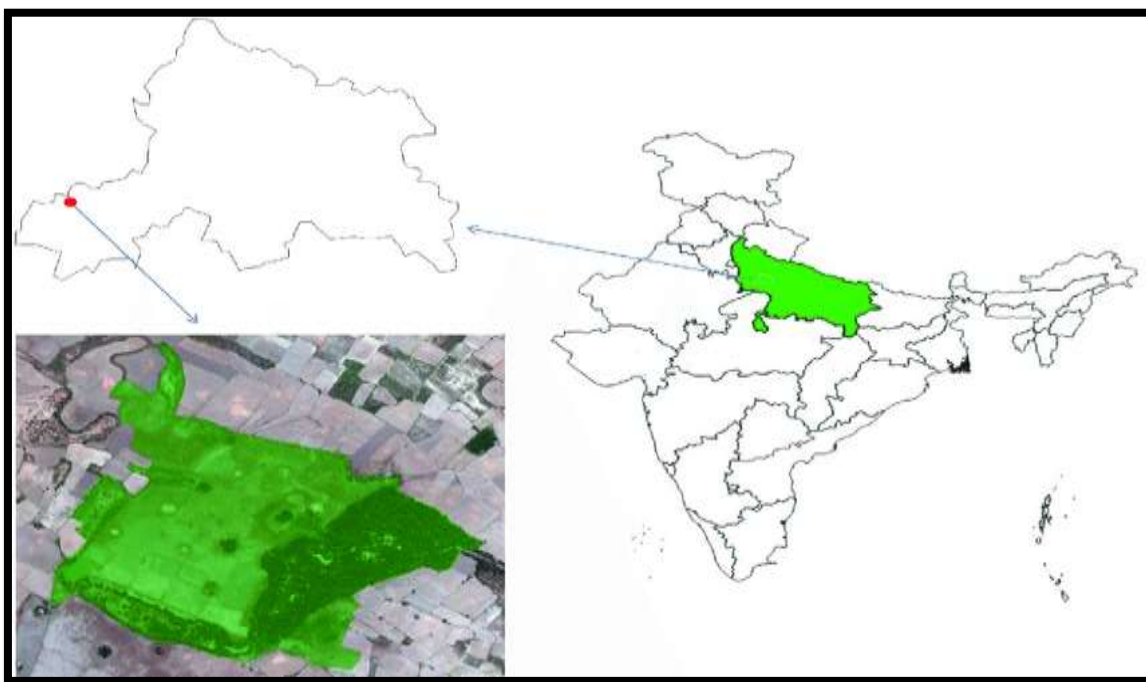


Figure: Location of Patna Bird Sanctuary, Jalesar, Etah



Figure: Etah District Map



Figure: Patna Bird Sanctuary



Figure: Main gate of Patna Bird Sanctuary

Jalesar City (Ghungroo Nagri)

Jalesar is located at 27.63°N 78.67°E. It has an average elevation of 170 meters (557 feet). Jalesar is a town and a Nagar Palika Parishad in Etah district in the Indian state of Uttar Pradesh. It is connected by road to other towns such as Hathras, Etah, Aligarh, Firozabad and Agra. It is connected by road to other towns such as Awagarh Tehsil to Sadabad Mdw 106 Rd, Hathras, Etah, Aligarh, Firozabad and it is approx 41 km from Agra.

Patna Bird Sanctuary is a lovely place to visit which is situated approximately 5.5 km away on Sikandra Rao Road. Best time to visit this place is September to February however in December and January, it becomes residence of migrated birds from European and American zones. Jalesar is a town of brass and famous for its 'Pital Udhog' which has never faded its shine. Jalesar is known for its cast Temple bells, Famous Temples are Ram Mandir in Gali Boharan, Chintaharan Mandir & Laxmi Narayan Mandir near Govt. Hospital, Pathwari Mandir situated on road to Hathras Junction and Hanuman Mandir in Mahavir Ganj Other temples in the area are Bhairo Bagichi, Dwarkadheesh Mandir.

Jalesar is famous for Saturday Jaat for which people from farther towns and villages visit to devote their respect. This has been custom for many years and being continued. Another attraction is Dargah Place has holistic importance for its residents. Nearby Dargah place a Famous Shani Mandir is also situated well known for Saturday Aarti. The primary occupation of the people of the Jalesar is agriculture. The area is situated between Ganga and Yamuna (Doab) which is highly fertile (Alluvial soil). The farmers are harvesting three crops in a year. The water for irrigation is available the year round. Major agricultural products are rice, wheat, barley, jowar, bajra, maize; the soil is suitable for the cultivation of tobacco.

Bird Migration

The term migration is used to describe movements of population of birds or other animals. There are three types of migrants. One way to look at migration is to consider the distances traveled.

- ❖ Short distance migrants: May move only a short distance, as from higher to lower elevations on a mountainside.
- ❖ Medium distance migrants: Some species may cover distances that span from one to several states.
- ❖ Long distance migrants: Birds that typically have ranges that extend from one country or from one island to another.

The pattern of migration can vary within each category, but is most variable in short and medium distance migrants. The origin of migration is related to the distance traveled. For short distance migrants it is as simple as a search for food. The complex and include the development of the genetic makeup of the bird.

Migration Trigger

The mechanisms initiating migratory behavior vary and are not always completely understood. Migration can be triggered by a combination of changes in day length, lower temperatures, changes in food supplies, and genetic predisposition. For centuries, people who have kept cage birds have noticed that the migratory species go through a period of restlessness each spring and fall, repeatedly fluttering toward one side of their cage. German behavioral scientists gave this behavior the name *zugunruhe*, meaning migratory restlessness. Different species of birds and even segments of the population within the same species may follow different migratory patterns.

Navigation

Migrating birds can cover thousands of miles in their annual travels, often traveling the same course year after year with little deviation. First-year birds often make their very first migration on their own. Somehow they can find their winter home despite never having seen it before, and return the following spring to where they were born. The secrets of their amazing navigational skills aren't fully understood, partly because birds combine several different types of senses when they navigate. Birds can get compass information from the sun, the stars, and by sensing the earth's magnetic field. They also get information from the position of the setting sun and from landmarks seen during the day. Some species follow preferred pathways on their annual migrations. These pathways are related to important stopover locations that provide food supplies critical to the birds' survival.

Migration Hazards

Taking a journey that can stretch to a round-trip distance of several thousand miles is a dangerous and arduous undertaking. It is an effort that tests both the birds' physical and mental capabilities. The physical stress of the trip, lack of adequate food supplies along the way, bad weather, and increased exposure to predators all add to the hazards of the journey. In recent years long-distant migrants have been facing a growing threat from communication towers and tall buildings. Many species are attracted to the lights of tall buildings and millions are killed each year in collisions with the structures.

MATERIAL AND METHODS

Study site

Patna Bird Sanctuary is situated in Jalesar Tehsil of Etah District in Uttar Pradesh (27.52656 N & 78.32003 E) with an area of 109ha which contains a small pool (jheel) along with the track of the Date Palm Trees *Phoenix sylvestris*. The

bird sanctuary is named after the village Patna which is situated beside the sanctuary. Patna jheel is a typical rain fed wetland that can be categorized as a natural freshwater shallow wetland or Jheel (Shukla & Lone, 2010). The eastern part of the sanctuary is covered with dense Date Palm Trees while the boundary of the sanctuary and trails are covered with *Prosopis juliflora*.

The study was performed in Patna Bird Sanctuary during January 2023 to February 2024. The average rainfall is about 1200 mm per annum, temperature ranges from 23°C to 45°C and humidity is about 87%. In the present study, observations were made throughout the study area from January 2023 to February 2024. The survey was carried out at suitable time (i.e. morning: 06:00 to 10:00 hr and from evening: 16:30 to 18:30 hr in summers while from 7:00 to 11:00 am in morning and 3:00-5:30 pm in evening during the winters) of the day. Observations were carried out with the aid of 10x50 binoculars. Records were supported with photography using Lumix 21 X digital zoom camera and 70D Canon SLR Camera. Water birds sighted during the study period were categorized according to their groups and IUCN status. Identification of birds was done with the help of key reference books (Ali & Ripley, 1995, Grewal & Pfister, 2002, Ali S. 2002 and Grimmett *et al.*, 2007).

Migratory Birds

During the study period in January and February month, the migratory birds observed were Lesser whistling-duck; Graylag goose, Comb duck, Ruddy shelduck, Gadwall, Eurasian wigeon, Indian spot-billed duck, Northern shoveler, Northern pintail, Green-winged teal, Common pochard, Ferruginous duck, Baer's pochard, Tufted duck, Indian peafowl, Common quail, Black francolin, Gray francolin, Little grebe, Asian openbill, Woolly-necked stork, Black-necked stork, Little cormorant, Great cormorant, Purple heron, Cattle egret, Indian pond-heron, Black-headed ibis, Red-naped ibis, Eurasian spoonbill, Black-shouldered kite, Egyptian vulture, Booted eagle, Bonelli's eagle, Shikra, Black kite, Eurasian coot, Sarus crane, Black-winged stilt, Black-tailed godwit, Laughing dove, Greater coucal, Rose-ringed parakeet, Plum-headed parakeet, Long-tailed shrike, Black drongo, Rufous treepie, Ashy-crowned sparrow-lark, Bengal bushlark, Red-vented bulbul, Plain leaf warbler, Ashy prinia, Plain prinia, Common babbler, Oriental magpie-robin, Brahminy starling, Common myna, Bank myna, Purple sunbird, Indian silverbill and Scaly-breasted munia (Table-1).

Resident Birds

Little grebe, Darter, Purple heron, Grey heron, Pond heron, Night heron, Large, medium and little egrets, Painted stork, Open billed stork, Cattle egret, Black necked stork (endangered), Comb duck, Lesser whistling teal, Common pariah kite, Brahminy kite, Shikra, Sparrow, Hawk, Tawny eagle, Greater spotted eagle, Crested hawk eagle, Lesser falcon rain quail, Jungle bush quail, Painted bush quail, Black partridge, Grey partridge, Common peafowl, Water hens, Purple moor hens, Jacanas, Black winged stilt, Lap wing, Blue rock pigeon, Dove species, Parakeets, Crow pheasants, Owl, Swifts, Kingfishers, Blue jay, Hoopoe, Mynas, Crow, Drongo, Bulbul, Babbler, Cormorants, Sarus cranes were observed during study (Table-1).

Mammals

Some mammals are also observed at Patna Bird Sanctuary such as Macaque, Indian ratel, Fishing cat, Common mongoose, Jackal, Fox, Ground Shrew, Common yellow bats, Squirrels, Mouse species, Indian Porcupine, Indian hare and Blue bull.

Invertebrates

Some of the main invertebrate species were observed during the camps include Euglena, Paramecium, Earthworms, Leeches, Water flea, Prawn, Cyclop, Cypris, Crabs, Centipedes, Millipedes, Spider, Scorpion, Cockroach, Praying mantis, Grasshopper, Crickets, Honeybee, Wood ants, Red ants, Giant water bug, Termite, Dragon fly, Water scorpion, Whirling, Beetle, Ladybird, Water beetle, Firefly, Wasp, Hornet, Mud wasp, Large carpenter, Mosquito, different species of Butterflies like Kaiser-e-hind, Great Zebra, Tailed jay glory, Blue bottle, Common mime, Common crow, Glossy tiger, Common tiger, Yellow jezebel, Plain sulphur, Tree yellow, Grass yellow, Common grass yellow, Bright sun beam, Tiger brown, Common leopard, Commander panther and Moths. Different species of Mollusca like Apple snail, Pond snail, Slug, Fresh water mussel (unio), Vivipera species, Lymnaea species were found.

Amphibians

The amphibians include Toads, Indian cricket frog, Rana species of frogs, Skipper frog, Indian burrowing frog, Chunani frog, Narrow mouthed frog and Funny frogs etc were observed at Patna Bird Sanctuary.

Pisces

Fishes Spiny eel, Suya, Patra, Rohu, Kochya, Calbasu, Catla, Nain, Singhi, Chilva, Saur, Girai, Magur, Taingan and Taingen were found.

Reptiles

- **Turtles:** Indian soft-shelled turtle, Indian flap shelled turtle, Spotted pond turtle, Indian Roof Turtle.
- **Snakes:** Russel's sand Boa, Red sand Boa, Blind snakes, Checkered Keelback, Striped Keelback, Branded racer, Wolf Snake, Rat snake, Binocellate Cobra, Common Krait, Russel's Viper.
- **Lizards:** Brahminy Skink, northern house Gecko, Garden Lizard, Common Indian monitor.

CONCLUSION

The study reveals that the Patna Bird Sanctuary is healthy ecosystem. It has a huge Biodiversity especially in birds, other vertebrate and invertebrates. It is an excellent example of sustainable development and biodiversity conservation of migratory birds. Patna Bird Sanctuary has a rich avian diversity including many Vulnerable, Near Threatened water birds as well as many species of wetlands dependent birds. There are no threats to this tremendous diversity. However the detail study on feeding and nesting behaviour of various bird species will enhance the population of the dwelling birds and maintain the healthy ecosystem for the future. The maintenance and improvement of flora of the Patna Bird Sanctuary will also support the residential birds. A further study on the various other important aspects of residential and migratory birds will help conservation to enrich the fauna.

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Table: 1 List of Birds Reported from Patna Bird Sanctuary

S.No	Families	Scientific Name	Common Name	Feeding Habit	Habitat	IUCN Status
1.	Podicipedidae	Tachybaptus ruficollis	Little Grebe	P	AH	LC
2.	Phalacrocoracidae	Phalacrocorax carbo	Great Cormorant	P	AH	LC
3.		Phalacrocorax niger	Little Cormorant	P	AH	LC
4.		Phalacrocorax fuscicollis	Indian Cormorant	P	AH	LC
5.	Ardeidae	Nycticorax nycticorax	Black Crowned Night Heron	P	AH	LC
6.		Ixobrychus flavicollis	Black bittern	I/P	AH	LC
7.		Ixobrychus sinensis	Yellow bittern	I/P	AH	LC
8.	Threskiornithidae	Threskiornis melanocephalus	Black-headed Ibis	P	AH	LC
9.	Anhingidae	Anhinga melanogaster	Darter	P	AH	NT
10.	Ardeidae	Egretta garzetta	Little Egret	I	AH	LC
11.		Casmerodius albus	Large Egret	P	AH	LC
12.		Mesophoyx intermedia	Median Egret	P	AH	LC
13.		Bubulcus ibis	Cattle Egret	I	AH	LC
14.		Ardea cinerea	Grey Heron	P	AH	LC
15.		Ardea purpurea	Purple Heron	P	AH	LC
16.		Ardeola grayii	Indian Pond Heron	I/P	AH	LC
17.		Butorides striatus	Little Green Heron	I/P	AH	LC
18.		Ixobrychus cinnamomeus	Chestnut Bittern	I/P	AH	LC
19.		Nycticorax nycticorax	Black-crowned Night Heron	P	AH	LC
20.		Mycteria leucocephala	Painted Stork	P	AH	NT





21.	Ciconiidae	Anastomus oscitans	Asian Open bill-Stork	P	AH	LC
22.		Ciconia nigra	Black Stork	P	AH	LC
23.		Ciconia episcopus	White-necked Stork	P	AH	LC
24.		Ephippiorhynchus asiaticus	Black-necked Stork	P	AH	NT
25.	Threskiornithidae	Plegadis falcinellus	Glossy Ibis	P	AH	LC
26.		Pseudibis papillosa	Black Ibis	P	AH	NT
27.	Anatidae	Dendrocygna javanica	Lesser whistling duck	V	AH	LC
28.		Anser indicus	Bar headed goose	V	AH	LC
29.		Tadorna ferruginea	Brahminy shelduck	Om	AH	LC
30.		Sarkidiornis melanotos	Comb duck	V/I	AH	LC
31.		Nettapus coromandelianus	Cotton teal	V/I	AH	LC
32.		Anas platyrhynchos	Mallard	Om	AH	LC
33.		Anas poecilorhyncha	Spot-billed duck	V	AH	LC
34.		Anas clypeata	Northern shoveller	V	AH	LC
35.		Anas acuta	Northern pintail	V	AH	LC
36.		Anas querquedula	Garganey	V	AH	LC
37.		Anas crecca	Common Teal	V	AH	LC
38.		Rhodonessa rufina	Red crested Pochard	V	AH	LC
39.		Aythya fuligula	Tufted Pochard	V	AH	LC
40.		Aythya ferina	Common Pochard	V	AH	LC
41.		Anas strepera	Gadwall	V	AH	LC
42.		Nettapus coromendelianus	Cotton Pygmy Goose	V	AH	LC
43.		Anas penelope	Eurasian Wigeon	V/I	AH	LC
44.		Anser anser	Greyleg Goose	V	AH	LC
45.		Tadorna ferruginea	Ruddy Shelduck	Om	AH	LC
46.		Aythya nyroca	Ferruginous Pochard	Om	AH	LC
47.	Accipitridae	Elanus caeruleus	Black -shouldered Kite	C	T	LC
48.		Milvus migrans	Black Kite	C	T	LC
49.		Neophron percnopterus	Egyptian Vulture	C	T	E
50.		Accipiter badius	Shikra	C	T	LC
51.	Phasianidae	Gallus gallus	Red jungle fowl	Om	T	LC
52.		Pavo cristatus	Indian peafowl	Om	T	LC
53.	Rallidae	Amaurornis phoenicurus	White-breasted Waterhen	I	AH	LC
54.		Porphyrio porphyrio	Purple Moorhen	I/V	AH	LC
55.		Gallinule chloropus	Common Moorhen	I	AH	LC
56.		Fulica atra	Common Coot	P	AH	LC
57.	Gruidae	Grus antigone	Sarus Crane	P	AH	V
58.	Jacanidae	Hydrophasianus chirurgus	Pheasant-tailed Jacana	Om	AH	LC
59.		Metopidius indicus	Bronzed-winged Jacana	Om	AH	LC
60.	Charadriidae	Charadrius dubius	Little Ringed Plover	I	W	LC
61.		Charadrius hiaticula	Ringed Plover	I	W	LC
62.		Vanellus malabaricus	Yellow-wattled Lapwing	I	W	NA
63.		Vanellus indicus	Red-wattled Lapwing	I	W	LC
64.	Scolopacidae	Tringa glareola	Wood Sandpiper	I	W	LC
65.		Tringa ochropus	Green Sandpiper	I	W	LC
66.		Actitis hypoleucos	Common Sandpiper	I	W	LC
67.		Tringa totanus	Common Redshank	I	W	LC
68.		Tringa nebularia	Common Greenshank	I	W	LC
69.	Recurvirostridae	Himantopus himantopus	Black-winged Stilt	I	W	LC
70.	Laridae	Sterna aurantia	River Tern	P	AH	NT
71.	Columbidae	Columba livia	Blue Rock Pigeon	Gr	T	LC
72.		Streptopelia chinensis	Spotted Dove	Gr	T	LC
73.		Streptopelia tranquebarica	Red Collared Dove	Gr	T	LC
74.		Streptopelia decaocta	Eurasian Collared- Dove	Gr	T	LC
75.		Treron phoenicoptera	Yellow-legged Green-Pigeon	Fr	T	LC

76.	Psittaculidae	Psittacula eupatria	Alexandrine Parakeet	Fr	T	NT
77.		Psittacula krameri	Rose-ringed Parakeet	Fr	T	LC
78.	Cuculidae	Eudynamys scolopacea	Asian Koel	Om	T	LC
79.		Phaenicophaeus leschenaultii	Sirkeer Malkoha	Om	T	LC
80.		Centropus sinensis	Greater Coucal	I	T	LC
81.		Cuculus micropterus	Indian Cuckoo	I	T	LC
82.		Cuculus canorus	Common Cuckoo	Om	T	LC
83.	Tytonidae	Tyto alba	Barn Owl	C	T	LC
84.	Strigidae	Bubo bubo	Eurasian Eagle-Owl	C	T	LC
85.		Athenebrama	Spotted Owlet	I	T	LC
86.		Glaucidium radiatum	Jungle Owlet	C	T	LC
87.		Glaucidium cuculoides	Asian- barred Owlet	C	T	LC
88.	Caprimulgidae	Caprimulgus asiaticus	Common Indian Nightjar	I	T	LC
89.	Alcedinidae	Alcedo atthis	Small Blue Kingfisher	P	AH	LC
90.		Halcyon smyrnensis	White breasted Kingfisher	P	AH	LC
91.		Ceryle rudis	Lesser Pied Kingfisher	P	AH	LC
92.	Meropidae	Merops orientalis	Small Bee-eater	I	T	LC
93.	Coraciidae	Coracias benghalensis	Indian Roller	I	T	LC
94.	Upupidae	Upupa epops	Common Hoopoe	I	T	LC
95.	Bucerotidae	Ocyrceros birostris	Indian Grey Hornbill	Om	T	LC
96.	Megalaimidae	Megalaima zeylanica	Brown-headed Barbet	Fr	T	NA
97.		Megalaima haemacephala	Coppersmith Barbet	Fr	T	LC
98.	Picidae	Dendrocopos nanus	Brown-capped pygmy Woodpecker	I	T	LC
99.		Dinopium benghalense	Lesser Golden- backed Woodpecker	I	T	NA
100.	Hirundinidae	Riparia paludicola	Plain Martin	I	AH	LC
101.		Hirundo rustica	Common Swallow	I	AH	LC
102.		Hirundo smithii	Wire-tailed Swallow	I	AH	LC
103.	Motacillidae	Dendronanthus indicus	Forest Wagtail	I	T	LC
104.		Motacilla alba	White Wagtail	I	AH	NA
105.		Motacilla maderaspatensis	Large Pied Wagtail	I	T	NA
106.		Motacilla flava	Yellow Wagtail	I	AH	LC
107.		Motacilla cinerea	Grey Wagtail	I	AH	LC
108.		Anthus rufulus	Paddy-field Pipit	I	T	LC
109.		Anthus trivialis	Eurasian Tree Pipit	I	T	NA
110.	Campephagidae	Coracina macei	Large Cuckoo-Shrike	I	T	LC
111.	Vangidae	Tephrodornis pondicerianus	Common Woodshrike	I	T	LC
112.	Pycnonotidae	Pycnonotus cafer	Red-vented Bulbul	Om	T	LC
113.		Pycnonotus jocosus	Red-whiskered Bulbul	Om	T	LC
114.	Aegithinidae	Aegithina tiphia	Common Iora	Om	T	LC
115.		Lanius schach	Rufous -backed Shrike	C	T	LC
116.		Copsychus saularis	Oriental Magpie-Robin	I	T	LC
117.		Saxicoloides fulicata	Indian Robin	I	T	LC
118.		Phoenicurus ochruros	Black Redstart	I	T	LC
119.		Saxicola torquata	Common Stonechat	I	T	LC
120.		Saxicola caprata	Pied Bushchat	I	T	LC
121.		Cercomela fusca	Indian Chat	I	T	LC
122.		Chrysomma sinense	Yellow- eyed Babbler	I	T	LC
123.		Turdoides caudatus	Common Babbler	Om	T	LC
124.		Turdoides striatus	Jungle Babbler	I/Fr	T	LC
125.		Prinia socialis	Ashy Prinia	I	T	LC
126.		Prinia inornata	Plain Prinia	I	T	LC
127.		Acrocephalus agricola	Paddyfield Warbler	I	T	LC
128.		Orthotomus sutorius	Common Tailorbird	I	T	LC
129.		Cyornis tickelliae	Tickell,s Blue Flycatcher	I	T	LC

130.	Terpsiphone paradisi	Asian Paradise-Flycatcher	I	T	LC
131.	Parus major	Great Tit	I /Fr	T	LC
132.	Nectarinia asiatica	Purple Sunbird	Om	T	LC
133.	Zosterops palpebrosos	Oriental White-eye	I/Fr	T	LC
134.	Lonchura malabarica	White- throated Munia	Gr	T	LC
135.	Lonchura punctulata	Spotted Munia	Gr	T	LC
136.	Passer domesticus	House Sparrow	Gr	T	LC
137.	Ploceus philippinus	Baya Weaver	Gr	T	V
138.	Sturnus pagodarum	Brahminy Starling	Om	T	LC
139.	Sturnus roseus	Rosy Starling	Om	T	LC
140.	Sturnus contra	Asian Pied Starling	Om	T	LC
141.	Sturnus malabaricus	Chestnut-tailed Starling	Om	T	LC
142.	Acridotheres tristis	Common Myna	Om	T	NA
143.	Acridotheres fuscus	Jungle Myna	Om	T	LC
144.	Oriolus oriolus	Eurasian Golden Oriole	Om	T	LC
145.	Oriolus xanthornus	Black- headed Oriole	I/Fr	T	LC
146.	Dicrurus macrocercus	Black Drongo	I	T	LC
147.	Dicrurus paradiseus	Greater Racket- tailed Drongo	Om	T	LC
148.	Dendrocitta vagabunda	Indian Treepie	Om	T	LC
149.	Corvus splendens	House Crow	Om	T	LC
150.	Corvus macrorhynchos	Jungle Crow	Om	T	LC

Legend: T= Terrestrial, AH= Aquatic Habitat, W= Waders, LC= Least Concern, NA= Not Assessed, E= Endangered, NT= Near Threatened, V= Vulnerable, P= Piscivorous, I= Insectivorous, Om= Omnivorous, Gr= Granivorous, Fr=Frugivorous, V= Vegetarian, C=Carnivorous, Others (I/Fr, I/V, V/I, I/P).

Table: 2 Photographs of some birds listed in Table 1

		
Indian Roller	Wire-tailed swallow	Egyptian Vulture
		
Purple Moorhen	Northern Pintail	Cattle Egret



Red crested Bulbul



House Sparrow



Spotted Dove



White Wagtail



Yellow Wagtail



White-breasted Kingfisher



Bronzed-winged Jacana



Black-headed Ibis



Common Hoopoe



Indian Grey Hornbill



Pheasant-tailed Jacana



Red-wattled Lapwing