

**BIRD DIVERSITY OF DHAULADHAR NATURE PARK-GOPALPUR, DISTRICT KANGRA,
HIMACHAL PRADESH.**Sangeeta Chandel¹, Vijay Kumar², Bhagwati Prashad Sharma³ and Reetu Patiyal⁴¹Divisional Forest Officer (HQ) M&E, Hamirpur Circle, Himachal Pradesh, 177001.²Veterinary Officer-Wild Life, Dhauladhar Nature Park, Gopalpur, Kangra, H.P, India.176059.³Department of Botany, Post graduate Degree College – Hamirpur, Himachal Pradesh, 177001.⁴Wildlife Division, Hamirpur Himachal Pradesh, 177001.

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ABSTRACT: A study regarding survey of birds was carried out at dhauladhar Nature Park Gopalpur of Distt Kangra in the month of July 2011. During the present taxonomic and ecological study there was seen 89 species of birds belonging to 62 genera, 34 families and 11 orders. Out of a total 89 species 49 have been placed under Indian Wildlife Protection Act 1972 while rest were found to be least concern. Insectivores represents 38 species while 16 species of the birds were omnivores and 14 species of the birds were found frugivorous and 10 species belongs to granivores.

Key words: Bird diversity, Dhauladhar Nature Park, Northern Himalayas

INTRODUCTION:

Himachal Pradesh state has vivid type of flora and fauna owing to different climatic and geographical conditions. The region is hilly; the soil is predominantly shallow and sandy, allowing many vegetal formations to grow, such as forest galleries, cerrado, veredas and altitude fields. Local climate is classified as subtropical, and shows well-marked cold (Oct to feb) and rainy (July to Sep) and summer (March to June) seasons throughout the year. The minimum temperature is 5⁰ degree in January (winter) and maximum 40⁰ in June (summer). The annual rainfall in this zone varies from 1500 mm to 1800 mm. Dhauladhar Nature Park is situated at 31⁰ 42' North Latitude and 76⁰ 43' 48'' East Longitude, and altitude varies from 1235 to 1300 mt/msl in the mid-hill of the northwestern region of Himalayas. The records shows that in Himachal Pradesh although various studies has been done since the time of British period [1,2,3,4] but vast studies have been made by workers only after the periods of nineties. A limited data is available regarding the study of birds of Himachal Pradesh. Avian fauna is an integral part of an ecosystem and play different vital roles in the ecosystem acting as predators, scavengers and pollinators [7] and bio"-indicators [12,14]. Birds recording data plays an important role in providing us the baseline data regarding the distribution of a particular species in a particular area and making comparison with the other areas of it's distribution [5]. The birds population diversity of birds is decreasing because of various environmental and climatic disturbances. [6, 13, 15]. The bird's surveys are helpful in making plans for the conservation of the endangered species.

Study area

Study was carried out in the Dhauladhar Nature Park Gopalpur which is a zoological park and located in the midhills of the Shivalik hills of the Himalayas. This zoological park falls under wild life division of Hamirpur.

METHODS

In order to know the free ranging bird species in and surrounding the Dhauladhar nature park a bird race was organized. In this exercise, in addition to local staff of Dhauladhar Nature Park, Gopalpur, field staff of Hamirpur Wildlife Division and some bird lovers also participated. The whole area of Dhauladhar Nature Park was divided into 4 sections and a total of 20 participants, participated in this exercise. The birds were viewed with good quality of binocular and photographed with good quality of cameras [8,9] and were identified with relevant reference books

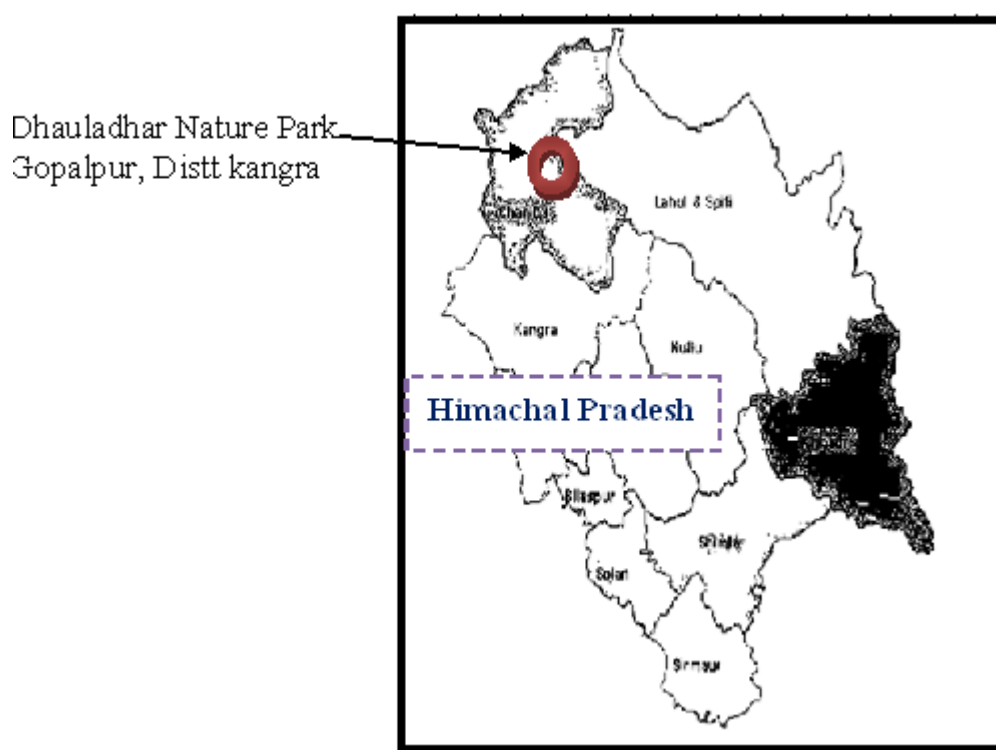


Fig-1-Map showing location of Dhauladhar Nature Park Gopalpur

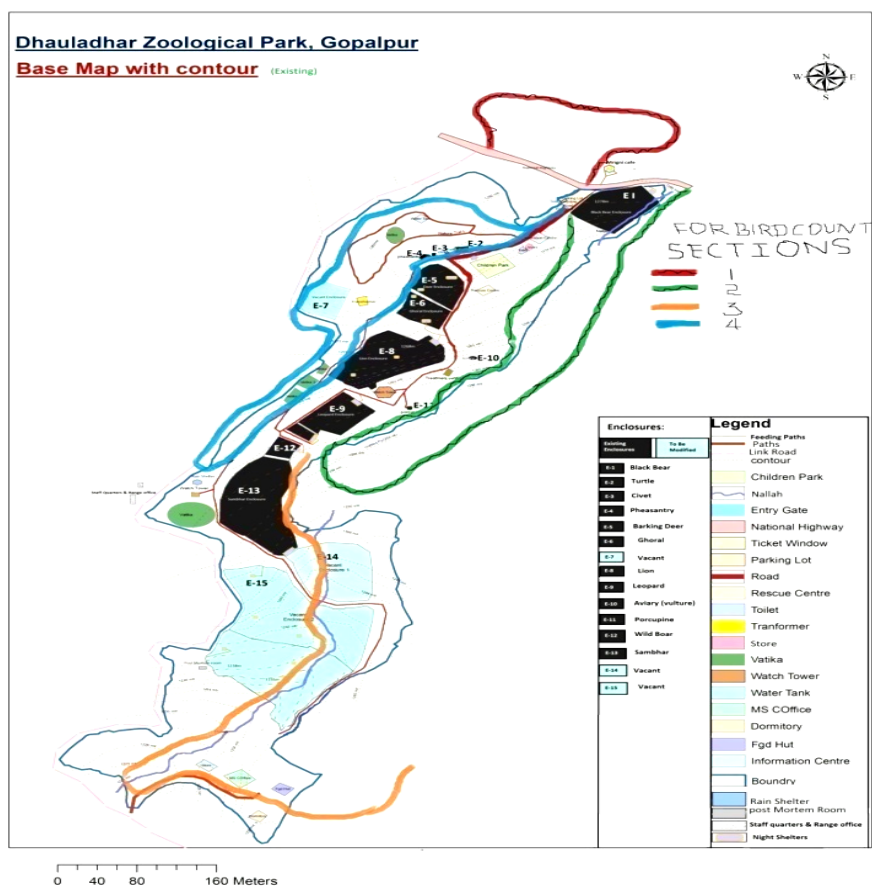


Fig-2: Map showing Existing map of Dhauladhar Nature Park, depicting the sections of Bird count.

RESULTS AND DISCUSSION

A total of 89 species of free living species of birds of different genera were found existing in & around the Nature Park. The present studies on bird species of Dhauladhar Nature Park Goplapur district kangra, Himachal Pradesh revealed the presence of 89 species of birds belonging to 62 genera and belongs to 34 families and 11 orders. Family wise analysis showed that family Muscicapidae (20 species) dominated the avifauna, followed by Columbidae, Psittacidae, Capitonidae (4 each), Accipitridae, Phasianidae, Corvidae, Cuculidae, Hirundinidae, Passeridae, Sturnidae, Ardeidae, Dicruridae, Leiothrichidae, and Pycnonotidae (3each), whereas, Picidae, Laniidae, Phylloscopidae, Picinae and Rhipiduridae (2 each), and Campephagidae, Sittidae, Zosteropidae, Fringilidae, Estrildidae, Acrocephalidae, Alcedinidae, Certhiidae, Charadriidae, Monarchidae, Nectariniidae, Oriolidae, Paridae and Rallidae (1 species each) were poorly represented in the area (Table 1). Our research also strengthens the report of other researchers regarding the abundance of Muscicapidae family which is reported to be the largest family of birds in India [10, 11, 16]. The present study also shows that passerine birds dominated the diversity with 58 species as compared to non-passerines (31species) (Table 1). Out of 89 species of the birds insectivores represents 38 species and 16 species of the birds were omnivores and 14 species of the birds were frugivorous and 10 species belongs to granivores. (Fig-3). Birds are the indicators of various environmental as well ecological disturbances in any area. Some birds are indicators of the pollution while some are indicators of seasonal and geographical variabilities. These type of studies are helpful in knowing the biodiversity of a particular area as well as the population and abundance of any species in that particular area.

Table-1: Detail of Birds with Scientific Names, orders, family and status under Wild Life Protection Act (1972)

S.No	Name of birds	Scientific Names	Order	Family	Wild Life Protection act (1972) yes/no	Food Habit
PARAKEETS						
1	Alexandrine Parakeet	<i>Psittacula eupatria</i>	<i>Psittaciformes</i>	<i>Psittacidae</i>	y	F
2	Plum-headed Parakeet	<i>Psittacula cyanocephala</i>	<i>Psittaciformes</i>	<i>Psittacidae</i>	y	F
3	Slaty-headed Parakeet	<i>Psittacula himalayana</i>	<i>Psittaciformes</i>	<i>Psittacidae</i>	y	F
4	Rose-ringed Parakeet	<i>Psittacula krameri</i>	<i>Psittaciformes</i>	<i>Psittacidae</i>	y	F
DRONGOS						
5	Ashy Drongo	<i>Dicrurus leucophaeus</i>	<i>Passeriformes</i>	<i>Dicruridae</i>	y	I
6	Black Drongo	<i>Dicrurus macrocercus</i>	<i>Passeriformes</i>	<i>Dicruridae</i>	y	I
7	Spangled Drongo	<i>Dicrurus hottentottus</i>	<i>Passeriformes</i>	<i>Dicruridae</i>	y	I
PRINIAS						
8	Ashy Prinia	<i>Prinia socialis</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>		I
9	Jungle Prinia	<i>Prinia sylvatica</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>		I
10	Plain Prinia	<i>Prinia nornata</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>		I
11	Striated Prinia	<i>Prinia criniger</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>		I
FLYCATCHERS						
12	Asian Brown Flycatcher	<i>Muscicapa latirostris</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>	y	I
13	Asian Paradise flycatcher	<i>Terpsiphone paradisi</i>	<i>Passeriformes</i>	<i>Monarchidae</i>	y	I
14	Grey-headed Canary Flycatcher	<i>Culicicapa ceylonensis</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>	y	I
15	Verditer Flycatcher	<i>Eumyias thalassina</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>	y	I
16	Ultramarine Flycatcher	<i>Ficedula superciliaris</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>	y	I

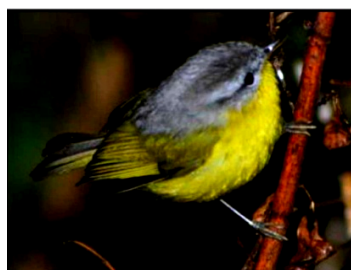
CUCKOOS						
17	Asian Koel	<i>Eudynamys scolopacea</i>	<i>Cuculiformes</i>	<i>Cuculidae</i>	y	F
18	Common Hawk Cuckoo	<i>Hierococcyx varius</i>	<i>Cuculiformes</i>	<i>Cuculidae</i>	y	I
19	Lesser Cuckoo	<i>Cuculus bpoliocephalus</i>	<i>Cuculiformes</i>	<i>Cuculidae</i>	y	I
MYNAS						
20	Bank Myna	<i>Acridotheres ginginianus</i>	<i>Passeriformes</i>	<i>Sturnidae</i>	y	O
21	Common Myna	<i>Acridotheres tristis</i>	<i>Passeriformes</i>	<i>Sturnidae</i>	y	O
22	Jungle Myna	<i>Acridotheres fuscus</i>	<i>Passeriformes</i>	<i>Sturnidae</i>	y	O
SWALLOWS						
23	Barn Swallow	<i>Hirundo rustica</i>	<i>Passeriformes</i>	<i>Hirundinidae</i>		I
24	Red-rumped Swallow	<i>Hirundo daurica</i>	<i>Passeriformes</i>	<i>Hirundinidae</i>		I
25	Wire-tailed Swallow	<i>Hirundo smithii</i>	<i>Passeriformes</i>	<i>Hirundinidae</i>		I
NUTHATCHES AND TREECREEPERS						
26	Bar-tailed Tree creeper	<i>Certhia himalayana</i>	<i>Passeriformes</i>	<i>Certhiidae</i>		I
27	Chestnut-bellied nuthatch	<i>Sitta cinnamoventris</i>	<i>Passeriformes</i>	<i>Sittidae</i>		O
BULBULS						
28	Black Bulbul	<i>Hypsipetes leucocephalus</i>	<i>Passeriformes</i>	<i>Pycnonotidae</i>	y	F
29	Himalayan Bulbul	<i>Pycnonotus leucogenys</i>	<i>Passeriformes</i>	<i>Pycnonotidae</i>	y	F
30	Red-vented Bulbul	<i>Pycnonotus cafer</i>	<i>Passeriformes</i>	<i>Pycnonotidae</i>	y	F
BABBLERS						
31	Black-chinned Babbler	<i>Stachyris pyrrhops</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>	y	I
32	Common Babbler	<i>Turdoides caudatus</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>	y	I
33	Jungle Babbler	<i>Turdoides striatus</i>	<i>Passeriformes</i>	<i>Muscicapidae</i>	y	I
FRANCOLINS						
34	Black Francolin	<i>Francolinus francolinus</i>	<i>Galliformes</i>	<i>Phasianidae</i>		V,I
35	Grey Francolin	<i>Francolinus pondicerianus</i>	<i>Galliformes</i>	<i>Phasianidae</i>		G
KITES						
36	Black kite	<i>Milvus migrans</i>	<i>Accipitriformes</i>	<i>Accipitridae</i>		O
BARBETS						
37	Blue-throated Barbet	<i>Megalaima asiatica</i>	<i>Piciformes</i>	<i>Capitonidae</i>	y	F
38	Brown-headed Barbet	<i>Megalaima zeylanica</i>	<i>Piciformes</i>	<i>Capitonidae</i>	y	F
39	Coppersmith Barbet	<i>Megalaima haemacephala</i>	<i>Piciformes</i>	<i>Capitonidae</i>	y	F
40	Great barbet	<i>Megalaima virens</i>	<i>Piciformes</i>	<i>Capitonidae</i>	y	F
WARBLERS						
41	Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>	<i>Passeriformes</i>	<i>Acrocephalidae</i>		I,F
42	Grey-hooded Warbler	<i>Phylloscopus xanthoschistos</i>	<i>Passeriformes</i>	<i>Phylloscopidae</i>		I
43	Hume's Warbler	<i>Phylloscopus humei</i>	<i>Passeriformes</i>	<i>Phylloscopidae</i>		F

WOODPECKERS						
44	Brown-fronted Woodpecker	<i>Dendrocopos auriceps</i>	Piciformes	Picidae	y	O
45	Fulvous-breasted Woodpecker	<i>Dendrocopos macei</i>	Piciformes	Picidae	y	O
46	Grey-headed Woodpecker	<i>Picus canus</i>	Piciformes	Picinae	y	O
47	Black-rumped Flameback	<i>Dinopium benghalense</i>	Piciformes	Picinae		O
EGRETS AND HERONS						
48	Cattle Egret	<i>Bubulcus ibis</i>	Ciconiiformes	Ardeidae	y	A
49	Little Egret	<i>Egretta garzetta</i>	Ciconiiformes	Ardeidae	y	A,I
50	Indian Pond Heron	<i>Ardeola grayii</i>	Ciconiiformes	Ardeidae		A,I
SPARROWS AND SNOWFINCHES						
51	Chestnut shouldered petronia	<i>Petronia xanthocollis</i>	Passeriformes	Passeridae		O
52	House Sparrow	<i>Passer domesticus</i>	Passeriformes	Passeridae		G
53	Russet Sparrow	<i>Passer rutilans</i>	Passeriformes	Passeridae		G
LAUGHINGTHRUSHES AND THRUSHES						
54	Chestnut-crowned Laughing thrush	<i>Garrulax erythrocephalus</i>	Passeriformes	Leiothrichidae	y	I
55	Variegated Laughing thrush	<i>Garrulax variegates</i>	Passeriformes	Leiothrichidae	y	I
56	Orange-headed Thrush	<i>Zoothera citrina</i>	Passeriformes	Muscicapidae	y	O
57	Blue Whistling Thrush	<i>Myophonus caeruleus</i>	Passeriformes	Muscicapidae	y	A,I
CROWS						
58	Large-billed Crow	<i>Corvus macrorhynchos</i>	Passeriformes	Corvidae		O
ROSEFINCHES						
59	Common Rose finch	<i>Carpodacus erythrinus</i>	Passeriformes	Fringillidae		G
VULTURES						
60	Egyptian Vulture	<i>Neophron percnopterus</i>	Accipitriformes	Accipitridae	y	S
ORIOLES						
61	Eurasian Golden Oriole	<i>Oriolus oriolus</i>	Passeriformes	Oriolidae	y	F,I
TITS						
62	Great Tit	<i>Parus major</i>	Passeriformes	Paridae	y	I
BUSHCHATS						
63	Grey Bushchat	<i>Saxicola ferrea</i>	Passeriformes	Muscicapidae		I
64	Pied Bushchat	<i>Saxicola caprata</i>	Passeriformes	Muscicapidae		I
CHATS						
65	Indan Robin	<i>Saxicoloides fulicata</i>	Passeriformes	Muscicapidae		I
66	Oriental Magpie Robin	<i>Copsychus saularis</i>	Passeriformes	Muscicapidae		I

DOVES						
67	Laughing Dove	<i>Streptopelia senegalensis</i>	Columbiformes	Columbidae	y	G
68	Red Collared Dove	<i>Streptopelia tranquebarica</i>	Columbiformes	Columbidae	y	G
69	Spotted Dove	<i>Streptopelia chinensis</i>	Columbiformes	Columbidae	y	G
MINIVETS AND FANTAILS						
70	Long-tailed Minivet	<i>Pericrocotus ethologus</i>	Passeriformes	Campephagidae		I
71	White-throated Fantail	<i>Rhipidura albicollis</i>	Passeriformes	Rhipiduridae		I
72	White-browed Fantail	<i>Rhipidura aureola</i>	Passeriformes	Rhipiduridae		I
WHITE-EYES						
73	Oriental White-eye	<i>Zosterops palpebrosus</i>	Passeriformes	Zosteropidae	y	O
KINGFISHERS						
74	Pied Kingfisher	<i>Cerylerudis</i>	Coraciiformes	Alcedinidae	y	A
SUNBIRDS						
75	Purple Sunbird	<i>Nectarinia asiatica</i>	Passeriformes	Nectariniidae	y	N
SHRIKES						
76	Red-backed Shrike	<i>Lanius collurio</i>	Passeriformes	Laniidae		C
77	Long-tailed Shrike	<i>Lanius schach</i>	Passeriformes	Laniidae		C
MAGPIES						
78	Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	Passeriformes	Corvidae	y	O
79	Yellow-billed Blue Magpie	<i>Urocissa flavirostris</i>	Passeriformes	Corvidae	y	O
PHEASANTS						
80	Red junglefowl	<i>Gallus gallus</i>	Galliformes	Phasianidae		G
LAPWINGS						
81	Red-wattled Lapwing	<i>Vanellus indicus</i>	Charadriiformes	Charadriidae		I,V
PIGEONS						
82	Rock Pigeon	<i>Columba livia</i>	Columbiformes	Columbidae		G
MUNIAS						
83	Scaly-breasted Munia	<i>Lonchura punctulata</i>	Passeriformes	Estrildidae	y	G,F
FORKTAILS AND REDSTARTS						
84	Spotted Forktail	<i>Enicurus maculatus</i>	Passeriformes	Muscicapidae		I
85	White-capped Water Redstart	<i>Chaimarromis leucocephalus</i>	Passeriformes	Muscicapidae		I
TAILORBIRDS						
86	Common Tailorbird	<i>Orthotomus sutorius</i>	Passeriformes	Muscicapidae		I
CRAKES						
87	White-breasted Waterhen	<i>Amauromis phoenicurus</i>	Gruiformes	Rallidae		O
SIBIAS						
88	Rufous sibia	<i>Heterophasia capistrata</i>	Passeriformes	Leiothrichidae		I,F
ACCIPITERS						
89	Shikra	<i>Accipiter badius</i>	Accipitriformes	Accipitridae		C

O-Omnivorous; S-Scavenger; V-Vegetable matter; N-Nectar eater;

A-Aquatic animal eater*Feeding Habit: C-Carnivorous; F-Frugivorous; I-Insectivorous; G-Graminivorous;



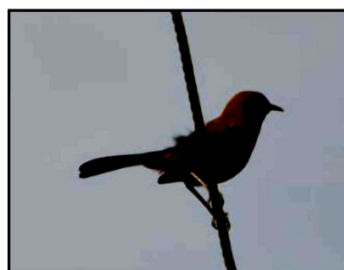
Grey-hooded Warbler



House Sparrow



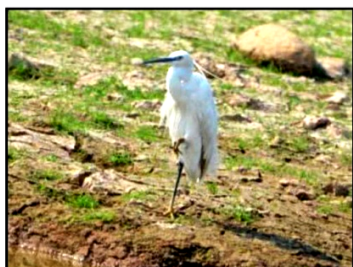
Jungle Myna



Indian Robin



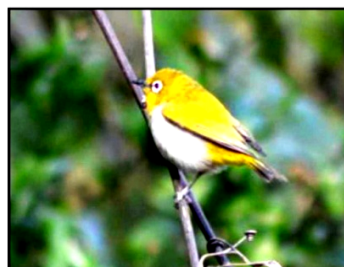
Indian Pond Heron



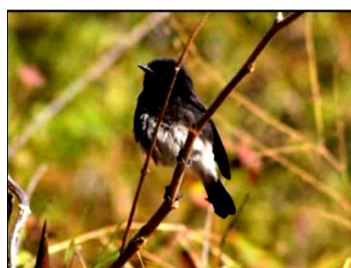
Little Egret



Oriental Magpie Robin



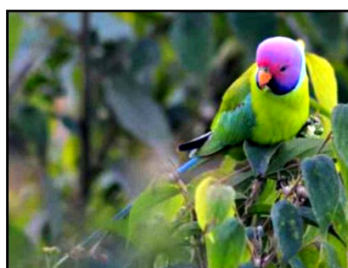
Oriental White-eye



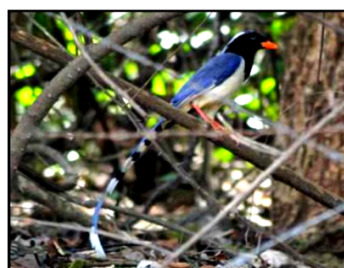
Pied Bushchat



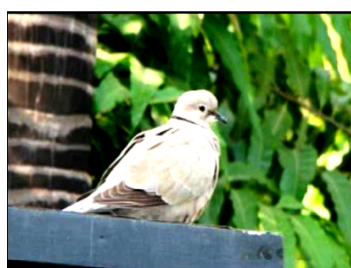
Pied Kingfisher



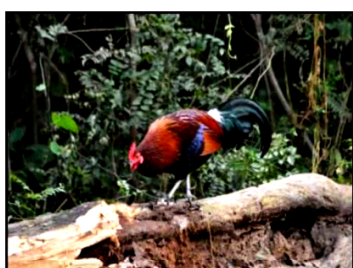
Plum-headed Parakeet



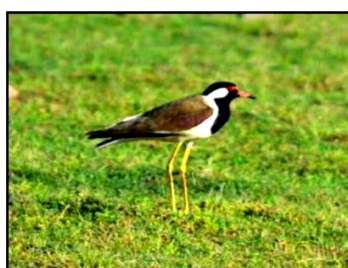
Red-billed Blue Magpie



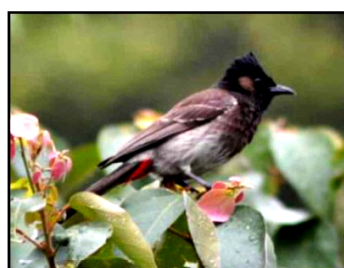
Red Collared Dove



Red Junglefowl



Red-wattled Lapwing



Red-vented Bulbul



Red-rumped Swallow



Rock Pigeon



Rose-ringed Parakeet



Scaly-breasted Munia

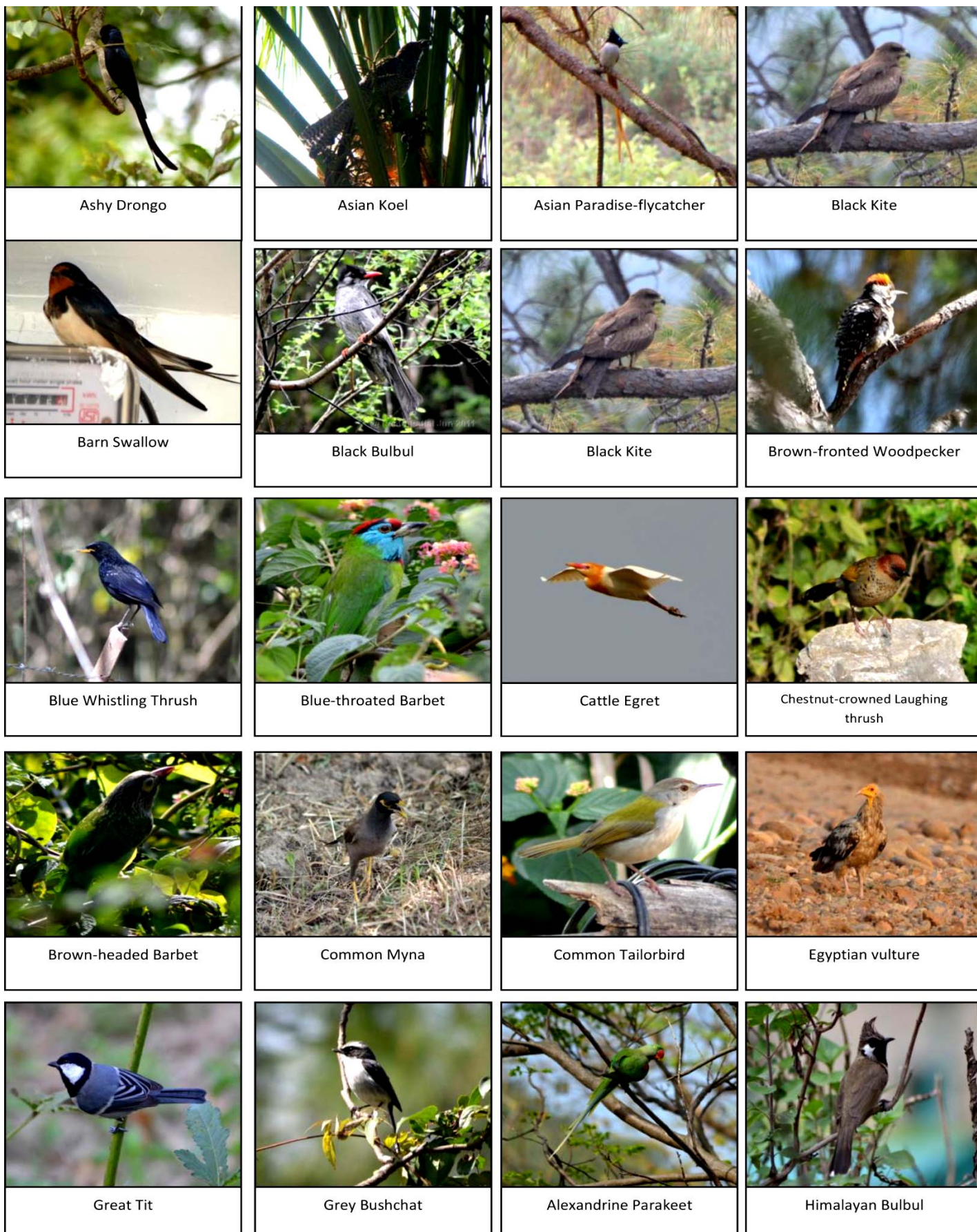


Fig-3: Showing Images of Birds

REFERENCES

- [1] Ali S. 1949. Indian Hill Birds. Oxford University Press, Bombay: 188.
- [2] Ali S, Ripley SD. 1983. Handbook of the Birds of India and Pakistan (compact edition). Oxford University Press, New Delhi: 737.
- [3] Ali S, Ripley S.D. 1987. Compact Handbook of the Birds of India and Pakistan (2nd edition). Oxford University Press, Delhi: 72–92.
- [4] Besten JWD. 2004. Birds of Kangra. Moon peak Publishers, Dharamshala: 173.
- [5] Colin B, Jones M, & Marsden S.2000. Expedition Field Techniques Bird Survey, Bird Life International press, Cambridge: 75.
- [6] Chen IC, Hill JK, Ohlemüller R, Roy DB, & Thomas CD. 2011. Rapid range shifts of species associated with high levels of climate warming. *Science*.333: 1024–1026.
- [7] Dhadse S, Kotangale JP, Chaudhari PR, Wate SR. 2009. Diversity of birds at Panipat refinery, Haryana (India). *Env Monit and Assess*. 158: 1-8.
- [8] Grimmett R, Inskipp C, & Inskipp T. 1998. Birds of the Indian Subcontinent. Oxford University Press, Delhi: 591–615.
- [9] Kazmierczak K. 2006. A field guide to the birds of India. Illustrated by Bee Van Perlo. Published in the United Kingdom by Pica Press: 352.
- [10] Mahabal A. 2000. Birds of Talra Wildlife Sanctuary in lower Western Himalaya, Himachal Pradesh, with notes on their status and altitudinal movements. *Zoos' Print Journal*. 15 (10): 334-338.
- [11] Manakadan R, Pittie A. 2001. Standardised common and scientific names of the birds of the Indian subcontinent. *Buceros*. 6 (1): 1-37.
- [12] Padoa-Schioppa E, Baietto M, Massa R, Bottoni L. 2006. Bird communities as bioindicators: The focal species concept in agricultural landscapes. *Ecological Indicators*. 6 (1): 83–93.
- [13] Rapoport EH. 1993. The process of plant colonization in small settlements and large cities. In: Mac Donell MJ, Pickett S. (Eds), *Humans as components of ecosystems*. Springer–Verlag, New York: 190–207
- [14] Schwartz CW, Schwartz ER. 1951. An ecological reconnaissance of the pheasants of Hawaii. *Auk*. 68: 281–314.
- [15] Sekercioglu CH, Primack RB & Worm worth J. 2012. The effects of climate change on tropical birds. *Biological Conservation*. 148: 1–18.
- [16] Thakur, ML, Mattu VK, Sharma HL, RajVH & Thakur V. 2010. Avifauna of Arki Hills, Solan (Himachal Pradesh), India. *Indian Birds*.5 (6): 162-166.