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Avifauna of district Udhampur, Jammu and Kashmir (UT), India: A Systematic checklist, Photographic documentation and Diversity assessment

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Abstract

The present study was carried out from April 2023 to March 2024 to document the avifaunal diversity of District Udhampur, Jammu and Kashmir (UT), India. Systematic field surveys recorded a total of 146 bird species belonging to 15 orders and 52 families. Among the recorded taxa, Passeriformes was the dominant order, comprising 83 species (56.84%), followed by Accipitriformes (13 species; 8.90%) and Piciformes (11 species; 7.53%). Based on their relative abundance, 78 species were categorised as common, 25 as frequent, 30 as occasional and 13 as rare. Analysis of residential status revealed that resident species predominated, accounting for 103 species (70%), followed by 33 summer migrants (23%), six winter migrants (4%) and four passage migrants (3%). Assessment of the conservation status following the IUCN Red list indicated that 139 species were classified as Least Concern, three as Near Threatened, two as Endangered and two as Critically Endangered. The documentation of globally threatened species, including the Indian Vulture (Gyps indicus), White-rumped Vulture (Gyps bengalensis), Steppe Eagle (Aquilla nipalensis) and Egyptian Vulture (Neophron percnopterus) underscore the ecological and conservation importance of the study area. This study provides the first comprehensive and updated inventory of the avifauna of District Udhampur, serving as an important baseline for future ecological investigations, biodiversity monitoring and conservation planning in the region.

Keywords: Bird diversity, species inventory, photographic records, Udhampur, IUCN status..

Introduction

Birds constitute one of the most conspicuous components of Earth's biodiversity and are highly sensitive to environmental changes. They act as a key indicator for measuring the status of environmental health[1,2]. Aves are remarkable and varied group of animals which have always attracted and fascinated humans with their naturally beautiful feathers, musical songs and creative behavior in their natural habitats, i.e. aquatic, scrubby and mixed forest habitat[3-5]. Birds play several roles as scavengers, predators and pollinators. Birds needs habitat to live which depends upon a nesting site, foraging plans and species food preference. Birders have established the habitat concept and have collected data concerning the abundance and distribution of avianin aspects of environment[6]. The study of avifaunal diversity is a very important biological tool that acts as a significant indicator to assess diverse habitats both qualitatively and quantitatively[7].

Study of diversity provides baseline information about the status of avifauna for further advanced studies. Comprehensive knowledge of bird diversity and community structure is indispensable for assessing ecosystem health, as avian communities are highly responsive to change in environmental conditions. Many researchers, hobbyists, unprofessional birders and opportunistic sightings have contributed to the avian record for the Jammu and Kashmir which includes the work of Kumar and Sahi[8], Wani *et al.*[9], Aggarwal and Sahi[10], Choudhary[11], Sharma and Kichloo[12], Kichloo *et al.*[13], Sohil and Sharma[14], Verma and Verma[15] and Malik *et al.*[16]. As far as the knowledge of present research is concerned, the studies on the avifaunal diversity of district Udhampur, J&K (UT) are very limited. Important contribution in the ornithology of district Udhampur was made by Singh *et al.*[17-19], Pandotra & Sahi[20], Kumar[21,22], Kumar and Kumar[23], Kumar and Kaur[24]. They aimed their attention on a specific aspect of some birds or in a particular area only. In view of the limited information available on the avifauna of District Udhampur, the current work was carried out to document the avian species and assess the abundance, residential status and conservation status of avifauna in the area under study.

Materials and Methods

Study area: The present investigation was carried out in Udhampur district, Jammu & Kashmir (Union Territory), located in the northwestern part of the Lower Himalayan region (Figure-1). Geographically, the district lies in the south-eastern part of Jammu & Kashmir and shares its boundaries with Reasi district to the west, Ramban district to the north, Doda district to the north-east, Kathua and Samba districts to the south-east, and Jammu district to the south-west. The district headquarters is situated at Udhampur town.

The geographical extent of the district ranges between 32°34′–33°30′ N latitude and 74°16′–75°38′ E longitude. Udhampur occupies an area of approximately 2,380 km² and is administratively divided into eight tehsils**,** namely Udhampur, Ramnagar, Chenani, Majalta, Mongri, Panchari, Latti and Basantgarh. The district comprises 357 villages and four urban towns. Forest ecosystems cover nearly 43% (approximately 1,042 km²) of the total geographical area, contributing to a wide variety of natural habitats that support rich floral and faunal diversity.

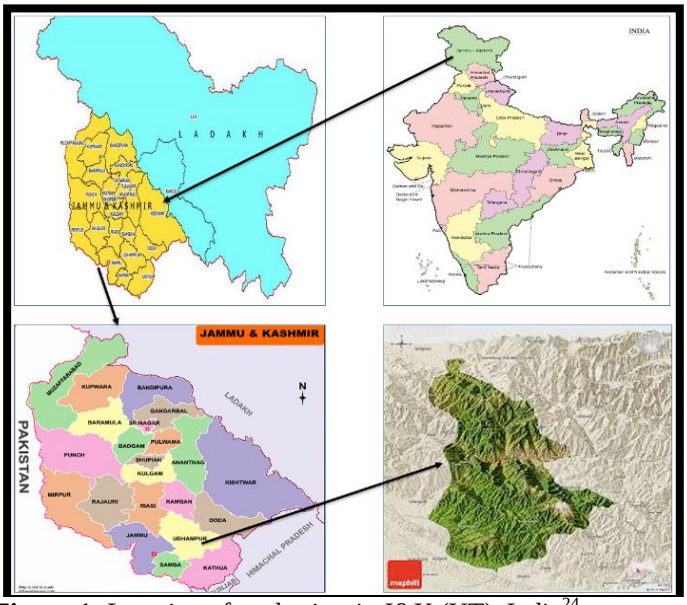


Figure-1: Location of study sites in J&K (UT), India[24].

Methodology: The field investigation was carried out over a one-year period, from April 2023 to March 2024, to document the avifaunal diversity of Udhampur district. Bird surveys were conducted using the line-transect method[25] and the point count method[26], both of which are widely adopted techniques for avifaunal assessment. Photographic documentation of bird species was carried out using a NikonD5300 DSLR camera fitted with a 70–300 mm telephoto lens**,** while a Bushnell binocular was used for field observations and species identification. Field observations were primarily undertaken during periods of maximum bird activity, i.e., shortly after sunrise and before sunset. To ensure consistency throughout the study, surveys were conducted during fixed time intervals. During the summer season, observations were made between 06:00**–**11:00 h in the morning and 16:30–18:30 h in the evening, whereas in winter the survey timings were 07:30**–**11:30 h and 15:30**–**17:30 h, respectively.

Field surveys were conducted twice a week, some irregular visits were also conducted during different hours of the day. Documentation of the noted avian species was done with help of pertinent literature, reference books and field guides: "A photographic guide to birds of India"[27], "Handbook of Birds of India and Pakistan"[28], "The Book of Indian Birds"[29]. Validation of the bird species was done with the help of "Birds of Indian Subcontinent"[30]. Taxonomy was followed as per Clements Check list, 2023[31]. The relative abundance of bird species recorded during the survey was assessed following the classification proposed by Wani and Sahi[9]. Based on the frequency of field observations, each species was assigned to one of four abundance categories: Common (C), Frequent (F)**,** Occasional (O), and Rare (R). To measure the residential status of different avian species, recorded avian fauna was categorized as Resident (Res), Summer migratory (SM), Winter migratory (WM) and Passage migratory (PM). IUCN status of species was categorised based on their distribution, taxonomy and conservation status[32].

Results and Discussion

During the study, 146 avian species belonging to 15 orders and 52 families were recorded from the area under study (Table-1, Figure-2 to 7). The work investigated that maximum 56.84% (n=83) number of species belonged to the order Passeriformes that further classified into 32 families followed by Accipitriformes 8.9% (n=13) with 2 families, Piciformes 7.53% (n=11) with 2 families, Galliformes 4.79% (n=7) with 1 family, Psittaciformes 3.42% (n=5) with 1 family. Order Columbiformes, Cuculiformes and Pelecaniformes with 1 family constituted of 2.73% (n=4) species each, Coraciiformes with 2 families represented by 2.73% (n=4) species, Gruiformes with 1 family represented by 2.05% (n=3) species, Charadriiformes with 3 families represented by 2.05% (n=3), Strigiformes with 2 families represented by 1.36% (n=2) species and order Upupiformes, Bucerotiformes, Suliformes with 1 family constituted 0.68% (n=1) species each (Figure-8).

The relative abundance of avian species also observed in the study area (Figure-9). Avian species (78) were common (C), 25 species were frequent (F), 30 were occasional (O), and 13 avian species were found rare (R). The residential status of each recorded bird species was determined on the basis of its seasonal occurrence in the study area. Accordingly, species were classified into four categories: Resident (Res)**,** Winter Migrant (WM), Summer Migrant (SM), and Passage Migrant (PM). Investigation of data revealed that out of 146 avian species encountered in the study area, 103 (70%) bird species were residential (Res), 33 (23%) species were summer migratory (SM), 6 (4%) species were winter migratory (WM) and 4 (3%) species were passage migratory (PM) (Figure-10). Some residential bird species shows altitudinal migration (AM) downwards the hills during the winter season to avoid the adverse climatic conditions occurred at high reaches.

Various avian species documented during the survey period in district Udhampur were given the IUCN status[33]. According to the latest Red Data List of IUCN, 3 species were considered as Near Threatened, 2 species Critically Endangered, 2 Endangered species and 139 species were found Least Concern

from the study area (Figure-11). Among the recorded avifauna Indian Vulture (*Gyps indicus*) and White-rumped Vulture (*Gyps bengalensis*) were categorised as Critically Endangered (CR), while Steppe Eagle (*Aquila nipalensis*) and Egyptian Vulture (*Neophron percnopterus*) were classified as Endangered (EN). Himalayan Griffon (*Gyps himalayensis*), Alexandrine Parakeet (*Psittacula eupatria*) and Blossom-headed Parakeet (*Psittacula roseate*) were also documented from the study area and belong to the Near Threatened (NT) category according to the IUCN Red List.

Discussion: The present investigation recorded 146 avifaunal species belonging to 15 orders and 52 families from District Udhampur, indicating that the district supports a rich and diverse avifaunal assemblage. The high species richness recorded during the current work can be connected to the heterogeneous landscape of Udhampur, comprising subtropical forests, mixed deciduous and coniferous forests, agricultural fields, scrublands, riverine habitats and urban settlements. Such habitat heterogeneity provides a wider range of nesting sites, food resources and microhabitats, thereby supporting a diverse bird community. Earlier, Kumar and Kaur[24] reported similar work from different parts of study area, where habitat diversity has been recognized as the major factors effecting avian richness and distribution. The dominance of Passeriformes (56.84%) documented in the current study is in agreement with earlier investigations conducted in Udhampur, Jammu and other regions of J & K, where passerines constituted the highest proportion of the avifauna. Singh *et al.*[19] reported Passeriformes as the dominant order in Tehsil Udhampur, while Kichloo *et al.*[13] also observed a similar pattern from the University of Jammu campus. Likewise, the comprehensive checklist of avifauna of J&K (UT) compiled by Sohiland Sharma[14] reported that passerines represent the largest avian order in the region. The predominance of passerines is generally attributed to their high ecological adaptability, diverse feeding habits and ability to exploit a wide variety of habitats.

The majority of species recorded during the present study were categorized as common (78 species), whereas only 13 species were found to be rare. This pattern suggests that most bird species have successfully adapted to the prevailing environmental conditions and available resources in the study area. Sohil and Sharma[14] were reported similar observations from other parts of the Jammu region, where common species dominate the avian community, while comparatively few species occur with low abundance owing to habitat specificity, restricted distribution or seasonal occurrence.

The analysis of residential status revealed that resident birds (70%) formed the largest component of the avifauna, followed by summer migrants (23%), winter migrants (4%) and passage migrants (3%). A predominance of resident species has also been documented from Udhampur, Jammu, Rajouri and other parts of the Western Himalaya, reflecting the availability of suitable habitats throughout the year. The occurrence of summer and winter migrants further highlights the ecological significance of Udhampur, which lies along an altitudinal transition zone between the Shivalik foothills and the Middle Himalaya. Several resident species exhibiting altitudinal migration during winter indicate seasonal movement in response to low temperatures and food availability at higher elevations, a phenomenon widely reported in Himalayan bird communities.

Assessment of the conservation status presented those 139 species belonged to the Least Concern category, whereas seven species were included under globally threatened categories, comprising three Near Threatened (NT), two Endangered (EN) and two Critically Endangered (CE) species. The occurrence of threatened raptors, particularly the Indian Vulture (*Gyps indicus*), White-rumped Vulture (*Gyps bengalensis*), Steppe Eagle (*Aquila nipalensis*) and Egyptian Vulture (*Neophron percnopterus*), emphasizes the conservation importance of the study area.

These avian species have experienced severe population declines across the Indian subcontinent due to habitat degradation, poisoning, food scarcity and veterinary diclofenac use. Their continued presence in Udhampur suggests that the district still provides suitable habitats and foraging grounds, thereby highlighting the need for long-term monitoring and habitat protection. Similar conservation concerns have been emphasized in recent reviews on the avifauna of J & K and the Western Himalaya. The present study substantially expands the available information on the avifauna of District Udhampur and demonstrates that the district supports a rich assemblage of resident, migratory and globally threatened bird species. The findings provide an important baseline for future ecological monitoring and emphasize the necessity of conserving the diverse forest, agricultural and riverine habitats of the district to confirm the survival of its avifaunal diversity.

Conclusion

The present work documented 146 avian species classified to 15 orders and 52 families from Udhampur District, Jammu and Kashmir (UT), highlighting the region as an important avian diversity hotspot in the northwestern Himalayas. The predominance of Passeriformes and resident bird species reflects the ecological suitability and habitat heterogeneity of the district. The presence of migratory birds further emphasizes the significance of Udhampur as a seasonal refuge and movement corridor. Notably, the occurrence of seven globally threatened species**,** including Critically Endangered vultures, highlights the conservation value of the study area. These findings provide an updated baseline database on the avifauna of Udhampur, which can serve as a valuable reference for future ecological research, biodiversity monitoring, and conservation planning. Continued protection of natural habitats, coupled with regular monitoring and community-based conservation initiatives are crucial to confirm the lasting existence of the region's rich avifaunal diversity.

Table-1: Systematic inventory of the avifauna recorded from district Udhampur, J&K (UT), India

Order	Family	Common Name	Zoological Name	IUCN status	Migratory status	Abundance status
Passeriformes	Motacillidae	White Wagtail	*Motacilla alba*	LC	SM	F
		Large Pied Wagtail	*Motacilla maderaspatensis*	LC	Res	C
		Yellow Wagtail	*Motacilla flava*	LC	SM	C
		Rosy Pipit	*Anthus roseatus*	LC	Res/AM	F
		Upland Pipit	*Anthus sylvanus*	LC	Res/AM	F
		Paddy-field Pipit	*Anthus rufulus*	LC	Res	C
	Ploceidae	Baya Weaver	*Ploceus phillipinus*	LC	Res	C
	Emberizidae	Crested Bunting	*Melophus lathami*	LC	SM	O
		Rock Bunting	*Emberiza cia*	LC	Res	C
		White-capped Bunting	*Emberiza stewartia*	LC	SM	O
	Meropidae	Blue-tailed Bee-eater	*Merops philippinus*	LC	SM	O
		Green Bee-eater	*Merops orientalis*	LC	Res	C
	Nectariniidae	Purple Sunbird	*Cinnyris asiaticus asiaticus*	LC	Res	C
		Crimson Sunbird	*Aethopyga siparaja*	LC	Res	O
	Timalidae	Jungle Babbler	*Turdoides striatuss indiana*	LC	Res	C
		Common Babbler	*Turdoides caudatus caudatus*	LC	Res	R
		Yellow-eyed Babbler	*Chrysomma sinense*	LC	Res	C
		Puff-throated Babbler	*Pellorneum ruficeps*	LC	Res	O
	Leiothrichidae	Streaked Laughingthrush	*Trochalopteron lineatum*	LC	Res	C
		Variegated Laughingthrush	*Trochalopteron variegatum*	LC	Res	C
	Monarchidae	Paradise Flycatcher	*Terpsiphone paradise paradise*	LC	SM	C
	Cisticolidae	Indian Tailor Bird	*Orthotomus sutorius guzuratus*	LC	Res	C
		Ashy Prinia	*Prinia socialis*	LC	Res	C
		Grey-breasted Prinia	*Prinia hodgsonii*	LC	Res	C
		Plain Prinia	*Prinia inornata*	LC	Res	C
		Himalayan Prinia	*Prinia crinigera*	LC	Res	O
	Zosteropidae	Oriental White-eye	*Zosterops palpebrosus*	LC	Res	C
	Phylloscopidae	Siberian Chiffchaff	*Phylloscopus collybita tristis*	LC	WM	C
		Grey-hooded Warbler	*Phylloscopus xanthoschistos*	LC	Res	C

		Lemon-rumped Warbler	*Phylloscopus chloronotus*	LC	SM	F
		Mountain Chiffchaff	*Phylloscopus Indian*	LC	SM	O
	Rhipiduridae	White-throated Fantail	*Rhipidura albicollis*	LC	Res	O
	Muscicapidae	Oriental Magpie Robin	*Copsychus saularis*	LC	SM	C
		Pied Bush Chat	*Saxicola caprata bicolour*	LC	Res	C
		Indian Robin	*Saxicoloides fulicata cambiaensis*	LC	Res	C
		Indian Chat	*Cercomela fusca*	LC	Res	C
		Grey Bushchat	*Saxicola ferreus*	LC	Res	C
		Bluethroat	*Luscinia svecica*	LC	WM	R
		Verditer Flycatcher	*Eumyias thalassinus*	LC	SM	F
		Taiga Flycatcher	*Ficedula albicilla*	LC	WM	O
		White Capped Redstart	*Chaimarrornis leucocephalus*	LC	Res/AM	C
		Plumbeous Water Redstart	*Phoenicurus fuliginosus*	LC	Res/AM	C
		Spotted Forktail	*Enicurus maculatus*	LC	Res	F
		Himalayan Bluetail	*Tarsiger rufilatus*	LC	Res/AM	O
		Blue-capped Redstart	*Phoenicurus coeruleocephala*	LC	Res/AM	C
	Prunellidae	Black-throated Accentor	*Prunella atrogularis*	LC	PM	R
	Laniidae	Long-tailed Shrike	*Lanius schacherythronotus*	LC	Res	C
	Tephrodornithidae	Common Woodshrike	*Tephrodornis pondicerianus*	LC	Res	O
	Oriolidae	Indian Golden Oriole	*Oriolus oriolus kundoo*	LC	SM	C
	Dicruridae	Black Drongo	*Dicrurus macrocercus albirictus*	LC	Res	C
		Hair-crested Drongo	*Dicrurus hottentottus*	LC	SM	O
	Sturnidae	Indian Myna	*Acridotheres tristis tristis*	LC	Res	C
		Brahminy Starling	*Sturnus pagodarum*	LC	Res	F
		Jungle Myna	*Acridotheres fuscus*	LC	Res	C
	Corvidae	House Crow	*Corvus splendens splendens*	LC	Res	F
		Jungle Crow	*Corvus macrorhynchos macrorhynchos*	LC	Res	C
		Rufous Treepie	*Dendrocitta vagabunda bristoli*	LC	Res	C
		Grey Treepie	*Dendrocitta formosae*	LC	Res	F
		Black-headed Jay	*Garrulus lanceolatus*	LC	Res	C
		Yellow-billed Blue Magpie	*Cissa flavirostris*	LC	Res	F

	Turdidae	Himalayan Whistling Thrush	*Myophonus Caeruleus temminckii*	LC	SM	C
		Black-throated Thrush	*Turdus astrogularis*	LC	WM	R
	Campephagidae	Long-tailed Minivet	*Pericrocotus ethologus*	LC	SM	F
		Himalayan Black Bulbul	*Hypsipetes leucocephalus psaroides*	LC	Res	C
		Red-vented Bulbul	*Pycnonotus cafercafer*	LC	Res	C
		Himalayan Bulbul	*P. leucogenys leucogenys*	LC	Res	C
	Hirundinidae	Red-rumped Swallow	*Hirundo daurica*	LC	SM	C
		Barn Swallow	*Hirundorusica*	LC	SM	C
		Indian Cliff Swallow	*Petrochelidon fluvicola*	LC	SM	O
	Passeridae	Indian House Sparrow	*Passer domesticus parkini*	LC	Res	C
		Russet Sparrow	*Passer cinnamomeus*	LC	Res/AM	F
	Estrildidae	Scaly-breasted Munia	*Lunchura punctulata punctulata*	LC	Res	C
	Paridae	Cinereous Tit	*Parus cinereus cashmirensis*	LC	Res/AM	C
		Green-backed Tit	*Parus monticolus*	LC	Res/AM	F
		Himalayan Black-lored Tit	*Parus xanthogenys*	LC	Res/AM	F
		Black-throated Tit	*Aegithalos concinnus*	LC	Res/AM	F
	Fringillidae	Common Rosefinch	*Carpodacus erythrinus*	LC	WM	O
		Yellow-breasted Greenfinch	*Chloris spinoides*	LC	Res/AM	C
		European Goldfinch	*Carduelis carduelisca niceps*	LC	SM	O
	Certhiidae	Bar-tailed Treecreeper	*Certhia himalayana*	LC	SM	C
	Trichodromidae	Wall Creeper	*Tichodroma muraria*	LC	Res	F
	Sittidae	Chestnut-bellied Nuthatch	*Sitta cinnmoventris*	LC	Res	C
	Stenostiridae	Grey-headed Canary Flycatcher	*Culicicapa ceylonensis*	LC	SM	C
Accipitriformes	Accipitridae	Indian Vulture	*Gypus indicus*	CE	Res	R
		White–rumped Vulture	*Gypus bengalensis*	CE	Res	R
		Himalayan Griffon	*Gyps himalayensis*	NT	Res	C
		Oriental Honey-buzzard	*Pernis ptilorhynchus*	LC	SM	C
		White-eyed Buzzard	*Butastur teesa*	LC	Res	F
		Egyptian Vulture	*Neophron percnopterus*	EN	SM	R
		Black Kite	*Milvus migranus*	LC	Res	C
		Crested Serpent Eagle	*Spilornis cheela*	LC	Res	O

		Steppe Eagle	*Aquila nepalensis*	LC	WM	O
		Indian Shikra	*Accipiter badius dussumieri*	LC	Res	C
		Black-winged Kite	*Elanus caeruleus*	LC	Res	R
		Eurasian Sparrowhawk	*Accipiter nisus*	LC	Res	O
	Falconidae	Common Kestrel	*Falcon tinnunculus*	LC	SM	F
Galliformes	Phasianidae	Indian Red Jungle Fowl	*Gallus gallusmurghi*	LC	Res	O
		Indian Peafowl	*Pavo cristatus*	LC	Res	O
		Jungle Bush Quail	*Perdicula asiatica*	LC	Res	O
		Grey Francolin	*Ortygornis pondicerianus*	LC	Res	C
		Black Francolin	*Francolinus francolinus*	LC	Res	C
		Kalij Pheasant	*Lophura leucomelanos*	LC	Res	F
		Monal Pheasant	*Lophophorus impejanus*	LC	Res	O
Gruiformes	Rallidae	Common Moorhen	*Gallinula chloropus*	LC	Res	F
		White-breasted Waterhen	*Amaurornis phoenicurus*	LC	Res	C
		Ruddy-breasted Crake	*Porzana fusca*	LC	PM	R
Columbiformes	Columbidae	Indian Blue Rock Pigeon	*Columbia livia intermedia*	LC	Res	C
		Indian spotted Dove	*Streptopelia chinensis chinensis*	LC	Res	C
		Rufous Turtle Dove	*Streptopelia orientalis meena*	LC	SM	O
		Eurasian Collared Dove	*Streptopelia deccaocto*	LC	SM	R
Psittaciformes	Psittacidae	Rose-ringed Parakeet	*Psittacula krameria manillensis*	LC	Res	C
		Plum-headed Parakeet	*Psittacula cyanocephala*	LC	SM	F
		Blossom-headed Parakeet	*Psittacula roseata*	NT	SM	C
		Slaty-headed Parakeet	*Psittacula himalayana*	LC	SM/AM	C
		Alexandrine Parakeet	*Psittacula eupatria*	NT	Res	C
Stringiiformes	Strigidae	Northern Spotted Owlet	*Athene brama indica*	LC	Res	C
	Tytonidae	Barred Jungle Owlet	*Glaucidium radiatum radiatum*	LC	Res	F
Coraciiformes	Alcedinidae	White-breasted Kingfisher	*Halcyon smyrnensissmyrensis*	LC	Res	C
		Crested Kingfisher	*Megaceryle lugubris*	LC	Res/AM	O
		Common Kingfisher	*Alcedo atthis*	LC	SM	O
	Coraciidae	Indian Roller	*Coracias benghalensis benghalensis*	LC	Res	R
Upupiformes	Upupidae	Common Hoopoe	*Upupa epopsepops*	LC	SM	C

Piciformes	Picidae	Lesser Golden-backed Woodpecker	*Dinopium benghalense benghalense*	LC	Res	C
		Scaly-bellied Woodpecker	*Picus squamatus*	LC	Res	C
		Brown-fronted Woodpecker	*Dendrocopos auriceps*	LC	Res	O
		Fulvous-breasted Woodpecker	*Dendrocopos macei*	LC	Res	C
		Grey-capped Pygmy Woodpecker	*Yungipicus canicapillus*	LC	Res	O
		Eurasian Wryneck	*Jynx torquilla*	LC	SM	O
		Speckled Piculet	*Picumnus innominatus*	LC	Res	O
	Megalaimidae	Blue-headed Barbet	*Megalaima asiatica*	LC	Res	C
		Brown-headed Barbet	*Psilopogon zeylanicus*	LC	Res	C
		Great Barbet	*Psilopogon virens*	LC	Res	C
		Coppersmith Barbet	*Psilopogon haemacephalus*	LC	Res	C
Bucerotiformes	Bucerotidae	Indian Grey Hornbill	*Ocyceros birostris*	LC	Res	C
Cuculiformes	Cuculidae	Indian Koel	*Eudynamys scolopaceus scolopaceus*	LC	SM	C
		Greater Coucal	*Centropus sinensis*	LC	Res	R
		Common Hawk-cuckoo	*Hierococcyx varius*	LC	Res	C
		Jacobin Cuckoo	*Clamator jacobinus*	LC	SM	F
Pelecaniformes	Ardeidae	Cattle Egret	*Bubulcus ibis*	LC	Res	C
		Indian Pond Heron	*Ardeola grayii grayii*	LC	Res	C
		Little Egret	*Egretta garzetta*	LC	Res	F
		Little Bittern	*Ixobrychus minutus*	LC	PM	R
Charadriiformes	Rostratulidae	Greater Painted snipe	*Rostratula benghalensis*	LC	Res	O
	Scolopacidae	Green Sandpiper	*Tringa ochropus*	LC	SM	F
	Charadriidae	Red-wattled Lapwing	*Vanellus indicus*	LC	Res	C
Suliformes	Phalacrocoracidae	Great Cormorant	*Phalacrocorax carbo*	LC	PM	O

International Union for Conservation of Nature (IUCN), Resident (Res), Summer Migratory (SM) Winter Migratory (WM), Passage Migratory (PM), Altitudinal Migration (AM), Common (C), Frequent (F), Occasional (O), Rare (R), Least Concern (LC), Endangered (EN), Critically Endangered (CE), Near Threatened (NT).

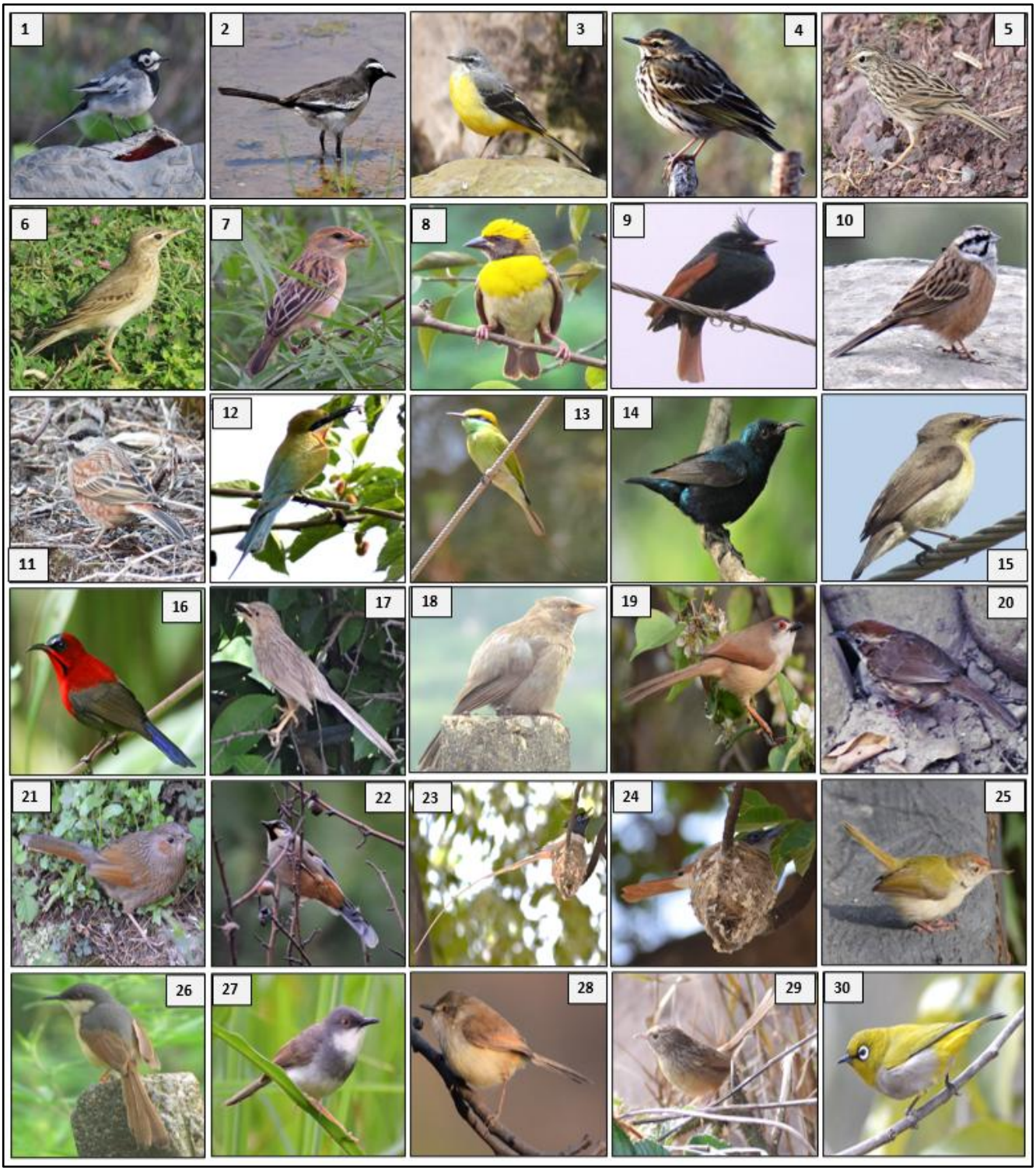


Figure-2:1-*Motacilla alba* | 2-*Montacilla maderaspatens* | 3-*Montacilla flava* | 4-*Anthus roseatus* | 5-*Anthus sylvanus* | 6-*Anthus rufulus* | 7-*Ploceus phillipinus* (♀) | 8-*Ploceus phillipinus* (♂) | 9-*Melophus lathami* | 10-*Emberiza cia* | 11- *Emberiza stewarti* | 12- *Merops philippinus* | 13-*Merops orientalis* | 14-*Cinnyris asiaticus asiaticus (♂)* | 15-*Cinnyris asiaticus asiaticus (♀)* |16-*Aethopyga siparaja* | 17-*Turdoides striatus sindiana* | 18-*Turdoides caudatus caudatus* | 19-*Chrysomma sinense* | 20-*Pellorneum ruficeps* | 21-*Trochalopteron lineatum* | *22-Trochalopteron variegatum* | 23-*Terpsiphone paradise paradise (♂)* | 24-*Terpsiphone paradise paradise (♀)* | 25-*Orthotomus sutorius guzuratus* | 26-*Prinia socialis* | 27-*Prinia hodgsonii* | 28-*Prinis inornate* | 29-*Prinia crinigera* | 30-*Zosterops palpebrosus*



Figure-3: 1-*Phylloscopus collybita* | 2-*Phylloscopus xanthoschistos* | 3- *Phylloscopus chloronotus* | 4-*Phylloscopus sindianus* | 5-*Rhipidura albicollis* | 6-*Copsychus saularis* |7-*Copsychus saularis* |8-*Saxicola caprata bicolour* (♂) | 9-*Saxicola caprata bicolour (♀)* | 10- *Saxicoloides fulicata cambaiensis* (♂) | 11-*Saxicoloides fulicata cambaiensis* (♀) | 12-*Cercomela fusca* | 13-*Saxicola ferreus* (♂) | 14-*Saxicola ferreus* (♀) | 15-*Luscinia svecica* | 16-*Muscicapa thalassaina thalassina* | 17-*Ficedula albicilla* | 18-*Chaimarrornis leucocephalus* | 19-*Phoenicurus fuliginosus* (♂) |20-*Phoenicurus fuliginosus* (♀) | 21-*Enicurus maculatus* | 22-*Tarsiger rufilatus* | 23-*Prunella atrogularis* | 24-*Phoenicurus coeruleocephala* | 25-*Lanius schach erythronotus* |26-*Tephrodornis pondicerianus* | 27-*Oriolus oriolus kundoo* | 28-*Dicrurus macrocercusalbirictus* |29-*Dicrurus hottentottus* | 30-*Acridotheres tristis tristis.*

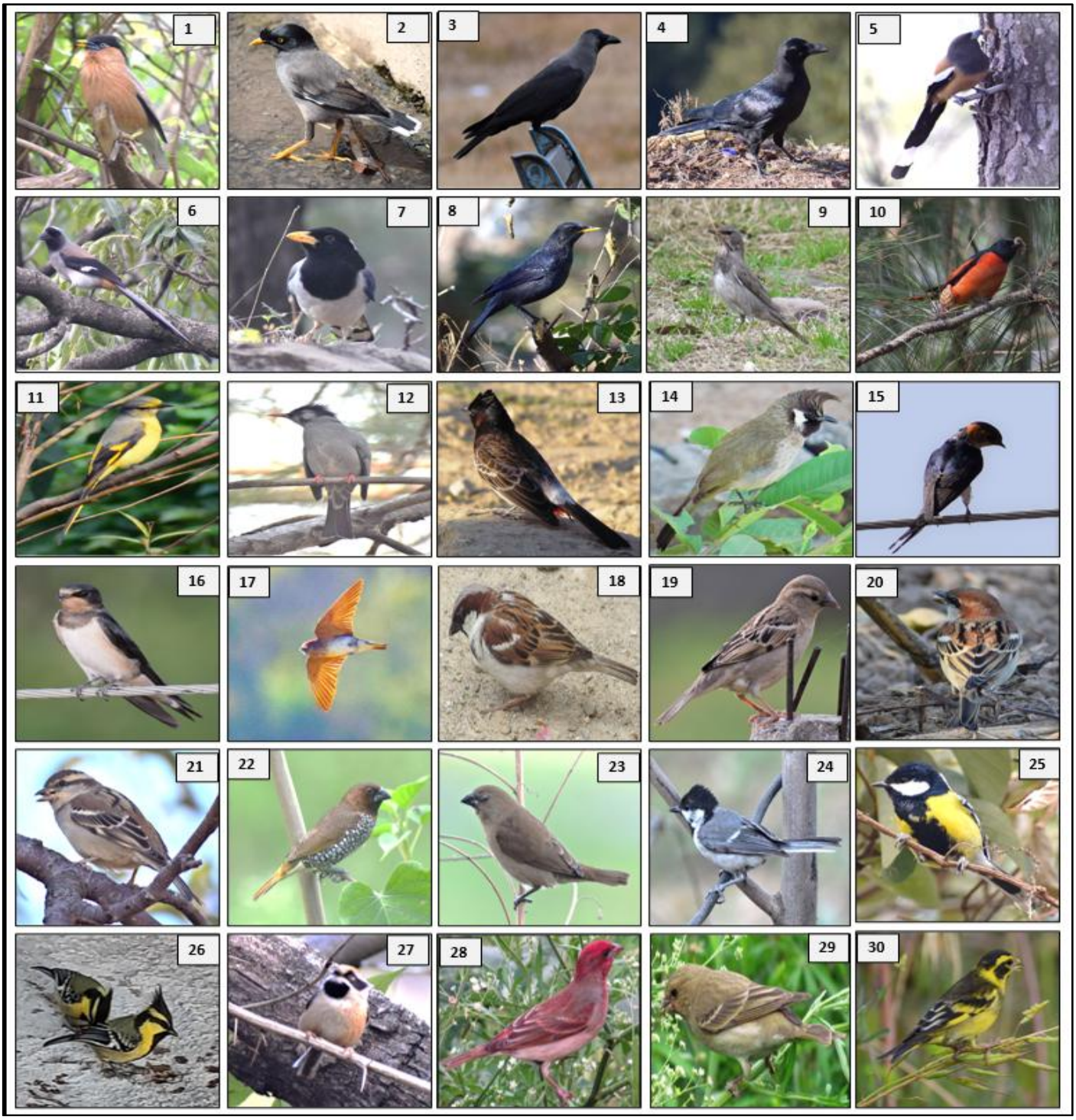


Figure-4: 1-Sturnus pagodarum | 2-Acridotheres fuscus | 3-Corvus splendens splendens | 4-Corvus macrorhynchos macrorhynchos |5-Dendrocitta vagabunda | 6-Dendrocitta formosae | 7-Cissa flavirostris | 8-Myophonus caeruleus | 9-Turdus atrogularis | 10-Pericrocotus ethologus (♂) | 11-Pericrocotus ethologus (♀) | 12- Hypsipetes leucocephalus | 13-Pycnonotus cafer cafer | 14-Pycnonotus leucogenys leucogenys | 15-Hirundo daurica | 16-Hirundo rusica | 17-Petrochelidon fluvicola |18-Passer domesticus parkini (♂) | 19-Passer domesticus parkini (♀) | 20-Passer cinnamomeus (♂) | 21-Passer cinnamomeus (♀) | 22-Lunchura punctulate (♂) | 23-Lunchura punctulate (♀) | 24-Parus cinereus cashmirensis.| 25-Parus monticolus | 26-Parus xanthogenys | 27-Aegithalos concinnus | 28- Carpodacus erythrinus (♂) | 29- Carpodacus erythrinus (♀) | 30-Chloris spinoides spinoides (♂).



Figure-5: 1- *Chloris spinoides spinoides* (♀) | 2-*Carduelis carduelis caniceps* |3-*Certhia himalayana* | 4-*Tichodroma muraria* | 5-*Sitta cinnmoventris* | 6-*Culicicapa ceylonensis* | 7-*Gypus indicus* | 8-*Gypus bengalensis* | 9-*Gyps himalayensis* | 10-*Pernis ptilorhynchus* | 11-*Butastur teesa* | 12-*Neophron percnopterus* | 13-*Milvus migrans* | 14-*Spilornis cheela* | 15-*Aquila nepalensis* | 16-*Accipiter badius dussumieri* | 17-*Elanus caeruleus* | 18-*Accipiter nisus* | 19-*Falcon tinnunculus* | 20-*Garrulus lanceolatus* | *2*1-*Gallus gallus murgha* | 22-*Pavo cristatus, 2*3-*Perdicula asiatica* | 24-*Ortygornis pondicerianus* | 25-*Francolinus francolinus* | *2*6-*Lophura leucomelanos* | *27-Lophophorus impejanus* | 28-*Gallinula chloropus* | *29-Amaurornis phoenicurus* | 30-*Porzana fusca.*

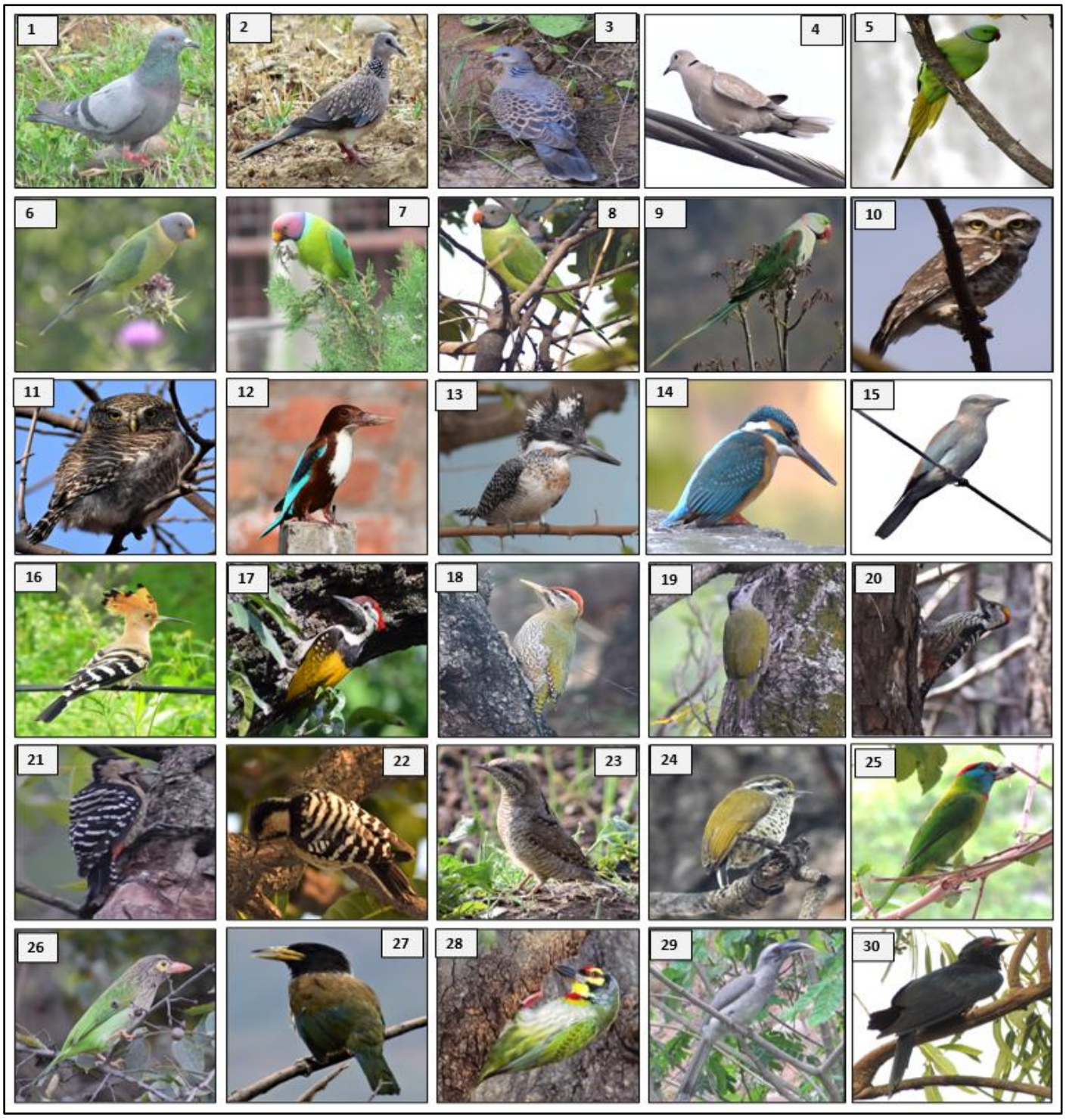


Figure-6: 1-Columbia livia intermedia |2-Streptopelia chinensis | 3-Streptopelia orientalis meena | 4-Streptopelia decaocto | 5-Psittacula krameri manillensis | 6-Psittacula cyanocephala |7-Psittacula roseate |8-Psittacula himalayana | 9-Psittacula eupatria | 10-Athene brama indica | 11-Glaucidium radiatum radiatum | 12-Halcyon smyrnensis smyrensis | 13-Megaceryle lugubris | 14-Alcedo atthis | 15- oracias benghalensis benghalensis |16-Upupa epops Epops | 17- Dinopium benghalense benghalense | 18- Picus squamatus (♂) | 19-Picus squamatus (♀) | 20-Dendrocopos auriceps | 21-Dendrocopos macei | 22-Yungipicus canicapillus | 23-Jynx torquilla | 24-Picumnus innominatus | 25-Megalaima asiatica | 26-Psilopogon zeylanicus | 27-Psilopogon virens | 28-Psilopogon haemacephalus | 29-Ocyceros birostris | 30-Eudynamys scolopaceus scolopaceus (♂)

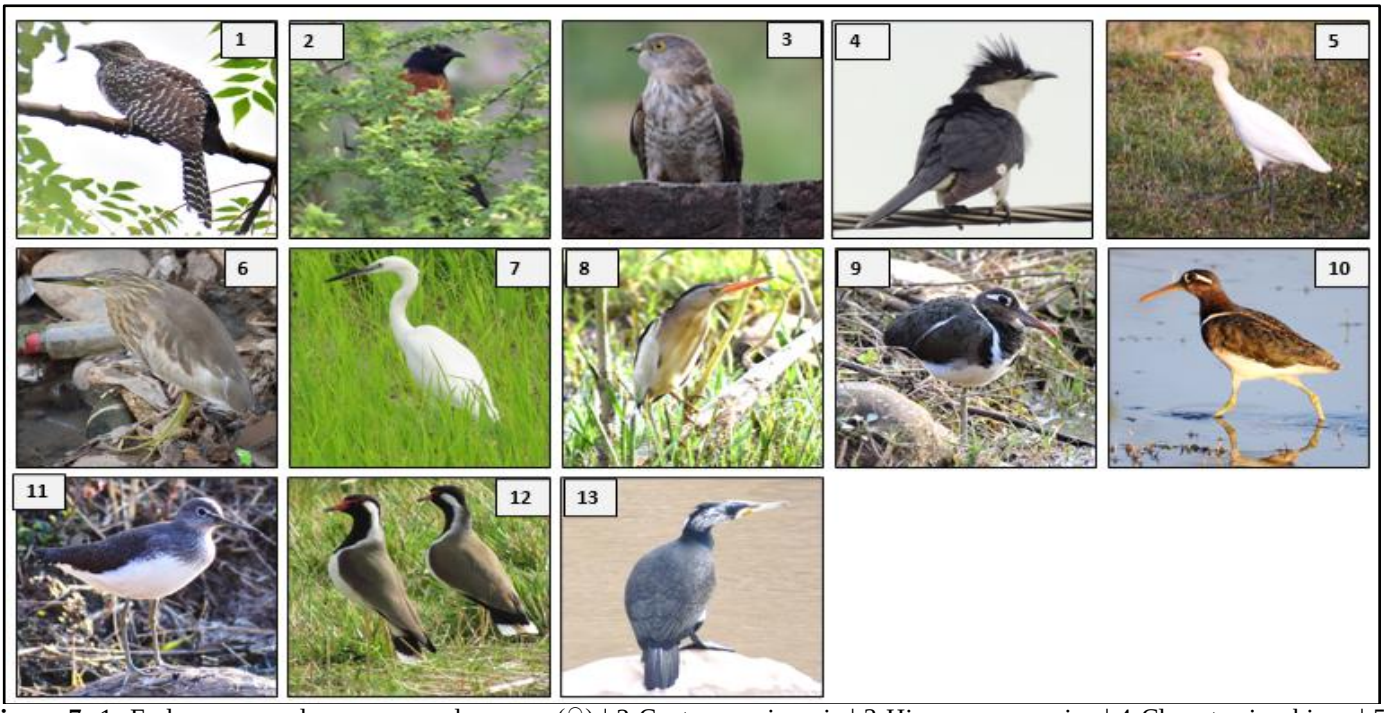


Figure-7: 1- Eudynamys scolopaceus scolopaceus (♀) | 2-Centropus sinensis | 3-Hierococcyx varius | 4-Clamator jacobinus | 5-Bubulcus ibis | 6-Ardeola grayii grayii | 7-Egretta garzetta | 8-Ixobrychus minutus | 9- Rostratula benghalensis (♂) | 10- Rostratula benghalensis (♀) | 11-Tringa ochropus | 12-Vanellus indicus | 13-Phalacrocorax carbo.

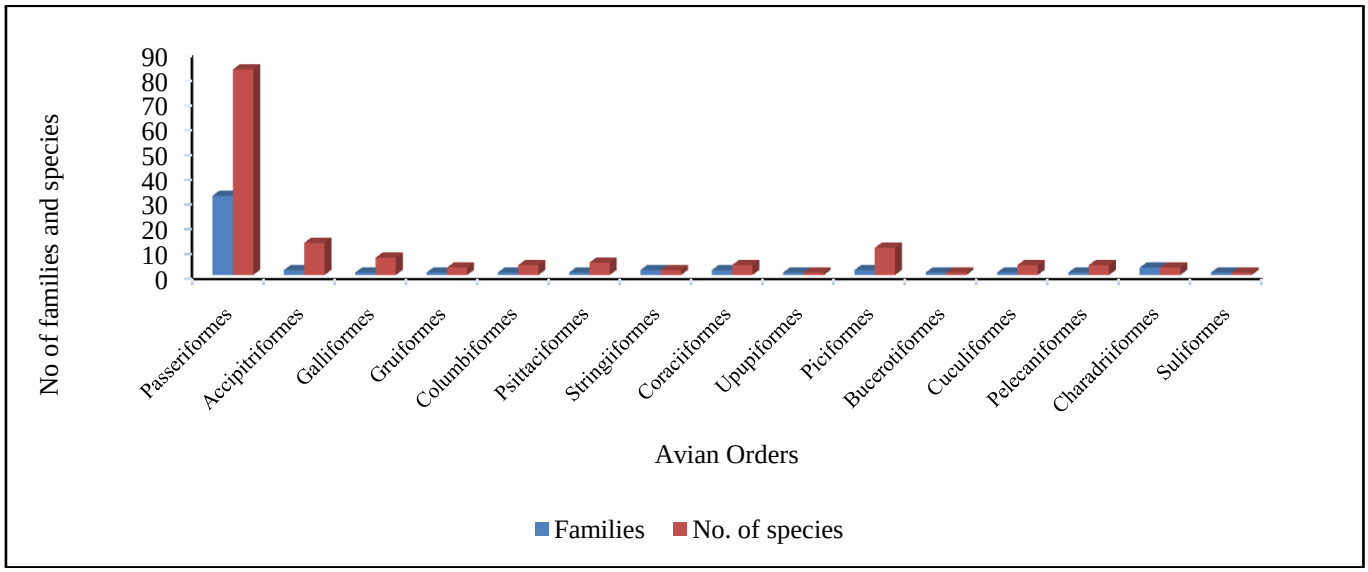


Figure-8: Bar chart representing the numbers of avian families and species composition in the avian orders from study area.

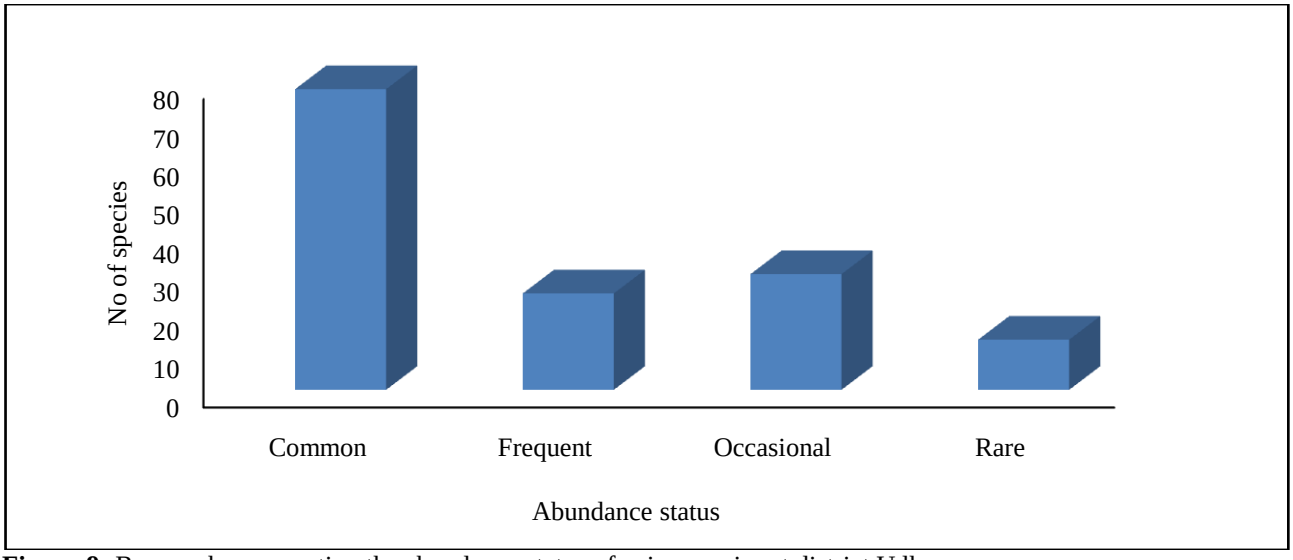


Figure-9: Bar graph representing the abundance status of avian species at district Udhampur.

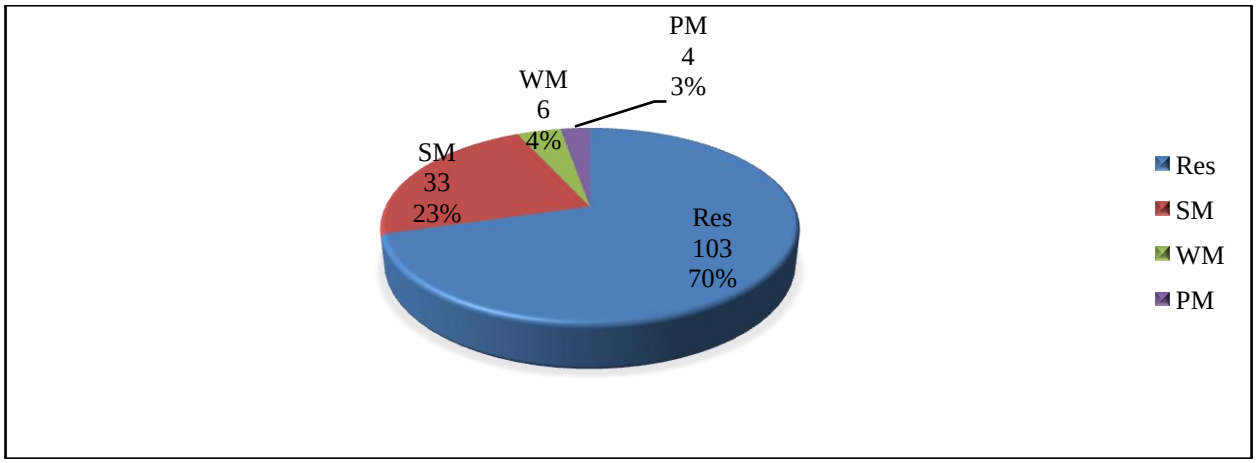


Figure-10: Pie chart showing the migratory status of avifauna of district Udhampur. (Res- Resident, SM-Summer Migratory, WM-Winter Migratory, PM-Passage Migratory).

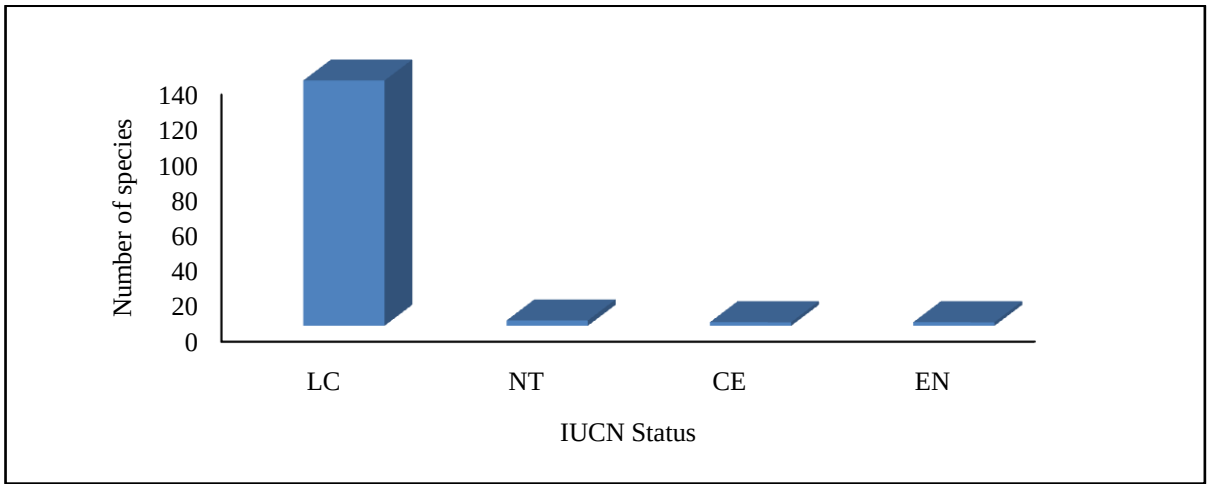


Figure-11: Bar graph showing the IUCN status of avifauna at district Udhampur. (Least Concern (LC), Near Threatened (NT), Critically Endangered (CE), Endangered (EN).

References

1. Taper, M. L., Bohning-Gaese, K., & Brown, J. H.(1995). Individualistic responses of bird species to environmental change. *Oecologia*, 101(4), 478-486.

2. Olechnowski, B. F. M. (2009). An examination of songbird avian diversity, abundance trends, and community composition in two endangered temperate ecosystems: riparian willow habitat of the Greater Yellowstone Ecosystem and a restored tallgrass prairie ecosystem, Neal Smith National Wildlife Refuge (Ph.D Thesis). Iowa State University.

3. Anand, M., Praddepa, V., Prabakaran, P., & Kumaraasamy, P. (2013). Studies on avifauna in around Malaselvanoor and Keelaselavanoor bird sanctuary Ramanathapuram district, Tamil Nadu. *Advance in Applied Sciences Research*, 4(5), 184-189.

4. Bibi, F. and Ali, Z. (2013). Measurement of diversity indices of avian communities at Taunsa barrage wildlife sanctuary, Pakistan. *The Journal of Animal & Plant Sciences*, 23(2), 469-474.

5. Pathan, A. J., Khan, S., Akhta, N., & Saeed, K. (2014). Diversity and distribution of avian fauna of Swat, Khyber Pakhtunkhwa, Pakistan. *Advance in Zoology*, (1), 1-7.

6. Morrison Michael L, Rodewald Amanda D, Voelker Gary, Colón Melanie R, & Prather Jonathan F (2018). Ornithology: Foundation, Analysis, and Application. Baltimore, MD: Johns Hopkins University Press, pp 1-1016. ISBN: 978-1-4214-2471-2.

7. Roy, U. S., Banerjee, P., & Mukhopadhyay, S. K. (2012). Study on avifaunal diversity of three different regions of North Bengal, India. *Asian Journal of Conservation Biology*, 1(2), 120-129.

8. Kumar, S. and Sahi, D. N. (2005). Avian fauna of Sewa River catchment area of District Kathua (J&K). *Nat. J. Life Sciences*, 2, 83-89.

9. Wani, A. A., Sahi, D. N., & Sanjeeve, K. (2005). Diversity and status of birds of tehsil Doda, Jammu. *Journal of Nature and conservation*, 17(1), 135-143.

10. Aggarwal, S. and Sahi, D. N. (2008). Avifauna of Nandini Wildlife Sanctuary, Jammu (Jammu and Kashmir). *The Bioscan*, 3(2), 221-225.

11. Choudhary, N. (2010). Diversity and status of wildlife fauna of district Rajouri, J&K State (Ph. D. Thesis). University of Jammu, Jammu.

12. Sharma, N. and Kichloo, M. (2015). Avian habitat-use and dietary guilds in different communities of Bhaderwah, Jammu and Kashmir, India. *International Journal of Recent Scientific Research*, 6 (7), 5145-5149.

13. Kichloo, M.A., Sohil, A., Kumar, P., & Sharma, N. (2018). Avian diversity at new campus of University of Jammu, Jammu and Kashmir. *Researcher: A Multidisciplinary Journal*, 13(2), 28-40.

14. Sohil, A. and Sharma, N. (2020). Bird diversity and distribution in mosaic landscapes around Jammu, Jammu & Kashmir. *Acta Ecologica Sinica*, 40 (4), 323-338.

15. Verma, S. and Verma, R. A. (2023). Study on diversity of Birds of Chenab River Catchment at Erstwhile Akhnoor Sub Division of District Jammu, J & K. *International Journal of Science and Research*, 12(10), 2002-2011.

16. Malik, W. S., Quyoom, I., & Sheikh, T. (2003). Study on avian diversity in the forest of District Ramban, Jammu and Kashmir, India. *Munis Entomology & Zoology*, 18(2), 1723-1735.

17. Singh, R., Kour, D. N., Ahmad, F., & Sahi, D. N. (2013). Species diversity, relative abundance and habitat use of the bird communities of Tehsil Chenani, District Udhampur, Jammu and Kashmir, India. *Indian Journal of Life Sciences*, 2(2), 74-84.

18. Singh, R., Kait, R., Ahmed, F., Sharma, K., & Sahi, D. N. (2013). Avifaunal diversity of Patnitop Development Authority (PDA) area, Jammu and Kashmir State. *Journal of Biosphere*, 2(1), 62-65.

19. Singh, R., Dev, K., Kour, D. N. & Sahi, D. N. (2014). Bird communities structure along with species diversity, relative abundance and habitat use of Tehsil Udhampur, Jammu and Kashmir, India. *Intl. J. Pure Appl. Zoology*, 2(1), 26-40.

20. Pandotra, A. and Sahi, D. N. (2014). Avifaunal assemblages in suburban habitat of Jammu, J&K, India. *International Research Journal of Environment Sciences*, 3(6), 17-24.

21. Kumar, B. (2019). Spotting of Rostratula benghalensis, Greater Painted Snipe at village sail saloon, tehsil Udhampur, Jammu and Kashmir, India. *J New Biol Rep*, 8(3), 183-186.

22. Kumar, B. (2020). Studied nestling growth and development of an endemic avian species, Brown Rock Chat (Cercomula fusca), in Udhampur District, J&K, India. *J New Biol Rep*, 9(2), 240-245.

23. Kumar, B. and Kumar, K. (2021). Studied nestling growth and development of Himalayan Bulbul (Pycnonotus leucogeenys) in Udhampur District, Jammu and Kashmir (UT), India. *J New Biol Rep*, 10(1), 51-55.

24. Kumar, B. and Kaur, R. (2023). Avifaunal Assemblages in Suburban Habitat of District Udhampur, J&K (UT), India. *Int. J. Adv. Res. Biol. Sci*., 10(2), 132-145.

25. Sale John B and Berkmuller Klaus (1988). Manual of Wildlife Techniques for India. Dehradun, India: Wildlife Institute of India. Field Document No. 11.

26. Verner, J. and Ritter, L. V. (1985). A comparison of Transects and Point Counts in Oak-Pine Woodlands of California. *The Condor*, 87(1), 47-68.

27. Grewal Bikram, Harvey William & Pfister Otto (2002). A photographic Guide to the Birds of India: and the Indian Subcontinent, Including Pakistan, Nepal, Bhutan, Bangladesh, Sri Lanka & the Maldives. Princeton University Press. pp 1-512, ISBN: 978-0691114965.

28. Ali Salim and Ripley Sidney Dillon (1983). Handbook of Birds of India and Pakistan. Compact Edition. Oxford University Press, Bombay. pp 737, ISBN-10: 0195612450**.**

29. Ali Salim (1996). The book of India Birds. (12th and enlarged centenary edition), *J. Bomb. Nat. Hist. Soc*. Oxford University Press, New Delhi. pp 354, ISBN-13:978-0195637311.

30. Grimmett Richard, Inskipp Carol & Inskipp Tim (2016). Field guide to Birds of Indian Subcontinent: India, Pakistan, Sri lanka, Nepal, Bhutan, Bangladesh and the Maldives. London: Bloomsbury Publishing (Helm Field Guides). pp 480, ISBN: 978-1-4729-7173-9.

31. Clements, J. F., P.C. Rasmussen, T.S. Schulenberg. M. J. Iliff, T. A. Fredericks, J.A. Gerbracht, D. Lepage, A. Spencer, S. M. Billerman, B. L. Sullivan & C. L. Wood (2023). The eBird/Clements checklist of birds of the world. Cornell Lab of Ornithology.

32. Vinod, S., Urs, R., Bhavanarayeni, R., Bayani, A., & Kunte, K. (2024). Indian Birds in the IUCN RED LIST. In Satose, V., A. Bayani, V. Ramachandran, P. Roy., & K. Kunte (Chief Editors). Butterfly of India, 2(17). Indian Foundation for Butterflies.