

# Studies on Avian Diversity, Abundance and Their Status at Raj Bhavan, Nagpur, Maharashtra

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## Abstract

In the present study, avian diversity and their abundance at Raj Bhavan was carried out during November, 2017 to August, 2018. During entire study 154 species of birds are belonging to 17 orders and 55 families have been observed. Passeriformes is the most dominant order represented by 31 families and 91 species. Out of 154 species of birds, 128 species were Resident, 20 were Winter Migrant, 03 were Breeding Migrant, 02 were Passage Migrant and 01 was Vagrant species. Considering abundance of 154 bird species, 23 species were abundant, 60 species were common, 53 species were uncommon, 08 species were occasional and 10 species were rare in this habitat. As per IUCN Red Data Book, reported two species are listed as near threatened are Alexandrine parakeet and Blue winged Leaf bird whereas one species is reported as vulnerable is Southern grey shrike.

**Keywords:** *Avian diversity, Raj Bhavan, Abundance, Nagpur*

## 1. Introduction

Birds provide many ecosystems services to mankind. About 33% of bird species helps in seed dispersal through fruit consumption as well as scattering through nuts (Vander Wall, 2001; Sekercioglu, 2006; Martínez and García, 2017). Birds also act as scavengers by removing carcasses and nutrient recycling. (Devault et. al., 2003; Gangoso et. al., 2013; Inger et. al., 2016). These controls agricultural pests, like rodents and insects (Maas et. al., 2015; Maas et. al., 2016). Many of the birds are involved in pollination (Nabhan and Buchmann, 1997). Prasad (2003) has listed about 450 bird species from Western Maharashtra. Avian diversity around the Nagpur city was studied by Kasambe and Sani (2009) and listed the 280 bird species from the different types of habitat.

Knowledge about the avian diversity and abundance is important requisite in deciding the management practices in protected area. Raj Bhavan, Nagpur is spread over 121 acres area and Biodiversity park have been developed in around 74 acres land.

Development of Biodiversity Park at Raj Bhavan has resulted in the enrichment of flora and fauna. Raj Bhavan supports the many species of birds as well as provide breeding habitat for the many of the birds. However no study has been done to assess the avian diversity of this area. Thus present investigation aims to study the avian diversity of Raj Bhavan, Nagpur.

## 2. Materials and Methods

### 2.1 Study Area

Raj Bhavan, Nagpur is situated about 21° 10' N and 79° 04' E at 349 mts. elevation and spread over 121 acres area. The climatic condition of Nagpur is extreme during all the seasons. During summer, temperature may reach upto 48°C while it falls upto 4°C during the winter. However average temperature ranges 26.9°C. Annual rainfall in Nagpur is around 1,100mm.

### 2.2 Method

Survey of avian biodiversity of Raj Bhavan, Nagpur was conducted from the month of November, 2017 to August, 2018 on regular basis for 10 months. During present investigation regular field visits were made at Raj Bhavan at early morning to record the observations of various species of birds. A binocular (Olympus, 10x50) was used for observation of birds. However the birds were photographed by using Cannon EOS 350 D camera with lens 100 to 300 mm. Random line transect and point count methods were adapted to study the avian diversity at Raj Bhavan, Nagpur. Identification of various species of birds was done by using standard literature (Ali and Ripley, 1983; Ali, 2002; Grimmett et. al., 2006). The

abundance and status are based on the Checklist of Birds of Maharashtra (Abdulali, 1972), standard literature and on the basis of observations during investigation.

Abundance of birds was classified as: A - Abundant- Very commonly observed during the field visits, C - Common- Commonly observed species during the field visits. O - Occasional- Observed occasionally during study period. U - Uncommon- Observed many times but not common, Rr - Rare- Seen only once or twice. Status of birds was classified as: R - Resident species, which are found in the study area throughout the year. WM - Winter Migrant, species, which are found in the study area only during winter. LM - Local Migrant, species, which are found in the study area irregularly, but is resident of India. BM - Breeding Migrant, species, which visit the study area only for or during its breeding season. PM- Passage migrant, species, which are sighted on the passage from their wintering grounds to the breeding grounds or vice versa. V - Vagrant, species, which is not regularly sighted, nor winter migrant nor breeding migrant and hence supposed to be a stray bird sightings.

### Results and Discussion

In the present investigation 71 genera and 154 species of birds were observed during entire study at the Raj Bhavan area (Table. 1). Reported number of bird species is significant considering the types of habitat and area of Raj Bhavan. The number contributes approximately 55% of the avian species around Nagpur (Kasambe and Sani, 2009) and 34.22% of the bird species of the state Maharashtra (Prasad, 2003). This species diversity of avian fauna may be due to protected habitat and thick vegetation cover which consists of large and tall trees, scrub area, bamboo plantation, many wild fruit bearing plants, grassland and water reservoir which provide ample amount of food as well residence habitat to the various types of birds at Raj Bhavan. Raj Bhavan is in the vicinity of Seminary Hill area which has also thick vegetation which attracts the many of the bird species in this region. Avian diversity and species richness may be due to complex vegetation like physiognomic variables of tree layer, tree basal area, canopy, floristics composition and shrub layer characteristics (Wiens and Rotenberry, 1981; Vu Tien, 2006). Reported 154 species of birds are belonging to 17 orders and 55 families (Table.2). Passeriformes is the most dominant order represented by 31 families and 91 species, followed by Columbiformes, Galliformes, Coraciformes, Cuculiformes, Pelecaniformes, Accipitriformes and Strigiformes (Table. 1& 2). Out of 154 species of birds, 128 species were Resident, 20 were Winter Migrant, 03 were Breeding Migrant, 02 were Passage Migrant and 01 was Vagrant species.

Considering abundance of 154 bird species, 23 species were abundant, 60 species were common, 53 species were uncommon, 08 species were occasional and 10 species were rare in this habitat. Most abundant species found in the study are house crow, jungle babbler, Red-vented bulbul, Black drongo, Common tailor bird, Common myna, Brahminy starling, White-throated munia, House sparrow, Wire tailed swallow, Red-rumped swallow, Purple rumped sunbird, Purple sunbird, Coppersmith barbet, Little green bee-eater, House swift, Asian Koel, Rose ringed parakeet, Blue rock pigeon, Laughing dove, Red-wattled lapwing and Cattle egret.

### Status of Birds as per IUCN Red Data Book:

Two species are listed as near threatened are Alexandrine parakeet and Blue winged Leaf bird whereas one species is reported as vulnerable is Southern grey shrike. Status of Birds as per Wildlife (Protection) Act, 1972: Indian Peafowl, *Pavo cristatus* and Common Indian House crow, *Corvus splendens* reported at the Raj Bhavan are protected under Schedule-I and Schedule-V of the Wildlife (Protection) Act, 1972 respectively. However all the remaining bird species observed at Raj Bhavan are protected under Schedule-IV of the Wildlife (Protection) Act, 1972.

### Conclusion:

Raj Bhavan, Nagpur is situated in the heart of the city. Once it was a barren land now have been developed into biodiversity park. The plantation of more than 300 species in the Raj Bhavan premises has led to enrichment of flora and fauna of this area which is important for the students to know about the biodiversity in real sense. In spite of very less area (121 acres) and less habitat diversification, the reported avian diversity is significant, which provide better opportunities for bird lovers and bird watchers to study them well. Plantation of bird attracting plants and development of new habitat may lead to increase in the species richness in the Raj Bhavan of Nagpur which may add to the beauty of the area of the Raj Bhavan.

**Table. 1. Check List of Birds of Raj Bhavan, Nagpur**

Sr. No.	Common Name of Bird	Scientific Name	Order	Family	Status	Abundance
1.	<i>Corvus culminatus</i>	Indian jungle crow	Passeriformes	Corvidae	R	U
2.	<i>Corvus splendens</i>	House crow	Passeriformes	Corvidae	R	A
3.	<i>Dendrocitta vagabunda</i>	Rufous treepie	Passeriformes	Corvidae	R	U
4.	<i>Machlolophus aplonotus</i>	Indian Yellow Tit	Passeriformes	Paridae	R	U
5.	<i>Parus major stupae</i>	Great Tit	Passeriformes	Paridae	R	O
6.	<i>Turdoides striata</i>	Jungle babbler	Passeriformes	Leiothrichidae	R	A
7.	<i>Turdoides malcolmi</i>	Large grey babbler	Passeriformes	Leiothrichidae	R	C
8.	<i>Turdoides caudatus</i>	Common Babbler	Passeriformes	Leiothrichidae	R	U
9.	<i>Chrysomma sinense</i>	Yellow-eyed Babbler	Passeriformes	Sylviidae	R	U
10.	<i>Sylvia curruca blythii</i>	Lesser Whitethroat	Passeriformes	Sylviidae	W	U
11.	<i>Aegithina tiphia</i>	Common Iora	Passeriformes	Aegithinidae	R	C
12.	<i>Pycnonotus cafer</i>	Red-vented bulbul	Passeriformes	Pycnonotidae	R	A
13.	<i>Pycnonotus luteolus</i>	Whitebrowed Bulbul	Passeriformes	Pycnonotidae	R	U
14.	<i>Geokichla citrina</i>	Orange-headed thrush	Passeriformes	Turdidae	R	U
15.	<i>Saxicoloides fulicatus</i>	Indian Robin	Passeriformes	Muscicapidae	R	C
16.	<i>Copsychus saularis</i>	Oriental Magpie Robin	Passeriformes	Muscicapidae	R	C
17.	<i>Luscinia svecica</i>	Blue throat	Passeriformes	Muscicapidae	W	U
18.	<i>Monticola solitarius</i>	Blue rock-thrush	Passeriformes	Muscicapidae	W	Rr
19.	<i>Monticola cinclorhyncha</i>	Blue-capped Rock Thrush	Passeriformes	Muscicapidae	W	Rr
20.	<i>Cercomela fusca</i>	Brown Rock Chat	Passeriformes	Muscicapidae	R	C
21.	<i>Cyornis Tickelliae</i>	Tickell's Blue Flycatcher	Passeriformes	Muscicapidae	R	O
22.	<i>Ficedula parva</i>	Red breasted flycatcher	Passeriformes	Muscicapidae	R	O
23.	<i>Phoenicurus ochruros</i>	Black Redstart	Passeriformes	Muscicapidae	W	C
24.	<i>Saxicola caprata</i>	Pied Bushchat	Passeriformes	Muscicapidae	R	U
25.	<i>Muscicapa dauurica</i>	Asian Brown Flycatcher	Passeriformes	Muscicapidae	W	Rr
26.	<i>Saxicola torquata</i>	Common Stonechat	Passeriformes	Muscicapidae	R	C
27.	<i>Hypothymis azurea styani</i>	Blacknaped Monarch	Passeriformes	Monarchidae	R	O
28.	<i>Rhipidura albogularis</i>	White –spotted fantail	Passeriformes	Rhipiduridae	R	O
29.	<i>Rhipidura aureola</i>	White browed Fantail	Passeriformes	Rhipiduridae	R	U
30.	<i>Pericrocotus cinnamomeus</i>	Small Minivet	Passeriformes	Campephagidae	R	U
31.	<i>Coracina melanoptera sykesii</i>	Blackheaded Cuckoo-shrike	Passeriformes	Campephagidae	R	O
32.	<i>Dicrurus macrocercus</i>	Black drongo	Passeriformes	Dicruridae	R	A
33.	<i>Dicrurus leucophaeus</i>	Ashy drongo	Passeriformes	Dicruridae	W	Rr
34.	<i>Dicrurus paradiseus</i>	Greater racket-tailed drongo	Passeriformes	Dicruridae	R	V
35.	<i>Dicrurus caerulescens</i>	Whitebellied Drongo	Passeriformes	Dicruridae	R	U
36.	<i>Prinia socialis</i>	Ashy Prinia	Passeriformes	Cisticolidae	R	C
37.	<i>Prinia inornata</i>	Plain Prinia	Passeriformes	Cisticolidae	R	C
38.	<i>Orthotomus sutorius</i>	Common Tailor bird	Passeriformes	Cisticolidae	R	A
39.	<i>Prinia sylvatica</i>	Jungle Prinia	Passeriformes	Cisticolidae	R	C
40.	<i>Acrocephalus stentoreus</i>	Clamorous reed warbler	Passeriformes	Acrocephalidae	W	U
41.	<i>Hippolais caligata rama</i>	Booted Warbler	Passeriformes	Acrocephalidae	W	U
42.	<i>Phylloscopus trochiloides</i>	Greenish Warbler	Passeriformes	Phylloscopidae	W	U
43.	<i>Phylloscopus collybita</i>	Common Chiffchaff	Passeriformes	Phylloscopidae	W	U
44.	<i>Oriolus oriolus</i>	Indian Golden Oriole	Passeriformes	Oriolidae	R	C
45.	<i>Oriolus xanthornus</i>	Black-hooded oriole	Passeriformes	Oriolidae	R	U
46.	<i>Acridotheres tristis</i>	Common Myna	Passeriformes	Sturnidae	R	A
47.	<i>Gracupica contra</i>	Asian pied starling	Passeriformes	Sturnidae	R	C
48.	<i>Sturnia pagodarum</i>	Brahminy starling	Passeriformes	Sturnidae	R	A
49.	<i>Sturnus malabaricus</i>	Chestnut-tailed Starling	Passeriformes	Sturnidae	PM	C
50.	<i>Sturnus roseus</i>	Rosy Starling	Passeriformes	Sturnidae	W	C
51.	<i>Sturnus vulgaris</i>	Common Starling	Passeriformes	Sturnidae	PM	Rr

52.	<i>Acridotheres gingianus</i>	Bank Myna	Passeriformes	Sturnidae	R	U
53.	<i>Ploceus philippinus</i>	Baya Weaver	Passeriformes	Ploceidae	R	U
54.	<i>Lonchura punctulata</i>	Scaly-breasted Munia	Passeriformes	Estrildidae	R	C
55.	<i>Euodice malabarica</i>	White-throated munia	Passeriformes	Estrildidae	R	A
56.	<i>Amandava amandava</i>	Red avadavat/ Red Munia	Passeriformes	Estrildidae	R	U
57.	<i>Lonchurra striata</i>	White rumped Munia	Passeriformes	Estrildidae	R	Rr
58.	<i>Lonchurra malacca</i>	Black headed Munia	Passeriformes	Estrildidae	R	U
59.	<i>Carpodacus erythrinus</i>	Common Rosefinch	Passeriformes	Fringillidae	W	O
60.	<i>Emberiza bruniceps</i>	Red- headed Bunting	Passeriformes	Emberizidae	W	U
61.	<i>Passer domesticus</i>	House sparrow	Passeriformes	Passeridae	R	A
62.	<i>Petronia xanthocolis</i>	Chestnut-shouldered Petronia	Passeriformes	Passeridae	R	U
63.	<i>Ptyonoprogne concolor</i>	Dusky crag martin	Passeriformes	Hirundinidae	R	C
64.	<i>Hirundo rustica</i>	Barn swallow / Common swallow	Passeriformes	Hirundinidae	W	U
65.	<i>Hirundo smithii</i>	Wiretailed Swallow	Passeriformes	Hirundinidae	R	A
66.	<i>Hirundo daurica</i>	Red-rumped Swallow	Passeriformes	Hirundinidae	R	A
67.	<i>Hirundo fluvicola</i>	Streak-throated Swallow	Passeriformes	Hirundinidae	R	C
68.	<i>Motacilla alba</i>	White wagtail	Passeriformes	Motacillidae	W	U
69.	<i>Motacilla cinerea</i>	Grey Wagtail	Passeriformes	Motacillidae	W	U
70.	<i>Motacilla maderaspatensis</i>	White browed wagtail	Passeriformes	Motacillidae	R	C
71.	<i>Motacilla flava</i>	Yellow wagtail	Passeriformes	Motacillidae	W	U
72.	<i>Motacilla citreola</i>	Citrine Wagtail	Passeriformes	Motacillidae	W	U
73.	<i>Anthus trivialis</i>	Tree Pipit	Passeriformes	Motacillidae	R	U
74.	<i>Anthus rufulus</i>	Paddyfield Pipit	Passeriformes	Motacillidae	R	C
75.	<i>Mirafra erythroptera</i>	Indian Bushlark	Passeriformes	Alaudidae	R	U
76.	<i>Eremopterix grisea</i>	Ashy crowned Sparrow Lark	Passeriformes	Alaudidae	R	C
77.	<i>Ammomanes phoenicurus</i>	Rufous tailed Lark	Passeriformes	Alaudidae	R	C
78.	<i>Galerida deva</i>	Sykes' Lark	Passeriformes	Alaudidae	R	C
79.	<i>Alauda gulgula</i>	Oriental Skylark	Passeriformes	Alaudidae	R	C
80.	<i>Zosterops palpebrosus</i>	Oriental White-eye	Passeriformes	Zosteropidae	R	C
81.	<i>Leptocoma zeylonica</i>	Purple-rumped Sunbird	Passeriformes	Nectariniidae	R	A
82.	<i>Cinnyris asiaticus</i>	Purple sunbird	Passeriformes	Nectariniidae	R	A
83.	<i>Terpsiphone paradisi</i>	Asian Paradise Flycatcher	Passeriformes	Monarchidae	R	U
84.	<i>Lanius schach</i>	Long tailed Shrike	Passeriformes	Laniidae	R	C
85.	<i>Lanius vittatus</i>	Bay backed Shrike	Passeriformes	Laniidae	R	C
86.	<i>Lanius meridionalis</i>	Southern grey shrike	Passeriformes	Laniidae	R	Rr
87.	<i>Tephrodornis pondicerianus</i>	Common Woodshrike	Passeriformes	Vangidae	R	U
88.	<i>Dicaeum agile</i>	Thick billed Flowerpecker	Passeriformes	Dicaeidae	R	U
89.	<i>Pitta brachyuran</i>	Indian pitta	Passeriformes	Pittidae	BM	U
90.	<i>Chloropsis aurifrons</i>	Golden Fronted Leafbird	Passeriformes	Chloropseidae	R	Rr
91.	<i>Chloropsis cochinchinensis</i>	Bluewinged Leaf bird	Passeriformes	Chloropseidae	R	Rr
92.	<i>Dendrocopos mahrattensis</i>	Yellow-crowned Woodpecker	Piciformes	Picidae	R	C
93.	<i>Dinopium benghalense</i>	Lesser golden-backed woodpecker	Piciformes	Picidae	R	C
94.	<i>Chrysocolaptes lucidus</i>	Greater Flameback	Piciformes	Picidae	R	U
95.	<i>Psilopogon haemacephalus</i>	Coppersmith barbet	Piciformes	Megalaimidae	R	A
96.	<i>Coracias benghalensis</i>	Indian Roller (Blue Jay)	Coraciiformes	Coraciidae	R	C
97.	<i>Merops orientalis</i>	Little Green Bee-eater	Coraciiformes	Meropidae	R	A
98.	<i>Merops philippinus</i>	Blue tailed Bee-eater	Coraciiformes	Meropidae	BM	U
99.	<i>Halcyon smyrnensis</i>	White-breasted kingfisher	Coraciiformes	Alcedinidae	R	A
100.	<i>Alcedo atthis</i>	Common kingfisher	Coraciiformes	Alcedinidae	R	C
101.	<i>Ceryle rudis</i>	Pied kingfisher	Coraciiformes	Alcedinidae	R	C
102.	<i>Ocyrceros birostris</i>	Indian Gray Hornbill	Bucerotiformes	Bucerotidae	R	U
103.	<i>Upupa epops</i>	Common Hoopoe	Bucerotiformes	Upupidae	R	U
104.	<i>Hemiprocne coronata</i>	Crested Treeswift	Apodiformes	Hemiprocidae	R	U

105.	<i>Cypsiurus balasiensis</i>	Asian Palm Swift	Apodiformes	Apodidae	R	C
106.	<i>Apus affinis affinis</i>	House Swift	Apodiformes	Apodidae	R	A
107.	<i>Caprimulgus affinis</i>	Savanna Nightjar	Caprimulgiformes	Caprimulgidae	R	C
108.	<i>Caprimulgus asiaticus</i>	Indian Nightjar	Caprimulgiformes	Caprimulgidae	R	C
109.	<i>Caprimulgus indicus</i>	Grey Nightjar	Caprimulgiformes	Caprimulgidae	R	C
110.	<i>Hierococcyx varius</i>	Common hawk-cuckoo	Cuculiformes	Cuculidae	R	C
111.	<i>Eudynamys scolopacea</i>	Asian <i>Koel</i>	Cuculiformes	Cuculidae	R	A
112.	<i>Centropus sinensis</i>	Crow Pheasant	Cuculiformes	Cuculidae	R	C
113.	<i>Surniculus dicruroides</i>	Fork-tailed drongo-cuckoo	Cuculiformes	Cuculidae	R	U
114.	<i>Surniculus lugubris</i>	Drongo Cuckoo / Square tailed Cuckoo	Cuculiformes	Cuculidae	V	Rr
115.	<i>Clamator jacobinus</i>	Pied Cuckoo	Cuculiformes	Cuculidae	BM	C
116.	<i>Psittacula krameri</i>	Rose-ringed Parakeet	Psittaciformes	Psittacidae	R	A
117.	<i>Psittacula cyanocephala</i>	Plum-headed Parakeet	Psittaciformes	Psittacidae	R	C
118.	<i>Psittacula eupatria</i>	Alexandrine parakeet	Psittaciformes	Psittacidae	R	U
119.	<i>Tyto alba</i>	Barn Owl	Strigiformes	Tytonidae	R	C
120.	<i>Athene brama</i>	Spotted owl	Strigiformes	Strigidae	R	C
121.	<i>Bubo bubo bengalensis</i>	Rock Eagle-Owl	Strigiformes	Strigidae	R	C
122.	<i>Otus bakkomoena</i>	Collared Scops Owl	Strigiformes	Strigidae	R	U
123.	<i>Glauclidium radiatum radiatum</i>	Jungle Owlet	Strigiformes	Strigidae	R	U
124.	<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	Accipitriformes	Accipitridae	R	C
125.	<i>Accipiter badius</i>	Shikra	Accipitriformes	Accipitridae	R	C
126.	<i>Elanus axillaris</i>	Black-shouldered kite	Accipitriformes	Accipitridae	R	C
127.	<i>Milvus migrans govinda</i>	Black Kite	Accipitriformes	Accipitridae	R	C
128.	<i>Butastur teesa</i>	White eyed buzzard	Accipitriformes	Accipitridae	R	U
129.	<i>Falco tinnunculus</i>	Common Kestrel	Falconiformes	Falconidae	R	O
130.	<i>Treron phoenicoptera</i>	Yellow- footed green pigeon	Columbiformes	Columbidae	R	U
131.	<i>Columba livia</i>	Blue rock pigeon	Columbiformes	Columbidae	R	A
132.	<i>Streptopelia senegalensis</i>	Laughing dove	Columbiformes	Columbidae	R	A
133.	<i>Streptopelia chinensis</i>	Spotted dove	Columbiformes	Columbidae	R	U
134.	<i>Streptopelia orientalis</i>	Oriental Turtle Dove	Columbiformes	Columbidae	R	U
135.	<i>Streptopelia tranquebarica</i>	Red Collared Dove	Columbiformes	Columbidae	R	U
136.	<i>Streptopelia decaocto</i>	Eurasian Collared Dove	Columbiformes	Columbidae	R	C
137.	<i>Pavo cristatus</i>	Indian Peafowl	Galliformes	Phasianidae	R	C
138.	<i>Coturnix coturnix</i>	Common Quail	Galliformes	Phasianidae	R	C
139.	<i>Coturnix coromandelicus</i>	Black breasted quail	Galliformes	Phasianidae	W	C
140.	<i>Francolinus pondicerianus</i>	Grey partridge	Galliformes	Phasianidae	R	C
141.	<i>Francolinus pictus</i>	Painted Francolin	Galliformes	Phasianidae	R	C
142.	<i>Perdica asiatica</i>	Jungle bush quail	Galliformes	Phasianidae	R	C
143.	<i>Perdica argoondah</i>	Rock bush quail	Galliformes	Phasianidae	R	C
144.	<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	Gruiformes	Rallidae	R	C
145.	<i>Vanellus indicus</i>	Red-wattled lapwing	Charadriiformes	Charadriidae	R	A
146.	<i>Vanellus malabaricus</i>	Yellow-wattled Lapwing	Charadriiformes	Charadriidae	R	C
147.	<i>Turnix tanki</i>	Yellow legged button quail	Charadriiformes	Turnicidae	R	U
148.	<i>Phalacrocorax niger</i>	Little cormorant	Pelecaniformes	Phalacrocoracidae	R	C
149.	<i>Ardeola grayii</i>	Indian Pond heron	Pelecaniformes	Ardeidae	R	C
150.	<i>Egretta garzetta</i>	Little egret	Pelecaniformes	Ardeidae	R	U
151.	<i>Ardea intermedia</i>	Intermediate Egret	Pelecaniformes	Ardeidae	R	U
152.	<i>Ardea alba</i>	Great Egret	Pelecaniformes	Ardeidae	R	U
153.	<i>Bubulcus ibis</i>	Cattle Egret	Pelecaniformes	Ardeidae	R	A
154.	<i>Anser anser domesticus</i>	Domestic goose	Anseriformes	Anatidae	R	C

**Table. 2.** Orders and families of reported bird species at Raj Bhavan.

Sr. No.	Order	Family
1.	Order: Passeriformes	No. of. Observed species: 91
		1. Corvidae
		2. Paridae
		3. Leiothrichidae
		4. Sylviidae
		5. Aegithinidae
		6. Pycnonotidae
		7. Turdidae
		8. Muscicapidae
		9. Rhipiduridae
		10. Campephagidae
		11. Dicruridae
		12. Cisticolidae
		13. Acrocephalidae
		14. Phylloscopidae
		15. Oriolidae
		16. Sturnidae
		17. Estrildidae
		18. Fringillidae
		19. Emberizidae
		20. Passeridae
		21. Hirundinidae
		22. Motacillidae
		23. Alaudidae
		24. Zosteropidae
		25. Nectariniidae
		26. Monarchidae
		27. Laniidae
		28. Vangidae
		29. Dicaeidae
		30. Pittidae
		31. Chloropseidae
2.	Order: Piciformes	No. of. Observed species: 04
		32. Picidae
		33. Megalaimidae
3.	Order: Coraciiformes	No. of. Observed species: 06
		34. Coraciidae
		35. Meropidae
		36. Alcedinidae
4.	Order: Bucerotiformes	No. of. Observed species: 02
		37. Bucerotidae
		38. Upupidae
5.	Order: Apodiformes	No. of. Observed species: 03
		1. Apodidae
		2. Hemiprocnidae
6.	Order: Caprimulgiformes	No. of. Observed species: 03
		3. Caprimulgidae
7.	Order: Cuculiformes	No. of. Observed species: 06
		4. Cuculidae
8.	Order: Psittaciformes	No. of. Observed species: 03
		5. Psittacidae
9.	Order: Strigiformes	No. of. Observed species: 05
		6. Strigidae

		7. Tytonidae
10.	Order:Accipitriformes	No. of. Observed species: 05
		8. Accipitridae
11.	Order:Falconiformes	No. of. Observed species: 01
		9. Falconidae
12.	Order:Columbiformes	No. of. Observed species: 07
		10. Columbidae
13.	Order:Galliformes	No. of. Observed species: 07
		11. Phasianidae
14.	Order:Gruiformes	No. of. Observed species: 01
		12. Rallidae
15.	Order: Charadriiformes	No. of. Observed species: 03
		13. Charadriidae
		14. Turnicidae
16.	Order: Pelecaniformes	No. of. Observed species: 06
		15. Phalacrocoracidae
		16. Ardeidae
17.	Order: Anseriformes	No. of. Observed species: 01
		17. Anatidae

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