

## AVIFAUNA OF THRISSUR DISTRICT, KERALA, INDIA

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### ABSTRACT

*Three hundred and thirteen taxa of birds belonging to 64 Families were recorded in the Thrissur district, Kerala during a study on the avifauna there carried out from 1992 to 2002. 219 species of these were residents, 68 were trans-continental migrants, 26 were local migrants and one species was a straggler. The Order Passeriformes was highest in dominance followed by Charadriiformes, Ciconiiformes, Falconiformes, Coraciiformes and Piciformes. Seven species endemic to the Western Ghats and 11 species having threatened status were recorded. Out of the 1,340 species of birds recorded from the Indian subcontinent, 23% were found in Thrissur district. This is the first attempt to compile district-wise distribution of avifauna in Kerala, which will pave way for a Bird Atlas of Kerala.*

### KEYWORDS

*Avifauna, birds, checklist, Thrissur, Kerala, India*

Scientific studies on the birds of Kerala state commenced with Hume (1876, 1878) reporting the first and second list of birds of Travancore. Later, many studies were conducted on forest species in the Western Ghats such as Ali (1969), Zacharias (1979), Gaston *et al.* (1979), Vijayan (1979), Shukkur and Joseph (1980), Yahya (1980), Vijayan (1984), Zacharias and Mathew (1988), Satheesan (1990), Neelakantan *et al.* (1993), Santharam (1995a), Joseph (1999), and Jayson and Mathew (2000a, 2000b, 2002, 2003). Several studies were reported from the Thrissur district also. Jairaj and Kumar (1990) recorded the Eurasian Spoonbill (*Platalea leucorodia*) from the Kole wetlands. Perennou (1990) reported four species of waterfowl from the same area. Nature Education Society Thrissur (NEST) reported the list of birds from Peechi-Vazhani Wildlife Sanctuary (Anon., 1991), and Kole wetlands, during the winter months of 1992 and 1993 (Anon., 1992, 1993). Santharam (1995b) recorded Plain Sand Martin (*Riparia paludicola*) from the Kole wetlands. Similarly, Jayson (2000) reported Black Stork (*Ciconia nigra*) from the same area. Sivaperuman and Jayson (2000) published the inventory of the birds of the Kole wetlands. Sivaperuman and Jayson (2002) recorded Northern Shoveller (*Anas clypeata*) from the Kole wetlands. Structure and species composition of birds of Kole wetlands were reported by Sivaperuman and Jayson (2001). The same authors reported the Lesser Frigate Bird *Fregata ariel* also from the Kole wetlands in 2003. Ravindran (2001) reported White-winged Black Tern from Thrissur. Even though many such records were available in the past, no effort was made to compile the avifauna of Thrissur District or any other districts in the state. An attempt is made here to compile the avifauna of Thrissur district based on the field surveys and published work.

### STUDY AREA

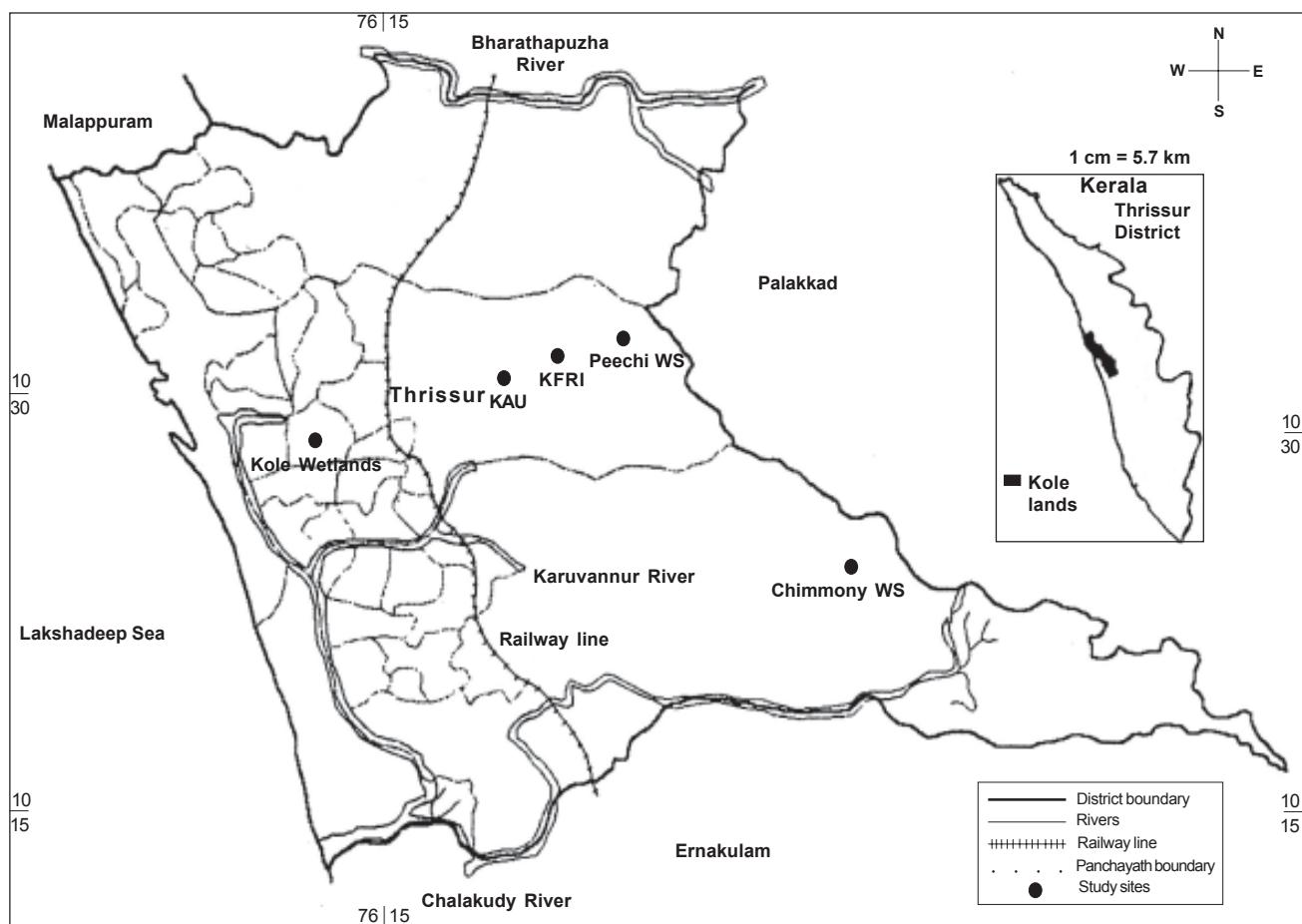
Thrissur district located between 10°10'-10°46'N & 76°57'-76°54'E

is situated in the central region and is in the western slope of the southern Western Ghats (Figure 1). The extent of the area is 1,041km<sup>2</sup>. The forests of Thrissur district fall within three administrative divisions of the Kerala Forest and Wildlife Department, *viz.* Thrissur, Chalakkudi and Vazhachal. Two wildlife sanctuaries, namely the Peechi-Vazhani and the Chimmony and a Ramsar site, the Vembanad-Kole wetlands exist in the district.

Topographically, the area is divisible into the Machad Mala Ridge, the Vellani Mala Ridge, the low-lying foothills of the Machad Mala Ridge, the Vellani Mala Ridge, the Anaikkal-Mangattukomban Ridge and the Sholayar and Parambikulam Valley. The highest point is Karimala Gopuram (1,416m). The area is drained by several west flowing rivers namely Chalakkudi, Karappara, Sholayar, Canakkayam, Manali, Chimini Puzha, Mooply Puzha and Kurumali Puzha (Sasidharan & Sivarajan, 1996).

The climate is moderate and there are three distinct seasons. The dry season (December to April), wet season-I (May to August) during the period of southwest monsoon and wet season-II (September to November) during northeast monsoon. The average daily maximum temperature during the hottest month is around 32°C in the coastal region and about 37°C in the interiors. The normal rainfall in the district is above 3000mm and the relative humidity is normally over 70%, especially during the monsoons.

The vegetation can be broadly divided into natural forest, plantations, agriculture fields, wetlands and coastal areas. Natural forests have been recognised into five forest types by Champion and Seth (1968). West-coast tropical evergreen forests are characterised by the profusion of species, particularly trees and woody climbers and the canopy is closed. The secondary species and exotic weeds are absent. The lower shrub layer is composed of mostly seedling and saplings of tree species. The evergreen forests are found between 400-1,200m. It has been observed that there is difference in the physiognomy and composition of species with altitude. West-coast semi-evergreen forests are found below 700m. It is intermediate between evergreen and moist deciduous type. Southern moist mixed deciduous forests are seen below 600m. Moist deciduous forests reveal their identity as the trees shed their leaves. The leafless period varies from a few weeks up to five months depending on the species. Southern montane wet temperate forests is characterised by the short-boled and highly branched trees. The branches are densely clothed with moss and other epiphytes. There is no stratification for trees and leaves in general are small. Southern montane wet grasslands



**Figure 1. Thrissur District**

are confined to the hilltop and grasses dominate the vegetation. About 20,000ha of area are under plantations with teak as the most extensively raised species in about 9,000ha.

Kole wetland is an important wetland in the study area, which lies between  $10^{\circ}20' - 10^{\circ}40'N$  &  $75^{\circ}58' - 76^{\circ}11'E$ . The Kole wetland covers an area of 13,632ha, extending from the northern banks of Chalakudy river in the south to the southern banks of Bharathapuzha river in the north. A major portion of the area is flat and remains submerged for about six months in a year, during June to November. These lands were formerly shallow lagoons, which gradually were silted up. Two rivers mainly bring the floodwaters into the area, namely Kechery and Karuvannur, which finally empty into the Arabian Sea. The wetland is a low-lying tract, located 0.5m to 1.0m below mean sea level.

#### METHODS

The study was mainly based on direct observational methods. Line transect method, Point count method and total count method were employed. Data was collected from five locations in the district representing forest, wetlands and agricultural fields. The sampling locations were Kole wetlands, Chimmony Wildlife Sanctuary, Peechi-Vazhani Wildlife Sanctuary, Kerala

Forest Research Institute (KFRI) campus, Kerala Agricultural University (KAU) campus and the data was collected between 1992 and 2002. Birds of Chimmony Wildlife Sanctuary were surveyed during the year 1992 to 1994, as a part of major ecological studies was included in the present study (Jayson & Easa, 1996). Inventory of avifauna of Kole wetlands had been prepared as a part of detailed ecological studies during the year 1998 to 2002 viz. Jayson (2000), Sivaperuman and Jayson (2000), Jayson and Sivaperuman (2003). Birds of KFRI campus were recorded during 1995-2000 (Jayson *et al.*, 2000). Bird census reports of Peechi-Vazhani Wildlife Sanctuary (Anon., 1991), Kole Wetlands (Anon., 1992, 1993) and KAU Campus (Nameer *et al.*, 2000) were also consulted for compiling the inventory. Birds were classified as migratory or resident species based on Ali and Ripley (1983). The Common and scientific names are after Manakadan and Pittie (2001).

#### RESULTS

Three-hundred-and-thirteen taxa of birds were recorded from the Thrissur district, which belong to 66 families under 18 orders (Table 1). Out of these, 219 species were residents, 68 were trans-continental migrants, 26 were local migrants and one species was a straggler. The highest number of species was recorded from Kole wetlands (204), followed by Peechi-Vazhani

Wildlife Sanctuary (202), Chimmoni Wildlife Sanctuary (168), KAU campus (131) and KFRI campus (94). The Order Passeriformes was highest in dominance followed by Charadriiformes, Ciconiiformes, Falconiformes, Coraciiformes and Piciformes (Fig. 2).

The highest number of birds recorded were: insectivores (117) followed by omnivores (66), aquatic feeders (45), carnivores (28), granivores (26), frugivores (19) and nectar-frugivores (12) (Table 2). Out of 16 species endemic to the Western Ghats, seven were recorded from the district, namely, Nilgiri Wood Pigeon, Blue-winged Parakeet, Malabar Grey Hornbill, Grey-headed Bulbul, Small Sunbird, Indian Rufous Babbler and White-bellied Blue Flycatcher. Out of the 315 species of birds found in the district, 11 species, namely, Spot-billed Pelican, Nilgiri Wood Pigeon, Darter, Painted Stork, Oriental White Ibis, Ferruginous Duck, Pallid Harrier, Greater Grey-headed Fish-eagle, Red-headed Vulture, Great Pied-Hornbill and Wood Snipe were listed in the threatened birds of the world (BirdLife International, 2001).

A comparison of number of bird species recorded from Thrissur district with those from Kerala, and the world is given in Table 3. Out of the 1,340 species of birds recorded from the Indian subcontinent 23% cent are found in Thrissur district. When compared with the avifauna of Kerala 66% of the birds found in the state were recorded in the district.

## DISCUSSION

The high avian species richness recorded from the Thrissur district is due to the presence of diverse habitat types in the district. The high number of trans-continental migrants recorded in the district is associated with the presence of the Kole wetland in the district. The area supports the trans-continental migrants during the months of September to March. The avian species richness in the Peechi-Vazhani and Chimmoni wildlife sanctuaries is comparatively less, which is likely due to the low habitat diversity. Absence of wetlands here functioned as constraints for the wintering migratory species and only 19 species of wetland birds were recorded. On the other hand, passerine species dominated these two sites. KAU and KFRI campuses are located in the midst of human habitations and the extent of area is less due to which comparatively less number of birds were recorded from here. This compilation of distribution of the avifauna of Thrissur district is a first step towards the preparation of a Bird Atlas of Kerala.

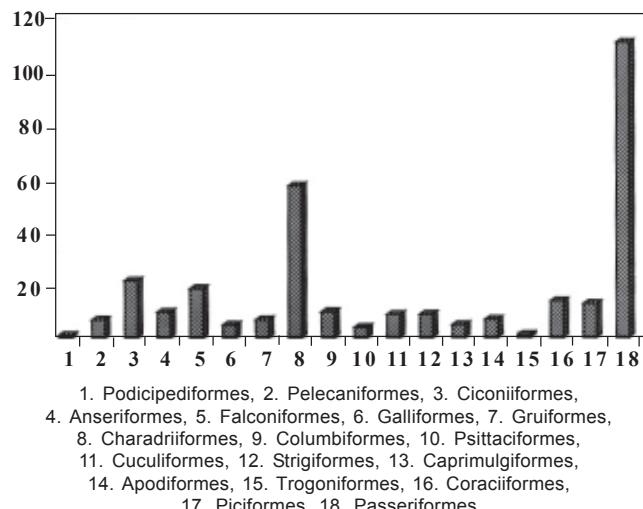
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**Table 2. Order and status of birds recorded from Thrissur District, Kerala**

Order	Status				Feeding guilds				
	R	M	Total	A	I	G	N/F	C	F
Podicipediformes	1	-	1	1	-	-	-	-	-
Pelecaniformes	5	2	7	7	-	-	-	-	-
Ciconiiformes	20	2	22	22	-	-	-	-	-
Anseriformes	4	6	10	10	-	-	-	-	-
Falconiformes	16	3	19	-	-	-	-	19	-
Galliformes	5	-	5	-	5	0	-	-	-
Gruiformes	7	-	7	-	-	7	-	-	-
Charadriiformes	9	49	58	-	-	-	-	-	58
Columbiformes	10	-	10	-	-	10	-	-	-
Psittaciformes	4	-	4	-	-	-	-	4	-
Cuculiformes	9	-	9	-	-	-	-	9	-
Strigiformes	9	-	9	-	-	-	-	9	-
Caprimulgiformes	5	-	5	-	5	-	-	-	-
Apodiformes	7	-	7	-	7	-	-	-	-
Trogoniformes	1	-	1	-	1	-	-	-	-
Coraciiformes	14	-	14	5	6	-	-	-	3
Piciformes	13	-	13	-	13	-	-	-	0
Passeriformes	105	7	112	-	80	09	12	-	6
<b>Total</b>	<b>244</b>	<b>69</b>	<b>313</b>	<b>45</b>	<b>117</b>	<b>26</b>	<b>12</b>	<b>28</b>	<b>19</b>
									<b>66</b>

R - Resident; M - Migrants; A - Aquatic feeders; I - Insectivores; C - Carnivores; G - Granivores; F - Frugivores; N/F - Nectar-frugivores; O - Omnivores



**Figure. 2. Order wise distribution of birds in Thrissur District, Kerala**

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**Table 1. List of birds recorded from Thrissur district, Kerala**

Common Name	Scientific Name	Status*	S1	S2	S3	S4	S5
<b>Podicipedidae</b>							
1. Little Grebe	<i>Tachybaptus ruficollis</i> (Pallas)	R	✓		✓		
<b>Pelecanidae</b>							
2. Spot-billed Pelican	<i>Pelecanus philippensis</i> Gmelin	R	✓				
<b>Sulidae</b>							
3. Masked Booby	<i>Sula dactylatra</i> Lesson	M	✓				
<b>Phalacrocoracidae</b>							
4. Little Cormorant	<i>Phalacrocorax niger</i> (Vieillot)	R	✓		✓	✓	✓
5. Great Cormorant	<i>Phalacrocorax carbo</i> (Linnaeus)	LM	✓				
6. Indian Shag	<i>Phalacrocorax fuscicollis</i> Stephens	LM	✓				
<b>Anhingidae</b>							
7. Darter	<i>Anhinga melanogaster</i> Pennant	LM	✓		✓	✓	✓
<b>Fregatidae</b>							
8. Lesser Frigatebird	<i>Fregata ariel</i> (G.R. Gray)	S	✓				
<b>Ardeidae</b>							
9. Grey Heron	<i>Ardea cinerea</i> Linnaeus	R	✓				
10. Purple Heron	<i>Ardea purpurea</i> Linnaeus	R	✓				
11. Little Green Heron	<i>Butorides striatus</i> (Linnaeus)	R	✓		✓	✓	✓
12. Indian Pond-Heron	<i>Ardeola grayii</i> Sykes	R	✓		✓	✓	✓
13. Cattle Egret	<i>Bubulcus ibis</i> Linnaeus	R	✓		✓	✓	✓
14. Large Egret	<i>Casmerodius albus</i> (Linnaeus)	R	✓				
15. Median Egret	<i>Mesophoyx intermedia</i> (Wagler)	R	✓				
16. Little Egret	<i>Egretta garzetta</i> (Linnaeus)	R	✓		✓	✓	✓
17. Western Reef-Heron	<i>Egretta gularis</i> (Bosc)	R	✓				
18. Black-crowned Night-Heron	<i>Nycticorax nycticorax</i> Linnaeus	R	✓		✓	✓	✓
19. Chestnut Bittern	<i>Ixobrychus cinnamomeus</i> (Gmelin)	R	✓		✓		
20. Yellow Bittern	<i>Ixobrychus sinensis</i> (Gmelin)	R	✓				
21. Black Bittern	<i>Dupetor flavicollis</i> (Latham)	R	✓		✓	✓	✓
<b>Ciconiidae</b>							
22. Painted Stork	<i>Mycteria leucocephala</i> (Pennant)	LM	✓				
23. Asian Openbill-Stork	<i>Anastomus oscitans</i> Boddaert	LM	✓				
24. Black Stork	<i>Ciconia nigra</i> (Linnaeus)	M	✓				
25. White-necked Stork	<i>Ciconia episcopus</i> (Boddaert)	R	✓				
26. European White Stork	<i>Ciconia ciconia</i> (Linnaeus)	M	✓				
<b>Threskiornithidae</b>							
27. Oriental White Ibis	<i>Threskiornis melanocephalus</i> (Latham)	LM	✓				
28. Glossy Ibis	<i>Plegadis falcinellus</i> (Linnaeus)	LM	✓				
29. Black Ibis	<i>Pseudibis papillosa</i> (Temminck)	LM	✓				
30. Eurasian Spoonbill	<i>Platalea leucorodia</i> Linnaeus	LM	✓				
<b>Anatidae</b>							
31. Lesser Whistling-Duck	<i>Dendrocygna javanica</i> (Horsfield)	R	✓			✓	
32. Northern Pintail	<i>Anas acuta</i> Linnaeus	M	✓				
33. Ferruginous Pochard	<i>Aythya nyroca</i> (Guldenstadt)	M	✓				
34. Common Teal	<i>Anas crecca</i> Linnaeus	M	✓				
35. Spot-billed Duck	<i>Anas poecilorhyncha</i> J.R. Forster	LM	✓				
36. Garganey	<i>Anas querquedula</i> Linnaeus	M	✓				
37. Gadwall	<i>Anas strepera</i> Linnaeus	M	✓				
38. Northern Shoveller	<i>Anas clypeata</i> Linnaeus	M	✓				
39. Cotton Teal	<i>Nettapus coromandelianus</i> (Gmelin)	LM	✓				
40. Comb Duck	<i>Sarkidiornis melanotos</i> (Pennant)	LM	✓				
<b>Accipitridae</b>							
41. Black-shouldered Kite	<i>Elanus caeruleus</i> (Desfontaines)	R	✓		✓	✓	✓
42. Black Kite	<i>Milvus migrans</i> (Boddaert)	R	✓		✓	✓	✓
43. Brahminy Kite	<i>Haliastur indus</i> (Boddaert)	R	✓		✓	✓	✓
44. Shikra	<i>Accipiter badius</i> (Gmelin)	R	✓		✓	✓	✓
45. Eurasian Sparrow hawk	<i>Accipiter nisus</i> (Linnaeus)	M	✓			✓	✓
46. Besra Sparrow hawk	<i>Accipiter virgatus</i> (Temminck)	R				✓	✓
47. Crested Goshawk	<i>Accipiter trivirgatus</i> (Temminck)	R				✓	✓
48. Changeable Hawk-Eagle	<i>Spizaetus cirrhatus</i> Gmelin	R			✓	✓	✓
49. Black Baza	<i>Aviceda leuphotes</i> (Dumont)	R				✓	✓
50. Oriental Honey-Buzzard	<i>Pernis ptilorhynchus</i> (Temminck)	R				✓	✓
51. Rufous-bellied Eagle	<i>Hieraetus kienerii</i> (E. Geoffroy)	R				✓	✓
52. Black Eagle	<i>Ictinaetus malayensis</i> (Temminck)	R				✓	✓
53. Greater Grey-headed Fish Eagle	<i>Icthyophaga ichthyaetus</i> (Horsfield)	R				✓	✓

Common Name	Scientific Name	Status*	S1	S2	S3	S4	S5
54. Red-headed Vulture	<i>Sarcogyps calvus</i> (Scopoli)	R				✓	✓
55. Pallid Harrier	<i>Circus macrourus</i> (S.G. Gmelin)	M	✓				
56. Pied Harrier	<i>Circus melanoleucus</i> (Pennant)	M	✓				
57. Western Marsh-Harrier	<i>Circus aeruginosus</i> (Linnaeus)	R	✓				
58. Crested Serpent-Eagle	<i>Spilornis cheela</i> (Latham)	R	✓	✓	✓	✓	✓
<b>Pandionidae</b>							
59. Osprey	<i>Pandion haliaetus</i> (Linnaeus)	R	✓			✓	✓
<b>Phasianidae</b>							
60. Grey Francolin	<i>Francolinus pondicerianus</i> (Gmelin)	R	✓	✓		✓	✓
61. Jungle bush Quail	<i>Perdicula asiatica</i> (Latham)	R	✓	✓	✓		✓
62. Red Spurfowl	<i>Galloperdix spadicea</i> (Gmelin)	R	✓	✓	✓	✓	✓
63. Grey Junglefowl	<i>Gallus sonneratii</i> Temminck	R	✓	✓	✓		✓
64. Indian Peafowl	<i>Pavo cristatus</i> Linnaeus	R	✓	✓			
<b>Rallidae</b>							
65. Ruddy-breasted Crake	<i>Porzana fusca</i> (Linnaeus)	R	✓		✓		✓
66. Slaty-legged Crake	<i>Rallina eurizonoides</i> (Lafresnaye)	R	✓				✓
67. White-breasted Waterhen	<i>Amaurornis phoenicurus</i> (Pennant)	R	✓	✓	✓	✓	✓
68. Watercock	<i>Gallicrex cinerea</i> (Gmelin)	R	✓				✓
69. Common Moorhen	<i>Gallinula chloropus</i> (Linnaeus)	R	✓				
70. Purple Moorhen	<i>Porphyrio porphyrio</i> (Linnaeus)	R	✓				
71. Common Coot	<i>Fulica atra</i> Linnaeus	LM	✓				✓
<b>Jacanidae</b>							
72. Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i> (Scopoli)	LM	✓				
73. Bronze-winged Jacana	<i>Metopidius indicus</i> (Latham)	R	✓				
<b>Rostratulidae</b>							
74. Greater Painted-Snipe	<i>Rostratula benghalensis</i> (Linnaeus)	R	✓				
<b>Haematopodidae</b>							
75. Eurasian Oystercatcher	<i>Haematopus ostralegus</i> Linnaeus	M	✓				
<b>Charadriidae</b>							
76. Red-wattled Lapwing	<i>Vanellus indicus</i> (Boddaert)	R	✓	✓	✓	✓	✓
77. Yellow-wattled Lapwing	<i>Vanellus malabaricus</i> (Boddaert)	R	✓				
78. Pacific Golden-Plover	<i>Pluvialis fulva</i> (Gmelin)	M	✓				
79. Grey Plover	<i>Pluvialis squatarola</i> (Linnaeus)	M	✓				
80. Greater Sand Plover	<i>Charadrius leschenaultii</i> Lesson	M	✓				
81. Little Ringed Plover	<i>Charadrius dubius</i> Scopoli	M	✓				
82. Common Ringed Plover	<i>Charadrius hiaticula</i> Linnaeus	M	✓				
83. Kentish Plover	<i>Charadrius alexandrinus</i> Linnaeus	M	✓				✓
84. Lesser Sand Plover	<i>Charadrius monogorus</i> Pallas	M	✓				
<b>Scolopacidae</b>							
85. Whimbrel	<i>Numenius phaeopus</i> (Linnaeus)	M	✓				
86. Eurasian Curlew	<i>Numenius arquata</i> Linnaeus	M	✓				
87. Black-tailed Godwit	<i>Limosa limosa</i> (Linnaeus)	M	✓				
88. Bar-tailed Godwit	<i>Limosa lapponica</i> (Linnaeus)	M	✓				
89. Common Redshank	<i>Tringa totanus</i> (Linnaeus)	M	✓				
90. Marsh Sandpiper	<i>Tringa stagnatilis</i> (Bechstein)	M	✓				
91. Common Greenshank	<i>Tringa nebularia</i> (Gunner)	M	✓				
92. Green Sandpiper	<i>Tringa ochropus</i> Linnaeus	M	✓				
93. Wood Sandpiper	<i>Tringa glareola</i> Linnaeus	M	✓			✓	
94. Terek Sandpiper	<i>Xenus cinereus</i> (Guldenstadt)	M	✓				
95. Common Sandpiper	<i>Actitis hypoleucos</i> Linnaeus	M	✓			✓	✓
96. Ruddy Turnstone	<i>Arenaria interpres</i> (Linnaeus)	M	✓				
97. Wood Snipe	<i>Gallinago nemoricola</i> Hodgson	M	✓				
98. Pintail Snipe	<i>Gallinago stenura</i> (Bonaparte)	M	✓				
99. Common Snipe	<i>Gallinago gallinago</i> (Linnaeus)	M	✓				
100. Jack Snipe	<i>Lymnocryptes minimus</i> (Brunnich)	M	✓				
101. Eurasian Woodcock	<i>Scolopax rusticola</i> Linnaeus	M	✓				
102. Great Knot	<i>Calidris tenuirostris</i> (Horsfield)	M	✓				
103. Little Stint	<i>Calidris minuta</i> Leisler	M	✓				
104. Temminck's Stint	<i>Calidris temminckii</i> (Leisler)	M	✓				
105. Sanderling	<i>Calidris alba</i> (Pallas)	M	✓				
106. Curlew Sandpiper	<i>Calidris ferruginea</i> (Pontoppidan)	M	✓				
107. Dunlin	<i>Calidris alpina</i> (Linnaeus)	M	✓				
108. Broad-billed Sandpiper	<i>Limicola falcinellus</i> (Pontoppidan)	M	✓				
109. Spoon-billed Sandpiper	<i>Calidris pygmeus</i> (Linnaeus)	M	✓				
110. Ruff	<i>Philomachus pugnax</i> (Linnaeus)	M	✓				
<b>Recurvirostridae</b>							
111. Blackwinged Stilt	<i>Himantopus himantopus</i> (Linnaeus)	M	✓				

Common Name	Scientific Name	Status*	S1	S2	S3	S4	S5
112. Pied Avocet	<i>Recurvirostra avosetta</i> Linnaeus	M	✓				
<b>Burhinidae</b>							
113. Stone-Curlew	<i>Burhinus oedicnemus</i> (Linnaeus)	LM			✓		
114. Great Stone-Curlew	<i>Esacus recurvirostris</i> (Cuvier)	LM				✓	
<b>Glareolidae</b>							
115. Indian Courser	<i>Cursorius coromandelicus</i> (Gmelin)	M					
116. Small Pratincole	<i>Glareola lactea</i> Temminck	LM	✓			✓	
<b>Laridae</b>							
117. Yellow-legged Gull	<i>Larus cachinnans</i> Pallas	M	✓				
118. Lesser Black-backed Gull	<i>Larus fuscus</i> (Linnaeus)	M	✓				
119. Brown-headed Gull	<i>Larus brunnicephalus</i> Jerdon	M	✓				
120. Black-headed Gull	<i>Larus ridibundus</i> Linnaeus	M	✓				
121. Whiskered Tern	<i>Chlidonias hybridus</i> (Pallas)	M	✓		✓		
122. White-winged Black Tern	<i>Chlidonias leucopterus</i>	M	✓				
123. Common Tern	<i>Sterna hirundo</i> Linnaeus	M	✓				✓
124. Gull-billed Tern	<i>Gelochelidon nilotica</i> (Gmelin)	M	✓				
125. Caspian Tern	<i>Sterna caspia</i> Pallas	M	✓				
126. River Tern	<i>Sterna aurantia</i> J.E.Gray	LM	✓				
127. Black-bellied Tern	<i>Sterna acuticauda</i> J.E.Gray	M	✓				
128. Little Tern	<i>Sterna saundersi</i> Hume	M	✓				
129. Sandwich Tern	<i>Sterna sandvicensis</i> Latham	M	✓				
<b>Columbidae</b>							
130. Yellow-legged Green-Pigeon	<i>Treron phoenicoptera</i> (Latham)	R		✓	✓	✓	✓
131. Pompadour Green-Pigeon	<i>Treron pompadora</i> (Gmelin)	R			✓		✓
132. Green Imperial-Pigeon	<i>Ducula aenea</i> (Linnaeus)	R			✓		
133. Mountain Imperial Pigeon	<i>Ducula badia</i> (Raffles)	R			✓		✓
134. Nilgiri Wood-Pigeon	<i>Columba elphinstonii</i> (Sykes)	R			✓		✓
135. Spotted Dove	<i>Streptopelia chinensis</i> (Scopoli)	R	✓	✓	✓		✓
136. Emerald Dove	<i>Chalcophaps indica</i> (Linnaeus)	R		✓	✓		
137. Eurasian Collared Dove	<i>Streptopelia decaocto</i> (Frivaldszky)	R	✓			✓	
138. Oriental Turtle-Dove	<i>Streptopelia orientalis</i> (Latham)	R	✓	✓	✓		✓
139. Blue Rock Pigeon	<i>Columba livia</i> Gmelin	R	✓	✓	✓		✓
<b>Psittacidae</b>							
140. Rose-ringed Parakeet	<i>Psittacula krameri</i> (Scopoli)	R	✓	✓	✓	✓	✓
141. Plum-headed Parakeet	<i>Psittacula cyanocephala</i> (Linnaeus)	R	✓	✓	✓	✓	✓
142. Blue-winged Parakeet	<i>Psittacula columbooides</i> (Vigors)	R		✓	✓	✓	✓
143. Indian Hanging Parrot	<i>Loriculus vernalis</i> (Sparrman)	R		✓	✓	✓	✓
<b>Cuculidae</b>							
144. Pied Crested Cuckoo	<i>Clamator jacobinus</i> (Boddaert)	R	✓	✓	✓	✓	✓
145. Brainfever Bird	<i>Hierococcyx varius</i> Vahl	R	✓	✓	✓	✓	✓
146. Indian Cuckoo	<i>Cuculus micropterus</i> Gould	R	✓	✓	✓	✓	✓
147. Banded Bay Cuckoo	<i>Cacomantis sonneratii</i> Latham	R	✓	✓	✓	✓	✓
148. Indian Plaintive Cuckoo	<i>Cacomantis passerinus</i> (Vahl)	R		✓	✓	✓	✓
149. Asian Koel	<i>Eudynamys scolopacea</i> (Linnaeus)	R	✓	✓	✓	✓	✓
150. Small Green-billed Malkoha	<i>Phaenicophaeus viridirostris</i> (Jerdon)	R		✓	✓	✓	✓
151. Greater Coucal	<i>Centropus sinensis</i> (Stephens)	R	✓	✓	✓	✓	✓
152. Lesser Coucal	<i>Centropus bengalensis</i> (Gmelin)	R		✓			✓
<b>Tytonidae</b>							
153. Barn Owl	<i>Tyto alba</i> (Scopoli)	R	✓	✓	✓	✓	✓
<b>Strigidae</b>							
154. Collared Scops Owl	<i>Otus bakkamoena</i> Pennant	R			✓	✓	✓
155. Eurasian Scops-Owl	<i>Otus scops</i> (Linnaeus)	R			✓	✓	✓
156. Brown Fish-Owl	<i>Ketupa zeylonensis</i> (Gmelin)	R			✓	✓	✓
157. Jungle Owlet	<i>Glaucidium radiatum</i> (Tickell)	R			✓	✓	✓
158. Spotted Owlet	<i>Athene brama</i> (Temminck)	R	✓	✓	✓		
159. Brown Hawk-Owl	<i>Ninox scutulata</i> (Raffles)	R			✓	✓	✓
160. Mottled Wood-Owl	<i>Strix ocellata</i> (Lesson)	R	✓		✓		
161. Brown Wood-Owl	<i>Strix leptogrammica</i> Temminck	R			✓	✓	
<b>Podargidae</b>							
162. Ceylon Frogmouth	<i>Batrachostomus moniliger</i> Blyth	R				✓	✓
<b>Caprimulgidae</b>							
163. Great Eared Nightjar	<i>Eurostopodus macrotis</i> (Vigors)	R					✓
164. Indian Jungle Nightjar	<i>Caprimulgus indicus</i> Latham	R		✓	✓	✓	✓
165. Franklin's Nightjar	<i>Caprimulgus affinis</i> Horsfield	R			✓		✓
166. Common Indian Nightjar	<i>Caprimulgus asiaticus</i> Latham	R		✓	✓		✓

Common Name	Scientific Name	Status*	S1	S2	S3	S4	S5
<b>Apodidae</b>							
167. Indian Edible-nest Swiftlet	<i>Collocalia unicolor</i> (Jerdon)	R				✓	✓
168. Brown-backed Needle-tail Swift	<i>Hirundapus giganteus</i> (Temminck)	R				✓	✓
169. Whiterumped Spinetail Swift	<i>Zoonavena sylvatica</i> (Tickell)	R				✓	✓
170. Alpine Swift	<i>Tachymarptis melba</i> (Linnaeus)	R	✓	✓			✓
171. House Swift	<i>Apus affinis</i> (J.E. Gray)	R	✓	✓	✓	✓	
172. Asian Palm Swift	<i>Cypsiurus balasiensis</i> (J.E. Gray)	R	✓	✓	✓	✓	✓
<b>Hemiprocnidae</b>							
173. Crested Tree-Swift	<i>Hemiprocne coronata</i> (Tickell)	R			✓	✓	✓
<b>Trogonidae</b>							
174. Malabar Trogon	<i>Harpactes fasciatus</i> (Pennant)	R				✓	✓
<b>Alcedinidae</b>							
175. Lesser Pied Kingfisher	<i>Ceryle rudis</i> (Linnaeus)	R	✓	✓	✓	✓	✓
176. Small Blue Kingfisher	<i>Alcedo atthis</i> (Linnaeus)	R	✓	✓	✓	✓	✓
177. Stork-billed Kingfisher	<i>Halcyon capensis</i> (Linnaeus)	R	✓	✓	✓	✓	✓
178. White-breasted Kingfisher	<i>Halcyon smyrnensis</i> (Linnaeus)	R	✓	✓	✓	✓	✓
179. Black-capped Kingfisher	<i>Halcyon pileata</i> (Boddart)	R	✓				
<b>Meropidae</b>							
180. Chestnut-headed Bee-eater	<i>Merops leschenaulti</i> Vieillot	R		✓	✓	✓	
181. Blue-tailed Bee-eater	<i>Merops philippinus</i> Linnaeus	LM	✓	✓	✓		✓
182. Small Bee-eater	<i>Merops orientalis</i> Latham	R	✓	✓	✓	✓	✓
183. Blue-bearded Bee-eater	<i>Nyctyornis athertonii</i> (Jardine & Selby)	R			✓		
<b>Coraciidae</b>							
184. Indian Roller	<i>Coracias benghalensis</i> (Linnaeus)	R	✓	✓	✓	✓	✓
<b>Upupidae</b>							
185. Common Hoopoe	<i>Upupa epops</i> Linnaeus	R	✓	✓	✓	✓	✓
<b>Bucerotidae</b>							
186. Malabar Grey Hornbill	<i>Ocyceros griseus</i> (Latham)	R				✓	✓
187. Indian Grey Hornbill	<i>Ocyceros birostris</i> (Scopoli)	R		✓	✓		✓
188. Great Pied Hornbill	<i>Buceros bicornis</i> (Linnaeus)	R			✓		✓
<b>Capitonidae</b>							
189. White-cheeked Barbet	<i>Megalaima viridis</i> (Boddart)	R	✓	✓	✓	✓	✓
190. Crimson-throated Barbet	<i>Megalaima rubricapilla</i> (Gmelin)	R			✓	✓	✓
191. Coppersmith Barbet	<i>Megalaima haemacephala</i> (P.L.S. Muller)	R		✓	✓	✓	✓
<b>Picidae</b>							
192. Rufous Woodpecker	<i>Celeus brachyurus</i> (Vieillot)	R		✓	✓	✓	✓
193. Small Yellow-naped Woodpecker	<i>Picus chlorolophus</i> Vieillot	R			✓	✓	
194. Little Scaly-bellied Green Woodpecker	<i>Picus xanthopygaeus</i> (J.E. Gray & G.R. Gray)	R			✓	✓	
195. Lesser Golden-backed Woodpecker	<i>Dinopium benghalense</i> (Linnaeus)	R	✓	✓	✓	✓	✓
196. Common Golden-backed Woodpecker	<i>Dinopium javanense</i> (Ljungh)	R				✓	✓
197. Great Black Woodpecker	<i>Dryocopus javensis</i> (Horsfield)	R				✓	✓
198. Yellow-fronted Woodpecker	<i>Dendrocopos mahrattensis</i> (Latham)	R		✓	✓	✓	✓
199. Brown-capped Pygmy Woodpecker	<i>Dendrocopos nanus</i> (Vigors)	R		✓	✓	✓	✓
200. Heart-spotted Woodpecker	<i>Hemicircus canente</i> (Lesson)	R		✓		✓	✓
201. Greater Golden-backed Woodpecker	<i>Chrysocolaptes lucidus</i> (Scopoli)	R			✓	✓	✓
<b>Pittidae</b>							
202. Indian Pitta	<i>Pitta brachyura</i> Linnaeus	M		✓			✓
<b>Alaudidae</b>							
203. Ashy-crowned Sparrow-Lark	<i>Eremopterix grisea</i> (Scopoli)	R	✓		✓		✓
204. Bengal Bush Lark	<i>Mirafr a assamica</i> Horsfield	R		✓	✓		✓
205. Malabar Crested Lark	<i>Galerida malabarica</i> (Scopoli)	R	✓			✓	✓
206. Eastern Skylark	<i>Alauda gulgula</i> Franklin	R	✓				✓
<b>Hirundinidae</b>							
207. Plain Martin	<i>Riparia paludicola</i> (Vieillot)	R					✓
208. House Swallow	<i>Hirundo tahitica</i> Gmelin	R	✓			✓	✓
209. Common Swallow	<i>Hirundo rustica</i> Linnaeus	R	✓	✓		✓	✓
210. Red-rumped Swallow	<i>Hirundo daurica</i> Linnaeus	LM	✓	✓	✓	✓	✓
<b>Motacillidae</b>							
211. Paddyfield Pipit	<i>Anthus rufulus</i> Vieillot	R	✓		✓		✓
212. Tree Pipit	<i>Anthus trivialis</i> (Linnaeus)	M	✓				✓

Common Name	Scientific Name	Status*	S1	S2	S3	S4	S5
213. Forest Wagtail	<i>Dendronanthus indicus</i> (Gmelin)	R			✓	✓	✓
214. Yellow Wagtail	<i>Motacilla flava</i> Linnaeus	LM	✓	✓	✓	✓	✓
215. Citrine Wagtail	<i>Motacilla citreola</i> (Pallas)	LM	✓				
216. Grey Wagtail	<i>Motacilla cinerea</i> Tunstall	LM	✓		✓	✓	✓
217. White Wagtail	<i>Motacilla alba</i> Linnaeus	LM			✓	✓	✓
218. Large Pied Wagtail	<i>Motacilla maderaspatensis</i> Gmelin	R	✓	✓	✓	✓	✓
<b>Campyphagidae</b>							
219. Pied Flycatcher-Shrike	<i>Hemipus picatus</i> (Sykes)	R				✓	✓
220. Large Woodshrike	<i>Tephrodornis gularis</i> (Raffles)	R				✓	✓
221. Common Wood-Shrike	<i>Tephrodornis pondicerianus</i> Gmelin	R			✓	✓	✓
222. Large Cuckoo-Shrike	<i>Coracina macei</i> (Lesson)	R			✓	✓	✓
223. Black-headed Cuckoo-Shrike	<i>Coracina melanoptera</i> (Ruppell)	R			✓	✓	✓
224. Scarlet Minivet	<i>Pericrocotus flammeus</i> (Forster)	R		✓	✓	✓	✓
225. Small Minivet	<i>Pericrocotus cinnamomeus</i> (Linnaeus)	R	✓		✓	✓	✓
<b>Pycnonotidae</b>							
226. Grey-headed Bulbul	<i>Pycnonotus priocephalus</i> (Jerdon)	R				✓	✓
227. Black-crested Bulbul	<i>Pycnonotus melanicterus</i> (Gmelin)	R				✓	✓
228. Red-whiskered Bulbul	<i>Pycnonotus jocosus</i> (Linnaeus)	R	✓	✓	✓	✓	✓
229. Red-vented Bulbul	<i>Pycnonotus cafer</i> (Linnaeus)	R	✓	✓	✓	✓	✓
230. Yellow-browed Bulbul	<i>Iole indica</i> (Jerdon)	R				✓	✓
231. White-browed Bulbul	<i>Pycnonotus luteolus</i> (Lesson)	R			✓	✓	✓
<b>Irenidae</b>							
232. Common Iora	<i>Aegithina tiphia</i> Linnaeus	R	✓	✓	✓	✓	✓
233. Gold-fronted Chloropsis	<i>Chloropsis aurifrons</i> (Temminck)	R	✓		✓	✓	✓
234. Jerdon's Chloropsis	<i>Chloropsis cochinchinensis</i> (Gmelin)	R	✓	✓	✓	✓	✓
235. Asian Fairy-Bluebird	<i>Irena puella</i> (Latham)	R				✓	✓
<b>Laniidae</b>							
236. Brown Shrike	<i>Lanius cristatus</i> Linnaeus	M	✓		✓		✓
<b>Turdinae</b>							
237. Bluetroat	<i>Luscinia svecica</i> (Linnaeus)	R					✓
238. Oriental Magpie Robin	<i>Copsychus saularis</i> (Linnaeus)	R	✓	✓	✓	✓	✓
239. White-rumped Shama	<i>Copsychus malabaricus</i> (Scopoli)	R				✓	✓
240. Black Redstart	<i>Phoenicurus ochruros</i> (Gmelin)	R				✓	✓
241. Pied Bushchat	<i>Saxicola caprata</i> (Linnaeus)	R	✓	✓			
242. Desert Wheatear	<i>Oenanthe deserti</i> (Temminck)	R	✓				
243. Indian Robin	<i>Saxicoloides fulicata</i> (Linnaeus)	R	✓	✓	✓		
244. Blue-headed Rock-Thrush	<i>Monticola cinctorhynchus</i> (Vigors)	R				✓	✓
245. Malabar Whistling-Thrush	<i>Myioiphonus horsfieldii</i> (Vigors)	R				✓	✓
246. Orange-headed Thrush	<i>Zoothera citrina</i> (Latham)	R				✓	✓
247. Eurasian Blackbird	<i>Turdus merula</i> Lafresnay	R			✓	✓	✓
<b>Timaliinae</b>							
248. Spotted Babbler	<i>Pellorneum ruficeps</i> Swainson	R				✓	✓
249. Black-headed Babbler	<i>Rhopocichla atriceps</i> (Jerdon)	R				✓	✓
250. Common Babbler	<i>Turdoides caudatus</i> (Dumont)	R	✓				
251. Indian Rufous Babbler	<i>Turdoides subrufus</i> (Jerdon)	R	✓			✓	✓
252. Jungle Babbler	<i>Turdoides striatus</i> Jerdon	R	✓	✓	✓	✓	✓
253. White-headed Babbler	<i>Turdoides affinis</i> (Jerdon)	R	✓	✓	✓	✓	✓
254. Quaker Tit-Babbler	<i>Alcippe poioicephala</i> (Jerdon)	R				✓	✓
<b>Sylviinae</b>							
255. Streaked Fantail-Warbler	<i>Cisticola juncidis</i> (Rafinesque)	R	✓				✓
256. Franklin's Prinia	<i>Prinia hodgsonii</i> Blyth	R	✓		✓	✓	✓
257. Plain Prinia	<i>Prinia inornata</i> Sykes	R	✓				
258. Ashy Prinia	<i>Prinia socialis</i> Sykes	R	✓				
259. Common Tailorbird	<i>Orthotomus sutorius</i> Pennant	R	✓	✓	✓	✓	✓
260. Indian Great Reed-Warbler	<i>Acrocephalus stentoreus</i> (Hemprich & Ehrenberg)	R	✓	✓			
261. Blyth's Reed-Warbler	<i>Acrocephalus dumetorum</i> Blyth	R	✓	✓	✓	✓	✓
262. Greenish Leaf-Warbler	<i>Phylloscopus trochiloides</i> (Sundevall)	M			✓	✓	✓
263. Western Crowned Warbler	<i>Phylloscopus occipitalis</i> (Blyth)	M				✓	✓
<b>Muscicapinae</b>							
264. Asian Brown Flycatcher	<i>Muscicapa dauurica</i> (Pallas)	R			✓	✓	✓
265. Brown-breasted Flycatcher	<i>Muscicapa muttui</i> (Layard)	R				✓	✓
266. Rusty-tailed Flycatcher	<i>Muscicapa ruficauda</i> Swainson	M				✓	✓
267. Red-throated Flycatcher	<i>Ficedula parva</i> (Bechstein)	R				✓	✓
268. White-bellied Blue Flycatcher	<i>Cyornis pallipes</i> (Jerdon)	R				✓	✓
269. Blue-throated Flycatcher	<i>Cyornis rubeculoides</i> (Vigors)	R				✓	✓
270. Tickell's Blue Flycatcher	<i>Cyornis tickelliae</i> Blyth	R				✓	✓

Common Name	Scientific Name	Status*	S1	S2	S3	S4	S5
<b>Monarchinae</b>							
271. Asian Paradise Flycatcher	<i>Terpsiphone paradisi</i> (Linnaeus)	LM	✓	✓	✓	✓	✓
272. Black-naped Monarch-Flycatcher	<i>Hypothymis azurea</i> (Boddaert)	R			✓		✓
<b>Rhipidurinae</b>							
273. White-browed Fantail-Flycatcher	<i>Rhipidura aureola</i> Lesson	R			✓		
<b>Paridae</b>							
274. Grey Tit	<i>Parus major</i> Linnaeus	R		✓		✓	✓
275. Black-lored Yellow-Tit	<i>Parus xanthogenys</i> Vigors	R			✓		✓
<b>Sittidae</b>							
276. Velvetfronted Nuthatch	<i>Sitta frontalis</i> Swainson	R				✓	✓
<b>Dicaeidae</b>							
277. Thick-billed Flowerpecker	<i>Dicaeum agile</i> (Tickell)	R	✓	✓		✓	✓
278. Tickell's Flowerpecker	<i>Dicaeum erythrorhynchos</i> (Latham)	R	✓	✓	✓	✓	✓
279. Plain Flowerpecker	<i>Dicaeum concolor</i> Jerdon	R		✓	✓	✓	✓
<b>Nectariniidae</b>							
280. Purple-rumped Sunbird	<i>Nectarinia zeylonica</i> (Linnaeus)	R	✓	✓	✓	✓	✓
281. Small Sunbird	<i>Nectarinia minima</i> (Sykes)	R	✓			✓	✓
282. Loten's Sunbird	<i>Nectarinia lotenia</i> (Linnaeus)	R	✓	✓	✓	✓	✓
283. Purple Sunbird	<i>Nectarinia asiatica</i> Latham	R	✓	✓	✓	✓	✓
284. Little Spiderhunter	<i>Arachnothera longirostra</i> (Latham)	R			✓	✓	✓
<b>Estrildidae</b>							
285. Red Munia	<i>Amandava amandava</i> (Linnaeus)	R	✓				✓
286. White-throated Munia	<i>Lonchura malabarica</i> (Linnaeus)	R	✓				✓
287. White-rumped Munia	<i>Lonchura striata</i> (Linnaeus)	R	✓	✓	✓	✓	✓
288. Black-throated Munia	<i>Lonchura kelaarti</i> (Jerdon)	R	✓				✓
289. Black-headed Munia	<i>Lonchura malacca</i> (Linnaeus)	R	✓				✓
290. Spotted Munia	<i>Lonchura punctulata</i> (Linnaeus)	R	✓		✓		✓
<b>Passerinae</b>							
291. Yellow-throated Sparrow	<i>Petronia xanthocollis</i> (Burton)	R		✓	✓		
292. House Sparrow	<i>Passer domesticus</i> (Linnaeus)	R					✓
<b>Ploceinae</b>							
293. Baya Weaver	<i>Ploceus philippinus</i> (Linnaeus)	R	✓	✓	✓		
294. Streaked Weaver	<i>Ploceus manyar</i> (Horsfield)	R	✓	✓			
<b>Sturnidae</b>							
295. Grey-headed Starling	<i>Sturnus malabaricus</i> (Gmelin)	R	✓		✓	✓	✓
296. Brahminy Starling	<i>Sturnus pagodarum</i> Gmelin	R			✓		✓
297. Rosy Starling	<i>Sturnus roseus</i> (Linnaeus)	M			✓		✓
298. Common Myna	<i>Acridotheres tristis</i> (Linnaeus)	R	✓	✓	✓	✓	✓
299. Jungle Myna	<i>Acridotheres fuscus</i> (Wagler)	R	✓	✓	✓	✓	✓
300. Common Hill Myna	<i>Gracula religiosa</i> Linnaeus	R			✓		✓
<b>Oriolidae</b>							
301. Eurasian Golden Oriole	<i>Oriolus oriolus</i> (Linnaeus)	LM	✓	✓	✓	✓	✓
302. Black-naped Oriole	<i>Oriolus chinensis</i> (Linnaeus)	R	✓	✓	✓	✓	✓
303. Black-headed Oriole	<i>Oriolus xanthornus</i> (Linnaeus)	R	✓	✓	✓	✓	✓
<b>Dicruridae</b>							
304. Black Drongo	<i>Dicrurus macrocercus</i> Vieillot	R	✓	✓	✓	✓	✓
305. Ashy Drongo	<i>Dicrurus leucophaeus</i> Vieillot	R	✓	✓	✓	✓	✓
306. Whitebellied Drongo	<i>Dicrurus caerulescens</i> (Linnaeus)	R	✓	✓	✓	✓	✓
307. Bronzed Drongo	<i>Dicrurus aeneus</i> Vieillot	R			✓	✓	✓
308. Spangled Drongo	<i>Dicrurus hottentottus</i> (Linnaeus)	R			✓	✓	✓
309. Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i> (Linnaeus)	R		✓	✓	✓	✓
<b>Artamidae</b>							
310. Ashy Woodswallow	<i>Artamus fuscus</i> Vieillot	R	✓	✓	✓	✓	✓
<b>Corvidae</b>							
311. Indian Tree Pie	<i>Dendrocitta vagabunda</i> (Latham)	R	✓	✓	✓	✓	✓
312. House Crow	<i>Corvus splendens</i> Vieillot	R	✓	✓	✓	✓	✓
313. Jungle Crow	<i>Corvus macrorhynchos</i> Wagler	R	✓	✓	✓	✓	✓

R - Resident; M - Migrant; LM - Local Migrant; S - Straggler; S1 - Kole wetlands; S2 - KFRI Campus; S3 - KAU campus; S4 - Chimmoni Wildlife Sanctuary; S5 - Peechi-Vazhani Wildlife Sanctuary; Ö - Present

**Table 3. Occurrence of bird species in Thrissur district, Kerala**

Order	World <sup>1</sup>	Indian sub continent <sup>2</sup>	Kerala State <sup>3</sup>	Thrissur District <sup>4</sup>
Archaeopterygiformes*	01	-	-	-
Hesperornithiformes**	07	-	-	-
Ichthyornithiformes**	09	-	-	-
Struthioniformes	01	-	-	-
Rheiformes	02	-	-	-
Casuariiformes	04	-	-	-
Aepyornithiformes**	04	-	-	-
Dinornithiformes**	12	-	-	-
Apterygiformes	08	-	-	-
Tinamiformes	50	-	-	-
Sphenisciformes	18	-	-	-
Gaviiformes	05	02	-	-
Podicipediformes	22	05	02	01
Procellariiformes	32	21	02	-
Odontopterygiformes**	03	-	-	-
Pelecaniformes	45	17	10	07
Ciconiiformes	88	34	26	22
Phoenicopteriformes	06	02	-	-
Anseriformes	145	44	12	10
Falconiformes	285	71	40	19
Galliformes	235	49	12	05
Diatrymiformes	04	-	-	-
Gruiformes	186	33	14	07
Charadriiformes	199	121	70	58
Columbiformes	274	40	13	10
Psittaciformes	330	15	05	04
Cuculiformes	133	24	15	09
Strigiformes	129	33	15	09
Caprimulgiformes	96	11	06	05
Apodiformes	403	17	08	07
Coliiformes	06	-	-	-
Trogoniformes	40	03	01	01
Coraciiformes	183	33	19	14
Piciformes	343	46	18	13
Passeriformes	4978	719	187	112
<b>Total</b>	<b>8286</b>	<b>1340</b>	<b>475</b>	<b>313</b>

Source: 1 - Harrison (1978); 2 - Ali & Ripley (1983), Manakadan & Pittie (2001); 3 - Ali, 1969, Neelakantan *et al.* 1993; 4 - Present study

\* Fossil bird; \*\* Extinct birds

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