A checklist of avifauna of the Central University of Tamil Nadu (CUTN) campus, Thiruvarur, Tamil Nadu, India

Introduction

Water birds depend on wetlands for survival. Wetlands are one of the most productive ecosystems and water birds play a vital role in their ecological functioning (Raju 2015). Common water birds include numerous groups of birds, such as grebes, pelicans, cormorants, darters and its allies, herons, bitterns, storks, ibises and spoonbills, flamingos, and ducks (wildfowl), raptors, cranes, rails and its allies, jacanas, waders (or shorebirds), gulls, skimmers. terns, and coucals (Article 1.2 of the Ramsar Convention text). In India, there are about 744 universities with varying land size, and most of them have at least a few patches of natural vegetation and plantations. Documentation of birds in such areas, however, was not given importance on par with natural and reserve forests (Pragasan & Madesh 2018). Few bird diversity studies have been carried out in the Thiruvarur District. The present study is the

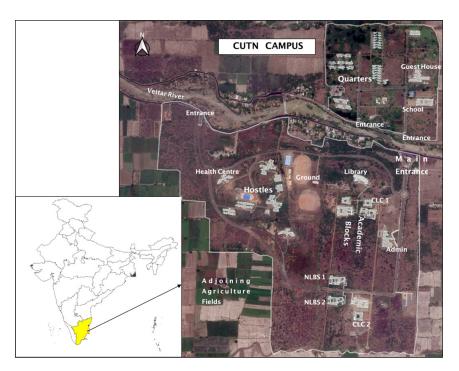


Image 1. Central University of Tamil Nadu campus adjoining agricultural fields and Vettaru River in Thiruvarur, Tamil Nadu, India. The campus boundaries are drawn roughly, only for representational purpose (Source: QGIS using Google Earth Imagery).

first attempt to document the bird diversity in the CUTN campus (10.8193° N, 79.6102° E) located in the Thiruvarur District, Tamil Nadu, India. The campus is spread on both sides of the River Vettaru (the major tributary of Cauvery River in the heart of the delta). The campus is situated seven kilometres to the northwest of Thiruvarur Town and spread across 516.76 acres of land in two revenue villages

Neelakudi and Nagakudi (Image 1). Thiruvarur District has a tropical dry climate with annual mean temperature of 28.5°C and annual mean rainfall of about 1178mm. The campus is located near a riverine freshwater wetland and hence it is characterised by productive alluvial soil with many permanent and temporary ponds and water pools that support rich diversity of flora and fauna. It is located

82km from Point Calimere Wildlife Sanctuary in Nagapattinam District, which is a Ramsar site; 52km from Udhayamarthandapuram Bird Sanctuary; and 46km from Vaduvoor Birds Sanctuary in Thiruvarur District, therefore, apart from common birds, the campus attracts a large number of wetland birds. The CUTN campus has a range of microhabitats within the campus such as grasslands. woodlands, shrubs, herbs, many ponds and water bodies. Additionally, both academic and residential campuses are surrounded by rich vegetation and agricultural lands.

We conducted the bird surveys from November 2017 to May 2019. We observed the birds using a standard 10x binoculars and recorded the images with a DSLR camera (18MP) with lens (55-250mm). We also photographed the bird habitats. We designed and carried out the present study in two ways (a) routine bird surveys, (b) casual bird watching. Routine bird surveys involved observing and recording bird species in fixed locations using line transect and point count method. We carried

out the study on a regular basis, except during heavy rains. Regular visits were made to different areas of the campuses for 2-4 hours, starting from 6am in the summer and 6.30am in the winter. Short visits were also made for an hour to a specified site in the evenings. During the routine bird surveys, a predefined line transect of 200m in length were laid in the campus. During the casual bird watching, we recorded different types of information such as visual sightings which include shape, size, colour, beak, and also flight pattern. We also recorded acoustic information including bird calls, perch location, and habitat (wherever possible). The roads and pathways in the campus were divided into transects for bird watching and ease of counting. For those areas which are inaccessible by walk, songs/ calls of birds were observed from a distance.

For bird identification standard field guides by Ali (2012) and Grimmett & Inskipp (2005), various standard journal articles for diagnostics and online databases which provided images and recorded calls of birds were used. For taxonomy work we followed Praveen et al. (2016).

Residential status as, Rresident; R/LM-resident with local movements; WM-winter migrant; R/AM-resident with altitudinal movements; R/LM/ SM-resident with local as well as summer movements; R/WM-resident with winter influx. The roosting and foraging zones of birds in and around the campus were observed. There were 29 foraging zones and seven roosting zones during the study period, partitioned by roads, pathways and buildings. Habitats of the CUTN campus were categorized as garden (G), cropland (CL), light forest having moderately high trees and bushes underneath (LF), open woodland which includes trees of different height, bushes and vines on the trees, varieties of herbs and grasses underneath (OW), grassland (GL), wetland which includes all types of water bodies (WL). and human habitation, the buildings (HH).

We recorded 79 bird species belonging to 16 orders and 43 families (Table 1). We found that university campus is dominated by Passeriformes, followed by Pelecaniformes and Cuculiformes (Fig 1). The birds in the campus are diversified with different types of micro habitats such as grassland, woodland, river and ponds and these micro habitats were classified as given in the table. Some species like Rock Pigeon, Spotted Dove, Jungle Babbler, Common Myna, Large-billed Crow, Black Drongo, Red-vented Bulbul are very common and can be seen almost everywhere. The number of species with residential status resident 17: resident with local movements 52; winter migrant 6; resident with local as well as summer movements 1: resident with winter influx 1. There were 29 foraging zones and seven roosting zones during the study period, partitioned by roads, pathways, and buildings.

There is little information on checklist of birds and related studies in Thiruvarur region (Asokan 1998a,b; Chandru & Asokan, 1999; Asokan et al. 2009; Sivakumaran & Thiyagesan 2003; Neelanarayanan 2007), and

most of this information is related to the population and feeding ecology of birds. However, very few studies reported the nesting behavior of birds (Thiyagesan 1991; Sivakumar & Jayabalan 2004; Asokan et al. 2009) in this region. The Cauvery River bank attracts a greater diversity of birds due to its diverse ecosystem and vegetation types, and hence availability of a variety of food sources for birds. Along both sides of the river bank in the CUTN campus, there are many wooded tree species, scrub and bushy type stumpy vegetation which provide both roosting and nesting habitats for many bird species. Even in the surrounding agricultural fields a number of bird species were recorded.

Accounts of species of interest

Species that are rare in the region and observed for the first time in the campus during study period.

Circaetus gallicus: Rarest among the raptors found in CUTN campus. One individual was sighted and photographed near the main gate during May 2018.

Tringa nebularia: One individual was found foraging near roundabout (near New Girls Hostel) on 3 Dec 2018.

Phaenicophaeus viridirostris: One individual was observed in the campus (Residential) on 13 Feb 2019 and one on 22 Mar 2019 near CLC 1 (Department of Life Sciences building), but no observation after that.

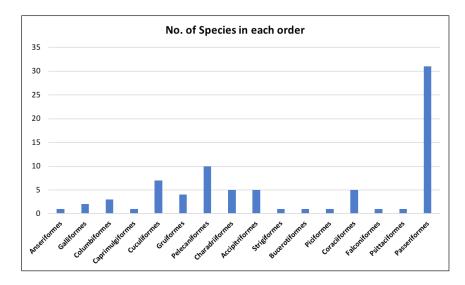


Fig 1. Number of bird species in each order recorded during the study.

Table 1. List of bird species in each order with their IUCN Red List, Indian Wildlife (Protection) Act, 1972 status, Residential status and their Habitat.

	Family	Name of the Species	Scientific Name	IUCN Category	WPA	Residential Status*	Habitat**	
Acc	Accipitriformes							
1		Short-toed Snake Eagle	Circaetus gallicus (J.F.Gmelin, 1788)	LC	Sch I	R/LM	CL	
2		Black-winged Kite	Elanus caeruleus (Desfontaines, 1789)	LC	Sch I	R/LM	OW	
3	Accipitridae	Shikra	Accipiter badius (J.F.Gmelin, 1788)	LC	Sch I	R/LM	OW	
4		Brahminy Kite	Haliastur indus (Boddaert, 1783)	LC	Sch I	R/LM	OW	
5		Black Kite	Milvus migrans (Boddaert, 1783)	LC	Sch I	R/LM	OW	
Ans	eriformes							
6	Anatidae	Lesser Whistling Duck	Dendrocygna javanica (Horsfield, 1821)	LC	Sch IV	R/LM	CL	
Buc	erotiformes							
7	Upupidae	Common Hoopoe	Upupa epops Linnaeus, 1758	LC	Sch IV	R/LM	G, LF, OW	
Сар	rimulgiformes							
8	Apodidae	Asian Palm Swift	Cypsiurus balasiensis (J.E.Gray, 1829)	LC	Sch IV	R	OW	
Cha	radriiformes							
9	Charadriidae	Red-wattled Lapwing	Vanellus indicus (Boddaert, 1783)	LC	Sch IV	R	GL, WL	
10	Jacanidae	Pheasant-tailed Jacana	Hydrophasianus chirurgus (Scopoli, 1786)	LC	Sch IV	R/LM/SM	WL	
11	Recurvirostridae	Black-winged Stilt	Himantopus himantopus (Linnaeus, 1758)	LC	Sch IV	R/WM	WL	
12	Rostratulidae	Greater painted- Snipe	Rostratula benghalensis (Linnaeus, 1758)	LC	Sch IV	R/LM	WL	
13	Scolopacidae	Common Greenshank	Tringa nebularia (Gunnerus, 1767)	LC	Sch IV	WM	WL	
Colu	umbiformes							
14		Rock Pigeon	Columba livia J.F.Gmelin, 1789	LC	Sch IV	R	LF, OW, HH	
15	Columbidae	Eurasian Collared- Dove	Streptopelia decaocto (Frivaldszky, 1838)	LC	Sch IV	R	CL, OW, GL	
16		Spotted Dove	Streptopelia chinensis (Scopoli, 1786)	LC	Sch IV	R	LF, OW, HH	
Coraciiformes								
17		Common Kingfisher	Alcedo atthis (Linnaeus, 1758) Ceryle rudis	LC	Sch IV	R/LM	WL	
18	Alcedinidae	Pied Kingfisher	(Linnaeus, 1758)	LC	Sch IV	R/LM	WL	
19		White-throated Kingfisher	Halcyon smyrnensis (Linnaeus, 1758)	LC	Sch IV	R/LM	LF, OW, WL	

	Family	Name of the Species	Scientific Name	IUCN Category	WPA	Residential Status*	Habitat**
Cor	aciiformes						
20	Coraciidae	Indian Roller	Coracias benghalensis (Linnaeus, 1758)	LC	Sch IV	R	LF, OW
21	Meropidae	Green Bee-eater	Merops orientalis Latham, 1801	LC	Sch IV	R/LM	LF
Cuc	uliformes						
22		Greater Coucal	Centropus sinensis (Stephens, 1815)	LC	Sch IV	R	LF, OW
23		Blue-faced Malkoha	Phaenicophaeus viridirostris (Jerdon, 1840)	LC	Sch IV	R/LM	G, LF, OW
24		Pied Crested Cuckoo	Clamator jacobinus (Boddaert, 1783)	LC	Sch IV	R	LF, OW
25	Cuculidae	Asian Koel	Eudynamys scolopaceus (Linnaeus, 1758)	LC	Sch IV	R	LF, OW
26		Grey-bellied Cuckoo	Cacomantis passerinus (Vahl, 1797)	LC	Sch IV	R/LM	LF, OW
27		Drongo Cuckoo	Surniculus lugubris (Horsfield, 1821)	LC	Sch IV	R/LM	LF, OW
28		Common Hawk Cuckoo	Hierococcyx varius (Vahl, 1797)	LC	Sch IV	R	LF, OW
Falc	oniformes						
29	Falconidae	Common Kestrel	Falco tinnunculus Linnaeus, 1758	LC	Sch IV	WM	LF, OW
Gall	iformes						
30		Indian Peafowl	Pavo cristatus Linnaeus, 1758	LC	Sch I	R	CL, GL
31	Phasianidae	Grey Francolin	Francolinus pondicerianus (J.F.Gmelin, 1789)	LC	Sch IV	R	CL, GL
32		White-breasted Waterhen	Amaurornis phoenicurus (Pennant, 1769)	LC	Sch IV	R/LM	GL, WL
33	Rallidae	Watercock	Gallicrex cinerea (J.F.Gmelin, 1789)	LC	Sch IV	R/LM	GL, WL
34		Purple Swamphen	Porphyrio porphyrio (Linnaeus, 1758)	LC	Sch IV	R/LM	GL, WL
35		Common Moorhen	Gallinula chloropus (Linnaeus, 1758)	LC	Sch IV	R/WM	GL, WL
Pas	seriformes						
36	Acrocephalidae	Paddyfield Warbler	Acrocephalus agricola (Jerdon, 1845)	LC	Sch IV	WM	LF
37	Alaudidae	Indian Bushlark	Mirafra erythroptera Blyth, 1845	LC	Sch IV	R/LM	CL, GL
38	Cisticolidae	Ashy Prinia	Prinia socialis Sykes, 1832	LC	Sch IV	R/LM	LF, GL
39		Plain Prinia	Prinia inornata Sykes, 1832	LC	Sch IV	R/LM	LF, GL
40		Common Tailorbird	Orthotomus sutorius (Pennant, 1769)	LC	Sch IV	R/LM	G, LF, OW

	Family	Name of the Species	Scientific Name	IUCN Category	WPA	Residential Status*	Habitat**
41	- Corvidae	Rufous Treepie	Dendrocitta vagabunda (Latham, 1790)	LC	Sch IV	R/LM	G, LF, OW
42		Large-billed Crow	Corvus macrorhynchos Wagler, 1827	LC	Sch IV	R	ALL HABITATS
43	Dicruridae	Black Drongo	Dicrurus macrocercus Vieillot, 1817	LC	Sch IV	R	G, LF, OW
44		Indian Silverbill	Euodice malabarica (Linnaeus, 1758)	LC	Sch IV	R/LM	GL
45	Estrildidae	Scaly-breasted Munia	Lonchura punctulata (Linnaeus, 1758)	LC	Sch IV	R/LM	GL
46		Black-headed Munia	Lonchura malacca (Linnaeus, 1766)	LC	Sch IV	R/LM	GL
47	Hirundinidae	Wire-tailed Swallow	Hirundo smithii Leach, 1818	LC	Sch IV	R/LM	LF, HH
48	nirundinidae	Barn Swallow	Hirundo rustica Linnaeus, 1758	LC	Sch IV	WM	LF
49	Laniidae	Brown Shrike	Lanius cristatus Linnaeus, 1758	LC	Sch IV	WM	LF, OW
50	Leiothrichidae	Jungle Babbler	Turdoides striata (Dumont, 1823)	LC	Sch IV	R	ALL HABITATS
51	Monarchidae	Indian Paradise Flycatcher	Terpsiphone paradisi (Linnaeus, 1758)	LC	Sch IV	R/LM	LF, OW
52		Paddyfield Pipit	Anthus rufulus Vieillot, 1818	LC	Sch IV	R/LM	CL, GL
53	Motacillidae	White-browed Wagtail	Motacilla maderaspatensis J.F. Gmelin, 1789	LC	Sch IV	R/LM	GL
54	Muscicapidae	Indian Robin	Saxicoloides fulicatus (Linnaeus, 1766)	LC	Sch IV	R/LM	LF, OW, HH
55		Oriental Magpie Robin	Copsychus saularis (Linnaeus, 1758)	LC	Sch IV	R/LM	LF, OW, HH
56	Nectariniidae	Purple-rumped Sunbird	Leptocoma zeylonica (Linnaeus, 1766)	LC	Sch IV	R/LM	G, HH
57		Loten's Sunbird	Cinnyris lotenius (Linnaeus, 1766)	LC	Sch IV	R/LM	G, HH
58	Oriolidae	Eurasian Golden Oriole	Oriolus oriolus (Linnaeus, 1758)	LC	Sch IV	WM	G, LF, OW
59	Ploceidae	Baya Weaver	Ploceus philippinus (Linnaeus, 1766)	LC	Sch IV	R/LM	LF, OW
60	- Pycnonotidae	Red-vented Bulbul	Pycnonotus cafer (Linnaeus, 1766)	LC	Sch IV	R/LM	G, LF, OW, HH
61		White-browed Bulbul	Pycnonotus luteolus (Lesson, 1841)	LC	Sch IV	R/LM	LF, OW
62	Sturnidae	Rosy Starling	Pastor roseus (Linnaeus, 1758)	LC	Sch IV	WM	LF, OW
63		Brahminy Starling	Sturnia pagodarum (J.F.Gmelin, 1789)	LC	Sch IV	R/LM	LF, OW
64		Common Myna	Acridotheres tristis (Linnaeus, 1766)	LC	Sch IV	R	ALL HABITATS

	Family	Name of the Species	Scientific Name	IUCN Category	WPA	Residential Status*	Habitat**			
65	- Vangidae	Malabar Woodshrike	Tephrodornis sylvicola Jerdon, 1839	LC	Sch IV	VA	LF, OW			
66		Common Woodshrike	Tephrodornis pondicerianus (J.F.Gmelin, 1789)	LC	Sch IV	R/LM	LF, OW			
Pele	Pelecaniformes									
67	Anhingidae	Oriental Darter	Anhinga melanogaster Pennant, 1769	NT	Sch IV	R/LM	WL			
68		Yellow Bittern	Ixobrychus sinensis (J.F.Gmelin, 1789)	LC	Sch IV	R/LM	CL, GL, WL			
69		Indian Pond Heron	Ardeola grayii (Sykes, 1832)	LC	Sch IV	R/LM	CL, GL, WL			
70		Cattle Egret	Bubulcus ibis (Linnaeus, 1758)	LC	Sch IV	R/AM	CL, GL, WL			
71	- Ardeidae	Purple Heron	Ardea purpurea Linnaeus, 1766	LC	Sch IV	R/LM	CL, GL, WL			
72		Intermediate Egret	Ardea intermedia Wagler,1829	LC	Sch IV	R/LM	CL, GL, WL			
73		Little Egret	Egretta garzetta (Linnaeus, 1766)	LC	Sch IV	R/LM	CL, GL, WL			
74	Ciconiidae	Asian Openbill Stork	Anastomus oscitans (Boddaert, 1783)	LC	Sch IV	R/LM	CL, GL, WL			
75	Phalacrocoracidae	Little Cormorant	Microcarbo niger (Vieillot, 1817)	LC	Sch IV	R/LM	WL			
76	Threskiornithidae	Black-headed Ibis	Threskiornis melanocephalus (Latham, 1790)	NT	Sch IV	R/LM	CL, GL, WL			
Pici	Piciformes									
77	Picidae	Lesser Golden- backed Woodpecker	Dinopium benghalense (Linnaeus, 1758)	LC	Sch IV	R/LM	LF, OW			
Psit	Psittaciformes									
78	Psittaculidae	Rose-ringed Parakeet	Psittacula krameri (Scopoli, 1769)	LC	Sch IV	R/LM	LF, OW			
Stri	Strigiformes									
79	Strigidae	Spotted Owlet	Athene brama (Temminck, 1821)	LC	Sch IV	R	LF, OW			

^{&#}x27;R- Resident; R/LM- Resident with Local Movements; WM- Winter Migrant; R/AM- Resident with altitudinal movements; R/LM/ SM- Resident with local as well as summer movements; R/WM- Resident with winter influx.

[&]quot;Garden (G), Cropland (CL), Light Forest having moderately high trees and bushes underneath (LF), Open Woodland which includes trees of different height, bushes and vines on the trees, varieties of herbs and grasses underneath (OW), Grassland (GL), Wetland which includes all types of water bodies (WL) and Human Habitation, the buildings (HH).

Cacomantis passerinus: Sighted and photographed near residential campus on 13 Feb 2019. The population seems very less compared to the other members of the Cuculidae family.

Surniculus lugubris: Observed near NLBS 2 only once during mid-September. No observations after that.

Falco tinnunculus: Winter Migrant to the region. One individual was observed and photographed near main gate on 6 Nov 2018.

Lanius cristatus: Winter migrant to the region. An individual was found near New Girls Hostel on 14 Dec 2018.

Tephrodornis sylvicola: A species endemic to the Western Ghats. This species is suspected to be a 'partial migrant' (Partial migration describes intra-population variation in migratory tendency, i.e., when just a fraction of a population migrates and a fraction remains resident within a single habitat the whole year around). One individual was found foraging near residential campus on 13 Feb 2019.

The campus houses a wide variety of flora ranging from herbs, weeds, grasses to big trees. The swamps and bushes surrounding it, attracts migratory birds during winter and rainy seasons. The trees (avenue, ornamental, fuel wood, timber, fodder and fruit bearing) has created a typical habitat and several ecological niches for the birds. Although the vegetation is dominated by grasses, shrubs and bushes, the marshy spots surrounded by reeds provide good habitat for small birds like munias and

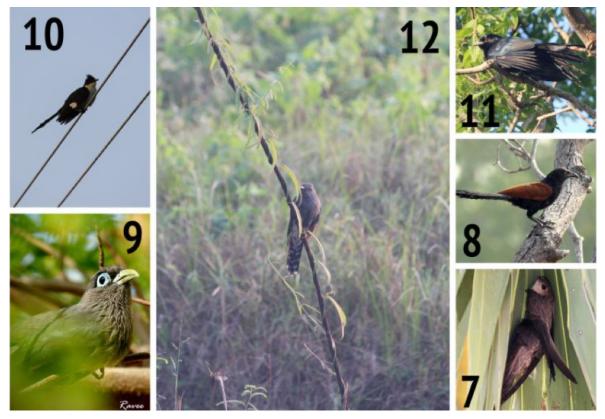
warblers. The herbs which provide fruits and nectar, attract birds like cuckoos, bulbuls, and sunbirds. All the roads and the infrastructures are surrounded by bushes and trees. The fauna includes plethora of insects, mollusks, reptiles, fishes and amphibians. The rise in population of these fauna during the north-east monsoon months (September–January) attracts migratory birds.

Future research on the behaviour and feeding ecology of birds in the campus will help to understand the birds more accurately and thereby pave the way for their better conservation measures. Although, there are natural vegetation such as grasslands, woodlands, water bodies and shrublands in the CUTN campus as habitat for birds of this region, conservation measures are of immense need for their future survival. The present study also suggests the planting of native fruit trees such as Jamun, figs, etc. inside the campus will increase the habitat size for birds. Keeping micro catchments all over the university campus help drive the thirsts of birds during drought season. Initiating bio monitoring program is necessary for monitoring and conservation of the birds and promotion of conservation education for university students. A further complete study is required to understand species assemblage with changes in the habitats and climatic and other resources. This could be an ideal ecosystem to study the avifauna with respect to changes in the habitat over the period of time.

Images of Birds spotted in CUTN campus.



1. Lesser Whistling Duck; 2. Indian Peafowl; 3. Grey Francolin; 4. Rock Pigeon; 5. Eurasian Collared-Dove; 6. Spotted Dove.



7. Asian Palm Swift; 8. Greater Coucal; 9. Blue-faced Malkoha; 10. Pied Crested Cuckoo; 11. Asian Koel; 12. Grey-bellied Cuckoo.



13. Drongo Cuckoo; 14. Common Hawk Cuckoo; 15. White-breasted Waterhen; 16. Watercock; 17. Purple Swamphen; 18. Common Moorhen.



19. Asian Openbill Stork; 20. Yellow Bittern; 21. Indian Pond Heron; 22. Cattle Egret; 23. Purple Heron; 24. Intermediate Egret.



25. Little Egret; 26. Black-headed Ibis; 27. Little Cormorant; 28. Oriental Darter; 29. Black-winged Stilt; 30. Red-wattled Lapwing.



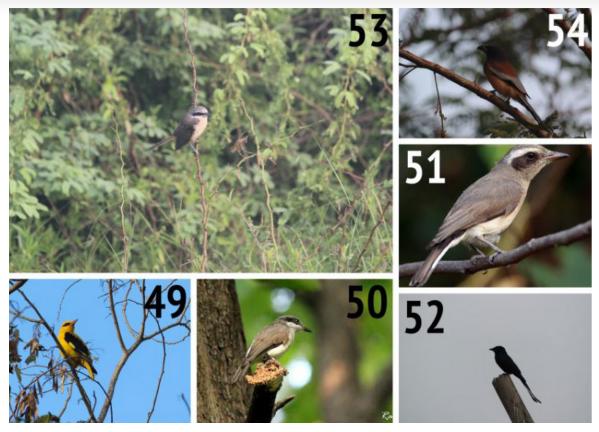
31. Greater painted-snipe; 32. Pheasant-tailed Jacana; 33. Common Greenshank; 34. Short-toed snake eagle; 35. Black-winged Kite; 36. Shikra.



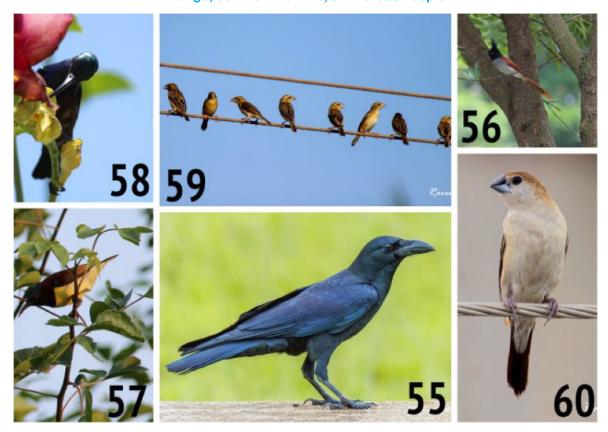
37. Brahminy Kite; 38. Black Kite; 39. Spotted owlet; 40. Common Hoopoe; 41. Lesser Golden-backed Woodpecker; 42. Green Bee Eater.



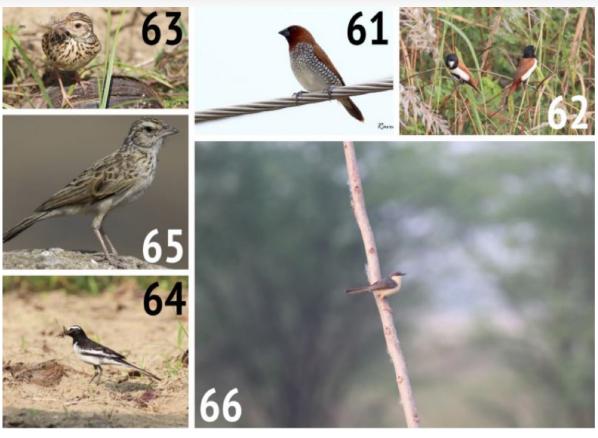
43. Indian Roller; 44. Common Kingfisher; 45. Pied Kingfisher; 46. White-throated Kingfisher; 47. Common Kestrel; 48. Rose-ringed Parakeet.



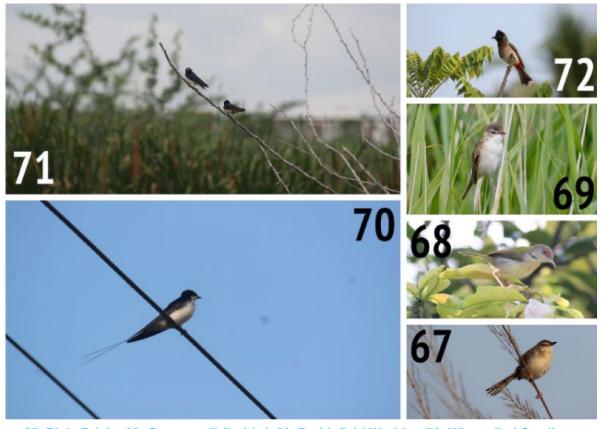
49. Eurasian Golden Oriole; 50. Malabar Woodshrike; 51. Common Woodshrike; 52. Black Drongo; 53. Brown Shrike; 54. RufousTreepie.



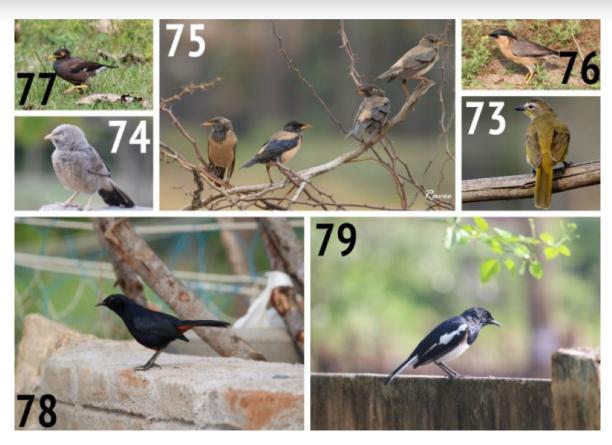
55. Large-billed Crow; 56. Indian Paradise Flycatcher; 57. Purple-rumped Sunbird; 58. Loten's Sunbird; 59. Baya Weaver; 60. Indian Silverbill.



61. Scaly-breasted Munia; 62. Black-headed Munia; 63. Paddyfield Pipit; 64. White-browed Wagtail; 65. Indian Bushlark; 66. Ashy Prinia.



67. Plain Prinia; 68. Common Tailorbird; 69. Paddyfield Warbler; 70. Wire-tailed Swallow; 71. Barn Swallow; 72. Red-vented Bulbul.



73. White-browed Bulbul; 74. Jungle Babbler; 75. Rosy Starling; 76. Brahminy Starling; 77. Common Myna; 78. Indian Robin; 79. Oriental Magpie Robin.

References

Ali, S. (2012). The Book of Indian Birds, 13th ed. Oxford University Press, 326pp.

Ali, A.M.S., S. Asokan, R. Manikannan & P. Radhakrishnan (2011). Checklist and nesting patterns of avifauna in and around Mayiladuthurai region, Tamil Nadu, India. *Journal of Threatened Taxa* 3(6): 1842–1850. https://doi.org/10.11609/JoTT.o2299.1842-50.

Asokan, S. (1998a). Studies on perch related characteristics of some insectivorous birds in Mayiladuthurai. *Journal of Ecotoxicology and Environmental Monitoring* 8(2): 145–151. Asokan, S. (1998b). Food and feeding habits of the small Green Bee-eater Meropsorientalis in Mayiladuthurai. *Journal of Ecobiology* 10(3): 199–204.

Asokan, S., A.M.S. Ali & R. Manikannan (2009). Nest-site selection and nestling growth patterns of the Common Myna, *Acridotheres tristis* (Linnaeus, 1766). *Geobios* 36: 65–70. Chandru, G. & S. Asokan (1999). Studies on the population and habitat utilization pattern of some birds of agriculture importance in and around Mannampandalarea. *Journal of Eco-Physiology* 2(4): 105–108.

Neelanarayanan, P. (2007). Diet of barn owl to *Alba stertens* Hartert 1929 in a portion of Cauvery Delta, Tamil Nadu, India. *Zoos' Print Journal* 22(8): 2777–2781. https://dx.doi.org/10.11609/JoTT.ZPJ.1670.2777-81

Pragasan, L.A. & M. Madesh (2018). Species diversity and abundance of birds on Bharathiar University Campus, Tamil Nadu, India. *Journal of Threatened Taxa* 10(6): 11725–11731. http://doi.org/10.11609/jott.2965.10.6.11725-11731

Raju, S. (2015). Population trend of the common birds in a residential area of Thiruvananthapuram City, Kerala. *Indian Birds* 10(2): 40–45.

Sivakumaran, N. & K. Thiyagesan (2003). Population, diurnal activity patterns and feeding ecology of the Indian Roller *Coracias*

benghalensis. Zoos' Print Journal 18(5): 1091–1095. https://dx.doi.org/10.11609/JoTT.ZPJ.18.5.1091-5

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