



Check List of avifauna on Ankasamudra lake, Hagaribommanahalli (Taluk) Ballari District, Karnataka-India

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Abstract

A field study was conducted on the avifaunal diversity of Ankasamudra Lake. Ankasamudra is a small village located in Hagaribommanahalli Taluk, Ballari district, Karnataka-India, between 15° 7' 50.44" N and 76° 13' 52.83" E. This lake is located at the outskirts of the village Ankasamudra near the backwaters of Tungabhadra Dam (T.B Dam) spreaded in 244 ha area. It is being filled with both either natural rainwater or by lifting backwater of T.B Dam. Since it is filled with water throughout the year and Acacia trees grown in the lake provided space for nesting, roosting and breeding for bird species during winter season, which include several local and migratory bird species (approximately 166 species) such as waders and other birds. Highest population of Rosy Starlings and Barn Swallows are noticed in addition to Comb duck, Black tailed Godwit, Long tailed stints, Northern Shovelers, Pintail ducks, Painted storks, Open billed ducks, Spoon-billed ducks, Cormorants, Egrets, Moor hens, Black winged stilts, Glossy ibis, Black-headed ibis, Purple heron, Grey heron, Common teals, Whistling ducks, Spot billed ducks, Garganey, Pelicans, White ibis, Oriental darters, Blue tailed green bee eater, Sand pipers, Red shank, Painted snipes, raptors like Brahminy kite, Marsh harriers and other prominent residents were also recorded. It was found that more than 40 migratory species are cited and 15 species breeding in the lake. The present study observed that the density and diversity of avifauna of this wetland in North Karnataka indicates that it is highly preferred wetland for birds and also emerged as a breeding paradise of birds. Recently it has been declared as Conservation Reserve of birds by the Govt. of Karnataka. It is one of the important bird areas in the Northern Karnataka.

Keywords: wetland avifauna, Ankasamudra, wetland and Ballari district

Introduction

Bird migration is a phenomenon which includes the regular, seasonal movement of birds from one geographic location to another (Salim Ali, 1996)^[1]. It is common among many varieties of birds that has fascinated scientists and bird watchers. It is marked by the eventual return to the original place of departure and is most evident among certain bird species that usually follow annual cycle. An estimated 1,855 bird species are migratory making regular cyclical movements beyond their breeding distribution, with predictable timing and destinations (Kirby *et al.*, 2008). According to Ramsar Convention 1971, wetland is a land area that is saturated with water either permanently or seasonally. Birds inhabiting wetlands for feeding, breeding, nesting or roosting are called as wetland birds (Paramesh Kumar and Gupta, 2013)^[20], which comprises bird groups like water fowl, waders, king fishers, passerines and raptors.

According to Morrison *et al.*, (1986)^[17] and Jenkins (1988)^[12] that birds are considered as indicators of environmental quality in various management programs. Wetlands harbor a large number of threatened birds in addition to variety of wildlife and are vital to their survival (Kumar *et al.*, 2005)^[13]. These wetlands are providing food and shelter at least for 20% of threatened bird species in the Asiatic region which is far more than 10% of the globally threatened birds (Kumar *et al.*, 2005)^[13].

Fraser and Keddy (2005)^[7] opined that although Wetlands are one of the most productive ecosystems and severely affected habitats next to tropical forests, they are being neglected in

densely populated country like India. In the last century, over 50% of wetlands in the world have been lost, and the remaining wetlands are degraded to different degree because of the adverse influence of human activities (Bird Life International, 2003).

The wetlands of South Asia are facing tremendous anthropogenic pressure, which can greatly influence the structure of the bird's community (Bird life International, 2003). In spite of all these pressures Ankasamudra Lake is attracting about 166 species of both migratory and resident birds.

Migratory water fowls are the most remarkable components of global biodiversity (Li and Mundkur, 2004)^[14] and out of 310 Indian wetland birds, 107 species are winter migrants (Kumar *et al.*, 2005)^[13], water birds are not only the prominent groups which attract people to wetlands, but also good indicators and useful models for studying environmental problems (Urfi *et al.*, 2005)^[24]. Complex characteristics like water chemistry, aquatic vegetation, invertebrate fauna and physical features of wetlands and habitat structure are significantly influence birds species and in selection of wetlands (Emlen *et al.*, 1986; Heglund *et al.*, 1994; Tellaria *et al.*, 1992; Gandiwa *et al.*, 2013)^[6, 10, 23, 8]. Hence, it is an important factor to understand and control the underlying causes in order to prevent the loss of key components of biodiversity of the wetland habitats (Tanmay Dutta, 2011)^[22]. An attempt is made in the hitherto study to discuss the importance of Ankasamudra wetland to avifauna in the arid lands of southern India.

Material and methods

Study area

Ankasamudra is a small village located in Hagaribommanahalli Taluk, Ballari (dist.), Karnataka, India, between 15° 7' 50.44"N and 76° 13' 52.83"E. The lake located in the outskirts of the village Ankasamudra and spreaded in 244 ha area. This lake is located adjacent to back water of T.B. Dam and filled with both either by natural rain water or by lifting backwater of T.B Dam. Since it is filled with water almost throughout the year and more than 200 Acacia trees grown inside the lake area attracted

avifauna during winter season. Hence it is chosen for the study purpose (Fig. 1).

It fulfills the Ramsar Criteria like;

Criteria 2: It supports vulnerable, endangered or critically endangered species or threatened ecological communities.

Criteria 5: It regularly supports 20,000 or more water birds.

Criteria 6: It regularly supports 1% of the individuals in a population of one species or subspecies of water bird.

Ramsar wetland type 6 (water storage impoundment)

IBA Criteria: A1 (Threatened species)

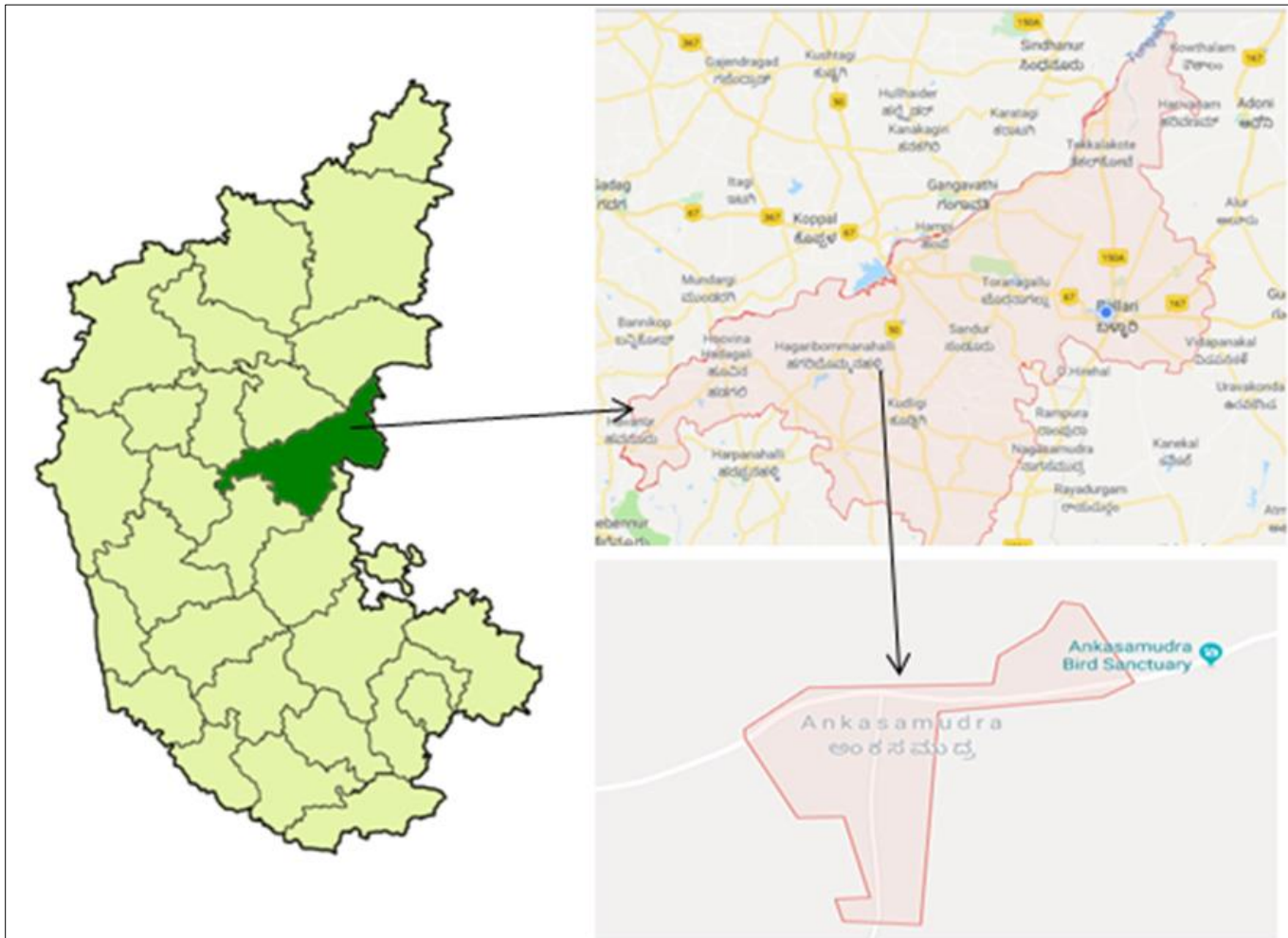


Fig 1: Location of the Study area, Ankasamudra in Ballari District, Karanataka

Methodology

The checklist of the birds prepared primarily based on the fieldwork conducted from June 2016 to May 2017 and June 2017 to March 2018. A total of 22 visits (one per month) were spent in the field from 6.00 AM to 11.00 AM and 4.00 PM to 7.00 PM by using binoculars and field guide (Grimmet *et al.*, 2001). Birds were enumerated by the direct and point count methods (Colin *et al.*, 1992) [5] and identified by referring the Keys are provided (Bhushan *et al.*, 1990; Ali, 1996; Bikram, 2000) [2, 1, 3].

Results and discussion

The data showed that the presence of a large community of birds belonging to a wide group of species (166 species) under 62 families belonging to 20 orders are recorded from the study area.

Details of the avifauna like common name, scientific name, frequency, status, IUCN, WPA (1972) conservation status are presented in Table 1. Rosy Starling (winter migrant), Open Bill Storks and Cormorants (Grater and Little cormorant, were found in abundant number in the lake). Based on the density and diversity, aves population divided into two major categories like passerine and non-passerine. The passerines contributed 61.11% and the rest of the 39% represented by non-passerine families.

The order Passeriformes contributed 24 families with 59 species and followed by order Charadriiformes by 9 families with 24 species and order Coraciiformes by 5 families with 6 species respectively. Further it is followed by the order Pelicaniformes by 4 families with 13 species and order Accipitriformes by 2 families with 11 species. The order Ciconiiformes by 2 families

with 9 species and the remaining orders with one or two families each with one or two species. (Table 1, Fig.2 & 3).

Ankasamudra lake also attracted maximum number of migratory birds WM/WV (n=45) (26.94%) from various parts of the world along with resident migratory birds (n=05) (2.99%) and seasonal birds (n=08) (4.79%) in addition to highest number of resident birds (n=109) (65.26%). Some of the important migratory birds are; Bonneli eagle, European honey buzzard, Montagu's Harrier, Tawny eagle, White eyed buzzards (all are raptors) and Ruddy shelduck, whiskered tern (*Chlidonias hybrida*), River tern (*Sterna aurantia*), Greater painted snipes etc. Family Scolapacidae showed more number of migrants like Common snipe, Common Sand Piper, Marsh Sand Piper, Wood Sand Piper, Little Stint, Common Red Shank, Green Sand Piper, Ruff and pintail snipe, Other migrants namely; Jacobin's Cuckoo, Blyth's reed warbler (*Acrocephalus dumetorum*), White Throated Warbler, Buntings, Swallows, Rosy Starlings, Wagtails, Fly Catchers, Blue tailed bee eater, etc. are cited up to maximum number during winter season. In addition to this seasonal and resident migratory (RM) birds also contributing up to 3 to 5% during winter season. Apart from these, resident (R) birds were highly dominant in the lake (n=107 (65.64%)) and cited throughout the year (Table 3, Fig 2 and 3).

The present study also revealed that the contribution of different families for the density and diversity of the Ankasamudra lake includes as follows; Family: Sternidae (51.50%) (20000 no.) Ciconidae (20.52%) (8215 no.), Phalacrocoracidae (3.84%), Aradeidae (5.85 %), Ploceidae (3.13%), Anatidae (1.97 %), Scolopacidae (1.28%), Threskiornithidae (1.84%), Motacillidae (1.06%) and the remaining families constituted 0.01 to 0.94 % (Table 2, Fig. 2 & 3) respectively.

According to IUCN status least concerned (LC) species occupied highest percent (94.47%) (n=154) and Near Threatened (NT) birds 4.29% (n=09) which includes; Greater Thick Knee (*Esacus recurvirostris*), painted stork (*Mycteria leucocephala*) 200 in number, Black headed ibis (*Threskiornis melanocephalus*) 30 in number, Red naped falcon (*Falcon chicquera*), Spot billed peleon (*Pelecanus philippensis*) 80-100 in numbers, Oriental darter (*Anhinga melanogaster*) and River tern (*Sterna aurantia*) 80-100 in number, and vulnerable species (n=1 (0.61%),Wooly

Necked Stork (*Ciconia episcopus*) and one more endangered species also cited in the lake namely; Lesser Adjutant stork (*Leptoptilos dubius*) n=01 (0.6%) (Table 4; Fig. 4). As per wild life protection act 1972 of India 92.63 % (n=15) birds come under Sch IV and 7.36 % (n=12) birds fall under Sch I (Table 4, Fig.5.). Similar pattern of study was reported on wetland birds in Anekere wetland of Karkala Udipi District (Ishwar Bhatt *et al.*, 2009), Pallikarnai wetland of Chennai (Nikhil Raj *et al.*, 2010)^[19], Chhil chhila wild life sanctuary of Haryana (Kumar and Gupta, 2013)^[20], Wetlands of Jalpaiguri, West Bengal (Tanmay Dutta, 2011)^[22], Dodda Bathi lake, Davanagere (Harish 2016)^[9], Kerala (Praveen 2015)^[21] and Bannigola backwaters of T.B. Dam (Manohara G and B B Hosetti, 2017)^[16].

The present study has been confirmed that the Ankasamudra Lake is providing better habitat for various migratory birds like Greater Thick Knee, Painted Stork, Black headed ibis (*Threskiornithis melanocephalus*), Red napped falcon (*Falco chicquera*), Spot billed pelican (*Pelecanus philippensis*) and River tern (*Sterna aurantia*), Wooly Necked Stork (*Ciconia episcopus*), Lesser adjutant stork (*Leptoptilos dubius*) and Black tailed Godwit along with various residents birds which includes both aquatic and waders and non-aquatic birds. Diversity of both aquatic and non-aquatic and waders are inhabiting in the great abundance because of availability of water and food throughout the year and back water areas of T.B. Dam also provided vast area of foraging grounds. The present study also revealed that more than 15 species are nesting and breeding in the lake and thousands of birds are also roosting in the lake due to the presence of more than two hundred fully grown acacia trees spreaded in the entire lake, during the late rainy and winter season or till the end of March. Hence the study area is emerged as most prominent and promising wetland in the north Karnataka for the migratory and resident birds.

Like any other wetlands, Ankasamudra is also facing threats from anthropogenic activities like hunting, using pesticide in the surrounding agriculture lands, disturbance of vehicles by villagers and visitors which are the major threats to the avifauna. All these threats should be checked by creating awareness among the farmers, hunters and villagers for the future conservation of this habitat.

Table 1: Check list of birds of Ankasamudra Lake, Ankasamudra

Sl no	Common name	Scientific name	Frequency	Status	IUCN	WPA
Order: 1 Accipitriformes						
Family: 1 Accipitridae						
1	Black winged kite	<i>Elanus caeruleus</i>	common	R	LC	Sch I
2	Black-shouldered kite	<i>Elanus axillaris</i>	common	R	LC	Sch I
3	Bonneli's eagle	<i>Aquila fasciata</i>	common	M	LC	Sch I
4	Brahminy kite	<i>Haliastur indus</i>	common	R	LC	Sch I
5	European Honey buzzard	<i>Pernis apivorus</i>	Uncommon	M	LC	Sch I
6	Marsh harrier	<i>Circus aeruginosus</i>	common	WV/Wm	LC	Sch I
7	Montagu's Harrier	<i>Circus pygargus</i>	common	M	LC	Sch I
8	Shikra	<i>Accipiter badius</i>	common	R	LC	Sch I
9	Tawny eagle	<i>Aquila rapax</i>	Uncommon	M	LC	Sch I
10	White-eyed buzzard	<i>Buteo butor</i>	Uncommon	M	LC	Sch I
Family: 2 Pandionidae						
11	Osprey	<i>Pandion haliaetus</i>	Uncommon	RM	LC	Sch I
Order: 2 Anseriformes						
Family: 3 Anatidae						
12	Comb Duck (Knob-billed duck)	<i>Sarkidiornis melatonus</i>	Common	R Seasonal	LC	Sch IV
13	Eurasian teal	<i>Anas crecca</i>	Common	R Seasonal	LC	Sch IV
14	Garganey	<i>Anas querquedula</i>	Common	M	LC	Sch IV

15	Indian spot-billed duck	<i>Anaspoecilorhynca</i>	Less common	R Seasonal	LC	Sch IV
16	Lesser whistling duck	<i>Dendocygnajavanica</i>	Common	RM/WV	LC	Sch IV
17	Northern pintail	<i>Anasacuta</i>	Common	M/WV	LC	Sch IV
18	Northern shoveler	<i>Anasclypeata</i>	Common	M/WV	LC	Sch IV
19	Ruddy shelduck	<i>Tadornaferruginea</i>				
Order: 3 Apodiformes						
Family:4 Apodidae						
20	Asian Palm swift	<i>Cypsiurusbalasiensis</i>	Common	R	LC	Sch IV
21	House swift	<i>Apusnipalensis</i>	Common	M	LC	Sch IV
Order: 4 Bucerotiformes						
Family: 5 Bucerotidae						
22	Indian Grey hornbill	<i>Ocyrocerosbirostris</i>	Common	R	LC	Sch IV
Family: 6 Upupidae						
23	Hoopoe	<i>Upupaepops</i>	Common	R	LC	Sch IV
Order: 5 Caprimulgiformes						
Family: 7 Caprimulgidae						
24	Indian Jungle Night jar	<i>Caprimulgus indicus</i>	Common	R	LC	Sch IV
Order: 6 Charadriiformes						
Family: 8 Burhinidae						
25	Great thickknee (Great stone curlew)	<i>Esacus recurvirostris</i>	Common	R	NT	Sch IV
Family: 9 Charadriidae						
26	Little ringed plover	<i>Charadrius dubius</i>	common	R	LC	Sch IV
27	Yellow-wattled lapwing	<i>Vanellus malabaricus</i>	common	R	LC	Sch IV
28	Red-wattled lapwing	<i>Vanellus indicus</i>	common	R	LC	Sch IV
29	Pacific golden plover	<i>Pluvialisfulva</i>	common	R	LC	Sch IV
Family: 10 Glariolidae						
30	Indian courser	<i>Cursoriuscoromandelianus</i>	Common	Resident	LC	
Family: 11 Jacanidae						
31	Pheasant-tailed jacana	<i>Hydrophasianuschirurgus</i>	common	R	LC	Sch IV
32	Bronze-winged jacana	<i>Metopidiusindicus</i>	common	R	LC	Sch IV
Family: 12 Laridae						
33	Whiskered tern	<i>Childoniaashybrida</i>	Common	WM	LC	Sch IV
34	River tern	<i>Sterna aurantia</i>	Common	WM	LC	Sch IV
Family: 13 Rostratulidae						
35	Greater painted-snipes	<i>Rostratulabenghalensis</i>	Common	M	LC	
Family: 14 Recurvirostridae						
36	Black winged stilt	<i>Himatopus himatopus</i>	Common	R	LC	Sch IV
Family: 15 Scolopacidae						
37	Common snipe	<i>Gallinagallinago</i>	Common	RM	LC	Sch IV
38	Common sandpiper	<i>Actithypholeucos</i>	Common	WM/WV	LC	Sch IV
39	Little stint	<i>Calidrisminuta</i>	Common	WM/WV	LC	Sch IV
40	Common Red Shank	<i>Tringatotannus</i>	Common	M	LC	Sch IV
41	Curlew sandpiper	<i>Calidrisferruginea</i>	Common	M	NT	Sch IV
42	Green sandpiper	<i>Tringaochropus</i>	Common	M	LC	Sch IV
43	Marsh sand piper	<i>Tringastagnatilis</i>	Common	RM	LC	Sch IV
44	Wood sand piper	<i>Tringaglareola</i>	Common	M	LC	Sch IV
45	Ruff	<i>Philomachuspugnax</i>	Common	M	LC	Sch IV
46	Pin-tailed snipe	<i>Galinagostenura</i>	Common	M	LC	Sch IV
47	Black-tailed Godwit	<i>Limosalimosa</i>	Common	M	NT	Sch IV
Family: 16 Turnicidae						
48	Small button quail	<i>Turnix sylvaticus</i>	Common	R	LC	Sch IV
49	Yellow-legged button quail	<i>Turnix tanki</i>	Common	R	LC	Sch IV
Order: 7 Ciconiiformes						
Family: 17 Ciconiidae						
50	Painted stork	<i>Mycteria leucocephala</i>	Uncommon	Seasonal	NT	Sch IV
51	Asian openbill	<i>Anastomusoscitans</i>	Uncommon	Seasonal	LC	Sch IV
52	Wooly-necked stork	<i>Ciconiaepiscopus</i>	Uncommon	Resident	VU	Sch IV
53	Lesser adjutant stork	<i>Leptoptilosdubius</i>	Uncommon	M	EN	
54	White stork	<i>Ciconiaciconia</i>	Uncommon	M	LC	
Family: 18 Threskiornithidae						
55	Black-headed ibis	<i>Threskiornithismelanocephalus</i>	Common	R	NT	Sch IV
56	Black ibis (Red-naped ibis)	<i>Pseudibispapillosa</i>	Common	R	LC	Sch IV
57	Glossy ibis	<i>Plegadisfalcinellus</i>	Common	R	LC	Sch IV
58	Eurasian spoonbill	<i>Platalealeucocordia</i>	Common	Seasonal	LC	Sch IV
Order:8 Coraciiformes						
Family:19 Alcedinidae						

59	Common kingfisher	<i>Alcedoathis</i>	Common	R	LC	Sch IV
Family:20 Cerylidae						
60	Pied king fisher	<i>Cerylrudis</i>	Common	R	LC	Sch IV
Family:21 Halcyonidae						
61	White-throated kingfisher	<i>Halcyon smyrnensis</i>	Common	R	LC	Sch IV
Family:22 Meropidae						
62	Green bee-eater	<i>Merops orientalis</i>	Common	R	LC	Sch IV
63	Blue-tailed bee-eater	<i>Merops philippinus</i>	Uncommon	M	LC	Sch IV
Family: 23 Coraciidae						
64	Indian Roller	<i>Coracijs benghalensis</i>	Common	R	LC	Sch IV
Order: 9 Cuculiformes						
Family:24 Cuculidae						
65	Asian koel	<i>Eudynamys scolopaceus</i>	Common	R	LC	Sch IV
66	Gray-bellied cuckoo	<i>Cacomantis passerinus</i>				
67	Jacobin cuckoo	<i>Clamator jacobinus</i>	Common	M	LC	Sch IV
68	Blue-faced Malkoha	<i>Phaenicophaeus viridirostris</i>	Less common	R	LC	Sch IV
69	Indian cuckoo	<i>Cuculus micropterus</i>	Common	R	LC	Sch IV
70	Common hawk-cuckoo	<i>Hierococcyx varius</i>	Common	R	LC	Sch IV
Order:10 Columbiformes						
Family: 25 Columbidae						
71	Eurasian collared dove	<i>Streptopelia decaocto</i>	Common	R	Lc	Sch IV
72	Red collared dove (Red Turtle Dove)	<i>Streptopelia tranquevaricia</i>	Common	R	Lc	Sch IV
73	Laughing dove	<i>Spilopaelia senegalensis</i>	Common	R	Lc	Sch IV
74	Yellow-footed green pigeon	<i>Treron phoenicoptera</i>	Uncommon	R	Lc	Sch IV
Order: 11 Falconiformes						
Family: 26 Falconidae						
75	Common kestrel	<i>Falco tinnunculus</i>	Uncommon	WM	LC	Sch IV
76	Red-naped falcon	<i>Falco chicquera</i>	Uncommon	R	NT	Sch IV
Order: 12 Galliformes						
Family: 27 Phasianidae						
77	Grey francolin	<i>Francolinu sponcieriamus</i>	Common	R	LC	Sch IV
78	Indian peafowl	<i>Pavo cristatus</i>	Common	R	LC	Sch I
79	Rain quail/ Black breasted quail	<i>Coturnix coromandelica</i>	Common	RM	LC	Sch IV
Order: 13 Gruiformes						
Family: 28 Rallidae						
80	Brown crane	<i>Amaurornis akool</i>	Uncommon	R	LC	Sch IV
81	White-breasted waterhen	<i>Amanurni sphornicurus</i>	Common	R	LC	Sch IV
82	Common coot	<i>Fulicaatra</i>	Common	R	LC	Sch IV
83	Common moorhen	<i>Gallinula chloropus</i>	Common	R	LC	Sch IV
Order: 14 Passeriformes						
Family: 29 Acrocephalidae						
84	Blyth's reed warbler	<i>Acrocephalus dumentorum</i>	Common	RM/WV	LC	Sch IV
85	Paddy field warbler	<i>Acrocephalus agricola</i>	Common	R	LC	Sch IV
86	White-throat warbler	<i>Sylvia communis</i>	Common	WM	LC	Sch IV
Family: 30 Aegithinidae						
87	Common iora	<i>Aegithin atiphia</i>	Common	R	LC	Sch IV
Family: 31 Alaudidae						
88	Singing bushlark	<i>Mirafra cantillans</i>	Common	R	LC	Sch IV
89	Indian bush lark	<i>Mirafra erithoptera</i>	Common	R	LC	Sch IV
90	Crusted lark	<i>Galari dacristata</i>	Common	R	LC	Sch IV
91	Sykes lark	<i>Galarida deva</i>	Common	R	LC	Sch IV
92	Ashy-crowned sparrow-lark	<i>Eremopterixgriseus</i>	Common	R	LC	Sch IV
Family: 32 Campephagidae						
93	Small minivet	<i>Pericroctuscinnamomens</i>	Common	R	LC	Sch IV
Family: 33 Cisticolidae						
94	Zittingcisticola	<i>Cisticolajuncidis</i>	Common	R	LC	Sch IV
95	Jungle prinia	<i>Priniasylvatica</i>	Common	R	LC	Sch IV
96	Ashy prinia	<i>Priniasocialis</i>	Common	R	LC	Sch IV
97	Plain prinia	<i>Prinia inomata</i>	Common	R	LC	Sch IV
98	Common tailor bird	<i>Orthotomussutorius</i>	Common	R	LC	Sch IV
Family: 34 Corvidae						
99	Indian jungle crow	<i>Corvusmacrorhynchos</i>	Common	R	LC	Sch IV
100	Rufoustreepie (Indian)	<i>Dendrocittavagabunda</i>	Common	R	LC	Sch IV
101	House crow	<i>Corvussplendens</i>	Common	R	LC	Sch IV
Family: 35 Dicacidae						
102	Tickle's Flowerpecker	<i>Dicaeumerythrorhyncus</i>	Common	R	LC	Sch IV

Family: 36 Emberizidae						
103	Red headed bunting	<i>Emberizabruniceps (Grantivorabruniceps)</i>	Common	WM	LC	Sch IV
104	Black headed bunting	<i>Emberizamelanocephala (Grantivoramelanocephalus)</i>	Common	WM	LC	Sch IV
Family: 37 Hirundinidae						
105	Barn swallow	<i>Hirundorustica</i>	Common	WM	LC	Sch IV
106	Red-rumped swallow	<i>Cecropisdaurica</i>	Common	R	LC	Sch IV
107	Streak-throated swallow	<i>Pterochelidonfluvicola</i>	Common	R	LC	Sch IV
Family: 38 Laniidae						
108	Rufous-tailed shrike	<i>Laniusisabellinus</i>	Common	R	LC	Sch IV
109	Long-tailed shrike	<i>Laniusschach</i>	Common	R	LC	Sch IV
110	Southern grey shrike	<i>Laniusmeridionalis</i>	Common	R	LC	Sch IV
Family: 39 Leiothrichidae						
111	Common babbler	<i>Turdoidescaudata</i>	Common	R	LC	Sch IV
112	Large grey babbler	<i>Turdoidesmalcolmi</i>	Common	R	LC	Sch IV
113	Jungle babbler	<i>Turdoidesstriata</i>	Common	R	LC	Sch IV
Family: 40 Monorchidae						
114	Asian paradise flycatcher	<i>Terpsiphoneparadisi</i>	Common	R	LC	Sch IV
Family: 41 Motacillidae						
115	White wagtail	<i>Motacilla alba</i>	Common	WM	LC	Sch IV
116	Grey wagtail	<i>Motacillacineria</i>	Common	WM	LC	Sch IV
117	Paddy field pipit	<i>Anthusrufus</i>	Common	R	LC	Sch IV
118	Yellow wagtail	<i>Motacillaflava</i>	Common	R	LC	Sch IV
119	Forest wagtail	<i>Dendronanthusindicus</i>	Common	WM	LC	Sch IV
120	Pied wagtail	<i>Motacilla alba</i>				
Family: 42 Muscipidae						
121	Siberian stone chat	<i>Saxicolamaurus</i>	Common	WM	LC	Sch IV
122	Pied bush chat	<i>Saxicolacaprata</i>	Common	R	LC	Sch IV
123	Magpie robin	<i>Copsychusmalabaricus</i>	Common	R	LC	Sch IV
124	Oriental robin	<i>Copsychus saularis</i>	Common	R	LC	Sch IV
125	Red-breasted flycatcher	<i>Ficedulaparva</i>	Common	WM	LC	Sch IV
Family: 43 Nectarinidae						
126	Purple sunbird	<i>Cinnyrisasiaticus</i>	Common	R	LC	Sch IV
127	Purple-rumped sunbird	<i>Leptocomazeylonia</i>	Common	R	LC	Sch IV
Family: 44 Oriolidae						
128	Golden oriole	<i>Orioluskundoo</i>	Common	R	LC	Sch IV
Family: 45 Ploceidae						
129	Red munia (Red avadavat)	<i>Amandavaamandava</i>	Common	R	LC	Sch IV
130	Indian silverbill	<i>Euodicemalabarica</i>	Common	R	LC	Sch IV
131	Scaly-breasted munia	<i>Lonchurapunctata</i>	Common	R	LC	Sch IV
132	Tricolouredmunia	<i>Lonchuramalacea</i>	Common	R	LC	Sch IV
133	Baya weaver	<i>Ploceusphillippinus</i>	Common	R	LC	Sch IV
134	Streaked weaver	<i>Ploceusmanyar</i>	Less Common	R	LC	Sch IV
135	Black-necked weaver	<i>Ploceusnigricollis</i>	L. Common	M	LC	Sch IV
Family: 46 Paridae						
136	Indian Great Tit	<i>Machlolophus aplonotes</i>	Common	R	LC	Sch IV
Family: 47 Pycnonotidae						
137	Red-vented bulbul	<i>Pycnonotuscafer</i>	Common	R	LC	Sch IV
138	White-browed bulbul	<i>Pycnonotusluteolus</i>	Common	R	LC	Sch IV
Family: 48 Phylloscopidae						
139	Greenish warbler (Greenish leaf warbler)	<i>Phylloscopustrochiloides</i>	Common	WM	LC	Sch IV
Family: 49 Passeridae						
140	House sparrow	<i>Passer domesticus</i>	Common	R	LC	Sch IV
Family: 50 Sturnidae						
141	Common myna	<i>Acredotherastristis</i>	Common	R	LC	Sch IV
142	Rosy starling	<i>Pastor roseus</i>	Common	WM	LC	Sch IV
143	Grey-headed starling/ chestnut tailed starling	<i>Sterniamalabarica</i>	Common	WM	LC	Sch IV
Family: 51 Sylviidae						
144	Yellow-eyed babbler	<i>Chrysomasinense</i>	L. Common	R	LC	Sch IV
Family: 52 Dicruridae						
145	Black drongo	<i>Dicrurusmacrocerus</i>	Common	R	LC	Sch IV
146	Ashy drongo	<i>Dicrurusleucophaeus</i>	L. Common	WM	LC	Sch IV
Order: 15 Pelecaniformes						
Family: 53 Pelecanidae						
147	Spot-billed pelican	<i>Pelecanusphilippensis</i>	L. Common	sesonal	NT	Sch IV
Family: 54 Ardeidae						
148	Grey heron	<i>Ardeacinerea</i>	common	R	LC	Sch IV
149	Purple heron	<i>Ardeapurpurea</i>	common	R	LC	Sch IV

150	Indian pond heron	<i>Ardeolagrayii</i>	Common	R	LC	Sch IV
151	Cattle egret	<i>Bubulcus ibis</i>	Common	R	LC	Sch IV
152	Little egret	<i>Egrettagetta</i>	Common	R	LC	Sch IV
153	Intermediate egret	<i>Mesophoyxintermedia</i>	Common	R	LC	Sch IV
154	Great egret	<i>Egretta alba</i>	Common	R	LC	Sch IV
155	Black-crowned night heron	<i>Nycticoraxnycticorax</i>	uncommon	R	LC	Sch IV
Family: 55 Anhingidae						
156	Oriental darter	<i>Anhinga melanogaster</i>	Uncommon	Seasonal	NT	Sch IV
Family: 56 Phalacrocoracidae						
157	Little cormorant	<i>Phalacrocoraxniger</i>	Common	R	LC	Sch IV
158	Greater cormorant	<i>Phalacrocoraxcarbo</i>	Rare	R	LC	Sch IV
Order: 16 Piciformes						
Family: 57 Megalaimidae						
159	Coppersmith barbet	<i>Megalaima (Psilopogon) cephalus</i>	Common	R	LC	Sch IV
Family: 58 Picidae						
160	Black-rumpedflameback	<i>Dinopiumbenghalense</i>	Common	R	LC	Sch IV
161	White-naped flameback	<i>Chrysocolaptesfestivus</i>	Common	R	LC	Sch IV
Order: 17 Psittaciformes						
Family: 59 Psittaculidae						
162	Rose-ringed parakeet	<i>Psittaculakrameri</i>	Common	R	LC	Sch IV
Order: 18 Pteroclidiformes						
Family: 60 Pteroclididae						
163	Chestnut-bellied sand grouse	<i>Pteroclesxustus</i>	Rare	R	LC	Sch IV
Order: 19. Podicipediformes						
Family: 61. Podicipedidae						
164	Little grebe	<i>Tachybaptusruficolus</i>	Common	R	LC	Sch IV
Order: 20 Strigiformes						
Family: 62 Strigidae						
165	Spotted owl	<i>Athene brahma</i>	Common	R	LC	Sch IV
166	Indian eagle owl/ rock eagle owl	<i>Bubo bengalensis</i>	Common	R	LC	Sch IV

Table 2: Percentage composition of birds

	Order	%		Family	#	%
1	Accipitriformes	0.08	1	Accipitridae	32	0.08
			2	Pandionidae	1	0.00
2	Anseriformes	1.97	3	Anatidae	790	1.96
3	Apodiformes	0.27	4	Apodidae	110	0.27
4	Bucerotiformes	0.10	5	Bucerotidae	7	0.02
			6	Upupidae	35	0.09
5	Caprimulgiformes	0.01	7	Caprimulgidae	4	0.01
6	Charadriiformes	2.69	8	Burhinidae	1	0.00
			9	Charadriidae	70	0.17
			10	Glariolidae	2	0.00
			11	Jacanidae	20	0.05
			12	Laridae	105	0.26
			13	Rostratulidae	170	0.42
			14	Recurvirostridae	150	0.37
			15	Scolopacidae	555	1.38
7	Ciconiformes	22.23	16	Turnicidae	10	0.02
			17	Ciconidae	8214	20.39
			18	Threskiornithidae	738	1.83
8	Coraciformes	0.40	19	Alcedinidae	6	0.01
			20	Cerylidae	8	0.02
			21	Halcyonidae	6	0.01
			22	Meropidae	130	0.32
			23	Coracidae	10	0.02
9	Cuculiformes	0.15	24	Cuculidae	59	0.15
10	Columbiformes	0.16	25	Columbidae	66	0.16
11	Falconiformes	0.01	26	Falconidae	6	0.01
12	Galliformes	0.19	27	Phasianidae	75	0.19
13	Gruiformes	0.22	28	Rallidae	87	0.22
14	Passeriformes	61.11	29	Acrocephalidae	38	0.09
			30	Aegithinidae	7	0.02
			31	Alaudidae	203	0.50
			32	Campephagidae	7	0.02
			33	Cisticolidae	84	0.21

Order	%	Family	#	%		
		34	Corvidae	359	0.89	
		35	Dicacidae	20	0.05	
		36	Emberizidae	400	0.99	
		37	Hirundinidae	130	0.32	
		38	Laniidae	24	0.06	
		39	Leiothrichidae	95	0.24	
		40	Monorchidae	3	0.01	
		41	Motacillidae	477	1.18	
		42	Muscicapidae	152	0.38	
		43	Nectarinidae	110	0.27	
		44	Oriolidae	5	0.01	
		45	Ploceidae	1255	3.12	
		46	Paridae	19	0.05	
		47	Pycnonotidae	50	0.12	
		48	Phylloscopidae	13	0.03	
		49	Passeridae	560	1.39	
		50	Sturnidae	20615	51.18	
		51	Sylviidae	7	0.02	
		52	Dicruridae	40	0.10	
15	Pelecaniformes	9.87	53	Pelecanidae	85	0.21
			54	Ardeidae	2345	5.82
			55	Anhingidae	5	0.01
			56	Phalacrocoracidae	1540	3.82
16	Piciformes	0.06	57	Megalaimidae	4	0.01
			58	Picidae	19	0.05
17	Psittaciformes	0.14	59	Psittaculidae	58	0.14
18	Pteroclidiformes	0.04	60	Pteroclididae	18	0.04
19	Podicipediformes	0.12	61	Podicipedidae	50	0.12
20	Strigiformes	0.03	62	Strigidae	12	0.03
					40276	

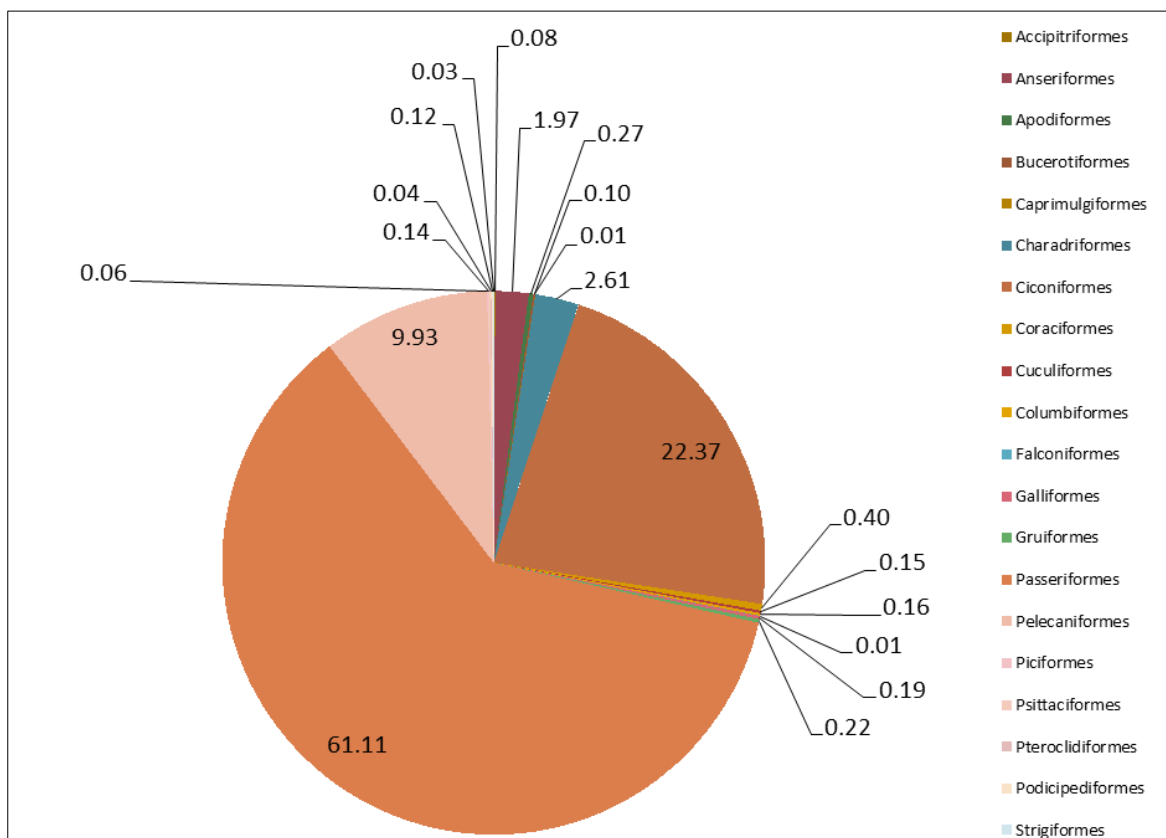


Fig 2: Percentage composition of orders of Aves at Ankasamudra Lake

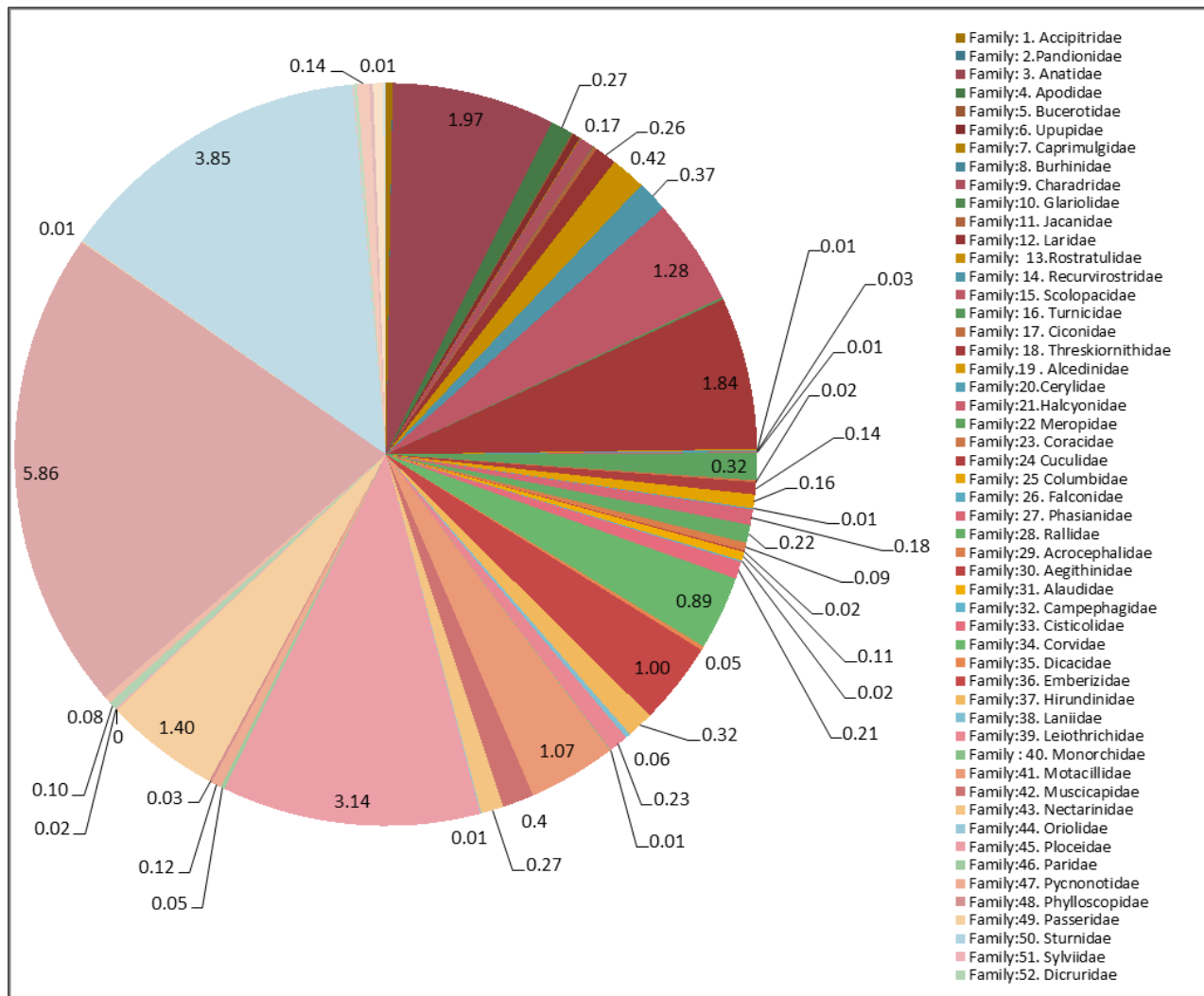


Fig 3: Percentage composition of families of Aves in Ankasamudra Lake

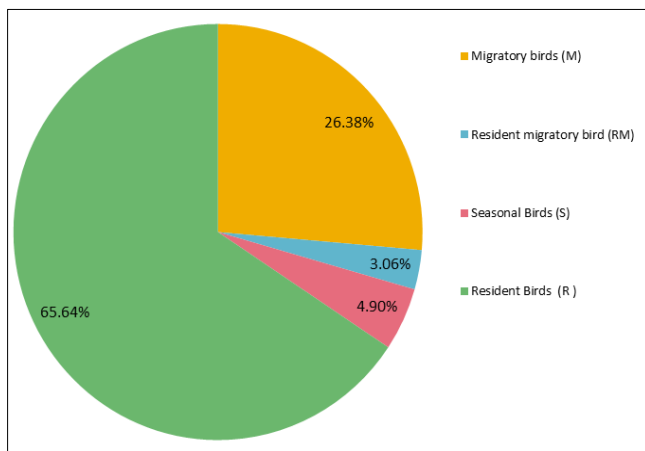


Fig 4: Occurrence, status of bird species at Ankasamudra Lake

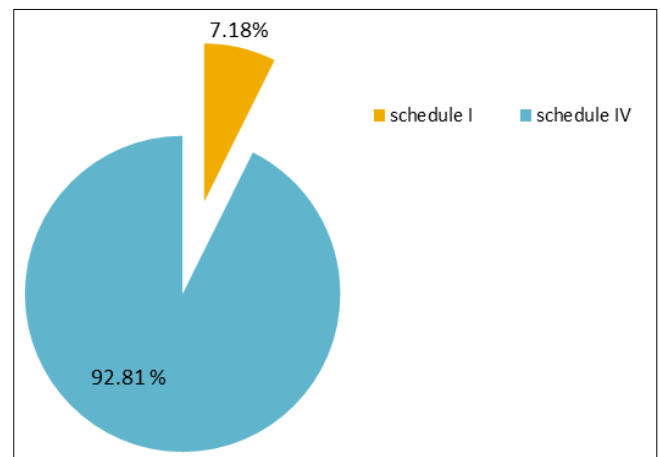


Fig 5: Pie chart showing scheduled wise distribution of birds

Table 3: IUCN Status of birds Ankasamudra Lake, Ankasamudra

IUCN Status (Year??)	#	%
Least Concern (LC)	156	93.41
Near Threatened (NT)	9	5.38
Vulnerable (VU)	1	0.59
Endangered (EN)	1	0.59

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