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## Avifaunal diversity distribution and status of Dabarusingi reservoir at Mandasa Mandalm, Srikakulam Dt. Andhra Pradesh, India

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### Abstract

An ornithological survey was carried out for three consecutive years from March 2016 February 2019 for assessing the distribution status, abundance, W(A)P and IUCN status of avifaunal diversity in Dabarusingi reservoir. Attempts were made to cover the representative areas, in order to cover migratory and resident species. In this survey a total 97 bird species were recorded and belonging to 78 genera, 41 families and over 20 orders were noticed. Of these 97 bird species diversity shows that 80.41% residents, 27.84% local migrant, 17.52% winter visitor, 4.12% breeding visitors, 1.09% summer visitors were distributed. The habitation of birds in the total population is 57.73% are Terrestrial, 35.05% Wetland, 9.28% Wetland dependent, 6.19% Edge species, 1.09% Sea coasts and Inland. According IUCN 2018-2 red list category shows that Near Threatened is 2.06%, Vulnerable 1.09% and Least Concern 96.91% were recorded in Dabarusingi surrounding area.

**Keywords:** Resident birds, local migrant, winter visitor, breeding visitors, summer visitor, IUCN

### Introduction

The presence of more than 9,000 bird species in the world, the Indian subcontinent contains about 13% of the world's birds Grimmett *et al.*, (1998) [1]. The avian habitat is roughly divided into forests, shrubs, and wetlands, although many species require a mixed type of habitat. Birds are ubiquitous animals that frequent both terrestrial and aquatic ecosystems. They have fantastic ability to move and most species are found only in particular regions and habitats. The birds are widespread due to their adaptability and feasibility of movements. The living species of birds are grouped into 27 Orders and these in turn have been grouped into 155 Families [2, 3]. Any natural and anthropogenic disturbance altering the habitat and distribution of plant community may seriously affect the bird diversity and this modification will affect the relative abundance of the species. Global biodiversity is getting degraded at an alarming rate due to human activities [4]. Wetland birds have a wide variety of food habits. Basing on the nature of feeding activities and food compositions, the birds have been grouped as carnivorous, insectivorous, omnivorous, and herbivorous. The migrating birds are subjected to greater ecological diversity and have a greater range of adaptability [5]. The richness of species is mainly due to the presence of adequate food supply, water quality and large water spread area without human disturbance.

Dabarusingi reservoir (18.882262, 84.377717) is a small water body located on the edge of Eastern Ghats with dense deciduous and semi-evergreen forest. in Dabarusingi village, Mandasa Mandal of Srikakulam district, Andhra Pradesh (Fig 1, 2, 3 and 4). It is border place of Andhra Pradesh and Odissa and 160 Schedule tribe families are residing nearer foot hill of Mahendragiri hills. Dabarusingi is an ideal habitat to local and migratory bird species, including rare, vulnerable and threatened birds. The migratory birds undertake well defined seasonal movements arriving during winter from October to March period as the water body is abundant in migratory water birds. The reservoir used to support bird populations in thousands in the peak migratory season (December-February). There are no avifaunal reports from Dabarusingi wetland and surrounding hilly area.

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Fig 1: Dabarusingi reservoir (google courtesy)



Fig 2: Bird habitation area



Fig 3: Foundation stone at Dabarusingi



Fig 4: Roosting places near water gate

**Methods and Materials**

Bird observations were carried out at regular intervals during Pre-monsoon, monsoon and Post-monsoon periods of the year, in order to cover migratory and resident species. The study includes identification of different bird’s viz., Aquatic, Terrestrial and Water dependent avian species. Observations were made over a period of three years from March 2016 February 2019 with an aid of field binoculars (10x50). Identification was based on standard scientific procedures. Field observations were direct visual sighting and calls. Photographs were taken whenever feasible and possible by using Nikon 35 mm digital camera with appropriate zoom lens. Birds seen were recorded with habitat type, season and frequency of occurrence [6, 7]. Bird survey was conducted, when birds are most active during day from 07:00 to 11:00 hrs and from 16:00 to 19:00 hrs. Field visits have been conducted weekly twice in all three seasons and habitat. Identification manuals and field guides [8, 9] were used during survey. Common, scientific names, Classification and nomenclature of the birds following [10-13] were adopted. The birds were categorized as Resident (R) and Migratory (M); Aquatic (A) and Terrestrial (T) [11]. All the birds species recorded during the present study were tabulated giving their scientific name, family, IUCN status & W(P)A legal status. The following formula was used for calculating

$$\text{Percent occurrence} = \frac{\text{Number of species in each order / family}}{\text{Total no. of different species}} \times 100$$

**Results**

Dabarusingi reservoir was located near Mahendragiri foot hills; the bird survey was conducted three consequent years from 2015 to 2018. In total 97 bird species belonging to 78 genera, 41 families and over 20 orders were recorded (Table - 1). The percentage composition of families and genus under different orders are shown in Table 2 and Fig 5. Among the 20 orders of birds recorded, order Passeriformes is dominant with 17 species contributing 41.46% of the total species followed by Coraciiformes with 03 (07.32%), Bucerotiformes, Charadriiformes and Pelecaniformes each 2 (4.89%). Accipitriformes, Anseriformes, Apodiformes, Caprimulgiformes, Ciconiiformes, Collumbiformes, Cuculiformes, Falconiformes, Galliformes, Gruiformes, Piciformes, Podicipediformes, Psittaciformes, Strigiformes and Suliformes were each with 01(2.44%). Recorded 78 genus, Passeriformes dominated with 24 (30.77%) followed by Pelecaniformes 10 (7.80), Anseriformes and Gruiformes each with 05 (6.41%), Accipitriformes and Cuculiformes each with 04 (5.13%), Charadriiformes and, Galliformes each with 03 (3.85%), Bucerotiformes, Ciconiiformes, Collumbiformes and Strigiformes each with 02 (2.56%), The lowest genus represented is Apodiformes, Caprimulgiformes, Falconiformes, Piciformes, Podicipediformes, Psittaciformes and Suliformes each with 01 (1.28%). Of the total 41 recorded families the percentage of the species are Ardeidae contributed highest with 09 (9.27%) followed by Anatidae 07 (7.22%), Rallidae 06 (6.19%), Cuculidae 05 (5.05%), Accipitridae, Scolopacidae and Scolopacidae each with 04 (4.12%), Columbidae, Alcedinidae, Alaudidae, Leiothrichidae, Motacillidae, Sturnidae and Phalacrocoracidae each with 03 (3.09%), Upupidae, Caprimulgidae, Ciconiidae, Meropidae, Phasianidae, Acrocephalidae, Corvidae, Pycnonotidae, Threskiornithidae and Tytonidae each with 02

(206%), Apodidae, Bucerotidae, Charadriidae, Coraciidae, Falconidae, Aegithinidae, Chloropseidae, Cisticolidae, Laniidae, Dicaeidae, Dicruridae, Muscipidae, Nectariniidae, Oriolidae, Picidae, Podicipedidae and Psittacidae each 01 (1.03) Table 3, Fig 6.

Of these 97 bird species diversity shows that 80.41% residents, 27.84% local migrant, 17.52% winter visitor, 4.12% breeding visitors, 1.09% summer visitor were distributed Dabarusingi surrounding area (Fig 7). The habitation of birds in the total population is 57.73% are Terrestrial, 35.05% Wetland, 9.28% Wetland dependent, 6.19% Edge species, 1.09% Sea coasts and Inland (Fig 8). The result of number

bird's abundance was 87.63% Common, 9.28% Un-Common and 3.09% Rare (Fig 9). Wildlife (Protection) Act 1972 the conservational Status revealed that 5.16% under schedule – I category and 94.85% under schedule- IV category in which the family of Accipitridae four species exhibit under schedule- I category in this area. W (P) A 1972 updated up to 2010, the protected birds listed in Schedule-I and IV of the Wildlife Act which have many of several bird species are legally protected (Fig 10). According IUCN 2018-2 red list shows that Near Threatened (NT) is 2.06%, Vulnerable (VU) 1.09% and Least Concern (LC) 96.91% were recorded (Fig 11).

**Table 1:** List of Birds and Their Distribution Status, Habitat, Food Habits And Abundance

Order	Family	S. No	Scientific Name	Common Name	Distribution Status	Habitat	Abundance	W(P)A status	IUCN 2018-2
I. Accipitriformes	1. Accipitridae	1	<i>Accipiter badius</i>	Indian Shikra	R	T	Com	Sch-I	LC
		2	<i>Haliastur indus</i>	Brahminy Kite	R/ LM	WD	Com	Sch-I	LC
		3	<i>Milvus migrans</i>	Black Kite	R	T	Com	Sch-I	LC
		4	<i>Pernis ptilorhynchus</i>	Honey-Buzzard	R	T	UnCom	Sch-I	LC
II. Anseriformes	2. Anatidae	5	<i>Anas acuta</i>	Northern Pintail	WV/LM	WL	Com	Sch-IV	LC
		6	<i>Anser anser</i>	Grey lag Goose	WV	WL	UnCom	Sch-IV	LC
		7	<i>Anas platyrhynchos</i>	Mallard	WV	WL	R	Sch-IV	LC
		8	<i>Aythya ferina</i>	Common Pochard	WV	WL	Com	Sch-IV	LC
		9	<i>Dendrocygna javanica</i>	Lesser Whistling-Teal	WV/LM Br.V	WL	Com	Sch-IV	LC
		10	<i>Dendrocygna bicolor</i>	Large Whistling-Teal	WV/ Br.V	WL	UnCom	Sch-I	NT
11	<i>Tadorna ferruginea</i>	Brahminy Duck	WV/LM/R	WL	Com	Sch-IV	LC		
III. Apodiformes	3. Apodidae	12	<i>Cypsiurus balasienis</i>	Asian Palm-Swift	R	T	Com	Sch-IV	LC
IV. Bucerotiformes	4. Bucerotidae	13	<i>Ocyrceros birostris</i>	Indian Grey Hornbill	R	T	Com	Sch-IV	LC
	5. Upupidae	14	<i>Upupa epops</i>	Common Hoopoe	R	T	Com	Sch-IV	LC
V. Caprimulgiformes	6. Caprimulgidae	15	<i>Caprimulgus asiaticus</i>	Indian Nightjar	R	T	Com	Sch-IV	LC
		16	<i>Caprimulgus indicus</i>	Indian Jungle Nightjar	R	T	Com	Sch-IV	LC
VI. Charadriiformes	7. Charadriidae	17	<i>Vanellus indicus</i>	Red-Wattled Lapwing	R/ LM	WD/ T Ed.Sps	Com	Sch-IV	LC
		18	<i>Tringa glareola</i>	Wood Sandpiper	WV	WL/Edg.Sps	Com	Sch-IV	LC
	8. Scolopacidae	19	<i>Tringa hypoleucos</i>	Common Sandpiper	WV/ R	WL/SC/IL	Com	Sch-IV	LC
		20	<i>Gallinago nemoricola</i>	Wood Snipe	WV/ R	WL/Edg.Sps	R	Sch-IV	VU
		21	<i>Gallinago gallinago</i>	Common Snipe	LM/ WM	WL/Edg.Sps	Com	Sch-IV	LC
VII. Ciconiiformes	9. Ciconiidae	22	<i>Mycteria leucocephala</i>	Painted Stork	LM/ Br.V	WL	Com	Sch-IV	LC
		23	<i>Anastomus oscitans</i>	Asian Openbill-Stork	R/LM Br.V	WL	Com	Sch-IV	LC
VIII. Collumbiformes	10. Columbidae	24	<i>Columba livia</i>	Blue Rock Pigeon	R	T	Com	Sch-IV	LC
		25	<i>Streptopelia chinensis</i>	Spotted Dove	R	T	Com	Sch-IV	LC
		26	<i>Streptopelia decaocto</i>	Ring Dove	R	T	Com	Sch-IV	LC
		27	<i>Alcedo atthis</i>	Small Blue Kingfisher	R	WD	Com	Sch-IV	LC
IX. Coraciiformes	11. Alcedinidae	28	<i>Halcyon smyrnensis</i>	White-Breasted Kingfisher	R	WD	Com	Sch-IV	LC
		29	<i>Ceryle rudis</i>	Lesser Pied Kingfisher	R	WD	Com	Sch-IV	LC
		30	<i>Coracias benghalensis</i>	Indian Roller	R	T	Com	Sch-IV	LC
	13. Meropidae	31	<i>Merops orientalis</i>	Small Bee-eater	R	T	Com	Sch-IV	LC
		32	<i>Merops philippinus</i>	Blue-tailed Bee-eater	SV	T	Com	Sch-IV	LC
X. Cuculiformes	14. Cuculidae	33	<i>Hierococcyx varius</i>	Brain fever Bird	R	T	Com	Sch-IV	LC
		34	<i>Cuculus micropterus</i>	Indian Cuckoo	R	T	Com	Sch-IV	LC
		35	<i>Eudynamis scolopacea</i>	Asian Koel	R	T	Com	Sch-IV	LC
		36	<i>Centropus sinensis</i>	Greater Coucal	R	T	Com	Sch-IV	LC
		37	<i>Centropus bengalensis</i>	Lesser Coucal	R	T	Com	Sch-IV	LC
XI. Falconiformes	15. Falconidae	38	<i>Falco tinnunculus</i>	Kestrel	R/LM	T	Com	Sch-IV	LC
XII. Galliformes	16. Phasianidae	39	<i>Francolinus pondicerianus</i>	Grey Partridge	R	T	Com	Sch-IV	LC
		40	<i>Gallus gallus murghi</i>	Red junglefowl	C	T/F	Com	Sch-IV	LC
		41	<i>Pavo cristatus</i>	Indian peafowl	R	T/F	Com	Sch-IV	LC
XIII. Gruiformes	17. Rallidae	42	<i>Amaurornis phoenicurus</i>	White-Breasted Water hen	R	WL	Com	Sch-IV	LC
		43	<i>Porphyrio porphyrio</i>	Purple Moorhen	R	WL	Com	Sch-IV	LC

		44	<i>Gallinula chloropus</i>	Common Moorhen	R	WL	Com	Sch-IV	LC
		45	<i>Fulica atra</i>	Common Coot	WV	WL	Com	Sch-IV	LC
		46	<i>Rallus aquaticus</i>	Water Rail	WV	WL	Com	Sch-IV	LC
		47	<i>Rallus striatus</i>	Slaty breasted Rail	WV	WL	Com	Sch-IV	LC
XIV. Passeriformes	18. Acrocephalidae	48	<i>Acrocephalus stentoreus</i>	Indian Great Reed Warbler	WV	T	Com	Sch-IV	LC
		49	<i>Acrocephalus agricola</i>	Paddy field Warbler	R	T	Com	Sch-IV	LC
	19. Aegithinidae	50	<i>Aegithina tiphia</i>	Common Iora	R	T	Com	Sch-IV	LC
	20. Alaudidae	51	<i>Mirafra erythroptera</i>	Red winged Bush Lark	R/LM	T	UnCom	Sch-IV	LC
		52	<i>Eremopterix grisea</i>	Ashy crowned Finch Lark	R	T	Com	Sch-IV	LC
		53	<i>Allauda gulugula</i>	Sky lark	R	T	Com	Sch-IV	LC
	21. Chloropseidae	54	<i>Chloropsis aurifrons</i>	Gold-fronted Chloropsis	R	T	Com	Sch-IV	LC
	22. Cisticolidae	55	<i>Orthotomus sutorius</i>	Tailor bird	R	T	Com	Sch-IV	LC
	23. Corvidae	56	<i>Corvus splendens</i>	House Crow	R	T	Com	Sch-IV	LC
		57	<i>Corvus macrorhynchos</i>	Jungle Crow	R	T	Com	Sch-IV	LC
	24. Laniidae	58	<i>Lanius excubitor</i>	Grey Shrike	R	T	Com	Sch-IV	LC
	25. Dicaeidae	59	<i>Dicaeum erythrorhynchos</i>	Tickelles Flower Pecker	R	T	Com	Sch-IV	LC
	26. Dicruridae	60	<i>Dicrurus macrocercus</i>	Black Drongo	R	T	Com	Sch-IV	LC
	27. Leiothrichidae	61	<i>Turdoides caudata</i>	Common Babbler	R	T	Com	Sch-IV	LC
		62	<i>Turdoides striatus</i>	Jungle Babbler	R	T	Com	Sch-IV	LC
		63	<i>Cettia major</i>	Large Bush warbler	R	T	UnCom	Sch-IV	LC
	28. Motacillidae	64	<i>Anthus rufulus</i>	Paddy field Pipit	R	T	Com	Sch-IV	LC
		65	<i>Motacilla flava</i>	Yellow Wagtail	WV	WD/Edg.Sps	Com	Sch-IV	LC
		66	<i>Motacilla citreola</i>	Yellow Headed Wagtail	WV/LM	WD	Com	Sch-IV	LC
	29. Muscicapidae	67	<i>Saxicola fulicata</i>	Indian Robin	R	T	Com	Sch-IV	LC
	30. Nectariniidae	68	<i>Nectarinia asiatica</i>	Purple Sunbird	R	T	Com	Sch-IV	LC
	31. Oriolidae	69	<i>Oriolus oriolus</i>	Eurasian Golden Oriole	R	T	Com	Sch-IV	LC
	32. Ploceidae	70	<i>Lonchura punctulata</i>	Spotted Munia	R	T	Com	Sch-IV	LC
		71	<i>Passer domesticus</i>	House Sparrow	R	T	Com	Sch-IV	LC
		72	<i>Ploceus manyar</i>	Streaked Weaver	R/LM	WD	UnCom	Sch-IV	LC
		73	<i>Ploceus philippinus</i>	Baya Weaver	R/LM	WD	Com	Sch-IV	LC
	33. Pycnonotidae	74	<i>Pycnonotus cafer</i>	Red-Vented Bulbul	R	T	Com	Sch-IV	LC
		75	<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	R	T	Com	Sch-IV	LC
34. Sturnidae	76	<i>Sturnus contra</i>	Pied Myna	R	T	Com	Sch-IV	LC	
	77	<i>Acridotheres tristis</i>	Common Myna	R	T	Com	Sch-IV	LC	
	78	<i>Acridotheres fuscus</i>	Jungle Myna	R/LM	T	Com	Sch-IV	LC	
XV. Pelecaniformes	35. Ardeidae	79	<i>Egretta garzetta</i>	Little Egret	R/LM	WL/IL	Com	Sch-IV	LC
		80	<i>Mesophox intermedia</i>	Median Egret	R/LM	WL	Com	Sch-IV	LC
		81	<i>Casmerodius albus</i>	Large Egret	R/LM	WL	Com	Sch-IV	LC
		82	<i>Bubulcus ibis</i>	Cattle Egret	R/LM	WL	Com	Sch-IV	LC
		83	<i>Ardeola grayii</i>	Indian Pond-Heron	R/ LM	WL	Com	Sch-IV	LC
		84	<i>Ardea purpurea</i>	Purple Heron	R/LM	WL	Com	Sch-IV	LC
		85	<i>Ardea cinerea</i>	Grey Heron	R/LM	WL	Com	Sch-IV	LC
		86	<i>Nycticorax nycticorax</i>	Night – Heron	R/LM	WL	Com	Sch-IV	LC
	87	<i>Ixoychus sinensis</i>	Yellow Bittern	R/ LM	WL/Ed.Sp	UnCom	Sch-IV	LC	
	36. Threskiornithidae	88	<i>Threskiornis melanocephalus</i>	Black head Ibis	R/LM/ WM/ Br.V	WL	Com	Sch-IV	NT
	89	<i>Pseudibis papillosa</i>	Black Ibis	LM/WV	WL	Com	Sch-IV	LC	
XVI. Piciformes	37. Picidae	90	<i>Dinopium benghalense</i>	Lesser Golden-backed woodpecker	R	T	Com	Sch-IV	LC
XVII. Podicipediformes	38. Podicipedidae	91	<i>Tachybaptus ruficollis</i>	Little Grebe	R/LM/ WV	WL	Com	Sch-IV	LC
XVIII. Psittaciformes	39. Psittacidae	92	<i>Psittacula krameri</i>	Rose-ringed Parakeet	R	T	Com	Sch-IV	LC
XIX. Strigiformes	40. Tytonidae	93	<i>Athene ama</i>	Spotted Owlet	R	T	Com	Sch-IV	LC
		94	<i>Bubo bubo</i>	Horned owl	R	T	UnCom	Sch-IV	LC
XX. Suliformes	41. Phalacrocoracidae	95	<i>Phalacrocorax niger</i>	Little Cormorant	R/LM	WL	Com	Sch-IV	LC
		96	<i>Phalacrocorax carbo</i>	Great Cormorant	R/LM	WL	UnCom	Sch-IV	LC
		97	<i>Phalacrocorax fuscicollis</i>	Indian Shag	R/LM	WL	R	Sch-IV	LC

A. Distribution Status: Br.V- Breeding Visitors, LM -Local Migrant, R - Resident, SV - Summer Visitor, WV - Winter Visitor  
 B. Habitat: T – Terrestrial, WD - Wetland Dependent. WL – Wetland, Ed.Sps - Edge Species, IL – Inland, SC - Sea Coasts.

C. Abundance: Com – Common, R – Rare, UnCom - Un Common

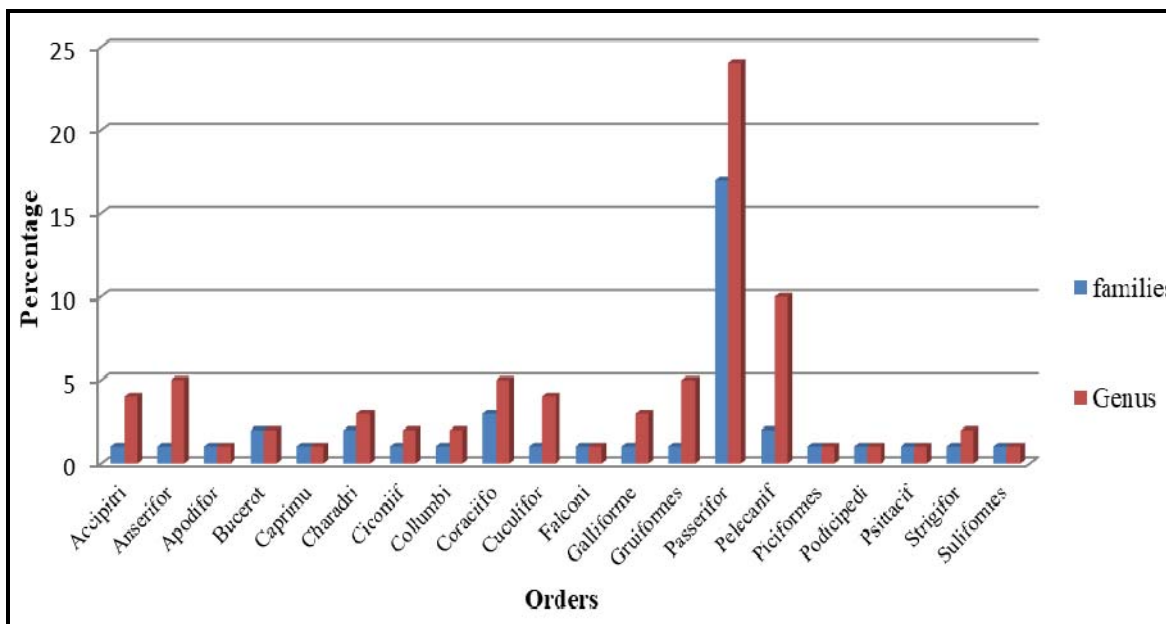
Wildlife (Protection) Act - 1972: Schedule - I, Schedule- IV, Schedule -V

W (P) A, 1972 updated up to 2010. Protected birds listed in Schedule-I and IV of the Wildlife Act and Schedule - IV refer to genera, many of which have several species. Many birds are legally protected.

IUCN Status (2018-2): LC: Least Concern, VU: Vulnerable, NT: Near Threatened

**Table 2:** The number and percentage composition of families and genera under various orders

S. No	Order	No. of families	% of families	No of Genus	% of genus
1	Accipitriformes	1	2.44	4	5.13
2	Anseriformes	1	2.44	5	6.41
3	Apodiformes	1	2.44	1	1.28
4	Bucerotiformes	2	4.89	2	2.56
5	Caprimulgiformes	1	2.44	1	1.28
6	Charadriiformes	2	4.89	3	3.85
7	Ciconiiformes	1	2.44	2	2.56
8	Collumbiformes	1	2.44	2	2.56
9	Coraciiformes	3	7.32	5	6.41
10	Cuculiformes	1	2.44	4	5.13
11	Falconiformes	1	2.44	1	1.28
12	Galliformes	1	2.44	3	3.85
13	Gruiformes	1	2.44	5	6.41
14	Passeriformes	17	41.46	24	30.77
15	Pelecaniformes	2	4.89	10	7.80
16	Piciformes	1	2.44	1	1.28
17	Podicipediformes	1	2.44	1	1.28
18	Psittaciformes	1	2.44	1	1.28
19	Strigiformes	1	2.44	2	2.56
20	Suliformes	1	2.44	1	1.28



**Fig 5:** Percentage of families and genera in an order

**Table 3:** The number and percentage of the species under various families

S. No	Family	No. of sps	% of sps	S. No	Family	No. of sps	% of sps
1	Accipitridae	4	4.12	22	Cisticolidae	1	1.03
2	Anatidae	7	7.22	23	Corvidae	2	2.06
3	Apodidae	1	1.03	24	Laniidae	1	1.03
4	Bucerotidae	1	1.03	25	Dicaeidae	1	1.03
5	Upupidae	2	2.06	26	Dicruridae	1	1.03
6	Caprimulgidae	2	2.06	27	Leiothrichidae	3	3.09
7	Charadriidae	1	1.03	28	Motacillidae	3	3.09
8	Scolopacidae	4	4.12	29	Muscicapidae	1	1.03
9	Ciconiidae	2	2.06	30	Nectariniidae	1	1.03
10	Columbidae	3	3.09	31	Oriolidae	1	1.03
11	Alcedinidae	3	3.09	32	Ploceidae	4	4.12

12	Coraciidae	1	1.03	33	Pycnonotidae	2	2.06
13	Meropidae	2	2.06	34	Sturnidae	3	3.09
14	Cuculidae	5	5.05	35	Ardeidae	9	9.27
15	Falconidae	1	1.03	36	Threskiornithidae	2	2.06
16	Phasianidae	2	2.06	37	Picidae	1	1.03
17	Rallidae	6	6.19	38	Podicipedidae	1	1.03
18	Acrocephalidae	2	2.06	39	Psittacidae	1	1.03
19	Aegithinidae	1	1.03	40	Tytonidae	2	2.06
20	Alaudidae	3	3.09	41	Phalacrocoracidae	3	3.09
21	Chloropseidae	1	1.03				

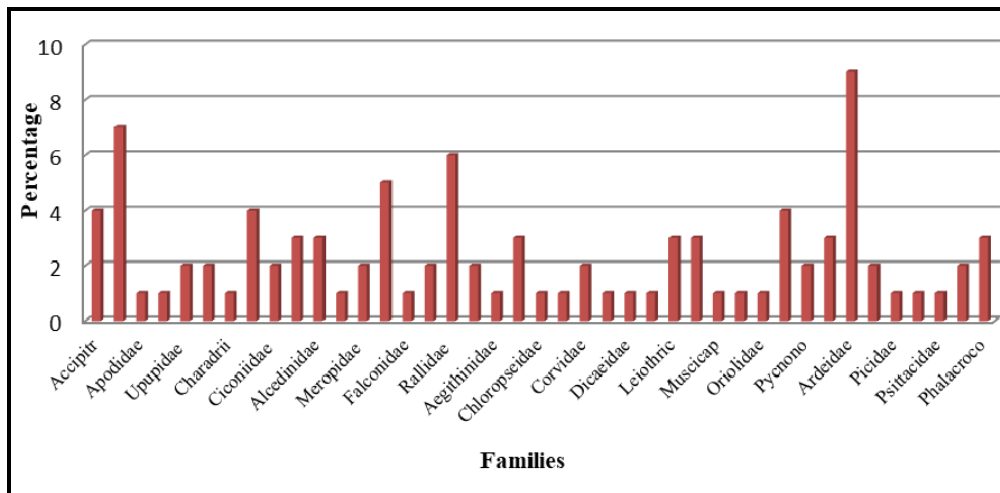


Fig 6: Percentage of the species under various families

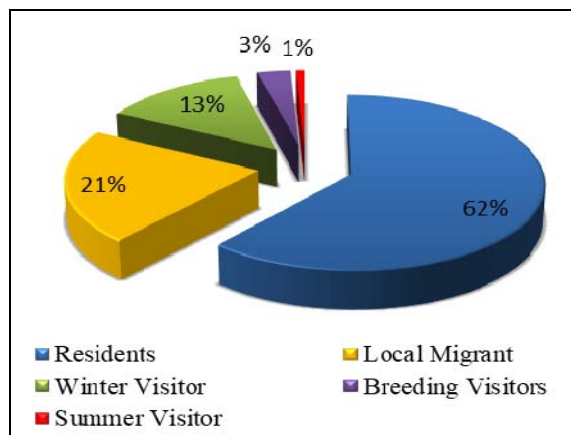


Fig 7: Distribution status

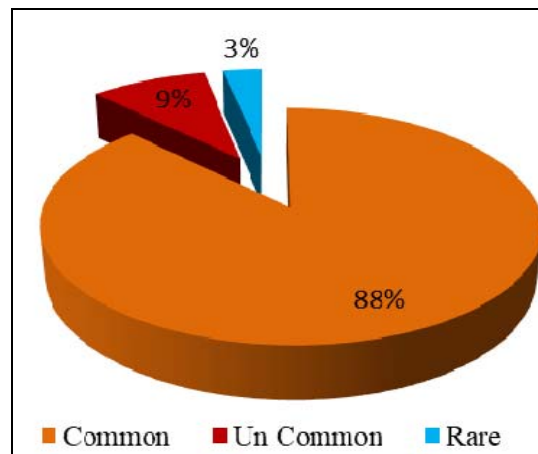


Fig 9: Abundance

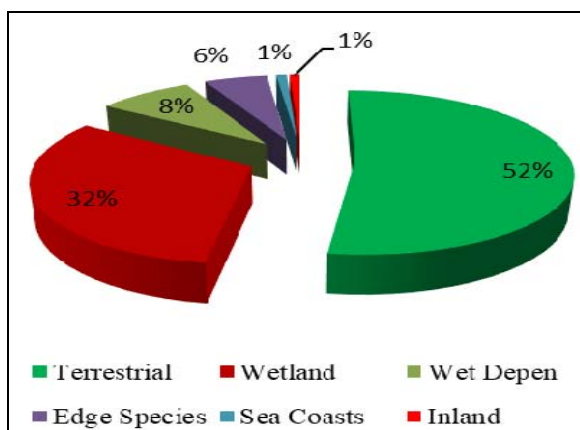


Fig 8: Habitat

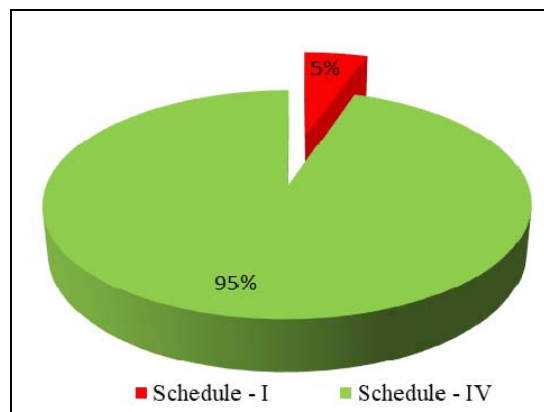


Fig 10: Wildlife Act - 1972

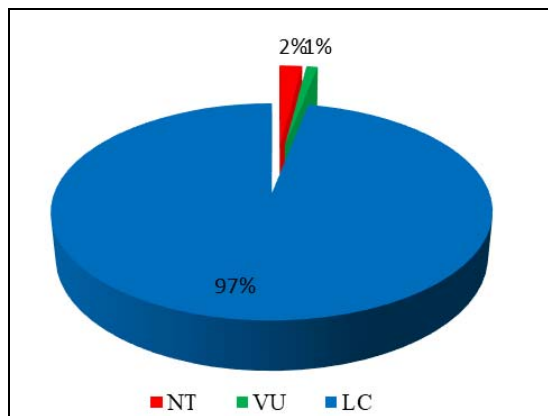


Fig 11: IUCN Status 2018-2

### Discussion

The similar study was observed various workers, a total of 124 bird species belonging to the 52 families were recorded across various landscapes of Anantapuramu dt. Accipitridae was found to be the most dominant family consisting of 16 species in the study area [14]. Rubina and Ganesh studied on Avifaunal diversity status in lakes of Dharwad, Karnataka State [15]. The water bodies supports a rich biodiversity with a high biomass that form the principal food for the different birds and fish form the major food for waterfowl. *Anhinga melanogaster* are under 'Near Threatened' category were also recorded only twice during the study period [16-18]. Over 145 species of birds belonging to 58 families were recorded during the survey which also included opportunistic sightings. Of these 140 were recorded from dry deciduous and 87 in the moist deciduous forests. Only five waterbird species were encountered indicating the predominance of northern Eastern Ghats [19].

The highest species diversity was observed during the wet period. The large group of water birds consists mainly of ducks, diving birds like Grebes, Rails, Coots and Moorhens, other birds with aquatic life style and a variety of ducks and waders used to visit the lake. The population of Family Anatidae was the maximum among the winter migrants. Wading birds include Plovers, Sandpipers, Snipes, Curlews, Avocets, Godwits, Lapwings, Pratincoles, Shanks, Stilts, Stints, etc. Diversity, distribution and status of birds of Kolleru Lake - A Ramsar site recorded 232 species of birds belonging to 138 Genera distributed in 17 Orders are recorded. The lake has been observed to be rich abode of an array of avifauna. Out of 232 species of birds, 6 are globally threatened and 20 are near threatened and 100 are migratory birds [20].

### Conclusions

Dabarusingi water body plays a vital role in the annual cycle of the non-migratory birds and serves breeding grounds for several resident species. Birds either resident or migratory according to their occurrence, frequency and population they have been assigned various categories. Order Passeriformes was more dominant in the total population. Status of birds was classified as Resident species, Local migratory (Resident of India) and Winter and Summer visitors (International) which are found in the study area only certain period.

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