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Avifaunal checklist of two water bodies of Belagavi taluka, Belagavi District, Karnataka, India

Prateek AngadiDOI: <https://doi.org/10.22271/j.ento.2022.v10.i2b.8981>**Abstract**

The present study was carried out to prepare a checklist of birds of two water bodies of Belagavi Taluka, Belagavi District, and Karnataka. 35 species belonging to 28 families and 13 orders have been recorded from in and around the water bodies. Out of 13 orders, Passeriformes were recorded as the dominant order with 38%. Of the 35 species, insectivorous occupy the highest number of 29%. The result indicates moderate yet significant species diversity in the study area.

Keywords: Birds, avifaunal checklist, Belagavi, Karnataka**1. Introduction**

The Indian subcontinent hosts nearly 1,340 bird species which is more than 13% of the world's avian diversity ^[1] and Karnataka is home to more than 35% of the bird species found in India ^[2]. Birds occupy a significant position in ecology and the environment as they play an important role as pollinators, seed dispersers, pest controlling agents, and bio-indicators of an ecosystem ^[3]. Presently, they are witnessing various threats from climate change and anthropogenic activities especially degradation of wetlands, agricultural expansion, overgrazing of the grasslands, and urbanization leading to deforestation ^[4]. The diversity of avifauna is one of the most important ecological indicators to evaluate the quality of habitats. Bird diversity and the status of lakes and water bodies is well documented in Karnataka such as waterbirds in lakes of Bangalore ^[5], Gangasandra Pond of Tumkur District ^[6], in Lakes of Dharwad⁷ and in water bodies of Khanapur Taluka, Belagavi District ^[3]. Thus, the present study aims to prepare a preliminary checklist of avifauna in and around the two water bodies (Irrigation tanks) in Belagavi Taluk, Belagavi District.

2. Materials and Methods**2.1. Study area**

The Belagavi district is situated to the east of the Western Ghats in the northwestern part of Karnataka state and it lies at 15°00 and 17°00 north latitudes and between 74° 00' and 75° 30' east longitude ^[8]. Belagavi Taluk has an average elevation of 751 metres (2,464 feet). The terrain marks with the hilly region at the western parts of Khanapur and Belagavi taluk. Agro-climatically, the district can be divided into three zones; the hilly zone, northern transitional zone and northern dry zone ^[9]. The two water bodies are located in Kallehole and Sanvaganva villages (Fig. 1). Watershed Development Department constructed the Kallehole irrigation tank, Government of Karnataka in the year 2006-2008 while the Sanvaganva Irrigation tank was implemented by Public Works Department, Government of Karnataka in the year 1995 to 1996. These irrigation tanks or water bodies are to irrigate local agricultural fields.

2.2. Method

The survey of birds was conducted for a period of 6 months from October, 2021 to March, 2022. Observations were made twice a month during early morning hours (06.00 AM –09.30 AM) and identification of birds was done using a binocular (10x50). Photo documentations were done using a Nikon D5200 DSLR camera fitted with 70-300mm lens. For species identification and their classification, standard field guides were used ^[3, 14]. Further, birds were classified into 6 Categories based on their food habits- Carnivorous (C), Omnivorous (O),

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Insectivorous (I), Frugivorous (F), Granivorous (G) and Nectarivorous (N), Fish eating (FE) as per previous studies [10, 11, 12].

3. Result and Discussion

In this present study, a total of Thirty five species belonging to Twenty eight families and thirteen orders have been recorded and a checklist of these birds along with their common name, scientific name, ICUN status and feeding habit is represented in Table 1. All of these bird species are listed as Least Concern in ICUN. Out of Thirteen orders, Passeriformes were dominant (38%) followed by Ciconiiformes (11%). Least dominant order recorded were Cuculiformes (3%), Anseriformes (3%), Picidae (3%), Galliformes (3%), Piciformes (3%), Psittaciformes (3%) as indicated in Fig. 2. Passeriformes is generally known as the largest and most diverse commonly recognized clade of birds [7]. The dominance of passerine birds is reported in the Arki hills region of Himachal Pradesh, India [13], in Tilyar Lake, Rohtak, Haryana, India [15] and in a plateau from Goa [10]. Similarly, Passeriformes dominance is also reported in Hidkal Reservoir and its Vicinity in Belagavi District, Karnataka, India [16]. In terms of sighting of different types of species, both water bodies show the most similarity except for Indian Spot-bill Duck,

Little Cormorant, Red naped Ibis, Common Sandpiper, Rock Dove, Purple Sunbird, White-browed Wagtail, Large cuckoo shrike, Scaly-breasted Munia, Indian Peafowl and Black Kite which were not sighted in one of the study sites.

Based on food habit, insectivorous occupy 29% of the sighted birds, followed by omnivorous (20%), carnivorous (18%), frugivorous (15%), granivorous (12%) and least being nectarivorous and fish eating at 3% (Fig. 3). Since the majority is insectivorous, it implies that food availability is good in the surrounding area of the water bodies [11]. Frugivorous also occupy a significant portion (15%) and their presence is considered of great importance as they help in seed dispersal and vegetation structure maintenance [11]. Granivores are usually related to pasturelands and crop fields in the surrounding areas of water bodies that provide suitable foraging sites. Nectarivores and fish eating are poorly represented in the current study and are composed almost entirely of purple sunbird and White Breasted Kingfisher respectively.

Considering both water bodies were constructed for the purpose of irrigating local agricultural fields yet, the water bodies host a significant number of bird species. Also the study was done with the limited time period and further investigation could possibly document more and rarer birds in this regions.

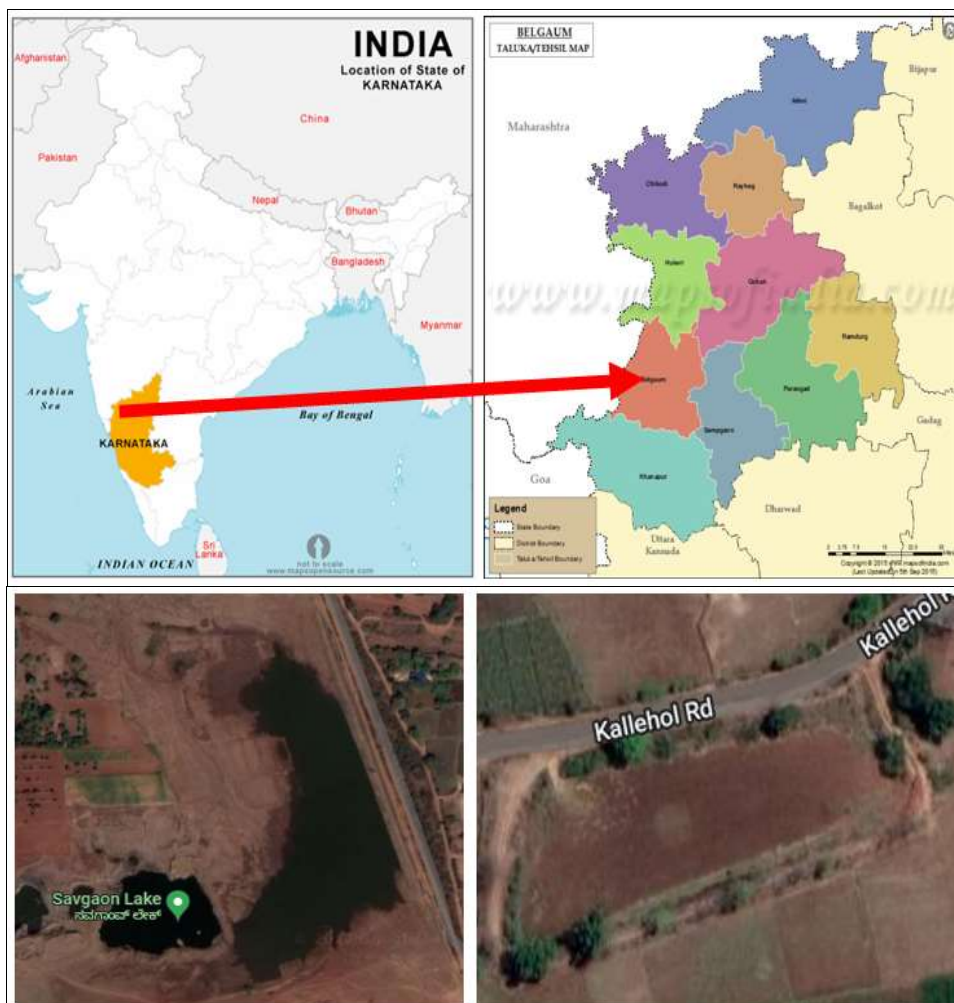


Fig 1: Map of study area showing two water bodies of Belagavi Taluka, Belagavi District, Karnataka, India.

Table 1: List of species recorded from both sites of water bodies Belagavi Taluka, Belagavi District, Karnataka, India.

Order	Family	Common Name	Scientific Name	Food Habit	ICUN Status	S1	S2
Ciconiiformes	Ardeidae	Great Egret	<i>Ardea alba</i>	C	LC	+	+
		Indian Pond Heron	<i>Ardeola grayii</i>	C	LC	+	+
		Cattle Egret	<i>Bubulcus ibis</i>	I	LC		+
		Little Egret	<i>Egretta garzetta</i>		LC	+	+
Anseriformes	Anatdae	Indian Spot-bill Duck	<i>Anas poecilorhyncha</i>	O	LC		+
Pelecaniformes	Phalacrocoracidae	Little Cormorant	<i>Microcarbo niger</i>	C	LC	+	
	Threskiornithidae	Red naped Ibis	<i>Pseudibis papillosa</i>	C	LC	+	
Charadriiformes	Charadriidae	Red Wattled Lapwing	<i>Vanellus indicus</i>	I	LC	+	+
	Scolopacidae	Common Sandpiper	<i>Tringa glareola</i>	O	LC		+
Coraciiformes	Coraciidae	Indian Roller	<i>Coracias benghalensis</i>	I	LC	+	+
	Meropidae	Green Bee-Eater	<i>Merops orientalis</i>	I	LC	+	+
	Alcedinidae	White Breasted Kingfisher	<i>Alcedo atthis</i>	FE/I	LC	+	+
Cuculiformes	Cuculidae	Asian Koel	<i>Eudynamis scolopacea</i>	F/I	LC	+	+
		Greater Coucal	<i>Centropus sinensis</i>	F/I	LC	+	+
Columbiformes	Columbidae	Spotted Dove	<i>Stigmatopelia chinensis</i>	G	LC	+	+
		Rock Dove	<i>Columba livia</i>	G	LC	+	
Picidae	Ramphastidae	Coppersmith Barbet	<i>Megalaima haemacephala</i>	I/F	LC		+
Passeriformes	Sturnidae	Common Myna	<i>Acridotheres tristis</i>	O	LC	+	+
	Nectariniidae	Purple Sunbird	<i>Nectarinia asiatica</i>	N	LC	+	
	Pycnonotidae	Red Vented Bulbul	<i>Pycnonotus cafer</i>	F/G	LC	+	+
	Laniidae	Long Tailed Shrike	<i>Lanius schach</i>	I	LC	+	+
	Muscicapidae	Oriental Magpie Robin	<i>Copsychus saularis</i>	O	LC	+	+
	Cisticolidae	Ashy Prinia	<i>Prinia socialis</i>	I	LC	+	+
	Motacillidae	White-browed Wagtail	<i>Motacilla maderaspatensis</i>	I	LC		+
	Dicruridae	Black Drongo	<i>Dicrurus macrocercus</i>	I	LC	+	+
	Campephagidae	Large cuckoo shrike	<i>Coracina macei</i>	I	LC	+	
	Corvidae	House Crow	<i>Corvus splendens</i>	O	LC	+	+
		Indian Jungle Crow	<i>Corvus culminatus</i>	O	LC	+	+
	Hirundinidae	Wire-tailed Swallow	<i>Hirundo smithii</i>	I	LC	+	+
	Estrildidae	Scaly-breasted Munia	<i>Lonchura punctulata</i>	G	LC		+
Galliformes	Phasianidae	Indian Peafowl	<i>Pavo cristatus</i>	O	LC		+
Piciformes	Ramphastidae	White-cheeked Barbet	<i>Megalaima viridis</i>	F	LC	+	
Falconiformes	Accipitridae	Brahminy Kite	<i>Haliastur indus</i>	C	LC	+	+
		Black Kite	<i>Milvus migrans</i>	C	LC		+
Psittaciformes	Psittacidae	Rose-ringed Parakeet	<i>Psittacula krameri</i>	F	LC	+	

Legends: LC-Least Concern, C- Carnivorous, O- Omnivorous, I- Insectivorous, F- Frugivorous, G- Granivorous, N- Nectarivorous, FE- Fish eating, S1- Kallehole. S2-Sanvaganva

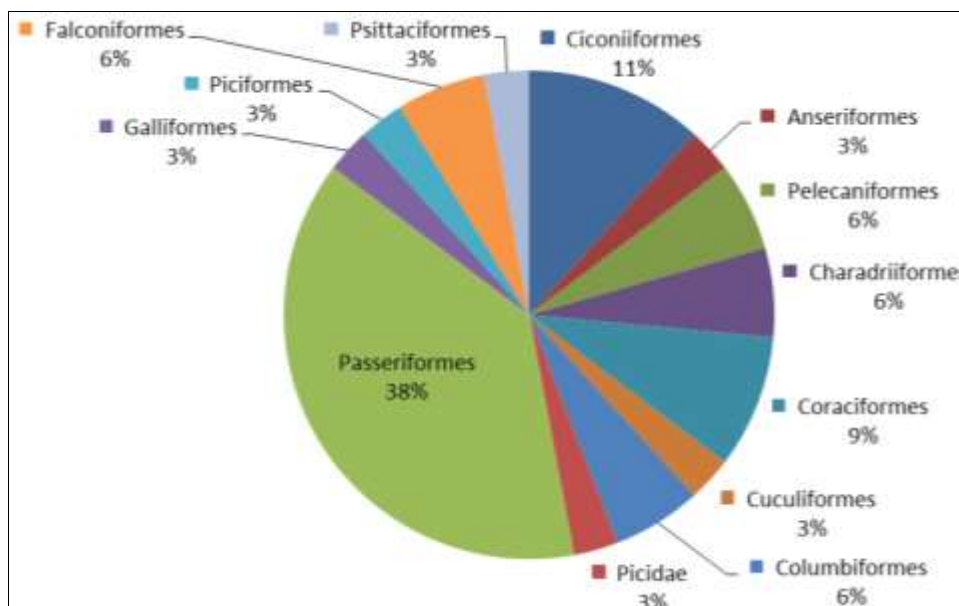


Fig 2: Pie chart representing the percentage of bird species with respect to their orders.

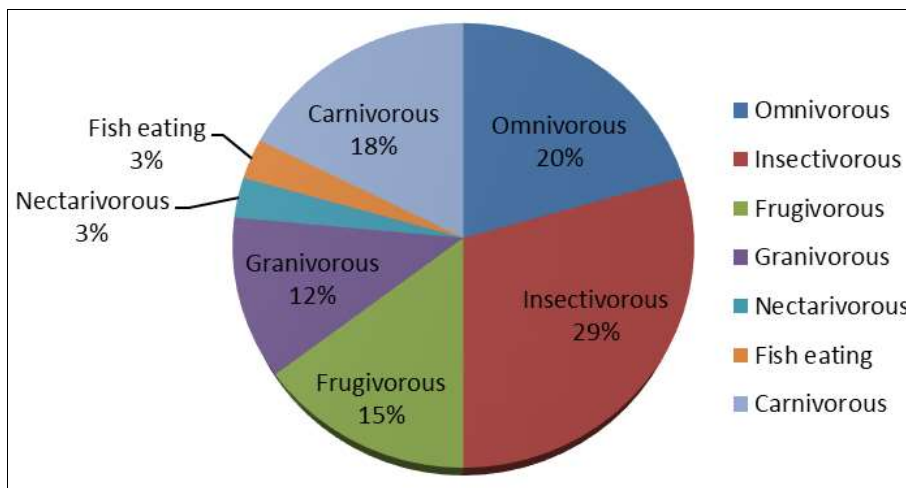


Fig 3: Pie chart representing the percentage of bird species with respect to their feeding habit.

4. Conclusion

This preliminary survey is important as bird species associated with these man-made water bodies can be documented and even though the study was carried out in a limited time frame, moderate yet significant bird species are checked and listed. A comprehensive field study with respect to flora and avifauna in the future would be welcome to assess the benefit of such man-made water bodies to birds.

5. References

- Chakdar B, Choudhury P, Singha H. Avifaunal diversity in Assam University Campus, Silchar, India. *Journal of Threatened Taxa*. 2016;8(1):8369-8378.
- Praveen J, Subramanya S, Raj VM. A checklist of the birds of Karnataka. *Indian Birds*. 2016;12(4-5):89.
- Neelgund HD, Kadadevaru G. Avifaunal diversity of some selected water bodies of Khanapur Taluka, Belagavi District, Karnataka, India. *Journal of Threatened Taxa*. 2020;12(5):15572-15586.
- Grimmett R, Inskipp C, Inskipp T. *Birds of the Indian Subcontinent: India, Pakistan, Sri Lanka, Nepal, Bhutan, Bangladesh and the Maldives*. Bloomsbury Publishing. 2016.
- Rajashekara S, Venkatesha MG. The diversity and abundance of waterbirds in lakes of Bangalore city, Karnataka, India. *Biosystematica*. 2010;4(2):63-73.
- Asiya Nuzhat FB, Suraj R. Avian Diversity at Gangasandra Pond of Tumkur District, Karnataka. 2021. *Int J Pharm Sci*. 2010;12(3):63-69.
- Nadaf RM, Ganesh CB. A Study on Avifaunal Diversity Status in Lakes of Dharwad, Karnataka State. *Journal of Ecophysiology and Occupational Health*. 2017;16(1-2):13-21.
- Prabhavati K, Dasog GS, Patil PL, Sahrawat KL, Wani SP. Soil fertility mapping using GIS in three agro-climatic zones of Belgaum district, Karnataka. *Journal of the Indian Society of Soil Science*. 2015;63(2):173-180.
- Neelgund HD, Kadadevaru GG. A Study on Seasonal Variation in Zooplankton Abundance in Kadasgatti Minor Irrigation Tank of Bailhongal Taluk, Belagavi District, Karnataka State, India. *Indian Journal of Science and Technology*. 2021;14(27):2238-2249.
- Desai M, Shanbhag AB. An avifaunal case study of a plateau from Goa, India: an eye opener for conservation of plateau ecosystems. *Journal of Threatened Taxa*. 2012;4(3):2444-2453.
- Dey T, Ghosh J. Study on the avifaunal species diversity of the Krishnanagar govt. college campus, Krishnanagar, India, West Bengal. *Journal of Entomology and Zoology Studies*. 2016;4(5):121-125.
- Dapke S, Didolkar R, Koushik S. Studies on diversity and abundance of avifauna in and around Laxminarayan Institute of Technology campus, Nagpur, Central India. *Journal of Entomology and zoology studies*. 2015;3(5):141-146.
- Thakur ML, Mattu VK, Lal H, Sharma VN, Raj H, Thakur V. Avifauna of Arki Hills, Solan (Himachal Pradesh), India. *Indian Birds*. 2010;5:162-166.
- Ali S. *The Book of Indian Birds*, BNHS. Oxford University Press, Bombay. 2002.
- Singh J, Antil S, Goyal V, Malik V. Avifaunal diversity of Tilyar Lake, Rohtak, Haryana, India. *Journal of Threatened Taxa*. 2020;12(8):15909-15915.
- Hiragond NC. An Assessment of Avifauna Diversity of Hidkal Reservoir and its Vicinity in Belagavi District, Karnataka, India. *Asian Journal of Conservation Biology*.