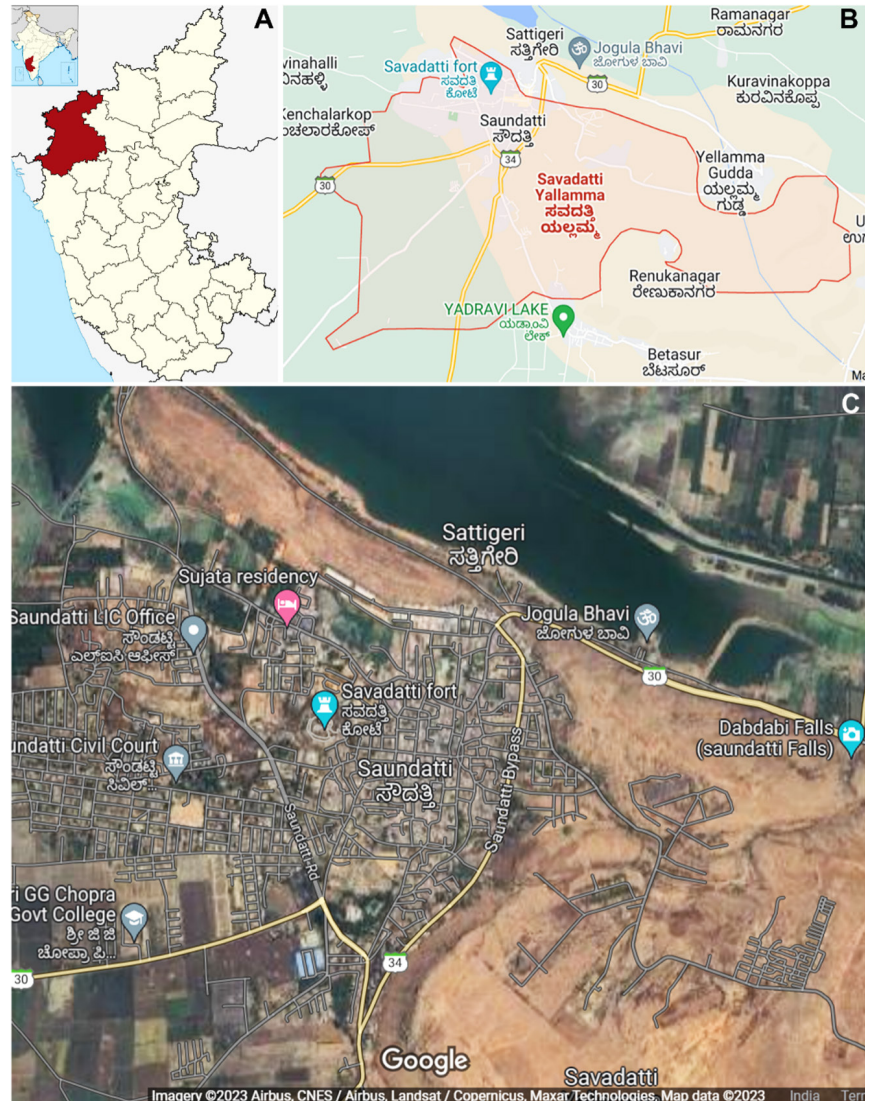


A study on the status and diversity of the avifauna in Savadatti, Belagavi District, Karnataka, India

India, as a major centre of biodiversity, harbours approximately 13% of the global avian population (Ali & Ripley 1987; Grimmett et al. 1998). The availability and suitability of bird habitats with respect to vital resources like food, water, and cover may be affected by changes in vegetation composition. Consequently, these changes can have subsequent implications for the variety, abundance, and dispersion of bird populations, and therefore, the evaluation of avian diversity across various habitats in both temporal and spatial dimensions is crucial in understanding the current state of avian communities. Although there have been numerous important field surveys on avian diversity in Karnataka State (Barve & Warriar 2013; Konkall & Ganesh 2014; Bhat et al. 2009), there is currently a lack of published data regarding the status of bird diversity in regions that encompass both semiarid and wetlands ecosystems.



Map of Karnataka showing Belgaum District (A), Savadatti Taluk (B), and study area (C).

Savadatti is a religious town in the Belagavi District of Karnataka State that features semi-arid conditions and a wetland zone. The town is situated between the latitudinal parallels of 15.6092 & 16.1563 N, as well as the

longitudinal parallels of 74.8027 & 75.3184 E. It has semi-arid climatic conditions and encompasses a wetland region. Nevertheless, there is a lack of documented information regarding the richness of bird species in

Table 1. Checklist of avifauna in Savadatti region.

	Order	Family	Scientific name	Common name	IUCN Red List status	Food habit
1	Accipitriformes	Accipitridae	<i>Accipiter badius</i>	Shikra	LC	CV
2			<i>Elanus caeruleus</i>	Black-winged Kite	LC	CV
3			<i>Haliastur indus</i>	Brahminy Kite	LC	CV
4			<i>Milvus migrans</i>	Black Kite	LC	CV
5			<i>Pernis apivorus</i>	European Honey-buzzard	LC	CV
6		Pandionidae	<i>Pandion haliaetus</i>	Osprey	LC	CV
7	Anseriformes	Anatidae	<i>Anas poecilorhyncha</i>	Indian Spot-billed Duck	LC	H
8	Apodiformes	Apodidae	<i>Apus affinis</i>	Little Swift	LC	I
9	Bucerotiformes	Bucerotidae	<i>Ocyrceros birostris</i>	Indian Grey Hornbill	LC	I
10		Upupidae	<i>Upupa epops</i>	Eurasian Hoopoe	LC	I
11	Charadriiformes	Charadriidae	<i>Vanellus indicus</i>	Red-wattled Lapwing	LC	I
12			<i>Vanellus malabaricus</i>	Yellow-wattled Lapwing	LC	I
13		Recurvirostridae	<i>Himantopus himantopus</i>	Black-winged Stilt	LC	P
14		Scolopacidae	<i>Actitis hypoleucos</i>	Common Sandpiper	LC	I
15	Ciconiformes	Ciconiidae	<i>Anastomus oscitans</i>	Asian Openbill	LC	CV
16	Columbiformes	Columbidae	<i>Columba livia</i>	Rock Pigeon	LC	G
17			<i>Spilopelia chinensis</i>	Spotted Dove	LC	G
18			<i>Spilopelia senegalensis</i>	Laughing Dove	LC	G
19	Coraciiformes	Alcedinidae	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	LC	CV
20		Meropidae	<i>Merops orientalis</i>	Asian Green Bee-eater	LC	I
21	Cuculiformes	Cuculidae	<i>Cacomantis passerinus</i>	Grey-bellied Cuckoo	LC	O
22			<i>Centropus sinensis</i>	Greater Coucal	LC	CV
23			<i>Eudynamis scolopaceus</i>	Asian Koel	LC	O
24			<i>Taccocua leschenaultii</i>	Sirkeer Malkoha	LC	O
25	Galliformes	Phasianidae	<i>Gallus gallus</i>	Red Junglefowl	LC	O
26			<i>Gallus sonneratii</i>	Grey Junglefowl	LC	O
27			<i>Ortygornis pondicerianus</i>	Grey Francolin	LC	O
28			<i>Pavo cristatus</i>	Indian Peafowl	LC	O
29	Gruiformes	Rallidae	<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	LC	O
30			<i>Porphyrio poliocephalus</i>	Grey-headed Swamphen	LC	O
31	Passeriformes	Aegithinidae	<i>Aegithina tiphia</i>	Common Iora	LC	I

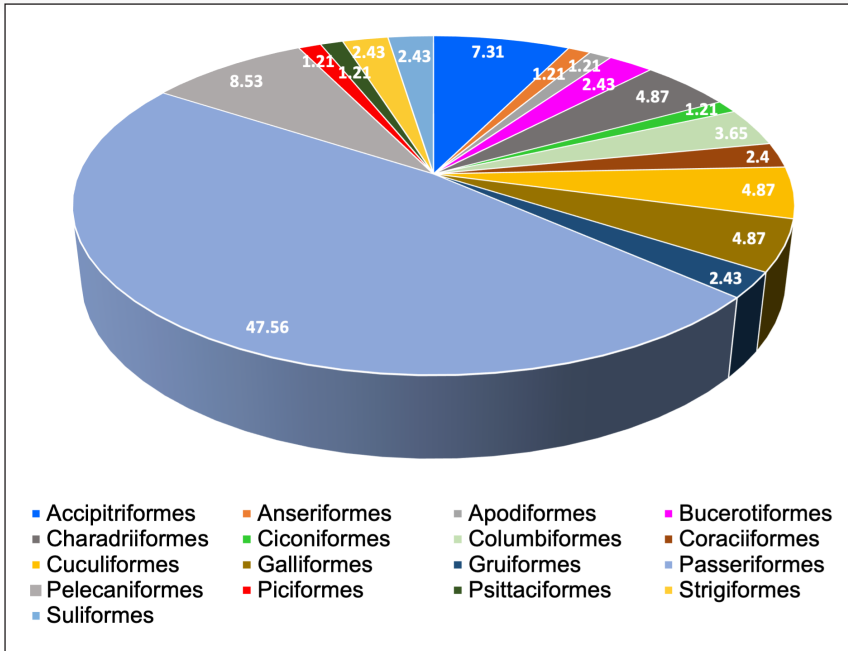
	Order	Family	Scientific name	Common name	IUCN Red List status	Food habit	
32	Passeriformes	Alaudidae	<i>Eremopterix griseus</i>	Ashy-crowned Sparrow-Lark	LC	I	
33		Campephagidae	<i>Lalage melanoptera</i>	Black-headed Cuckooshrike	LC	I	
34		Cisticolidae	<i>Orthotomus sutorius</i>	Common Tailorbird	LC	I	
35			<i>Prinia hodgsonii</i>	Gray-breasted Prinia	LC	O	
36			<i>Prinia socialis</i>	Ashy Prinia	LC	O	
37			<i>Prinia sylvatica</i>	Jungle Prinia	LC	O	
38		Corvidae	<i>Corvus splendens</i>	House Crow	LC	O	
39		Dicruridae	<i>Dicrurus caerulescens</i>	White-bellied Drongo	LC	I	
40			<i>Dicrurus leucophaeus</i>	Ashy Drongo	LC	I	
41			<i>Dicrurus macrocercus</i>	Black Drongo	LC	I	
42		Estrildidae	<i>Euodice malabarica</i>	Indian Silverbill	LC	O	
43			<i>Lonchura punctulata</i>	Scaly-breasted Munia	LC	O	
44		Emberizidae	<i>Emberiza buchanani</i>	Grey-necked Bunting	LC	O	
45		Hirundinidae	<i>Hirundo smithii</i>	Wire-tailed Swallow	LC	O	
46		Laniidae	<i>Lanius schach</i>	Long-tailed Shrike	LC	CV	
47			<i>Lanius vittatus</i>	Bay-backed Shrike	LC	CV	
48		Leiothrichidae	<i>Argya caudata</i>	Common Babbler	LC	O	
49			<i>Argya malcolmi</i>	Large Grey Babbler	LC	O	
50			<i>Argya striata</i>	Jungle Babbler	LC	O	
51		Motacillidae	<i>Anthus rufulus</i>	Paddyfield Pipit	LC	I	
52			<i>Motacilla cinerea</i>	Grey Wagtail	LC	I	
53			<i>Motacilla flava</i>	Western Yellow Wagtail	LC	I	
54			<i>Motacilla maderaspatensis</i>	White-browed Wagtail	LC	I	
55			Muscicapidae	<i>Copsychus fulicatus</i>	Indian Robin	LC	CV
56				<i>Copsychus saularis</i>	Oriental Magpie-Robin	LC	CV
57				<i>Monticola solitarius</i>	Blue Rock-Thrush	LC	O
58				<i>Muscicapa dauurica</i>	Asian Brown Flycatcher	LC	I
59		<i>Saxicola caprata</i>		Pied Bushchat	LC	I	
60		Nectariniidae	<i>Leptocoma zeylonica</i>	Purple-rumped Sunbird	LC	O	
61			<i>Cinnyris asiaticus</i>	Purple Sunbird	LC	O	
62		Oriolidae	<i>Oriolus kundoo</i>	Indian Golden Oriole	LC	O	
63		Paridae	<i>Parus cinereus</i>	Cinereous Tit	LC	I	
64	Passeridae	<i>Passer domesticus</i>	House Sparrow	LC	G		
65	Ploceidae	<i>Ploceus philippinus</i>	Baya Weaver	LC	H		
66	Pycnonotidae	<i>Pycnonotus cafer</i>	Red-vented Bulbul	LC	H		
67	Rhipiduridae	<i>Rhipidura albogularis</i>	Spot-breasted Fantail	LC	I		

	Order	Family	Scientific name	Common name	IUCN Red List status	Food habit
68	Passeriformes	Sturnidae	<i>Acridotheres tristis</i>	Common Myna	LC	O
69			<i>Sturnia pagodarum</i>	Brahminy Starling	LC	O
70	Pelecaniformes	Ardeidae	<i>Ardea alba</i>	Great Egret	LC	CV
71			<i>Ardea cinerea</i>	Grey Heron	LC	CV
72			<i>Ardea intermedia</i>	Intermediate Egret	LC	P
73			<i>Ardeola grayii</i>	Indian Pond-Heron	LC	CV
74			<i>Bubulcus ibis</i>	Cattle Egret	LC	I
75			<i>Egretta garzetta</i>	Little Egret	LC	CV
76			Threskiornithidae	<i>Threskiornis melanocephalus</i>	Black-headed Ibis	NT
77	Piciformes	Megalaimidae	<i>Psilopogon haemacephalus</i>	Coppersmith Barbet	LC	F
78	Psittaciformes	Psittaculidae	<i>Psittacula krameri</i>	Rose-ringed Parakeet	LC	H
79	Strigiformes	Strigidae	<i>Athene brama</i>	Spotted Owlet	LC	CV
80			<i>Bubo bengalensis</i>	Rock Eagle-Owl	LC	CV
81	Suliformes	Phalacrocoracidae	<i>Phalacrocorax fuscicollis</i>	Indian Cormorant	LC	P
82			<i>Microcarbo niger</i>	Little Cormorant	LC	P

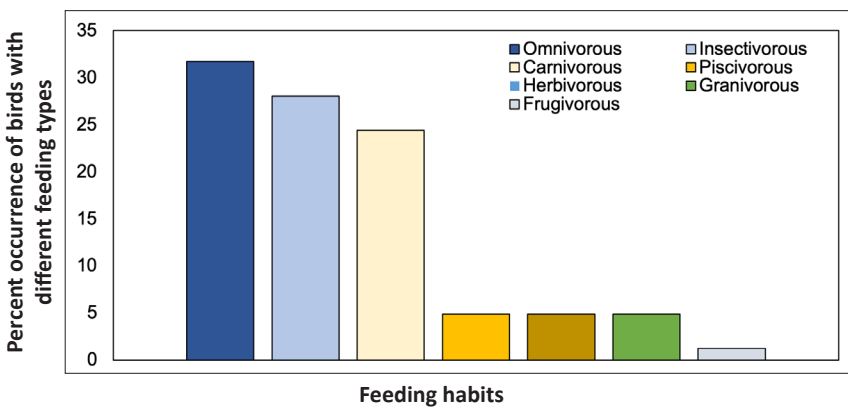
P—Piscivore | O—Omnivore | I—Insectivore | H—Herbivore | G—Granivore | CV—Carnivore | F—Frugivore | NT—Near Threatened | LC—Least Concern.

this geographical area. The primary aim of this study is to record and analyse the variety and current status of bird species in Savadatti town, located in the Belagavi region of Karnataka State. The fieldwork was conducted twice per month over a span of 10 months, from October 2021 to July 2022. The avian species were systematically observed in their natural ecological setting across an area of 4.20 square kilometres, commencing in the early hours of the morning and extending until the late hours of the evening. The study was mostly conducted using the visual-encounter methodology. The birds were photographed using a DSLR camera (Canon, 18 megapixels) and identified up to the lowest possible taxonomic level with the help of field guides (Woodcock 1980; Ali & Ripley 1983; Grimmett et al. 1998; Ali 2002). The present study documented the occurrence

of 82 species, belonging to 17 orders and 43 families in Savadatti town, Belagavi District, Karnataka (Table 1). Among these, Passeriformes were dominated with 39 species (47.56%), followed by Pelecaniformes with seven species (8.53%), Accipitriformes with six species (7.31%), Charadriiformes, Galliformes, and Cuculiformes with four species each (4.87% each), Columbiformes with three species (3.65%), and Bucerotiformes, Coraciformes, Gruiformes, Strigiformes, and Suliformes with two species each (2.43% each). On the other hand, the orders such as Anseriformes, Apodiformes, Ciconiformes, Piciformes, and Psittaciformes consisted of only one species each (1.21% each). The food habit serves a crucial role in ensuring the survival of all species. In the present study, omnivorous birds comprised the largest



Pie chart showing percent distribution of different avian orders in Savadatti region.



Bar diagram showing percent occurrence of birds with different feeding habits in Savadatti region.

proportion (31.70%), followed by insectivorous (28.04%), carnivorous (24.39%), piscivorous, herbivorous and granivorous (4.87% each), and frugivorous (1.21%) species. Due to the abundance of food in grasslands, arid regions, and wetland habitats, omnivorous and carnivorous birds can be found throughout the year,

whereas insectivorous birds are primarily observed in the late winter and early summer. In open woodlands, avian species such as Shikra, Black Kite, and European Honey-buzzard (Accipitridae) were observed, while Red-wattled Lapwing and Yellow-wattled Lapwing (Charadriidae) were spotted in agricultural fields.

On marshy lakeshores, other birds such as Black-winged Stilt (Recurvirostridae), Indian Spot-billed Duck (Anseriformes), and Common Sandpiper (Scolopacidae) were frequently observed. Passeriformes birds were abundant in herbaceous, shrubby, and tree-covered regions, whereas Pelecaniformes and some Gruiformes were observed near the riverbanks, possibly due to the reservoir's year-round water supply. Some birds, such as the Asian Openbill (Ciconidae), were seen during the winter, but migration was observed in early summer.

The number of species with the IUCN Red List status of 'Least Concern' was much greater than the number of species listed as 'Near Threatened' (Table 1). During the survey period, rare sightings of birds such as the Black-headed Ibis (Threskiornithidae), Gray Francolin (Phasianidae), and Rock Eagle-Owl (Strigidae) were recorded. Nevertheless, human activities such as gaming and hunting, the conversion of grasslands to cultivable land, etc., appear to be a considerable threat to

the birds in this region. Therefore, conservation programmes must be implemented in this region before these birds become rare and endangered.

References

- Ali, S. (2002).** *The Book of Indian Birds*. Oxford University Press, Mumbai, 326 pp.
- Ali, S. & S.D. Ripley (1983).** *A Pictorial Guide to the Birds of the Indian Subcontinent*. Oxford University Press, New Delhi, 177 pp.
- Ali, S. & S.D. Ripley (1987).** *Compact Handbook of the Birds of India, Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka*. Oxford University Press, New Delhi, 841 pp.
- Barve, S. & R. Warriar (2013).** Bird diversity of the Sharavathi landscape, Karnataka. *Indian BIRDS* 8(3): 57–61.
- Grimmett, R., C. Inskipp & T. Inskipp (1998).** *Birds of the Indian Subcontinent*. Oxford University Press, New Delhi, 888 pp.
- Bhat, P.I., S.S. Cristopher & B.B. Hosetti (2009).** Avifaunal diversity of Anekere Wetland, Karkala, Udupi district, Karnataka, India. *Journal of Environmental Biology* 30(6): 1059–1062.
- Konkal, P. & C.B. Ganesh (2014).** Avifaunal Diversity and Status in Kurugodu, Bellary District, Karnataka State. *Ecology, Environment and Conservation* 20: 1777–1782.
- Woodcock, M. (1980).** *Collins Hand Guide to the Birds of the Indian Subcontinent*. St. James Palace, London, 178pp.
- Akash Katti¹, Pakkiresha Goravara², Devaraj Goranavar³, S.J. Aishwarya⁴, Aviksharashmi Savanur⁵ & C.B. Ganesh⁶**
¹⁻⁶ Department of Zoology, Karnatak University, Dharwad, Karnataka 580003, India.
E-mail: ⁶ganeshkcd@gmail.com (corresponding author)
- Citation:** Katti, A., P. Goravara, D. Goranavar, S.J. Aishwarya, A. Savanur & C.B. Ganesh (2023). A study on the status and diversity of the avifauna in Savadatti, Belagavi District, Karnataka, India. *Bird-o-soar* #215, In: *Zoo's Print* 38(10): 16–21.