

Original Article

Study of Aquatic Birds Diversity and Conservation Status of Bhategaon Dam, Taluka Kalamnuri, District Hingoli, Maharashtra

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[10.5281/zenodo.17197943](https://doi.org/10.5281/zenodo.17197943)
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<https://doi.org/10.5281/zenodo.17197943>**Abstract**

This presence study has been undertaken to find out the diversity and conservation status of waterbird species around the study area. Bhategaon Dam is a water body located near Bhategaon village at 19°25' N and 77° E in Kalamnuri taluka of Hingoli District. The dam is a part of the environment and ecosystem. Water birds are an important component of the aquatic ecosystem. The dam provides abundant food resources including plants, free-swimming organisms and snails which are the components of the population of various birds affecting the presence of birds. As the water level decreases in winter, more open banks become available for feeding and roosting to attract various water birds. A total of 45 Species, 11 Orders of 23 Families were recorded during the period January 2023 to December 2024. This includes 15 Residential Common (RC), 12 Residential Migrants (RM), 02 Residential Uncommon (RU), 03 Winter Migrants (WM), 03 Winter Migrants Common (WMc), 01 Winter Migrants Rare (WMr), 01 Winter Migrants Uncommon (WMu), 04 Migrants (M), 01 Migrants Common (MC) and 01 Residents (R). Within this order, Passeriformes is the richest order in bird diversity and is represented by 12 species. The present study will help in understanding and designing conservation strategies for this agro-forest ecosystem. Integrating sustainable practices in agriculture and promoting eco-friendly urban planning are essential steps for long-term bird conservation (Gadgil et al. 1993).

Keywords: Aquatic Birds, Bhategaon Dam, Hingoli.**Introduction:**

The Avian fauna of Bhategaon dam in Kalamnuri Taluka of Hingoli District of Maharashtra includes a different variety of resident and migratory birds such as the spotted dove, pied bus chat, Indian grey hornbill, Indian peafowl, common Myna and Brahminy starling with water dependent species like the Red wattled lapwing, common sandpiper, open billed stork, spoon billed stork and little ringed plover etc aquatic birds are an important component of wetland ecosystem the variety of Avian and species in ecosystems reflects the wellbeing of its habitats.

Material and Method:

The study area Bhategaon Dam near Bhategaon village 19°25' N and 77°00' E Kalamnuri Taluka, District Hingoli, Maharashtra is a water Reservoir, bird survey was carried out during January 2023 to December 2024 the avian survey was conducted by weekly visit to the study area for sampling sites had been randomly selected in the study area. Bird recorded with the help of binocular 10x50 and photographed by digital camera later on the identification birds was done with the help of photographic guide to the bird of India Salim Ali and replay 2021; Grimmett et al. The bird list was compiled based on present observations as well as checklist of birds (Kumar et. al. 2005) Bird was recorded on the basis of their visit to wetland as a Resident (R), Migrant (M), Common(C) Resident Migrant (RM) and seasonal variation was identified as a summer, monsoon and winter.

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Figure 01: GPS Map of Bhategaon Dam, Kalamnuri Taluka, Hingoli District.

Result:

In the present survey period total 45 species of the bird recorded 23 family and 11 orders, during January 2023 to December 2024. Further Analysis of data should that as per IUCN status similarly there is no report of any species of birds which has been extinct from this survey region area in recent time. The species included 15 Residential Common (RC), 12 Residential Migrants (RM), 02 Residential Uncommon (RU), 03 Winter Migrants (WM), 03 Winter Migrants Common (WMc), 01 Winter Migrants Rare (WMr), 01 Winter Migrants Uncommon (WMu), 04 Migrants (M), 01 Migrants Common (MC) and 01 Residents (R).

Within this order, Passeriformes is the richest order in bird diversity and is represented by 12 species. No any bird species from threatened and endangered category was sighted during at any selected site. Conservation status of bird's community of study area indicates that one bird Asian woolly-necked stork nearly threatened species category. River tern included vulnerable (VU). While all other birds are indicated as a least concern (LC) category as per the IUCN status table1. Checklist of birds community in the study area is prepared with the help of bird field guides of Salim Ali and Ripley, 2021; Grimmett, et al, 2011; eBird 2017 and Bird life International 2000 table 1.

Table 01: Check list of Birds Recording in Bhategaon Dam, Taluka Kalamnuri, District Hingoli, Maharashtra.

Order & Family	Common Name	Scientific Name	Abundance (Count)	Habitat status	IUCN Status
1. Anseriformes					
1. Anatidae	1. Common Teal (Eurasian teal)	<i>Anas crecca</i> (Linnaeus, 1758)	4	WM	C (LC)
	2. Garganey	<i>Spatula querquedula</i> (Linnaeus, 1758)	2	WM	C (LC)
	3. Bar-headed goose	<i>Anser indicus</i> (Latham, 1790)	3	M	R (LC)
	4. Ruddy shelduck (Brahminy duck)	<i>Tadorna ferruginea</i> (Pallas, 1764)	6	RM	M (LC)
	5. Indian spot-billed duck	<i>Anas poecilorhyncha</i> (Forster, 1781)	15	RM	C (LC)
2. Pelecaniformes					

2. Ardeidae	6. Little Egret	<i>Egretta garzetta</i> (Linnaeus, 1766)	15	RC	C (LC)
	7. Cattle egret	<i>ibis</i> (Linnaeus, 1758)	51	RM	A (LC)
	8. Indian pond heron	<i>Ardeola grayii</i> (Sykes, 1832)	19	RC	A (LC)
	9. Intermediate egret	<i>Ardea intermedia</i> (Wagler, 1829)	10	RC	O (LC)
	10. Grey heron	<i>Ardea cinerea</i> (Linnaeus, 1758)	12	RM	C (LC)
	11. Striated heron	<i>Butorides striata</i> (Linnaeus, 1758)	8	RM	C (LC)
	12. Green heron	<i>Butorides virescens</i> (Linnaeus, 1758)	5	M	R (LC)
3. Threskiornithidae	13. Red-naped ibis	<i>Pseudibis papillosa</i> (Temminck, 1824)	18	RU	C (LC)
	14. Eurasian spoonbill	<i>Platalea leucorodia</i> Linnaeus, 1758	9	WMU	C (LC)
	15. Black-headed ibis	<i>Threskiornis melanocephalus</i> (Latham, 1790)	14	MU	R (LC)
3. Passeriformes					
4. Motacillidae	16. Western yellow wagtail	<i>Motacilla flava</i> (Linnaeus, 1758)	4	WM	O (LC)
	17. White wagtail	<i>Motacilla alba</i> (Linnaeus, 1758)	5	MU	R (LC)
	18. Citrine wagtail	<i>Motacilla citreola</i> Pallas, 1776	2	M	R (LC)
	19. white-browed wagtail	<i>Motacilla maderaspatensis</i> Gmelin, JF, 1789	5	RM	R (LC)
5. Alaudidae	20. Indian bush lark	<i>Plocealauda erythroptera</i> (Blyth, 1845)	6	RM	R (LC)
6. Leiothrichidae	21. Large grey babbler	<i>Argya malcolmi</i> (Sykes, 1832)	8	RC	C (LC)
7. Sturnidae	22. Common myna	<i>Acridotheres tristis</i> (Linnaeus, 1766)	58	RC	C (LC)
8. Hirundinidae	23. Wire-tailed swallow	<i>Hirundo smithii</i> (Leach, 1818)	7	RC	O (LC)
9. Paradoxornithidae	24. Yellow-eyed babbler	<i>Chrysomma sinense</i> (Gmelin, JF, 1789)	12	RC	C (LC)
10. Dicruridae	25. Black drongo	<i>Dicrurus macrocercus</i> (Vieillot, 1817)	10	M	C (LC)
11. Oriolidae	26. Indian golden oriole	<i>Oriolus kundoo</i> (Sykes, 1832)	7	RM	R (LC)

12. Ploceidae	27. Baya weaver	<i>Ploceus philippinus</i> (Linnaeus, 1766)	52	R	R (LC)
4. Gruiformes					
13. Rallidae	28. Purple swamphen	<i>Porphyrio porphyrio</i> (Linnaeus, 1758)	21	RC	A (LC)
	29. Common coot (Eurasian coot)	<i>Fulica atra</i> (Linnaeus, 1758)	6	RM	O (LC)
	30. White-breasted waterhen	<i>Amaurornis phoenicurus</i> (Pennant, 1769)	7	RM	A (LC)
5. Charadriiformes					
14. Laridae	31. River tern	<i>Sterna aurantia</i> (Gray, JE, 1831)	2	RU	A (VU)
15. Charadriidae	32. Red-wattled lapwing	<i>Vanellus indicus</i> (Boddaert, 1783)	25	RC	C (LC)
	33. Yellow-wattled lapwing	<i>Vanellus malabaricus</i> (Boddaert, 1783)	20	RC	O (LC)
	34. Little ringed plover	<i>Charadrius dubius</i> (Scopoli, 1786)	5	WMC	R (LC)
16. Recurvirostridae	35. Black-winged stilt	<i>Himantopus himantopus</i> (Linnaeus, 1758)	9	WMC	A (LC)
6. Coraciiformes					
17. Meropidae	36. Green bee-eater	<i>Merops orientalis</i> (Latham, 1801)	9	RC	C (LC)
18. Alcedinidae	37. White-throated kingfisher	<i>Halcyon smyrnensis</i> (Linnaeus, 1758)	14	RC	C (LC)
	38. Common kingfisher	<i>Alcedo atthis</i> (Linnaeus, 1758)	8	RC	C (LC)
7. Podicipediformes					
19. Podicipedidae	39. Little Grebe	<i>Tachybaptus ruficollis</i> (Pallas, 1764)	20	RM	C (LC)
8. Suliformes					
20. Phalacrocoracidae	40. Little cormorant	<i>Microcarbo niger</i> (Vieillot, 1817)	18	RC	A (LC)
	41. Great cormorant	<i>Phalacrocorax carbo</i> (Linnaeus, 1758)	12	RC	A (LC)
9. Ciconiiformes					
21. Ciconiidae	42. Painted stork	<i>Mycteria leucocephala</i> (Pennant, 1769)	12	MC	C (LC)
	43. Asian woolly-necked stork	<i>Ciconia episcopus</i> (Boddaert, 1783)	2	WMr	O (NT)

10. Galliformes					
22. Phasianidae	44. Grey francolin	<i>Ortygornis pondicerianus</i> (Gmelin, JF, 1789)	5	WMc	R (LC)
11. Coraciiformes					
23. Coraciidae	45. Indian roller	<i>Coracias benghalensis</i> (Linnaeus, 1758)	26	RM	C (LC)

Abbreviation in Habitat Status R= Resident, RC= Resident Common, RMc = Residential Migrant Common, RU = Resident Uncommon, WMu = Winter Migrant Uncommon, WM = Winter Migrant, M = Migrant, MU = Migrant Uncommon, WMr = Winter Migrant Rare, RCr = Resident Common Rare, Rr = Resident Rare, WMc = Winter Migrant Common.

Abbreviation in ACOR are A = Abundant, C = Common, O=Occasional, R = Rare

Abbreviation for IUCN Status are LC= Least Concern, NT = Nearly Threatened, T = Threatened, VU = Vulnerable, EN = Endangered, CR = Critically Endangered.

Discussion -

In an around Bhategaon dam and its tributaries habitats are favorable for the attraction for migratory birds also helpful for growth and development of birds. The Avian fauna of dam is richest that is total 45 Birds species belonging to 23 families and 11 order in listed with their categorization. Chavan S.P. in all 2015 also reported with ACOR categorization and IUCN status of birds from Godavari river Basin Nanded total 160 species of birds belonging to 53 family and 15 orders reported from the Godavari river basin in Nanded district. Eurasian spoon bill stork , Red Naped Ibis, spot billed duck are monsoon breeding migrant recorded newly in the study area the reach diversity of study site indicates that Bhategaon dam is a healthy habitats for aquatic Birds, hence needed to be conserved.

Conclusion -

Painted stork and River lapping are regarded as a nearly threat and spaces by IUCN red data list in view of our rich diversity of Aquatic in Bhategaon Dam is valuable habitats for aquatic Birds so it's need to be conserve to this Dam for attracting migratory birds to avail nesting places is indicate that the dam is healthy Habitat for aquatic Birds. Therefore it would be site for birds watching.

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Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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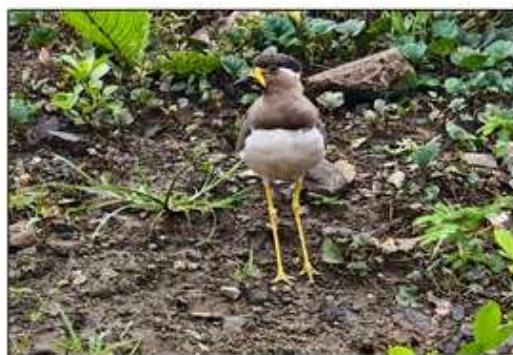
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Eurasian spoonbill



Cattle egret



Yellow-wattled lapwing



Indian roller



Green bee-eater



Little egret



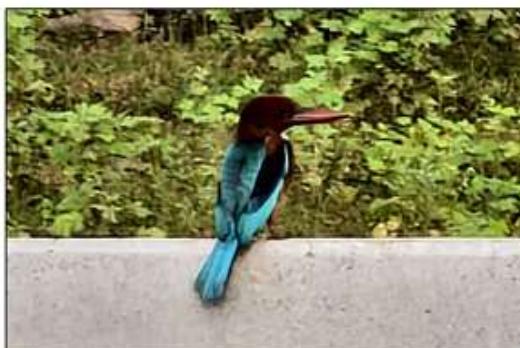
Grey heron



White-browed wagtail



Red-naped ibis



White-throated kingfisher



Great cormorant



Indian spot-billed duck



Purple swamphen



Painted stork



Wire-tailed swallow



Indian pond heron