



STUDY OF AVIFAUNA OF KUMBHAR-KINI DAM IN YAVATMAL DISTRICT, MAHARASHTRA STATE, INDIA

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ABSTRACT:

The avifaunal diversity of Kumbhar-kini Dam was studied from February 2018 to January 2019 by total count method. The Kumbhar-kini Dam is located in Yavatmal district having food availability and great vegetation in surrounding area that harbors a variety of birds. Total fifty nine species of birds were recorded belonging to different 29 families during the study period. Out of fifty nine species, 39 species were residents, 09 species were migratory and 11 species were resident migrants. The maximum population of bird species was recorded during the winter season followed by summer season and less in monsoon season. Out of fifty nine species 29 species were very common, 12 species were common, 09 species were uncommon, 07 species were occasional and 02 species were rare for this site.

Keywords :- Avifauna, Kumbhar Kini Dam, Yavatmal.

INTRODUCTION :

Birds are commonly utilized as indicators of ecosystem integrity. The recent studies assess freshwater biodiversity as the most threatened of all types of diversity and wetlands are found to be the richest sites by holding major share of the existing avifauna (Anon, 2000). Wetlands may be seen as natural ecological islands of freshwater habitats surrounded by terrestrial habitats. Wetlands provide food for birds in the form of plants, vertebrates, and invertebrates (Jaikrishna, 2008; Lameed, 2011).

Birds may be influenced by biogeography (Karr, 1976). Wetland are important conservation site due to rich biodiversity, they are among the most productive ecosystem in the world. They harbor many globally threatened species (Casados and Montes 1995; Green, 1996; Petric, 1998). Diverse wetland complex are of greatest value in providing habitat for wetland bird species (Miller, 2003). The avifauna is important for the ecosystem as they play various roles as scavenger, pollinators and predators of insect pest (Padmavat, *et al.*, 2010).

MATERIALS AND METHODS :

STUDY AREA :

Kumbhar-kini dam is located between 20° 18' N AND 77° 40' E. Dam was constructed as part of irrigation projects by Government of Maharashtra in the year 1976. It is built on and impounds a local nallah, nearest city to dam is Darwha in Yavatmal District of Maharashtra. The observation was carried out in three distinct seasons; summer (Mar-June), monsoon (July-October) and winter (November-February); Average temperature varies from 40° C during summer to 09°C during winter. Annual rainfall ranges from 500-600 mm.

METHODOLOGY :

The Study was carried out February 2018 to January 2019 to examine the avifauna from the Kumbhar kini Dam near Darwha. The survey of the birds was carried out at early morning and evening hours by using field binocular during the day time depending on the light conditions. The observation of the birds was done by randomized walking with a slow pace (about 1-1.5 km/hr) along the bank of the site. Monthly

visits to the site were made for the observation of the birds during the study period. After detection, specimen was photographed by the camera and identified with the help of keys and methods suggested by Ali (2002).

The scientific name and common names were ascertained as per the book by Grimmer *et al*; (2011). The residential local status of the bird species was categorized on the basis of the observation as [R- Residents, RM- Resident Migrants and M – Migrant]. The data recorded in each survey was analysed for assessing the abundance status of the bird species on the basis of the percent frequency (encounter rates) of sightings as the technique developed by followed by Puri and Virani (2016) as [Rr –Rare (<5%), O – Occasional (5-24%), Uc- Uncommon (25-49%), C – Common (50-74%), Vc – Very Common (75-100%).

RESULT AND DISCUSSION :

Total fifty nine species of birds were recorded belonging to different 29 families during the study period. Out of fifty nine species, 39 species were resident, 09 were migratory and 11 species were resident migrants. The maximum population of bird species was recorded during the winter season followed by summer season and less in monsoon season. Out of fifty nine species, 29 Species were very common, 12 species were common, 09 were uncommon, 07 species were occasional and 02 species were rare for this site.

Anatidae was the dominant family with 08 species and followed by the family Ardeidae with 05 species. Further investigation reveals that the family Podicipedidae, Phalacrocoracidae, Recurvirostridae, Coraciidae, Meropidae, Upipidae, Picidae, Pittidae, Dicruridae, Pycnonotidae, Sylviidae, Timalidae, Zosteropidae, Sturnidae, Nectarinidae and Ploceidae with (01 species each) were less dominant families in the study area.

The avifaunal diversity was studied by different authors from Maharashtra state such as Chichkhede and Kedar (2013) recorded 126 species from Navegaon national park from Gondia district, Joshi (2015) reported 27 species from Zaliya lake in Gondia district, Joshi (2016) reported 105 birds species from Umerda range in Yavatmal district, Puri and Virani (2016) reported 90 birds species from Chorkhamara lake in Gondia district.

Avifaunal diversity of the Kumbhar-kini Dam confirms that the site is suitable habitat for the birds. But the anthropogenic activities like washing, direct bathing, fishing practices, cattle grazing affect the diversity of the birds in study area. Keeping in view the threats to the avifauna recorded from the study area. The steps should be taken to do proper maintenance and conservation of the site.

Family	Sr No	Scientific Name	Common Name	Residing Status	Abundance Status
1)Anatidae	1.	<i>Dendrocygnajavanica</i>	Lesser Whistling duck	RM	Uc
	2.	<i>Tadornaferruginea</i>	Ruddy Shelduck	M	Uc
	3.	<i>Nettapuscoromandelianus</i>	Cotton Pygmy goose	R	C
	4.	<i>Anasstrepera</i>	Gadwall	M	O
	5.	<i>Anaspenelope</i>	Eurasian Pigeon	M	Rr

	6.	<i>Anaspoecilorhyncha</i>	Western Spot billed Duck	RM	Uc
	7.	<i>Anasacuta</i>	Northern Pintail	M	Uc
	8.	<i>Nettarufina</i>	Red-crested Pochard	M	O
2)Podicipediae	9.	<i>Tachybatus ruficollis</i>	Little grabe	R	C
3)Ciconiidae	10.	<i>Myeteria leucocephala</i>	Painted Stork	M	O
	11.	<i>Anastomus oscitans</i>	Asin Openbill	RM	C
4)Threskiornithida	12.	<i>Threskiornismelanocephalus</i>	Black-headed Ibis	M	C
	13.	<i>Pseudibispapillosa</i>	Red-naped Ibis	RM	Uc
5)Ardeidae	14.	<i>Ardeolagraysii</i>	Indian Pond Heron	R	Vc
	15.	<i>Bubulcus ibis</i>	Cattle Egret	R	Vc
	16.	<i>Casmerodiusalbus</i>	Cattle Egret	R	Vc
	17.	<i>Mesophoyxintermedia</i>	Intermediate Egret	RM	Uc
	18.	<i>Egrettazarzetta</i>	Little Egret	R	Vc
6)Phalacrocoracidae	19.	<i>Phalacrocoraxniger</i>	Little Carmonant	R	Vc
7)Recurvirostridae	20.	<i>Himantopusshimantopus</i>	Black-winged stilt	RM	Uc
8)Charadriidae	21.	<i>Vanellusduvaucelii</i>	River Lapwing	R	Vc
	22.	<i>Vanellusindicus</i>	Red- wattled Lapwing	R	Vc
	23.	<i>Charadriusdubius</i>	Little Ringed Plover	R	Vc
9)Scolopacidae	24.	<i>Gallinagogallinago</i>	Common Snipe	M	Rr
	25.	<i>Tringastagnatilis</i>	Marsh Sandpiper	RM	Uc
	26.	<i>Tringaglareola</i>	Wood Sandpiper	RM	O
10)Columbidae	27.	<i>Streptopeliadecaocta</i>	Erassian Collared Dove	R	Vc
	28.	<i>Stigmatopeliseneagalensis</i>	Spotted Dove	R	Vc
	29.	<i>Stigmatopeliaseneagalensis</i>	Laughing Dove	R	Vc
	30.	<i>Treronphoenicopterus</i>	Yellow footed Green pigeon	R	Vc
11)Psittacidae	31.	<i>Psittaculakrameri</i>	Rose-ringed Parakeet	R	Vc
	32.	<i>Psittaculacyanocephala</i>	Plum-headed Parakeet	R	C

12)Cuculidae	33.	<i>Cuculusvarius</i>	Common hawk Cuckoo	R	C
	34.	<i>Eudynamysscolopaceus</i>	Asian Koel	R	C
	35.	<i>Centropussinensis</i>	Greater Coucal	R	Vc
13)Coraciidae	36.	<i>Coraciasbenghalensis</i>	Indian Roller	R	Vc
14)Alcedinidae	37.	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	R	Vc
	38.	<i>Alcedoatthis</i>	Common Kingfisher	R	Vc
	39.	<i>Cerylerudis</i>	Pied Kingfisher	R	Vc
15)Meropidae	40.	<i>Meropsorientalis</i>	Little Green Bee- eater	R	Vc
16)Upupidae	41.	<i>Upupaepops</i>	Common Hoopoe	R	C
17)Picidae	42.	<i>Dinopiumbenghalense</i>	Black rumped Flame back	R	Vc
18)Pittidae	43.	<i>Pitta brachyura</i>	Indian Pitta	RM	O
19)Dicruridae	44.	<i>Dicrurusmacrocerus</i>	Black Drongo	R	Vc
20)Corvidae	45.	<i>Dendrocittavagabunda</i>	Rufous Treepie	R	Vc
	46.	<i>Corvusculminatus</i>	Indian Jungle Crow	RM	C
	47.	<i>Corvussplendens</i>	House Crow	R	Vc
21)Pycnonotidae	48.	<i>Pycnonotuscafer</i>	Red-vented Bulbul	R	Vc
22)Sylviidae	49.	<i>Osthotomussutorius</i>	Common Tailarbird	R	Vc
23)Timaliidae	50.	<i>Turdoidesstriata</i>	Jungle Babbler	R	Vc
24)Zosteropidae	51.	<i>Zostreopsalpebrosus</i>	Oriental White- eye	R	Vc
25)Sturnidae	52.	<i>Acridothererstristis</i>	Common myna	R	Vc
26)Muscicapidae	53.	<i>Copsychussaularis</i>	Oriental Magpie Robin	R	C
	54.	<i>Saxicoloidesfulicatus</i>	Indian Robin	R	C
27)Nectariniidae	55.	<i>Nectariniazeylonica</i>	Purple-rumped Sunbird	R	Uc
28)Ploceidae	56.	<i>Ploceusphilippinus</i>	Baya Weaver	R	C
29)Motacillidae	57.	<i>Motocillaflava</i>	Yellow Wagtail	M	O
	58.	<i>Motacillamaderaspatensis</i>	White-browed Wagtail	R	Vc
	59.	<i>Anthusrufulus</i>	Paddy-field pipit	R	Vc

CONCLUSION :

Present study illustrate that Yavatmal district with its varied habitats ranging from Dry deciduous forest to grassland, rivers to the large lakes and reservoirs, scrub land to the cultivated fields foster a very good and unique avifaunal diversity so more intensive survey and study will surely reveal many species of birds in this area. It was just a baseline study but we think that it will be helpful for detail study of avifauna of this district.

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