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Avifaunal diversity of Sakhare Dam of Dahanu Taluka, Palghar, Maharastra

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ABSTRACT

The Sakhare dam is located at the Vangaon-Kasa highway about 8 km away from Vangaon railway station of Dahanu Taluka. It is very good site for the water birds including the migratory ones. It also provides reach diet to birds. We have surveyed the avian fauna of this area in the past nature trails casually and rigorously from February 2016 to December 2016. We recorded total 33species of birds belonging to 10 Orders and 23 Families. The Families *Ardeidae and Accipitridae* were found dominant with five and three species respectivaly. *Passeriformes* is the dominating order in our observations which constituted 40% of total birds species. The Passeriformes was also found dominanting having 10 families. In this paper qualitative enumeration of avifauna is discussed.

KEYWORDS Avifaunal Diversity, Conservation, Sakhare dam, Dahanu.

Introduction

The sakhare dam is surrounded by deciduous forest and hillocks which are of tourist interest. In the neighborhood there are two adivashi padas namely Sakhare pada and Aine Pada located at the western and southeast side of the dam respectively. It is a good catchment area of rain water and west flowing rivers Tapi and Tadri (gov website). This dam is constructed in year 1968 and main purpose of this dam is irrigation but it is also providing drinking water to Boisar and Tarapur. It is eathern type of dam and maximum height is 17.37m with 3.42mcm water storage capacity. Since water is available throughout the year and the dam is isolated from the thickly human population of Dahanu city, it is the good abode for the residential and migratory birds. Anon (2000) opened that the freshwater biodiversity is 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. It is being suggested that the avifauna are important for the ecosystem as they play various roles as scavenger, pollinators and predators of insect pest,(Padmavati et al.2010). Surana *et al.* (2007) studied the birds of chimdi lake of Nepal; Singh et al.(1990) studied the ecology of birds of Kawar lake in Bihar. During the last few decades considerable studies on avifauna diversity from different freshwater bodies of India have been carried out by researchers like, Osmatston (1922), Ali (1932), Kannon (1980), Mujumdar (1984), Davidar (1985), Newton *et al.* (1986), Jhingram (1988), Ghosal (1995), Rathore and Sharma (1999), Kulkarni *et al.* (2005), Yardi *et al.*(2006), Kumar (2006) .

The primary purpose of this paper is to integrate the principles of ecology with the social and environment problems of society. Society still fails to understand her true position in the planet and knowledge of ecology has not yet taken hold to produce the kind of wisdom needed for our own survival. Therefore, there is need of hours for ecological knowledge to be greater than ever in this modern technological advance period. The present study is carried out to find out the avian diversity and to create the awareness for their conservation.

Study Area

This study was conducted in Sakhare dam, Dahanu taluka, of Palghar district which is situated between Geographic coordinates of Latitude: 19°90'76' N Longitude: 72°81'25' E. Fig. 1.a and b. Elevation above sea level: 15 m = 49 ft. It is a town and located about 134 kilometers north of Mumbai. Vangaon lies on the Western Line of the Mumbai Suburban Railway on the busy Mumbai- Ahmadabad rail corridor. In addition to this, Raitali lake, Surya river and other water bodies are also in the close proximity of the study area. Agriculture, fishing in this area is mainly dependent on monsoon rain.

Fig 1. a and b. View of Sakhare Dam of Dahanu Taluka, Palghar.

Material and method

The entire observations were conducted by rigorous field survey all around the dam in the vicinity. Observations were recorded by using Nikon Action 10x50 binocular and relevant photographs were taken from Canon 700 D. Birds were identified with the help of noting, standard methods given by Ali and Ripley (1969, 1995,1996), Grimmett et al. (1999), and Ali (2002) .

Result and Discussion

A total of 33 birds belong to 10 orders and 23 families were recorded in the past casual nature trails and rigorously from February 2016 to December 2026. (table 1). This is the first record of avian biodiversity of Sakhare Dam in Dahanu taluka of Palghar district Maharashtra state. Lake exhibits qualitative variation in avifauna.

Table 1: Scientific check list of Avifaunal diversity of Sakhare Dam, Dahanu Taluka, Palghar.

Order	**Family**	Scientific name	Common Name
Passeriformes	Motacillida	*Motacilla flava*	Yellow Wagtai
		Motacilla cinere	Grey Wagtail
	Hirundinidae	*Hirundo daurica*	Redrumped Swallows
	Dicruridae	*Dicrurus macrocecur*	Black Drongo
	Corvidae	*Corvus splendens*	House Crow
		Corvus macrorhynchos	Jungle Crow
	Ploceidae	*Passer domesticus indicus*	House Sparrow
	Muscicapidae	*Saxicolodies fulicatus*	Indian Robin
		Copsychus saularis	Magpie Robin
	Sturnidae	*Acridotheres tristis*	Common Myna
	Nectariniidae	*Nectarinia asiatica Latham*	Purple Sun Bird
	Pycnonotidae	*Pycnonotus cafer*	Red Vented Bulbul
	Laniidae	*Lanius schach*	Rufousbacked Shrike
Ciconiiformes	Ardeidae	*Egretta garzetta*	Little Egrets
		Mesophoyx intermedia	Median Egret
		Bubulcus ibis	Cattle Egrete
		Ardeola grayii	Pond Heron
		Ardae purpurea	Purple Heron
	Phalacrocoracidae	*Phalacrocorax niger*	Little Cormorant
Apodiformes	Apodidae	*Cypsiurus parvus*	Palm Swift
Cuculiformes	Cuculidae	*Centropus sinensis*	Coucal
Falconiformes	Accipitridae	*Gyps bengalensis*	Indian Whitebacked Vulture
		Elanus caeruleus	Black Winged Kite
		Aquila species	Eagle ?
Coraciiformes	Alcedinidae	*Halcyon smyrnensis*	Whitebreasted Kingfisher
		Alcedo atthis	Small Blue Kingfisher
	Meropidae	*Merops orientalis latham*	Green Bee Eater
	Laridae	*Sternm aurantia*	Indian River Tern
Charadriiformes	Charadriidae	*Tringa hypoleucos*	Sand Piper
	Recurvirostridae	*Himantopus himantopus*	Indian Blackwinged Stilt
Gruiformes	Rallidae	*Fulica atra*	Coot
Anseriformes	Anatidae	*Nettapus coromandelianus*	Cotton Teal
Gaviiformes	Podicipedidae	*Tachybaptus ruficollis*	Little Grebe

The family *Ardeidae and Accipitridae* were found dominant with five and three species respectively indicating the wetlands moderately support shorebirds followed by Muscicapidae(2), Motacillida(2), Corvidae(2), Nectariniidae(2), Alcedinidae(2), Hirundinidae(1), Dicruridae(1), Ploceidae(1), Sturnidae(1), Pycnonotidae (1), Laniidae(1) Phalacrocoracidae(1), Apodidae(1), Cuculidae(1), Meropidae(1), Laridae(1), Charadriidae(1), Recurvirostridae(1), Rallidae(1), Anatidae(1) and Podicipedidae (1). (Fig. 2.)

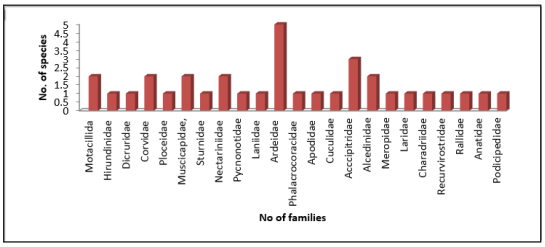

Fig. 2. The Family wise distribution of species of Sakhare Dam, Dahanu Taluka, Palghar.

On the basis of orders Passeriformes order (13 species) was maximum recorded which constituted about 40% and it was followed by orders Ciconiiformes (18%), Coraciformes (12 %), Falconiformes(9%),Charadriidae(6%),Apodiformes(3%),Cuculiformes(3%),Gruiformes(3%),Anseriformes (3%)and Gaviiformes (3%). (Fig.3).

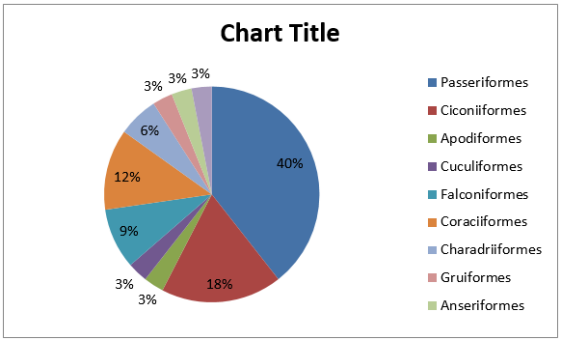

Fig.3.The Order wise % distribution of avian fauna at Sakhare dam.

The order Passeriformes was found dominant having 10 families followed by orders Coraciformes(3), Ciconiiformes(2), Charadriiformes(2),Apodiformes(1),Cuculiformes(1), Falconiformes(1), Gruiformes(1),Anseriformes (1) and Gaviiformes (1). Fig.4.

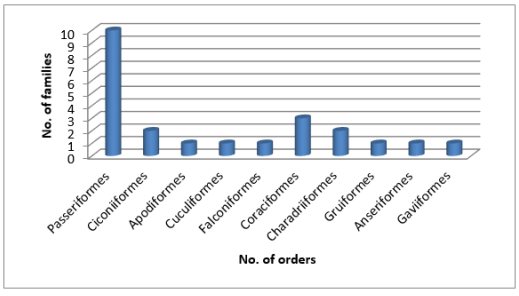

Fig. 4.The Order wise distribution of families at Sakhare dam.

Similar type of study was carried out by Singh *et al.* (2016) which they studied the avifauna of Devkhop lake of Palghar and enumerated 20 families. Singh *et al.* (2016), observed the beneficial aspect of garbage dump of Palghar in terms of avifauna and recorded 33 species of birds belonging to 21 families. Singh (2016) studied the avifauna of Waghoba forest of Palghar and recorded 77 species belonging to 31 families. Singh (2016- in

press) studied the avifauna of suburb of Mumbai, Palghar and recoded 67 species belong to 33 Families. Perennou (1990) also considered that water bodies of the Madhav National Park as one of the most important wetlands in India for sustaining the population of migratory birds. Chandra and Nema (2006) studied the avian fauna of Madhav National Park and prepared a checklist of birds, which includes 239 species of birds pertaining to 160 genera under 58 families.Vikas kumar (2015), where 99 birds species were recorded in Vansda National Park, Gujarat. Kurhade (1991) recorded 51 bird species in Ahmednagar district. Vyawahare (1991) listed 245 bird species in Dhule district of Maharashtra. Prashant *et al*. (1994) in their study of coastal area of Nellore district recorded 78 species of birds. Terdalkar *et al.* (2005) listed 45 species of birds belonging to 18 families around Bhatye estuary, Ratnagiri.

The present work is an attempt to establish the richness of the Sakhare Dam in respect of avifaunal diversity which are excellent indicators of ecological health. From the above results it could be made out that the availability of water, safe habitat and food sources for both common and migratory birds around the water bodies are important for the occurrence and abundance of avian population.

Conclusion:-

Around 33 species of birds belonging to 10 orders and 23 families were recorded in the study area which has its own importance. The proper and regular maintenance of Dahanu city water bodies would further increase the avian diversity / population and it increases the incessant bird lover's interest for this region. Further intensive study of Sakhare dam is required to develop this place from avian conservation and eco-tourist point of view.

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