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Conservation of avian diversity at Sikara dam near Mukhed dist. Nanded, MS., India

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ABSTRACT

The Sikara Dam is a oldest dam in Mukhed Taluka. The water storage when full fill of dam is 1.2660 m. The catchment area with nature. The water flow on the wall of dam near about 4 feet. The area of water spread iss 81 hector. The Dam is 15 km away from Mukhed. The Dam is used for the various purposes like drinking, washing of clothes, bathing of cattle's, fish cultures, agricultural aspects. In these Dam the fishes like *Catla-catla*, *Labeo rohita*, *Wallago attu*, etc. are present. The majority of birds are attracted towards these Dam for the purpose of their feeding. The birds are Grey heron, Cattle egret, Little egret, Lapwing, Small Blue Kingfisher, Spot billed duck etc.
So for no scientific data is available for on the avian fauna of these dam the present study is carry out from June 2015 to July 2017 for avian fauna of given spots .

Key words-Avian diversity, Ghogri Dam

INTRODUCTION

The Siara Dam constructed minor irrigation project governed by Govt. of Maharashtra. The Dam is 15 km away from Mukhed. The dam consists of various aquatic animals and weeds are present in water bodies. The water spread of these Dam is 81 hector periphery boundaries and reservoir is having some Cyprus and other marginal weeds which also provide suitable sites for nesting sites of these birds. The Dam is used for the various purposes like drinking, washing of clothes, bathing of cattle's, fish cultures, agricultural aspects. In these Dam the fishes like *Catla-catla*, *Labeo rohita*, *Wallago attu*, etc. are present. The majority of birds are attracted towards these Dam for the purpose of their feeding. The birds are Grey heron, Cattle egret, Little egret, Lapwing, Small Blue Kingfisher, Spot billed duck etc. Birds, since their evolution nearly 150 Million years ago, have diversified into various forms. They are unique among the vertebrates with the exception of bats, for their ability to fly, an ability which allowed birds to move long distances, and as a result they colonized while globe, from the Arctic to Antarctica, from the deserts to Himalayas.

Today, more than 9,600 species of birds occur all over the world of these 2,100 species and subspecies occur in the Indian subcontinent. India alone has 1200 species (Ali and Ripley 1996) with the new classification coming in to force, the number of species may will be 1300 containing about 13% of the world's birds (Ghazalal Shahabuddin et.al. 2004).

Studies bird's forest & conservation in Rajasthan, Islam et.al. (2004) Studies in important bird area in India, (Sankar et.al. 1993) Studies birds of Sariska Tiger reserve Rajasthan, (S. Subramanya et. al. 2004) Studied Puttanahalli tank Banglore. He found 126 bird species belonging to 50 birds' families, (Rajeevan et.al. 2004) Studied grey heron breeding in Kerela, (Ali Salim 1969) Studied birds of Kerela. (**Adelson** et.al. 2004) Sighting of thick-billed Wrabler near Panchagani Maharashtra, (Ahmed 1997), Studied live bird trade in Northern India, Studied some green avadavat in Indian birds trade, (Butler 1975-77) Study on avifauna of Mount Aboo and Northern Gujarat, (RFS 2003) studied Rajasthan forest statistics Govt. of Rajasthan, (Sharma 2002) Studied preliminary biodiversity of survey of protected areas of southern Rajasthan.

METHODOLIGY

The present study avian diversity identified at the spots as per guidelines given by (Ali and Ripley (1996), Ali (2002), Chitampelli (2002)) by using binoculars 7x and 8x Magnification.The present study is based on observation made June 2009 to July 2011, regular visits for the survey and identification of birds monthly visits were done in morning (7am-10am) and evening (4 to 5-30pm) hours.

RESULT AND DISCUSSION

The observed birds are listed on the basis of their common name, scientific name, total count, nature of abundances and migratory behavior.

The Sikara Dam total 56 birds are identified out of them 20 Residential Common (RC), 17 Residential Uncommon (RU), 04 Residential rare (Rr), 02 Residential Migrant common (RMc), 01 Residential Migrant (RM), 03 Residential Migrant Rare (RMr), 01 Mirant Uncommon (MU), 02 Migrant Rare (Mr), 02 Winter Migrant common (WMc), 04 Winter Migrant uncommon (WMu).

Bird species showed less diversification in their external structures but most of the species were with clear cut diversity in their size, sound and coloration. During study period it was observed that although some birds such as Centropus sinesis perfectly able to fly but spent most of their time walking or running on ground. The majority of birds lived in and around shrub and trees. Viz. Fasseriformes, Piciformes, Columbiformes and Psittaciformes.

Birds live in different habitats have varied social structure and also show behavioral responses. Birds may live in open areas like grasslands or agricultural system and easy to see. Conversely they may inhabit dense vegetation, which obstruct a straightforward view. Some birds may be gregarious and may live in flocks of thousands, where as other may be solitary or in pairs. Behavior too may vary, with certain species being very bold while others are very shy and sulking.

The species feed on fishes therefore affecting reservoir fishery. They are also carries pathogens (Lagler (1978), Jhingran (1988)) and there it is necessary to reduce their population. These can be done by eradicating aquatic weeds and clearing the periphery margins of reservoirs. K.B. Patel (2011) observed 39 species of birds from Patan district also find out taluka wise population status. The results indicated that 5 to 10 species of birds were found very common in most of the taluka. These were Cattle egret, Blue Rock Pigeon, Rose-ringed Parakeet, Green Bee eater, Babbler, House sparrow.

Present research work focused on the qualitative and quantitative aspects of avian diversity that can be used to understand and help in prioritization of areas for conservation. In order to conserve local bird population structure and status of bird is essential.
The check list of the birds of the local area with their status was worked by reliable methods used in bird census determination. Therefore exact estimation total population of each avian species was determined in abundance status. During study period there is no observed globally threatened species or nearly threatened species of birds.

Conservation and suggestion

The following action plan is proposed for the conservation of birds of Sikara dam. The area is required to be stopped appropriately to check the illegal hunting

to prevent further population loss of birds. We have to strengthen enforcement of existing restrictions on the hunting of migratory birds.

Anthropogenic factors are the root causes for wetland degradation and habitat destruction of water birds. Therefore, conservation education and awareness programs are essential for local farmers, students and fishing community to the pond.

Studies on vegetation have revealed that intensive biomass extraction (mainly through grazing and fuel wood collection) is leading to changes in vegetation structure and composition of the forest. These changes in forest structure are leading to changes in bird species composition.

Corporation (GMIDC) has been launched by the Government of Maharashtra. This may be beneficial to the farmers and birds, but the existing grassland avifauna is under great threat. The area still provides some potential habitats for the declining population of the threatened birds. It is the need of the hour to monitor these areas systematically in the rapidly changing environment with a focused study on status, distribution and conservation of the avifauna of the region. This can be achieved only through strengthening public participation in the study of status, distribution and conservation of birds of Marathwada region, Maharashtra.

Agricultural areas in India probably experience the most heavy and indiscriminate use of pesticides leading to direct and indirect mortality of predatory and frugivorous birds.

Despite the above studies, the state of our knowledge on bird control is preliminary. In fact, this area is still developing even in the developed countries and there is a lot of scope for innovative work.

Nature awareness programs regarding birds, mangrove forests and importance of wetland ecosystem for daily sustenance of life to be given to the local people for the conservation of this avian diversity.

In-depth studies on the avifauna, especially endangered birds, should be undertaken. Hence urgent conservation measures have to be implemented and a protected area has to be evolved for preserving the remaining tract of mangroves and faunal heritage of this unique region. Local people should be made aware of the importance of wetlands, waterfowl and other common birds. Without the involvement of common people of this region conservation of the wetlands will not be successful.

As grasslands are pre-climax they are maintained by annual burning, grazing and floods. Grasslands are managed by the annual prescribed burning at the beginning of the dry season and this is the most important and crucial management activity. However, burning may be harmful to grassland birds, especially if it is carried out too frequently or too intensively.

Measurement of water chemistry should be done on a regular basis to allow long-term monitoring of changes in nutrient levels and other parameters.

Thus the site is an ideal place for conservation of endemic and globally threatened birds and also to a large number of important flora and fauna. Due to the increase in human population the forest is presently facing disturbance in the edges which will increase in due course of time if proper conservation measures are not taken up immediately. Conservation awareness programs among the local people is required to sensitize the people about the sustainable use of the forest resources to conserve it for future generations.

This suggests that the providing natural habitat, availability of food, water, climatic conditions and surrounding vegetation are favorable for avian fauna.

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