



AVIFAUNAL DIVERSITY FROM VASANT SAGAR. TQ . PUSAD. DIST. YAVATAMAL MAHARASHTRA

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ABSTRACTS:

The avifaunal diversity of Vasant Sagar Was studied for a period of six months from June 2020 To Dec. 2020. Reservoir, harbors' several local and migratory bird species. Siltation, pollution, and reduction in water retention in this reservoir in summer are the major threats to the avifauna. More than 34 species of migratory birds were observed. This project comes under watershed area of Pus project, which is in Godavari Valley on 20°1'41"N and 77°27'4" E. it is also known as "Pus Dharan". This Project was constructed as part of irrigation by the Government of Maharashtra in the year 1971. The dam impounds on Pus River. The Nearest city to dam is Pusad and it is situated in Yavatmal District of Maharashtra. Length of the dam is 744 m (2441.0 Feet). While the height is 42 m (137.8 Feet). Spillway length is 261 m (856.2 feet). Catchment area of dam is 59.6 Thousand hectares. Gross storage capacity of dam is 113.92 MCM. Live storage capacity is 91.26 MCM. This Dam is also popular for Tourist attraction by its scenic beauty

Key word: The avifaunal diversity of Vasant Sagar Tq. Pusad. Dist. Yavatamal

Introduction:

In India, the water resources are under great stress from a plethora of human activities. Though the need for increased agricultural production, increased resource utilization, very little is known about the quality of water resources and impact of these activities thereupon. Water from this reservoir is being used for drinking purpose and fishery activities. On the other hand, due to increasing human and animal activities in it, the water is becoming polluted. Hence, the basic information and data on the aquatic ecosystem thought to be worked out in order to evolve effective and appropriate strategies for the management of the reservoir. The study of the reservoir in respect to Avifaunal availability is not worked out earlier. Similarly, no studies are carried out on the water quality of the lake and therefore, it was thought to study Avifauna in different parts of the reservoir, so that it would help in future planning for the reclamation of such reservoir and its utilization for intensive fish culture. India has a large number of seasonal and perennial fresh water bodies located in rural as well as urban areas of different part of country. These places are the suitable area for the migratory birds for the specific period, season of the year. The migratory birds of India and abroad have created much interest in the minds of several workers to study their ecological niche. Although, Ali Salim (1987) and some other workers have studied the phenomenon of migration of birds,

Similarly a little attention has been given to understand the ecological niche in relation to the migratory birds from this reservoir. Present research work is basically proposed with the aim to scientific utilization of this reservoir, for agricultural and fisheries apart from this, the water in this region will be studied for the first time from immunological point of view. Migratory birds visiting the reservoir were carefully observed during the period of this research project. The identifications of migratory birds were done by using the key & monographs of Ali Salim, (1987). The reservoir is oligotropic in nature having rich floral as well as faunal diversity.

MATERIALS AND METHODS

I used survey method, for study the avifaunal diversity of the reservoir, birds were observed while walking around the reservoir, with the help of binocular (10× 50) and capture by camera and identified up to species level using physical features with the aid of guides and reference books, Ali (1996) and Grimmett et al. (2000). The species of the birds encountered during each visit were enlisted. The observation was made in week during research period

RESULTS AND DISCUSSION

During the study span, More than 34 species of migratory birds were observed, out of which 14 species were found to be migratory birds in true sense and remaining 20 species were also from the category of migratory birds but they were found to have become (Residential, winter migrant, resident migrant, passage migrant). Birds namely Common Moorhen, Purple Moorhen and white breasted Moorhen were also seen during study period, these birds are included by Wadatkar and Kasambe (2002) in check list of Pohara-Malkhed Reservoir Forest. Abundance of these birds in lake may be an indicator of decreased floating, emergent hydrophytes and decreased weed infestation. In the morning, most of the water birds swam about in small flocks, all over the pond. While they fed, there seemed to be a pattern of aggregation. Red Crested Pochard, Cotton Teal, Northern Shoveller were found to be concentrated at northern end of the reservoir, which is less disturb part of reservoir and having deep water than northern side. Congregation of water birds on this reservoir is due to abundance of food such as microphytes, macrophytes, benthic organisms, free swimming organisms, etc. and accessibility to food resources due to shallowness of reservoir as well as availability of exposed banks of roosting. .

Vegetation is important for water birds for producing seeds, tuber and browse providing nest sites and serving as substrate for animal food. The reservoir is under threat due to siltation, pollution and indiscriminate development of aquaculture. The combined threat of these factors has given rise to problems such as decrease in biological diversity, deterioration of water quality, sedimentation and shrinkage in area. It has led to decrease in migratory bird population and fish faunal productivity. Chaudhari et al.(2001).

This reservoir is fastly receding and become shallow due to heavy sedimentation. It was also pointed out that low Sodium and Potassium content and reduction of photiczone due to high turbidity resulted in low phytoplankton in the reservoir. Thus the reservoir is Oligotrophic in nature. Intensive fishing in this reservoir exerts an unsustainable pressure on the fish population which adversely affecting the birds, which feed on them. Hunting is also a major problem to the birds of this reservoir. Birds are often trapped and consumed by local peoples.

This reservoir was found to have a rich bird fauna including the migratory birds. The record of migratory birds was prepared from June 2020 To Dec. 2020. More than 34 species of migratory birds were observed, out of which 14 species were found to be migratory birds in true sense and remaining 20 species were also from the category of migratory birds but they were found to have become residential.

Among the 14 prominent migratory birds, 5 species were uncommon visitors, 6 species were common visitors and 3 species were happening to be the occasional migratory birds enlisted in Table.

It gives the list of birds, which became secondarily residential after getting migrated here. The observed birds were from 3 categories with respect to their food habitat. (1) Water Birds- feeding on small fishes and zooplankton (2) Mud dweller- feeding on worms and larvae (3) Shore line- feeding on grasses, shrubs and on small trees on shore line of the reservoir. Similarly 14 birds were found to winter visitors and one bird was rainy season visitors.

Most of the birds enlisted in Table. Were mostly found at and around the sampling stations III, IV of the reservoir. Very few birds were seen at and around station I,

During the period of investigation Pied Crested Cuckoo were observed at the reservoir during June to September every year. The females of these birds were found to lay eggs in the nest of babbler.

TABLE -MIGRATORY AVIAN FAUNA RECORDED FROM VASANT SAGAR

Sr. No.	Zoological Name	Common Name
1.	Coracina, malanoptera	<i>Black headed cuckoo</i>
2.	Coracina, novacholland	<i>Large cuckoo shrike</i>
3.	Strunus roseus	<i>Rosy pastor</i>
4.	Apus pacificus	<i>Large white rumpeds</i>
5.	Curulus varius	<i>Common hawk</i>
6.	Sterna bergii	<i>Large crested tern</i>
7.	Limosa limosa	<i>Black tailed godwit</i>
8.	Anas querquedula	<i>Garganey</i>
9.	Clamator jacobious	<i>Pied crested cuckoo</i>
10.	Bubuleus ibis	<i>Cattle egret</i>
11.	Egretta garzetta	<i>Little egret</i>
12.	Podiceps ruficollis	<i>Little grebe</i>
13.	Netta ruffina	<i>Red crested pochard</i>
14.	Amaurornis phoenicur	<i>White breasted water</i>

TABLE-RESIDENTIAL AVIAN FAUNA RECORDED FROM VASANT SAGAR

Sr. No.	Zoological Name	Common Name
1.	<i>Ardea cinerea</i>	<i>Grey heron</i>
2.	<i>Ardeola grayii</i>	<i>Pond heron</i>
3.	<i>Anas crecca</i>	<i>Common teal</i>
4.	<i>Anthus trivialis</i>	<i>Tree pipit</i>
5.	<i>Aythya Ferina</i>	<i>Common pochard</i>
6.	<i>Anthus hodgsoni</i>	<i>Indian pipit</i>
7.	<i>Ceryle rudis</i>	<i>Pied kingfisher</i>
8.	<i>Egretta alba</i>	<i>Large egret</i>
9.	<i>Gallinula chleropus</i>	<i>Indian morhen</i>
10.	<i>Halcyon smymerosis</i>	<i>Whiter breasted kingfisher</i>
11.	<i>Hirundo rustica</i>	<i>Common swallow</i>
12.	<i>Motacilla caspica</i>	<i>Grey wagtail</i>
13.	<i>Motacilla alba</i>	<i>White wagtail</i>
14.	<i>Motacilla maderaspatensis</i>	<i>Large pied wagtail</i>
15.	<i>Pseudibis papillosa</i>	<i>Black ibis</i>
16.	<i>Sarkidiornis melanotos</i>	<i>Nakta or comb duck</i>
17.	<i>Strunus contra</i>	<i>Pied myna</i>
18.	<i>Sterna hirundo</i>	<i>Common tern</i>
19.	<i>Threskiornis aethiopia</i>	<i>White ibis</i>
20.	<i>Tadorna ferruginea</i>	<i>Brahminy duck</i>

Conclusion-

The study proved that present ecological characteristics of the reservoir made the bird unable to inhabit the lake through the year. Siltation pollution and shrinkage are the major threats to the avifauna. The birds present in or near the reservoir are also affected by factors such as disturbance by human activities and lack of maintenance. Hence it is required to restore the original ecological features of this reservoir and full protection to existing habitat should be given with special attention in migratory period.

SOME PHOTOGRAPHS OF AVIAN FAUNA CAPTURE BY CAMERA AROUND THE RESERVOIR



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