

Study of Diversity of Birds in and around Saikheda Dam of Yavatmal District, MS, India

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Abstract

Central India is the biodiversity rich part of the world, it is home of number of species of the birds. It provides very good habitat for winter visitor guests. Saikheda Dam near Pandharkawada is surrounded by agricultural lands with adjacent forestlands. In this area the biodiversity study was done and 17 species of birds of 16 families of 17 genera were recorded. It is observed that out of these 17 species 16 are least concern and 1 is near threatened species

Keywords: Birds, Saikheda dam, Avian diversity, Pandharkawada

Introduction

Birds are excellent model organisms for understanding key issues in ecology, animal behavior, evolutionary biology and conservation [1]. The total number of bird species known to science as inhabiting the earth has been estimated as about 8,600 [2] and today's current of bird species is 9,998 [3]. Out of these, the Indian subcontinent contain about 1,300 species of birds which contributes 13% of the world's avian diversity [4] and as per report of Wikipedia there are 1,314 species of birds recorded in India [5].

Migration in birds is essential for breeding, feeding and nesting in birds, it is also important to avoid cold winter of the ice covered parts of the world. In winter from November onward migratory birds start visiting ponds, lakes, rivers and dams of the central India. Central India is the biodiversity rich part of the world, it is home of number of species of the

birds of varieties of colours, shapes and sizes, besides it provides very good habitat for winter visitor guests. These birds visiting every year and are very important to maintain dynamics of the prey predator system of the water reservoirs. But increasing anthropogenic activities, increasing load of irrigation and irregular raining results in to the shrinkage of these wetlands and hence it is necessary to keep watch on local resident and migratory birds of these important habitats and monitor them for the sustainable wetland management. Uttangi [5] has studied the conservation and management of minor irrigation tanks for the waterfowls and their importance as stopover sites in Dharwad district. Shanbhag *et al.*, [6] reported the impact of Konkan Railway Project on the avifauna of Carambolim lake in Goa. Inac *et al.*, [7] studied the bird species of Kumasir lake, Turkey and the role of environmental ethics on wet land management.

Study area

Saikheda Dam, is an earthfill dam on Khuni river near Pandharkawada, Yavatmal district in state of Maharashtra in India and located at 20°06'46"N latitude

and 78°28'31"E longitude. Mainly used for irrigation purposes it is too shallow towards its periphery resulting in production of muddy marshes towards the margin. It is surrounded by agricultural lands with adjacent forestlands. No aquatic weeds and lilies are found in submerging area of the dam

Materials and Methods

Diversity and density of Birds were recorded by weekly visit for one year to Saikheda dam and an average of 4 weeks was accounted for a month. This dam was demarcated into 2 sites, one is in east and other is in west for getting proper light for observation in morning and evening hours. Waterfowl population was enumerated by point count and direct counting methods[8]. Binoculars and cameras were used for bird watching and to photograph them. Waterfowl population was observed and documented every week in the morning and evening hours. The relative abundance of birds was estimated and their monthly fluctuation was recorded and is classified on the basis of "The Book of Indian birds" [9].



Figure 1: Satellite image of Saikheda dam

Results

In this study 17 species of birds of 16 families of 17 genera were recorded. It is observed that out of these 17 species 16 are least concern and 1 is near threatened belongs to the family *threskiornithidae*. 2 species belongs to the family *anatidae* namely *Anas poecilorhyncha* and *Anser indicus*. A comparative account on the richness of avian fauna is presented in Table. Although in and around Saikheda dam maintain the habitat for high diversity of resident and migratory birds in Yavatmal district. In particular we found very few understory insectivorous. Many are forager. We observed evidence for shift in bird community structure moving from dry to wet seasons and vice versa. These varieties of birds visit and some permanently dwells in and around might

be due to no anthropological disturbance and presence of ample amount of food the checklist of birds is as follows.

Discussion

In the fitness of the present investigation it is worthwhile to site related literature. considerable amount of work has been done by various workers related to avian diversity. Joshi et al. [10] studied the avian diversity of Tawa reservoir and its surrounding areas at Hoshangabaad district for a period of two years during January 2009 to December 2010. This area inhabits many residential and migratory bird species. this habitat attracted 74 bird species belonging to 33 families and 14 orders.

Table 1: Check list of Birds

Sr. No.	Family	Scientific name	Common name	Status
1	Bucerotidae	<i>Ocyrceros birostris</i>	Indian grey hornbill	Least concern
2	Halcyonidae	<i>Halcyon smyrnensis</i>	Indian kingfisher	Least concern
3	Phalacrocoracidae	<i>Microcarbo niger</i>	Little cormorant	Least concern
4	Columbidae	<i>Treron phoenicoptera</i>	Yellow-footed green pigeon	Least Concern
5	Accipitridae	<i>Accipiter badius</i>	Shikra	Least Concern
6	Threskiornithidae	<i>Pseudibis papillosa</i>	Indian black ibis	Least Concern
7	Glareolidae	<i>Glareola lactea</i>	Small pratincole	Least Concern
8	Jacaniidae	<i>Metopidius indicus</i>	Bronze-winged jacana	Least Concern
9	Threskiornithidae	<i>Threskiornis melanocephalus</i>	Oriental white Ibis	Near Threatened
10	Anatidae	<i>Anas poecilorhyncha</i>	Spot-billed duck	Least Concern
11	Columbidae	<i>Columba livia</i>	Indian Rock pigeon	Least Concern
12	Muscicapidae	<i>Cyornis tickelliae</i>	Tickell's blue flycatcher	Least Concern
13	Rallidae	<i>Amaurornis phoenicurus</i>	White-breasted waterhen	Least Concern
14	Turdidae	<i>Turdus chrysolaus</i>	Brown-headed thrush	Least Concern
15	Rostratulidae	<i>Rostratula benghalensis</i>	Painted-snipe	Least Concern
16	Accipitridae	<i>Butastur teesa</i>	White-eyed buzzard	Least Concern
17	Anatidae	<i>Anser indicus</i>	Bar-headed goose	Least Concern

The diversity of birds is especially important in endangered ecosystem because birds are good indicator species, and their presence could give conservation biologists and wildlife managers' clues about overall health of these systems

Michael et al. [11] studied and analyse the data from 57 published studies (covering 1214 bird species) that investigated the response of tropical bird assemblage to moderate forest disturbance (e.g. selective logging).

Robertson et al. [12] studied the temperate grassland biometrics will be a production hotspot for many candidate feedstock and investigate the relative importance of arthropod food availability, microhabitat structure, patch size and landscape-scale habitat structure and composition as a factors sharing avian richness.

The most critical threat facing the bird destruction and fragmentation of habitat. Fishing activities and illegal hunting by local people are also the major threat to avifauna.

Conclusion

Saikheda was found to be the good habitat for these migratory ducks, therefore it is necessary to draw some conservational management plans for these wetlands as IBA.

Conflicts of interest: The authors stated that no conflicts of interest.

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