Vol 2 Issue 10 April 2015

ISSN No :2231-5063

International Multidisciplinary Research Journal

Golden Research Thoughts

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RNI MAHMUL/2011/38595 **ISSN No.2231-5063**

Golden Research Thoughts Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial board.Readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

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Golden Research Thoughts ISSN 2231-5063 Impact Factor : 3.4052(UIF)
Volume-4 | Issue-10 | April-2015 Available online at www.aygrt.isrj.org

A PRELIMINARY OBSERVATIONS ON WATERBIRDS OF AKOLA DISTRICT (M.S.) INDIA

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Short Profile

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ABSTRACT:
Abundance of avifauna indicates the healthy status of Ecosystem. Observations were made on the occurrence, abundance, richness of avifauna in Akola district in the Indian state Maharashtra. Surveys were conducted during 15 October to 15 November (2014). During study total twenty-eight species of water birds of thirteen families were recorded. The occurrence, ecological status and food habit of different species of aquatic birds was recorded. The studies on aquatic avifauna of Survey district revealed abundance of twenty-eight species of water birds of thirteen families. From all the families, Podicipitidae (1 Species), Phalacrocorax (1 species), Ardeidae (5 species), Ciconiidae (3 species), Treskornithidae (1 species), Anatidae (1 species), Rallidae (3 species), Recurvirostridae (1 species), Charidriidae (2 species) Scolopacidae (3 species), Laridae (1 species), Acledinidae (2 species) and Motacillidae (3 species). It is expected that this study would provide a preliminary database for the aquatic avifauna of this area for the further research.

KEYWORDS
Avifauna, Abundance, Occurrence, Water birds.

INTRODUCTION

Nearly everyone enjoys birds: the beauty of their forms and coloring, the vivacity of their movement, the buoyancy of their flight and sweetness of their songs. Birds are often common denizens of the ecosystems and they have been considered as an indicator species of inhabited areas (Blair, 1999; Joshi, 2011). Population of birds is a sensitive indicator of pollution in both terrestrial and aquatic ecosystem (Gaston, 1975; Hardy et al, 1987). Wetlands are the most productive and biologically diverse in the world but very fragile ecosystems (Gibbs, 1993). Wetlands and waterbirds are inseparable elements and support a rich array of waterbird communities (Grimmett and Inskipp, 2007). Waterbirds are an important component of most of the wetland ecosystem as they occupy several trophic levels in the food web of wetland nutrient cycles. Activities of water birds are considered as indicator of quality of the wetland ecosystem and form the terminal links in many aquatic food chains, and as a result they reflect changes originating in several different ecosystem components (Custer and Osborne 1977). The various lakes and wetlands in any city serve as a balancing reservoir for sustaining native flora and fauna (Grimmett and Inskipp, 2007; Surana et al, 2007). The aquatic birds of the Akola District are the important bio-indicators of its ecosystems which should be protected to conserve the biodiversity and environment.

METHODOLOGY

The observations were done at different water bodies of Akola district (M.S.) India. Akola is a district of Indian state Maharashtra. It is a central part of Amravati division. It comprises of 7 tehsils covres total area is of 5431 sq.km. and Locating in between 20.700 N and 77.010 E with tropical climate. It is bounded on the north by Amravati district to the east by Washim district and west by Buldhana district. District is rich with various rivers and their tributaries and lakes. Surveys were conducted during 15 October to 15 November (2014). During study duration temperature was ranges between 35 to16°C. An efficient protocol has been adopted (Joshi 2011). Bird sampling was made by walking at a slow pace (about 1-1.5 km hr-1) along the bank of the Water bodies (as the aquatic birds are usually found around or in the lake) as followed by Gaston (1975) and Bibby et al. (2000). However, wherever necessary point count of birds was also made within the visible radius by stopping briefly for 2-3 min as followed by other workers (Froneman et al, 2001; Kaul and Howman, 1992; Urfi et al, 2005) and with help of binocular (Olympus 10x50). Identification, counting of the birds was made in the morning between 07:30 and 10:30 hr or in the afternoon between 15:00 and 18:00 hr, depending on the light conditions (Namgail et al, 2009). The observed birds were tentatively segregated into Common(C), Uncommon (UC), Rare(R) and Not Found (NF). The check list of species was prepared following Ali (2002), Manakadan and Pittie (2001) and Grimmett and Inskipp (2007).

RESULTS AND DISCUSSION

The studies on aquatic avifauna of Survey district revealed abundance of twenty-eight species of water birds of thirteen families (Table-1).As birds are highly mobile species of universe so it found equally distributed at all three lakes of Akola district. Of all the recorded families, Podicipitidae (1 Species), Phalacrocorax (1 species), Ardeidae (5 species), Ciconiidae (3 species), Treskornithidae (1 species), Anatidae (1 species), Rallidae (3 species), Recurvirostridae (1 species), Charidriidae (2 species) Scolopacidae (3 species), Laridae (1 species), Acledinidae (2 species) and Motacillidae (3 species) were recorded during 15 October to 15 November (2014).

Table 1: An annotated check list of Waterbirds of Akola district (M.S.), India					
Sr. No	**Scientific Name**	**Common Name**	**Status***	**Occurrence**	**Food Habit***
A	**Family: Podicipitidae**				
1.	*Tachybaptus ruficollis*	Little Grebe	R	C	O
B	**Family: Phalacrocoracidae**				
2.	*Phalacrocorax niger*	Little Cormorant	R	C	P
C	**Family : Ardeidae**				
3.	*Ardea cinerea*	Grey Heron	RM	UC	P
4.	*Ardeola grayii*	Indian Pond Heron	R	UC	P
5.	*Bubulcus ibis*	Cattle Egret	R	C	P
6.	*Mesophoyx intermedia*	Median Egret	R	C	P
7.	*Egretta garzetta*	Little Egret	R	UC	P
D	**Family: Ciconiidae**				
8.	*Mycteria leucocephala*	Painted Stork	RM	UC	C
9.	*Anastomus oscitans*	AsianOpen--billed Stork	RM	UC	C
10.	*Ciconia episcopus*	White Necked Stork	R	C	C
E	**Family:Threskornithidae**				
11.	*Threskornis melanocephalus*	Oriental White Ibis	RM	R	O
F	**Family: Anatidae**				
12.	*Anas poecilorhyncha*	Spot Billed Duck	R	R	H
13.	*Anas clypeata*	Northern Shoveller	M	R	C
F	**Family: Rallidae**				
14.	*Amauornis phoenicurus*	White Breasted Waterhen	R	R	O
15.	*Gallinula chloropus*	Common Moorhen	R	R	O
16.	*Porphyrio Porphyrio*	Purple Moorhen	R	R	O
G	**Family: Recurvirostridae**				
17.	*Himantopus himantopus*	Black-winged Stilt	R	C	P
H	**Family: Charidriidae**				
18.	*Vanellus malabaricus*	Yellow-wattled lapwing	R	R	C
19.	*Vanellus indicus*	Red-wattled lapwing	R	R	C
I	**Family: Scolopacidae**				
20.	*Tringa stagnatilis*	Marsh Sandpiper	M	UC	C
21.	*Trigna glareola*	Wood Sandpiper	M	R	C
22.	*Actitis hypoleucos*	Common Sandpiper	M	UC	C
J	**Family: Laridae**				
23.	*Sterna aurantia*	River Tern	RM	R	P
K	**Family: Acledinidae**				
24.	*Acledo atthis*	Small Blue Kingfisher	R	UC	P
25.	*Halcyon smyrnersis*	White-breasted Kingfisher	R	C	P
L	**Family: Motacillidae**				
26.	*Anthus rufulus*	Paddy field Pipit	R	C	I
27.	*Motacilla Cinerea*	Grey Wagtail	M	C	I
28.	*Motacilla maderaspatensis*	Large Pied Wagtail	R	C	I

*= Ali, S.,(2002)
Status- R- Resident; M- Migrant; RM- Resident Migrant;
Occurrence- C- Common; UC- Uncommon; R-Rare; NF- Not Found
Food Habit- C- Carnivorous; G- Granivorous; H- Herbivorous; I- Insectivorous; O- Omnivorous; P- Piscivorous

From all the recorded birds, was residential birds of which 9 birds namely *Tachybaptus ruficollis, Phalacrocorax niger, Bubulcus ibis, Mesophoyx intermedia, Ciconia episcopus, Himantopus himantopus, Halcyon smyrnersis, Anthus rufulus, Motacilla maderaspatensis* shows common status. 3 birds namely *Ardeola grayii, Egretta garzetta, Acledo atthis* was uncommon while 6 birds namely *Anas poecilorhyncha, Amauorornis phoenicurus, Gallinula chloropus, Porphyrio Porphyrio, Vanellus malabaricus, Vanellus indicus* were rare.

The resident migrant birds breed in one part of the area in one season and move to other parts within the state or country in a different season. 3 birds, *Ardea cinerea, Mycteria leucocephala, Anastomus oscitans* were uncommon while 2 birds namely *Sterna aurantia, Threskornis melanocephalusii* showed their rare status. From all the recorded species, were migratory birds of which Motacilla Cinerea was common, *Tringa stagnatilis, Actitis hypoleucos* with uncommon status while Anas clypeata, *Trigna glareola* shows their rare status. The roosting birds like herons and egrets were also noted. The nearly same type of composition of aquatic birds was also observed by Muhamed (2006) and Joshi (2011).

CONCLUSION

From the above results it is cleared that the abundance of avifauna indicates the healthy status of lakes owing the availability of water, safe habitat and food sources for both adults and nestlings and essential nesting/roosting sites in and around the lakes are important for the occurrence and abundance of aquatic bird populations. As water depth, quality and trophic structure are the important habitat characteristics that influence the abundance and diversity of aquatic birds in lakes, the proper and regular maintenance of these lakes would further increase the aquatic bird populations. The results of this study will help to conserve water bird populations in Akola district of Maharashtra, India.

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