

## Avian fauna of Jagtung Sagar, Kandhar Dist. Nanded (M.S.) India

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### ABSTRACT

A historical water body Jagtung Sagar, Kandhar Dist. Nanded was studied for avian fauna. Earlier Kulkarni *et al* (2006) reported 16 species of birds in this tank. Out of them Little greb, Indian pond heron, cattle egret, common coot, purple moorhen are abundant. This tank was completely dried in the year 2009 because of scarcity of rain. This was again filled in the year 2010. It is observed that there is change in the avian fauna, after refilling the tank with rain water. 48 species of birds belonging to 30 families were recorded during study. Out of 48 species 32 species are of Resident Common (RC), 06 species are Resident Migrant Common (RMC), 02 species of Winter Migrant (M), 02 species of Winter Migrant Uncommon (WMU), 01 species of Resident Migrant Uncommon (RMU), 04 species of Resident Uncommon (RU) and 01 species of Resident rare (Rr).

**Key words:** Avian fauna, Jagtung Sagar, Kandhar.

### INTRODUCTION

Birds are of great economic importance to the human society. They play an important role in controlling population of different insects and pests. They play the role of scavengers and pollinating agents and also help's in dispersal of seeds of different vegetations. They are helpful and help to provide rich food for mankind and are known to man since ages (Chittampalli and Bhatkhande, 1993). The variety of avian species in ecosystems reflects the well being of its habitat. Birds are the indicators of environment and are being used for conservation and environmental impact assessment (Gregory *et al.*, 2003). Birds potentially detect aspects of any landscape condition that are not detected by the other animal groups commonly used as indicators.

Researcher have studied avian fauna in Marathwada as this area is blessed with various natural habitats such as river, reservoirs, hills, forests, grassland. (Yardi, *et al.*, 2004) reported 64 species of birds in Salim Ali lake, Aurangabad. (Kulkarni, *et al.*, 2005) reported 151 species of birds in and around Nanded city. Kulkarni *et al.*, (2006) recorded 18 Piscivorous bird species in Dongarkheda irrigation tank. Dist. Hingoli. Kulkarni, *et al.*, (2006) also recorded 93 species of

birds in Shikhachiwadi Wadi, reservoir Dist. Nanded; Kulkarni *et al.*, (2010) listed 62 bird species in forest Jaldhara, Kinwat. Dist.Nanded. (Balkhande *et al.*, 2012) recorded 53 species of birds on river Godavari near Dhangar Takli; (Balkhande *et al.*, 2012) recorded 50 species of birds near river Purna Dist. Parbhani.

In 2009-2010 this lake was totally dried due to scarcity of rain. After one year this lake was refilled again. We have studied this lake again to check the biodiversity of birds; hence the present work was carried out to record changes in avian fauna of Jagtung sagar, Kandhar Dist. Nanded.

### MATERIALS AND METHODS

#### Study area:

"Jagtung Sagar" is situated in between and north altitude 18.50 ° C and south latitude 10 ° C at Kandhar, one of the taluka of District Nanded, Maharashtra State, India. West side of this reservoir is surrounded by hillocks of Balaghat. An earthen embankment is constructed on the Hathi Nala on east side. On the north side is the village Navrangpura and a college. On the south side there is crescent shaped boundary of Balaghat on which city Kandhar is situated.

**Table No. 1 shows avian fauna of Jagtung sagar, Kandhar before dried along with status**

| Sr. No | Family           | Common name               | Scientific Name                 | Status |
|--------|------------------|---------------------------|---------------------------------|--------|
| 1      | Alcedinidae      | White breasted kingfisher | <i>Halcyon smyrnensis</i>       | RC     |
| 2      | Ardeidae         | Indian Pond heron         | <i>Ardeolaq grayii</i>          | RC     |
| 3      |                  | Cattle egret              | <i>Bubulcus ibis</i>            | RC     |
| 4      |                  | Little egret              | <i>Egretta garzetta</i>         | RC     |
| 5      |                  | Purple heron              | <i>Ardea purpurea</i>           | RM     |
| 6      | Rallidae         | White breasted water hen  | <i>Amaurornis phoenicurus</i>   | RC     |
| 7      |                  | Purple moorhen            | <i>Porphyrio porphyrio</i>      | RC     |
| 8      |                  | Common coot               | <i>Fulica atra</i>              | RM     |
| 9      | Jacaniidae       | Pheasant-tailed jacana    | <i>Hydrophasianus chirurgus</i> | RC     |
| 10     | Recurvirostridae | Black winged stlit        | <i>Himantopus himantopus</i>    | RMC    |
| 11     | Charadriidae     | Red- wattled lapwing      | <i>Vanellus indicus</i>         | RC     |
| 12     | Scolopacidae     | Terek sandpiper           | <i>Xenus cinereus</i>           | M      |
| 13     | Laridae          | Indian river tern         | <i>Sterna aurantia</i>          | RMC    |
| 14     | Psittacidae      | Rose ringed parakeet      | <i>Psittacula krameri</i>       | RC     |
| 15     | Podicipedidae    | Little greb               | <i>Tachybaptus ruficollis</i>   | RMC    |
| 16     | Sturnidae        | Common myna               | <i>Acridotheres tristis</i>     | RC     |

**Table No 2 shows avian fauna of Jagtung sagar, Kandhar after refilling along with status (July 2012 to June 2013)**

| Sr. No | Family            | Common name  | Scientific Name               | Status |
|--------|-------------------|--|-------------------------------|--------|
| 1      | Podicipitidae     | Little grebe                                       | <i>Tachybaptus ruficollis</i> | RMC    |
| 2      | Ardeidae          | Indian Pond heron                                  | <i>Ardeola grayii</i>         | RC     |
| 3      |                   | Grey heron   | <i>Ardea cinerea</i>          | RMU    |
| 4      |                   | Little egret                                       | <i>Egretta gaizetta</i>       | RC     |
| 5      |                   | Cattle egret                                       | <i>Bubuicus ibis</i>          | RC     |
| 6      |                   | Purple heron                                       | <i>Ardea purpurea</i>         | RM     |
| 7      | Ciconiidae        | Painted stork<br>near threatened by IUCN<br>(2011) | <i>Mycteria leucocephala</i>  | RMC    |
| 8      |                   | White-naked stork                                  | <i>Ciconia episcopus</i>      | RU     |
| 9      | Threskiornithidae | Eurasian spoonbill                                 | <i>Platalea leucorodia</i>    | WMU    |
| 10     |                   | Black ibis   | <i>Pseudibis papillosa</i>    | RU     |
| 11     | Accipitridae      | Black-shouldered kite                              | <i>Elanus axillaris</i>       | Rr     |
| 12     |                   | Pariah kite  | <i>Milvus migrans</i>         | RC     |
| 13     |                   | Shikra   | <i>Accipiter badius</i>       | RU     |
| 14     | Phasianidae       | Indian peafowl                                     | <i>Pavo Cristatus</i>         | RC     |
| 15     | Rallidae          | Purple moorhen                                     | <i>Porphyrio porphyrio</i>    | RC     |
| 16     |                   | White breasted water<br>hen                        | <i>Amaurornis phoenicurus</i> | RC     |
| 17     |                   | Common coot  | <i>Fulica atra</i>            | RC     |
| 18     | Phalacrocoracidae | Little cormorant                                   | <i>Phalacrocorax niger</i>    | RMC    |
| 19     | Charadriidae      | Red-wattled lapwing                                | <i>vanellus indicus</i>       | RC     |
| 20     |                   | Yellow –wattled lapwing                            | <i>Vanellus malabaricus</i>   | RC     |
| 21     | Scolopacidae      | Common sand piper                                  | <i>Actitis hypoleucos</i>     | WMr    |
| 22     | Laridae           | Indian river tern                                  | <i>Sterna aurantia</i>        | RMC    |

|    |                  |                           |                               |     |
|----|------------------|---------------------------|-------------------------------|-----|
| 23 | Columbidae       | Eurasian collard-dove     | <i>Streptopelia decaocta</i>  | RC  |
| 24 |                  | Spotted dove              | <i>Streptopelia chinensis</i> | RC  |
| 25 |                  | Blue rock pigeon          | <i>Columba livia</i>          | RC  |
| 26 | Psittacidae      | Rose ringed parakeet      | <i>Psittacula krameri</i>     | RC  |
| 27 | Cuculidae        | Asian koel                | <i>Eudynamys scolopacea</i>   | RC  |
| 28 |                  | Greater coucal            | <i>Centropus sinensis</i>     | RC  |
| 29 | Apodidae         | House swift               | <i>Apus affinis</i>           | RMC |
| 30 | Alcedinidae      | White-breasted kingfisher | <i>Hylcyon smyrmensis</i>     | RC  |
| 31 |                  | Pied Kingfisher           | <i>Ceryle rudis</i>           | RC  |
| 32 | Meropidae        | Small bee eater           | <i>Merops orientalis</i>      | RC  |
| 33 | Coraciidae       | Indian roller             | <i>Coracias benghalensis</i>  | RC  |
| 34 | Hirundinidae     | Wire-tailed swallow       | <i>Hirundo smithil</i>        | RU  |
| 35 |                  | Common swallow            | <i>Hirundo rustica</i>        | RC  |
| 36 | Sturnidae        | Common myna               | <i>Acridotheres tristis</i>   | RC  |
| 37 |                  | Brahminy starling         | <i>Sturnus pagodarum</i>      | RC  |
| 38 | Dicruridae       | Black drongo              | <i>Dicrurus macrocer</i>      | RC  |
| 39 | Pyconotidae      | Red vented bulbul         | <i>Pycnonotus cafer</i>       | RC  |
| 40 | Passerinae       | House sparrow             | <i>Passer domesticus</i>      | RC  |
| 41 | Corvidae         | House crow                | <i>Corvus corax</i>           | RC  |
| 42 | Phoenicopteridae | Flamingo                  | <i>Phoenicopterus roseus</i>  | WMU |
| 43 | Leiothrichidae   | Large gray babbler        | <i>Turboides malcolmi</i>     | RC  |
| 44 | Recurvirostridae | Black winged stlit        | <i>Himantopus himantopus</i>  | RMC |
| 45 | Muscicapidae     | Indian Robin              | <i>Saxicoloides fulicata</i>  | RC  |
| 46 |                  | Oriental Magpie Robin     | <i>Copsychus saularis</i>     | RC  |
| 47 | Upupidae         | Common Hoopoe             | <i>Upupa epops</i>            | RC  |
| 48 | Ploceidae        | Baya Weaver               | <i>Ploceus philippinus</i>    | RC  |

**Common (C), Uncommon (U), rare (r). Residential (R), Migrant (M), Resident migrant (RM). Winter migrant (WM).**

The present report is based on the observation made from July 2012 to June 2013. With regular visit in a month. Observation were carried out by using line transect method (Gaston, 1973). Birds were sighted by using binoculars of 7X and 8X magnification and identified as per guidelines suggested by Ali & Ripley (1983); Ali (1996) and were photographed by using Sony Cyber shot camera (Model No. W570). The scientific and local names to the identified birds were given as per Manakadan and Pittie (2001) and a check list is prepared as per Abdulali (1981).

The status of each species is categorized as Residential (R), Migrant (M), Resident Migrant (RM). While abundance of birds was categorized as common (C), Uncommon (U), Rare (r).

#### **OBSERVATION**

The study reveals that there was change in avifauna of Jagtung sagar, Kandhar after refilling of water, 48 species of birds belonging to 30 families were recorded during the study. Table No. 1 shows the previous data whereas Table No. 2 shows current status of birds in Jagtung Sagar Lake.

Earlier (Kulkarni *et al.*, 2006) recorded 16 bird species belonging to 11 families at Jagtung sagar. Important sighting include **Flamingos** and **Painted stork**. As Flamingos were winter visitors and often found in Jayakwadi, Aurangabad in Marathwada

(<http://wildlife.tourstravelworld.com/wildlife-adventure/bird-watching/jayakwadi-bird-sanctuary.html>).

Interestingly this bird was recorded for the first time in rainy season i.e. in August at Jagtung sagar Kandhar Dist. Nanded along with Painted stork (*Mycteria leucocephala*) which is near threatened by IUCN (2011).

Out of 48 species 32 species are of Resident Common (RC), 06 species are Resident Migrant Common (RMC), 02 species of Winter Migrant (M), 02 species of Winter Migrant Uncommon (WMU), 01 species of Resident Migrant Uncommon (RMU), 04 species of Resident Uncommon (RU) and 01 species of Resident rare (Rr). Out of these 15 birds namely White breasted kingfisher, Pied kingfisher, Indian Pond heron, Large Egret, Red vented bulbul, Common myna, Small bee eater, Blue rock pigeon, Rose ringed parakeet, Cattle egret, Red wattled lapwing, Indian moorhen, Eurasian collared dove and Little cormorant were found in good numbers. Flamingos (*Phoenicopterus roseus*) were recorded for the first time in Nanded district.

But as a result of development of the city area new housing colonies are established

surrounding the Jagtung sagar, they make disturbance in the area. The interaction of man with wetlands during the last few decades has been of concern largely due to the rapid population growth-accompanied by intensified industrial, commercial and residential development further leading to pollution of wetlands by domestic, industrial sewage, and agricultural run-offs as fertilizers, insecticides and feedlot wastes. The fact that wetland values are overlooked has resulted in threat to the source of these benefits. Since wetlands are a common property resource, it is an uphill task to protect or conserve the ecosystems unless; the principal stakeholders are involved in the process. In India, wetlands are distributed in all the bio-geographic regions and exhibit significant ecological diversity, primarily because of the variability of climate conditions and the changing topography Shukla & Lone (2010). At Jagtung sagar, availability of food, water, climatic conditions and surrounding vegetation of equally favorable for avian fauna. Hence it is a potential site for bird watching.

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