



## Threatened wetland birds at Sirpur tank, Indore (M.P.)

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### Abstract

Threatened species of wetland birds at Sirpur tank (Sirpur lake) Indore has been observed from October 2004 to September 2007. In this category 7 birds has been identified and reported. Their monthly count, migratory status, stay period has been studied and described the same along with some recommendations to protect them.

### Keywords:

### Introduction

In India 2175 natural and 65254 man-made wetlands occupy 1.4 and 2.85 million hectares area respectively (Kulshrestha, 2002). However, according to the diversity of Asia Wetlands, wetlands in India occupy some 58.2 million hectares and some 93 wetlands meet the crises under the Ramsar Convention. Waterfowl i.e. aquatic birds are conspicuous elements of the wetlands fauna, readily identified, censused and studied (Belsare, 1994). Waterfowl are playing an important role in the wetlands ecosystem because they belong to consumer level in food chain of such ecosystem (Prakash and Shinde, 1999). They are often regarded as an important indicator of changes in the aquatic environment (Eriksson, 1984; Koskimies and Poyasa, 1985; Koskimes, 1987 and Belsare, 1994). Several of the threatened waterfowl at West Asia has been the subject of detailed studies and are currently receiving a considerable amount of attention from nation and International conservation bodies. IUCN and Bird International also listed the endangered species of India and other. Looking to the important of endangered species in the present study we have studied the

Water fowl of Sirpur tank and listed those one which are endangered.

### Methodology

Sirpur tank is also known as Sirpur Lake. It is man-made shallow tropical lake constructed in 1868. This lake is located at the Sirpur village (Tehsil and District, Indore, M.P.) on the left side of Indore-Dhar Road (NH 59) about 8 KM West from the Indore city. Geographically, the village is situated at 22°40'N latitude and 74°45'E longitude. The MSL is 421 meter. Sirpur tank was regularly surveyed at interval of 15 days between 6 am to 9 am from October 2004 to September 2007. Identification of waterfowl was done with the help of books of Ali and Ripley (1983), and Ali (2002). Waterfowl were manually counted by walking on Lake Bank or boating from one corner of the tank to other with the help of high power binocular.

### Results and Discussion

Several of the threatened waterfowl at West Asia have been the subject of detailed studies, and are currently receiving a considerable amount of attention from national and international conservation bodies. Many waterfowl species occurring in South and West Asia are threatened with extinction (Green 1993). The IUCN (1988) red list of threatened animal includes 14 species of birds which are dependent on wet lands in West Asia. It grouped globally threatened species of birds into critically endangered, Endangered, Vulnerable, Conservation dependent, Data deficient and near

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threatened category. Out of these six categories, two were observed in the present water body. In Vulnerable category only one species- *Grusantogone*(Sarascrane) was observed, while in Near threatened category four species viz. *Arhingarufa*(Darter), *Mycteria leucocephala*(Painted stork), *Threskiornisaethiopia*(Oriented white ibse) and *Athyanyroca*were observed. *Gallixrexcinera*(Water cock) and *Anserindicus*(Bar headed goose) were also reported endangered by Sridhar and Srinivasan (1993) and Bhupathy *et al.*, (1993). These two birds were also observed in the present study (table 1).The interesting observation noted for *M. leucocephalic* was that this bird described by Ali and Ripley (1987) as in resident category. But in the present two years study this bird was observed only from October to March.

Thus as for as this wetland is concerned this bird can be put under the resident migratory category.According to Bird Life International (2001) there are 78 globally threatened birds' species in India.Among these 27 are restricted

range species, 25 are endemic and two are found in secondary areas. The key habits forthreatened

species are wetlands (29 species).Collar *et al.* (1994) described only three categories of threatened species i.e. critically endangered, Endangered and Vulnerable. Asian waterfowl census 1994-96 (Lopez and Mundkar, 1997) following the status of Collar *et al.*, (1994) included *A.nyroca* under vulnerable category. This species of waterfowl was also observed in the present study. However, waterfowl censuses conducted during January throughout India between 1987-81 (Sridhar and Shrinivasan (1993) revealed nine resident species to be endangered in India viz. Greater Adjutant Stork (*Leptoptilus dubius*), Lesser Adjustant Stork (*Leptoptilus javenius*), Water Cock (*Gallixrexcinerea*), Black necked Stork (*Epnippiorhynchus asiaticus*), Black bellied Tern (*Sterna malanogester*), Spot bil Pelicans (*Pelicanus philisppensis*), Oriental Darter (*Anhingame lanocephala*) and Large whistling teal (*Dendrocygnabicolour*). Out of these endangered birds only one species of Water Cook (*Gallixrexcinera*) was

**Table-I: Annual count of endangered waterfowl observed at Sirpur tank, Indore.**

S.No.	Species	Common name	O	N	D	J	F	M	A	M	J	Total stay in months	Relative Status (Ali & Replay, 1987)
1	<i>Arhingarufa</i> (Pennat)	Darter	4	5	5	8	5	10	7	5	4	9	RM
2	<i>Mycteria leucocephala</i> (Pennant)	Painted Stork	No	No	No	12	12	10	No	No	No	3	RM
3	<i>Threskiomis acthiobica</i> (Latham)	White Ibis	4	4	3	4	4	4	No	No	No	6	R
4	<i>Anserindicus</i> (Latham)	Ban headed gouse	No	No	No	4	4	4	No	No	No	3	RM
5	<i>Avthya nyroca</i> (Guidemstadt)	White eyed Pacharas	No	45	50	403	494	498	250	No	No	6	RM
6	<i>Grusantigone</i> (Linnaeus)	Saras Crane	6	6	6	6	6	4	4	4	4	9	R
7	<i>Gakkucrex cuberea</i> (Gnelin)	Water Cock	10	10	10	15	15	12	10	10	10	9	R



observed in the present investigation. Bhupathy *et al.* (1993) described Barheaded Goose (*Anser indicus*) as endangered species present in the Keolodeo National Park, Bharatpur during winter from 1985-89. This species was also observed during the present study. Thus presence of endangered species in the studied water body highlights its National and International importance. In the present study Sirpur tank (lake) was found threatened by a number of factors and main factor was poaching because it is not at all protected. Other factors like uncontrolled fishing, domestic pollution, unfriendly anthropogenic activities and extensive trapa culture were also found disturbing the stay of not only endangered species but other waterfowl too. Therefore, adequate protection from the habitat destruction and hunting is urgently required.

## Recommendations

This water body needs protection from-

- (i) The habitat destruction and hunting.
- (ii) Fishing and Trapa culture activity.
- (iii) Negative anthropogenic activity like:
  - (a) Bathing and Washing of cloth and cattle etc.
  - (b) Dumping of pollution creating material, and
  - (c) Need more detail and regular study on migratory bird's population, habitat distribution and association with habitat etc.

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