

Migratory Avifauna of Tumsar Tahsil of Bhandara District (Maharashtra, India)

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Abstract

Total of 22 migratory bird species belonging 8 orders and 15 families were recorded during present one year survey i.e. from October 2016 to December 2017. Family Motacillidae dominated the list by the representation of 4 species, followed by Muscicapidae with 3 species, Threskiornithidae with 2 species and remaining 12 families with one species each. Out of 22 migratory bird species, one species was observed as

Endangered, one under Not threatened one under vulnerable and remaining 19 under Least concern category. In the present investigation 4 species of bird found to be local migrant (LM), 2 species summer migrant (SM), and remaining 16 species were reported as winter migrant (WM).

Keywords- Avifauna, Bhandara district, Migratory birds, Tumsar tahsil

1. Introduction

Birds are egg laying, warm blooded vertebrates with more than 9000 living species across the world. The Indian subcontinent contains about 1300 species all over around 13% of the world birds (Grimmett *et al.*, 1999) and Maharashtra contains more than 540 species (Abdulali, 1981).

Avian migration is natural miracle. Migratory birds fly thousands of kilometer to find the best ecological condition and habitat for feeding, breeding and raising their young one when condition of breeding sites become unfavorable. Indian subcontinent plays host to a number of migratory birds in summer as well as winter. Birds that migrate not so long distance but different states or area are called local migratory or resident migratory birds. The number of migratory birds visiting any area also indicates the health of that particular environment.

Tumsar is surrounded by dense forest, river, natural water bodies and rice fields along with wide range climatic condition that provide diverse range of habitat, abundant verity of food, suitable resting place available throughout year for migratory as well as residential bird. No

information is available about migratory birds in Tumsar tahsil, therefore the present scientific survey has been carried out to study migratory birds in Tumsar tahsil of Bhandara district in Maharashtra (India).

2. Materials and Methods

2.1 Study area:

Tumsar is located at an altitude of 21° 38' 51.0240" N, and longitude of 79° 74' 21.1528" E in Eastern Maharashtra of India with an average elevation of 272 meters. The weather is very well balanced in all seasons excluding summer. Temperatures in summers are as high as 48 degrees Celsius and in winters as cool as 12 degrees Celsius. Tumsar is famous for large production of rice and therefore fondly known as 'Rice Bowl' of the state. Large area of this tahsil has been surrounded by dense forest, river (Vainganga), natural water bodies (many lakes) and rice fields along with wide range climatic conditions that provide diverse range of habitat for Migratory birds.

2.2 Methods:

A general survey was carried out from October 2017 to February 2018 to study the migratory avifauna at various locations (forests, water bodies, rice fields) in and around the Tumsar tahsil of Bhandara district. Birds were observed during the peak hour of their activity (early mornings from 6 a.m. to 9 a.m. and late evening from 4 p.m. to 7 p. m.) with help of bionocular and photographs were captured by 38X zoom Nikon camera. Information regarding habitat type, frequency of sighting of particular species, season and timing was also recorded simultaneously. For identification up to species level colour plates of Ali Ripsey (1996), and Grimmett *et al.* (1999) were used. After confirmation of identity of species, checklist of migratory birds was prepared.

3. Results and Discussion

The present study revealed a total of 22 migratory bird species belonging 8 orders and 15 families were recorded from Tumsar tahsil of Bhandara district of East Maharashtra. Order Passeriformes (6 families) is dominant followed by Charadriiformes (3 families), Anseriformes, Ciconiiformes, Cuculiformes, Falconiformes, Gruidae and Pelecaniformes, (one family each). Among the family, Motacillidae dominated the list by the representation of 4 species, followed by

4. Conclusion

Since no information on the bird migration from this region was available, data of the present survey can be taken as a baseline data for further study. Migratory birds require suitable conditions in breeding and feeding grounds and along migratory routes between the two. But climate change has the potential to disrupt conditions in all three stages. Although the ecological conditions in

Muscicapidae with 3 species, Threskiornithidae with 2 species and remaining 12 families with one species each (Table 1).

Out of 22 migratory bird species, four were found to be the local migrant (LM), two summer migrant (SM), and remaining 16 species were reported as winter migrant (WM). The migratory birds recorded during present study are, Ruddy shelduck, Black-winged stilt, Wood sandpiper, Sarus Crane, Little ringed plover, Oriental stork, Black ibis, Black headed ibis, Pied cuckoo, Common Indian kastrel, Bluethroat, Thrush nightingale, Common stone chat, Rosy starling, White –throat warbler, White wagtail, Western yellow wagtail, Citrine Wagtail, Richards pipit, Blyths reed warbler, and Eurasian golden oriole (Fig.1).

In the present investigation one species was observed as Endangered (Oriental stork), one under Not threatened (Black headed ibis), one under vulnerable (Sarus Crane) and remaining 19 under Least concern category (IUCN Version 3.1).

Wanjari *et al.* (2013) identified 158 birds' species belonging to 46 families, of which 129 were resident, 12 local migrant and 17 were migrants from Tipeshwar wildlife sanctuary of Maharashtra. Pawar and Salunkhe (2014) recorded 35 species of migratory birds belonging to 6 orders and 13 families; of which 24 were observed as winter visitors and 11 are seasonal local migrants in and around Pandharpur city.




















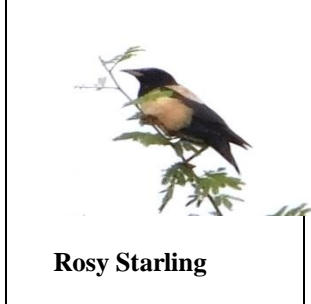
this area support the density of migratory birds, we must work on reducing human pressures on the natural environment from the consumption of renewable resources and the production of pollution (climate change) and try to conserve as many of the species of migratory birds, and other organisms alike, for future generations to come.

Table-1 Migratory birds of Tumsar Tahsil

| Order | Family | Scientific Name | Common Name | Conservation Status | Status |
|-----------------|-----------------------|------------------------------------|------------------------|---------------------|--------|
| Anseriformes | Anatidae | <i>Tadorna ferruginea</i> | Ruddy shelduck | LC | WM |
| | | <i>Aythya fuligula</i> | Tufted Duck | LC | WM |
| Charadriiformes | Recurvirostridae | <i>Himantopus himantopus</i> | Black-Winged Stilt | LC | WM |
| | Scolopacidae | <i>Tringa glareola</i> | Wood Sandpipe | LC | WM |
| | Charadriidae | <i>Charadrius dubius</i> | Little ringed plover | LC | LM |
| Ciconiiformes | Ciconiidae | <i>Ciconia boyciana</i> | Oriental stork | E | WM |
| Cuculiformes | Cuculidae | <i>Clamator jacobinus</i> | Pied Cuckoo | LC | SM |
| Gruiformes | Gruidae | <i>Grus Antigone</i> | Sarus Crane | V | WM |
| Falconiformes | Falconidae | <i>Falco tinnuculus</i> | Common Indian Kastrel | LC | WM |
| Pelecaniformes | Threskiornithidae | <i>Pseudibis papillosa</i> | Black Ibis | LC | LM |
| | | <i>Threskiornis melanocephalus</i> | Black Headed Ibis | NT | LM |
| Passeriformes | Acrocephalidae | <i>Acrocephalus bistrigiceps</i> | Blyths Reed Warbler | LC | WM |
| | Sylviidae | <i>Sylvia curruca</i> | White –throat warbler | LC | WM |
| | Muscicapidae | <i>Luscinia svecica</i> | Bluethroat | LC | WM |
| | | <i>L. luscinia</i> | Thrush Nightingale | LC | WM |
| | | <i>Saxicola torquata</i> | Common Stone Chat | LC | LM |
| | Motacillidae | <i>Motacilla alba</i> | White Wagtail | LC | WM |
| | | <i>M. flava</i> | Yellow Wagtail | LC | WM |
| | | <i>M. citreola</i> | Citrine Wagtail | LC | WM |
| | | <i>Anthus richardi</i> | Richards Pipit | LC | WM |
| | Oriolidae | <i>Oriolus oriolus</i> | Eurasian Golden Oriole | LC | SM |
| Sturnidae | <i>Sturnus roseus</i> | Rosy Starling | LC | WM | |

WM: Winter Migratory, **SM:** Summer Migratory, **LM:** Local Migratory, **E:** Endangered, **NT:** Not threatened, **V:** Vulnerable, **LC:** Least Concern

Figure 1. List of migratory birds recorded in and around Tumsar tahsil

| | | | |
|---|---|--|---|
|  |  |  |  |
| Ruddy shelduck | Tufted Duck | Black-Winged Stilt | Wood Sandpiper |
|  |  |  |  |
| Little ringed plover | Oriental stork | Pied Cuckoo | Sarus Crane |
|  |  |  |  |
| Common Indian Kastrel | Black Ibis | Black Headed Ibis | Blyths Reed Warbler |
|  |  |  |  |
| White -throat warbler | Bluethroat | Common Stone Chat | White Wagtail |
|  |  |  |  |
| Yellow Wagtail | Richards Pipit | Eurasian Golden Oriole | Rosy Starling |

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