

A note on some winter migrant bird species as documented from Conservation Reserve Beed, Jhunjhunu, Rajasthan, India

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Abstract

Avian fauna is one of the most dominating vertebrate groups in any ecosystem. Various habitat characteristics of area viz., topography, vegetation, water availability, nesting sites and other natural as well as manmade structures decide the avian diversity of the region. Bird migration is a regular seasonal movement, often north and south along a flyway, between breeding and wintering grounds. The present survey was undertaken in the Conservation Reserve Beed of Jhunjhunu district of Rajasthan, India to document the winter migrant bird species. In all, 41 winter migrant bird species belonging to 5 orders and 11 families were recorded from the region.

Introduction

Avian fauna is one of the most dominating vertebrate groups in any ecosystem. The importance of regional or local landscapes can be delineated by understanding the diversity and structure of bird communities. Bird migration is a regular seasonal movement, often north and south along a flyway, between breeding and wintering grounds. Many species of bird migrate. Migration carries high costs in predation and mortality, including from hunting by humans, and is driven primarily by availability of food. As the dominant form of birdlife in virtually all terrestrial environments, the birds are a major component of the world's ecosystems and are considered as important bio-indicators as they are very sensitive to environmental changes. They consume great quantities and varieties of food—

grains, fruits, insects and other invertebrates, small amphibians and reptiles, and even small mammals—and in turn serve as food for other animals; they act as hosts for parasites and are occasionally parasitic themselves; they both propagate and distribute plants by pollinating flowers and carrying viable seeds to new locations; and they have the mobility (through migration) to utilize habitats that are available only at certain times of the year. The timing of migration seems to be controlled primarily by changes in day length. Migrating birds navigate using celestial cues from the sun and stars, the earth's magnetic field, and probably also mental maps. Various habitat characteristics of area viz., topography, vegetation, water availability, nesting sites and other natural as well as manmade structures decide the avian diversity of the region. Forests attract a large number of avifauna and therefore, the present study was undertaken to document the winter migrant bird species status of the recently declared Conservation Reserve 'Beed' at Jhunjhunu district, which would serve as a base line document for future years.

Methodology

The study area

The present survey was undertaken in the Conservation Reserve Beed of Jhunjhunu district (located between 27°38' and 28°31' N and 75°02' and 76°06' E) of Rajasthan, India.. The total forest area available is about 10.47 sq km and is characterized by tropical thorny vegetation represented by *Prosopis cineraria*, *Acacia leucophloea*, *A. nilotica*, *Salvadora oleodes*, *Capparis decidua*, *Opuntia sp.*, *Tephrosia purpuria*, *Cenchrus ciliaris* etc.

Materials and method

The survey was carried out during winter months of October to February (2015-16) and the observations were taken on alternate days generally between 6 AM to 9 AM, sometimes depending upon the season, employing point count method. Olympus binoculars (8x40 DPS I) were used and pertinent field guides (Ali & Ripley 1983; Grimmett et al. 2001) were followed for identification.

Results and discussion

The winter migrant birds documented from the Conservation Reserve Beed of Jhunjhunu during the period of survey have been presented in Table 1. In all, 41 bird species belonging to 5 orders and 11 families were recorded. The order Passeriformes dominated the group represented by 21 species, followed by Ciconiiformes represented by 12 species. One very significant point worth mentioning is that, 39 of the documented species are of Least Concerned (LC) category in the IUCN (2015) Red List while, two are under nearing threatened category. Earlier, Sankar et al. (1993), Shahabuddin (2006) and Sultana (2013) have conducted surveys of the Sariska Tiger Reserve of Rajasthan for bird species.

References

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Table-1. Check list of winter migrant bird species documented from Conservation Reserve Beed, Jhunjhunu, Rajasthan, India

S. No.	Family	Latin Name	Common Name	IUCN 2015.4	Migratory Status
Order: ANSERIFORMES					
1.	Anatidae	<i>Anas strepera</i> (L.)	Gadwall	LC	WM
2.		<i>A. crecca</i> (L.)	Common Teal	LC	WM
3.		<i>A. clypeata</i> (L.)	Northern Shoveler	LC	WM
4.		<i>A. platyrhynchos</i> (L.)	Mallard	LC	WM
5.		<i>A. poecilorhyncha</i> (Forster)	Spot-Billed Duck	LC	WM
6.		<i>Aythya sferina</i> (L.)	Common Pochard	LC	WM
Order: UPUPIFORMES					
7.	Upupidae	<i>Upupa epops</i> (L.)	Common Hoopoe	LC	WM
Order: Coraciformes					
8.	Meropidae	<i>M. philippinus</i> (L.)	Blue-Tailed Bee-Eater	LC	WM
Order: CICONIIFORMES					
9.	Scolopacidae	<i>Tringa totanus</i> (L.)	Common Redshank	LC	WM
10.		<i>T. stagnatilis</i> (Bech.)	Marsh Sandpiper	LC	WM
11.		<i>T. ochropus</i> (L.)	Green Sandpiper	LC	WM

12.		<i>T. glareola</i> (L.)	Wood Sandpiper	LC	WM
13.		<i>Actitis hypoleucos</i> (L.)	Common Sandpiper	LC	WM
14.	Charadriae	<i>Recurvirostra avosetta</i> (L.)	Pied Avocet	LC	WM
15.		<i>V. leucurus</i> (Lich.)	White-tailed Lapwing	Nt	WM
16.	Accipitridae	<i>Circaetus gallicus</i> (Gmel.)	Short-Toed Snake Eagle	LC	WM
17.		<i>Circus aeruginosus</i> (L.)	Eurasian Marsh Harrier	LC	WM
18.		<i>C. macrourus</i> (Gmel.)	Pallid Harrier	Nt	WM
19.		<i>Buteo buteo</i> (L.)	Common Buzzard	LC	WM
20.		<i>Aquila nipalensis</i> (Hodg.)	Steppe Eagle	LC	WM
Order: PASSERIFORMES					
21.	Muscicapidae	<i>Ficedula parva</i> (Bechstein)	Red-Throated Flycatcher	LC	WM
22.		<i>Phoenicurus ochruros</i> (Gmel.)	Black Redstart	LC	WM
23.		<i>Monticola solitarius</i> (L.)	Blue Rockthrush	LC	WM
24.		<i>Luscinia svecica</i> (L.)	Blue Throat	LC	WM
25.		<i>Saxicola caprata</i> (L.)	Pied Bushchat	LC	WM
26.		<i>S. torquata</i> (L.)	Common Stonechat	LC	WM
27.		<i>Oenanthe picata</i> (Bly.)	Variable Wheatear	LC	WM

28.		<i>O. deserti</i> (T.)	Desert Wheatear	LC	WM
29.	Hirundinidae	<i>Hirundo rustica</i> (L.)	Barn Swallow	LC	WM
30.	Silvidae	<i>Sylvia curruca</i> (L.)	Lesser White-Throat	LC	WM
31.		<i>Phylloscopus humei</i> (Br.)	Hume's Warbler	LC	WM
32.		<i>P. collybita</i> (Vieil.)	Common Chiffchaff	LC	WM
33.	Alaudidae	<i>Calandrella brachydactyla</i> (Leis.)	Greater Short-Toed Lark	LC	WM
34.		<i>A. deserti</i> (Lich.)	Desert Lark	LC	WM
35.	Passeridae	<i>P. hispaniolensis</i> (Temminck)	Spanish Sparrow	LC	WM
36.		<i>Motacilla alba</i> (L.)	White Wagtail	LC	WM
37.		<i>M. flava</i> (L.)	Yellow Wagtail	LC	WM
38.		<i>M. citreola</i> (Pall.)	Citrine Wagtail	LC	WM
39.		<i>A. trivialis</i> (L.)	Tree-Pipit	LC	WM
40.		<i>A. campestris</i> (L.)	Tawny Pipit	LC	WM
41.		<i>A. Hodgi</i> (Richmond)	Olive-Backed Pipit	LC	WM

En= Endangered, **Nt**= Near Threatened, **LC**= Least Concerned