

A Study on the Bird Diversity of Shergarh Wildlife Sanctuary District, Baran, Rajasthan, India

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ABSTRACT: A study on bird diversity was conducted in Shergarh Wildlife Sanctuary, Baran district, Rajasthan, from January 2022 to December 2022 to analyze the avian diversity along with its status and abundance. Over the course of the study, 78 species from different types of orders, families, and genera were identified. A checklist of bird species was prepared, covering an area of about 2 km on the bank of the Parvan, a part of Shergarh Wildlife Sanctuary. Various bird species were listed in the green space, wetland, and terrestrial areas of the region. The area is home to a variety of plant species that contribute in various ways to the richness of bird species. This area includes IUCN and Red Data Book species, common species, and seasonal species. The review here highlights the various aspects of bird diversity that were cataloged over the months and will form the basis for further research. It is intended that the study will be helpful in drawing the attention of the public and state government towards the conservation of the Shergarh Wildlife Sanctuary and the protection of its avian fauna.

Keywords: Shergarh, Wildlife Sanctuary, bird diversity, Red Data Book species.

INTRODUCTION

India is a country full of diversities. Due to the great diversity of climatic and physical conditions in India, there is a great variety of animals with about 92,037 species and about 40,000 species of plants (Bailey and King 2019; Koli 2014). For the protection of animals, there are many types of wildlife sanctuaries, national parks, tiger reserves etc. There are 544 wildlife sanctuaries in India and 27 in Rajasthan, one of which is known as Shergarh Wildlife Sanctuary in Baran district of Rajasthan, which is famous because of the refuge of snakes (Garden *et al.*, 2007; Grimmett *et al.*, 2016; Hansell, 2000). The Shergarh Wildlife Sanctuary, situated as the last forest block of the Vindhya Mountain range in Rajasthan and is the only one in Baran district which is unexplored sanctuary in Rajasthan, which preserves historical events and natural beauty.

The Shergarh Wildlife Sanctuary is located on the periphery of “Varah Nagari” i.e., Shergarh town of Atru tehsil of Baran district with an area of 98.8 sq km. The geographical location of this sanctuary, evergreen Parvan River, rain drains and biodiversity attract spontaneously. In view of the biodiversity of this area, it was declared a sanctuary on 30 July 1983 (Boyce *et al.*, 2016; Chopra *et al.*, 2012; Chopra *et al.*, 2013). In this context, on May 25, 1992, a revised notification was issued by the state government, in which its forest area was expanded (Banerjee and Pal 2016). Keeping in

view the historical importance of Shergarh village, the sanctuary was named as Shergarh Wildlife Sanctuary.

A Shergarh Wildlife Sanctuary is situated on the Vindhya range and its amazing valley, whose geographical structure looks like a horseshoe. Its boundary starts from the northern end and ends in the central part of the sanctuary; While in the south, the slope of Parvan is visible. The valley has two parts. The first half is submerged in the Ancholi dam and the other half is under the fields of the people of Surpa village. The special thing is that there is no residence of a single village inside the periphery of this sanctuary. Due to which the wild animals roam fearlessly in the forest. There is a fort in this sanctuary which is famous as Shergarh Fort and is built on the banks of Parvan River. Administratively this sanctuary is divided into 5 blocks of forests namely Barapati 'A', Chhota Dungar, Bada Dungar, Nahariya and Teekli (Pragasan and Madesh 2018). The forests here have a stock of lichen trees, algae, fungi, bryophytes, pteridophytes and various species of angiosperm plants, bulbous plants, and vines. Shergarh forests fall under the category of northern tropical dry mixed deciduous forests. Rare trees of Chironji (*Buchanania lanzan*) are also found here (Shekhawat and Bhatnagar 2014). The yellow-flowered varieties of palash (*Butea monosperma* var. *lutea*), ghamhad (*Gmelina arborea*) and donkey palash (*Erythrina suberosa*) are special attractions here (Singh *et al.*, 2017; Young *et al.*, 2019). Shergarh Sanctuary has always been known for its wildlife. The erstwhile

Shergarh was a favorite hunting ground for tiger hunting by the Maharao of the princely state of Kota, as evidenced by the hunting malls located here. Tigers were found in Shergarh till the end of 70s, but due to poaching, they became extinct from here in the early 80s (Koshelev *et al.*, 2019; Kumar and Gupta 2013). This forest is a suitable habitat for panthers. Hence this area is completely suitable for panther rehabilitation. Recently, the presence of wolf was recorded in this area, which was also considered extinct from here. Various reptile species are the specialty of Shergarh, due to which the proposal for the construction of Snake Park has been passed here. Snakes ranging from giant pythons to highly venomous cobras and kraits can be easily seen here.

More than 200 species of birds are found in Shergarh Sanctuary. Some of which are IUCN placed in specific categories of the Red Data Book of India (IUCN, 2020). Like- White-Bellied Minivet, Indian Black Ibis in Near Threatened category; Painted stork, white-winged black tit, Asian open-billed stork, white-vulture, king vulture, red-necked falcon in Vulnerable category; Spoonbill, Osprey, Indian Peafowl are placed in the Threatened category. Along with this, there is a colony of endangered long-billed vulture in the hills of

Shergarh fort facing the river. Shergarh is probably the best place in Hadoti to see Navrang bird (*Indian Pitta*) and Shah Bulbul (*Paradise Flycatcher*) during the monsoon season (Rahman and Ismail 2018; Rahmani *et al.*, 2016).

Shergarh Wildlife Sanctuary is a famous fresh water low laying wetland. But this sanctuary is facing degradation due to agriculture activities, pollution, tourism, habitat fragmentation and disturbance from people living in the fort in its surrounding area (Kumar and Sahu 2019; 2020; Pattimahu *et al.*, 2017). Thus, the present study is an attempt to document the composition, status, distribution, and habitat use of avifauna of Shergarh Wildlife Sanctuary, Baran for developing long term government conservation plans.

MATERIALS AND METHODS

Study area. The study was conducted in the Shergarh Wildlife Sanctuary, on the banks of the Parvan River, near the Shergarh Fort. The study area is about 100 m away from Shergarh Fort. The study was done only in an area of 2 kms where there are about 3000 trees which are the habitat for the birds. Birds had seen with the help of binoculars from Shergarh Fort.



Equipment used and Area search. Nikon Monarch 5 10×42 binoculars were used for bird watching. Field research method was used to collect comprehensive information on bird diversity. This method entails a time-restricted survey of a defined area during which the observer notes all birds heard or seen, distinguishing between those heard inside, outside, and flying over the search region. Birds were observed and identified by sitting and standing from a hiding place. Observations were done between 7.00 am to 11.00 am and 16.00 to 19.00 pm in the evening and the bird species were documented and identified with the help of standard books, websites, mobile applications etc.

Bird observation technique. Birds are an active and energetic animal, which can be a challenging process to identify. It is necessary to have a quick eye to see birds in a short time. Birds were identified by fixing eye on them and their movement, feeding habits, shape, distinctive strips, patches of color, size and songs were noted each observed. The color and shape of the feathers of the birds, the length and color of the feet and claws, the flying stage were noted.

RESULT AND DISCUSSION

After 12 months of continuous observation, from January 2022 to December 2022, we identified 78 bird species, which are mentioned in Table 1.

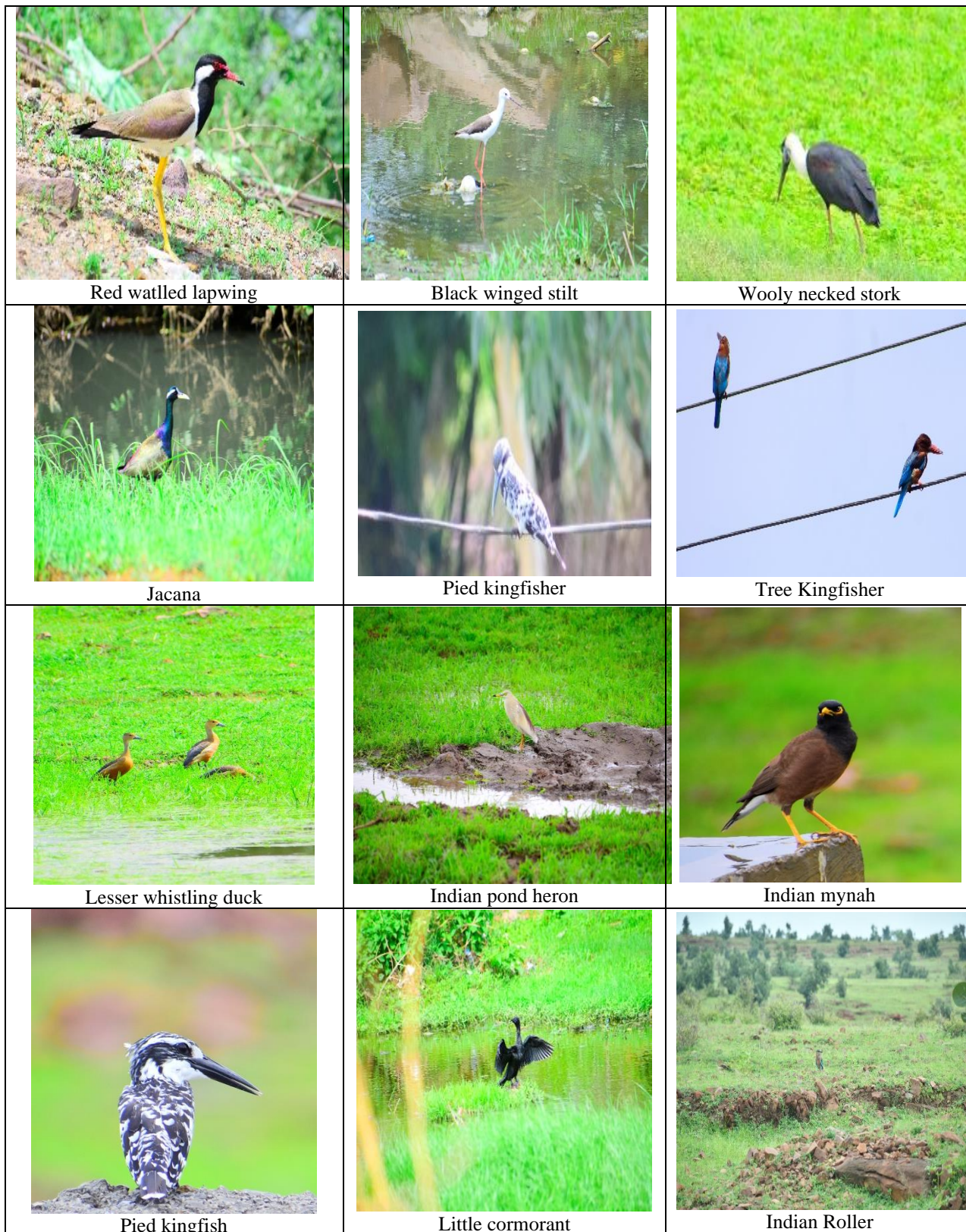
Table 1.

Sr. No.	Birds	Status In Sanctuary
1.	Jungle Babbler	Widespread
2.	Jungle Myna	Widespread
3.	Blue Rock Pigeon	Widespread
4.	Black Drongo	Widespread
5.	Racket-Tailed Drongo	Widespread
6.	Indian green parrot	Widespread
7.	white throated kingfisher	Widespread
8.	Red vented Bulbul	Widespread
9.	Indian Grey Hornbill	Widespread
10.	Woodpecker	Rare
11.	Shikra	Rare
12.	Papiha	Seasonal
13.	Indian Golden Oriole	Seasonal
14.	Indian Roller	Rare
15.	Besra	Widespread
16.	Navrang bird (Indian Pitta)	Seasonal
17.	Shah Bulbul (Paradise Flycatcher)	Seasonal
18.	White-Bellied Minivet	Rare
19.	Indian Black Ibis	Rare
20.	Painted stork	Rare
21.	white-winged black tit	Rare
22.	Asian open-billed stork	Rare
23.	white-vulture	Widespread
24.	king vulture	Rare
25.	Red-necked falcon	Rare
26.	Indian pied myna	Seasonal
27.	Osprey	Rare
28.	Indian Peafowl	Rare
29.	Red wattle lapwing	Widespread
30.	Woolly necked stork	Widespread
31.	Pied kingfisher	Widespread
32.	Indian pond heron	Widespread
33.	Jacanas	Rare
34.	Lesser whistling duck	Widespread
35.	Indian robin bird	Widespread
36.	Little cormorant	Widespread
37.	Eurasian collared dove	Widespread
38.	Brahming myna	Widespread
39.	Red vented bulbul	Widespread
40.	Oriental magpie robin	Widespread
41.	Lowland white eye	Rare
42.	White throated kingfisher	Widespread
43.	Great egret	Widespread
44.	Asian eagle	Rare
45.	Magpie robin	Widespread
46.	Brown rock chat	Widespread
47.	Common tailor bird	Rare
48.	Tree kingfisher	Widespread
49.	Black winged stilt hinantopus	Widespread
50.	House sparrow	Widespread
51.	House crow	Widespread
52.	Jungle crow	Widespread
53.	Commen myna	Widespread
54.	Jungle owl	Rare
55.	Asian koel male	Rare
56.	Asian koel female	Rare
57.	Greater coucal	Rare
58.	Blue rock pigeon	Widespread
59.	Hoopoe	Rare
60.	Pruple sun bird	Rare
61.	Blacksun bird	Rare
62.	House swift	Rare
63.	White eared bird	Widespread
64.	Common redshank	Rare
65.	Common greenshank	Rare
66.	Common bater	Widespread
67.	Sarus crane	Rare
68.	Large grey babbler	Rare
69.	White wagtail	Rare
70.	Crested bunting	Rare
71.	Little spiderhunter	Rare
72.	Grey francolin	Widespread
73.	Crested lark	Rare
74.	Yellow wagtail	Rare
75.	Little spiderhunter	Widespread
76.	Indian silver bill	Rare
77.	Forest warbler	Widespread
78.	Green bee eater	Widespread

Jungle Babbler, Indian Myna, Blue Rock Pigeon, Black Drongo, Racket-Tailed Drongo, Indian robin bird, white throated kingfisher and Red vented Bulbul are the most often encountered birds. Indian Grey Hornbill, Woodpecker, Shikra, Papiha, Indian Golden Oriole, Indian Roller, Besra and other unusual species were also spotted throughout the research time. There were also some monsoon season birds, such as the Navrang bird (Indian Pitta) and Shah Bulbul (Paradise

Flycatcher). The IUCN red listed birds like White-Bellied Minivet, Indian Black Ibis were also seen (Kaushik and Gupta 2016; IUCN, 2020).

The birds of the threatened category like Painted stork, white-winged black tit, Asian open-billed stork, white-vulture, king vulture, red-necked falcon in Vulnerable category; Spoonbill, Osprey, Indian Peafowl were also seen.





Common grackle



Brahminy starling



Red vented bulbul



Indian green parrot



Oriental Magpie robin



Jungle babbler



Indian white eye



Common Indian kingfisher



Eurasian collared dove



Great egret



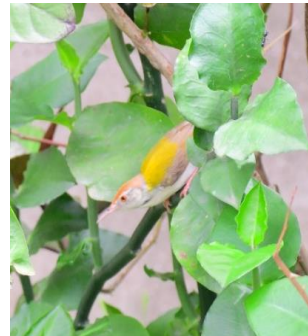
Asian eagle



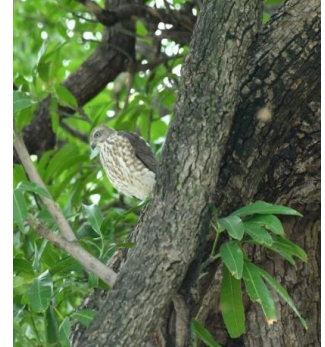
Greenbee eater



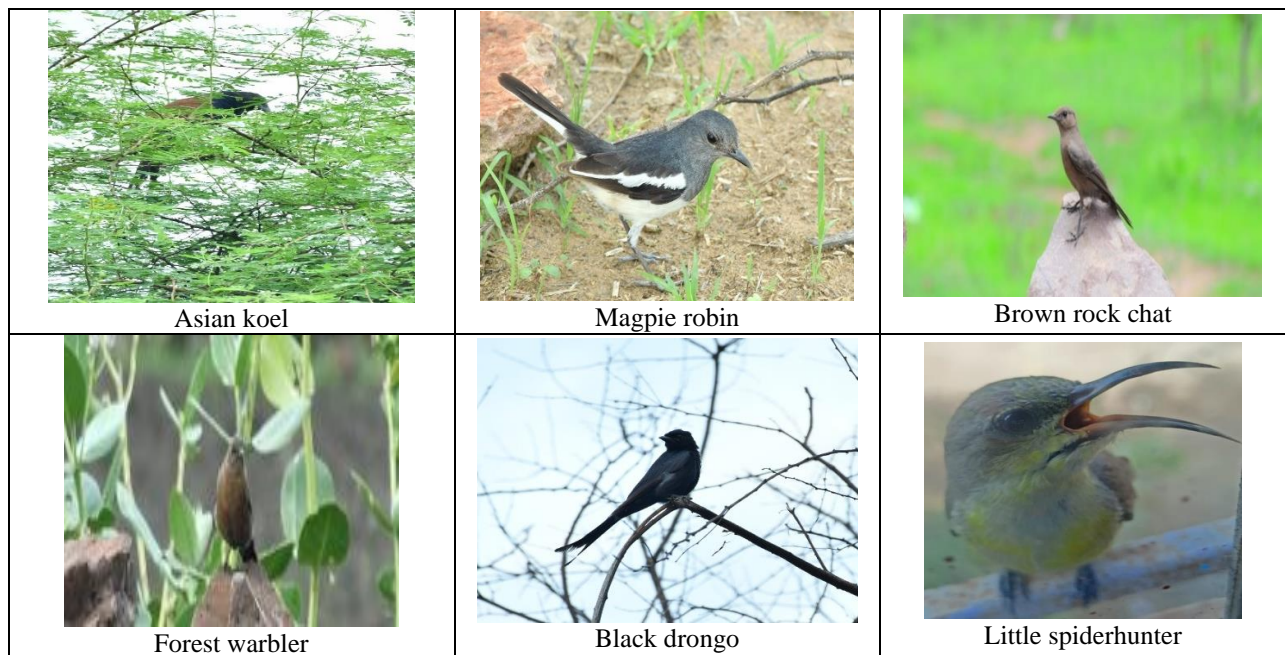
Indian Grey Hornbill



Common tailor bird



Shikra



CONCLUSIONS

It is revealed that a total of 78 species of birds were observed. The Shergarh Wildlife Sanctuary features a diverse flora and wildlife, as well as an important bird-attracting wetland area. Anthropogenic issues like as habitat fragmentation and degradation, tourism pressure, and water scarcity during the summer season pose risks to this bird faunae. Furthermore, herds of Nilgai (*Boselaphus tragocamelus*), stray dogs, and wild cattle trampled the chicks and eggs of water birds in this sanctuary. The conservation of avian species will be dependent on a better understanding of ecological requirements and the quantity of visitor birds. More surveys and detailed studies in different seasons will be beneficial in developing conservation plans for this sanctuary and wetland birds in general.

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Conflict of Interest. None.

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