

Status of Avian diversity of Sariska Tiger Reserve in the Aravallis

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Abstract: The reserve has topography of undulating plateau land and wide valleys with flat vast plains to narrow and deep gorges. The terrain of Sariska Tiger Reserve is hilly maintain the character of Aravalli system with sharp log back ridges. The slopes are steeper on their southern aspects

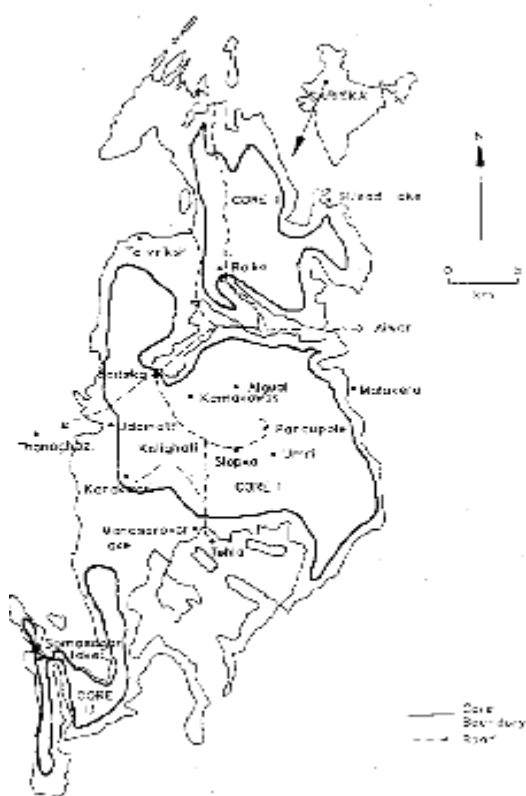
the mountain and are spread from each other by wide gaps (Dhabriya, S.S., 1987).

Keywords: Sariska tiger reserve, Aravallis, Avian diversity

I. INTRODUCTION

According to the Champion and Seth (1968) the forest of Aravalli region fall under the broad category of Tropical Dry forests. Study area the "Sariska Tiger reserve" (74°14' to 76° 34' N and 25° 5' to 27° 3' E) is situated in the Aravalli hill range and lies in the semi-arid part of Rajasthan (Rodgers and Panwar, 1988). It became a wild life sanctuary in 1955 and Tiger reserve in 1982. According to Department of Forest, Government of Rajasthan the total area of the Sariska Tiger Reserve is 866 sq.km, of which 302.2 sq. km. is buffer zone and 497.8 sq.km is core zone. Sariska core zone is comprised of three isolated; pockets: Core-I (273.8 sq.km), II (126.5 sq.km.) and III (97.5 sq.km). The status of the Core I has been notified as a National park in 1982. Sariska is undulating to hilly and has numerous narrow valleys. Kiraska and Kankwari plateau and two large lakes Mansarovar and Somsagar. Silisad lake is situated just along the north eastern boundary of the reserve. The altitude of Sariska varies from 540 to 777 meters. The vegetation of Sariska correspond to Northern tropical dry deciduous forests (sub group 5 B; 5/E I and 5/E2) and Northern tropical thorn forest (Sub Group 6 B) (Champion and Seth, 1968). The forest being scattered and sparse over a large area on various geological and soil formation and vary greatly in composition. Sariska is very rich in biodiversity with wide spectrum of flora and ample of wild life. The main economically valuable species are dhok (*Anogeissus pendula*) salar (*Boswellia serrata*), khair (*Acacia catechu*), bamboos (*Dendrocalamus strictus*), dhak (*Butea monosperma*), kair (*Capparis decidua*), ber (*Zizyphus mauritiana*) with having lot of ground flora comprised of shrubs, herbs, grasses and sedges etc.

Anogeissus pendula is the dominant tree species, covering over 90 percent area of the forests. *Boswellia serrata* and *Lannea coromandelica* grow on rocks and dry slopes. *Acacia catechu* is common in valleys, where *Dendrocalamus strictus* is extremely limited and are found along well drained reaches of the streams and moist and cooler parts of the hills. The trees are generally slow growing attain poor height. *Albizia lebbek*, *Diospyros melanoxylon*, *Syzygium cumini*, *Tamarindus indica* and *Ficus* spp. which are found in moist localities attain large size both in crown grows



Map of Sariska Tiger Reserve in Aravallis

than in other direction. The ridges and plateaus are convoluted and curved, and run in many directions. There is a major valley referred to as the main valley which runs in a general east west direction through the reserve. The main valleys width ranges from 0.25 km. to 2 km. comprises with Kushalgarh in the west; it forks into 2 branches towards Tulsawasla in the north-west and Sariska in the south-west. Another major valley, the Sariska-Kalighati valley, runs in a general north-south direction. It is narrow, about 0.25 km. wide for the distance of about 5 km. before it broaden out at Karnawas. At the Sariska, where it links up with main valley, it is almost 3 km. wide. To the south of core zone-I there is a wide valley (1 km.) which runs northwards from Mandalwas near Kaniyawas near Kankwari at the Sariska. In Sariska, they are in NNE-SSW direction. Sariska in the Northern part of the Aravallis has mainly residual hills, though there is a structural control as well. The residual hills occur as isolated, linear features in the line with the trend of

gregariously, where valleys fan out. and becoming flat and wide. On the basis of their composition. The forests of Sariska Tiger Reserve can be classified as follows (i): *Anogeissus pendula* forest (ii) *Boswellia serrata* forest (iii) *Acacia catechu* forest and (iv) Miscellaneous type of forests which can further be divided into three categories namely (a) *Butea monosperma* forest (b) Forests along nallahs (c) Scrub forest.

II. MATERIAL AND METHODS

Personal observations were taken in the field by visiting the study area and its different landforms. It was a great help that the field staff of Sariska Tiger Reserve, Department of Forest, Government of Rajasthan was associated always in the field. Local sighting near water holes were observed during study period. The Primary information is collected by regular visits to the study area. The secondary sources include books, journals, electronic journals, encyclopedias, news papers, websites and research articles. Observations were made regularly from study period most active period for birds. Direct count method was followed to take field data. Observations were carried out with the aid of binoculars and photography was done with camera having telescopic lens. Identification of birds was done using field guides (Ali

and Ripley, 1987; Grimmet et al., 1999; Kazmierczak, K. and Van Perlo, B. 2000) Ludwig and Reynolds 1998, Sankar, Mohan and Pandey, 1993.. Abundance and status of recorded birds was established on frequency of occurrence during field visits. Status of species was classified into fairly common, common, uncommon, rare with resident (R) and winter visitor (W), Summer visitor (S), Monsoon visitor (M), Confirmed breeding (RB), Probably breeding (PB).

III. RESULTS AND DISCUSSION

A total of 121 species of birds belonging to various families were observed from Sariska tiger reserve (Table A). Out of them fifty eight are common species, thirty six are uncommon and twenty seven are fairly common. Forty eight species are resident confirmed breeders, twenty four are probably breeding species, fourteen are rare with resident, thirty are winter visitor, thirty three migrant with winter, summer and monsoon. Highest number of birds was recorded in the month of January and lowest number was recorded in the month of June. The study revealed the richness of this reserve in terms of bird fauna which is excellent indicator of ecological health.

Table-A Includes the list of the Avifauna of Sariska Tiger Reserve

Common name	Zoological name	Occurrence
Grey Francolin	<i>Francolinus pondicerianus</i> R, B.	Common
Rain quail	<i>Coturnix coromandelica</i> R, B.	Common
Blue Breasted Quail	<i>Coturnix chinensis</i> R, B.	Uncommon
Jungle Bush-quail	<i>Perdica asiatica</i> R, B.	Common
Red Spurfowl	<i>Galloperdix spadicea</i> R, B.	Uncommon – rocky area near Pandupole, Siliberi and Slopka.
Painted Spurfowl	<i>Galloperdix lunulata</i> R, B.	Uncommon close to water, near Pandupole, Slopka, Udainath, Siliberi, Algal and Naldeshwar
Indian Peafowl	<i>Pavo cristatus</i> R, B.	Common
Cotton Pygmy-goose	<i>Nettapus coromandelianus</i> R, PB.	Common
Common Teal	<i>Anas crecca</i> W.	Fairly common
Spot billed duck	<i>Anas poecilorhyncha</i> R, P.B.	Common
Northern pintail	<i>Anas acuta</i> W.	Fairly common in Silisad
Northern shoveler	<i>Anas clypeata</i> W.	Common in Silisad
Red crested pochard	<i>Netta rufina</i> W.	Common

Common pochard	<i>Aythya ferina W.</i>	Uncommon
Small button quail	<i>Turnix sylvatica R, B.</i>	Common
Black-rumped flameback	<i>Dinopium benghalense R,B.</i>	Fairly common
Coppersmith barbet	<i>Megalaima haemacephala W.</i>	Common
Indian grey hornbill	<i>Ocyrceros birostris R,B.</i>	Uncommon
Eurasian Hoopoe	<i>Upupa epops R, B.</i>	Common
Indian roller	<i>Coracias benghalensis R, B.</i>	Common
White throated kingfisher	<i>Halcyon smyrnensis R, PB.</i>	Common
Little green bee eater	<i>Merops orientalis R, PB.</i>	Uncommon
Pied Cuckoo	<i>Oxylophus jacobinus M.</i>	Common
Asian koel	<i>Eudynamys scolopacea R,B.</i>	Uncommon
Greater coucal	<i>Centropus sinensis R,B.</i>	Uncommon
Rose Ringed Parakeet	<i>Psittacula krameri R,B.</i>	Fairly common
Plum headed Parakeet	<i>Psittacula cyanocephala W,B.</i>	Fairly common
Little Swift	<i>Apus affinis R,B.</i>	Common
Spotted Owlet	<i>Athene brama R, B.</i>	Common
Grey Nightjar	<i>Caprimulgus indicus R, B.</i>	Common
Rock Pigeon	<i>Columba livia R, B.</i>	Common
Laughing Dove	<i>Streptopelia senegalensis R, B.</i>	Fairly common
Spotted Dove	<i>Streptopelia chinensis R, B.</i>	Fairly common
Red Collared-Dove	<i>Streptopelia tranquebarica R,B.</i>	Fairly common
Eurasian Collared-Dove	<i>Streptopelia deccto R,B.</i>	Fairly common
Yellow-Footed Green-Pigeon	<i>Teron phoenicoptera W.</i>	Fairly common-flocks of birds seen feeding on Ziziphus fruits
Common Coot	<i>Fulica atra W.</i>	Common
Chestnut-Bellied Sandgrouse	<i>Pterocles exustus R.</i>	Common
Black-Bellied Sandgrouse	<i>Pterocles orientalis R.</i>	Uncommon
Painted Sandgrouse	<i>Pterocles indicus R.</i>	Common
Common Redshank	<i>Tringa totanus W.</i>	Fairly common
Common Greenshank	<i>Tringa nebularia W.</i>	Common

Green Sandpiper	<i>Tringa ochropus W.</i>	Common
Wood Sandpiper	<i>Tringa glareola W.</i>	Common
Common Sandpiper	<i>Tringa hypoleucos W.</i>	Common
Little Ringed Plover	<i>Charadrius dubius W.</i>	Uncommon
Kentish Plover	<i>Charadrius alexandrinus W.</i>	Uncommon
Red-Wattled Lapwing	<i>Vanellus indicus R, B.</i>	Fairly common
River Tern	<i>Sterna aurantia R.</i>	Uncommon
Black Winged Kite	<i>Elanus caeruleus R, PB.</i>	Uncommon
Egyptian Vulture	<i>Neophron percnopterus R, B.</i>	Uncommon
White-Rumped Vulture	<i>Gyps bengalensis R, B.</i>	Fairly common
Long Billed Vulture	<i>Gyps indicus R, B.</i>	Fairly common
Crested Serpent Eagle	<i>Spilornis cheela R, PB.</i>	Uncommon
Shikara	<i>Accipiter badius R, PB.</i>	Common
Eurasian Sparrowhawk	<i>Accipiter nisus W.</i>	Uncommon
Common Kestrel	<i>Falco tinnunculus W.</i>	Uncommon
Little Grebe	<i>Tachybaptus ruficollis R.</i>	Common
Little Cormorant	<i>Phalacrocorax niger R.</i>	Common
Little Egret	<i>Egretta garzetta R.</i>	Uncommon.
Grey Heron	<i>Ardea cinerea R.</i>	Uncommon
Purple Heron	<i>Ardea purpurea R.</i>	Uncommon
Intermediate Egret	<i>Mesophoyx intermedia R.</i>	Uncommon
Woolly Necked Stork	<i>Ciconia episcopus R, B.</i>	Uncommon
Indian Pitta	<i>Pitta brachyura S, B.</i>	Fairly common
Grey-headed Canary-Flycatcher	<i>Culicicapa ceylonensis W.</i>	Common
Bay-backed Shrike	<i>Lanius vittatus R, PB.</i>	Common
Long-tailed Shrike	<i>Lanius schach R, PB.</i>	Common
Northern Shrike	<i>Lanius excubitor R, PB.</i>	Uncommon
Rufous Treepie	<i>Dendrocitta vagabunda R,B.</i>	Common
House Crow	<i>Corvus splendens R, P.B.</i>	Uncommon

Large-billed Crow	<i>Corvus macrorhynchos R,B.</i>	Fairly common
Eurasian Golden Oriole	<i>Oriolus oriolus S, B.</i>	Common
Large Cuckoo Shrike	<i>Coracina macei R.</i>	Uncommon
White-browed Fantail	<i>Rhipidura aureola R, B.</i>	Common
Black Drongo	<i>Dicrurus macrocercus R, B.</i>	Fairly common.
White Bellied Drongo	<i>Dicrurus caerulescens W.</i>	Uncommon
Asian Paradise Flycatcher	<i>Terpsiphone paradisi R.</i>	Uncommon
Common Iora	<i>Aegithina tiphia W.</i>	Uncommon
Common Woodshrike	<i>Tephrodornis pondicerianus .PB.</i>	Common
Red-Breasted Flycatcher	<i>Ficedula parava W.</i>	Common
Indian Robin	<i>Saxicoloides fulicata R, B.</i>	Common
Black Redstart	<i>Phoenicurus ochruros W.</i>	Common
Siberian Stonechat	<i>Saxicola maura R, PB.</i>	Uncommon
Pied Bushchat	<i>Saxicola caprata R,B.</i>	Common
Brahminy Starling	<i>Sturnus pagodarum R, PB.</i>	Common
Rosy Starling	<i>Sturnus roseus W.</i>	Uncommon
Asian Pied Starling	<i>Sturnus contra R, PB.</i>	Common
Common Myna	<i>Acridotheres tristis R, B.</i>	Common
Bank Myna	<i>Acridotheres ginginianus R, PB.</i>	Common
Great Tit	<i>Parus major R, B.</i>	Uncommon
Plain Martin	<i>Riparia paluatcola R, PB.</i>	Common
Dusky Crag-Martin	<i>Hirundo concolor R, PB.</i>	Common
Barn Swallow	<i>Hirundo rustica W.</i>	Uncommon
White-Eared Bulbul	<i>Pycnonotus leucotis R.</i>	Uncommon
Red-Vented Bulbul	<i>Pycnonotus cafer R, B.</i>	Common
Grey-Breasted Prinia	<i>Pinnia hodgsonii R, PB.</i>	Common
Plain Prinia	<i>Prinia inornata R, PB.</i>	Common
Oriental White-eye	<i>Zosterops palpebrosus R, PB.</i>	Common
Common Tailorbird	<i>Orthotomus sutorius R. B.</i>	Common
Eurasian Chiffchaff	<i>Phylloscopus collybita W.</i>	Common

Yellow eyed Babbler	<i>Chrysomma sinense R, B.</i>	Fairly common
Common Babbler	<i>Turdoides caudatus R, B.</i>	Fairly common
Large Grey Babbler	<i>Turdoides malcolmi R, B.</i>	Common
Jungle Babbler	<i>Turdoides striatus R, B.</i>	Fairly common
Singing Lark	<i>Mirafra cantillans R, PB.</i>	Uncommon
Indian Lark	<i>Mirafra erythroptera R, PB.</i>	Common
Purple Sunbird	<i>Nectarinia asiatica R, B.</i>	Common
House Sparrow	<i>Passer domesticus R, B.</i>	Fairly common
Spanish Sparrow	<i>Passer hispaniolensis W.</i>	Common
Eurasian Tree Sparrow	<i>Passer montanus W.</i>	Common
Chestnut-Shouldered Petronia	<i>Petronia xanthocollis R, B.</i>	Common
White Wagtail	<i>Motacilla alba W.</i>	Uncommon
White-browed Wagtail	<i>Motacilla maderaspatensis ,PB.</i>	Common
Baya Weaver	<i>Ploceus philippinus R, B.</i>	Fairly common
White-Throated Silverbill	<i>Lonchura malabarica R,B.</i>	Fairly common
Common Rosefinch	<i>Carpodacus erythrinus W.</i>	Uncommon
Crested Bunting	<i>Melophus lathami R, B.</i>	Fairly common
Chestnut Breasted Bunting	<i>Emberiza stewarti W.</i>	Fairly common

R=Resident, W=Wintervisitor, S=Summervisitor, M=Monsoonvisitor, B=Confirmedbreeding, PB= Probably breeding.

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