

AVIFAUNA OF A LAKE IN DISTRICT ETAWAH, UTTAR PRADESH, INDIA

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Abstract

The paper deals with the avifauna of lake Sarsai Nawar in Etawah District, Uttar Pradesh, India. Ninety five species of birds belonging to thirty five families were studied during the period of survey. Of these 58 species were resident, 16 species were local migrants, two species were seasonal local migrants and 18 species were winter migrants. Beneficial and harmful aspects of the birds in relation to crops have been discussed and it has been suggested that the lake be given the status of a Sanctuary.

Introduction

Sarsai Nawar is one of the biggest water bodies of Etawah District in Uttar Pradesh, situated near Sarsai Village. It is about 30 km. away from Janta College, Bakewar. It has an area of about 100 ha. In the centre of this lake a temple of Lord Shiva is located. The lake contains a treasure of flora and fauna, of which fishes and birds form the major part. Seeing the importance of this water body, a thorough study of the avifauna of this lake was made.

Generally the climate is of a dry, hot nature with the temperature ranging from 5°C to 46°C. During the rainy season (June to September), heavy rains have been recorded in the month of July. The relative humidity ranges between 64 per cent and 86 per cent.

Material and Methods

The avifaunal study was conducted from November, 1997 to November, 1999. For the convenience of the study the lake was divided into five stations viz.,

Station I: Left side of the Village Sarsai.

Station II: At Nagla bal Singh.

Station III: Near the Temple.

Station IV: Near the Kuberpara.

Station V: On the right side of Village Sarsai.

Regular monitoring was carried out on monthly basis beginning from the month of November, 1997. Different areas of the lake were visited either by boat or on foot. Bird records were noted down by following the method of Gaston (1973). Observations

were carried out with the aid of 7x50 and 8x40 binoculars and identification was based on standard guides such as Ali (1981), Ali and Ripley (1983), Woodcock (1986) and, Robertson and Jackson (1992). The feeding activities of the birds were observed at different times of the day. In some cases, individual bird was observed continuously to understand its mode of feeding. An attempt has also been made to find out the kinds of food items present in the study area. This was done to get an idea of the food items consumed by these birds. Accordingly the avian species were grouped as insectivorous, granivorous, frugivorous, herbivorous, carnivorous and omnivorous.

Result and Discussion

Ninety-five species belonging to 35 families were recorded. Of the total, 17 species (17.9%) were abundant, 67 species (70.5%) were common and 11 species (11.5%) were rare. Of these, 50 species (61%) were resident birds and 30 species (47.4%) were recorded to breed in this region. Sixteen species (16.8%) were local migrants of which two species (12.5%) were recorded to breed in this region, two species (2.1%) were seasonal local migrants, 18 species (18.9%) were winter migrants. A detailed checklist of avifauna recorded during the study period is given in Table 1.

Among the 95 species of birds recorded in the lake, 12 belong to family Anatidae, six to Accipitridae, five each to Ciconidae, Phasianidae and Columbidae, four each to Strigidae, Ardeidae, Rallidae, Muscicapidae and Ploceidae, three each to Apodidae, Alcedinidae, Sturnidae, Psittacidae and Corvidae, two each to Chardiidae, Picidae, Campephagidae, Dicaeidae, Cuculidae, Motacillidae and Nectariniidae, one each to Podicipedidae, Upupidae, Pelecanidae, Phalacrocoracidae, Threskiornithidae, Gruidae, Jacanidae, Bucerotidae, Capitonidae, Dicruridae, Corociidae, Pycnonotidae and Paridae.

Lovejoy *et al.* (1986) observed that birds are able to persist longer periods at the forest fringes because of the increased availability of phytophagous insects. They added that these insects colonise on sprouts and secondary growth, which appeared in response to increased sunlight. In our observation a good number of species such as Common Babbler, Jungle Babbler, Alpine Swift, Palm Swift, House Swift, Indian Myna,

Received on 1 December 1999

Accepted on 13 April 2000

Table 1. Checklist of birds recorded at Sarsai Nawar Lake, Etawah.

Common Name	Scientific Name	Abundance/ Status	Feeding Habit	Common Name	Scientific Name	Abundance/ Status	Feeding Habit
Family Podicipedidae				28. Shikra	<i>Accipiter badius</i>	A/R	Carnivorous
1. Little Grebe	<i>Podiceps ruficollis</i>	C/RB	Insectivorous	29. Indian White-backed Vulture	<i>Gyps bengalensis</i>	C/R	Carnivorous
Family Pelecanidae				30. White Scavenger Vulture	<i>Neophron percnopterus</i>	C/R	Carnivorous
2. Spotted-billed Pelican	<i>Pelecanus philippensis</i>	r/WM	Carnivorous	31. Osprey	<i>Pandion haliaetus</i>	r/SLM	Carnivorous
Family Phalacrocoracidae				Family Phasianidae			
3. Little Cormorant	<i>Phalacrocorax niger</i>	C/LM	Carnivorous	32. Jungle Bush Quail	<i>Perdica asiatica</i>	C/RB	Herbivorous
Family Ardeidae				33. Grey Jungle fowl	<i>Gallus sonneratii</i>	C/RB	Omnivorous
4. Indian Pond Heron	<i>Ardeola grayii</i>	C/RB	Carnivorous	34. Red Jungle fowl	<i>Gallus gallus</i>	C/RB	Omnivorous
5. Little Egret	<i>Egretta garzetta</i>	C/LM	Carnivorous	35. Indian Pea fowl	<i>Pavo cristatus</i>	C/RB	Omnivorous
6. Cattle Egret	<i>Bubulcus ibis</i>	C/RB	Carnivorous	36. Grey partridge	<i>Francolinus pondicerianus</i>	C/RB	Omnivorous
7. Grey Heron	<i>Ardea cinerea</i>	r/LM	Carnivorous	Family Rallidae			
Family Ciconiidae				37. Indian Moorhen	<i>Gallinula chloropus</i>	C/R	Omnivorous
8. White Stork	<i>Ciconia ciconia</i>	A/WM	Carnivorous	38. Purple Moorhen	<i>Porphyrio porphyrio</i>	C/R	Omnivorous
9. White-necked Stork	<i>Ciconia episcopus</i>	C/WM	Carnivorous	39. Common Coot	<i>Fulica atra</i>		
10. Painted Stork	<i>Mycteria leucocephala</i>	C/LM	Carnivorous	40. White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	C/R	Omnivorous
11. Adjutant Stork	<i>Leptoptilos dubius</i>	C/WM	Carnivorous	Family Gruidae			
12. Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>	r/WM	Carnivorous	41. Sarus Crane	<i>Grus antigone</i>	C/En	Omnivorous
Family Threskiornithidae				Family Jacanidae			
13. Black Ibis	<i>Pseudibis papillosa</i>	r/LMB	Omnivorous	42. Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	C/LM	Omnivorous
Family Anatidae				Family Chardriidae			
14. Bar-headed Goose	<i>Anser indicus</i>	C/WM	Herbivorous	43. Red-wattled Lapwing	<i>Vanellus indicus</i>	C/R	Insectivorous
15. Tufted Duck	<i>Aythya fuligula</i>	C/WM	Omnivorous	44. Yellow-wattled Lapwing	<i>Vanellus malabaricus</i>	C/RB	Insectivorous
16. White-eyed Pochard	<i>Aythya nyroca</i>	C/WM	Omnivorous	Family Columbidae			
17. Nakta	<i>Sarkidiomis melanotos</i>	C/WM	Herbivorous	45. Blue Rock Pigeon	<i>Columba livia</i>	A/RB	Granivorous
18. Spotbill Duck	<i>Anas poecilorhyncha</i>	C/WM	Herbivorous	46. Ring Dove	<i>Streptopelia decaocta</i>	A/RB	Granivorous
19. Shoveller	<i>Anas clypeata</i>	C/WM	Carnivorous	47. Little Brown Dove	<i>Streptopelia senegalensis</i>	A/R	Granivorous
20. Mallard	<i>Anas platyrhynchos</i>	C/WM	Herbivorous	48. Red Turtle Dove	<i>Streptopelia tranguerbarica</i>	C/R	Granivorous
21. Gadwall	<i>Anas strepera</i>	C/WM	Herbivorous	49. Spotted Dove	<i>Streptopelia chinensis</i>	C/R	Granivorous
22. Wigeon	<i>Anas penelope</i>	r/WM	Herbivorous	Family Psittacidae			
23. Pintail	<i>Anas acuta</i>	C/WM	Herbivorous	50. Rose ringed Parakeet	<i>Psittacula krameri</i>	A/RB	Frugivorous
24. Brahmini Duck	<i>Todoma ferruginea</i>	C/LM	Omnivorous	51. Large Indian Parakeet	<i>Psittacula eupatria</i>	C/RB	Frugivorous
25. Red-crested Pochard	<i>Netta rufina</i>	r/WM	Omnivorous	52. Blossom-headed Parakeet	<i>Psittacula cyanocephala</i>	r/LM	Frugivorous
Family Accipitridae				Family Cuculidae			
26. Pariah Kite	<i>Milvus migrans</i>	A/R	Omnivorous	53. Common Hawk-Cuckoo	<i>Cuculus varius</i>	r/LM	Omnivorous
27. Tawny Eagle	<i>Aquila vindhiana</i>	C/R	Carnivorous				

Common Name	Scientific Name	Abundance/ Status	Feeding Habit	Common Name	Scientific Name	Abundance/ Status	Feeding Habit
54. Koel	<i>Eudynamys scolopacea</i>	A/RB	Omnivorous	Family Corvidae			
Family Strigidae				75. Treepie	<i>Dendrocitta vagabunda</i>	r/LM	Omnivorous
55. Indian Great Horned Owl	<i>Bubo bubo</i>	C/RB	Carnivorous	76. House crow	<i>Corvus splendens</i>	A/RB	Omnivorous
56. Collared Sops Owl	<i>Otus bakkamoena</i>	C/RB	Insectivorous	77. Jungle crow	<i>Corvus macrorhynchos</i>	A/RB	Omnivorous
57. Spotted Owlet	<i>Athene brama</i>	A/RB	Insectivorous	Family Campephagidae			
58. Barred Jungle Owlet	<i>Glaucidium radiatum</i>	C/R	Insectivorous	78. Black-headed Cuckoo-Shrike	<i>Coracina melanoptera</i>	C/SLM	Omnivorous
Family Apodidae				79. Large Cuckoo-Shrike	<i>Coracina novaehollandiae</i>	C/R	Omnivorous
59. Alpine Swift	<i>Apus melba</i>	C/LM	Insectivorous	Family Pycnonotidae			
60. Palm Swift	<i>Cypsiurus parvus</i>	C/R	Insectivorous	80. Red-vented Bulbul	<i>Pycnonotus cafer</i>	C/RB	Omnivorous
61. House Swift	<i>Apus affinis</i>	C/R	Insectivorous	Family Muscicapidae			
Family Alcedinidae				81. Large Grey Babbler	<i>Turdoides malcolmi</i>	C/R	Insectivorous
62. Lesser Pied Kingfisher	<i>Ceryle rudis</i>	C/R	Carnivorous	82. Jungle Babbler	<i>Turdoides striatus</i>	A/RB	Omnivorous
63. White-breasted Kingfisher	<i>Halcyon smymensis</i>	C./RB	Carnivorous	83. Ashy Wren-Warbler	<i>Prinia socialis</i>		
64. Small Blue Kingfisher	<i>Alcedo atthis</i>	C/R	Carnivorous	84. Indian Robin	<i>Saxicoloides fulicata</i>	C/R	Insectivorous
Family Coraciidae				Family Dicaeidae			
65. Indian Roller	<i>Coracias benghalensis</i>	A/RB	Carnivorous	85. Thick-billed Flowerpecker	<i>Dicaeum agile</i>	C/R	Herbivorous
Family Upupidae				86. Tickell's Flowerpecker	<i>Dicaeum erythrorhynchos</i>	C/R	Frugivorous
66. Indian Hoopoe	<i>Upupa epops</i>	C/LMB	Insectivorous	Family Paridae			
Family Bucerotidae				87. Yellow-cheeked Tit	<i>Parus xanthogenys</i>	C/LM	Insectivorous
67. Grey Hornbill	<i>Tockus birostris</i>	C/R	Omnivorous	Family Motacillidae			
Family Capitonidae				88. Large Pied Wagtail	<i>Motacilla maderaspatensis</i>	C/R	Insectivorous
68. Blue-throated Barbet	<i>Megalaima asiatica</i>	C/RB	Omnivores	89. White Wagtail	<i>Motacilla alba</i>	C/WM	Omnivorous
Family Picidae				Family Nectariniidae			
69. Rufous Woodpecker	<i>Micropternus brachyurus</i>	C/R	Insectivorous	90. Purple-rumped Sunbird	<i>Nectarinia zeylonica</i>	C/RB	Omnivorous
70. Golden-backed Woodpecker	<i>Dinopium benghalense</i>	C/RB	Omnivorous	91. Purple Sunbird	<i>Nectarinia asiatica</i>	C/RB	Omnivorous
Family Dicruridae				Family Ploceidae			
71. Black Drongo	<i>Dicrurus adsimilis</i>	A/RB	Omnivorous	92. House Sparrow	<i>Passer domesticus</i>	A/R	Omnivorous
Family Sturnidae				93. Baya	<i>Ploceus philippinus</i>	C/LM	Herbivorous
72. Indian Myna	<i>Acridotheres tristis</i>	A/RB	Omnivorous	94. Green Munia	<i>Estrilda formosa</i>	r/LM	Omnivorous
73. Brahminy Myna	<i>Stumus pagodarum</i>	A/RB	Omnivorous	95. White-throated Munia		C/RB	Herbivorous
74. Pied Myna	<i>Stumus contra</i>	C/WM	Omnivorous				

Indian Hoopoe, Red-vented Bulbul, Wagtails, Rufous Wood Pecker, Common Hawk Cuckool, Collared Scops Owl, Barred Jungle Owlet, Indian Robin and Yellow-cheeked Tit were recorded feeding upon insects. These birds were also found to feed upon larvae of insects of different crops. Some birds like Blue Rock Pigeon and Doves were granivorous and they were observed to damage the seeds of sesum and sorghum. Rose-ringed Parakeet and other frugivorous birds were observed feeding on the fruits of chilly and maize crops. Mallard, Gadwall, Wigeon, Spotbill Duck, Comb Duck were herbivorous feeding on vegetable matter, shoots and roots of water plants and shoots of wild and cultivated rice. Spotted-billed Pelican, Little Cormorant, Egrets, Storks, Shoveller, Tawny Eagle, Vulture and Owls were carnivorous feeding on fishes, frogs, lizards and animal matter. Some birds like Black Ibis, Tufted Duck, Brahminy Duck, Fowls, Common Coot, Purple Moorhen, Sarus Crane, Pheasant-tailed Jacana, Green Munia and Indian Myna were omnivorous, feeding upon crustaceans, molluscs, termites, small insects and also grain, water weeds, seeds and vegetable shoots. Some omnivorous birds like Indian Myna feed chiefly on animal matter in the breeding season. These findings are in agreement with the studies of Patel *et al.* (1992), Parasharya *et al.* (1908) and, Dhindsa and Toor (1986).

Number of bird species and their flock size were also recorded. All members of the mixed hunting flocks are either insectivorous or omnivorous. Yahya (1988) stated that mixed flocks follow a longer route and on their way clean up the environment by picking harmful insects.

The birds present in or near the lake are affected by many factors such as pollution, disturbance by human activities and lack of maintenance of lake, yet the avian fauna of this lake is diverse. Keeping in view the varied avifauna recorded, steps should be taken to declare this lake a Sanctuary.

Acknowledgement

Authors are indebted to the Principal and Secretary, Janta College, Bakewar, Etawah for providing necessary facilities.

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