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A checklist of birds in and around Taralu village, adjoining the western margin of the Bannerghatta National Park, Karnataka

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Abstract

A study was conducted to understand the diversity of avian fauna in a human-dominated rural landscape of Bengaluru. Seventy- nine species belonging to forty five families were recorded in the area of Taralu which lies south of Bangalore in close proximity (~ 1 km) to the protected area of Bannerghatta National Park, Karnataka. Three species were found to be of the status 'Near Threatened' according to the IUCN Red List ^[1]. 68 species were found to be residents of this landscape indicating the potential of Taralu as an important ecotone between the forest ecosystem of Bannerghatta and other ecosystems of the region harboring vast faunal and floral diversity.

Keywords: Taralu, Bannerghatta, ecotone

1. Introduction

Habitats surrounding protected areas are important for the persistence of the native bird populations inside the park boundary ^[2]. The Bannerghatta National Park (BNP), near Bangalore, Karnataka, was declared a protected area in 1974, and is dominated by scrub and deciduous vegetation anchoring rich flora and fauna. BNP attracts large number of birds around the year and the most commonly seen birds are Grey Jungle Fowl, Peafowl, Partridges, Parakeets, Orioles, Minivets, Wagtails, etc ^[3]. The park has reported several threatened species of avifauna including vultures ^[4] and Nilgiri Wood-Pigeon *Columba elphinstonii* ^[5]. It has a notable diversity of more than 222 species of birds identified and recorded ^[6]. Forest fragmentation due to land conversion for agricultural purposes and habitat degradation are some of the major factors leading to local extirpation of bird species in the tropics ^[7, 8, 9]. With this background a preliminary survey was undertaken to generate a checklist of avifauna in Taralu (N 12° 46-47' /E 77° 31-32'), which covers about approximately 434 acres of area, situated towards the south of Bangalore and west of the protected area of BNP. Taralu comprises of a mosaic of habitat types categorized as scrublands, dry deciduous, lentic aquatic ecosystems, agricultural area and human-dominated landscapes. The variation in landscape elements could harbor viable avian diversity in the region supplemented by its proximity to BNP.

2. Materials and Methods

The objective was to enumerate species diversity in the study site using trail survey at random paths along different habitat types during the months of April and May 2014. Species were recorded through direct observations and were classified using photographic methods for verification. The observations were made in the early mornings between 6:00 to 9:00 hrs and in the evenings between 16:00 to 18:00 hrs which were found to be congenial with avian movement. Species were identified using the field guide ^[10].

Results and Discussion

Seventy nine species belonging to forty five families were recorded. Ardeidae was found to dominate (n=7) the species list; and the lowest species (n=1) was documented for 25 different families. A study conducted in 2015 ^[11], enumerated 115 species of birds (n=118) around BNP, which was the highest recorded in the urban area of Bangalore. Due to its close proximity to BNP and composing of various landscape elements, a rich diversity of avian fauna has been recorded in Taralu during the present study. Many of these bird species are

assumed residents of the landscape of Taralu but some vagrant and migratory species have also been reported during the survey period. These birds depend on seasonal changes for migration, including the resident birds which move depending largely on rains and availability of forage species. Habitat preferences (scrubland, human habitations, aquatic, etc.) and weather fluctuations are probable key drivers of population dynamics and avifaunal diversity in the study region. During the observed period it was found that 6 bird species *viz.*, Barn Swallow, Blyth's Reed Warbler, Common Sandpiper, Blue Rock-Thrush, Yellow Wagtail and Brown Shrike were winter migrants; while the Indian Bushlark had isolated accounts. 68 species were found to occur locally in this landscape, while the distribution of 4 species were found to be both locally common and winter visitors. 21 aquatic species were found

while the rest were scrubland species. According to the IUCN Red List, 3 of the aquatic species (Oriental Darter, Painted Stork and Black-Headed Ibis) recorded were 'Near Threatened' due to a decrease in their population ^[1]. Further assessments need to be conducted over a longer period in different seasons to understand spatio-temporal diversity and variation in habitat associations. Density estimates of resident species could be surveyed to understand local migration patterns, habitat fidelity and their seasonal occupancy. Close to 47% of the total land area of Taralu estate has been converted into agriculture lands ^[12]. Based on the base-line information, Taralu estate could be considered an important ecotone between the forest ecosystem of BNP and other ecosystems of the region harboring vast faunal and floral diversity.

Table 1: List of avifauna recorded during the study in Taralu ^[13]

S. No	Scientific Names	Common Names	Family	Status	IUCN	WPA
1	<i>Acridotheres fuscus</i>	Jungle myna	Sturnidae	R	LC	SCH IV
2	<i>Acridotheres tristis</i>	Common myna	Sturnidae	R	LC	SCH IV
3	<i>Acrocephalus dumetorum</i>	Blyth's reed warbler	Sylviidae	WV	LC	SCH IV
4	<i>Actitis hypoleucos</i>	Common sandpiper	Scolopacidae	WV	LC	SCH IV
5	<i>Alcedo atthis</i>	Common kingfisher	Alcedinidae	R	LC	SCH IV
6	<i>Amandava amandava</i>	Red avadavat	Estrildidae	R	LC	SCH IV
7	<i>Amaurornis phoenicurus</i>	White-breasted waterhen	Rallidae	R	LC	SCH IV
8	<i>Anas poecilorhyncha</i>	Indian Spot-billed duck	Anatidae	R	LC	SCH IV
9	<i>Anastomus oscitans</i>	Asian openbill stork	Ciconiidae	R	LC	SCH IV
10	<i>Anhinga melanogaster</i>	Oriental darter	Anhingidae	WV/R	NT	SCH IV
11	<i>Anthus rufulus</i>	Paddyfield pipit	Motacillidae	R	LC	SCH IV
12	<i>Ardea cinerea</i>	Grey heron	Ardeidae	WV/R	LC	SCH IV
13	<i>Ardea purpurea</i>	Purple heron	Ardeidae	R	LC	SCH IV
14	<i>Ardeola grayii</i>	Indian pond heron	Ardeidae	R	LC	SCH IV
15	<i>Athene brama</i>	Spotted owl	Strigidae	R	LC	SCH IV
16	<i>Bubulcus ibis</i>	Cattle egret	Ardeidae	R	LC	SCH IV
17	<i>Caprimulgus asiaticus</i>	Indian nightjar	Caprimulgidae	R	LC	SCH IV
18	<i>Casmerodius albus</i>	Great egret	Ardeidae	R	LC	SCH IV
19	<i>Centropus (sinensis) parroti</i>	Southern coucal	Cuculidae	R	LC	SCH IV
20	<i>Ceryle rudis</i>	Pied kingfisher	Alcedinidae	R	LC	SCH IV
21	<i>Charadrius dubius</i>	Little-ringed plover	Charadriidae	R	LC	SCH IV
22	<i>Cinnyris asiaticus</i>	Purple sunbird	Nectariniidae	R	LC	SCH IV
23	<i>Columba livia</i>	Common Pigeon	Columbidae	R	LC	SCH IV
24	<i>Copsychus saularis</i>	Oriental magpie robin	Muscicapidae	R	LC	SCH IV
25	<i>Coracias benghalensis</i>	Indian roller	Coraciidae	R	LC	SCH IV
26	<i>Corvus (macrorhynchos) culminatus</i>	Indian jungle crow	Corvidae	R	LC	SCH IV
27	<i>Corvus splendens</i>	House crow	Corvidae	R	LC	SCH IV
28	<i>Cyornis tickelliae</i>	Tickell's blue flycatcher	Muscicapidae	R	LC	SCH IV
29	<i>Dicrurus macrocercus</i>	Black drongo	Dicruridae	R	LC	SCH IV
30	<i>Dinopium benghalense</i>	Lesser Goldenback woodpecker	Picidae	R	LC	SCH IV
31	<i>Egretta garzetta</i>	Little egret	Ardeidae	R	LC	SCH IV
32	<i>Elanus caeruleus</i>	Black kite	Accipitridae	R	LC	SCH I
33	<i>Eremopterix griseus</i>	Ashy-crowned sparrow lark	Alaudidae	R	LC	SCH IV
34	<i>Eudynamys scolopacea</i>	Asian koel	Cuculidae	R	LC	SCH IV
35	<i>Euodice malabarica</i>	Indian silverbill	Estrildidae	R	LC	SCH IV
36	<i>Francolinus pondicerianus</i>	Grey francolin	Phasianidae	R	LC	SCH IV
37	<i>Fulica atra</i>	Eurasian coot	Rallidae	R	LC	SCH IV
38	<i>Haliastur indus</i>	Brahminy kite	Accipitridae	R	LC	SCH I
39	<i>Halycon smyrnensis</i>	White-throated kingfisher	Alcedinidae	R	LC	SCH IV
40	<i>Hirundo rustica</i>	Barn swallow	Hirundinidae	WV	LC	**
41	<i>Hydrophasianus chirurgus</i>	Pheasant-tailed jacana	Jacaniidae	R	LC	SCH IV
42	<i>Lanius cristatus</i>	Brown shrike	Laniidae	WV	LC	**
43	<i>Lanius vittatus</i>	Bay-backed shrike	Laniidae	R	LC	**
44	<i>Leptocoma zeylonica</i>	Purple-rumped sunbird	Nectariniidae	R	LC	SCH IV
45	<i>Lonchura punctulata</i>	Scaly-breasted munia	Estrildidae	R	LC	SCH IV
46	<i>Megalaima haemacephala</i>	Coppersmith barbet	Ramphastidae	R	LC	SCH IV
47	<i>Megalaima viridis</i>	White-cheeked barbet	Ramphastidae	R	LC	SCH IV
48	<i>Merops orientalis</i>	Little green bee-eater	Meropidae	R	LC	**
49	<i>Mesophoyx intermedia</i>	Intermediate egret	Ardeidae	R	LC	SCH IV
50	<i>Mirafra erythroptera</i>	Indian bushlark	Alaudidae	IR	LC	SCH IV

51	<i>Monticola solitarius</i>	Blue rock-thrush	Turdidae	WV	LC	SCH IV
52	<i>Motacilla flava</i>	Yellow wagtail	Motacillidae	WV	LC	SCH IV
53	<i>Motacilla maderaspatensis</i>	White-browed wagtail	Motacillidae	R	LC	SCH IV
54	<i>Mycteria leucocephala</i>	Painted stork	Ciconiidae	WV/R	NT	SCH IV
55	<i>Orthotomus sutorius</i>	Common tailorbird	Cisticolidae	R	LC	SCH IV
56	<i>Parus major</i>	Great tit	Paridae	R	LC	SCH IV
57	<i>Passer domesticus</i>	House sparrow	Passeridae	R	LC	SCH IV
58	<i>Phalacrocorax niger</i>	Little cormorant	Phalacrocoracidae	R	LC	SCH IV
59	<i>Ploceus philippinus</i>	Baya weaver	Ploceidae	R	LC	SCH IV
60	<i>Prinia socialis</i>	Ashy prinia	Cisticolidae	R	LC	SCH IV
61	<i>Psittacula krameri</i>	Rose-ringed parakeet	Psittacidae	R	LC	SCH IV
62	<i>Pycnonotus cafer</i>	Red-vented bulbul	Pycnonotidae	R	LC	SCH IV
63	<i>Pycnonotus jocosus</i>	Red-whiskered bulbul	Pycnonotidae	R	LC	SCH IV
64	<i>Pycnonotus luteolus</i>	White-browed bulbul	Pycnonotidae	R	LC	SCH IV
65	<i>Rhipidura (albicollis) albogularis</i>	White-spotted fantail	Rhipiduridae	R	LC	SCH IV
66	<i>Saxicola caprata</i>	Pied bushchat	Muscicapidae	R	LC	SCH IV
67	<i>Saxicoloides fulicatus</i>	Indian robin	Muscicapidae	R	LC	SCH IV
68	<i>Stigmatopelia chinensis</i>	Spotted dove	Columbidae	R	LC	SCH IV
69	<i>Stigmatopelia senegalensis</i>	Laughing dove	Columbidae	R	LC	SCH IV
70	<i>Streptopelia decaocto</i>	Eurasian collared dove	Columbidae	R	LC	SCH IV
71	<i>Tachybaptus ruficollis</i>	Little grebe	Podicipedidae	R	LC	SCH IV
72	<i>Tephrodornis pondicerianus</i>	Common woodshrike	Vangidae	R	LC	SCH IV
73	<i>Terpsiphone paradisi</i>	Indian paradise flycatcher	Monarchidea ¹⁴	WV/R	LC	SCH IV
74	<i>Threskiornis melanocephalus</i>	Black-headed ibis	Threskiornithidae	R	NT	SCH IV
75	<i>Turdoides caudatus</i>	Common babbler	Timaliidae	R	LC	SCH IV
76	<i>Turdoides striata</i>	Jungle babbler	Timaliidae	R	LC	SCH IV
77	<i>Vanellus indicus</i>	Red-wattled lapwing	Charadriidae	R	LC	SCH IV
78	<i>Vanellus malabaricus</i>	Yellow-wattled lapwing	Charadriidae	R	LC	SCH IV
79	<i>Zosterops palpebrosus</i>	Oriental white eye	Zosteropidae	R	LC	SCH IV

R- Resident, WV- Winter Visitor, IR- Isolated Records, LC- Least Concern, NT-Near Threatened,

** - List of Bird Families that do not appear in Schedule (Sch) I or IV of Wildlife Protection Act 1972 ^[15]

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