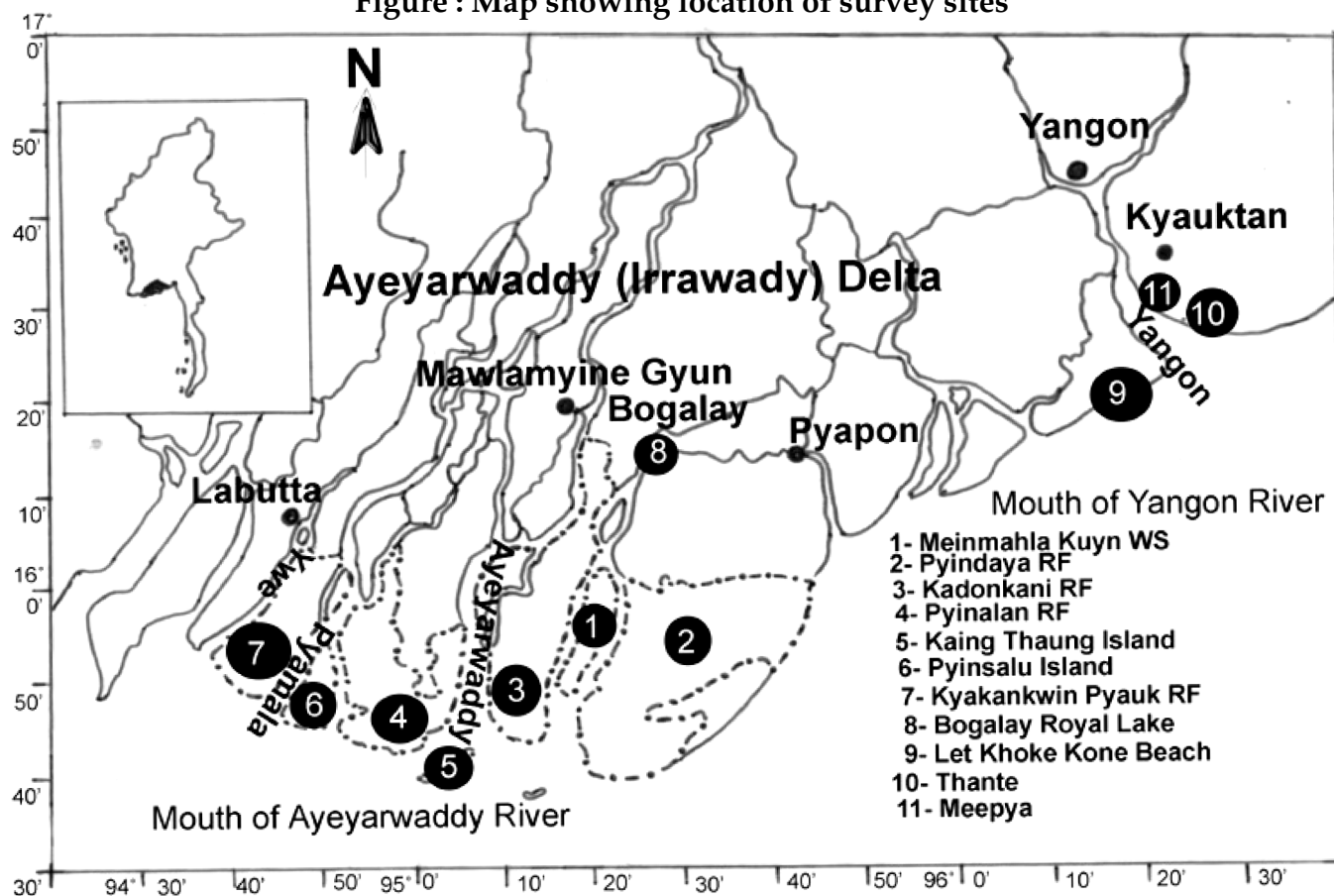


Figure : Map showing location of survey sites



Annotated checklist of the birds of Sariska Tiger Reserve, Rajasthan, India

Ghazala Shahabuddin, Raman Kumar & Ashok Verma

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Introduction

Sariska Tiger Reserve is one of the important areas for biodiversity conservation in the state of Rajasthan, located in the Aravalli Hills (27°30'N 76°22'E). It covers an area of 866 km² and is composed of Sariska Wildlife Sanctuary, covering 492 km² and stretches of adjoining reserved and protected forests which together cover 374 km².

Sariska is located in the semi-arid zone of north-western India delineated as biogeographic province 4A (semi-arid Gujarat-Rajputana) in the classification of Rodgers & Panwar (1988). Sariska

forests represent the tropical dry forest ecosystem that exists in this part of India. Low hills and slopes are covered by deciduous forests dominated by *Anogeissus pendula*, mixed with *Boswellia serrata*, *Lannea coromandelica* and *Wrightia tinctoria*. The ridges, hill-tops and drier strata are dominated by *B. serrata*. Floors of valleys that have seasonal streams or perennial springs, harbour much more diverse semi-deciduous riparian forests of *Mitragyna parvifolia*, *Ficus glomerata*, *Phoenix sylvestris*, *Syzygium cumini*, *Diospyros melanoxylon*, *Mangifera indica* and *Terminalia bellerica*, along with bamboo

clumps *Dendrocalamus strictus*. In narrow rocky valleys with perennial water sources, *Phoenix sylvestris* is commoner than the other associate species of riparian forest. In drier and flatter terrain, tropical scrub forest dominates, consisting of *Ziziphus mauritiana*, *Acacia leucophloea*, *Butea monosperma*, *Balanites aegyptiaca*, *Acacia catechu* and *Aegle marmelos*. The understorey of scrub forests consists of shrubs such as *Capparis sepriaria*, *C. decidua*, *Ziziphus nummularia* and *Adhatoda vasica*. Grasses such as *Cenchrus ciliaris*, *Dicanthium annulatum* and *Heteropogon contortus* occur in the scrub forest and other flatter

terrain.

Prior to this study, avifauna in Sariska Tiger Reserve was documented once, more than ten years ago (Sankar et al. 1993). The present paper describes the bird community of Sariska Tiger Reserve based on studies during the period March 2003 to June 2005. The avifauna of Sariska Tiger Reserve was studied through systematic large-scale surveys utilizing point counts as well as opportunistic observations throughout the study period. Birds were identified using field guides by Grimmett et al. (1998) and Kazmierczak (2000).

Additions to earlier study

During the current study, a total of 183 avian species were recorded. Twenty-seven bird species have been added to the earlier checklist for Sariska (Sankar et al. 1993). Interesting sightings in this category include Isabelline Wheatear *Oenanthe isabellina*, Bar-headed Goose *Anser indicus*, Eurasian Wryneck *Jynx torquilla*, and the Common Cuckoo *Cuculus canorus*. The attached table (Table 1) lists the bird species recorded by us in Sariska, along with notes on habitat preferences and date and place of rare / solitary sightings. Bird nomenclature and taxonomy follow Manakadan & Pittie (2004).

Possible changes in bird fauna since 1993

53 species recorded by Sankar et al (1993) were not recorded by us. However, Sankar et al (1993) had visited several more sites inside the Reserve than we did, during the course of their surveys. But importantly, several species recorded as being common by Sankar et al (1993) were not seen by us, including Cotton Teal *Nettapus coromandelianus*, Chestnut-bellied Sandgrouse *Pterocles exustus*, Painted Sandgrouse *P. indicus* and Spanish Sparrow *Passer hispaniolensis*. There is possibly a decline in sandgrouse populations in Sariska due to recent changes in vegetation following various water conservation measures, such as check-damming of streams and increased protection of habitat from grazing by domestic cattle. Red Spurfowl *Galloperdix spadicea*, previously reported from the rocky tracts of Pandupol and Salopka, was another species that we did not record. Another striking absence from our list is that of

Grey Hornbill *Ocyrceros birostris*, a frugivorous species, otherwise moderately common in deciduous forests of north-western India. This species, recorded as rare by Sankar et al (1993), was never seen by us inside the Reserve despite the abundance of fruiting *Ficus glomerata* and tall trees along the streams suitable for nesting. It is possible that patches of suitable riparian habitat in Sariska are now too fragmented to support a population of hornbills.

Role of Sariska Tiger Reserve in conservation of regional bird diversity

The list of birds in Table 1 indicates that Sariska is extremely rich in avifauna.

Sariska plays an important role in providing a stopover point for numerous passage migrants such as the Common Rosefinch *Carpodacus erythrinus* that occurs in large flocks during March and October. Other passage migrants include Rosy Starling *Sturnus roseus* and rarely, the Verditer Flycatcher *Eumyias thalassina*. Sariska also provides wintering grounds for many species such as Hume's Warbler *Phylloscopus humei*, Black Redstart *Phoenicurus ochruros*, Eurasian Griffon *Gyps fulvus* and Grey-headed Flycatcher *Culicicapa ceylonensis*. From our observations during summer and monsoon, it appears likely that several insectivorous taxa such as Indian Pitta *Pitta brachyura*, Asian Paradise-Flycatcher *Terpsiphona paradisi*, Eurasian Golden Oriole *Oriolus oriolus* and Pied Crested Cuckoo *Clamator jacobinus* are summer migrants to Sariska.

An important reason for high bird diversity in Sariska may be the existence of a varied topography coupled with a mosaic of forest types including scrub forest, tall riparian forest (gallery forest), hilltop forest and dry deciduous *Anogeissus* forest. For instance, a number of species such as the Crested Serpent-Eagle *Spilornis cheela*, Brown Fish-Owl *Ketupa zeylonensis* and Tickell's Blue-Flycatcher *Cyornis tickelliae* have been found restricted to the few patches of tall riparian forest in Sariska. Riparian forest is also important in providing cover and water for numerous bird species during the harsh summer, such as Indian Treepie *Dendrocitta vagabunda*, Oriental Magpie-Robin *Copsychus saularis* and Oriental White-eye *Zosterops palpebrosus*. Bird communities of each

forest type were found to be rather distinct.

Importance of Sariska for bird conservation

Sariska has justifiably been identified as one of the Important Bird Areas (IBA) in the state of Rajasthan by BirdLife International (Jhunjunwala et al. 2001) due to the fact that it supports seven globally threatened species (see below) and has 30 species out of the 60 that are restricted by habitat to the Indo-Malayan Tropical Dry Zone (Jhunjunwala et al. 2001). Important species in the latter category include Painted Spurfowl *Galloperdix lunulata*, Red-headed Vulture *Aegypius calvus*, Jungle Bush-Quail *Perdica asiatica* and White-bellied Drongo *Dicrurus caerulescens*.

Species of conservation interest

Two Critically Endangered species and five Near-threatened species occur in Sariska (BirdLife International 2001). Among the Critically Endangered species, the Indian White-backed Vulture *Gyps bengalensis* occurs in Sariska in a small resident population possibly numbering less than ten. Presence of open scrub woodlands, patches of tall forest and high inaccessible cliffs, along with presence of considerable livestock populations, makes Sariska an ideal habitat for this vulture. The Long-billed Vulture *G. indicus*, another Critically Endangered species, also occurs here in a sizeable resident population, often seen soaring, near cliffs. Sariska offers relatively unpolluted habitat and tall cliffs for the nesting of this species.

Most of the Near-threatened species are uncommonly seen in Sariska. Only the Darter *Anhinga melanogaster* was seen frequently in the Reserve at reservoirs such as Kankwari lake and Karnakawas reservoir. There are just a few individuals in the entire Reserve. Painted Stork *Mycteria leucocephala* has been observed feeding in Kankwari lake and at Karnakawas but is not very common in the Reserve. The Oriental White Ibis *Threskiornis melanocephalus* is not very common in Sariska, having been seen only twice so far. It was seen in swampy fallow fields close to Mansarovar Lake and at Karnakawas reservoir. The Greater Grey-headed Fish-Eagle *Ichthyophaga ichthyaeus*,

possibly a resident, was spotted twice in secluded riparian forest abutting a perennial stream at Bandipul. However, the Red-headed Vulture is quite frequently seen in Sariska, soaring near cliffs and once at a kill in scrub forest at Karnakawas.

Local threats to bird communities

Studies on vegetation have revealed that intensive biomass extraction (mainly through grazing and fuelwood collection) is leading to changes in vegetation structure and composition of the forest (Kumar & Shahabuddin 2005). These changes in forest structure are leading to changes in bird species composition (Shahabuddin & Kumar 2005). Several insectivorous bird species such as the Plain Prinia *Prinia inornata*, Red-throated Flycatcher *Ficedula parva*, Tickell's Blue-Flycatcher, Great Tit *Parus major*, Grey-headed Flycatcher, Oriental White-eye, and Painted Spurfowl are adversely affected by changes in forest structure caused by cutting and lopping activities. Some species such as Indian Robin *Saxicoloides fulicata*, Black Redstart, Eurasian Collared Dove *Streptopelia decaocto* and Grey Francolin *Francolinus pondicerianus* are encouraged and are benefiting by habitat degradation. Apart from extractive activities, escalating

tourism is also likely to adversely impact bird communities in Sariska, as tourism is concentrated around permanent springs such as Pandupol, which are critical to landscape-level diversity in the Reserve.

The forest habitat mosaic found in Sariska comprising dry deciduous, scrub and evergreen riparian forest, along with secluded streams and jheels, is now mainly restricted to protected areas in the Aravalli Hills of Rajasthan. In this context, the protection of Sariska Tiger Reserve as a refuge for avian diversity of Indian tropical dry forest in north-western India is of crucial importance (see also Rodgers & Panwar 1988).

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Table 1. Checklist of bird species found in Sariska (March 2003—June 2005)
(R: Resident, W: Winter migratory, S: Summer migratory, P: Passage migrant)

S. No.	Systematic list	Seasonal status	Comments on habitat preferences; dates for raresightings
1	LITTLE GREBE <i>Tachybaptus ruficollis</i>	R	Seen at jheels and waterholes
2	GREAT WHITE PELICAN <i>Pelecanus onocrotalus</i>	W	Occasionally at Karnakawas and Kankwari
3	LITTLE CORMORANT <i>Phalacrocorax niger</i>	R	Seen at jheels and waterholes
4	INDIAN SHAG <i>P. fuscicollis</i>	R	Seen at streams, jheels and waterholes
5	GREAT CORMORANT <i>P. carbo</i>	R	Seen at jheels
6	DARTER <i>Anhinga melanogaster</i>	R	Frequently seen at jheels and waterbodies
7	LITTLE EGRET <i>Egretta garzetta</i>	R	Seen at streams, jheels and waterholes
8	GREY HERON <i>Ardea cinerea</i>	R	Seen at jheels
9	LARGE EGRET <i>Casmerodius albus</i>	R	Seen at jheels
10	MEDIAN EGRET <i>Mesophoyx intermedia</i>	R	Seen at jheels
11	CATTLE EGRET <i>Bubulcus ibis</i>	R	Near water and cultivation
12	INDIAN POND-HERON <i>Ardeola grayii</i>	R	Seen at streams, jheels and waterholes
13	BLACK-CROWNED NIGHT-HERON <i>Nycticorax nycticorax</i>	R?	Karnakawas, 25.x.2003
14	LITTLE BITTERN <i>Ixobrychus minutus</i>	?	A few times in secluded riparian zone
15	PAINTED STORK <i>Mycteria leucocephala</i>	R	Seen regularly at Karnakawas / Kankwari, Mar-Apr 2005
16	BLACK STORK <i>Ciconia nigra</i>	W	Throughout winter at Karnakawas, also streams
17	WHITE-NECKED STORK <i>Ciconia episcopus</i>	R	At jheels and reservoirs
18	GLOSSY IBIS <i>Plegadis falcinellus</i>	V	Seen once at Kankwari, 9.ii.2006
19	WHITE IBIS <i>Threskiornis melanocephalus</i>	R	Seen in fields, at jheels
20	EURASIAN SPOONBILL <i>Platalea leucorodia</i>	R	A few times at jheels
21	GREYLAG GOOSE <i>Anser anser</i>	W	Karnakawas. 24.i.2004
22	BAR-HEADED GOOSE <i>A. indicus</i>	W	Open stretches near wetland, close to village

S. No.	Systematic list	Seasonal status	Comments on habitat preferences; dates for resightings
23	BRAHMINY SHELDUCK <i>Tadorna ferruginea</i>	W	Jheels and reservoirs
24	GADWALL <i>Anas strepera</i>	W	Karnakawas, 29.i.2004
25	MALLARD <i>A. platyrhynchos</i>	W	Karnakawas, 16.xii.2003
26	SPOT-BILLED DUCK <i>A. poecilorhyncha</i>	R	Common at waterholes and reservoirs
27	NORTHERN SHOVELER <i>A. clypeata</i>	W	Common at jheels and reservoirs
28	NORTHERN PINTAIL <i>A. acuta</i>	W	Common at jheels and reservoirs
29	GARGANEY <i>A. querquedula</i>	W	Karnakawas, 12.xi.2003
30	COMMON TEAL <i>A. crecca</i>	W	Infrequent at jheels and reservoirs
31	COMMON POCHARD <i>Aythya ferina</i>	W	Karnakawas, 12.xii.2003
32	ORIENTAL HONEY-BUZZARD <i>Pernis ptilorhynchus</i>	R	Occasional sightings in all habitats
33	BLACK-SHOULDERED KITE <i>Elanus caeruleus</i>	R	Fairly common in scrub forest
34	GREATER GREY-HEADED FISH-EAGLE <i>Ichthyophaga ichthyaetus</i>	R	Seen in riparian forest only
35	EGYPTIAN VULTURE <i>Neophron percnopterus</i>	R	All habitats, commonly near Kankwari village
36	INDIAN WHITE-BACKED VULTURE <i>Gyps bengalensis</i>	R	Soaring near cliffs occasionally
37	LONG-BILLED VULTURE <i>G. indicus</i>	R	Commonly seen soaring and at kills
38	EURASIAN GRIFFON <i>G. fulvus</i>	W	Occasionally seen soaring
39	RED-HEADED VULTURE <i>Aegyptius calvus</i> ¹	R	Often seen soaring and at kills
40	CRESTED SERPENT-EAGLE <i>Spilornis cheela</i>	R	Restricted to dense riparian forest
41	WESTERN MARSH-HARRIER <i>Circus aeruginosus</i>	W	Seen a few times near jheels and reservoirs
42	SHIKRA <i>Accipiter badius</i>	R	Seen in all habitats
43	EURASIAN SPARROWHAWK <i>A. nisus</i>	W	Seen a few times in all habitats
44	WHITE-EYED BUZZARD <i>Butastur teesa</i>	R	Seen a few times in all habitats, more in degraded scrub
45	BONELLI'S EAGLE <i>Hieraetus fasciatus</i>	R	Seen a few times in all habitats
46	BOOTED EAGLE <i>H. pennatus</i>	W	Governor Route, 12.xi.2003
47	OSPREY <i>Pandion haliaetus</i>	W	A few times at jheels
48	COMMON KESTREL <i>Falco tinnunculus</i>	W	Seen a few times in open, rocky habitat
49	LAGGAR FALCON <i>F. jugger</i>	R	16 Dec 03 at Bhaironghati
50	PEREGRINE FALCON <i>F. peregrinus</i>	W	A few times at jheels and scrub forest
51	BLACK FRANCOLIN <i>Francolinus francolinus</i>	R	A few times near jheel in thicket
52	GREY FRANCOLIN <i>F. pondicerianus</i>	R	Mostly degraded scrub forest
53	RAIN QUAIL <i>Coturnix coromandelica</i>	R	Bhaironghati, 9.xii.2003
54	JUNGLE BUSH QUAIL <i>Perdicula asiatica</i>	R	Occasionally in scrub forest
55	PAINTED SPURFOWL <i>Galloperdix lunulata</i>	R	Restricted to undisturbed riparian forest
56	INDIAN PEA FOWL <i>Pavo cristatus</i>	R	Common in all habitats
57	WHITE-BREASTED WATERHEN <i>Amaurornis phoenicurus</i>	R	Near jheels and ditches
58	COMMON MOORHEN <i>Gallinula chloropus</i>	R	Near jheels and ditches
59	COMMON COOT <i>Fulica atra</i>	W	Only in jheels and reservoirs
60	LITTLE RINGED PLOVER <i>Charadrius dubius</i>	W	Jheels and reservoirs
61	RED-WATTLED LAPWING <i>Vanellus indicus</i>	R	Jheels, streams and waterholes, open land
62	WHITE-TAILED LAPWING <i>V. leucurus</i>	W	Karnakawas. i.2005
63	BLACK-TAILED GODWIT <i>Limosa limosa</i>	W	Regularly seen at Karnakawas, in Nov 2003 & Mar 2005
64	COMMON REDSHANK <i>Tringa totanus</i>	W	Near jheels and reservoirs
65	COMMON GREENSHANK <i>T. nebularia</i>	W	Near jheels and reservoirs
66	GREEN SANDPIPER <i>T. ochropus</i>	W	Near streams, waterholes and jheels
67	WOOD SANDPIPER <i>T. glareola</i>	W	Near streams, waterholes and jheels
68	COMMON SANDPIPER <i>Actitis hypoleucos</i>	W	Near streams, waterholes and jheels
69	LITTLE STINT <i>Calidris minuta</i>	W	Karnakawas, 4.v.2005
70	BLACK-WINGED STILT <i>Himantopus himantopus</i>	R	Jheels and waterholes
71	STONE-CURLEW <i>Burhinus oedicephalus</i>	P?	Degraded scrub forest
72	RIVER TERN <i>Sterna aurantia</i>	R	Jheels and reservoirs
73	WHISKERED TERN <i>Chlidonias hybridus</i>	W	Jheels and reservoirs
74	WHITE-WINGED BLACK TERN <i>C. leucopterus</i>	W	Kankwari, 27.iv.2005
75	BLUE ROCK PIGEON <i>Columba livia</i>	R	In all habitats, mainly undisturbed
76	LITTLE BROWN DOVE <i>Streptopelia senegalensis</i>	R	Mostly in disturbed habitats
77	SPOTTED DOVE <i>S. chinensis</i>	R	Seen in all habitats apart from Anogeissus
78	RED COLLARED-DOVE <i>S. tranquebarica</i>	R	Mostly in disturbed habitats
79	EURASIAN COLLARED-DOVE <i>S. decaocto</i>	R	Only in disturbed habitats
80	YELLOW-LEGGED GREEN-PIGEON <i>Treron phoenicoptera</i>	R	Mostly in riparian habitat, occasionally in scrub forest
81	ROSE-RINGED PARAKEET <i>Psittacula krameri</i>	R	Mostly in riparian habitat, occasionally in others
82	PLUM-HEADED PARAKEET <i>P. cyanocephala</i>	R	In all habitats
83	PIED CRESTED CUCKOO <i>Clamator jacobinus</i>	R	A few times in scrub forest
84	BRAINFEVER BIRD <i>Hierococcyx varius</i>	R	A few times in scrub forest
85	COMMON CUCKOO <i>Cuculus canorus</i>	P?	A few times in scrub forest

S. No.	Systematic list	Seasonal status	Comments on habitat preferences; dates for resightings
86	ASIAN KOEL <i>Eudynamis scolopacea</i>	R	Mostly in riparian habitat, occasionally in others
87	GREATER COUCAL <i>Centropus sinensis</i>	R	Mostly in scrub, also in riparian habitat
88	COLLARED SCOPS-OWL <i>Otus bakkamoena</i>	R	A few times in scrub forest
89	BROWN FISH-OWL <i>Ketupa zeylonensis</i>	R	Restricted to undisturbed riparian forest
90	SPOTTED OWLET <i>Athene brama</i>	R	In all habitats
91	INDIAN JUNGLE NIGHTJAR <i>Caprimulgus indicus</i>	R	Frequently seen/heard during Mar-May 2005
92	HOUSE SWIFT <i>Apus affinis</i>	R	Near waterbodies
93	SMALL BLUE KINGFISHER <i>Alcedo atthis</i>	R	Only in riparian habitat
94	WHITE-BREASTED KINGFISHER <i>Halcyon smyrnensis</i>	R	Mostly near streams and jheels, also near habitation
95	LESSER PIED KINGFISHER <i>Ceryle rudis</i>	R	A few times at jheels and streams
96	SMALL BEE-EATER <i>Merops orientalis</i>	S	Everywhere in open habitats
97	BLUE-TAILED BEE-EATER <i>M. philippinus</i>	R	Ghandka, ii.2004
98	INDIAN ROLLER <i>Coracias benghalensis</i>	R	Degraded scrub and cultivation
99	COMMON HOOPOE <i>Upupa epops</i>	R	Mostly in degraded habitat
100	COPPERSMITH BARBET <i>Megalaima haemacephala</i>	R	Mostly in scrub forest
101	EURASIAN WRYNECK <i>Jynx torquilla</i>	W	Degraded open habitats
102	BROWN-CAPPED PYGMY WOODPECKER <i>Dendrocopos nanus</i>	R	In all habitats, more in tall forest
103	YELLOW-FRONTED PIED WOODPECKER <i>D. mahrattensis</i>	R	In all habitats
104	LESSER GOLDEN-BACKED WOODPECKER <i>Dinopium benghalense</i>	R	Seen in all habitats
105	INDIAN PITTA <i>Pitta brachyura</i>	P?	Kalighati, 21.vii.2003
106	RED-WINGED BUSH-LARK <i>Mirafra erythroptera</i>	R	Seen in winter in rocky, open areas like Kankwari /Kirashka
107	ASHY-CROWNED SPARROW-LARK <i>Eremopterix griseus</i> ¹	R	Common in rocky, open areas like Kankwari
108	RUFIOUS-TAILED FINCH-LARK <i>Ammomanes phoenicura</i> ¹	R	A few times in degraded open scrub and rocky sites
109	GREATER SHORT-TOED LARK <i>Calandrella brachydactyla</i>	W	Kankwari, 18.xii.2003
110	DUSKY CRAG-MARTIN <i>Ptyonoprogne concolor</i> ¹	R	Near jheels, reservoirs and rocky slopes
111	WIRE-TAILED SWALLOW <i>Hirundo smithii</i>	R	Near jheels and reservoirs
112	RED-RUMPED SWALLOW <i>H. daurica</i>	R	In open areas near ditches and rocky slopes
113	WHITE WAGTAIL <i>Motacilla alba</i>	W	Near streams and jheels
114	LARGE PIED WAGTAIL <i>M. maderaspatensis</i>	R	Near streams and jheels
115	CITRINE WAGTAIL <i>M. citreola</i>	W	Infrequently near jheels
116	GREY WAGTAIL <i>M. cinerea</i>	W	Near streams and jheels
117	EURASIAN TREE PIPIT <i>Anthus trivialis</i>	W	Mainly in undisturbed habitat
118	LARGE CUCKOO-SHRIKE <i>Coracina macei</i>	R	Seen a few times in degraded scrub forest
119	BLACK-HEADED CUCKOO-SHRIKE <i>C. melanoptera</i>	R	Kalighati, 2.x.2003
120	SMALL MINIVET <i>Pericrocotus cinnamomeus</i>	R	Seen mainly in scrub and riparian
121	COMMON WOODSHRIKE <i>Tephrodornis pondicerianus</i>	R	Seen in all habitats
122	RED-VENTED BULBUL <i>Pycnonotus cafer</i>	R	Seen in all kinds of habitats
123	RUFIOUS-TAILED SHRIKE <i>Lanius isabellinus</i>	R	Sariska, 4.iii.2005
124	BAY-BACKED SHRIKE <i>L. vittatus</i>	R	Seen in all habitats
125	RUFIOUS-BACKED SHRIKE <i>L. schach</i>	R	Seen in all habitats
126	SOUTHERN GREY SHRIKE <i>L. meridionalis</i>	R	Several times throughout winter in degraded scrub
127	TICKELL'S THRUSH <i>Turdus unicolor</i>	W	Few times in scrub forest
128	EURASIAN BLACKBIRD <i>T. merula</i>	W	Seen often during Mar-Apr 2005
129	BLUETHROAT <i>Luscinia svecica</i>	W	Near jheels and waterholes
130	ORIENTAL MAGPIE-ROBIN <i>Copsychus saularis</i>	R	Mainly in undisturbed riparian and scrub forest
131	INDIAN ROBIN <i>Saxicoloides fulicata</i>	R	Common in disturbed habitats everywhere
132	BLACK REDSTART <i>Phoenicurus ochruros</i>	W	Seen in all habitats, more common in open habitats
133	COMMON STONECHAT <i>Saxicola torquata</i>	W	Seen occasionally in open scrub habitat
134	PIED BUSHCHAT <i>S. caprata</i>	R	Seen occasionally in degraded scrub
135	GREY BUSHCHAT <i>S. ferrea</i>	W	Twice in scrub forest
136	DESERT WHEATEAR <i>Oenanthe deserti</i>	W	Kankwari, 18.xii.2003
137	ISABELLINE WHEATEAR <i>O. isabellina</i>	W	A few times in rocky degraded areas
138	INDIAN CHAT <i>Cercomela fusca</i>	R	Mostly in rocky riparian habitat
139	YELLOW-EYED BABBLER <i>Chrysomma sinense</i>	R	Occasional sightings in open scrub forest
140	COMMON BABBLER <i>Turdoides caudata</i> ¹	R	Restricted to degraded scrub forest
141	LARGE GREY BABBLER <i>T. malcolmi</i>	R	Restricted to degraded scrub forest
142	JUNGLE BABBLER <i>T. striata</i> ¹	R	Seen in all habitats, more in dense vegetation
143	FRANKLIN'S PRINIA <i>Prinia hodgsonii</i>	R	Mostly in undisturbed habitats
144	JUNGLE PRINIA <i>P. sylvatica</i>	R	Mostly in scrub forest
145	ASHY PRINIA <i>P. socialis</i>	R	Mostly in scrub forest, particularly disturbed
146	PLAIN PRINIA <i>P. inornata</i>	R	Mostly in disturbed habitats
147	COMMON TAILORBIRD <i>Orthotomus sutorius</i>	R	Seen in all habitats, esp. riparian
148	COMMON CHIFFCHAFF <i>Phylloscopus collybita</i>	W	A few times in scrub, near jheels

S. No.	Systematic list	Seasonal status	Comments on habitat preferences; dates for resightings
149	OLIVACEOUS LEAF-WARBLER <i>P. griseolus</i>	W	Seen mainly in rocky streambeds in dense forest
150	HUME'S WARBLER <i>P. humei</i>	W	Seen mainly in undisturbed and riparian habitats
151	GREENISH LEAF-WARBLER <i>P. trochiloides</i>	W	Near Kirashka, 3.x.2003
152	COMMON LESSER WHITETHROAT <i>Sylvia curruca</i>	W	Mainly in disturbed habitats everywhere
153	RUSTY-TAILED FLYCATCHER <i>Muscicapa ruficauda</i>	P?	A few times in undisturbed riparian forest, waterholes
154	RED-THROATED FLYCATCHER <i>Ficedula parva</i>	W	Mostly in riparian also undisturbed scrub
155	VERDITER FLYCATCHER <i>Eumyias thalassina</i>	P?	Seen occasionally in riparian forest
156	TICKELL'S BLUE FLYCATCHER <i>Cyornis tickelliae</i>	R	Mainly in undisturbed riparian forest
157	GREY-HEADED FLYCATCHER <i>Culicicapa ceylonensis</i>	W	Mainly in undisturbed riparian forest
158	ASIAN PARADISE-FLYCATCHER <i>Terpsiphone paradisi</i>	S	Only in undisturbed scrub and riparian
159	WHITE-BROWED FANTAIL-FLYCATCHER <i>Rhipidura aureola</i>	R	Seen mainly in undisturbed habitats
160	GREAT TIT <i>Parus major</i>	R	Mainly in undisturbed habitats esp. riparian
161	PURPLE SUNBIRD <i>Nectarinia asiatica</i>	R	Seen in all habitats, more in open, disturbed areas
162	ORIENTAL WHITE-EYE <i>Zosterops palpebrosus</i>	R	Mostly in undisturbed habitats, particularly riparian
163	CRESTED BUNTING <i>Melophus lathami</i>	R	Mostly in disturbed habitats and scrub forest
164	WHITE-CAPPED BUNTING <i>Emberiza stewarti</i>	W	Seen in all habitats, more in undisturbed habitats
165	RED-HEADED BUNTING <i>E. bruniceps</i>	W	Dec 05 in Kalighati area
166	COMMON ROSEFINCH <i>Carpodacus erythrinus</i>	P	Mostly in degraded scrub forest
167	WHITE-THROATED MUNIA <i>Lonchura malabarica</i>	R	Disturbed scrub and riparian sites
168	SPOTTED MUNIA <i>L. punctulata</i>	R	Near Indauk village, x.2003
169	HOUSE SPARROW <i>Passer domesticus</i>	R	Few times in scrub forest
170	YELLOW-THROATED SPARROW <i>Petronia xanthocollis</i>	R	Seen in all habitats, but more in disturbed forests
171	BAYA WEAVER <i>Ploceus philippinus</i>	R	Open scrub forest near water
172	GREY-HEADED STARLING <i>Sturnus malabaricus</i>	W	Near Haripura, x.2003
173	BRAHMINY STARLING <i>S. pagodarum</i>	R	Seen mainly in disturbed habitats
174	ROSY STARLING <i>S. roseus</i>	P	Seen in flocks in degraded scrub
175	COMMON STARLING <i>S. vulgaris</i>	W	Kankwari, 3.xi.2003
176	ASIAN PIED STARLING <i>S. contra</i>	R	Seen occasionally in scrub forest
177	COMMON MYNA <i>Acridotheres tristis</i>	R	Seen mainly in riparian and scrub habitat
178	BANK MYNA <i>A. ginginianus</i>	R	Seen a few times near villages
179	EURASIAN GOLDEN ORIOLE <i>Oriolus oriolus</i>	S	Seen in all habitats, commonly in undisturbed sites
180	BLACK DRONGO <i>Dicrurus macrocercus</i>	R	Seen in all habitats
181	WHITE-BELLIED DRONGO <i>D. caerulescens</i>	R	Mostly in undisturbed habitats
182	JUNGLE CROW <i>Corvus macrorhynchos</i>	R	Karnakawas, 30.xi.2003
183	INDIAN TREEPIE <i>Dendrocitta vagabunda</i>	R	Abundant in all habitats

¹Based on nomenclature used in Rasmussen & Anderton (2005).

Recoveries from the Newsletter for Birdwatchers (1966)—11

Zafar Futehally

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At our Annual Meeting on 15.i.1967, giving "vital statistics" for the year's performance, I reported that 46 persons had sent articles, 16 of whom were Englishmen and women, and these have proved to be our keenest supporters. The number of subscribers in December 1966 was 375.

There are some splendid articles in the 1966 Newsletter, of the type which could be models for current contributors—pleasant reading based on careful observation. So I thought I would quote extensively from some of these writers,

K.K. Neelakantan, Stewart Melluish, T.J. Roberts, etc. The wealth of material makes it necessary to spread this over more than one issue of *Indian Birds*, and in this one I confine myself to dealing only with 'KKN'.

Writing about the strange choice of roosts by crows, KKN [*NLBW* 6 (1): 1-2] said,

"That crows, mynas, house sparrows, and parakeets roost in larger numbers in trees standing in the middle of crowded bazaars is well known, but I used to think that this was due to the absence of more suitable roosts near by. A recent experience makes me wonder whether these birds

deliberately choose trees in the heart of the town.

"Towards the end of the third week of November I was passing through Shoranur (central Kerala) at 11 p.m. It was a dark night. The spot where we had stopped was at the very centre of this small town, not far from the Railway Station and close to a hotel which is open all night. It is also the town bus stand, and till about 10 p.m. is full of bustle. Throughout the night lorries and buses stop there and small, noisy crowds of people are never absent. The place is also brilliantly lit from dusk to dawn. Yet a clump of *Pongamia* trees standing under a street lamp and in the glare of the fluorescent lights of the hotel sign was full of crows. Those I