BIRDS OBSERVED FROM DHARAN TO KOSI BARRAGE, SUNISHARI DISTRICT, NEPAL, JUNE 1995

At the conclusion of an extended trek in the mountains of eastern Nepal, our jaded team defied the logic of a return to the comforts of Kathmandu, and proceeded instead to the terai (lowland plain) of Sunishari district, for an additional four days of birding, 26-29 June 1995. Starting from the sprawling city of Dharan (245 m) at the base of the Siwalik foothills, we walked west through an extensive tract of mixed sal Shorea robusta forest, that covers much of NW Sunishari. We then traversed cultivation to Ramdhuni Ban, a more degraded, predominantly sal forest, and continued across open terai to Kusaha, headquarters of Kosi Thappu Wildlife Reserve. Two days were spent in the Kusaha vicinity investigating representative areas of habitat types before continuing along the eastern embankment of the Sapta Kosi River to within 1.5 km of Kosi Barrage (70 m; lowest elevation in Nepal). The walk ended with an unproductive excursion along the dam crest at dusk.

Kosi Thappu and the Barrage is one of the best documented areas for birds in Nepal, with a reported total of 280 species (Nepal Department of National Parks and Wildlife Conservation 1994). The area is an important staging point for migrant waterfowl that cross the Himalayas in spring, and to a lesser degree in autumn and winter, when numbers are augmented by a great variety of other water birds. Some of these are known in Nepal only from the Kosi area, and regularly attract hopeful bird watchers during these seasons.

By contrast, relatively few investigations have been conducted in this area during the monsoon period of mid-June through September, when summer visitors, primarily from farther south in India, move into Nepal. For the ornithologist, a monsoon visit also provides the opportunity to observe various local specialties. Most of these are grassland and marsh haunting species that were formerly more widely distributed in the <u>terai</u>, but whose habitats, particularly in east Nepal, have been extensively converted in the recent past for agricultural use.

Dharan to Kusaha

Our approach walk from Dharan followed the main bullock cart track from Golpa camp 3 km W of town to Bharauli village, keeping to the S and SW of the link road to Chatara, a documented good birding destination in the eastern terai (Inskipp 1992). The moist subtropical forest encountered on this stretch is festooned with epiphytes and climbers, yet despite increasing local utilization, remains largely intact, at least in the vicinity of the main track. Estimated canopy cover ranged from 50 to 70%. Some tall trees have been removed for timber, collection of firewood evidently takes place regularly, and the understorey is seasonally grazed. Even so, standing deadwood was frequently noted, and the daily showers of the approaching monsoon had generated abundant herbaceous undergrowth. White-rumped Shama Copsychus malabaricus, which was recorded seven times, and Emerald Dove Chalcophaps indica (once) reflected the relatively dense condition of the forest. Two species, Pied Cuckoo Clamator jacobinus and Lesser Fishing Eagle Ichthyophaga humilis, were the scarcest birds encountered. On a long day through mixed forest, and a short stretch of open terai from Chakarghatti to Sainik, 57 species were recorded.

16 SEPTEMBER 1995 DRAFT

The next morning we passed through Ramdhuni Ban. This forest was originally protected due to the presence of a Hindu shrine. It is now an important local source of renewable forest products, resulting in greater exploitation pressure than in the Golpa-Bharauli tract. A similar number of bird species were, however, recorded in both forests. Our route during the afternoon included open <u>terai</u>, flooded fields, and finally marsh, as we approached Kusaha. For the day, 44 species were recorded.

Kosi Thappu to Kosi Barrage

Movement within much of Kosi Thappu was impeded by high water levels. Observations were restricted to vantage points along the main and secondary (perpendicular) eastern embankments, and soggy patches of grassland and tamarisk scrub. Monsoon showers depressed bird counts on 28 June and on the morning of 29 June. Nonetheless, the two days of birding produced species lists of 61 and 59 respectively.

Avian diversity in marsh habitat within the Reserve was exceeded by that in comparable habitat outside the eastern border of the Reserve (32 vs 48 species). This disparity is inflated somewhat due to the edge effect of cultivation outside the Reserve, but shows the conservation importance of adjoining marshes to resident and migrant species. Check dams and spillways divert water from the stream that meanders through these marshes, with a new spillway noted under construction 2 km N of Kusaha. The effect of irrigation scmes on critical marsh habitat merits urgent study.

The Kosi embankment was planted with trees in the 1980s to further strengthen it against flooding. Vegetation is a species-poor association of khair_Acacia catechu and sisoo, with scant undergrowth. Nevertheless, levee vegetation was found to support high numbers of birds, in particular several cuculids: Koel Eudynamys scolopacea, Common Hawk-cuckoo Hierococcyx varius and Pied Cuckoo Clamator jacobinus, and species such as Black-headed Oriole Oriolus xanthornis, that require leafy canopy cover. Furthermore, it is the only habitat where Asian Paradise Flycatcher Tersiphone paradisi and Olive-backed Pipit Anthus hodgsoni were noted. Indeed, because of the shortage of tree cover on the N Kusaha to Kosi Barrage walk, most arboreal species were recorded in this strip of planted forest.

Species accounts

Several species recorded on the walk merit specific mention due to their ascribed scarcity, inadequately known status, or additional data related to well-documented occurrence in the area.

LITTLE CORMORANT <u>Phalacrocorax niger</u>. Noted frequently in flooded fields and marsh, and flying overhead, from E of Madhuban village to Kusaha. About 40 on 28 June around and N of Kusaha, and 15-20 on 29 June from Kusaha to Kosi Barrage; usually seen as singles, but some in pairs. The species is reported as uncommon in Nepal, but a common winter visitor and passage migrant at Kosi (Inskipp and Inskipp 1991).

YELLOW BITTERN <u>Ixobrychus sinensis</u>. Although largely nocturnal and crepuscular, 15 on 28 June and six on 29 June were recorded as singles and pairs at

regular intervals, except during mid-day, in marsh and flooded grassland from N of Kusaha to Bandabhari village. The species is a locally distributed summer visitor to Nepal (Inskipp and Inskipp 1991), and probably breeds at Kosi.

CINNAMON BITTERN <u>I. cinnamomeus</u>. Described as an occasional summer visitor (Inskipp and Inskipp 1991), but on 29 June five singles and six pairs were seen during the day over reed beds from N of Kusaha to Bandabhari.

BLACK-NECKED STORK <u>Ephyppiorhynchus asiaticus</u>. One adult with a juvenile in flooded fallow fields 3 km E of Madhuban on 27 June, and two adults with a juvenile on a Kosi sand flat the next day. The species is a scarce resident and passage migrant in Nepal, but regularly recorded from the Kosi Thappu area, where breeding has been proved (Inskipp and Inskipp 1991).

COTTON PYGMY GOOSE <u>Nettapus coromandelianus</u>. Fifteen of and 3 99 noted on five occasions in marshy pools from E of Madhuban to Kusaha, 27-28 June. Described as an occasional resident and summer visitor to the <u>terai</u> (Inskipp and Inskipp 1991).

LESSER FISHING EAGLE <u>Ichthyophaga humilis</u>. One bird at forest edge 1 km W of Golpa camp on 26 June. In Nepal, the species is a scarce and evidently declining local resident (Inskipp and Inskipp 1991), previously unreported from the Dharan or Kosi Thappu areas.

SWAMP FRANCOLIN <u>Francolinus gularis</u>. Single on an embankment spur in grass and <u>ber Zizyphus jujuba</u> W of Kusaha on 29 June. Flushed in atypical habitat, but this possibly due to inundation of grasslands in the area at the time of observation.

WATERCOCK <u>Gallicrex cinerea</u>. A p flew over and plunged into littoral grasslands 1 km SW of Kusaha on 29 June. Said to be fairly common in Kosi marshes during the monsoon, although more often heard than seen (B.B. Khadka, Reserve Ranger, pers. comm.). The species is a scarce, probably under-recorded summer visitor to Nepal (Inskipp and Inskipp 1991).

LESSER FLORICAN <u>Spheotides indica</u>. A 9 was clearly observed running across the embankment road from a closely grazed patch of grass to slightly flooded littoral grassland; about 500 m SE of Kusaha on 29 June. Mainly a scarce summer visitor to Nepal, although probably under-recorded (Inskipp and Inskipp 1991). This is the first report of the species from Kosi Thappu since 19__.

PHEASANT-TAILED JACANA <u>Hydrophasianus chirurgus</u>. Five pairs were spotted in pools with floating vegetation from N of Kusaha to Bandabhari on 28 and 29 June. This resplendent species is reported as a fairly common summer visitor on Kosi marshes, where breeding has been proved (Inskipp and Inskipp 1991), but numbers appeared to have increased in recent years (B.B. Khadka, pers. comm.).

PIED CUCKOO <u>Clamator jacobinus</u>. One bird at forest edge 1 km W of Golpa camp on 26 June. A pair noted in grove habitat, flying between Kusaha compound and embankment trees on 28 June. The species is a scarce summer visitor to Nepal, seen mainly in the <u>terai</u> during the monsoon (Inskipp and Inskipp 1991). Noted as a regular summer visitor to Kosi Thappu (B.B. Khadka, pers. comm.).

ASIAN PALM SWIFTLET <u>Cypsiurus balasiensis</u>. Single noted E of Kusaha on 27 June, and another flying over elephant grass along the banks of the Kosi W of Kusaha on 29 June. A scarce resident of the <u>terai</u>, usually associated with palmyra palms (Fleming <u>et al</u>. 1984), although noted in recent years over open cultivation in the eastern <u>terai</u> (Inskipp and Inskipp 1991). Said to occur at Kosi Thappu only during May and June (B.B. Khadka, pers. comm.).

Breeding notes

Our passage also afforded the opportunity to gather additional data on breeding birds of the eastern terai:

BLACK-NAPED FLYCATCHER Hypothymis azurea. A σ pair 5 km SW of Dharan on 26 June was constructing a nest at trailside about 4 m off the ground in a small broadleaved tree. Birds actively engaged in alternating sorties for nesting material. One would return with a bit of grass or moss, weave it into the nearly finished cuplike structure, then wait a minute or two for the other bird to return and exchange places with it on the nest.

KOEL CUCKOO <u>Eudynamys scolopacea</u>. A o was seen carrying food at the edge of cut over mixed sal forest, eastern outskirts of Bharauli village, 12 km SW of Dharan, 26 June.

COMMON MYNA <u>Acridotheres tristis</u>. One bird seen entering a nesting hole in a <u>sal</u> tree about 12 m off the ground in open fields with huts; another bird with nesting material observed beside a nesting hole/crevice, also in a <u>sal</u> tree, about 50 m away from the first site; at Bharauli, 12 km SW of Dharan, 26 June.

JUNGLE MYNA A. <u>fuscus</u>. Two birds in a noisy flock of five were seen entering a probable nesting hole in a broadleaved tree in predominantly sal forest, 4 km SW of Sainik village on 27 June. Neither bird was seen to exit the hole during the 20 minutes of observation at the site.

BAYA WEAVER <u>Ploceus philippinus</u>. Forty-three nests in a single coconut palm, next to a house, between Sainik and Chakarghatti villages, 24 km SW of Dharan, 26 June. Only of seen involved in nest building activity. Most nests nearly finished, but some still green and incomplete. A second nesting colony of six nests (two of which incomplete), and only of birds, was noted in a tall silk cotton tree <u>Bombax malabaricum</u> at the edge of Prakashpur village on 27 June. Also, a of seen carrying a long strand of reed in reed beds and water hyacinth 2 km S of Kusaha on 28 June.

BLACK DRONGO <u>Dicrurus macrocercus</u>. A family group of five birds, with at least one juvenile that was quivering its wings and being fed by two adults. Observed in trailside shrub tops 24 km SW of Dharan outside Sainik village at dusk on 26 June.

BLACK-CROWNED NIGHT HERON <u>Nycticorax nycticorax</u>. A pair with at least two young, nesting in Kosi Thappu Headquarters compound, 28-29 June.

BRONZE-WINGED JACANA <u>Metopidius indicus</u>. An adult with three chicks were observed walking gingerly on floating vegetation in a grassy pool, inside the Reserve embankment on 28 June.

GREATER COUCAL <u>Centropus sinensis</u>. One bird seen carrying nesting material to a site in reed beds outside the Reserve 1 km S of Kusaha on 28 June.

WHITE-TAILED STONECHAT <u>Saxicola leucura</u>. A of was observed perched with a long strand of nesting material; in reeds and water hyacinth near Bandabhari village, 4 km N of Kosi Barrage on 29 June. The breeding season is given as March through May by Inskipp and Inskipp (1991).

I wish to thank B.B. Khadka for his detailed information on the birds of the Kosi Thappu area, Carol and Tim Inskipp and Rajendra Suwal for comments to improve a draft of this article, and Reserve Warden Ganga Ram Singh for his assistance and fine hospitality in accommodating our party.

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APPENDIX

COMPLETE LIST OF BIRD SPECIES RECORDED FROM DHARAN TO KOSI BARRAGE, EAST NEPAL, 26-29 JUNE 1995

The first column refers to number codes of locations, which are named below as segments of the walk. The second column denotes general habitat types. The third column gives observed species abundance as assessed in primary habitat, but does not take into account that some available habitat types were searched more than others. Because of this, and the brevity of the investigation, less commonly noted species are prone to under-estimates.

Altitudinal ranges are not included, as there was a differential of only 175 m, from Dharan (245 m) to Kosi Barrage (70 m). Altitude is therefore not considered a factor in species distribution.

Nearly all recorded species were sighted, but the calls of species, where known, were also used for identification. Where occurrence was recorded solely by call, this is noted next to the species name as (H).

Location:

- 1 Between Dharan and Sainik
- 2 Ramdhuni Ban
- 3 Open terai between Prakashpur and Kusaha
- 4 Kusaha area marshes, inside Kosi Thappu Wildlife Reserve
- 5 Kusaha area marshes, outside Kosi Thappu Wildlife Reserve
- 6 Marshes S of Kusaha to 1.5 km NE of Kosi Barrage
- 7 Embankment 5 km NE of Kusaha to 1.5 km NE of Kosi Barrage
- 8 Reserve Headquarters compound, Kusaha

Habitat:

- C Cultivation
- S Sal forest
- F Mixed sal forest
- D Planted forest of <u>Dalbergia sisoo</u> <u>Acacia catechu</u>
- R Rivers, streams and canals
- G Alluvial grasslands, mud flats and sandy littoral
- M Marsh

Abundance:

A Abundant: usually noted in large / very large numbers
C Common: usually noted in moderate / large numbers

F Fairly common: noted on several (>3) occasions
G Occasional: noted on only a few (2-3) occasions

U Uncommon: noted on only one occasion

Species	Locality	Habitat	Abundance
	4,5	M	F
LITTLE GREBE Tachybaptus ruficollis LITTLE CORMORANT Phalacrocorax niger	4,5,6	M	A
ORIENTAL DARTER Anhinga melanogaster	4,5	G,M	o c
YELLOW BITTERN Ixobrychus sinensis	4,5,6 4,5,6	G,M M	č
CINNAMON BITTERN I. Cinnamomeus	4,5	G,M	0
BLACK-CROWNED NIGHT HERON Nycticorax nycticorax INDIAN POND HERON Ardeola grayii	1,3,4,5,6	G,M	A A
CATTLE EGRET Bubulcus ibis	1,3,5,6	c c	0
LITTLE EGRET Egretta garzetta	3,5,6 3,5,6	c	Ä
INTERMEDIATE EGRET Egretta intermedia	5,6	C,M	С
LARGE EGRET E. alba	5	M	U a
GREY HERON Ardea cinerea PURPLE HERON A. PURPUREA	3,5,6	С,М	c c
ASTAN OPENBILL STORK Anastomus ascitans	3,5,6	C,M M,G	ő
BLACK-NECKED STORK Ephippiorhypchus asiaticus	3,4 3	. C	U
LESSER ADJUTANT STORK Leptoptilos javanicus	4,	G, D	0
RED-NAPED IBIS <u>Pseudibis papillosa</u> LESSER WHISTLING DUCK <u>Dendrocygna javanica</u>	4,5,6	M	C F
COTTON PYGMY GOOSE Nettapus coromandelianus	3,4,5	M M	Ŭ
BLACK-SHOULDERED KITE Elanus caeruleus	6 1	F	Ū
LESSER FISHING EAGLE Ichthyophaga humilis	1	F	U
CRESTED SERPENT EAGLE <u>Spilornis cheela</u> COLLARED FALCONET <u>Microhierax caerulescens</u>	1	F	υ O
BLACK FRANCOLIN Francolinus francolinus	4	G G	บ
SWAMP FRANCOLIN <u>F. gularis</u>	4	F	Ü
RED JUNGLEFOWL Gallus gallus	4	G	U
BLUE PEAFOWL <u>Pavo cristatus</u> WHITE-BREASTED WATERHEN <u>Amaurornis phoenicurus</u>	5	M	O
PURPLE SWAMPHEN Porphyrio porphyrio	5	M M	U
WATERCOCK Gallicrex cinerea	4 7	D D	ΰ
LESSER FLORICAN Sypheotides indica	4,5,6	м	F
PHEASANT-TAILED JACANA Hydrophasianus chirurgas	4,5,6	M	<u>c</u>
BRONZE-WINGED JACANA <u>Metopidius indicus</u> RED-WATTLED LAPWING <u>Hoplopterus indicus</u>	3,5,6	c	F U
RED TURTLE DOVE Streptopelia tranquebarica	1	С С, D	F
SPOTTED DOVE S. chinensis	1,2,5,7 1	F	U
EMERALD DOVE Chalcophaps indica	1,2	S	0
BLOSSOM-HEADED PARAKEET Fsittacula cyanocephala PIED CUCKOO Clamator jacobinus	1,7,8	F,D	O U
COMMON HAWK-CUCKOO Hierococcyx varius (H)	7	D F	F
INDIAN CUCKOO <u>Cuculus micropterus</u> (H)	1,2,3	F	υ
EURASIAN CUCKOO C. canorus (H)	1	F	U .
DRONGO-CUCKOO <u>Surniculus lugubris</u> COMMON KOEL <u>Eudynamys scolopacea</u>	1,3,7	F,D	c c
GREATER COUCAL Centropus sinensis	4,5,6	G,M G	Ū
LESSER COUCAL C. bengalensis	4 1	F	U
JUNGLE OWLET Glaucidum radiatum	8	D	U
SPOTTED OWLET Athene brama ASIAN PALM SWIFT Cypsiurus balasiensis	3	<u>c</u>	U U
CRESTED TREE SWIFT Hemiprocne coronata	1	F G,C,M	č
WHITE-THROATED KINGFISHER Halcyon smyrnensis	4,5,6 4,5	G, M	0
STORK-BILLED KINGFISHER Pelargopsis capensis	3,5,6	R,M	F
PIED KINGFISHER <u>Ceryle rudis</u> GREEN BEE-EATER <u>Merops orientalis</u>	1,2,3,4,5,6	C,G	C F
BLUE-TAILED BEE-EATER M. philippinus	3,4,5,	G,C,M C,F,	ć
INDIAN ROLLER Coracias benghalensis	1,2,3,5,6 2	S	U
DOLLARBIRD Eurystomus orientalis	1	F	U U
HOOPOE <u>Upupa epops</u> LINEATED BARBET <u>M</u> . <u>lineata</u>	2	S	ט
BIRE-THROATED BARBET M. asiatica	1	F F	Ū
GREY-HEADED WOODPECKER Picus canus	7,8	D	0
BLACK-RUMPED FLAMEBACK RUFOUS-WINGED BUSHLARK MITAGER assamica	1,3,4	C,G	F F
PLAIN MARTIN Riparia paludicola	1,5,6	C,M	F
BARN SWALLOW Hirundo rustica	3,5,6	C,R D	Ū
OF THE BACKED PIPIT Anthus hodgsoni	7 1,5,7	č	0
RICHARD'S (PADDYFIELD) PIPIT A. novaeseelandiae rufulus	6,7	M	0
WHITE WAGTAIL Motacilla alba alboides WHITE-BROWED WAGTAIL M. maderaspatensis	7	м	U F
TARCE CUCKON-SHRIKE COLACINA MACCI	1,2,	F,5 F	Ū
BAR-WINGED FLYCATCHER-SHRIKE Hemipus picatus	1 1	F	U
SCARLET MINIVET Pericrocotus flammeus	1,3,4,5	F,G,C	F
RED-WHISKERED BULBUL Pycnonotus jocosus WHITE-CHEEKED BULBUL P. leucogenys	1	F	บ C
RED-VENTED BULBUL P. cafer	1,2,4,5,6,7	F,G,C,M F	ΰ
COMMON TORA Aegithina tiphia	1	F	U
GOLDEN-FRONTED LEAFBIRD Chloropsis aurifrons	1,5,6,8	C,F	F
ASIAN MACPIE-ROBIN Copsychus saularis WHITE-RUMPED SHAMA C. malabaricus	1	F	C U
WHITE-TAILED STONECHAT Saxicola leucura	6	М G, M	ŏ
ZITTING CISTICOLA Cisticola juncidis	4,5 5,6	м	0
GREY-BREASTED PRINIA Prinia hodgsonii	1,4,7	D,C	F
COMMON TAILORBIRD Orthotomus sutorius STRIATED MARSH WARBLER Megalurus palustris	4,5,6	м,G	F U
DAIR_CHINNED FLYCATCHER CYCINIS POLICEDINS	1 7	F D	F
ASIAN PARADISE FLYCATCHER Tersiphone paradisi	,	-	

Species	Locality	Habitat	Abundance
never wearn mysamsure. Henceberris aruros	1	F	σ
BLACK-NAPED FLYCATCHER Hypothymis azurea	3	F	Ū
STRIPED TIT-BABBLER Macronous gularis	4,5	G,M	č
STRIATED BABBLER Turdoides earlei		•	Ĕ
JUNGLE BABBLER <u>T</u> . <u>striatus</u>	1,2	F,S	<u>.</u>
GREAT TIT Parus major	1	<u>r</u>	-
VELVET-FRONTED NUTHATCH Sitta frontalis	1	F	<u>u</u>
CHESTNUT-BELLIED NUTHATCH S. castanea	1	F	U
PURPLE SUNBIRD Nectarinia asiatica	7	D .	U
BLACK-HEADED ORIOLE Oriolus xanthornis	1,2,7	F,D	С
EURASIAN GOLDEN ORIOLE O. oriolus	2,7,8	F,D	0
BLACK DRONGO Dicrurus macrocercus	1,3,4,5,6	C,G,M	A
WHITE-BELLIED DRONGO D. caerulescens	1	F	ប
SPANGLED DRONGO D. hottentottus	2	S	ប
ASHY WOODSWALLOW Artamus fuscus	3,6	M,C	0
RUFOUS TREEFIE Dendrocitta vagabunda	5,7,8	D,C	F
HOUSE CROW Corvus splendens	3,5,6,7	C,D	A
JUNGLE CROW C. macrorhynchos	3,5	c	F
	1,5,8	C,D,M	F
CHESTNUT-TAILED STARLING Sturnus malabaraicus	1,3,4,5,6,7		A
ASIAN PIED STARLING S. contra	1,2,3,5,6,7,8		A
COMMON MYNA Acridotheres tristis	1,2,3,3,0,7,0		11
BANK MYNA A. ginginianus		C .	
JUNGLE MYNA A. <u>fuscus</u>	2	s,c	<u>.</u>
HOUSE SPARROW Fasser domesticus	5,6,8	C	_
EURASIAN TREE SPARROW P. montanus	1	С	Ü
BAYA WEAVER Ploceus philippinus	1,3,6	C,M	F
CHESTNUT MUNIA Lonchura malacca	5	M	ΰ