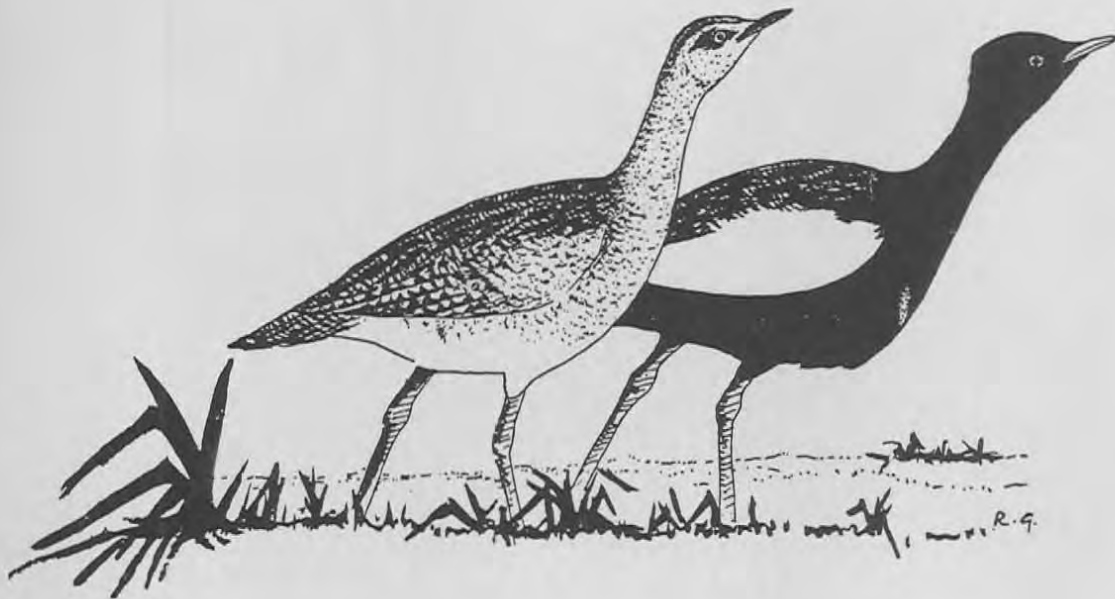


A Survey of Bengal Floricans Houbaropsis bengalensis
at Royal Sukla Phanta Wildlife Reserve
and Royal Bardia National Park,
Western Nepal, 1990



A report to the Oriental Bird Club
c/o The Lodge, Sandy,
Bedfordshire SG19 2DL, UK

David J Weaver April 1991

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SUMMARY

In March and April 1990, a survey was carried out of Bengal Floricans Houbaropsis bengalensis in Western Nepal, concentrating mainly on the Royal Sukla Phanta Wildlife Reserve. The alarming decline of this bustard throughout the Indian subcontinent prompted a detailed preliminary survey covering Nepal in 1982, and an important population was found at this poorly known site. Following further declines elsewhere in the country, the current survey provides a follow-up to the 1982 work.

A total of 17 Bengal Floricans (14 males) was recorded at Sukla Phanta in 1990 compared to 15 (13 males) in 1982, showing that the population there has remained stable. A brief visit to other known breeding sites within Royal Bardia National Park indicated a similar result with a total of 6 (5 males) compared to 9-10 (8-9 males) in the previous survey. Large extensions to both reserves should provide further areas of protected grassland with suitable management for floricans.

Detailed discussion on florican behaviour and ecology has already been given by previous workers in both Nepal and India, and is beyond the scope of this brief survey. However, the location of florican activity was mapped, and some general observations on the habitat characteristics and impact of grassland management on these areas is discussed. Some general recommendations are made to guide the conservation of Bengal Floricans on the two reserves.

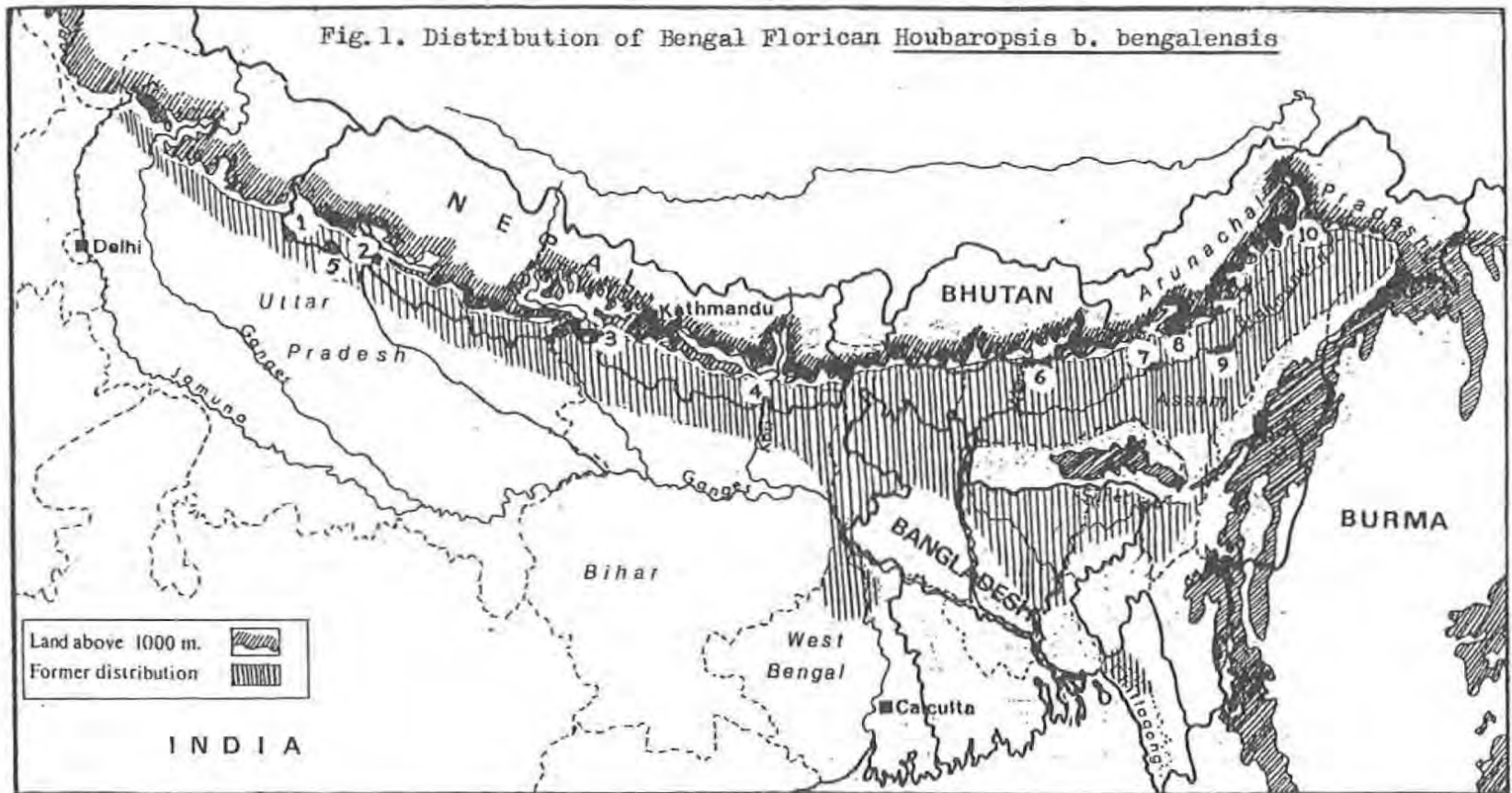
INTRODUCTION

Until comparatively recently, little was known about the ecology and status of the Bengal Florican Houbaropsis bengalensis. One of three bustard species endemic to the Indian subcontinent, it has undergone an alarming decline throughout its former range in the north and north-eastern regions as its grassland habitat has been lost to cultivation or afforestation, or degraded by overgrazing. It is now restricted, with few exceptions, to protected areas (Fig.1). The known population of less than 300-400 individuals puts it at serious risk from further habitat loss, warranting inclusion in the ICBP List of endangered species (Collar and Andrew 1988).

To address the lack of information on the species, in 1982 ICBP initiated a preliminary study of the status, distribution, ecology and behaviour of the Bengal Florican (Inskipp and Inskipp, 1983), including a full literature review. Fieldwork concentrated on the lowlands of Nepal, including Dudwa National Park in northern India, lying within the same physiographic region, the terai. In Nepal, the survey located 35-50 floricans distributed between five sites: Royal Chitwan and Royal Bardia National Parks, Royal Sukla Phanta and Kosi Tappu Wildlife Reserves, and an unprotected area near the Kosi Barrage in the east of the country. Although only 2 birds could be found at Dudwa in 1982, more recent and intensive work conducted by BNHS has located up to 19 males (Rahmani and Sankaran 1988,1989), establishing it as the only site in Uttar Pradesh still supporting a viable population.

Current status in Nepal

Although no comprehensive surveys have been undertaken in Nepal since 1982, indications have been of further decline in numbers (C Inskipp pers. comm., 1990). The Kosi Barrage site appears to have lost its small population since 1986 following a change in the course of the river during the monsoon. There has been only one confirmed record from Kosi Tappu since 1986, a single in 1989. At a major site, Chitwan National Park, the population is thought to be declining due to habitat changes, with the favoured grass species composition, including Imperata cylindrica being replaced by taller species.



Nepal

India

- | | |
|--|---|
| 1. Royal Sukla Phanta Wildlife Reserve | 5. Dudwa National Park |
| 2. Royal Bardia Wildlife Reserve | 6. Manas Reserve Forest and Sanctuary |
| 3. Royal Chitwan National Park | 7. Orang Sanctuary |
| 4. Kosi Barrage area | 8. Sonai-Rupa Sanctuary |
| | 9. Kaziranga National Park |
| <u>Present main breeding sites</u> | 10. D'Ering Memorial Wildlife Sanctuary |

Since 1982, no information has been available from the least known but largest and potentially most important grassland in Nepal at Sukla Phanta Wildlife Reserve in the remote western part of the country. This report describes a survey initiated and funded by the Oriental Bird Club to assess the current status of Bengal Floricans at this site as a follow-up to the 1982 survey. While primarily aimed at Sukla Phanta, an opportunity was also taken to visit the remaining florican sites at Bardia National Park. The survey complements comprehensive work carried out by the Bombay Natural History Society in India in recent years.

METHODS

Visits were made to known or suspected breeding sites on the two reserves in western Nepal during late March and early April 1990. At this time during the late dry season, male floricans have started to establish display-grounds on the fairly short grass patches resulting from the previous thatch harvest and subsequent burning. The daily visits were carried out from convenient bases at each reserve, mainly in the early morning (from 06.00) but occasionally during late afternoon to dusk (19.00) when birds were most active and visible. Coverage was enabled by bicycle and occasionally vehicle using a well-maintained system of tracks. I was escorted at all times by reserve staff for security, mainly because of intrusion by deer-antler poachers and the presence of a rogue bull elephant in the vicinity of Sukla Phanta. Raised hides (machans) at both sites and scattered trees provided vantage points for over-viewing the grasslands by telescope, generally with minimal disturbance to floricans. Location, numbers and activity of all birds were noted and mapped, together with general impressions of habitat. By covering as much ground as possible and occasionally stopping to scan from suitable places, most observations were of undisturbed birds on the ground, allowing some minimum counts to be attempted on each visit.

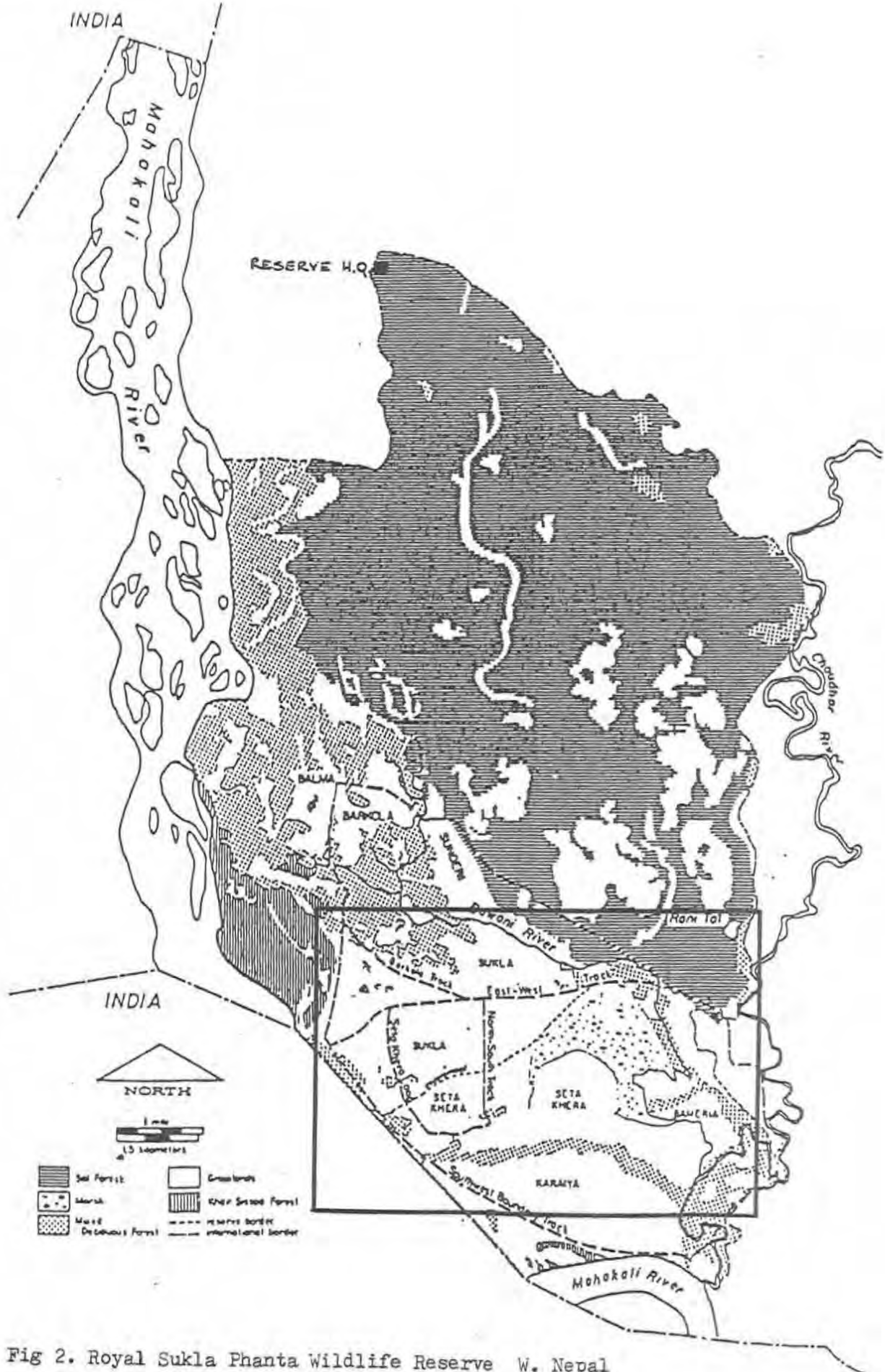


Fig 2. Royal Sukla Phanta Wildlife Reserve W. Nepal
 (from Schaaf, 1978)
 showing area surveyed for Bengal Floricans

SITES VISITED AND FLORICANS RECORDED

ROYAL SUKLA PHANTA WILDLIFE RESERVE

Site description (see figs 2 and 3)

The reserve is situated in the extreme south-western terai, bounded by the Mahakali River and its tributaries, part of which marks the international border with India. At present covering 155km², there are proposals for an easterly extension to approximately 300 km².

Climate: monsoonal, with the majority of the annual rainfall occurring between June and September. Temperatures range from 10°-12° C during winter to 40°-42° C pre-monsoon.

Topography: part of a flat or gently undulating flood plain (altitude 90-270m) lying at the base of the Churia Hills. Soils are rich alluvial sandy-loams deposited by the Mahakali and its tributaries.

Vegetation: About two-thirds of the reserve is forested, mainly with Sal Shorea robusta, a remnant of once almost continuous forest in the region now largely cleared for cultivation. Riverine forest of Acacia catechu and Dalbergia sissoo occurs along the Mahakali, while Bombax ceiba, Ficus religiosa and other species also fringe the grasslands forming a savanna zone. The grasslands, some 38km² in extent and the largest remaining in Nepal, occupy most of the southern part of the reserve and can be subdivided broadly into permanent marsh dominated by very tall grasses, seasonally wet and permanently dry grasslands (phantas). The most extensive of these, Sukla Phanta (4km²), provided the focus for the survey.

Fauna: Important mammals on the reserve include a large population of the rare Swamp Deer (Barasingha) Cervus duvauceli, one of the few remaining herds of wild Elephant Elephas maximus in Nepal, Nilgai Boselaphus tragocamelus and several other large herbivores. Predators include Tiger Panthera tigris and Leopard P. pardus. Small species have generally been under-recorded but there is a relict population of Hispid Hare Caprolagus hispidus, a highly endangered, monsoon grassland species (Bell 1987). Over 270 bird species have been recorded (Inskipp 1982) including other characteristic and threatened grassland species such as Swamp Francolin Francolinus gularis, Grass Owl Tyto capensis and Large Grass Warbler Graminicola bengalensis. A small lake, Rani Tal, and surrounding swamp provides a habitat for a large variety of wetland birds. (A list of species recorded during the present survey is appended).

Observations were made in the following areas between 24 March and 2 April:

Sukla Phanta and Seta Khera (8 visits)

Singhpur (regular visits from base at nearby guard-post)

Karaiya (1 visit) Access to this area limited/restricted for security reasons

All short (cut or burnt) grassland up to ca. 70cm was either visited or watched by telescope. In such places, minimum counts were occasionally made by covering as much of Sukla Phanta as possible in about 3 hours. Despite much time spent at the machan at the start of the survey, observations were disappointing there in comparison with 1982. Elsewhere, trees proved invaluable as viewing-points.

Most tall (2m+) rank grassland was considered unsuitable habitat at least for male floricans. These included Singhpur, Sunderi, much of Karaiya and Seta Khera around the marshy area.

Bengal Floricans recorded

Details of all florican records are given in Table 1. The highest minimum counts were 10 males on 30 March and 9 males/3 females on 1 April. On these occasions disturbance was at a minimum with little movement of birds to complicate the count. At other times single males were occasionally flushed or noticed flying low over the grassland from one favoured area to another, sometimes attracted by the activities of other birds on the ground. There was some evidence of movement between separate grasslands with a male flying SE over the trees in the direction of Jhilmila on 2 April. Three males were seen during the only visit possible to this area (Karaiya) on 31 March in relatively longer grass. I strongly suspect that other birds may have been overlooked in this grassland, and possibly other areas closer to the Indian border where access was generally restricted.

Adding other 'regular' males and the 1-2 immature males not seen on the above dates, would give a final count of about 17 floricans (14 males) recorded overall. This compares favourably with the 1982 result of 15 birds (13 males), indicating that the population is being maintained at this site.

The few sightings of females was to be expected from the experience of previous observers during the breeding season (eg. Inskipp and Inskipp 1983).

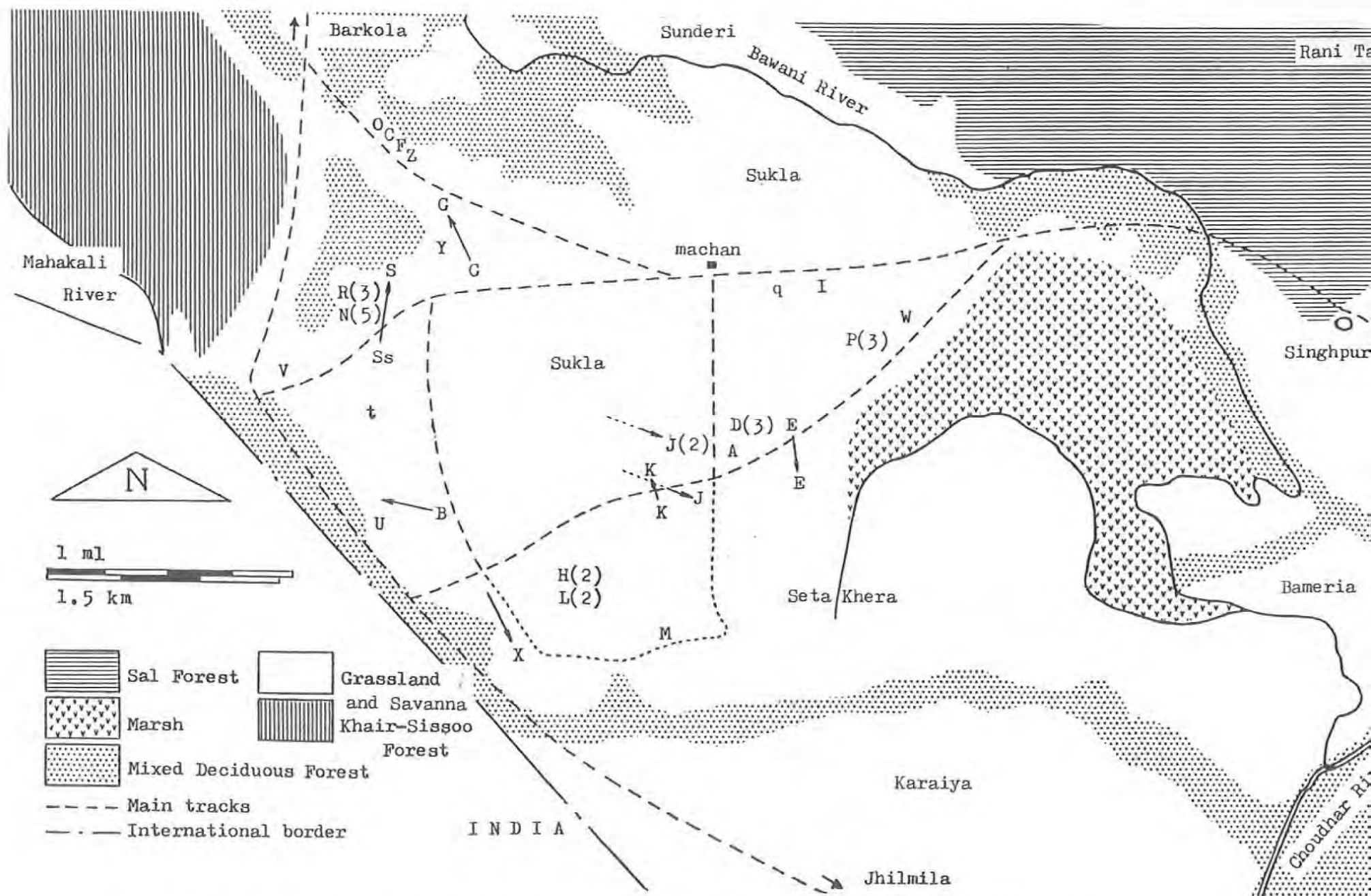


Figure 3. Sukla Phanta - Distribution of Bengal Florican sightings, March/April 1990 (See also Table 1.)

Table 1. Details of Bengal Florican observations at Sukla Phanta 1990

(Referring also to Map 3, all records are of single birds unless stated, capital letters denoting males, lower-case denoting females)

Date	Record	Time	Male	Female	Activity
March 24	A	am	1	-	(report)
25	B	08.15	1	-	flying
26	C	08.00	1	-	feeding
27	D	07.00	3*	-	aggression and chasing
	E	07.15	1	-	flying off
	F	08.00	1	-	feeding
	G	08.30	1	-	flying off and landing
	H	am	2	-	feeding
28	I	pm	1	-	feeding (report)
29	J	17.30	3	-	feeding, with 2 arriving
30	K	07.25	1	-	feeding and short flight
	L	07.40	2	-	no aggression
	M	08.00	1	-	inactive
	N	08.30	5	-	aggression and display
	O	09.30	1	-	feeding
31		08.00	3	-	feeding, 2 flew off north later returning to same area after being flushed
April 1	P	06.40	3	-	chasing
	q	06.50	-	1	flying up briefly
	R	07.20	3*	-	chasing and feeding
	S/s	07.30	1	1	no interaction, ♂ eventually flew off/♀ hidden
	t	07.30	-	1	apparently hiding
	U	07.40	1	-	feeding
	V	08.00 -08.30	1	-	full display-flights (4)
2	W	06.30	1	-	generally inactive
	X	07.30	1	-	flying off SE over trees
	Y	08.00	1	-	feeding
	Z	08.10	1	-	feeding

* includes an immature male

ROYAL BARDIA NATIONAL PARK

Site description (see figs 4,5 and 6)

Bardia is situated in the mid-western terai, to the east of the Karnali River. Following a large extension to include the Babai River valley, it became a National Park in 1988, covering an area of 968km².

Climate: strongly monsoonal, with a rainfall averaging over 1800mm per annum. Temperatures range from 10°C in mid-winter to over 40°C pre-monsoon.

Topography: The majority of the park extends over the gravelly soils of the bhabar zone at the base of the Churia Hills (Siwaliks) into which it rises, reaching 1441m on the crest of the range.

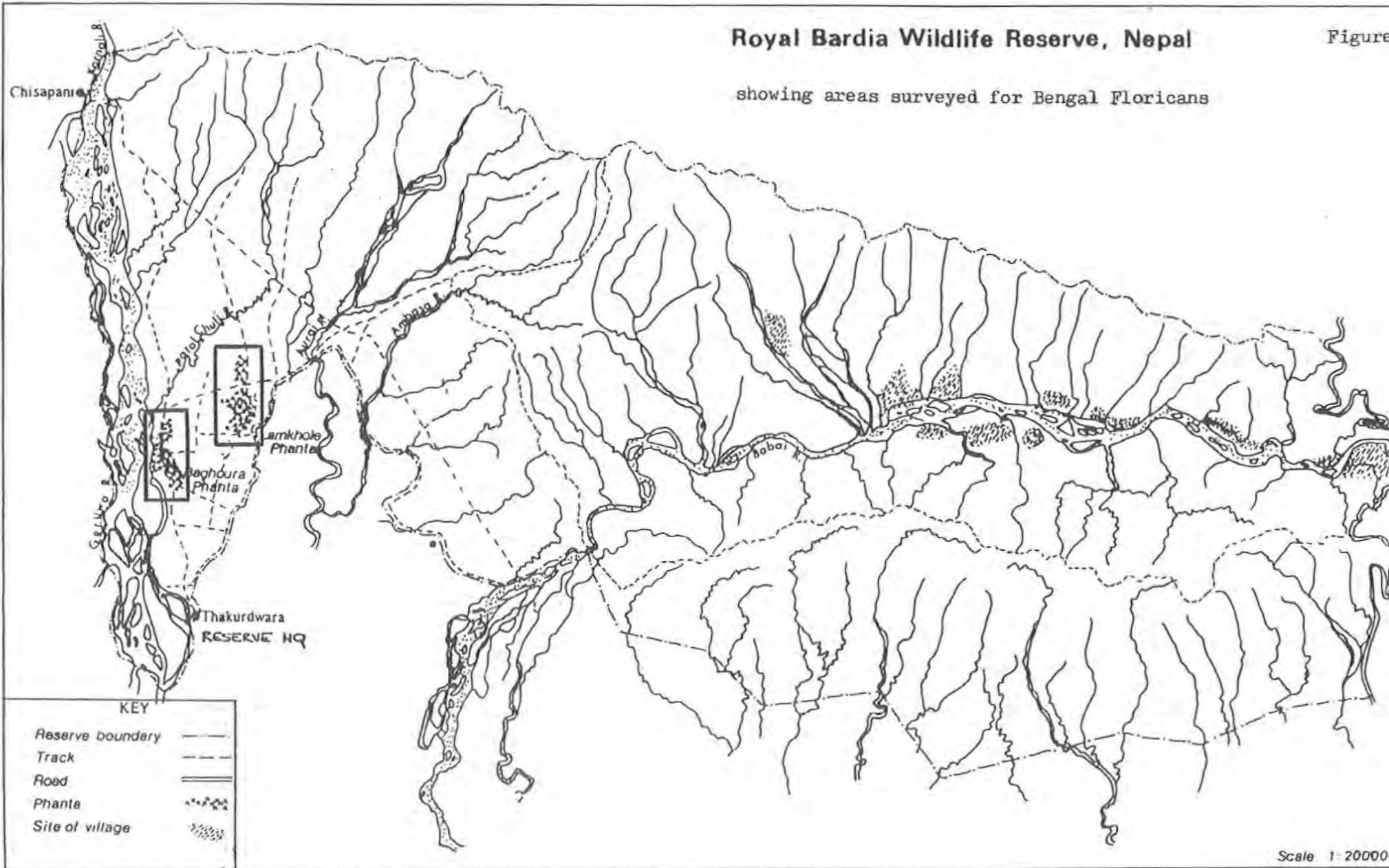
Vegetation: About 70% of the park is Sal Shorea robusta dominated tropical forest, most of the remainder being Acacia catechu - Dalbergia sissoo riverine forest or Terminalia-Anageissus hill forest. There are two small grasslands, Lamkhole and Baghoura Phantas totalling only 15ha at the western end of the park. Some areas of grassland and savanna exist along the Babai River having reverted from abandoned village sites and cultivations since aquisition.

Fauna: Over 30 mammal species are present including Elephant, Indian Rhinoceros (recently re-introduced), Tiger, Leopard and several smaller cats, Blackbuck (the only site in Nepal) and Swamp Deer. Gharial and Marsh Crocodiles occur in the rivers. Over 250 bird species have been recorded including some western lowland specialities such as Grey Francolin Francolinus pondicerianus and White-naped Woodpecker Chrysocolaptus festivus. Among the grassland species, Lesser Florican Sypheotides indica has occurred and possibly breeds.

Royal Bardia Wildlife Reserve, Nepal

Figure

showing areas surveyed for Bengal Floricans



Scale 1:20000

Coverage

Observations were made during a short stay at the park HQ at Thakurdwara between 4-7 April, covering nearby Baghoura Phanta (3 visits) and Lamkhole Phanta (2 visits). I was shown the sites by vehicle initially but a bicycle was used thereafter. Two machans provided an overview of part of Baghoura, but there were no such vantage points at Lamkhole which was simply viewed from the central track. The tall grass in the northern parts of both phantas appeared entirely unsuitable for floricans.

Unfortunately there was no opportunity to visit the distant Babai River grasslands despite reports of floricans there in recent times.

Bengal Floricans recorded

Details of all records are given in Table 2. The floricans were caused no apparent disturbance, and there was no evidence of movement between the two sites. The single male at Baghoura clearly held a well established territory. Adding the two sites therefore gives an absolute minimum of 6 floricans (5 males) recorded altogether. This is less than in 1982 when 9-10 birds (8-9 males) were found. However, my visit to Bardia was brief, and it is possible that other birds may have been present in the Babai valley. It seems unlikely that there has been any significant decline in this small population since 1982.

Significantly, the only female was seen from a concealed vantage point (machan)

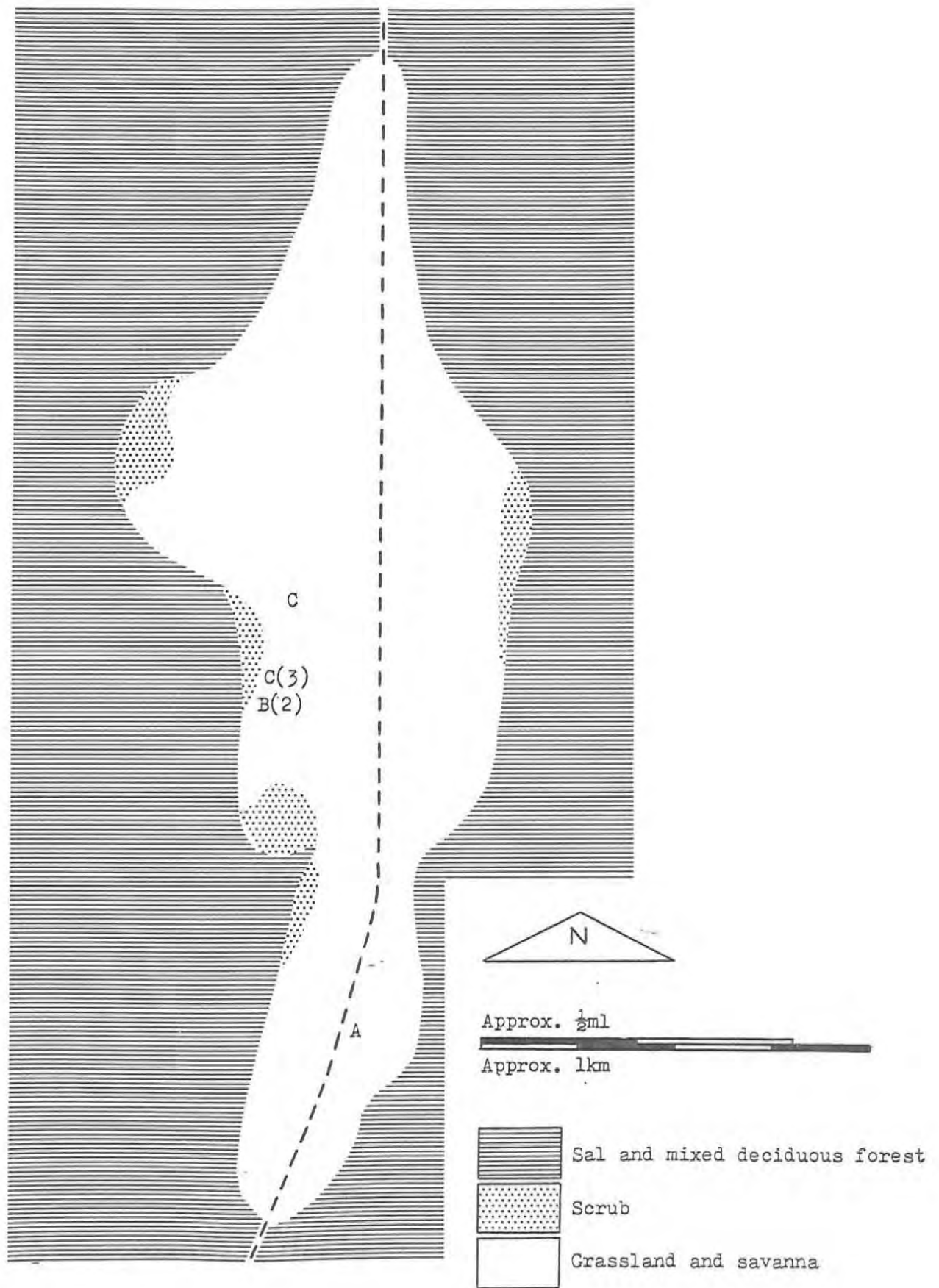


Figure 5. Lamkhole Phanta

Distribution of Bengal Florican sightings, April 1990

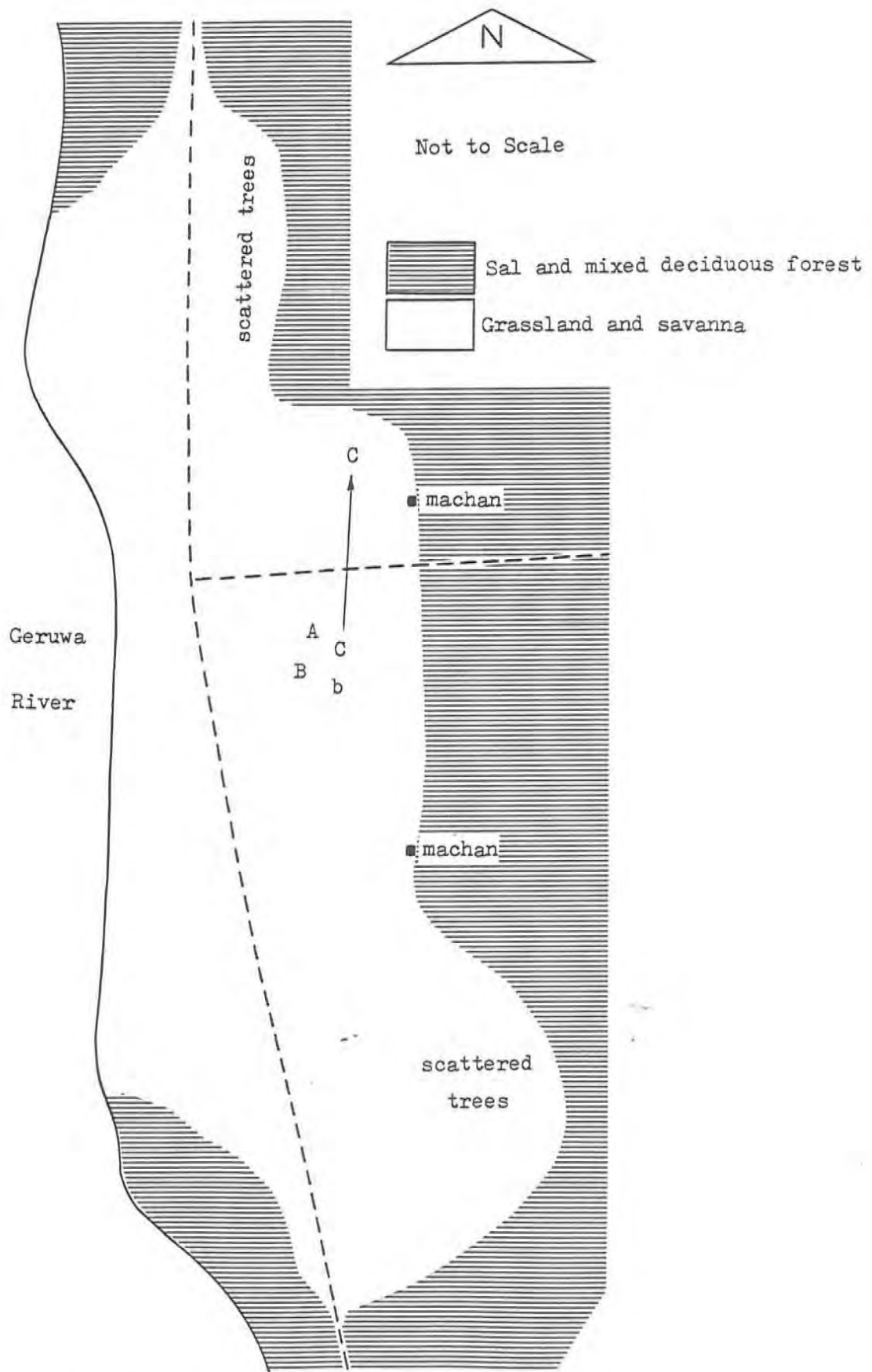


Figure 6. Baghoura Phanta

Distribution of Bengal Florican sightings, April 1990

Table 2. Details of Bengal Florican observations at Bardia National Park 1990

(Referring also to Maps 5 and 6, all records are of single birds unless stated)

Date	Record	Time	Male	Female	Activity
<u>Lamkhole Phanta</u>					
April 4	A	18.00	1	-	feeding (flushed)
	B	18.10	2	-	feeding
5	C	17.30 -18.15	4	-	feeding, no aggression
<u>Baghoura Phanta</u>					
April 4	A	18.30	1	-	inactive
5	B/b	07.30 -08.00	1	1	ground display/feeding
6	C	17.15 -17.45	1	-	display flights (4)

Table 3. Summary of counts of Bengal Floricans in W. Nepal, March-April 1990

Site	Total(males/females)	Total(males/females)
	1990	1982
Sukla Phanta	17 (14/3)	15 (13/2)
Bardia	6 (5/1)	9-10 (8-9/1)
total	23 (19/4)	24-25 (21-22/3)

Note: at nearby Dudwa National Park, India, 19 males were recorded in 1988 (BNHS)

SOME OBSERVATIONS ON FLORICAN HABITAT

Grassland management

Forest is the natural climax vegetation of the terai, and where grasslands naturally occur they are caused by fires, or exist on sites too wet for forest development (Schaaf 1978b). Most grasslands in the region have developed from forest clearings which have been settled, cultivated and subsequently abandoned.

A wide range of grasses and herbs have colonised these phantas with species such as Imperata cylindrica and Saccharum spp. widespread and often dominant. These grasses may reach heights of over 3m following the monsoon, and they have long traditionally been cut each winter by local people for thatch or later burnt to promote new growth for grazing livestock. The annual thatch harvest, involving extensive areas and many individuals is now strictly controlled by licence and limited to two or three weeks in early December. The remaining grass is then immediately burnt off under the control of reserve staff. Accidental or illegal burning does frequently occur however, during the remainder of the dry season at Sukla Phanta. In the short term, burning maintains the open grasslands by checking encroachment of scrub and forest regeneration, and stimulates new growth as a valuable food resource for grazing herbivores. For example, an important Swamp Deer (Barasingha) population at Sukla Phanta has benefitted and increased significantly under protection, with the grasslands again proving capable of supporting large herds. Incursions by poachers and illegal cattle grazing remain a real problem but have been curbed considerably in recent years.

Habitat requirements of floricans

The structure and height of grass swards appear to be extremely important to floricans in choice of habitat early in the breeding season. At this time, late in the dry season, new growth is steadily emerging among the partly burnt stems and scattered patches left from the previous year's harvest. In the early morning, males were to be found generally in open, tussocky, Imperata grassland up to a height of ca. 60cm, this being approximately the full height of a standing bird. Such areas were not too dense, allowing mobility and good visibility for foraging, display and territorial activities.

Bengal Floricans are rather shy, wary and largely cursorial, so that concealment nearby was also available either within these areas or surrounding taller patches which may have been subjected to less intense burning. The birds retire into the taller grass for much of the day where they are seldom seen unless flushed. On the fringes of the grassland where scrub and trees had also burned, wary or inactive, partly-concealed males bore a striking resemblance to charred stumps in the longer grass. The females seen at Sukla Phanta were all in areas with tallish grass (ca. 100cm or more), some distance from the male territories. The one bird seen well blended perfectly with the dry and partly-burnt grass within which it crouched motionless before disappearing. However the female at Baghoura Phanta, Bardia was cautiously foraging in fairly open grass within a male territory.

Trees such as Khair Acacia catechu, Sissoo Dalbergia sissoo and Simal Bombax ceiba frequently occurred throughout the western part of Sukla Phanta where most florican activity was noticed. Much of Karaiya Phanta to the south where further birds were seen was Khair-Sissoo savanna rather than open grassland. The only displaying male (record V) was performing among scattered Khair not much more than 20-25m apart. Similarly at Baghoura Phanta, Bardia mature trees were within a territory fairly close to the forest edge, although these were much more widely spaced.

In general, these brief observations concur with recent detailed studies undertaken at several sites in India (Narayan and Rosalind 1990) especially at Manas Wildlife Sanctuary. To summarise, impressions from Sukla Phanta suggest that given suitable feeding conditions, Bengal Floricans require a habitat structure just sufficient to balance advertisement, mobility and concealment for males together with concealment for female breeding activity in the vicinity. Clearly, the intensity of management and grazing may have a considerable impact upon this habitat structure.

Effects of grassland management on habitat

A surprising outcome of the 1990 survey at Sukla Phanta was relatively little florican activity seen on the central parts of the grassland (south of the machan) where this had been noticed in 1982. This was observed despite apparently similar populations present in both years. In 1990, most floricans were seen in the rather more savanna-like southern and western fringes.

The open, central grasslands, also the favoured habitat of the barasingha, appeared rather uniformly short, having been cleanly burnt and closely grazed by the large herds ranging widely over the area, leaving few, relatively tall and undisturbed patches. Consequently, conditions may have been rendered less suitable for floricans than the less intensely managed peripheral areas. Barasingha are known to have increased considerably on the reserve since full protection was given in 1976, and their increasing impact upon the grassland may be highly significant.

In the wider context, the long-term impact of annual burning on grassland ecology in the region is not fully understood and has received much discussion in recent years (eg. Bell 1987). Imperata swards, while encouraged by fire may under continuous pressure give way to taller and less desirable species (Schaaf 1978b). At Chitwan National Park for example, where burning has been particularly intense over several years, such changes have already occurred to the detriment of species such as the Bengal Florican.

RECOMMENDATIONS FOR CONSERVATION OF FLORICANS

1. Comprehensive surveys of both Bengal and Lesser Floricans are urgently needed at the other major site, Chitwan National Park, where numbers are thought to have decreased since the last survey in 1982.
2. The breeding populations at all four sites in Nepal could be monitored on a regular basis (perhaps at least every three years) using methods similar to this survey. Areas not visited in 1990 such as the Babai River grasslands at Bardia, and other potential areas peripheral to Sukla Phanta also require coverage.
3. The habitat requirements of floricans need to be taken into account within the grassland management programme for each reserve. In general, the creation of a mosaic of more varied grassland structure, perhaps attained by more controlled and less intense burning in certain selected areas, is suggested.
4. The impact of increasing grazing pressure on the grassland at Sukla Phanta and its implications for other wildlife needs careful consideration.
5. A large reserve extension, including an extensive grassland area planned for Sukla Phanta provides an exciting opportunity for developing suitable new habitat for floricans and monitoring their colonisation.
6. The possible effects of any major development project (eg. the Mahakali Irrigation Project) upon threatened grassland species such as the Bengal Florican need to be fully considered.
7. Disturbance of the floricans should be avoided, especially during the breeding season (March-July). Machans enable the birds to be seen without disturbance if suitably sited and screened.
8. Fires within the florican areas could be disastrous during the breeding season and should be avoided at all costs.
9. The plight of the Bengal Florican, its threats and conservation should be publicised wherever possible.

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ACKNOWLEDGEMENTS

This survey was funded with a grant from the Oriental Bird Club. The project was initiated by Carol Inskipp, to whom I am greatly indebted for much background information, guidance and initial contacts in Nepal. Dr. Diana Bell of the University of East Anglia also kindly provided some useful details and references prior to my visit.

The project would not have been possible without the kind co-operation of staff of HMG Department of National Parks and Wildlife Conservation. In particular, I would like to thank Mahendra Shrestha for the initial visiting arrangements; Chief Wardens Megh Pandey and Sri Ranprit for their considerable interest, help and hospitality; Poorneshwor Subedi, Mohan Dev Bhatta and Jitbhaha Shetri for invaluable assistance and companionship in the field on their respective reserves. I should also like to thank Mr. Hikmat Bisst for much hospitality at Sukla Phanta.

The cover illustration is reproduced with thanks to Richard Grimmett.

APPENDIX

List of birds recorded at Sukla Phanta Wildlife Reserve
24 March - 2 April 1990

Species at risk in Nepal (Inskipp 1989):

E - Endangered V - Vulnerable R - Rare

* Species not previously recorded on reserve

Little Cormorant

Darter

V Black Bittern - single at Rani Tal 25/3

Indian Pond Heron

Cattle Egret

Little Egret

Intermediate Egret

Great Egret

Purple Heron

Asian Openbill Stork

Woolly-necked Stork

Lesser Adjutant Stork - at least three nesting pairs at Karaiya Phanta

Red-naped Ibis - 3-4 pairs including one regularly Singhpur

Ruddy Shelduck

Cotton Pygmy Goose

Northern Pintail

Crested Honey Buzzard

Black-shouldered Kite

E Grey-headed Fishing Eagle - adult and imm. regularly Rani Tal

Oriental White-backed Vulture

Eurasian Griffon Vulture

* Eurasian Black Vulture

Crested Serpent Eagle

Marsh Harrier

Hen Harrier

* Pallid Harrier - female Sukla Phanta

Pied Harrier - regular roost near Rani Tal

Shikra

White-eyed Buzzard

Steppe Eagle
Tawny Eagle
* Kestrel
Black Francolin
* Common Quail - at least 2 calling Sukla Phanta
Red Junglefowl
Blue Peafowl
Barred Buttonquail
White-breasted Waterhen
Common Moorhen
Purple Gallinule
Common Coot
E Bengal Florican
Bronze-winged Jacana
Northern Stone-curlew
* Indian Courser - single on Sukla Phanta 30/3
Red-wattled Plover
Common Snipe
Common Greenshank
Green Sandpiper
River Tern - 2 across Sukla Phanta 27/3
Rock Pigeon
Eurasian Collared Dove
Red Turtle Dove
Oriental Turtle Dove
Spotted Dove
Emerald Dove
Yellow-footed Green Pigeon
Ring-necked Parakeet
Blossom-headed Parakeet
Common Hawk-Cuckoo
Common Koel
Sirkeer Malkoha
Greater Coucal
Lesser Coucal
Asian Barred Owlet
Brown Hawk Owl
Spotted Little Owl
Large-tailed Nightjar
Alpine Swift
Little Swift

White-breasted Kingfisher
Stork-billed Kingfisher - regular along Bawani River
Common Kingfisher
Pied Kingfisher
Green Bee-eater
Blue-tailed Bee-eater - large passage
* Chestnut-headed Bee-eater - 3-4 around Singhpur from 1/4
Indian Roller
Hoopoe
Indian Grey Hornbill
V Oriental Pied Hornbill
Brown-headed Barbet
Coppersmith Barbet
Streak-throated Green Woodpecker
Himalyan Golden-backed Woodpecker
Lesser Golden-backed Woodpecker
Yellow-crowned Pied Woodpecker
Brown-capped Pygmy Woodpecker
Bengal Bush-lark
Ashy-crowned Finchlark
Oriental Skylark
Brown-throated Sand Martin
Barn Swallow
Red-rumped Swallow
Richard's Pipit
Olive-backed Pipit
Yellow Wagtail
White Wagtail
White-browed Wagtail
Large Cuckoo-shrike
Small Minivet
Red-whiskered Bulbul
Red-vented Bulbul
Common Iora
Bluethroat
* Black Redstart
Asian Magpie Robin
R White-tailed Stonechat - frequently encountered throughout the grasslands
Common Stonechat
Pied Bushchat

- Indian Robin
Tickell's Thrush
- R Bright-capped Cisticola - Occasionally seen in tall grass patches on Sukla Phanta
Fantail Cisticola
Plain Prinia
Ashy Prinia
Grey-breasted Prinia
Jungle Prinia
- V Large Grass Warbler - very occasionally seen in dense grass around the edges
of Sukla Phanta
- Common Tailorbird
- V Striated Marsh Warbler - present in tall reeds in marshy areas of Seta Khera
Golden-spectacled Warbler
Greenish Warbler
Chiffchaff
- * Verditer Flycatcher
Rufous-tailed Flycatcher
- * Red-breasted Flycatcher
White-browed Fantail
- * Rufous-bellied Babbler
Red-capped Babbler
Striated Babbler
Jungle Babbler
Great Tit
Chestnut-bellied Nuthatch
Purple Sunbird
Thick-billed Flowerpecker
Oriental White-eye
Black-hooded Oriole
Golden Oriole
- * Bay-backed Shrike
Long-tailed Shrike
Black Drongo
White-bellied Drongo
Greater Racket-tailed Drongo
Rufous Treepie
House Crow
Jungle Crow
Chestnut-tailed Starling

Common Starling

Asian Pied Starling

Common Mynah

Bank Mynah

House Sparrow

Yellow-throated Sparrow

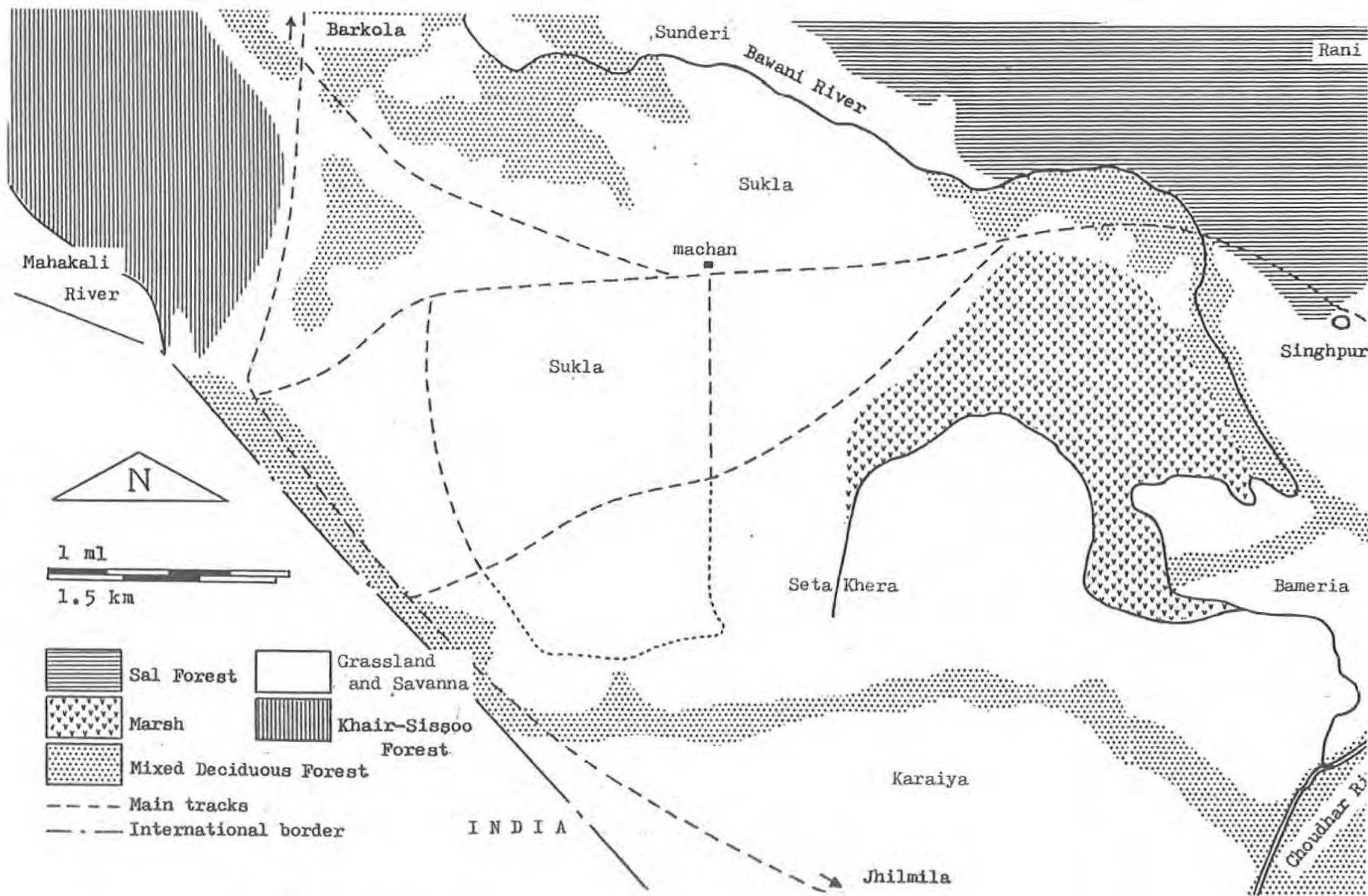
Streaked Weaver

Red Avadavat

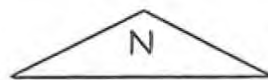
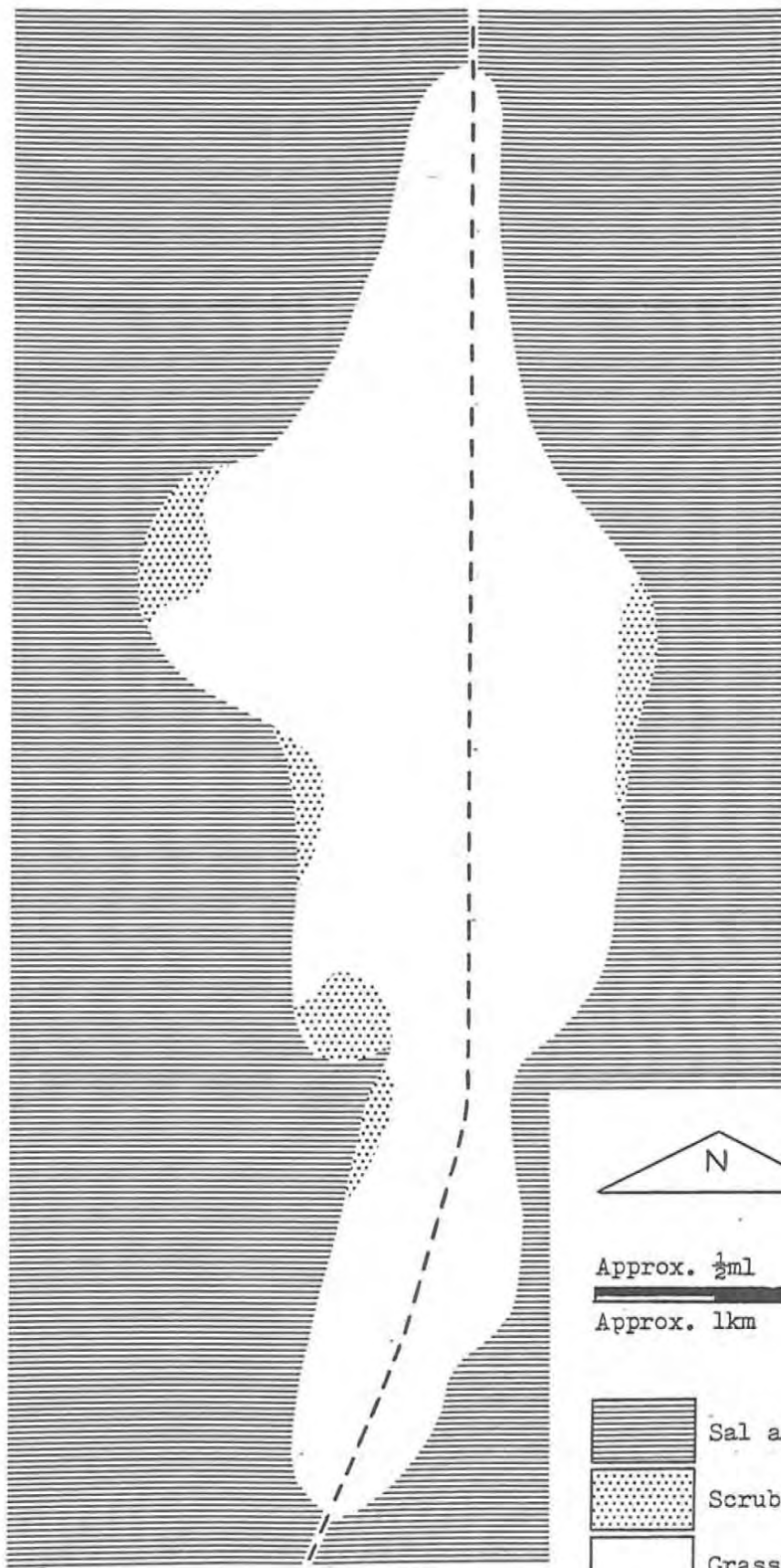
Common Rosefinch

Yellow-breasted Bunting

Crested Bunting

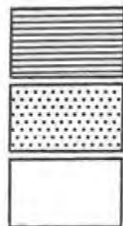


Sukla Phanta - Survey area



Approx. $\frac{1}{2}$ ml

Approx. 1km

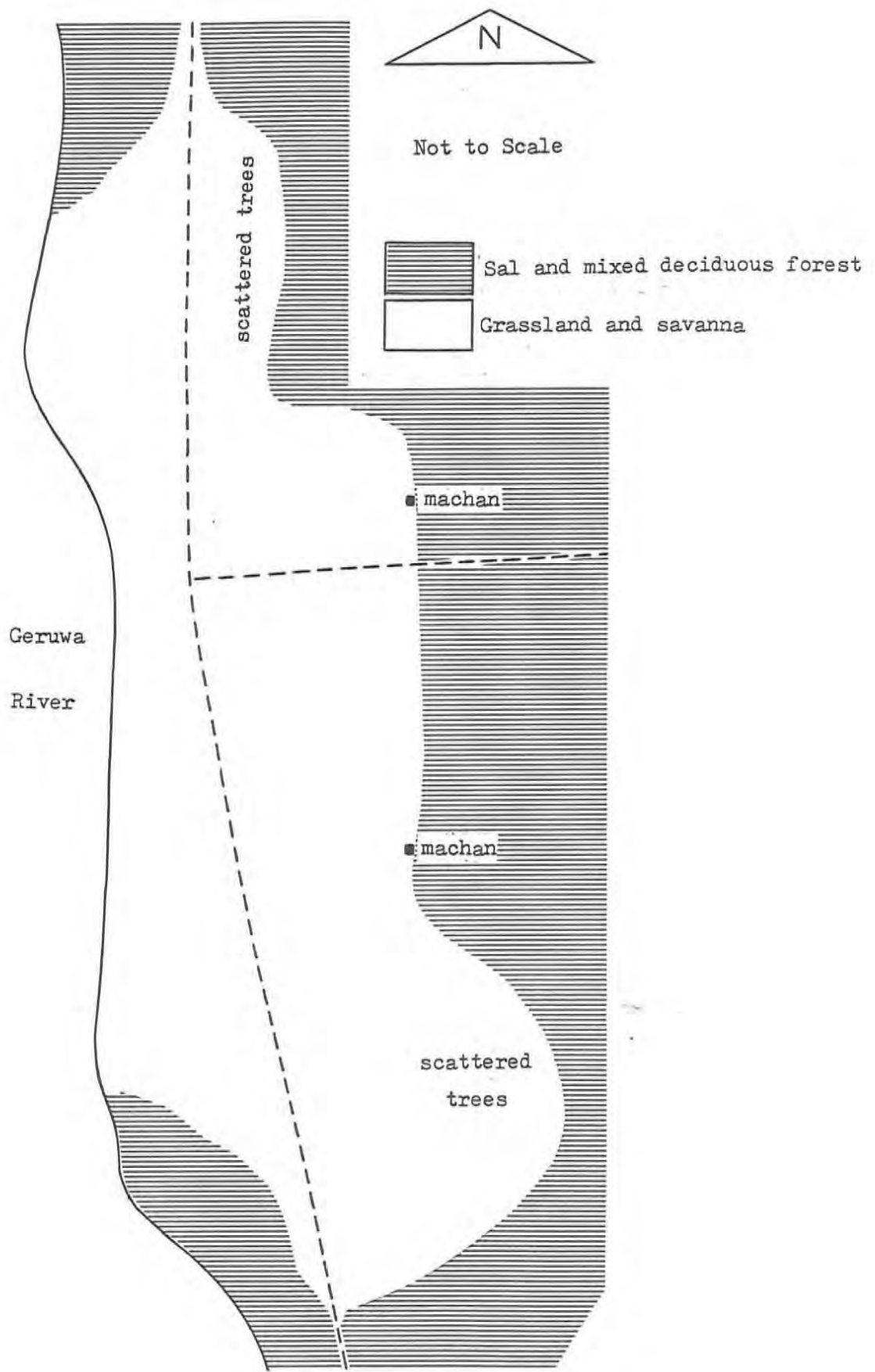


Sal and mixed deciduous forest

Scrub

Grassland and savanna

Lamkhole Phanta, Royal Bardia National Park



Baghoura Phanta, Royal Bardia National Park