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THE BIRDS OF KANO STATE, NIGERIA

by R. E. Sharland and R. Wilkinson

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INTRODUCTION

West African ornithology is still at the stage where useful information can be presented in the form of annotated check lists. The purpose of this paper is to summarize our present knowledge of the status, relative abundance (and recent changes in abundance of certain species), local distribution and breeding records of birds in Kano State, Nigeria. In so doing we hope to provide a framework to which other workers may add.

Kano State occupies an area of c. 43,000 km² between approximately 11° and 13°N on the north central plateau of northern Nigeria. It shares its northern border with the Republic of Niger and is bounded on the west by Kaduna State, on the north-east by Borno State and on the south-east by Bauchi State. The terrain is generally flat, but inselbergs arise in places. The main drainage system, the Kano-Hadejia river, rises from the south in Plateau State and flows first WNW to Karaye and then ENE to Hadejia and Kirikasama (Fig. 1). According to Keay (1953) most of Kano State carries Sudan Savanna vegetation, which merges in the north with Sahel Savanna and in the south with Northern Guinea Savanna (Fig. 1). Kano State is one of the most heavily populated areas of Nigeria, and particularly around Kano, is intensively cultivated with crops of guinea corn, millet, cotton, cowpea and groundnut. The climate is characterized by distinct wet and dry seasons. At Kano the first rains usually fall in April or May, the wettest months are June to August and the rain continues into September or occasionally October. In general the annual precipitation is greatest in the south of the state and decreases with increasing latitude (Table 1) but at any one locality varies from year to year (Fig. 2).

STUDY AREAS

Although we report observations from throughout Kano State a number of localities have proved particularly rewarding and so feature disproportionately. Most visits away from Kano (where we both live, R.E.S. since 1954, R.W. since 1977) have been made in the dry season and early and late rains.

Kano City and environs (12°01'N, 08°30'E) The suburbs and gardens of Kano, the water-filled 'borrow-pits' from which clay has been extracted for traditional house-building, the 'Zoo dam', and areas of scrub dominated by Acacia spp., and the locust-bean tree Parkia clappertonia.

Gaya Forest Reserve (11°52'N, 09°00'E) Situated centrally in the Sudan Savanna belt, on both sides of the Dudurum Gaya, a tributary of Kano River. The presence of old trees such as Khaya senegalensis and Daniellia olivieri along the river bank suggest that this area was once a 'kurmi'.

Rano (11°33'N, 8°34'E) Of particular interest because of its outcropping inselbergs. Bombax and Ficus are the dominant trees on the inselbergs and the surrounding areas are intensively cultivated with guinea corn, beans and groundnuts.

<u>Kirikasama</u> (12°42'N, 10°15'E) Situated on the Komadugu Gana river draining into Lake Chad; annual flooding of ox-bow lakes results in marshy areas which are important habitats for wetland birds.

Kazaure (12°39'N, 8°25'E) A varied region encompassing sand dunes, rocky hills and deep permanent lakes. In some years flash floods late in the fains result in seasonal lakes, e.g. at Achilafia (12°49'N, 8°24'E) where large numbers of water birds congregate.

Falgore Game Reserve (11°OO'N, O8°42'E) Established in 1973, 640 km² in extent, Falgore was previously a forest reserve along the Kano River. This area falls within the Northern Guinea Savanna zone and the trees include Boswellia, Butyrospermum, Detarium, Entada, Vitex, Cussonia and Terminalia.

THE AVIFAUNA

406 bird species have been recorded. One quarter of this total (101 species) are Palaearctic winter visitors or passage migrants through Kano State, and the winter populations of a further nine species are augmented by Palaearctic visitors. Of the Afrotropical species, 28 are wet season visitors and at least a further seven species are either wet season visitors or partial migrants present at higher densities in the rains. In contrast, only 12 species are dry season visitors (or present at higher density in the dry than the wet season).

Of the 406 species, 20 have been recorded only from Falgore and another seven only in the extreme south of Kano State; many of these are typical Northern Guinea savanna birds but others, e.g. the Secretary Bird Sagittarius serpentarius may be restricted to this area because of the intensive land use further north. We have visited Falgore less frequently than many other areas of Kano State and predict that additions to the systematic list will result from a more thorough working of this area.

In his more than 20 years of residence in what is now Kano State R.E.S. has been able to detect changes in the abundance of a number of species; four are now more common than formerly, and 23 have suffered a decline as follows.

- (a) <u>Increasing</u>: <u>Kittlitz's Sand-Plover Charadrius pecuarius</u>, <u>Avocet Recurvirostra avosetta</u>, <u>White-winged Black Tern Sterna leucoptera</u>, and <u>Sudan Golden Sparrow Passer Luteus</u>.
- (b) <u>Decreasing</u>: Darter Anhinga rufa, African Cormorant Phalacrocorax carbo, Wood Ibis Ibis ibis, Sacred Ibis Threskiornis aethiopica, African Spoonbill Platalea alba, Pigmy Goose Nettapus auritus, Hottentot Teal Anas

Table 1 Estimated Mean annual rainfall at various localities in Kano State over the period 1967-76

Station		Estimated mean* annual rainfall (mm)	Years with records**
	(12°42'N, 10°15'E)	475	3-6
Hadejia	(12°27'N, 10°03'E)	653	4-7
Kano	(12°01'N, 08°30'E)	711	5-7
Gaya	(11°52'N, 09°00'E)	683	1-7
Tudun Wada	(11°15'N, 08°25'E)	879	4-6
Ririwai	(10°45'N, 08°45'E)	1440	2-3

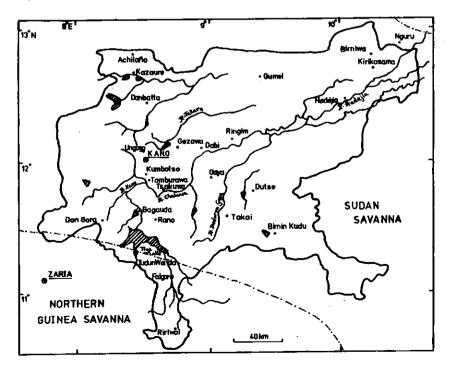


Figure 1 Map of Kano State showing localities mentioned in the text.

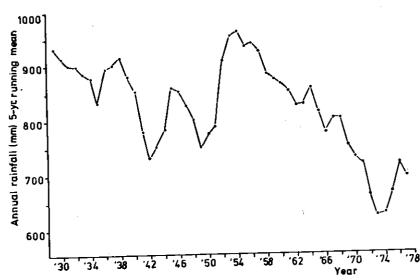


Figure 2 Annual rainfall (five-year running means) at Kano from 1929 to 1977.

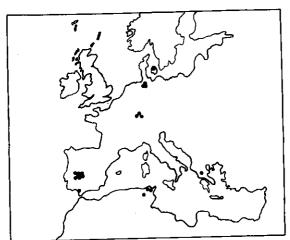


Figure 3 Original ringing localities of White Storks (Ciconia ciconia) subsequently recovered in northern Nigeria.

hottentota, White-backed Duck Thalassornis leuconotus, Hooded Vulture Neophron monachus, Pale Harrier Circus macrourus, Montagu's Harrier Circus pygargus, Short-toed Eagle Circaetus gallicus, Fish Eagle Naliaetus vocifer, Quail Coturnix coturnix, Guinea Fowl Numida meleagris, Crowned Crane Balearica pavonina, Blue-naped Mousebird Colius macrourus, Senegal Bustard Eupodotis senegalensis, Little Green Bee-eater Nerops orientalis, Woodchat Shrike Lanius senator, Red-billed Quelea Quelea, Zebra Waxbill Amandava subflava, and Quail Finch Ortygospiza atricollis.

The decline in numbers of Red-billed Quelea Quelea quelea and extension of the range of Sudan Golden Sparrow have been discussed by Ward (1977) who points to the increasing aridity of the Sahel as a major controlling factor. Fry (1973) notes the recent appearance at Zaria (Northern Guinea Savanna) of five species formerly considered to be typical of Sudan Savanna and suggests that their presence at Zaria may be related to the increasing aridity and habitat degradation of this area. This is further discussed by Pettet (1975) and Fry (1975a). It is of interest to note that one of these 'soudanian' species, the Blue-naped Mousebird Colius macrourus, has never been seen by us in Kano State. Although we consider it beyond the scope of the present communication to discuss in detail those factors which may be associated with the observed changes in abundance of each of the species listed above we note that a large number of the species in decline are water birds or birds strongly associated with wetland habitats. In recent years the decreasing annual rainfall (Fig. 2) coupled with man's construction of dams and control of water flow have resulted in marked changes in the nature of some wetland habitats. Fry (1975b), in considering bird conservation and prospects in Nigeria, argues that such habitat changes are not necessarily adverse for the birds as a whole, as one community will be replaced by another. However it will be of considerable interest to see whether and how individual bird species adapt to these changes.

SYSTEMATIC LIST

Scientific nomenclature follows White (1960-65) and with a few exceptions the English names are those of Mackworth-Praed & Grant (1970-73).

Resident is used to refer to species which are present throughout the year but it does not necessarily imply that particular individuals remain throughout the year (Elgood, Fry & Dowsett 1973). The term winter visitor is used only for Palaearctic species; dry season visitor is used only for Afrotropical species. Common, frequent, occasional and rare are used subjectively in relation to expected occurrences in preferred habitats: a species is common if recorded on nearly all visits and is rare if recorded only about once a year.

LITTLE GREBE Podiceps ruficollis Common resident but numbers fluctuate from year to year. Two clutches of six eggs have been found in June, one at Kazaure and one at Ungogo.

WHITE PELICAN Pelecanus onocrotalus Flocks of 50 to 150 in the dry season

WHITE PELICAN Pelecanus onocrotalus Flocks of 50 to 150 in the dry season at Kirikasama. 1400 were observed heading north-east near Kano on 6 June 1957.

PINK-BACKED PELICAN Pelecanus refescens Frequent. Flocks of up to 200 in the dry season at Kirikasama. Formerly bred in December at Birnin Kudu, and in 1976 and 1977 bred near Dutse.

AFRICAN CORMORANT Phalacrocorax carbo Previously frequent at Kirikasama where last seen in 1967.

LONG-TAILED CORMORANT Phalacrocorax africanus Common resident, sometimes very numerous, "hundreds" being recorded at Kirikasama on 18 February 1967, and over a hundred on 10 February 1963 (C. H. Fry). Nests with young have been found in January 1966 at Kirikasama.

DARTER Anhinga rufa Previously frequent at Kirikasama where in January 1965 a pair with half-grown young in the nest were seen. No records since 1968.

BITTERN Botaurus stellaris Rare winter visitor. Recorded at Dabi in December 1958, and at Tsakwa in January 1959.

LITTLE BITTERN Ixobrychus minutus Occasional or rare. The African race $I.\ m.\ payesi$ and the Palaearctic $I.\ m.\ minutus$ have both been netted at borrow pits around Kano city.

DWARF BITTERN Ixobrychus sturmii Three records: seen twice near Kano on 8 December 1962, and 10 December 1960, and once at Kirikasama in the wet season.

NIGHT HERON Nycticorax nycticorax Frequent winter visitor to lakes and dams throughout the state. Occasionally numerous, e.g. 300 at Kirikasama on 18 February 1967 (C. H. Fry).

SQUACCO HERON Ardeola ralloides A frequent resident whose numbers may be augmented by winter visitors, e.g. two birds ringed at Srebarna, Bulgaria (44°07'N, 27°05'E) on 19 September 1963 were recovered from an area southwest of Nguru on 3 November 1963 (Sharland 1969).

CATTLE EGRET Ardeola ibis A common resident whose numbers appear to increase in the wet season. Breeding recorded in the wet season and more occasionally in the late dry season.

GREEN-BACKED HERON Butorides striatus Frequent wet season visitor.

BLACK HERON Egretta ardesiaca Frequent at Kirikasama in the dry season. GREAT WHITE EGRET Egretta alba Common resident.

YELLOW-BILLED EGRET Egretta intermedia Frequent at Kirikasama and recorded at Kazaure in the dry season.

LITTLE EGRET Egretta garzetta Common resident. One bird of the grey phase (Reef Heron, E. g. gularis) remained at a lake near Kano for a period of over a week in June 1978, and another, or the same bird, was seen again in every month from September to December 1979.

GREY HERON Ardea cinerea Frequent resident breeding at Kazaure in the wet season. Common in the dry season when winter visitors arrive from the Palaearctic; e.g. one bird recovered at Katagum in November 1960 carried a ring from the U.S.S.R. (Elgood, Sharland & Ward 1966).

BLACK-HEADED HERON Ardea melanocephala Common resident. Nests with pulli were found at Kazaure in June 1964, and at Birniwa in December 1978. GOLIATH HERON Ardea goliath One at Kirikasama in December 1965.

PURPLE HERON Ardea purpurea Common, and probably resident but we have few records for July and August.

HAMMERKOP Scopus umbretta Occasional at Falgore and Gaya, rare at Kano. WHITE STORK Ciconia ciconia Winter visitor. Occasionally numerous at Kirikasama where these are caught to be sold in Kano bird market. Recoveries of ringed birds from Tunisia, Spain, France and Germany (Fig. 3). BLACK STORK Ciconia nigra Two at Falgore on 30 January 1980. In addition one in a decoy flock of Ciconia ciconia near Kirikasama in January 1965 and

another offered for sale in Kano market (probably originating from the $\mbox{\sc Kirikasama}$ area).

ABDIM'S STORK Ciconia abdimi Common wet season visitor, arriving at Kano in April and departing in September. Breeding recorded in July 1963 near Kazaure and in July 1971, and July 1972 in the vicinity of Gumel. OPEN-BILL Anastomus lamelligerus Occasional at Kirikasama. Two at Bagauda Lake on 27 December 1978 (D. O'Connor). One flying over Kano on 5 November 1979.

MARABOU Leptotilus crumeniferus Previously common, breeding in the dry season at Kirikasama, but uncommon elsewhere. In 1978 only a single pair was recorded breeding at Kirikasama and in 1979 no nests were found. WOOD IBIS Ibis ibis Previously common but now occasional. Formerly bred at Kirikasama, the last breeding record being in December 1962. SACRED IBIS Threskiornis aethiopica Now occasional although formerly common, e.g. over 200 at Kirikasama on 10 February 1967 (C. H. Fry, R.E.S.). Immature birds have been seen in October and February.

HADADA Bostrychia hagedash One record, in February 1963 near Ringim. GLOSSY IBIS Plegadus falcinellus Common winter visitor. Records in early August at Kazaure and Kirikasama suggest that some may summer in the north of the state.

AFRICAN SPOONBILL Platalea alba Formerly a frequent resident at Kirikasama where recently fledged birds were seen in December. No records since 1970. SPOONBILL Platalea leucorodia Three at Kazaure on 14 May 1978.

FULVOUS TREE-DUCK Dendrocygna bicolor Resident. Locally common.

WHITE-FACED TREE-DUCK Dendrocygna viduata Common resident. A nest containing ducklings was discovered on 2 October 1961 at Kano.

EGYPTIAN GOOSE Alopochen aegyptiaca Locally common resident. Young ducklings have been seen at Kano in October and November.

SPUR-WINGED GOOSE $Plectropterus\ gambensis$ Local resident. Common at Kirikasama and recorded at Bagauda Lake and Birnin Kudu.

KNOB-BILLED GOOSE Sarkidiornis melanotus Common resident. Numbers decrease in the wet season but this may result from local movement to wooded areas; birds seen in the rains among trees at Gaya are suspected of breeding. PIGMY GOOSE Nettapus auritus Previously common e.g. 50 at Tamburawa on 19 February 1967 (C. H. Fry), but now occasional. All recent records have been from Achilafia. Formerly bred at Kumbotso where goslings were seen in October 1968. Now rare in Kano State; one bird was seen at Kazaure in November 1978.

WIGEON Anas penelope Winter visitor. Seen regularly in small numbers at Kirikasama.

GADWALL Anas strepera One shot near Kirikasama in December 1964, and one seen by R.E.S. with a flock of Garganey at Kano on 16 April 1980. TEAL Anas crecca Frequent winter visitor. One of the earliest migrant ducks, appearing as early as September.

CAPE WIGEON Anas capensis Six at Kazaure on 6 April 1979 (D. O'Connor). PINTALL Anas acuta Common winter visitor between November and May. The largest flock was of 6,000 at Kazaure in December 1977.

HOTTENTOT TEAL Anas hottentota Numbers increased from 1955 to 1970 when a group of 50 birds were seen at Kazaure but this species is now rare. Ducklings have been observed at Kazaure in December, January and February

Ducklings have been observed at Kazaure in December, January and February (last record from Elgood, Fry & Dowsett 1973).

GARGANEY Anas querquedula Abundant winter visitor. This is the commonest Palaearctic migrant duck with flocks of thousands, e.g. 5,000 at Achilafia on 2 February 1980. A few records in July 1964 suggest that some birds may summer in Kano State.

SHOVELER Anas clypeata Frequent winter visitor, records from October to March. Usually seen in small numbers, the largest flock being 150 at Kazaure in December 1977.

POCHARD Aythya ferina A few recorded each winter on the lakes near Kirikasama.

WHITE-EYED POCHARD Aythya nyroca Winter visitor. Numbers fluctuate greatly from year to year but recently common. The largest flock recorded was of 1500 birds at Kirikasama in January 1970.

TUFFED DUCK Aythya fuligula A rare winter visitor to lakes in Kano State, e.g. 12 at Kirikasama on 18 February 1967 (C. H. Fry).

WHITE-BACKED DUCK Thalassornis leuconotus Previously common but local.

None have been seen since 1972 and this species is now considered rare. Prior to 1972 ducklings were seen at Kumbotso and Kazaure in November and December.

WHITE-HEADED VULTURE Trigonoceps occipitalis Local. Seen only at Falgore and at Dan Gora Forest Reserve.

WHITE-BACKED VULTURE Gyps bengalensis Occasional at Falgore and Kirikasama. One at Hadejia on 18 February 1967 (C. H. Fry).

EGYPTIAN VULTURE Neophron percnopterus Local. Recorded from rocky hills near Kazaure where they possibly bred in January 1972 (M. Turner).

HOODED VULTURE Neophron monachus Common resident but at Kano less abundant in recent years. Breeds in the dry season.

PALE HARRIER Circus macrourus Winter visitor. Previously frequent but now less common.

 ${\tt MONTAGU'S\ HARRIER\ Circus\ pygargus\ Winter\ visitor.}\ {\tt Now\ occasional\ although\ formerly\ seen\ more\ frequently.}$

MARSH HARRIER Circus aeruginosus Winter visitor. Commoner than the two preceding harriers.

HARRIER-HAWK Polyboroides radiatus Occasional.

BATELEUR Terathopius ecaudatus Local at Gaya and near Kirikasama.

SHORT-TOED EAGLE $\mathit{Circaetus}\ \mathit{gallicus}\$ Previously a regular winter visitor, now rare.

 ${\tt BROWN\ HARRIER-EAGLE\ Circaetus\ cinereus\ }$ A few records from Gaya, Kirikasama and Dan Gora distributed throughout the year.

BANDED HARRIER-EAGLE Circaetus cinerascens One at Dan Gora Forest Reserve in May 1977.

SHIKRA Accipiter badius Common resident. One was seen sitting tightly on a nest at Kano on 1 April 1980.

OVAMPO SPARROWHAWK Accipiter ovampensis Three at Gaya in October 1977. CHANTING GOSHAWK Meleirax metabates Common resident. A nest with a single large chick was found at Kano in late May 1978, and an adult was seen sitting on a nest at Kumbotso on 10 May 1980.

GABAR GOSHAWK Melierax gabar Common resident. One adult was observed sitting on a nest at Kano on 3 April 1980. Melanistic birds are seen occasionally.

 ${\tt LIZARD~BUZZARD~Kaupifalco~monogrammicus}$ Local. Seen at Gaya, Falgore and Dan Gora Forest Reserve.

GRASSHOPPER BUZZARD $\it Butastur\ rufipennis$ Frequent but less common in the dry season. Three chicks fledged from a nest at Danbatta in the rains of 1975 (M. Turner).

LONG-LEGGED BUZZARD Buteo rufinus Occasional to rare winter visitor. First identified in 1968 and seen in the same locality at Kano in 1969, 1970 and 1971.

RED-NECKED BUZZARD Buteo auguralis Frequent and possibly resident in Kano State. Fledglings have been seen offered for sale in Kano market in April. LONG-CRESTED HAWK-EAGLE Lophoaetus occipitalis Occasional.

MARTIAL EAGLE Polemaetus bellicosus One at Ririwai on 3 November 1979.

BOOTED EAGLE Hieraaetus pennatus Rare winter visitor. Seen near Kano on 27 January 1962 (R.E.S.), on 6 January 1970 (Wallace 1970) and on 11 January 1980 (R.W.), and at Achilafia on 2 February 1980.

TAWNY EAGLE Aquila rapax Occasional.

WAHLBERG'S EAGLE Aquila wahlbergi Frequent.

FISH EAGLE Haliaetus vocifer Previously occasional at Kirikasama but none have been seen within the last ten years.

KITE Milvus migrans Common in all months except July. Nests with eggs have been found in January and in February. At other nests single almost fully grown chicks were seen in late April 1979 and early July 1979.

HONEY BUZZARD Pernis apivorus Rare winter visitor. One at Kano in December 1958 (R.E.S.) and a second at Kazaure in September 1974 (M. Turner). CUCKOO FALCON Aviceda cuculoides One at Falgore on 21 June 1980.

BLACK-SHOULDERED KITE *Elanus caeruleus* Common resident. Breeding commences in the early dry season. Four young fledged from a nest at Kano in December 1973 (M. Turner) and nest-building was observed at Kano on 22

September 1977.

SWALLOW-TAILED KITE Elanus riocourii One in January 1968 near Kazaure and a second in April 1970 near Jekara.

BAT-HAWK Machaeramphus alcinus Rare. Three records from Kano in June, August and December.

OSPREY Pandion haliaetus Frequent winter visitor at lakes throughout the

LANNER Falco biarmicus Frequent resident.

PEREGRINE Falco peregrinus Occasional to rare.

AFRICAN HOBBY Falco cuvieri One in April 1969 and one in July 1970 at Hadeiia.

RED-NECKED FALCON Falco chiquera Frequent resident.

HOBBY Falco subbuteo Occasional winter visitor from October until February. GREY KESTREL Falco ardosiaceus Occasional.

RED-FOOTED FALCON Falco vespertinus Palaearctic passage migrant. Seen only in April but then regularly at Falgore where on 26 April 1957 over 200 were seen feeding on a swarm of termites.

LESSER KESTREL Falco naumanni Rare winter visitor at Kazaure where a party of twelve birds was seen in January 1965 (M. Turner).

KESTREL Falco tinnunculus Frequent winter visitor. Kestrels observed in the wet season may be of the resident race F. t. rufescens.

FOX KESTREL Falco alopex A local resident favouring areas around inselbergs. A pair was observed copulating in March 1978.

SECRETARY-BIRD Sagittarius serpentarius One at Falgore in February 1977. WHITE-THROATED FRANCOLIN Francolinus albogularis Local, probably resident at Falgore.

COQUI FRANCOLIN Francolinus coqui Rare. Two shot by John Hughes; one at Jekara on 4 April 1955 and the second near Gezawa on 17 April 1968.

DOUBLE-SPURRED FRANCOLIN Francolinus bicalcaratus Common resident. Juveniles have been seen at the end of the rains at Tsakuwa.

CLAPPERTON'S FRANCOLIN Francolinus clappertoni Found only north-east of Kirikasama in the area bordering Borno State.

QUAIL Coturnix coturnix Previously occasional from December to March. None seen since 1972.

HARLEQUIN QUAIL Coturnix delegorquei Rare wet season visitor from May through to August.

STONE PARTRIDGE $Ptilopachus\ petrosus$ Common but local resident at Falgore and Gaya.

GUINEA FOWL Numida meleagris Local resident at Falgore. Previously seen at Gaya and Ringim but not for over 15 years.

AFRICAN CRAKE Crex egregia Frequent wet season visitor. Two nests each with 5 eggs were found at Gaya on 24 July 1964.

SPOTTED CRAKE Porzana porzana Three netted in autumn (September 1956, 28 October 1975, 22 November 1975) and one observed in March 1957 at Kano. BLACK CRAKE Limnocorax flavirostra Frequent. Juveniles have been seen in July in borrow-pits at Kano.

(PIGMY RAIL Sarothrura sp. Fry (1965) notes that the remains of a Sarothrura were found in a dead Python sent from Kano in December 1963)
LESSER MOORHEN Gallinula angulata One netted at Kirikasama in December 1971

MOORHEN Gallinula chloropus Birds belonging to the African race G. chloropus meridionalis are common and resident in Kano State. The British Museum confirmed that one specimen found dead at Kazaure in February 1978 belonged to the Palaearctic race G. c. chloropus. PURPLE GALLINULE Porphyrio porphyrio Local. Breeds at Kazaure where young birds were seen being carried on a parent's back in December and a dead juvenile was found in December 1979.

dead juvenile was found in becember 1979.

ALLEN'S GALLINULE Porphyrio alleni Common resident. A nest with 6 eggs was found at Kano in August 1965.

COOT Fulica atra Winter visitor to lakes in the north of Kano State. Single birds have been seen in most years but in the winter of 1977/78 a raft of 500 were counted at Kazaure.

FINFOOT Podica senegalensis Occasional at Gaya in the wet season.

CROWNED CRANE Balearica pavonina Previously common in the dry season around Kirikasama but now rare.

DENHAM'S BUSTARD Neotis denhami Six records from throughout Kano State all in May.

CRESTED BUSTARD Eupodotis ruficrista One near Kirikasama in December 1958. SENEGAL BUSTARD Eupodotis senegalensis Occurs locally in areas of extreme scrub. Previously common but numbers may now be declining.

BLACK-BELLIED BUSTARD Eupodotis melanogaster Frequent resident at Falgore. Occasional elsewhere, all sightings at Kano being in May.

JACANA Actophilornis africana Common resident. Juveniles have been seen in September at Kano.

SMAILER JACANA Microparra capensis Occasional at Kumbotso, and Achilafia. SENEGAL THICK-KNEE Burhinus senegalensis Occasional in the Kano area from May to July.

SPOTTED THICK-KNEE Burhinus capensis Rare. Seen in May, November and January. One at Kano on 1 November 1979.

SPUR-WINGED PLOYER Vanellus spinosus Common resident. Clutches of eggs have been found at Debbi and Achilafia in May and June.

BLACK-HEADED PLOVER *Vanellus tectus* Frequent and probably resident. A sitting bird was flushed off a scrape with three eggs at Achilafia on 17 March 1979.

WHITE-HEADED PLOVER Vanellus albiceps Frequent wet season visitor.
SENEGAL PLOVER Vanellus lugubris Two at Achilafia on 4 October 1978.
WATTLED PLOVER Vanellus senegallus Frequent from June to October.
RINGED PLOVER Charadrius hiaticula Common Palaearctic passage migrant in September and March.

LITTLE RINGED PLOVER Charadrius dubius Common Palaearctic passage migrant and winter visitor.

KITTLITZ'S SAND-PLOVER Charadrius pecuarius Previously uncommon but recently frequent in the dry season at Kazaure and at Bagauda Lake.

THREE-BANDED PLOVER Charadrius tricollaris One netted at Kirikasama on 15 December 1970.

KENTISH PLOYER Charadrius alexandrinus Small parties have been seen on three occasions in October. One female at Bagauda on 27 December 1978

WHITE-FRONTED SAND-PLOVER Charadrius marginatus Seen twice on the Kano River, near Kano, in August 1962 and November 1963, and once at Kazaure in December 1977.

December 1977.

CASPIAN PLOVER Charadrius asiaticus A single record; one shot on the Kano
River in October 1956 was subsequently identified by the British Museum.

CURLEW Numerius arquata Occasional passage migrant or winter visitor. BLACK-TAILED GODWIT $Limosa\ limosa$ Common winter visitor to lakes in the

north of Kano State.
GREENSHANK Tringa nebularia Common winter visitor.

MARSH SANDPIPER Tringa stagnatalis Frequent winter visitor.

WOOD SANDPIPER Tringa glareola Common winter visitor. A few birds summer in Kano State.

GREEN SANDPIPER Tringa ochropus Frequent winter visitor.

COMMON SANDPIPER Tringa hypoleucos Common from September until May, but occasional from June to August.

REDSHANK Tringa totanus Occasional winter visitor.

SPOTTED REDSHANK Tringa erythropus Frequent winter visitor.

GREAT SNIPE Gallinago media A single record; one shot at Kano in September 1964.

COMMON SNIPE Gallinago gallinago Common winter visitor.

JACK SNIPE Gallinago minima Frequent winter visitor.

CURLEW-SANDPIPER Calidris ferruginea Frequent passage migrant and occasional winter visitor. Maximum flock of 100 birds seen at Kano in April 1964.

LITTLE STINT Calidris minuta Common winter visitor.

TEMMINCK'S STINT Calidris temminckii Frequent winter visitor.

RUFF Philomachus pugnax Common and abundant winter visitor.

BLACK-WINGED STILT Himantopus himantopus Common winter visitor.

AVOCET Recurvirostra avosetta Previously rare but in recent years a frequent winter visitor. Hall (1976) records a marked recent increase in frequency of sightings of Avocet in Borno State.

PAINTED SNIPE Rostratula benghalensis Frequent. May be subject to local movements.

EGYPTIAN PLOVER Pluvianus aequptius Frequent wet season visitor.

TEMMINCK'S COURSER Cursorius temminckii Rare. One at Kano in May 1957 and one at Bagauda Lake on 28 May 1978. Fry (1965) notes that at Zaria, some 130 kilometres south-west of Kano, this courser has been recorded only in November and December. Taken together these observations suggest that Temminck's Coursers may be subject to regular seasonal movements.

VIOLET-TIPPED COURSER Cursorius chalcopterus Rare. One at Kano on 20 April 1979 and six on 6 November 1979. Four earlier records at Kano; three in May and one in October.

PRATINCOLE Glareola pratincole Recorded in the dry season near Kirikasama where numbers fluctuate from year to year. One at Kano on 8 April 1978 (D. O'Connor).

BLACK-WINGED PRATINCOLE Glareola nordmanni Rare winter visitor. An exceptional record of 30 near Kano in November 1965.

GREY PRATINCOLE *Glareola cinerea* Rare. One seen on Kano River in May 1964, and one at Kano on 6 May 1980.

GREY-HEADED GULL Larus cirrocephalus $\,$ Rare except in the winter of 1977/78 when up to 15 at Kazaure.

BLACK-HEADED GULL Larus ridibundus Rare winter visitor. An exceptional record of 30 at Kazaure in the winter of 1977/78.

LESSER BLACK-BACKED GULL Larus fuscus Two at Kano on 25 March 1978 (D. O'Connor).

CASPIAN TERN Sterna tschegrava Two seen on the Kano River in October 1977. GULL-BILLED TERN Sterna nilotica Frequent winter visitor, arriving as early as September and remaining until late April.

WHISKERED TERN Sterna hybrida Rare winter visitor. One at Kirikasama in January 1979. Two seen at Kano in April 1979 (D. O'Connor).

WHITE-WINGED BLACK TERN Sterna leucoptera Frequent winter visitor. In 1977/78 some 5000 birds wintered on a single lake at Achilafia.

CHESTNUT-BELLIED SANDGROUSE Pterocles exustus Rare. Seen near Kirikasama in December 1976, and by D. O'Connor on 6 April 1979 at Achilafia.

FOUR-BANDED SANDGROUSE Pterocles quadricinctus Recorded near Kano in April, May and June with the majority of records in May. At one study area these sandgrouse were seen daily from 27th April to 24th June 1978.

BUTTON-QUAIL Turnix sylvatica Rare. Seen once at Kano in May 1970, and once near Kirikasama in July 1971.

QUAIL-PLOVER Ortyxelos meiffrenii Occasional to rare dry season visitor or passage migrant. Recorded in November, March, April and May. Two quail-plovers appeared at a study site in Kano on 22 March 1978 and remained for a period of several weeks.

SPECKLED PIGEON Columba guinea Common resident. Breeds mainly in the dry season but young have been seen in October at the end of the rains.

TURTLE DOVE Streptopelia turtur Winter visitor. Frequent at Kazaure and Kirikasama from December to March. Two records from Kano, both in September.

ADAMAWAN TURTLE DOVE Streptopelia lugens Local, seen at Falgore on 12 March 1979 and 4 November 1979. This species was previously considered to be restricted to the Plateau region. It is of interest to note that the only other record outside the Plateau region is from Yankari (Dyer and Gartshore 1975).

RED-EYED DOVE Streptopelia semitorquata Local. Seen only at Falgore where probably resident.

MOURNING DOVE Streptopelia decipiens Common resident in suburban parks and gardens. Bannerman (1953) notes that in Kano Province clutches of fresh eggs have been taken from late July until early September. Our only breeding record is of a bird incubating eggs on 7 April 1980.

VINACEOUS DOVE Streptopelia vinacea Common resident.

PINK-HEADED DOVE Streptopelia roseogrisea Occurs at Gaya, Kirikasama and Kazaure. Probably resident in most northern areas of the state.

LAUGHING DOVE Streptopelia senegalensis Common resident. Nests with eggs or chicks have been found at Kano in every month from October to April. NAMAQUA DOVE Oena capensis Common dry season visitor between September and early June. Birds in immature plumage have been seen as early as December. One clutch of eggs was found at Kirikasama in February 1976 and another at Kano on 16 March 1979. Courtship feeding and copulation were observed at Kano as late as 8 April 1979.

BLACK-BILLED BLUE-SPOTTED WOOD-DOVE *Turtur abyssinica* Resident, locally common but less evident in the wet season. One nest containing a single egg was found in August at Kumbotso.

BRUCE'S GREEN PIGEON Treron waalia Absent from the north of the state but a common resident elsewhere.

YELLOW-BELLIED PARROT Poicephalus senegalus Common resident.

ROSE-RINGED PARRAKEET *Psittacula krameri* Common resident. A pair attempted to nest in a garden in Kano in May 1964 but were driven off by Red-billed Hornbills.

RED-HEADED LOVEBIRD Agapornis pullaria Rare. Netted at Kano in September 1976 and September 1977. Once seen at Falgore in April 1956.

GREY PLANTAIN-EATER Crinifer piscator A common resident except in the far north of the state. One nest containing three eggs was found in May 1967. VIOLET TURACO Musophaga violacea A frequent resident in the forest reserves at Falgore and Gaya.

GREAT SPOTTED CUCKOO Clamator glandarius Frequent in the wet season but rare in the dry season. A young bird brought to R.E.S. in late August 1964 had been taken from the nest of a Pied Crow.

PIED CUCKOO ${\it Clamator\ jacobinis}~$ A frequent wet season visitor from March to August.

LEVAILLANT'S CUCKOO ${\it Clamator\ levaillantii}$ Common wet season visitor from May to October.

BLACK CUCKOO Cuculus clamosus A frequent but local wet season visitor from May to October. Seen in most years at Kumbotso.

KLAAS' CUCKOO Chrysococcyx klaas Rare wet season visitor. Sighted three times near Kano in May and once heard in July. One singing male at Kumbotso on 10 May 1980, and again (probably the same individual) on 24 July 1980.

DIDRIC CUCKOO Chrysococcyx caprius Common wet season visitor from June to September, once recorded in December. An immature bird was netted at Kano on 27 September 1978.

EMERALD CUCKOO $Chrysococcyx\ cupreus$ Seen twice in June 1956 at Gaya Forest Reserve.

BLACK COUCAL Centropus toulou Occasional in marshy areas in the wet season. SENEGAL COUCAL Centropus senegalensis Common resident. An immature bird was observed at Kano in October 1978.

BARN OWL Tyto alba Widespread but only occasionally seen. A nest with chicks was discovered near Kirikasama in January 1962.

SCOPS OWL Otus scops Both the African and Palaearctic races of this owl have been netted at Kano. The African race is resident in the state and although frequently heard is rarely seen. The European race has been netted several times at Kano but always in October or November suggesting that it is probably a passage migrant rather than a winter visitor. WHITE-FACED SCOPS OWL Otus leucotis Resident at Kano and also seen at Falgore.

SPOTTED EAGLE-OWL Bubo africanus Recorded at Kano most frequently in June but probably resident in Kano State. Two nestlings were brought to R.E.S. in April 1956.

PEARL-SPOTTED OWLET Glaucidium perlatum Occurs throughout the state and is a particularly common resident at Kano. Two nestlings, taken in May 1965 from a nesthole in a felled tree were successfully reared by R.E.S. AFRICAN MARSH OWL Asio capensis Rare and local. Three records from a

marshy area near Gezawa, and one from Bagauda. All four records were in June so this owl may be a wet season visitor.

NIGHTJAR Caprimulgus europaeus Two netted at Kano in October 1977. RUFOUS-CHEEKED NIGHTJAR Caprimulgus rufigena Rare wet season visitor. One roadside casualty at Falgore in May and one netted at Kano on 15 May 1979. Elgood, Fry & Dowsett (1973) record this species at Kano in August. LONG-TAILED NIGHTJAR Caprimulgus climacurus Common from March to October but occasional or rare in other months.

STANDARD-WINGED NIGHTJAR Macrodipteryx longipennis A frequent wet season visitor. Arrives in Kano in May, when males are easily distinguished by their long breeding plumes, and remains until October.

COMMON SWIFT Apus apus Rare passage migrant. Seen at Kazaure in June 1977 and at Kano in August when a passage of c. 100 birds occurred.

WHITE-RUMPED SWIFT Apus caffer Local. Seen in the wet season at Birnin Kudu and at Falgore.

LITTLE SWIFT $Apus\ affinis$ A common resident. One nest with chicks at Kano in June 1958.

MOTTLED-THROATED SPINETAIL Chaetura ussheri Rare. One at Kirikasama on 18 February 1967 (C. H. Fry). Seen twice near Kano, once in March and once in May.

BLUE-NAPED MOUSEBIRD Colius macrourus Reported as occurring at Takai by Bannerman, but never seen by the present authors.

NARINA TROGON $Apaloderma\ narina$ Seen only once in May 1967 at Dan Gora Forest Reserve.

GIANT KINGFISHER Ceryle maxima Rare. Four records; one at Kano, one on Kano River, one near Ringim and one on Tiga Lake.

PIED KINGFISHER Ceryle rudis Common resident throughout Kano State.

MALACHITE KINGFISHER Alcedo cristata A frequent resident.
PIGMY KINGFISHER Ceyx picta This species may be a wet season visitor, at
least to the northern and central areas of Kano State where all our records
fall between July and October.

WOODLAND KINGFISHER Halcyon senegalensis An occasional to frequent wet season visitor at Kano.

STRIPED KINGFISHER Halcyon chelicuti Rare. Four records in the north and central areas of Kano State all in the early rains. This kingfisher may be commoner in the south of Kano State, where between March and June 1979 several were sighted at Falgore.

GREY-HEADED KINGFISHER Halcyon leucocephala Common wet season visitor, normally arriving at Kano in May or June and remaining until November.

D. O'Connor has one record from Bagauda Lake in December and we have seen this bird still further south at Falgore in March.

EUROPEAN BEE-EATER Merops apiaster A loose flock of ten to twenty at Kano on 2 April 1980.

BLUE-CHEEKED BEE-EATER Merops superciliosus Two records from near Kirikasama in December 1977 and 1979.

LITTLE GREEN BEE-EATER Merops orientalis Previously frequent, now occasional in the Acacia belt in the north of Kano State where it is still regularly seen at one locality in Hadejia.

CARMINE BEE-EATER Merops nubicus Frequent resident, generally distributed throughout the state but uncommon around Kano. Reported breeding at Falgore in the late dry season 1978.

WHITE-THROATED BEE-EATER Merops albicollis A regular passage migrant in late April/May and October/November.

LITTLE BEE-EATER ${\it Merops\ pusillus}$ Frequent but local, favouring areas bordering water.

RED-THROATED BEE-EATER Merops bulocki Common but local resident. Occurs as far north as Hadejia where breeding has been reported in December. Breeding colonies also occur at Falgore, Gaya and Bagauda Lake. SWALLOW-TAILED BEE-EATER Merops hirundineus Rare. Seen only in May and

June; three records from Falgore and two from Gaya.

ABYSSINIAN ROLLER Coracias abyssinica Common throughout the dry season but less frequently seen from June until September. Breeding reported in May. RUFOUS-CROWNED ROLLER Coracias naevia A frequent resident.

BROAD-BILLED ROLLER Eurystomus glaucurus A frequent wet season visitor. HOOPOE Upupa epops The European race U. e. epops is a frequent winter visitor to Kano State. Hoopoes seen in June and July are suspected to belong to the African race U. e. senegalensis. One Hoopoe belonging to the African race was netted at Kano in January 1979.

GREEN WOOD-HOOPOE Phoeniculus purpurreus
LESSER WOOD-HOOPOE Phoeniculus aterrimus
GREY HORNBILL Tockus nasutus A common resident, which appears to be most abundant around Kano in the wet season. Flocks of up to 100 birds have been seen in May, June and September.

RED-BILLED HORNBILL Tockus erythrorhynchus Common resident. A pair bred in the same hole in an Albizia tree for five successive years. Nesting commenced in June and the hole was not vacated until mid-October.

GROUND HORNBILL Bucorvus abyssinicus Local. Recorded only at Falgore. BEARDED BARBET Lybius dubius Frequent to common resident. Birds seen

entering tree-holes in June are suspected of breeding.
WHITE-HEADED BARBET Lybius leucocephalus Extremely local, seen only near

Kano River at Tamburuwa and just outside Falgore Game Reserve.
VIEILLOT'S BARBET Lybius vieilloti Frequent to common resident.

VELLOW-FRONTED TINKER-BIRD Pogoniulus chrysoconus Common resident. Breeding suspected in March 1971 when a pair were seen repeatedly entering a tree-hole in a garden in Kano.

BLACK-THROATED HONEY-GUIDE Indicator indicator Occasional, probably resident.

LESSER HONEY-GUIDE Indicator minor Occasional to rare. Seen at Kano, Falgore and Bagauda.

WRYNECK Jynx torquilla Regular passage migrant at Kano in September/October and March/April, and once seen in December.

FINE-SPOTTED WOODPECKER Campethera punctiligera Common at Gaya where probably resident. Occasional at Kano.

BROWN-BACKED WOODPECKER Dendropicos obsoletus Local. Recorded from Gaya, Falgore and Ririwai.

GREY WOODPECKER Mesopicos goertae A common resident which has been observed nesting at Kano in February 1971, and May 1980.

SINGING BUSH-LARK Mirafra javanica Occasional at Kano, Kirikasama and Kazaure.

FLAPPET LARK Mirafra rufocinnamomea Frequent at Kano, Falgore and Gaya. Most often seen from May to July when their flapping display flights make them conspicuous.

RED-TAILED BUSH-LARK Mirafra nigricans Occasional in April-May and October-November.

CHESTNUT-BACKED FINCH-LARK Eremopterix leucotis Occasional in the dry season with most sightings in April-May and October-November.

CRESTED LARK Galerida cristata Common resident at Kano. A nest with 2

CRESTED LARK Galerida cristata Common resident at Kano. A nest with 2 eggs was found on 8 December 1956 and a nest with one egg on 1 March 1979. SUN LARK Galerida modesta A local resident favouring areas of barren ground.

SAND MARTIN Riparia riparia Frequent winter visitor at Kirikasama. One netted at Kano on 19 January 1975 was recovered on 10 August 1977 at Rostock, Germany (54°16'N. 13°43'R).

AFRICAN SAND MARTIN Riparia paludicola Dry season visitor. Netted by D. Best in February 1975 at Bagauda Lake, where subsequently seen in December 1978 and January 1979 (D. O'Connor).

ETHIOPIAN SWALLOW Hirundo aethiopica A common resident which breeds in the wet season.

RUFOUS-CHESTED SWALLOW Hirundo semirufa A single record. One near Kano on 3 May 1969.

MOSQUE SWALLOW Hirundo senegalensis Local. Seen regularly at Falgore in

RED-RUMPED SWALLOW Hirundo daurica Local resident. Three breeding records from Kano in December-January, and one from Bagauda (a recently completed nest) on 21 January 1979.

STRIPED SWALLOW $\it{Hirundo\ abyssinica}$ Wet season visitor to Falgore and Dan Gora Forest Reserve.

GREY-RUMPED SWALLOW Hirundo griseopyga Rare. Observed at Gezawa on 5 May 1968; and twice at Bagauda Lake; on 17 May 1976 and by D. O'Connor on 27 December 1978.

PREUSS'S CLIFF SWALLOW Hirundo spilodera A colony of over 100 pairs nest in most years under a bridge at Kazaure. Nests are usually built in May but in 1967 building commenced in February. These swallows are only occasionally seen away from this colony e.g. several at Falgore on 12 April 1979.

AFRICAN ROCK-MARTIN Hirundo fuligula Local. Occurs at Kano, Falgore and Birnin Kudu.

HOUSE MARTIN Delichon urbica One at Gaya on 3 March 1975.

FANTI ROUGH-WINGED SWALLOW Psalidoprocre obscura Observed regularly at Falgore in June.

YELLOW WAGTAILS Motacilla flava subspp. A common winter visitor from October until mid-April. Large numbers have been netted at a roost in Kano city. The majority of these belonged to the race M. f. thunbergi but feldegg, cinereocapilla iberiae and superculiaris were also identified. WHITE WAGTAIL Motacilla alba Occasional winter visitor.

TAWNY PIPIT Anthus campestris Winter visitor. Previously occasional at Kano in December and January, e.g. one on 7 December 1959, and once recorded in April.

RICHARD'S PIPIT Anthus novaeseelandiae Rare winter visitor from January to March. One was secured for identification at Kirikasama on 16 January 1964.

PLAIN-BACKED PIPIT Anthus leucophrys Rare. Two on 6 August 1957 and four on 9 September 1966 at Kano.

TREE PIPIT Anthus trivialis A rare Palaearctic passage migrant. One was seen on 20 February 1963, and another on 7 September 1965, both at Kano. One was netted at Kano on 22 October 1978 and two netted at Kirikasama in October 1977.

RED-THROATED PIPIT Anthus cervinus An occasional to frequent winter visitor. YELLOW-THROATED LONG-CLAW Macronyx croceus A single record. One at Ririwai on 3 November 1979.

LONG-CRESTED HELMET-SHRIKE Prionops plumata A common resident except in the far north of Kano state. Breeding (co-operative) in June and November.

NORTHERN BRUBRU Nilaus afer Occasional, more often heard than seen.

GAMBIAN PUFF-BACK SHRIKE Dryoscopus gambensis Frequent in the central and

southern areas of Kano state.

BLACK-HEADED BUSH-SHRIKE *Tchagra senegala* Common resident. A nest with three eggs was found near Kano on 8 July 1967.

BARBARY SHRIKE Laniarius barbarus Common resident. At Kano nest building was observed on 9 April 1980, and a recent fledgling netted on 17 September 1978.

 ${\tt SULPHUR-BREASTED~BUSH-SHRIKE~\it Malaconotus~sulfureopectus~Occasional~at~Gaya~and~Falgore.}$

GREY-HEADED BUSH-SHRIKE Malaconotus blanchoti Resident at Kano. A nest of three chicks was discovered at Kano on 4 June 1978, the young fledgling on 5 July (Wilkinson 1978).

YELLOW-BILLED SHRIKE Corvinella corvina Common resident at Kano where two clutches of four eggs were found in April, a brood of three half-grown chicks on 18 May 1978, and a brood of four chicks on 25 July 1978.

RED-BACKED SHRIKE Lanius collurio Rare winter visitor. All seen belonged

to the eastern race L. c. isabellinus.

WOODCHAT SHRIKE Lanius senator Winter visitor from September to April. Previously fairly common but appears to have suffered a decline in recent years.

AFRICAN GOLDEN ORIOLE Oriolus auratus Migratory at Kano normally arriving in June and remaining until the end of December. Our latest record for Kano is of a female on 30 January 1979, and our earliest record of a male on 31 May 1980. Its status further south is uncertain; a singing male at Falgore on 12 April 1979.

DRONGO Dicrurus adsimilis Common resident.

RED-WING STARLING Oncyognathus morio Local. Frequently observed on the inselberus at Rano.

PURPLE GLOSSY STARLING Lamprotornis purpurea Common at Falgore.

LESSER BLUE-EARED GLOSSY STARLING Lamprotornis chloropterus One was shot for identification at Gaya where this starling is frequent in the dry season. Sight records also from Falgore, Ririwai, Kumbotso and Bagauda. Seasonal movements are suggested by the fact that these starlings only appear at Kumbotso in the rains. Breeding was noted in April 1980 at Bagauda where the nest site was a hole in a fire-damaged mud building. BLUE-EARED GLOSSY STARLING Lamprotornis chalybaeus Common around Hadejia and Kirikasama where two were secured for identification on 28 January 1979. One shot at Gaya on 16 September 1979. Also occurs at Achilafia where several were seen in November 1979 and February 1980.

LONG-TAILED GLOSSY STARLING Lamprotornis caudatus Occurs throughout the state and is a common resident at Kano.

AMETHYST STARLING Cinnyricinclus leucogaster An occasional wet season visitor recorded at Kano in July, August and September, at Bagauda in June, at Falgore in May, and at Gaya in July.

CHESTNUT-BELLIED STARLING Spreo pulcher Occurs and breeds as far south as Bagauda and northwards at least up to Kazaure and Kirikasama. A common resident around Kano city where breeding occurs in the late dry season and early rains, and again at the end of the rains.

YELLOW BILLED OXPECKER Buphagus africanus A common resident. In July 1967 Oxpeckers were seen inspecting a tree hole in Kano but breeding was not confirmed.

BLACK MAGPIE $Ptilostomus\ afer$ Common resident. Red-billed immatures have been seen in mid-March.

PIED CROW $Corvus\ albus\$ A common resident throughout Kano state. Nest building observed at Kano in April and May where one chick fledged from a nest in early July.

RED-SHOULDERED CUCKOO-SHRIKE Campephaga phoenicea Wet season visitor to Falgore and Gaya.

COMMON BULBUL Pycnonatus barbatus Common resident. Fledglings observed on 21 April 1979 and 7 November 1979; a nest with eggs on 20 May 1978; and a nest with two well-feathered pulli on 4 July 1979.

YELLOW-THROATED LEAF-LOVE $Chlorocichla\ flavicallis$ Rare. One at Birnin Kudu in July.

WHINCHAT Saxicola rubetra Occasional passage migrant in April and September.

WHEATEAR Oenanthe oenanthe Common winter visitor from November to April. SPANISH WHEATEAR Oenanthe hispanica Occasional winter visitor. Three records from Kirikasama and three from Kano.

RED-BREASTED WHEATEAR Oenanthe bottae Previously seen at Kano from April until June, but in 1979/80 present from December to February.

RED-TAILED CHAT Cercomela familiaris Local. Observed at Rano and Dan Gora Forest Reserve.

ANT-CHAT Myrmecocichla aethiops Occasional to frequent resident. Breeding suspected in late May at Kano where Ant-Chats were seen entering a hole several feet down a well shaft.

WHITE-CROWNED CLIFF-CHAT Myrmecocichla cinnamomeiventris Local. Observed on the inselbergs at Rano.

WHITE-FRONTED BLACK CHAT Myrmecocichla albifrons Seen only at Falgore where probably resident.

ROCK THRUSH Monticola saxatalis Rare winter visitor. At Kano one male was netted on 4 March 1971 and one seen on 4 December 1979. A female was observed at Bagauda on 7 January 1979.

REDSTART Phoenicurus phoenicurus A common winter visitor but most numerous in October and March/April.

BLACK SCRUB-ROBIN Cercotrichas podobe A frequent resident at Kirikasama, once seen at Kano in October but absent from the south of Kano state. RUFOUS SCRUB-ROBIN Cercotrichas galactotes The African race C. g. minor is frequent in Kano from October until June but either inconspicuous or absent in the wettest months of the year. Fry (1965) notes that C. g. minor is present at Zaria, 130 km S.W. of Kano, from late October until mid April. These observations suggest that minor may be migratory, possibly moving north in the wet season. A nest with 2 eggs was found at Bagauda on 7 April 1980. A Palaearctic Rufous Scrub Robin, C. g. galactotes, netted at Kano in November 1978 was twice recaptured, first in January and finally in March 1979 (Wilkinson 1979).

SNOWY-HEADED ROBIN CHAT Cossypha niveicapilla Frequent wet season visitor. THRUSH NIGHTINGALE Luscinia luscinia Rare. First recorded at Kano in September 1975 (Best 1977) and again on 21 October 1976.

NIGHTINGALE Luscinia megarhynchos Common on autumn passage from September until early November.

BLUETHROAT Luscinia svecica A rare winter visitor recorded from January to March at Kano, and in March at Kazaure.

OLIVE THRUSH Turdus pelios Common resident in Kano, although perhaps more numerous in the wet season. Nests with eggs have been found in June and July at Kano where one recently fledged juvenile was netted in August. BROWN BABBLER Turdoides plebejus A common resident except in the far north. Recently fledged young on 14 April 1979 and 22 May 1978, and 7 April 1980.

LITTLE RUSH WARBLER Bradypterus baboecala Resident at Kazaure and occasional at Kano.

CETTI'S WARBLER Cettia cetti Two netted by R.E.S. at Kano in March 1964. SAVI'S WARBLER Locustella luscinoides A rare winter visitor or passage migrant at Kano where R.E.S. netted two in April and one in September.

SEDGE WARBLER Acrocephalus schoenobaenus A winter visitor from September until late May. Sedge Warblers become more numerous as the dry season progresses and a further increase in numbers in March and April may represent birds on passage.

REED WARBLER Acrocephalus scirpaceus Occasional to frequent winter visitor netted in dry bush areas most unlike its summer habitat.

GREAT REED WARBLER Acrocephalus arundinaceus Rare winter visitor or passage migrant at Kano where one was netted in October and five were netted over the months February to March.

RUFOUS SWAMP WARBLER Acrocephalus rufescens Resident at Kazaure and occasional at Kano.

ICTERINE WARBLER $Hippolais\ icterina$ Palaearctic migrant; much more frequent in spring than autumn.

MELODIOUS WARBLER Hippolais polyglotta Palaearctic migrant; in contrast to the Icterine Warbler the Melodious Warbler is common on autumn passage but rarely seen in Spring.

OLIVE-TREE WARBLER Hippolais olivetorum A single record. One netted at Kano on 22 October 1971.

OLIVACEOUS WARBLER Hippolais pallida Two races of Hippolais pallida have been netted at Kano. The Palaearctic H. p. opaca is a winter visitor which has been netted in January, March, May and June. The Ethiopian race H. p. pallida has been netted in April, June, July and October.

CARDEN WARBLER Sylvia borin Palaearctic passage migrant, common between September and November but less frequent on the spring passage in May. BLACKCAP Sylvia atricapilla Rare. Recorded at Kano on 19 October 1965 and on 24 December 1971.

WHITETHROAT Sylvia communis A common winter visitor from the last week of September until April.

LESSER WHITETHROAT $Sylvia\ curruca$ Winter visitor, much less common than the Whitethroat.

SUBALPINE WARBLER Sylvia cantillans A frequent winter visitor from the middle of October until March. At Kano the Subalpine Warbler is more numerous than the Lesser Whitethroat.

MENETRIE'S WARBLER Sylvia mystacea One female netted at Gaya on 17 April 1974 (Best 1975).

WILLOW WARBLER Phylloscopus trochilus Common Palaearctic passage migrant and occasional winter visitor. Autumn passage normally from mid-September until mid-November and spring passage between March and May.

CHIFFCHAFF Phylloscopus collybita Rare winter visitor. A single Chiffchaff was netted at Kano on 23 February 1969.

BONELLI'S WARBLER Phylloscopus bonelli An occasional but regular winter visitor recorded at Kano from December to February. These warblers were frequent at Kazaure in October 1978.

WOOD WARBLER Phylloscopus sibilatrix Occasional Palaearctic passage migrant in spring and autumn.

RED-FACED CISTICOLA Cisticola erythrops Local. Seen only at Falgore, one specimen identified by the British Museum.

SINGING CISTICOLA *Cisticola cantans* Common resident. Three nests constructed from sewn together cassava leaves, were found in June/July, one at Kano and two at Kumbotso.

CROAKING CISTICOLA Cisticola natalensis One giving "clink-clunk" calls at Falgore on 22 June 1980.

RUFOUS CISTICOLA Cisticola rufa Rare. One collected at Kirikasama and later identified at the British Museum.

ZITTING CISTICOLA *Cisticola juncidis* Frequent to occasional resident. Two nests each with four eggs, were found in tufts of grass at Kano in July. DESERT CISTICOLA *Cisticola aridula* Rare at Kano; one shot by R.E.S. in 1954 was identified by the British Museum.

CRICKET WARBLER Prinia clamans Local. Frequent in an Acacia nilotica plantation at Achilafia.

RED-WINGED WARBLER Prinia erythroptera Rare. Observed singing on 3 June 1964 at a locality ten kilometres south of Kano.

TAWNY-FLANKED PRINIA *Prinia subflava* A common resident around Kano where nest building was observed on 28 July 1978 and 7 August 1978; a nest with two chicks found on 8 October 1977, and a fledgling netted on 12 November 1978.

BUFF-BELLIED WARBLER Apalis pulchella Seen only once; near Kano on 10 July 1966.

GREY-BACKED CAMAROPTERA Camaroptera brachyura Common resident. Fleglings netted at Kano from 29 September until 24 October 1978, and at Rano on 23 September 1978. Earlier breeding suspected at Kano where a bird was seen carrying nest material on 25 May 1980.

YELLOW-BELLIED EREMOMELA *Eremomela icteropygialis* Found at and north of Kano where probably resident. A nest with two eggs was found at Achilafia on 2 February 1980.

SMALLER GREEN-BACKED EREMOMELA Eremomela pusilla Frequent resident at Kano and also recorded at Falgore. Fledglings were netted at Kano on 22 October 1978.

CROMBEC Sylvietta brachyura A common resident throughout Kano state. SPOTTED FLYCATCHER Muscicapa striata Palaearctic passage migrant through Kano, occasional in October.

SWAMP FLYCATCHER Muscicapa aquatica Occasional at Kirikasama and Kano. PIED FLYCATCHER Ficedula hypoleuca Palaearctic passage migrant, commoner on autumn passage than in spring.

COLLARED FLYCATCHER Ficedula albicollis Rare Palaearctic passage migrant.
Netted at Kano on 27 September 1966 and 9 October 1966.

RELACK FLYCATCHER Melaenornis edolioides Occasional wet season visitor at Kano and Gaya.

PALE FLYCATCHER Bradornis pallidus Occasional. No breeding records from Kano state but a nest with three eggs was found at Kaduna in May.

SENEGAL PUFFBACK FLYCATCHER Batis senegalensis Occasional in the central and southern areas of Kano state.

PARADISE FLYCATCHER Terpsiphone viridis A wet season visitor from May to September. Bred in June 1977 and June 1978 in a well established garden at Kano. In both cases the clutch was of three eggs.

WHITE-SHOULDERED BLACK TIT Parus leucomelas Common and probably resident at Falgore and frequent at Gaya. On 12 April 1979 an adult was seen to repeatedly carry caterpillars into a tree nest hold at Falgore.

WEST AFRICAN PENDULINE TIT Remiz parvulus Occasional at Kumbotso where recently seen on 1 July 1978 and 24 June 1980.

SPOTTED CREEPER Salpornis spilonata A single record. One at Falgore on 22 June 1980.

PIGMY LONG-TAILED SUMBIRD Anthreptes platura Dry season visitor to Kano from October to June. Active nests seen in December and March at Kano, where dependent young were seen on 12 April 1979.

SCARLET-CHESTED SUNBIRD Nectarinia senegalensis A common resident throughout Kano state. At Kano nest building has been observed in April and a nest with a single egg was found in June.

VARIABLE SUNBIRD Nectarinia venusta Rare. Observed near Kano on only four occasions all in June and July.

COPPER SUNBIRD Nectarinia cupreus Seen twice, at Falgore on 6 June 1979 and 22 June 1980.

BEAUTIFUL LONG-TAILED SUNBIRD Nectarinia pulchella Common resident. Nesting in July/August at Kano where immatures are present from early November until late December.

YELLOW WHITE-EYE Zosterops senegalensis Occasional resident.
CABANIS BUNTING Emberiza cabanisi Recorded only at Falgore; on 18 March 1979 (D. O'Connor) and on 22 June 1980.

YELLOW-BELLIED BUNTING Emberiza flaviventris Occasional and probably resident. A nesting containing two chicks was found at Kano on 23 May 1978. BROWN-RUMPED BUNTING Emberiza forbesi Rare. One at Falgore on 22 June 1980.

CINNAMON-BREASTED ROCK-BUNTING Emberiza tahapisi Particularly common at Kano in May. A nest with 3 eggs was found at Ririwai on 3 November 1979. YELLOW-FRONTED CANARY Serinus mozambicus Frequent at Falgore and Bagauda. Occasional at Kazaure and Kano.

GREY CANARY Serinus leucopygius A frequent resident throughout Kano state. LITTLE WEAVER Ploceus luteolus Common resident. Males come into nuptial plumage in April. Nests with eggs or chicks at Kano in April, June, July and August.

VITELLINE MASKED WEAVER *Ploceus velatus* Frequent resident at Kano, also recorded at Gaya. Males acquire breeding plumage in May or June. Nest building has been seen in June and a nest containing two young chicks was found at Kano on 14 October 1977.

HEUGLIN'S MASKED WEAVER *Ploceus heuglini* Local. Nest building was seen on 18 March 1979 at Falgore and active nests noted at Tamburawa in July. Also recorded at Rano.

VILLAGE WEAVER Ploceus cucullatus Common resident. At Kano nest building commences as early as February and juveniles have been netted in May, June, September and October.

BLACK-HEADED WEAVER *Ploceus melanocephala* Local. Recorded only from Kazaure.

RED-HEADED WEAVER Malimbus rubriceps Local. Seen only at Falgore where nest building was observed on 18 March 1979, and a female was seen to feed chicks in the nest on 12 April 1979.

RED-BILLED QUELEA Quelea quelea Previously common at Kano in May. Now rarely seen, however two were netted at Kano on 1 April 1980.

YELLOW-CROWNED BISHOP Euplectes afer Local and probably resident. Found at Kumbotso, Kazaure and Jekara where breeding noted in July and August. BLACK-WINGED BISHOP Euplectes hordeaceus Local. Observed near Birnin Kudu, at Falgore and at Ririwai.

YELLOW-MANTLED BISHOP $\it Euplectes\ macrourus$ Local. Seen at Falgore and at Birnin Kudu.

RED BISHOP Euplectes orix Common resident. Nests at Kano: one nest with three clear blue eggs on 9 August 1978, one with three chicks on 8 August 1978, and one with two eggs and a hatchling on 11 October 1978. In addition one nest at Kazaure with two eggs on 15 October 1978. Males are in breeding colour from June/July until October.

BUFFALO WEAVER Bubalornis albirostis A common resident except in the south of Kano state. Nest building occurs throughout the year. Several nests were blown down by strong winds at Kano in June and two of these contained eggs. Adults were observed carrying grasshoppers to feed to young in the nests at Kano in September 1979 and July 1980.

SPARROW-WEAVER *Plocepasser superciliosus* Local. Seen at Falgore, Kano, Bagauda and Tamburawa. The majority of sightings have been in the wet season.

GREY-HEADED SPARROW Passer griseus A common resident. Nesting observed in August at Kano where fledglings have been netted in December.

SUDAN GOLDEN SPARROW Passer luteus Previously rare but now present in large numbers in the dry season in several areas in the north of the state. Golden Sparrows were particularly abundant at Kirikasama in the winters of 1970/71 and 1971/72, and at Kazaure in the winters of 1977/78 and 1978/79. BUSH PETRONIA Petronia dentata A common resident at Falgore and occasional at Kano. A Bush Petronia was seen feeding large nestlings in a tree nest hole at Kano on 15 March 1979.

SPECKLED-FRONTED WEAVER Sporopipes frontalis Common resident. A nest with 2 eqqs was found at Bagauda on 4 April 1980.

PIN-TAILED WHYDAH $Vidua\ macroura$ These Whydahs have been seen at Kano between May and August when they are then at their most conspicuous males being in full breeding colour from May until at least mid-October.

INDIGO-BIRD Vidua chalybeaeta Common resident. The Indigo-bird at Kano is a brood parasite of the Senegal Firefinch. Fledglings and immature birds have been noted in April, October, December and January. Males are in breeding colour from June to February.

BROAD-TAILED PARADISE WHYDAH Vidua orientalis A frequent resident in Kano state but may be subject to local movements. Males seen in breeding plumage from June to February.

CUT-THROAT WEAVER Amadina fasciata A dry season Afrotropical migrant normally arriving at Kano in October and leaving before the end of May. Our latest record is of a single male on 5 June 1978 at Kano. Immature birds have been seen in most months from November to May.

MELBA FINCH *Pytilia melba* Local. At Kano fledglings have been netted in most months from January to April. A nest with three eggs was found on 1 March 1979, the chicks hatching on 9 March.

RED-WINGED PYTILIA Pytilia phoenicoptera One at Falgore on 30 October 1979. ORANGE-CHEEKED WAXBILL Estrilda melpoda Local. Recorded at Falgore on 12 April 1979 (D. O'Connor) and on 27 July 1980.

BLACK-RUMPED WAXBILL Estrilda troglodytes Locally common in flocks of up to several hundred birds. A nest with seven white eggs was found at Kano on 10 August 1978 and fledglings were netted in November and December 1978. RED-TAILED LAVENDER WAXBILL Estrilda caerulescens Local. Found at Gaya, Falgore and Tamburawa.

RED-CHEEKED CORDON-BLEU Estrilda bengala A common resident. At Kano nest building has been observed in July, August and October and fledglings netted in September, October and December. A nest found at Bagauda on 23 September 1979 contained a single egg.

BLACK-FACED FIRE-FINCH $Estrilda\ larvata\$ Local. Seen only at Falgore and Takai.

BAR-BREASTED FIRE-FINCH Lagonostica rufopicta A single record of a party of 7 or 8 birds at Falgore on 22 June 1980.

SENEGAL FIRE-FINCH Lagonostica senegala A common resident. Fledglings have been netted at Kano in most months from October to April.

BLUE-BILLED FIRE-FINCH Lagonostic rubricata Local. Seen only at Rano; identification confirmed by R.B. Pavne.

EEBRA WAXBILL Amandava subflava Local and now rare. Previously occasional in May and June on the marshy areas of Gezawa and Tsakuwa but not seen for over ten years.

QUAIL FINCH Ortygospiza atricollis Previously occasional in the dry season at Tamburawa and near Kazaure where nests have been found in December and February. Two at Kirikasama on 18 February 1967 (C.H. Fry, R.E.S.) and two at Bagauda in November 1977 (D. O'Connor).

WARBLING SILVERBILL Lonchura malabarica Common resident. Two nests, one with three eggs and the other with four eggs, were found at Kano in March 1979, and one nest with three eggs was found at Kirikasama on 16 December 1966. Fledglings have been seen in most months from January to May. BRONZE MANNIKIN Lonchura cucullata Local. Seen only at Falgore and Rano.

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ADDENDA

Since going to press, the following additional species have been recorded in Kano State giving a new total of 412. As earlier predicted five of these additions are from Falgore but the sixth, Lanius excubitor, is an arid-zone species.

WIRE-TAILED SWALLOW Hirundo smithii Two at Falgore on 15 February 1981, flying up to a partly built nest positioned on a strut of a hanging travelling box on the bridge across the Kano river.

PIED-WINGED SWALLOW Hirundo leucosoma Several at Falgore on 21 June 1980.

GREY SHRIKE Lanius excubitor Two east of Hadejia on 11 January 1981; one at Jekara on 14 February 1981.

BRONZE-TAILED GLOSSY STARLING Lamprotornis chalcurus Two at Falgore on 15 February 1981.

YELLOW-BELLIED FLYCATCHER Hyliota flavigaster One at Falgore on 27 September 1980.

BLACK-BELLIED FIREFINCH Lagonostica rara A male at Falgore on 15 February 1981.

The Marsh Warbler Acrocephalus palustris previously reported at Kano by R.E.S. (J.H. Elgood, 1975, Bull. Nigerian Orn. Soc. 11: 68-73) does not appear in our list, since, on review, we feel that the evidence on which this record was based was insufficient clearly to separate it from a Reed Warbler A. scirpaceus.