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THE BIRDS OF MAIDUGURI

by P. Hall

Received 15 May 1976

TOPOGRAPHY AND VEGETATION

Maiduguri, 11^o50'N 13^o09'E, the capital of Borno State in north-east Nigeria, lies on a low ridge about 300 m above sea-level, on the banks of the seasonal River Ngadda in the midst of a wide, featureless plain. The only physical relief is provided by the 'Bama ridge' which in places stands as much as 12 m above the surrounding plains and delineates the old shoreline of Lake Chad which now lies 110 km to the north-east.

Much of the vegetation around Maiduguri reflects the impact of man and his livestock, having been profoundly modified by cutting, cultivation, fire and grazing. Very little of the original Sudan savanna vegetation remains, except in forest reserves. Within 24 km of Maiduguri the only reserves of any size are at Molai, 5-7 km to the south-west, Auno, 24 km to the west and Alo, 16 km to the south. Auno forest reserve is a typical area of Sudan savanna with the commonest trees being Combretum spp., Guiera senegalensis, Anogeissus leiocarpus, Terminalia spp., Balanites aegyptiaca, Lanea spp., Sclerocarya birrea, Sterculia setigera and Acacia spp.. Lake Alo is partly inundated each wet season and the vegetation reflects this with the trees Khaya senegalensis, Celtis integrifolia, Acacia nilotica and Diospyros mespiliformis. Molai, on the other hand, is mostly secondary bush with Guiera senegalensis, Piliostigma reticulatum and Combretum spp. A large part of this reserve is seasonally inundated and the riparian vegetation includes Diospyros mespiliformis, Anogeissus leiocarpus, Tamarindus indica, Vitis cuneata and Entada africana. In drier areas Acacia senegal forms the dominant cover. On the whole Acacia species are very common around Maiduguri and on ill-drained soils; A. seyal often forms a pure stand with virtually no shrub growth as near Pompomarii, 4 km west of Maiduguri.

Along stretches of the River Ngadda there are good stands of Borassus palms, and on permanent cultivation to the south along the Bama ridge large trees of Acacia albida, Ziziphus spina-christi, Z. mauritiana, Adansonia digitata, Tamarindus indica, and Balanites aegyptiaca are found. Finally, no description of the vegetation of the area would be complete without mentioning the exotic Neem-tree Azadirachta indica, which has transformed much of the area with its dense shade and profuse regeneration.

SEASONS AND MIGRATTONS

Maiduguri lies within the 635-762 mm isohyet and the rains last roughly from the middle of May to the end of September. The River Ngadda flows through Maiduguri from early August to mid-November and drains into extensive swamps known locally as the 'Jeribowl', a rich rice growing area. Lake Alo, to the south of the Bama ridge, fills during the rains and stores the early run-off from the upper reaches of the River Ngadda. During the rains the whole region is transformed; the arid, scorched earth is reprieved, and over wide tracts of land farming turns the area into a sea of guinea-corn and millet.

Palaearctic migrants mostly leave the Maiduguri area shortly before the onset of the rains in March/April. African migrants arrive afterwards with the rains in May/June, and mostly remain until the end of the rains in September/October when the first Palaearctic migrants return. That is an oversimplification but can be taken as the general pattern of migration at Maiduguri. Palaearctic migration in Nigeria was well documented by Elgood et al. (1966), but only recently has an insight been given into the extent of African migration by Fry et al. (1973)*.

THE SPECIES

This paper is based on casual observations at Maiduguri from February 1972 to February 1974, together with methodical observations from January to December 1975 at Molai, near Pompomarii and at Lake Alo. Scientific nomenclature follows White (1960-'65) and English names follow Mackworth-Praed and Grant (1970-'73).

LITTLE GREBE Podiceps ruficollis A rains migrant from July to October at Lake Alo and on flooded areas at Molai and near Pompomarii. Breeding commences immediately on arrival. After the rains, they vacate the area and may disperse to Lake Chad where large numbers have been recorded from December to June (Hopson 1965).

WHITE PELICAN Pelecanus onocratalus One record , of five at Lake Alo in February.

PINK-BACKED PELICAN Pelecanus rufescens Twice in August at Lake Alo, one record a single bird and the other a party of five. Both pelican species are possibly wet season migrants, as large numbers are present at Lake Chad during the rains particularly from June to September (Hopson 1965).

*References in this paper to Fry et al. (1973) are in error for Elgood et al. (1973) (see list of References) - Ed.

AFRICAN CORMORANT Phalacrocorax carbo One record, at Lake Aloin February.

LONG-TAILED CORMORANT Phalacrocorax africanus Present in small numbers at Lake Alo during the dry season, but during the rains there is an increase with up to 500 recorded in August. At that time they appear also at Molai and near Pompomarii.

DARTER Anhinga rufa Recorded once at Lake Alo in August.

LITTLE BITTERN <u>Ixobrychus minutus</u> One fecord, Molai in August. Records from Lake Chad during the rains, however, suggest that it is a wet season migrant.

DWARF BITTERN <u>Ixobrychus sturmii</u> A pronounced rains migrant from June to October at Molai and near Pompomarii. Up to eight have been recorded in the Pompomarii area.

NIGHT HERON Nycticorax nycticorax Recorded occasionally at Lake Alo throughout the year, but only during the dry season from November to April is it commonly seen flighting out at dusk from the area of the Maiduguri Neem Fuel Plantation. During the dry season there is possibly some movement into the area from Lake Chad where it is reportedly commonest from February to June.

SQUACCO HERON <u>Ardeola ralloides</u> Present in small numbers all year at Lake Alo although commoner during the rains when it has been recorded also from Molai and the Pompomarii area.

CATTLE EGRET Ardeola ibis Widespread throughout the year, but there is some suggestion of migration into the area during the rains.

GREEN-BACKED HERON <u>Butorides striatus</u> Another pronounced migrant to the area <u>from July to November</u>, when it is frequently recorded at Lake Alo, Molai, Pompomarii, the Jeribowl and along the River Ngadda.

BLACK HERON Egretta ardesiaca Occasionally at Lake Alo, records so far being in June, August and October.

GREAT WHITE EGRET Egretta alba Frequent all year at Lake Alo. During the rains some appear at Molai and Pompomarii.

YELLOW-BILLED EGRET Egretta intermedia Occurrences at Lake Alohave been reported to me.

LITTLE EGRET Egretta garzetta Present in small numbers throughout the year at Lake Alo and the Jeribowl, but during the rains numbers increase greatly and it becomes common along the River Ngadda, at Molai, where up to 50 have been seen in July, and at Pompomarii.

GREY HERON Ardea cinerea Occasionally recorded at Lake Aloduring the dry season.

BLACK-HEADED HERON Ardea melanocephala Present throughout the year at Lake Alo; numbers increase during the rains and it can then be found in small numbers at Molai and Pompomarii.

PURPLE HERON Ardea purpurea A few all year at Lake Alo. During the rains it is occasionally found also at Molai and Pompomarii.

HAMMERKOP Scopus umbretta A rains migrant in small numbers from June to August to Lake Alo, Molai, Pompomarii and along the River Ngadda.

WHITE STORK <u>Ciconia ciconia</u> Occasionally seen passing through the area in October.

ABDIM'S STORK <u>Ciconia abdimii</u> A widespread rains migrant from June to November, nesting even in the centre of Maiduguri,

OPEN-BILL Anastomus lamelligerus Flocks up to 10 have sometimes been seen in the dry season from November to April at Lake Alo and along the River Ngadda. Possibly there is a westward dispersal into the area (Fry 1973).

MARABOU <u>Leptoptilus crumeniferus</u> Only rarely recorded, in small numbers during the dry season from December to March at Lake Alo, along the River Ngadda and in early December at Molai. Perhaps a dry-season migrant further north, as up to 500 have been seen at Lake Chad in June when there was much carrion about.

WCOD IBIS <u>Ibis ibis</u> Occasionally noted from February to August at Lake Alo in flocks up to 30. A partial wet season migrant?

SACRED IBIS Threskiomis aethiopica Occasionally recorded from Lake Alo and the Jeribowl from December to April. Possibly a dryseason migrant to the north where it has been found breeding in February (Fry 1973).

GLOSSY IBIS <u>Plegadis falcinellus</u> A few records at Lake Alo from March to June, the most being 12 in June.

WHITE-FACED TREE-DUCK Dendrocygna viduata Recorded throughout the year at Lake Alo but never in the numbers associated with the extreme north of the State or with the River Benue in the dry season. It seems likely that during the rains birds disperse from the main concentration areas to the many seasonal small pools and fadamas throughout the north, since small numbers then appear at Molai and Pompomarii.

EGYPTIAN GOOSE Alopochen aegyptiaca Probably more restricted to the north than the following three geese, only once having been

seen during the rains at Molai. However, other records suggest a partial dispersal pattern similar to that of the following species.

SPUR-WINGED COOSE <u>Plectropterus gambensis</u> At Lake Alo from February to October, with flocks up to 100 in February. During the rains a few appear at Molai and Pompomarii and its dispersal pattern seems like that of the White-faced Tree-Duck: during the late dry season big concentrations occur along the River Yobe near Gashua and near Yola on the River Benue.

KNOB-BILLED COOSE Sarkidiornis melanotus Appears to be a rains migrant with small numbers present at Lake Alo, Molai and Pompomarii from June to October. It has also been recorded at Lake Alo in February, but in the dry season the main concentrations are along the Rivers Yobe and Benue. Dispersal patterns are probably similar to the two previous species, but there may be an influx of trans-equatorial migrants during the rains (Fry 1973). Adults with recently fledged young have been observed on the Benue at Yola in the early rains and there could also be a post-breeding movement north to account for birds appearing in the Maiduguri area during the rains.

PYGMY COOSE Nettapus auritus Frequent all year at Lake Alo. During the rains they spread out on to any available water as at Molai and Pompomarii. Perhaps migrant, for there are insufficient at Lake Alo to account for the many found on small pools during the rains. But it is more likely that they disperse during the rains like the preceeding species.

PINTAIL Anas acuta Appears only in some years in the Maiduguri area. In December 1972 up to 2,500 were at Lake Alo; but two and three years later none were recorded in the area.

GARGANEY Anas querquedula In some dry seasons large numbers appear at Take Alo and the Jeribowl. In others recorded only occasionally, usually in small numbers from August to October at Lake Alo and Pompomarii.

LAPPET-FACED VULTURE Aegypius tracheliotus Seen occasionally at Molai and Auno. A pair nested in a large Tamarind tree

Tamarindus indica in Auno forest reserve in March/April 1972; on

14th April, there was one young bird about two or three weeks old. The remnants of a small goat were found in the nest.

WHITE-HEADED VULTURE Trigonoceps occipitalis Not in the study area but occasionally seen at Combole forest reserve (well-developed Sudan savanna 40 km south of Maiduguri) in December and March.

RUPPELL'S GRIFFON Gyps ruppellii Occasionally recorded at Molai. Scarce.

WHITE-BACKED VULTURE Gyps bengalensis Widespread around Maiduguri but not nearly as common as the next species.

HOODED VULTURE Neophron monachus Common and widespread.

PALLID HARRIER <u>Circus macrourus</u> A regular dry season visitor to Lake Alo, Molai and the Jeribowl.

MONTAGU'S HARRIER Circus pygargus An occasional dry season visitor to Lake Alo, Molai and the Jeribowl.

MARSH HARRIER <u>Circus aeruginosus</u> A frequent dry season visitor to Lake Alo, Molai and the Jeribowl with up to six at the Jeribowl in February.

HARRIER HAWK Polyboroides radiatus Occasional at Lake Alo, Molai and Pompomarii, being particularly evident in October when birds may have been moving south.

BATELEUR Terathopius ecaudatus A few records throughout the year at Molai and Auno.

BROWN HARRIER EAGLE Circaetus cinereus One record, Molai, June.

SHIKRA Accipiter badius A rains migrant, occasionally recorded at Molai and Pompomarii from June to November. Also, particularly evident on the Government Residential Area.

DARK CHANTING GOSHAWK <u>Melierax metabates</u> Widespread around Maiduguri throughout the year.

GABAR COSHAWK <u>Melierax gabar</u> Occasional all year at Lake Alo, Molai and Pompomarii, and more evident during the rains (June to November) at Molai and Pompomarii.

GRASSHOPPER BUZZARD <u>Butastur rufipennis</u> A pronounced rains migrant, frequently recorded from June to November at Lake Alo, Molai, Pompomarii and the Jeribowl.

LONG-LEGGED BUZZARD Buteo rufinus One was reported to me observed at Lake Alo.

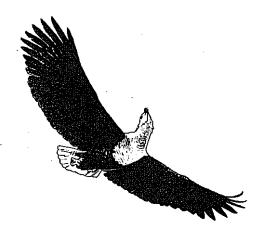
RED-NECKED BUZZARD <u>Buteo auguralis</u> Occasionally recorded at Lake Alo and Molai from June to November; a rains migrant.

LONG-CRESTED HAWK EAGLE <u>Lophoaetus occipitalis</u> Records in January, March, April and June at Lake Alo and Molai.

TAWNY EAGLE Aquila rapax A few dry season records at Molai and also south of Gombole.

WAHLBERG'S EAGLE Aquila wahlbergi Recorded at Molai and the Jeribowl in August and December.

FISH EAGLE Haliaetus vocifer A single record: Lake Alo in March.



KITE <u>Milvus migrans</u> Widespread around Maiduguri and commoner during the rains.

BLACK-SHOULDERED KITE Elanus caeruleus Year-round records at Lake Alo and the Jeribowl, but scarce.

OSPREY Pandion haliaetus Once at Lake Alo, in October.

LANNER Falco biarmicus Sparse records all year at Lake Alo, the Jeribowl and along the River Ngadda. Numbers may increase during the rains, especially in June.

RED-NECKED FALCON <u>Falco chicquera</u> Present from November to June along the River Ngadda, particularly where there are Borassus palms. At least two pairs nested in <u>Borassus</u> in February/March. Elsewhere, recorded only from Molai, in July, August and December.

GREY KESTREL Falco ardosiaceus A rains migrant recorded occasionally at Pompomarii from July to October.

KESTREL Falco tinnunculus Occasional dry season records (November to March) at the Jeribowl. A dry season migrant from higher ground where it breeds (Fry 1973)?

SECRETARY-BIRD Sagittarius serpentarius Only seen at Gombole, south of Maiduguri, in March.

CLAPPERTON'S FRANCOLIN <u>Francolinus clappertoni</u> Small numbers present throughout the year at Molai, the Jeribowl and Lake Alo, and numbers increase noticeably during the dry season.

STONE-PARTRIXE Ptilopachus petrosus Recorded at Molai in March and August only; it may disperse partially to lower ground after breeding.

AFRICAN CRAKE Crex egregia A rains migrant to the area; records at Molai and Pompomarii in August and September.

BLACK CRAKE Limnocorax flavirostra Once, at Molai in August.

LESSER MOORHEN <u>Gallinula angulata</u> A pronounced rains migrant to the area, with <u>small numbers appearing</u> at Lake Alo and Pompomarii in August.

PURPLE GALLINUIE Porphyrio porphyrio A single record at Molai in July. Probably a rains migrant, as small numbers first appeared at Lake Chad south of Baga in June.

ALIEN'S GALLINULE <u>Porphyrio alleni</u> Molai and Pompomarii, in August only.

CROWNED CRANE Balearica pavonina at Lake Alo from December to March, the most being 25.

SENEGAL BUSTARD Eupodotis senegalensis Occasionally recorded at Molai and in suitable scrub areas throughout the year.

BLACK-BELLIED BUSTARD <u>Eupodotis melanogaster</u> Occasionally seen at Auno in the wet season.

JACANA Actophilomis africana All year at Lake Alo. Small numbers appear at Molai and Pompomarii during the rains.

SMALLER JACANA Microparra capensis A few at Lake Alo all year.

SPOTTED THICK-KNEE Burhinus capensis Occasionally recorded in dry areas at Molai and Pompomarii.

WATER THICK-KNEE Burhinus vermiculatus Recorded only at Lake Alo in June and July, with up to 24 seen. Probably a rains migrant to the area.

SPUR-WINGED PLOVER Vanellus spinosus Common all year near areas of open water, particularly at Lake Alo and the Jeribowl.

BLACK-HEADED PLOVER <u>Vanellus tectus</u> Present throughout the year in small numbers in dry areas, and during the rains numbers increase at Molai and Pompomarii.

WATTLED PLOVER <u>Vanellus senegallus</u> A migrant appearing in small numbers at Lake <u>Alo and Pompomarii</u> from June to October.

BROWN-CHESTED WATTLED PLOVER <u>Vanellus superciliosus</u> Once reported to me from Molai.

LITTLE RINGED PLOVER <u>Charadrius dubius</u> Small numbers pass through the area in October/November and March/April (Lake Alo, the Jeribowl and Pompomarii).

KITTLITZ'S SAND PLOVER Charadrius pecuarius Frequent at Lake Alo and the Jeribowl from February to June; up to 69 at Lake Alo in June, when there appears to be a general passage north to breed.

THREE-BANDED PLOVER Charadrius tricollaris
in June at Lake Alo is the only record.

A single bird seen

BLACK-TAILED GODWIT Limosa limosa Passage migrant, with up to 60 at Lake Alo in October and 40 in June.

GREENSHANK Tringa nebularia A few in most months from August to June at Lake Alo, the Jeribowl and along the River Ngadda.

MARSH SANDPIPER Tringa stagnatilis A few migrate through the late dry season (March to June, Lake Alo).

WOOD SANDPIPER <u>Tringa glareola</u> Records in every month, but most common on passage from August to October at Molai and Pompomarii.

GREEN SANDPIPER Tringa ochropus Small numbers from September to November at Molai, Pompomarii and the Jeribowl.

COMMON SANDPIPER Tringa hypoleucos Frequent on passage at Pompomarii in July and August, with smaller numbers until March mainly at isolated pools along the River Ngadda.

REDSHANK Tringa totanus Two Jeribowl records, November and March.

SPOITED REDSHANK Tringa erythropus Once at the Jeribowl in November and once at Lake Alo in March.

COMMON SNIPE Gallinago gallinago Occasionally recorded from December to April at Lake Alo and the Jeribowl.

CURLEW-SANDPIPER Calidris ferruginea Seen only in the early dry season (September to November) at Lake Alo.

LITTLE STINT Calidris minuta Frequent from October to April at Lake Alo and the Jeribowl. Small numbers also pass through Pompomarii in October.

TEMMINCK'S STINT Calidris terminckii Possibly overlooked, but small numbers recorded from the Jeribowl in March.

RUFF Philomachus pugnax Common from November to June at the Jeribowl, with fewer at Lake Alo.

BLACK-WINGED STILT Himantopus himantopus Small numbers from October to November at Pompomarii and along the River Ngadda, and from February to June at Lake Alo and the Jeribowl; up to 30 recorded at Lake Alo in June.

AWOCET Recurvirostra avosetta A party of 54 at Lake Alo in June, and three on the River Ngadda in November: the only records.

PAINTED SNIPE Rostratula benghalensis A pronounced rains migrant. Small numbers from July to September at Molai and Pompomarii, with breeding commencing immediately on arrival.

EGYPTIAN PLOVER Pluvianus aegyptius A marked rains migrant from June to November at Lake Alo and along the River Ngadda. Birds arrive around Maiduguri about the time the river starts to flow.

VIOLET-TIPPED COURSER Cursorius chalcopterus A rains migrant to Molai, recorded in early June and particularly noticeable in October.

PRATINCOLE Glareola pratincola Occasional in small flocks in the late dry season from March to June at Lake Alo and the Jeribowl, arrival dates at Lake Alo appearing to coincide with a drop in water level. Elsewhere in the north it appears to be reasonably common throughout the year, and its presence in the Maiduguri area is probably the result of local movements rather than any widespread dispersal.

GREY-HEADED GULL Larus cirrocephalus Small parties of up to 20 at Lake Alo in November and December.

LESSER BLACK-BACKED GULL Larus fuscus Once; River Ngadda in October.

SKIMMER Rhyncops flavirostris A well-documented migrant dependent on suitable water-levels (Fry 1973). Two were seen at Lake Alo in June; possibly they were moving north to Lake Chad, where they occur from April to November and are commonest from July to September (Hopson 1965).

WHITE-WINGED BLACK TERN Sterna leucoptera Frequent at Lake Alo and the Jeribowl throughout the dry season, November to July.

CHESINUT-BELLIED SANDGROUSE Pterocles exustus A pronounced migrant, frequent from December to April at Lake Alo and the Jeribowl (particularly noticeable at dusk when small flocks flight in to drink). Also at Molai. During the rains, it migrates far to the north of Nigeria.

FOUR-BANDED SANDGROUSE Pterocles quadricinctus Another strong passage migrant through the Maiduguri area in June and July when it is frequent at Molai. It is abundant at Malamfatori from May until October (Hopson 1965).

QUAIL-PLOVER Ortyxelos meiffrenii A rains migrant occasionally recorded in July along the 'Bama ridge'.

SPECKLED PIGEON Columba guinea Common and widespread around Maiduguri.

TURITE DOVE <u>Streptopelia turtur</u> Frequent in the late dry season at a <u>large roost at the Jeribowl</u>. A few records from February to April in mixed pigeon flocks.

PINK-BREASTED DOVE <u>Streptopelia lugens</u> A rains migrant in small numbers from July to October at Molai and along the River Ngadda.

MOURNING DOVE Streptopelia decipiens Widespread and common around Maiduguri; there seems to be some local movement during the dry season.

VINACEOUS DOVE Streptopelia vinacea Widespread and common around Maiduguri. Numbers build up during the rains.

PINK-HEADED DOVE <u>Streptopelia roseogrisea</u> A common dry season migrant, widespread in the Maiduguri area from October to April and moving north during the rains.

LAUCHING DOVE Streptopelia senegalensis Widespread and common around Maiduguri; there appears to be some local movement during the dry season.

NAMAQUA DOVE <u>Oena capensis</u> A common dry season migrant to the Maiduguri area. During the rains the majority move north but small numbers remain all year.

BLACK-BILLED BLUE-SPOTTED WOOD-DOVE <u>Turtur abyssinicus</u> Wide-spread around Maiduguri and again there seems to be some local movement during the dry season.

BRUCE'S GREEN PIGEON Treron waalia Found around Maiduguri wherever there are fig trees.

YELLOW-BELLIED PARROT Poicephalus senegalus A rains migrant to the Maiduguri area. A few are present at Molai in July and August.

ROSE-RINGED PARRAKEET Psittacula krameri Occasionally recorded throughout the area; evidently sedentary and scarce.

GREY PLANTAIN-EATER <u>Crinifer piscator</u> Widely but thinly spread, especially near orchards.

GREAT SPOTTED CUCKOO <u>Clamator glandarius</u> Recorded only in July and August, at Molai and Pompomarii.

BLACK AND WHITE CUCKOO <u>Clamator jacobinus</u> A widespread rains migrant. Recorded in <u>small numbers at Molai</u>, Pompomarii and along the River Ngadda from July to October.

IEVAILLANT'S CUCKOO <u>Clamator levaillantii</u> A regular rains migrant to the area (not nearly as common as <u>C. jacobinus</u>); recorded only at Molai from June to August.

RED-CHESTED CUCKOO <u>Cuculus solitarius</u> A scarce rains migrant to the area recorded only from Lake Alo in early August.

BLACK CUCKOO <u>Cuculus clamosus</u> Not recorded in the study area but heard calling during the rains at Gombole, 40 km to the south.

KLAAS' CUCKOO Chrysococcyx klaas A frequent rains migrant to the area from July to September at Molai and Pompomarii.

DIDRIC CUCKOO Chrysococcyx caprius A common, widespread rains migrant to the Maiduguri area from June to October.

SENEGAL COUCAL Centropus senegalensis Widespread in the Maiduguri area especially in areas of thick bush.

BARN OWL Tyto alba Widespread around Maiduguri and especially common at Lake Alo and the Jeribowl, 30 being released one morning in March from hooks where they had been snared at the Jeribowl.

WHITE-FACED SCOPS OWL Otus leucotis Only once seen, at Molai in August, but possibly overlooked.

SPOTTED EAGLE-OWL <u>Bubo africanus</u> Widespread and common around Maiduguri. During the rains (July to October) it appears that the population is swollen since they are then particularly noticeable during the day. A partial wet season migrant to the area?

VERREAUX'S EAGLE-OWL <u>Bubo lacteus</u> Occasionally recorded around Lake Alo where it is probably sedentary; it breeds there in February/March.

PEARL-SPOTTED OWLET Glaucidium perlatum Occasionally heard calling at dusk at Molai in July and August.

IONG-TAILED NIGHTJAR Caprimulgus climacurus Occasional records around Maiduguri throughout the year; possibly there is an influx during the rains when they are particularly evident at Molai.

STANDARD-WINGED NIGHTJAR Macrodipteryx longipennis A rains migrant to the area recorded sparsely at Molai in June, July and October.

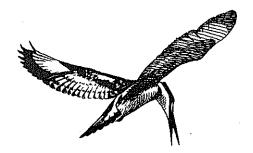
COMMON SWIFT Apus apus A common passage migrant in August.

LITTLE SWIFT Apus affinus Widespread and common in villages. There is a marked passage through the area during the rains.

PALM SWIFT Cypsiurus parvus Widespread, and particularly common along the River Ngadda near Borassus palms.

BLUE-NAPED MOUSEBIRD Colius macrourus Widespread around Maiduguri particularly in thorn bush.

PIED KINGFISHER Ceryle rudis A partial rains migrant to the area, large numbers arriving when the river starts to flow. At other times present only in small numbers at Lake Alo, the Jeribowl and at isolated pools along the River Ngadda.



MALACHITE KINGFISHER Alcedo cristata A partial rains migrant, frequent at Molai and Pompomarii from June to October, and during the dry season seen only occasionally at Lake Alo and isolated pools along the River Ngadda.

PYCMY KINGFISHER Ceyx picta A marked rains migrant to Molai and Pompomarii from June to October.

WOODLAND KINGFISHER <u>Halcyon senegalensis</u> A pronounced rains migrant in small numbers at Molai and Pompomarii from June to October.

STRIPED KINGFISHER <u>Halcyon chelicuti</u> A scarce resident; and also a partial rains migrant which I have recorded at Molai only in June. It appears to overshoot the Maiduguri area, for during the rains it is reasonably common in the Lake Chad area where it breeds in <u>Acacia raddiana</u> bush.

GREY-HEADED KINGFISHER <u>Halcyon leucocephala</u> A common rains migrant to the area from June to December (Lake Alo, Molai and Pompomarii).

LITTLE GREEN BEE-EATER Merops orientalis Widespread around Maiduguri, roosting in large numbers at Molai especially during the rains.

CARMINE BEE-EATER Merops nubicus During the dry season it is locally common especially in the Lake Alo/River Ngadda area where there is a large breeding colony in the 'Bama ridge'. Numbers increase greatly during the rains when it is widespread throughout the area.

WHITE-THROATED BEE-EATER Merops albicollis A regular rains migrant from May to October, with most birds overshooting Maiduguri to breed further north. When they return south from August to October they are widespread in the area and there is then a large roost at Molai.

LITTLE BEE-EATER Merops pusillus Widespread around Maiduguri especially near water - at Lake Alo, the Jeribowl and along the River Ngadda.

RED-INHOATED REE-EATER Merops bulocki A small colony nested in the 'Bama ridge' in January/Rebruary, 1973. This far north it is almost certainly a dry season migrant.

ABYSSINIAN ROLLER Coracias abyssinica A partial rains migrant, when it is widespread. During the dry season it is scarce and localised (e.g. Lake Alo, the Jeribowl).

HOOPOE Upupa epops Small numbers present all year particularly at Molai. It seems likely that the African race is at least partially migrant as from June to November the frequency of sightings throughout the area increases noticeably.

GREEN WOOD-HOOPOE Phoeniculus purpureus Recorded only from Molai in January and Pompomarii in April, although further north it is a common resident.

BLACK WOOD-HOOPOE Phoeniculus aterrimus The only records are from Molai in March and April and Pompomarii in September. Probably sedentary but scarce.

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GREY HORNBILL Tockus nasutus Common and widespread throughout the rains, with greatly diminished numbers in the dry season.

RED-BILLED HORNBILL Tockus erythrohynchus Widespread and common.

ABYSSINIAN GROUND HORNBILL Bucorvus abyssinicus Not recorded from the study area but occasionally recorded at Gombole, 40 km to the south.

BEARDED BARRET Lybius dubius Recorded only once from Lake Alo; probably sedentary but scarce.

WHITE-HEADED BARRET Lybius leucocephalus Only recorded in the area from January to March at Lake Alo, Molai and along the River Ngadda. Possibly a dry season migrant to the area arriving when the fig trees are in fruit.

VIEILLOT'S BARBET Lybius vieilloti Widespread.

YELLOW-FRONTED TINKER-BIRD Pogoniulus chrysoconus Widespread.

BLACK-THROATED HONEY-GUIDE <u>Indicator indicator</u> Occasionally recorded from Molai and the Government Residential Area. Possibly overlooked except when calling.

LESSER HONEY-GUIDE <u>Indicator minor</u> Only recorded from Molai.

WRYNECK Jynx torquilla Occasional on passage at Molai in September/October.

GREY WOODPECKER <u>Mesopicos goertae</u> Widespread in woodland and fairly open bush.

FLAPPET LARK Mirafra rufocinnamomea One record, at Molai in June.

SHORT-TOED LARK Calandrella brachydactyla During the dry season large flocks inhabit the Jeribowl on hard ground bared after cultivation.

CHESINUT-BACKED SPARNOW-LARK <u>Eremopterix leucotis</u> A common widespread dry season migrant from October to April at Lake Alo, Molai, Pompomarii and the Jeribowl, birds moving north during the rains.

CRESTED LARK <u>Galerida cristata</u> Widespread on cultivated areas around Maiduguri.

SAND MARTIN <u>Riparia riparia</u> Small numbers pass through (Lake Alo, the Jeribowl), particularly in October/November and March/April.

SWALLOW <u>Hirundo rustica</u> Occasional on passage in October/ November and March/April at Lake Alo and along the River Ngadda.

ETHIOPIAN SWALLOW <u>Hirundo aethiopica</u> Widespread around Maiduguri; they appear to increase from June to August.

RUFOUS-CHESTED SWALLOW Hirundo semirufa A scarce rains migrant only recorded at Molai in April and August and along the Kano road in August.

RED-RUMPED SWALLOW <u>Hirundo daurica</u> Only recorded at Molai in July.

STRIPED SWALLOW <u>Hirundo abyssinica</u> A scarce rains migrant, only one pair known to have bred in the area, each year at Pompomarii.

PREUSS'S CLIFF SWALLOW <u>Hirundo spilodera</u> A frequent rains migrant in the River Ngadda/Lake Alo area from June to September.

HOUSE-MARTIN Delichon urbica Once; Molai, October.

BLUE-HEADED YELLOW WAGTAIL Motacilla flava Widespread around Maiduguri from October to March, being particularly common at Lake Alo and the Jeribowl.

WHITE WAGTAIL Motacilla alba Once; in November on the River Ngadda.

RICHARD'S PIPIT Anthus novaeseelandiae Occasional in small numbers at the Jeribowl in February, March and April.

TREE PIPIT Anthus trivialis A scarce migrant in September/October, recorded at Molai and Pompomarii.

RED-THROATED PIPIT Anthus cervinus Occasional on passage at Molai in October and common at the Jeribowl in March and April.

NORTHERN BRUBRU <u>Nilaus afer</u> Only recorded in April, June and July at Molai and Auno. A scarce rains migrant?

PUFF-BACK Dryoscopus gambensis Appears to be a scarce resident at Molai with records in February, March, April, July and December.

BLACK-HEADED BUSH-SHRIKE Tchagra senegala Recorded occasionally at Molai and Pompomarii; probably a scarce resident.

CONOLEK Laniarius barbarus Common and widespread.

SULPHUR-BREASTED BUSH-SHRIKE Malaconotus sulfureopectus at Molai in July and August; Malaconotus sulfureopectus a scarce rains migrant?

ISABELLINE SHRIKE Lanius collurio Once; Molai in October.

WCODCHAT SHRIKE <u>Lanius senator</u> Occasional on passage in March/ April along the Kano road and around the River Ngadda.

MASKED SHRIKE <u>Lanius nubicus</u> Occasional from October to April at Molai, Pompomarii and along the 'Bama ridge'.

COLDEN ORIOLE Oriolus oriolus Once; three at Molai in June.

DRONGO <u>Dicrurus adsimilis</u> Present in small numbers at Molai and Pompomarii.

BLUE-EARED GLOSSY STARLING Lamprotornis chalybaeus Widespread and common.

LONG-TAILED GLOSSY STARLING <u>Lamprotornis caudatus</u> Widespread and frequent throughout the area, with some local movement during the dry season.

VIOLET-BACKED STARLING <u>Cinnyricinculus leucogaster</u> A rains migrant to the area, only recorded near the Jeribowl in September.

CHESTNUT-HELLIED STARLING Spreo pulcher Widespread and common around Maiduguri.

YELLOW-BILLED OXPECKER Buphagus africanus Frequent around Maiduguri during the rains; from June to September there is a large roost near the River Ngadda. At other seasons recorded only once, at Lake Alo in April. In the north it is apparently sedentary and it is not clear whether in the dry season Maiduguri birds move north or drift south with the large herds of Fulani cattle.

PIED CROW <u>Corvus albus</u> Widespread around Maiduguri. Seemingly commoner during the rains.

RED-SHOULDERED CUCKOO-SHRIKE <u>Campephaga phoenicea</u> Once; two females at Molal in August. Probably a scarce rains migrant to the area.

WHITE-VENTED BULBUL Pycnonotus barbatus Common and widespread.

WHEATEAR Oenanthe cenanthe Widespread from November to April.

DESERT WHEATEAR Oenanthe deserti Once; in February along the River Ngadda near the 'Bama ridge'.

HEUGLIN'S RED-BREASTED WHEATEAR One and bottae A pronounced rains migrant; recorded in June and July at Molai and Lake Alo.

ANT-EATER CHAT Myrmecocichla aethiops Widespread and common wherever there are sand pits and termite mounds.

Bull, Nigerian Orn.Soc.13(43)

REDSTARI' Phoenicurus phoenicurus On passage from October to April, recorded at Lake Alo, Molai and in thickets along the River Ngadda.

BLACK BUSH-ROBIN Cercotrichas podobe Frequent in thorn bush.

RUFOUS WARBLER Cercotrichas galactotes Widespread in scrub.

SNOWY-HEADED ROBIN-CHAT Cossypha niveicapilla A partial rains migrant, frequent at Molai from June to October. Elsewhere in the north and in wooded stretches of the River Ngadda, it is present in small numbers throughout the dry season and is resident.

NIGHTINGALE Luscinia megarhynchus Possibly present all dry season, but noted only in September and October when it is widespread in suitable thickets, particularly at Molai.

OLIVE THRUSH <u>Turdus pelios</u> Resident; especially common in woodland along the River Ngadda and in orchards around the Jeribowl.

BROWN BABBLER <u>Turdoides plebejus</u> Widespread and frequent, particularly at Molai, Pompomarii and around the River Ngadda.

SEDCE WARBLER <u>Acrocephalus schoenobaenus</u> On passage in September/October at Lake Alo and Molai.

MELODIOUS WARBLER <u>Hippolais polyglotta</u> Occasional passage migrants at Molai in September/October.

OLIVACEOUS WARBLER Hippolais pallida Occasionally recorded in woodland throughout the area; probably a scarce resident.

GARDEN WARBLER Sylvia borin A few pass through Molai in October.

WHITETHROAT Sylvia communis Frequent on passage at Lake Alo, Molai and Pompomarii in October and February/March.

LESSER WHITETHROAT Sylvia curruca Recorded in small numbers on passage at Lake Alo and Molai in September/October.

SUBALPINE WARBLER Sylvia cantillans on passage at Molai in October.

WILLOW WARBLER Phylloscopus trochilus Frequent on passage through Molai and Pompomarii in September/October.

BONELLI'S WARBLER Phylloscopus bonelli Occasional at Molai in November/December when it appears to replace the Willow Warbler in the area.

WINDING CISTICOLA <u>Cisticola galactotes</u> Frequent at Lake Alo all year and frequent in marshy areas at Molai during the rains.

RED-PATE CISTICOLA Cisticola ruficeps Only recorded at Molai and Auno in June and July, in thorn bush.

ZITTING CISTICOLA Cisticola juncidis Recorded only at Lake Alo, where frequent on the edges of cultivation.

TAWNY-FLANKED PRINIA Prinia subflava Widespread.

BUFF-BELLIED WARBLER Apalis pulchella Thinly distributed in Acacia bush at Molai and Pompomarii; July and August only.

GREY-BACKED CAMAROPTERA Camaroptera brachyura Widespread and common in thick undergrowth particularly at Molai and Pompomarii.

YELLOW-BELLIED EREMOMELA <u>Eremomela icteropygialis</u> Once; Molai in June.

SMALLER GREEN-BACKED EREMOMELA Eremomela pusilla Once; Molai in February.

CROMBEC Sylvietta brachyura Occasionally recorded throughout the area.

SPOTTED FLYCATCHER Muscicapa striata A migrant widespread in small numbers in October and March.

SWAMP FLYCATCHER <u>Muscicapa aquatica</u> Once; in Lake Alo forest reserve in March.

PIED FLYCATCHER Ficedula hypoleuca Scarce passage migrant; Molai in October.

BLACK FLYCATCHER <u>Melaenornis edolioides</u> Occasionally recorded from Molai during the rains.

PALE FLYCATCHER <u>Bradornis pallidus</u> One record from Molai during the rains.

SENEGAL PUFFBACK FLYCATCHER <u>Batis senegalensis</u> Once; at Molai in April.

PARADISE FLYCATCHER Terpsiphone viridis A rains migrant in small numbers at Molai from June to October. It is found all year in woodland along the River Ngadda.

PYGMY SUNBIRD Anthreptes platura A partial migrant with a strong passage in March and October (especially at Molai). Large numbers of juveniles pass through the area during the rains.

BEAUTIFUL SUNBIRD <u>Nectarinia pulchella</u> A partial rains migrant, widespread and common throughout the area but increasing markedly when on passage in the early rains.

YELLOW WHITE-EYE Zosterops senegalensis Occasional in July and August at Molai and possibly a partial rains migrant; small numbers are recorded each year in March in bush along the River Ngadda.

COLDEN-BREASTED BUNTING Emberiza flaviventris Recorded occasionally throughout the year at Molai and Pompomarii.

SINGING CISTICOLA <u>Cisticola cantans</u> Only recorded at Molai and Pompomarii in October, but probably a scarce resident in areas of thick bush and rank undergrowth.

CINNAMON-BREASTED ROCK BUNTING Emberiza tahapisi A rains migrant, occasional at Molai from June to September.

YELLOW-FRONTED CANARY Serious mozambicus Recorded only in orchards around the Jeribowl in September, when frequent.

WHITE-RUMPED SEED-EATER Serinus leucopygius Widespread and frequent at Lake Alo, Molai and Pompomarii.

LITTLE WEAVER Ploceus luteolus Widespread and frequent.

SOUTHERN MASKED WEAVER Ploceus velatus Widespread and common.

BLACK-HEADED VILLACE WEAVER Ploceus cucullatus Widespread and common, with some local dispersal during the dry season.

BLACK-HEADED WEAVER Ploceus melanocephalus Widespread and common; partially migratory, Targe numbers passing in July.

RED-BILLED QUELEA Quelea quelea Subject to considerable movement, south in the late dry season, and after breeding north again in the rains to nest possibly a second time when the grasses are germinating. During the dry season there are large roosts at the Jeribowl and Combole.

YELLOW-CROWNED BISHOP <u>Euplectes afer</u> Widespread and frequent at Lake Alo, Molai and Pompomarii.

RED BISHOP Euplectes orix Widespread and common throughout the area with a particularly large roost at Molai.

BUFFALO-WEAVER <u>Bubalornis albirostris</u> Widespread and common, and during the rains the population is greatly increased.

CHESTNUT-CROWNED SPARROW-WEAVER Plocepasser superciliosus Small

numbers present throughout the year at Molai, and during the rains numbers increase noticeably.

GREY-HEADED SPARROW Passer griseus Widespread and common.

SUDAN GOLDEN SPARROW Passer luteus A common dry season migrant from the Sahel from November to March at Molai, the Jeribowl, along the River Ngadda and at Gombole.

BUSH PETRONIA Petronia dentata Widespread and common, with a marked passage noted at Molai in July.

SPECKLED-FRONTED WEAVER Sporopipes frontalis Widespread and frequent at Lake Alo, Molai and Pomponarii.

PIN-TAILED WHYDAH Vidua macroura Migrant in small numbers from June to October at Lake Alo, Molai and Pompomarii.

INDIGO-BIRD <u>Vidua chalybeata</u> Widespread and frequent, particularly at Molai and <u>Pompomarii</u>.

BROAD-TAILED PARADISE WHYDAH Vidua orientalis Widespread and common.

CUT-THROAT Amadina fasciata Frequent from September to November at Molai and Pompomarii and occasional in March/April. Possibly moves north during the dry season to breed, since they increase greatly at Malamfatori in October (Dowsett 1969).

GREEN-WINGED PYTILIA <u>Pytilia melba</u> Only recorded in small numbers from June to November at Molai and Pompomarii. Possibly moves north during the dry season when at Malamfatori they increase considerably from mid-September (Dowsett 1969).

BLACK-RUMPED WAXBILL <u>Estrilda troglodytes</u> Widespread and frequent; there may be some dry season dispersal, for it is then locally common, as near the River Ngadda and at Gombole.

RED-TAILED LAVENDER WAXBILL <u>Estrilda caerulescens</u> Small flocks recorded in the dry season at Lake Alo in December and on the River Ngadda in March and April.

RED-CHEEKED CORDON-BLEU Estrilda bengala Widespread and frequent.

RED-BILLED FIRE-FINCH Lagonosticta senegala Widespread, increasing markedly during the rains.

SILVERBILL Lonchura malabarica Recorded in small numbers from August to November and in April; possibly it moves north during the dry season, when at Malamfatori it is commonest from October to December (Hopson 1965).

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