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# The avifauna of Dzanga-Ndoki National Park and Dzanga-Sangha Rainforest Reserve, Central African Republic

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### Summary

We recorded 254 bird species in a new national park and a buffer zone reserve in the rainforest of the Central African Republic. Thirty-one species are Palaearctic migrants and 47 are intra-African or local migrants. Most passerines are present all year.

### Résumé

Nous avons enregistré le présence de 254 espèces d'oiseaux dans un nouveau parc national et sa zone-tampon en forêt pluviale de la République Centrafricaine. Parmi celles-ci 31 sont des migrateurs paléarctiques et 47 des migrateurs locaux ou intra-africains. La plupart des passereaux sont des résidents.

### Introduction

Dzanga-Ndoki National Park (1220 km²) and Dzanga-Sangha Rainforest Reserve (3359 km²) are contiguous reserves in the Sangha-Mbaèré Prefecture of southwestern Central African Republic. They were gazetted in December 1990. This study area lies between 2°13′26′′N and 3°24′N and between 15°30′E and 16°35′E on the northern edge of the Congo Basin rainforest block (Fig. 1). The Government of C.A.R. and WWF-US began a project in January 1988 to establish these areas as a rainforest national park surrounded by a buffer zone reserve, the latter to be managed for sustainable use of the rainforest. To achieve this goal, the project is assisting the people of the buffer zone reserve with programmes in rural development, agro-forestry, fisheries, health, sanitation and conservation education. Tourism, sport hunting, traditional hunting and commercial logging are regulated in the Dzanga-Sangha reserve. A special effort is being made to help the Bai-aka Pygmies, who are taking up a more settled existence along the road between Bayanga and Béya.

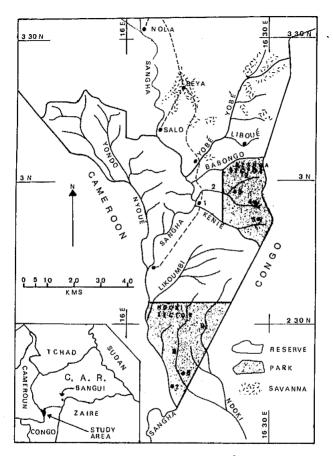


Figure 1. Map of Dzanga-Ndoki National Park (1220 km²) and Dzanga-Sangha Rainforest Reserve (3359 km²), Central African Republic.

Key: 1 = Bayanga; 2 = Mossapoula R.; 3 = Dzanga clearing; 4 = Mongambi R. and clearings; 5 = Bai Hokou camp and clearing, Ngoubounga, Bai Mongoli, Bai Deboué, Bai Bakalonga; 6 = Mambélé clearing; 7 = Ndakan camp; 8 = Njéké R.; 9 = Ndoki R.

Only recently has the flora and fauna of the study area come under scientific scrutiny, with the initial emphasis on studies of Forest Elephant Loxodonta africana cyclotis and Western Lowland Gorilla Gorilla g. gorilla. During reconnaissance surveys leading up to the WWF project, bird observations were made by RWC in October 1981 and during 1984-86 (Carroll 1988). Those records, along with his more recent observations made while studying gorillas in 1987-89, are incorporated in this report. Observations by AAG reported here were made during his tenure as WWF project director during 1988-90.

Brosset & Erard (1986) give information on the avifauna in northeastern Gabon. More pertinent are observations from Lobaye prefecture of C.A.R., just to the northeast of our study area (Carroll 1988).

### Study Area

Locations referred to here are found in Fig. 1. Following Boulvert (1986) the Congolese Equatorial Climate of the Congo Basin gives way in the vicinity of Bayanga (2°54'N) to the Subequatorial Climate found further north. The 1600 mm isohyet and the 26°C isotherm pass through the study area (CTFT 1967). There is little rainfall during the dry season of December to February. During the nine month rainy season there is a slackening of rainfall during July and the heaviest rainfall occurs during September and October. Considerable daily and seasonal variations in temperature occur in the north of the study area at higher elevations. Extreme values of 13°C in January and 40°C in March-April have been recorded at Bayanga (Slovenia Bois, unpubl.).

The elevation rises from 340 m above sea level where the Sangha River leaves the study area in the south, to over 600 m in the northwestern hills and on the northeastern plateau. The Ndoki sector of the park (south) is very flat, the Dzanga sector of the park (east-central) is rolling hills and there are very rugged hills with steep-sided valleys in the northwest of the rainforest reserve.

The southward flowing Sangha River and its tributary streams drain most of the study area. Much of the Ndoki sector is drained southeastward into the Congo Republic by the Njéké and Ndoki rivers. The Sangha River is navigable as far upstream as Nola, 100 km north of Bayanga. The upper Sangha is narrow and rocky, but at Bayanga it broadens to 500 m. South of Bayanga it is broad with many islands and shifting sandbars. Principal tributaries mentioned in this report are the Yobé with its branch Liboué, the Babongo, the Mossapoula with its branches Modobou/Mongambi and Dzanga, and the Kénié.

Alluvial sand covers most of the study area south of the Babongo River, while clay predominates to the north, except in the far northeast of the study area, where there is sand lying over sandstone. In the northwest of the Dzanga-Sangha reserve, clay covers a bedrock of schist.

In the vicinity of Bayanga the evergreen forest of the Congo Basin gives way to the semi-deciduous forest found further north (Boulvert 1986). A mixed, dense, primary forest covers most of the study area. Selective logging has left a depleted (secondary) forest in the Dzanga sector of the park and around Bayanga. Nearly pure stands of Gilbertiodendron dewevrei trees form extensive open forests on the slopes above streams. Pure stands of Guibourtia demeusii trees are found in bands along the Sangha River on low, flat land which is flooded during September-October. Raphia spp. swamps occur in broad valleys east of the Sangha, and swamp forests occur in bands up to 2 km wide along the Njéké and Ndoki rivers in the south. On the plateau in the northeast of the study area, the rainforest is interrupted by patches of shrub savanna covering several square kilometres.

In the Ndoki sector there are many forest clearings in shallow depressions in the flat land, containing marshes which are wet throughout the year. In the Dzanga sector of the park and in the Bayanga area of the reserve there are many forest clearings along streams. Although some contain year-round marshes, many have prairies which are reasonably dry in the dry season. There are several clearings on the upper Kénié river, including Bai Hokou, Ngoubounga, Bai Bakalonga, Bai Mongoli and Bai Deboué. There are two large clearings on the headwaters of the Modobou/Mongambi, another further downstream, and Dzanga clearing. Dzanga is unique; measuring about 200 m by 600 m, it is kept mostly clear of vegetation by the constant use as a mineral lick by large herds of elephants and other large mammals.

The rich and abundant mammalian fauna includes Elephant, Gorilla, Chimpanzee Pan troglodytes, eight species of diurnal monkey, two pigs, nine antelopes, Forest Buffalo Syncerus caffer nanus, Leopard Panthera pardus, Golden Cat Felis aurata, and many smaller species. Restricted to the shrub savanna areas are Anubis Baboon Papio anubis and Bushbuck Tragelaphus scriptus.

Bayanga is the largest village in the study area. Slovenia-Bois, a Yugoslavian logging company, opened the road south from Béya to Bayanga and Lidjombo in the early 1970s. Small villages occur at Mossapoula, Babongo, Yobé, and along the Sangha River north of the reserve. Large coffee plantations and cultivation were opened at Bayanga and Lidjombo in the past. New areas are being opened in a band along the road between Bayanga and Yobé. These clearings are a different bird habitat from the natural shrub savanna areas in the northeast of the reserve. Although the human population is low in the study area, the Bai-aka use all of the region for their traditional hunting and gathering activities. Since the road to Bayanga and Lidjombo was opened in 1973, a considerable traffic in bush-meat and other animal products has grown up there.

We recognise seven main bird habitats supporting distinctive bird communities:

- Forest: most of the study area is covered by dense forest of one type or another.
- Forest edge: at edges of clearings, savanna patches and cultivation.
- Forest stream: including forested streamside, Raphia spp. swamp, and swamp forest.

- Sangha River: differs from other rivers in the study area by its great breadth and its dry season sandbars.
- Forested clearings: vary in size from a few to several tens of hectares and are usually covered in marsh or in marshy prairie with mineral licks on the higher borders.
- Man-made clearing/cultivation: including small villages, Slovenia Bois sawmill and cultivation near villages.
- Shrub savanna: covers patches of a few square kilometres, surrounded by dense forest, in the northeast of the study area.

### Results

The Appendix contains an annotated list of 254 bird species recorded in the study area (park, reserve, and a band along the Yobé-Béya road). Migratory status is indicated where known. Some species comprise both residents and local migrants, with differences in abundance noted at different seasons. Thirty-one Palaearctic migrants are listed, only seven of which are passerines. Nine intra-African migrants and 38 local migrant species are listed, but only six of them are passerines. At least 76 passerines are present throughout the year. Sixteen savanna species were recorded only in the shrub savanna patches of the northeast of the reserve.

Based on bird records from Lobaye Prefecture (Carroll 1988), another 90 bird species are likely to occur in the forest area of this park and reserve.

### Discussion

Duration and intensity of the dry season may affect movements of local migrant birds. In 1988-89 the dry season was pronounced, starting earlier in November 1988 and ending later in March 1989 than usual, with no rain falling at all during December-February. The 1989-1990 dry season was wetter, with several rains in December and a storm on 6 January; heavy fogs continued through January, and rains began again on 5 March 1990.

Abdim's Stork Ciconia abdimii arrived earlier in the wet year (11 March 1990) than in the dry year (1 April 1989). Long-tailed Nightjar Caprimulgus climacurus were seen at Bayanga from late January to early March 1989 (dry year), but were not noted at all in the 1989-90 dry season (wet year). Plain Nightjar Caprimulgus inornatus arrived in December 1988 (dry year), but not until late January 1990 (wet year). Black Kite Milvus migrans arrived at Bayanga on 24 October 1988, but not until mid-December 1989. They departed from Bayanga in April 1989, but earlier in March 1990. In 1989 Red-necked Buzzard Buteo auguralis were seen at Mongambi, Dzanga and Bayanga during January-March, but in 1990 they were not seen south of the shrub savanna areas until March. Little Button-quail Turnix sylvatica were recorded at Bayanga in

December 1988, but not in December 1989. However, arrival and departure dates of White-throated Bee-eater *Merops albicollis* were not affected.

Movements of several aquatic species are known to be related to rising and falling river levels, but we spent little time on the Sangha and were unable to draw a clear picture. Knob-billed Duck Sarkidornis melanotos were seen frequently in small numbers during July-August. Although they were not noted in the 1988-89 dry season, small flocks were seen frequently flying over the river at Bayanga during January-February 1990. Grey Pratincole Glareola cinerea were abundant in flocks of 50-100 on sandbars during December-January and were present until the sandbars were inundated in April or May.

There were a number of unexpected bird records for the study area. Some birds perhaps followed tributaries of the Sangha southward from the savannas into the rainforest zone. These included: Black Stork Ciconia nigra at Béya during November-December 1988 and once in the dry season at Bayanga; Northern Pintail Anas acuta once in the dry season on the Sangha River; Marsh Harrier Circus aeruginosus at Béya 21-24 March 1989 and 7 April 1990 and once at Bayanga; Common Stilt Himantopus himantopus on the Sangha River once in the dry season; Avocet Recurvirostra avosetta at Bayanga once in March; eight Egyptian Plovers Pluvianus aegyptius at Ndakan Camp on the lower Sangha River during November-December 1989; and an African Wattled Plover Vanellus senegallus on the Sangha River in the dry season. RWC recorded a vagrant Grey-headed Gull Larus cirrhocephalus on the Sangha River in October 1981 (caught by a fisherman for his dinner).

### Acknowledgments

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### Appendix

Annotated list of birds of Dzanga-Ndoki National Park and Dzanga-Sangha Rainforest Reserve, C.A.R.

Status: RS = resident

PM = Palaearctic migrant

AM = intra-African migrant

LM = local migrant

? = status unknown or uncertain

Abundance: r = rare (1 or 2 records)

u = uncommon ( several records per year)

f = frequent (seen often, but not every day)

c = common (1-10 seen/heard daily)

a = abundant (10-100 seen/heard daily)

v = very abundant (>100 seen/heard daily)

Remarks: AAG = observation by A.A. GREEN

AWC = observation by R.W. CARROLL

(lack of initials indicates seen by both authors)

Long-tailed Cormorant Phalacrocorax africanus: RS, u, Sangha.

Eurasian Bittern Botaurus stellaris: PM, r, Sangha, Oct 81 RWC.

Dwarf Bittern Ixobrychus sturmii: RS, r, Sangha, Oct 81 RWC & 18 Dec 89 AAG. White-crested Tiger Heron Tigriornis leucolophus: RS, r, male in Mambélé marshclearing (west of Niéké River). 19 Dec 89 AAG.

Black-crowned Night Heron Nycticorax nycticorax: PM, r, Sangha, Oct 81 RWC.

Squacco Heron Ardeola ralloides: PM, f, Dec-Mar Sangha; one at Ngoubounga Jan 90; five at Dzanga during Mar 90.

Cattle Egret Bubulcus ibis: AM, c, Oct-Jun in savannas and at Béya. Arrival at Bayanga 6 Nov 88 and flocks of 20 and 30 in mid-Nov 89. Groups of 1-5 at Bayanga, on the Sangha, and in forest clearings Nov-May, disappearing early Jun.

Green Heron Butorides striatus: ?, u, Nov-Apr at clearings and streams.

Little Egret Egretta garzetta: RS & PM, f, Dec-Jan on the Sangha; Jul-Jan at Bayanga and in forest clearings, usually singly.

Yellow-billed Egret Egretta intermedia: LM, r, vagrant to the Sangha Oct 81 RWC.

Great Egret Egretta alba: RS & LM, u/f, frequent dry season and uncommon wet season on the Sangha, singly or in small groups; two at Ngoubounga Jan 90.

Purple Heron Ardea purpurea: LM, f/c, common Dec-Jan and frequent Feb-Jul on the Sangha and in clearings with large streams.

Grey Heron Ardea cinerea: LM & PM, f/c, single birds frequent at Ngoubounga & Mongambi Nov-Jan, Apr, Jul; common dry season on the Sangha; one at Béya 23 Jul 88.

Black-headed Heron Ardea melanocephala: LM, f/u, single birds frequent at Bayanga, Béya, on the Sangha, and in clearings Dec-Apr; then uncommon May-Aug.

Goliath Heron Ardea goliath: LM, r, Sangha, Oct 81 RWC

Hamerkop Scopus umbretta: RS, c, forest clearings and streams; old nests at Dzanga and Ngoubounga.

Yellow-billed Stork Mycteria ibis: LM, r, flock on sandbar in the Sangha mid-80's RWC.

Black Stork Ciconia nigra: PM, r, dry season mid-80's at Bayanga RWC; one near Béya in savanna during 22 Nov-9 Dec 88 AAG.

Abdim's Stork Ciconia abdimii: AM, c, southward passage at Béya and Bayanga 27-28 Oct 88; flock of c. 150 flying down-river at Ndakan Camp on 28 Oct 88 (J. Fangonda, pers. comm.); flock at Béya 29 Nov 89. Northward passage with 12 birds at Bayanga 1-12 Apr 89; 22 at Bayanga 11-15 Mar 90.

Woolly-necked Stork Ciconia episcopus: LM, f, forest clearings and Sangha Dec-Jan, frequent; then uncommon Sangha Jul.

Saddle-billed Stork Ephippiorhynchus senegalensis: LM, r, pair on the Sangha Oct 81 RWC.

Marabou Stork Leptoptilos crumeniferus: LM, r, one flying over the Sangha Oct 81 RWC.

Hadada Ibis Bostrychia hagedash: RS, c, Sangha, clearings & streams.

Sacred Ibis Threskiornis aethiopica: LM, r, passage on Sangha Oct 81 RWC.

Egyptian Goose Alopochen aegyptiacus: LM, r, Sangha at Bayanga Oct 81 RWC.

Spur-winged Goose Plectropterus gambensis: LM, r, Sangha at Bayanga Oct 81 RWC. Hartlaub's Duck Pteronetta hartlaubii: RS, c/a, two dozen at Dzanga; common at

Hartlaub's Duck Pleronetta hartlaubit: RS, c/a, two dozen at Dzanga; common a Ngoubounga and on large forest streams; uncommon on the Sangha.

Knob-billed Duck Sarkidornis melanotos: LM, f, flocks of 2-6 on the Sangha Jul-Aug and Jan-Feb.

Northern Pintail Anas acuta: PM, r, one on the Sangha Oct 81 RWC.

Black-shouldered Kite Elanus caeruleus: in cultivation at Bayanga, dry season, mid-80's RWC.

Black Kite Milvus migrans: AM, c/f, common in the savannas Oct-May. Arrival at

Bayanga 24 Oct 88 and mid-Dec 89, with about three present during dry season, and departing Apr 89 and Mar 90. One dry season record at Dzanga.

River Eagle Haliaeetus vocifer: RS, f, forest clearings, rivers, Sangha.

Palm-nut Vulture Gypohierax angolensis: RS, f, forest clearings, rivers; Bayanga and other villages with oil palms.

Serpent-Eagle Dryotriorchis spectabilis: ?, r, one in forest near Yobé village 23 Mar 89 AAG.

Harrier-Hawk *Polyboroides typus*: RS, f/c, frequent along the Sangha; common at villages. Nesting at Bayanga. Pair adults with two juvs Jan-May 89; pair adults with one juv Nov 89-Apr 90.

Marsh Harrier Circus aeruginosus: PM, u, passage Mar-Apr. One mid-80's RWC; male in savanna near Béya 21-24 Mar 89, and again 7 Apr 90 AAG.

Chestnut-flanked Sparrowhawk Accipiter castanilius: RS, u. dense forest.

Shikra Accipiter badius: LM, r, dry season in savanna in mid-80's RWC.

Red-thighed Sparrowhawk Accipiter erythropus: RS, u, forest and once at Slovenia Bois sawmill.

Black Sparrowhawk Accipiter melanoleucus: RS, u, forest, clearings, and flying over Bayanga and Yobé.

Long-tailed Hawk *Urotriorchis macrourus*: RS, u, in forest Oct 81 RWC; 3 Jul 89 and 13 Jan 90 AAG.

Lizard Buzzard Kaupifalco monogrammicus: RS, c, pairs at Dzanga and at Bayanga and Mossapoula villages.

Red-necked Buzzard Buteo auguralis: AM, u/f, uncommon Jan-Mar 89 and Mar 90 at Mongambi, Dzanga and Slovenia Bois sawmill; frequent in savanna patches Dec-Mar.

Tawny Eagle Aquila rapax: LM, u, dry season at Bayanga and in shrub savanna patches.

Long-crested Hawk-Eagle Lophaetus occipitalis: LM, r, once each at Bayanga and Ngoubounga in dry season mid-80's RWC.

Crowned Eagle Stephanoaetus coronatus: RS, c, forest and flying over Bayanga.

Black Guineafowl Agelastes niger; RS, u, forest. Seen more often in the Ndoki sector of the park than elsewhere.

Plumed Guinea-fowl Guttera plumifera: RS, f, forest. Flocks seen more frequently along Bai Hokou track May-Aug than during the dry season.

Crested Guinea-fowl Guttera pucherani: RS, u, secondary forest and along roads.

Latham's Forest Francolin Francolinus lathami: RS, f, forest. Nesting: adult with downy chick on Mongambi footpath 23 Jan 90 AAG.

Scaly Francolin Francolinus squamatus: RS, c, cultivation at Bayanga and Lidjombo, along the Bayanga-Béya road, and in shrub savanna patches.

Little Button-Quail Turnix sylvatica: AM, u, dry season visitor to savannas near Béya and in cultivation at Bayanga Dec-Feb, usually seen in pairs AAG.

Nkulengu Rail Himantornis haematopus: RS, u, damp places in forest.

African Crake Crex egregia: LM, f, general passage late May-early Jun at Bayanga (in

tall grass), but also records Bai Bakalonga 31 Apr 89 RWC and Bayanga 14 Jul 89 AAG.

Black Crake Amaurornis flavirostris: RS, u, marshy streams in forest clearings.

Finfoot Podica senegalensis: RS, u, Sangha (one captured 19 Dec 89 AAG).

Black-bellied Bustard Eupodotis melanogaster: LM, u, only in savanna patches, Nov-Apr (earliest record 29 Oct 88 AAG).

Lilytrotter Actophilornis africana: RS, f, Sangha and marshes in forest clearings.

Common Stilt Himantopus himantopus: ?, r, once in dry season in mid-80's RWC.

Avocet Recurvirostra avocetta: PM, r, one bird in a puddle of water at Slovenia Bois sawmill in Mar in mid-80's RWC.

Egyptian Plover Pluvianus aegyptius: LM, u, eight at Ndakan Camp on the Sangha mid-Nov 89 to Jan 90 (photographed) AAG.

Rock Pratincole Glareola nuchalis: LM, f, rocky areas on the upper Sangha RWC.

Grey Pratincole Glareola cinerea: LM, a, sandbars in the Sangha Dec-Apr. Flocks of 50-100 seen mornings in Dec, but fewer seen in afternoons.

Little Ringed Plover Charadrius dubius: PM, a/c, Nov-Mar on the Sangha and in clearings. Abundant (>100) at Dzanga late Nov-Jan, common Feb, and absent Mar 89 but abundant (>25) Mar 90.

Ringed Plover Charadrius hiaticula: PM, u, dry season on the Sangha and at Dzanga. Forbes' Plover Charadrius forbesi: ?, f/c/a, frequent at Bayanga (bare ground at airfield and in cultivation) Jan, Mar-Apr, Jul-Aug, Nov; abundant (20-30) at Dzanga Nov-Jan; a few at Bai Hokou Mar 90.

White-fronted Plover Charadrius marginatus: LM, c/a, late Nov-Jan at Slovenia Bois sawmill, Dzanga and on the Sangha. Abundant (several hundred) at Dzanga 22 Nov - Dec 88, declining in Jan 89, and abundant again Dec 89. Common on sandbars in the Sangha Dec-Jan.

African Wattled Lapwing Vanellus senegallus: LM, r, once in dry season mid-80's RWC at Bayanga.

White-headed Lapwing Vanellus albiceps: LM, c/a, groups of 1-6 on sandbars in the Sangha Nov-Jun; most common Dec-Jan.

Sanderling Calidris alba: PM, r, on the Sangha Oct 81 RWC.

Little Stint Calidris minuta: PM, a, Nov-Mar on sandbars in the Sangha, at Bayanga and in forest clearings. At Dzanga >100 late Nov-Jan then less common Feb; abundant Dec-Jan on the Sangha.

Curlew Sandpiper Calidris ferruginea: PM, r, record at Slovenia Bois sawmill 7 Nov 88 AAG.

Ruff Philomachus pugnax: PM, r, eight birds at Dzanga 9 Sep 88 AAG.

Common Snipe Gallinago gallinago: PM, u, pair at Slovenia Bois sawmill 30 Oct - 7 Nov 88 and again 19 Nov 89; four at Dzanga 12-13 Mar 90 AAG.

Spotted Redshank Tringa erythropus: PM, r, dry season in the mid-80's RWC.

Common Redshank *Tringa totanus*: PM, f, one bird at Slovenia Bois sawmill during early Oct 88; frequent on sandbars in the Sangba Dec-Jan.

59

Marsh Sandpiper Tringa stagnatilis: PM, f/a, frequent at Slovenia Bois sawmill Nov 88; abundant (>150) at Dzanga mid-Mar 90.

Greenshank Tringa nebularis: PM, f, Nov-Apr visitor to Bayanga, Dzanga and sandbars in the Sangha.

Green Sandpiper Tringa ochropus: PM, f, Nov-Jan (perhaps longer) visitor to Bayanga, Dzanga and Ndakan Camp.

Wood Sandpiper Tringa glareola: PM, a, visitor late Nov to late Mar to forest clearings, Bayanga and the Sangha. Abundant (several hundred) at Dzanga late Nov-Jan, common Feb, few Mar, pair 28 Apr 89; abundant 11 Mar 90 at Dzanga. Abundant at Slovenia Bois sawmill mid-Nov to Jan; common on sandbars in the Sangha Dec; common at Bai Hokou Jan-Mar 90. Much more common Nov-Dec 88 than the same period 89; much more common Mar 90 than Apr 89.

Common Sandpiper Actitis hypoleucos: PM, c/f, common on the Sangha and at Bayanga; frequent in forest clearings. Arrival at Bayanga 28 Jul 88 and 27 Jul 89; departure Apr 89 and 90. Frequent Jul-Sep, then common. (Abundant in ones or twos during 90 km transit Bayanga to Ndakan Camp 18 Dec 89 AAG.)

Grey-headed Gull Larus cirrhocephalus: LM, r, one collected by a fisherman on the Sangha Oct 81 RWC, vagrant.

African Green Pigeon Treron calva: RS, f, flocks of 6-15 in forest, clearings, and at Bayanga.

Blue-headed Wood-dove Turtur brehmeri: RS, a, singly in forest,

Red-billed Wood-dove *Turtur afer*: RS, a, shrub savanna patches, cultivation, Bayanga-Béya road, and forest clearings; usually singly.

Grey Wood Pigeon Columba unicincta: RS, c, canopy of high forest and forest clearings, usually in pairs, AAG. Occasionally in flocks on ground at Dzanga and in savanna, RWC.

Grey Parrot Psittacus erithacus: RS, a, forest, clearings, and at Bayanga. Up to 200 at Dzanga; up to 40 flying over Bayanga mornings.

Red-fronted Parrot Poicephalus gulielmi: RS, u, primary forest. Large flocks near Yobé village seen several times per year. Flocks also seen at Mongambi and on the upper Kénié River.

Red-headed Lovebird Agapornis pullaria: ?, r, flock at forest edge at Ngoubounga Mar 89 RWC.

Black-collared Lovebird Agapornis swinderniana: ?, r, flock on the upper Kénié River Mar 89 RWC.

Great Blue Turaco Corythaeola cristata: RS, c, in forest, in ones, twos or threes.

Green Turaco Tauraco persa: RS, u, secondary forest (often seen flying across forest roads).

Levaillant's Cuckoo Oxylophus levaillantii: AM, u, passage migrant Jun-Aug. Two at Slovenia Bois sawmill 29 Jul 88; one at Bayanga airfield 1 Aug 88; one at airfield 30 Jun 89.

Red-chested Cuckoo Cuculus solitarius: RS, c, heard calling much of the year in

forest and at Bayanga.

Black Cuckoo Cuculus clamosus: ?, r, at two locations in the forest on 4 Jul 89 AAG.

Dusky Long-tailed Cuckoo Cercococcyx mechowi: RS, r, Ngoubounga 23 Mar 89; headwaters of Kénié River 10 Mar 90.

Emerald Cuckoo Chrysococcyx cupreus: ?, r, along the Liboué Track in dense forst 24 May 89 AAG.

Didric Cuckoo Chrysococcyx caprius: LM, u, passage migrant Nov and Mar. At Slovenia Bois sawmill, one 4 Nov 88; one 27 Mar 89; three 29 Mar 89 AAG.

Yellow-bill Ceuthmochares aereus: RS, u, forest and clearings (Ngoubounga, Bai Hokou, Dzanga).

Gabon Coucal Centropus anselli: RS, u, along the Bai Hokou track in secondary (logged) forest.

Centropus sp. A large coucal seen several times in forest, matching description of Centropus grillii (Black Coucal), but in unusual habitat for this species.

Senegal Coucal Centropus senegalensis: RS, c, savanna patches, cultivation, near villages, and in large forest clearings.

Spotted Eagle-Owl Bubo africanus: RS, u, shrub savanna patches.

Fraser's Eagle-Owl Bubo poensis: RS, r, one in a tree beside the Njéké River 19 Dec 89 AAG.

African Wood-Owl Strix woodfordii: RS, f, forest. Often seen while driving at night.

Brown Nightjar Caprimulgus binotatus: RS, r, primary forest. First reported for C.A.R. in this area by Carroll & Fry (1987); seen again on the Dzanga track in Jul 88 AAG.

Long-tailed Nightjar Caprimulgus climacurus: LM, u/f, dry season visitor to savannas and in dry years to Bayanga (a few at Bayanga late Jan to early Mar 89, but none there in 1990 AAG). Captured at Bayanga RWC.

Plain Nightjar Caprimulgus inornatus: LM, c, shrub savannas Dec-Mar; at Bayanga airfield Dec 88 to Mar 89 and late Jan to mid-Mar 90 (also along roads and in cultivation).

Standard-winged Nightjar Macrodipteryx longipennis: AM, c, Dec-Mar at Bayanga and in shrub savannas. Males in breeding plumage at Béya in Dec. Female roadkill at Bayanga 11 Mar 90 AAG.

Pennant-winged Nightjar Macrodipteryx vexillaria: AM, u, passage migrant in savannas and in cultivation at Bayanga and Babongo villages in July.

Sabine's Spinetail Rhaphidura sabini: RS, c, flocks of 4-10 over forest clearings & streams and over the Sangha. The most common spinetail

Black Spinetail Telacanthura melanopygia: LM, r, once in forest Oct 81 RWC.

Mottled Spinetail Telecanthura ussheri: LM, r, vagrant near Bayanga Oct 81 RWC.

Cassin's Spinetail Neafrapus cassini: RS, c, flocks of 2-8 over forest clearings and over the Sangha.

Palm Swift Cypsiurus parrus: RS, a, villages and clearings.

White-rumped Swift Apus caffer: LM, u, over forest clearings and the Sangha. Flock

of two dozen at Dzanga 14 Dec 88.

Little Swift Apus affinus: ?, r, flock over Sangha River mid-80's RWC.

Speckled Mousebird Colius striatus: RS, u, only in shrub savannas near Béya.

Narina's Trogon Apaloderma narina: RS, r, primary forest 27 Jan 89 RWC; headwaters of Kénié River 10 Mar 90 AAG.

Chocolate-backed Kingfisher Halcyon badia: RS, u, forest (more often heard than seen). Grey-headed Kingfisher Halcyon leucocephala: LM, r, Bayanga Oct 81 RWC.

Woodland Kingfisher Halcyon senegalensis: RS, c, Bayanga, villages, cultivation, forest clearings and along the Sangha.

Dwarf Kingfisher Ceyx lecontei: RS, r, near forest stream Oct 81 RWC; forest near Yobé village 11 Nov 88 AAG.

Pygmy Kingfisher Ceyx picta: RS, u, along the Sangha and at Bayanga.

White-bellied Kingfisher Corythornis leucogaster: RS, u, along forest streams.

Malachite Kingfisher Corythornis cristata: RS, f, along the Sangha and at Bayanga.

Shining-blue Kingfisher Alcedo quadribrachys: RS, c, along the Sangha; one record at the bridge over the Yobé River.

Giant Kingfisher Megaceryle maxima: RS, u. Sangha River.

Pled Kingfisher Ceryle rudis: RS, c/f, common on the Sangha; frequent on the Kénié at Ngoubounga, singly or in pairs.

Black-headed Bee-eater Merops breweri: RS, u, forest (three in a tree at Dzanga 9 Sep 88, one at Ngoubounga 27 Jan 89, other records).

Blue-headed Bee-eater Merops muelleri: RS, r, forest, Oct 81 RWC.

Black Bee-eater Merops gularis: RS, u, forest, Oct 81, Nov 88, Jan 90, Mar 89.

Blue-breasted Bee-eater Merops variegatus: RS, u, only shrub savannas, small flocks of 4-6 AAG.

White-throated Bee-eater *Merops albicollis*: AM, a, Nov-Apr visitor to Bayanga, villages, clearings. Arrival at Bayanga 3 Nov 88 and flock of 80 on 8 Nov 88; departure late Apr 89 and 90.

Blue-throated Roller Eurystomus gularis: RS, u, forest, groups of up to four.

White-headed Woodhoopoe Phoeniculus bollei: RS, u, forest.

Hoopoe Upupa epops: PM, r, savanna near Béya 20 Jan 90 AAG.

White-crested Hornbill Tockus albocristatus: RS, c, forest, usually singly, but also in pairs or threes.

Black Dwarf Hornbill *Tockus hartlaubi*: RS, u, forest or forest edge in groups of 2-4. Red-billed Dwarf Hornbill *Tockus camurus*: RS, u, swamp forest (photographed RWC).

Pied Hornbill Tockus fasciatus: RS, c, forest and edge of cultivation (second most common hornbill).

Piping Hornbill Ceratogymna fistulator: RS, u, forest edge and cultivation at Bayanga and Yobé village.

Black-and-white-casqued Hornbill Ceratogymna subcylindricus: RS, f, secondary forest and forest edge at Bayanga and other villages.

Brown-cheeked Hornbill Ceratogymna cylindricus: RS, a, forest, clearings and cultivation in flocks of 5-8 (most abundant hornbill).

Black-casqued Wattled Hornbill Ceratogymna atrata: RS, f/c, forest in flocks of 4-6 (especially common along the lower Kénié River near Slovenia Bois sawmill).

Grey-throated Barbet Gymnobucco bonapartei: RS, u, forest and forest edge (Ngoubounga).

Speckled Tinkerbird *Pogoniulus scolopaceus*: RS, f, forest and edge of cultivation at Bayanga.

Red-rumped Tinkerbird Pogoniulus atroflavus RS, c, forest, clearings (Bai Deboué) and edge of cultivation at Bayanga.

Yellow-rumped Tinkerbird *Pogoniulus bilineatus*: RS, c, forest clearings and cultivation at Bayanga, where more common than *P. atroflavus*.

Yellow-spotted Barbet Buccanodon duchaillui: RS, u, canopy of primary forest.

Yellow-billed Barbet Trachyphonus purpuratus: RS, r, forest Oct 81 RWC; forest 16 May 89 AAG.

Lyre-tailed Honey-guide Melichneutes robustus: RS, u, forest.

African Piculet Sasia africana: RS, u, secondary growth in forest.

Green-backed Woodpecker Campethera caliliautii: RS, u, forest and edge of clearings (Bai Hokou, Bai Bakalonga).

Brown-eared Woodpecker Campethera caroli: RS, u, forest and clearings (Dzanga). Speckle-breasted Woodpecker Dendropicos poecilolaemus: ?, r, forest edge at Bayanga Jan 89 AAG.

Gabon Woodpecker Dendropicos gabonensis: ?, r, forest edge at Bai Mongoli 11 Mar 90 AAG.

Yellow-crested Woodpecker *Dendropicos xantholophus*: ?, r, female drumming near the watch-tower at Dzanga 28 Apr 89 AAG,

Elliot's Woodpecker Dendropicos ellioti: ?, r, forest in dry season in mid-80's RWC.

Barn Swallow Hirundo rustica: PM, c/a, Oct-Apr at clearings, villages, cultivation, and over the Sangha. Arrival Bayanga 30 Oct 88; departure early Apr 89 and 90. Comon Nov, abundant Dec-Mar (large flocks of 60 or more forming late Mar).

White-throated Blue Swallow Hirundo nigrita: RS, c, groups of 1-6 (usually pairs) along the Sangha: also uncommon on the Yobé River.

Wire-tailed Swallow Hirundo smithii: LM, r, flock at Bayanga Oct 81 RWC.

Rufous-chested Swallow Hirundo semirufa: RS, flc/a, uncommon in clearings (except frequent at Dzanga); common in villages and cultivation; abundant (>15) at Slovenia Bois sawmill.

Mosque Swallow Hirundo senegalensis: RS, c/f, uncommon in clearings (except frequent at Dzanga); common at Bayanga (two pairs) and villages.

Western Rough-wing Swallow Psalidoprocne pristoptera: LM, r, flock at Ngoubounga Nov 89 RWC.

Square-tailed Rough-wing Swallow Psalidoprocne nitens: RS, c, over forest streams and clearings, villages, and over the Sangha in flocks of 4-8.

Yellow Wagtail Motacilla flava: PM, a, Nov-Apr visitor to clearings, villages, and sandbars on the Sangha. Arrival at Bayanga 7 Nov 88, change to breeding dress Mar, and departure 15 Apr 89.

White Wagtail Motacilla alba: PM, r, dry season visitor to forest clearings RWC.

African Pied Wagtail Motacilla aguimp: LM, u, Jun-Aug visitor to villages.

Curly-crested Helmet-shrike *Prionops plumata*: ?, r, flock in shrub savanna Oct 81 RWC. Red-billed Shrike *Prionops caniceps*: RS, u, flocks of 4-8 in forest; once six at Bayanga.

Sabine's Puff-back Shrike Dryoscopus sabini: RS, u, forest canopy; Slovenia Bois sawmill 31 Oct 88.

Brown-crowned Tchagra Tchagra australis: ?, r, shrub savanna Oct 81 RWC.

Bell Shrike Laniarius ferrugineus: RS, f/c, secondary forest, forest edge, and at Bayanga (where heard calling daily). Also along the Bai Hokou track and at Bai Mongambi May-Jul.

Sooty Boubou Laniarius leucorhynchus: RS, u, forest Oct 81 RWC; Bai Bakalonga 31 Mar 89; dense undergrowth along the Babongo River Jun 89 AAG.

Eurasian Golden Oriole Oriolus oriolus: PM, r, dry season mid-80's at Bayanga RWC.

Western Black-headed Oriole Oriolus brachyrhynchus: RS, u, primary forest.

Black-winged Oriole Oriolus nigripennis: RS, u, forest near Bai Hokou.

Square-tailed Drongo Dicrurus ludwigii: RS, u, edge of clearings.

Shining Drongo Dicrurus atripennis: RS, u, primary forest.

Purple-headed Glossy Starling Lamprotornis purpureiceps: RS, f, small flocks in forest, clearings (Bai Hokou, Ngoubounga), and in cultivation at Bayanga.

Splendid Glossy Starling Lamprotornis splendidus: RS, f, forest edge and at Bayanga in groups of 2-5.

Yellow-billed Oxpecker Buphagus africanus: RS, u, on cattle in shrub savannas near Béya RWC.

Piaplac Ptilostomus afer: RS, u, in shrub savannas RWC.

Blue Cuckoo-Shrike Coracina azurea: forest and forest edge (Ngoubounga).

Purple-throated Cuckoo-Shrike Campephaga quiscalina: ?, r, one in a thicket at streamside at Bai Bakalonga 27 Jan 89 RWC.

Common Bulbul *Pycnonotus barbatus*: RS, a, forest, clearings, streamside and village. Vent colour varies from white to bright yellow.

Little Greenbul Andropadus virens: RS, u, near forest streams and swamp forest (lower Kénié River).

Spotted Greenbul Ixonotus guttatus: RS, u, forest; also flock in fruiting fig at Slovenia Bois sawmill 24 Jan 89.

Yellow-throated Leaflove Chlorocichla flavicollis: RS, r, one in a fruiting fig at Slovenia Bois sawmill 24 Jan 89.

White-tailed Greenbul Thescelocichia leucopleura: RS, u, near forest streams (Mongambi 1 Jul 89); also at fruiting fig at Slovenia Bois sawmill 24 Jan 89.

Leaflove Phyllastrephus scandens: RS, r, one in forest 27 Jan 89 RWC.

Xavier's or Icterine Greenbul *Phyllastrephus xavierilicterinus*: RS, u, several sightings in forest near Kénié River (near Bayanga) Jul-Aug 88 AAG.

Bristlebill Bleda syndactyla: ?, u, forest near Bai Hokou and along the Bai Hokou track.

White-bearded Bulbul Criniger calurus: RS, u, forest, often seen along the Bai Hokou track.

Whinchat Saxicola rubetra: PM, c, passage migrant in cultivation at Bayanga 17-28 Mar 89 and 12-30 Mar 90 AAG.

Sooty Ant-Chat Myrmecocichla nigra: RS, a, only in shrub savannas.

West African Thrush Turdus pelios: RS, f, bamboo thickets at Bayanga, riverbank of Sangha, forest clearings.

Black-cap Akalat Malacocincla cleaveri: RS, u, thick cover in forest.

Black-cap Babbler Turdoides reinwardii: ?, u, bamboo thickets and riverbank vegetation at Slovenia Bois sawmill May-Sep.

Sedge Warbler Acrocephalus schoenobaenus: PM, u, dry season visitor to marshes and swamps of forest clearings (Bai Bakalonga) RWC.

Chattering Cisticola Cisticola anonyma: RS, a, cultivation and forest clearings having tall grasses and sedges.

Tawny-flanked Prinia Prinia subflava: RS, u, cultivation and forest edge near Bayanga.

Banded Prinia Prinia bairdii: RS, u, abandoned cultivation and forest clearings.

Black-faced Warbler Bathmocercus cerviniventris: RS, u, undergrowth of swampy forest (Ngoubounga 27 Jan 89); abandoned cultivation.

Grey-backed Camaroptera Camaroptera brachyura: RS, r, a small flock in cultivation at Bayanga 1 Aug 88 AAG.

Green Crombec Sylvietta virens: RS, u, dense undergrowth at forest edge; streamside (Yobé River 12 Nov 88).

Spotted Flycatcher Muscicapa striata: PM, u, dry season visitor to forest edge at Bayanga; once at Ngoubounga 27 Jan 89 RWC.

Cassin's Grey Flycatcher Muscicapa cassini: RS, c, along forest streams and the Sangha, usually singly, on a branch out over water.

Yellow-footed Flycatcher Muscicapa sethsmithi: RS, u, primary forest near Bai Hokou, several observations.

Olivaceous Flycatcher Muscicapa olivascens: RS, r, one in dense forest near Ngoubounga 27 Jan 89 RWC.

Dusky Blue Flycatcher Muscicapa comitata: RS, u, secondary forest and edge of forest clearings (Bai Bakalonga 21 Mar 89).

Sooty Flycatcher Artomyias fuliginosa: RS, r, one in cultivation near Kénié River at Bayanga 1 Nov 88 AAG.

Grey Tit-Babbler Myioparus plumbeus: RS, r, open forest Oct 81 RWC; near edge of Sangha River at Bayanga dry season 89.

Fraser's Forest Flycatcher Fraseria ocreata: RS, u, in tall trees at forest clearings and in cultivation.

Black-and-white Flycatcher Bias musicus: RS, f, at Bayanga, Ndakan Camp, clearings, and in forest. Pair singing and defending territory late Oct to mid-Jan each year at Bayanga; nesting at Bai Hokou 21 Mar 89 RWC.

Scarlet-spectacled Wattle-eye *Platysteira cyanea*: RS, c, at Bayanga and Slovenia Bois sawmill.

Chestnut Wattle-eye Platysteira castanea: RS, u, forest near streams and near Ngoubounga (Oct, Nov, Jan, Mar, Apr).

Yellow-bellied Wattle-eye *Platysteira concreta*: RS, r, one at Ngoubounga dry season mid-80's RWC.

Chestnut-cap Flycatcher Erythrocercus mecallii: RS, r, a flock at Bai Hokou in mid-80's RWC.

Blue-headed Crested Flycatcher *Trochocercus nitens*: RS, u, forest undergrowth near clearings (Ngoubounga, Bai Hokou).

Dusky Crested Flycatcher *Trochocercus nigromitratus*: RS, r, one netted at Bai Hokou in primary forest 3 Jan 89 AAG.

Red-bellied Paradise Flycatcher Terpsiphone rufiventer: RS, u, secondary forest, along forest tracks, and in clearings.

Paradise Flycatcher Terpsiphone viridis: ?, u, Bayanga and in clearings, generally white-tailed specimens, but one blue phase at Ngoubounga 31 Mar 89.

Rufous-vented Paradise Flycatcher Terpsiphone batesi: RS, u, forest (not seen in clearings).

Dusky Tit Parus funereus: RS, u, forest; one in a fruiting fig at Slovenia Bois sawmill 24 Jan 89.

Collared Sunbird Anthreptes collaris: RS, u, forest, clearings, and a pair at Slovenia Bois sawmill 29 Jul 88.

Olive Sunbird Nectarinia olivacea: RS, u, forest clearings.

Olive-backed Sunbird Nectarinia verticalis: RS, r, a pair at Ngoubounga 31 Mar 89 RWC.

Green-throated Sunbird Nectarinia rubescens: RS, f, at Bayanga and Slovenia Bois sawmill.

Scarlet-chested Sunbird Nectarinia senegalensis: LM, r, bank of the Sangha at Bayanga in mid-80's, and at Bai Bakalonga 31 Mar 89 RWC.

Olive-bellied Sunbird Nectarinia chloropygia: RS, c, Bayanga and forest clearings. Nesting at Bayanga (fledglings Oct-Nov 88, and covering eggs Nov 89).

Splendid Sunbird Nectarinia coccinigaster: ?, r, Ngoubounga 31 Mar 89 RWC.

Grosbeak Weaver Amblyospiza albifrons: RS, a, large flock nesting in sedge marsh at Ngoubounga Jul-Oct each year.

Orange Weaver Placeus aurantius: RS, u, pairs in riverside vegetation at Slovenia Bois sawmill and at Bela sawmill (Cameroon) opposite Lidjombo, along the Sangha.

Village Weaver Ploceus cucultatus: RS, a, villages and cultivation; nesting activity

noted throughout the year.

Vieillot's Black Weaver *Ploceus nigerrimus*: RS, a, cultivation at Bayanga and Lidjombo; nesting Jul-Aug, and perhaps throughout the rainy season.

Compact Weaver *Ploceus superciliosus*: RS, r, a pair in riverside vegetation downstream of Slovenia Bojs sawmill 29 Apr 89 AAG.

Uganda Spectacled Weaver *Ploceus ocularis*: RS, u, forest clearings (Dzanga), cultivation (Mossapoula), and riverbank at Bayanga and at Bela Sawmill (Cameroon), across from Lidiombo (Jul 88 and Dec 89).

Grav's Malimbe Malimbus nitens: RS, r, streamside in forest Oct 81 RWC.

Red-headed Malimbe Malimbus rubricollis: RS, u, canopy of forest.

Crested Malimbe Malimbus malimbicus: RS, u, dense forest growth; nesting near Bai Bakalonga 21 Mar 89 RWC.

Chestnut-crowned Sparrow-Weaver Plocepasser superciliosus: RS, u, a pair at Slovenia Bois sawmili 1988-90.

Fire-crowned Bishop Euplectes hordeacus: RS, c, only in shrub savanna patches; in breeding plumage Jun-Nov.

Yellow-mantled Whydah Euplectes macrourus: RS, c, only in shrub savanna patches; in breeding plumage Jun-Nov.

Grey-headed Sparrow Passer griseus: RS, a, only at Béya and Monasaou villages in shrub savanna patches.

Pin-tailed Whydah Vidua macroura: RS, c/u, common in shrub sayannas (in breeding plumage Jun-Oct); uncommon in cultivation at Bayanga Jul-Sep 89 (not noted in 1988). Broad-tailed Paradise Whydah Vidua orientalis: ?, u/r, uncommon in shrub sayannas (in breeding plumage Sep-Feb); one record at Bayanga in dry season mid-80's RWC.

Grey-headed Negro-Finch Nigrita canicapilla: RS, f, at Bayanga and Slovenia Bois sawmill.

White-breasted Negro-Finch Nigrita fusconota: RS, u, Bayanga, Slovenia Bois sawmill and Kénié River.

Black-headed Waxbill Estrilda atricapilla: RS, a, forest clearings with tall grasses and sedges, cultivation, and Slovenia Bois sawmill.

Common Waxbill Estrilda astrild: RS, a, forest clearings with tall grasses and sedges, cultivation, Slovenia Bois sawmill, and shrub sayannas.

Blue-billed Mannikin Lonchura bicolor: RS, a, forest clearings, cultivation, Slovenia Bois sawmill.

Bronze Mannikin Lonchura cucullata: RS, a, only in cultivation at Béya and Monasaou villages in shrub savanna patches.