The birds of the Lesio-Louna and Lefini Reserves, Batéké Plateau, Republic of Congo

by Tony King

The Aspinall Foundation, Port Lympne Wild Animal Park, Hythe, Kent CT21 4PD, U.K. <tonyk@aspinallfoundation.org>

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Summary

This paper summarises all known information regarding the avifauna of the Lesio-Louna and Lefini Reserves of the Republic of Congo. Located in the Batéké Plateau region, the major habitats are open Loudetia grassland and lightly wooded Loudetia or Hyparrhenia grassland, with gallery and swamp forests along water-courses and patches of dry forest on higher ground. Observations and mist-netting were undertaken between 2002 and 2007, with 264 species recorded. One subspecies represents a new record for Congo: the intra-African migrant Pygmy Kingfisher Ceyx pietus natalensis, which occurs sympatrically with a resident subspecies. Fifty-nine species are newly published for the reserves, of which the most notable include White-crested Tiger Heron Tigriornis leucolophus (on nest), Black-breasted Snake Eagle Circaetus pectoralis, African Marsh Harrier Circus ranivorus, Chestnut-flanked Sparrowhawk Accipter castanilis, Wahlberg’s Eagle Aquila wahlbergi, Grey Kestrel Falco ardosiacus, Peregrine Falcon F. peregrinus, Bronze-winged Courser Rhinoptilus chalconotus, African Skimmer Rynchops flavirostris, Horus Swift Apus horus, Black-backed Barbet Lybius minor, Red-throated Cliff Swallow Hirundo rufigula, Orange-tufted Sunbird Cinnyris bouvieri, Holub’s Golden Weaver Ploceus xanthops and Zebra Waxbill Amandava subflava. These species additions bring the total of species known for the reserves to 317, which includes 74 Guineo-Congolian and five Zambezian biome species, reinforcing the categorisation of the Batéké Plateau as the northern limit of the Guinea-Congolian/Zambezian transition zone.

Résumé


**Introduction**

The Lesio-Louna and Lefini Reserves lie c. 140 km north of Brazzaville in the Republic of Congo (hereafter referred to as Congo) (Fig. 1). The two reserves form part of the Batéké Plateau, an area of rolling savanna and patchy forest extending from southeast Gabon across central Congo and extending into the Democratic Republic of Congo (hereafter referred to as DRC). This region is well-known amongst ornithologists for the unique diversity of its avifauna (Dowsett-Lemaire 1997a, 2001, Christy 2001), which may be attributed to the diversity of forest and grassland-woodland habitats in the area. These varied habitats support elements of both the Guinea-Congo forest biome and Zambezian (southern grassland/woodland) biome avifaunas (Fishpool & Evans 2001). The richness of the savanna avifauna of the Batéké Plateau was one of the principle reasons for the classification of the Lesio-Louna and Lefini Reserves of Congo (Dowsett-Lemaire 2001) and the Bombo-Lumene Game Reserve in DRC (Demey & Louette 2001) as “Important Bird Areas” (IBAs), and for the creation of the Batéké Plateau National Park (BPNP) in Gabon.

Despite the internationally recognised diversity and importance of the Batéké Plateau avifauna, in reality very little is known about it. The main reports available for Gabon give 267 species for the zone around Léconi, and 255 species for the BPNP (P.
Christy and T. King unpubl.). In Congo, Dowsett-Lemaire (1997a) gave a list of 240 species for the “Lefini Reserve”, in fact based primarily on a week-long visit to the Lesio-Louna Reserve, since when a further 16 species have been published (King et al. 2004, King 2007, 2008a, King & Chamberlan 2007, Rainey et al. 2009). King et al. (2004) also provided information on timing of moult amongst forest and savanna birds, based on a small mist-net survey during 2002.
The aim of this paper is to summarise all known information regarding the avifauna of the Lesio-Louna and Lefini Reserves in Congo, including records of another 59 species newly published for the reserves, with notes on seasonality, breeding, moult and morphological measurements collected during the period 2002–7.

Study sites

The Lefini Reserve was created in 1951, covering c. 400,000 ha, and was enlarged to 630,000 ha in 1963, to include a large area east of the previous limits, stretching to the Congo River (Fig. 1). The Lesio-Louna Reserve is an area of 44,000 ha adjacent to the eastern boundary of the southwest portion of the Lefini Reserve (Fig. 1), created in 1993 through an agreement between The Aspinall Foundation of the U.K. and the Ministry of Forest Economy of the government of Congo, as a sanctuary for the reintroduction of gorillas orphaned by the illegal bush-meat trade. It was upgraded to a Natural Reserve by Presidential Decree in 1999.

The two reserves range from 300 m to 750 m in altitude. The major habitats are open Loudetia grassland and lightly wooded Loudetia or, especially on the remaining plateaus and in damp valley bottoms, Hyparrhenia grassland, with gallery and swamp forests along the water-courses and some patches of dry forest on higher ground (Fig. 2, on p. 9; Dowsett-Lemaire 1997a, King et al. 2004). Much of the wooded grassland is dominated by Hymenocardia acida, while other woody species present include Annona senegalensis, Bridelia ferruginea, Gardenia ternifolia, Syzygium guineense var. macrocarpum, Maprounea africana, Chaetocarpus africanus, Nauclea latifolia, Strychnos spp., Vitex spp. and Albizia adianthifolia. Xylopia spp., Raphia sp. and Uapaca spp. are amongst the dominant species of gallery and swamp forest, while dry mixed forest is often characterised by Piptadeniastrum africanum. The reserves support a mix of forest and savanna mammals (King 2008b, King & Dallimer 2010).

The climate of the reserves is similar to that elsewhere on the plateau, with a dry season from late May to September, the heaviest rains in October–November and March–April, with a drier period around January–February (Dowsett-Lemaire 1997a). Rainfall and temperature were measured from June to mid-December 2002 at Iboubikro (the base camp for the Lesio-Louna Reserve; summary in King et al. 2004), and then rainfall was measured from July 2005 onwards at both Iboubikro and the Confluent camp (at the confluence of the Louna and Lefini rivers in the Lefini Reserve) (Fig. 3). A long dry season in 2005, with no rain at all in August and the first big rains of the wet season on 20 September, resulted in savanna fires burning further into forest areas than normal. The year 2006 showed a surprisingly large difference in rainfall between the two sites, with Iboubikro receiving a relatively high 2013 mm, and the Confluent camp 1483 mm. By totalling the mean monthly rainfall for all available data from 2002 to 2006, an average annual rainfall for the two reserves can be estimated as 1660 mm.
Methods

Observations were made in the two reserves from February 2002 to April 2007, principally in areas close to the main camps of the Lesio-Louna management project, particularly Iboubikro, Camp des ecogardes, Confluent camp, Abio, Ngondoro and Mt Blanc (Fig. 1), and the vehicle and river access routes between them. Observations included species, maximum group size noted (1, 2, 3–9, 10–29, 30–99, 100+), evidence of breeding (breeding or non-breeding plumage, on nest, feeding juveniles, carrying nest material etc.) and any other notable information.

Mist-netting was carried out only in the Lesio-Louna Reserve, in 2002 (results summarised in King et al. 2004), very briefly in 2003, then again from late 2005 to early 2007. Most netting was carried out close to Iboubikro (named “Base-Vie” in King et al. 2004), and the nearby sites of Camp des ecogardes and Idzoua Inkou (Fig. 1). In 2002 (and briefly in 2003), netting was also carried out at Ngondoro, and briefly at Lac Bleu. Habitats surveyed included gallery forest interior, forest–savanna transition, and lightly wooded savanna. Generally, 3–5 nets (6 x 2.5 m, 38 mm mesh) were set at a time, almost always at 0.5–5 m from the ground. Birds captured were identified (and sexed and aged by plumage characters if possible) using Borrow & Demey (2001). Mass was measured using spring balances to the nearest 1 g, except heavy birds where stated to the nearest 5 g. Wing length was measured to the nearest mm, using a wing-rule and flattening the primaries gently against the rule (following Svensson 1992). Tail length was measured with the reverse side of the wing-rule, to the base of the tail feathers above the under tail-coverts (unless otherwise stated). Other measurements were taken using a pair of dial callipers, such as bill length to feathering, bill length to skull, tarsus, body length and total length, but are not presented in this paper. Notes on brood patch were recorded from November 2005 onwards. Moult of flight and tail feathers was noted throughout the sampling period. Each flight and tail feather was
assessed, and a bird was recorded as being in moult if at least one primary feather was either growing or still had a sheath. Birds were marked with a water-based pen on the underside of the wings, to allow identification of recaptured birds for up to several weeks after capture (the longest recorded time between captures being 16 weeks). Sequence and nomenclature follow Borrow & Demey (2001), with some corrections based on Borrow & Demey (2004). Subspecific identifications are given when determined, as the habitat is atypical of the central African region as a whole and therefore range assumptions based on geographic locality can be unreliable. Brief notes are given on distribution, habitat types, seasonality and breeding, plus a summary of information from netted birds (638 netted birds representing 86 species). Measurements are given in mm, except mass which is in g; measurements of four or more birds are summarised as range (mean ± standard deviation).

All observations are by the author except where otherwise referenced; other information is only included when it adds to an understanding of the species’ status, and is always referenced. All species known from the reserves are included; those not recorded by the author are placed in square brackets, and those newly published for the reserves are marked with an asterisk (i.e. species not included in Dowsett-Lemaire 1997a, King et al. 2004, King 2007, 2008a, King & Chamberlan 2007, or Rainey et al. 2009). Photographs of many species are online at <http://carpe.umd.edu/resources/Documents/King_2009_PhotoGuide_oiseaux_birds.pdf/view> or on request to the author.

Status is assessed as: R = resident, M = intra-African migrant, P = Palaearctic migrant, V = rare visitor. An assessment of abundance is given for resident species using the following scale: Abundant (> 10 may be seen or heard in suitable habitat per day), Common (1–10 may be seen or heard in suitable habitat per day), Frequent (often seen but not every day), Uncommon (several records per year), Rare (one record per several years). Site locations are given in Fig. 1 and Table 1.

Results

**Podicipedidae**

*Tachybaptus ruficollis* Little Grebe. R. Singles or pairs at Iboubikro seasonal ponds Oct–Nov, Jan–Feb (2004, 2005) and Lac Bleu Nov (2006); small groups at Lac Bleu Jul 2004 (five birds), Jul 2005 (seven); breeding plumage Nov.

**Anhingidae**


**Ardeidae**

*Ixobrychus m. minutus* Little Bittern. P. One photographed in riverside vegetation at Etsotso on the Louna River, 8 Jan 2007. Also one immature in a marsh in the Lesio-Louna, Nov (Dowsett-Lemaire 1997a).
Table 1. Gazetteer of locations in or near the Lesio-Louna and southwest Lefini Reserves mentioned in the text.

<table>
<thead>
<tr>
<th>Location</th>
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<tr>
<td>Abio camp</td>
<td>3° 6’</td>
<td>15° 31’</td>
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<tr>
<td>Abio island</td>
<td>3° 8’</td>
<td>15° 31’</td>
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<tr>
<td>Camp des ecogardes</td>
<td>3° 16’</td>
<td>15° 29’</td>
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<tr>
<td>Confluent camp (Lefini-Louna confluence)</td>
<td>2° 59’</td>
<td>15° 30’</td>
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<td>Dziba</td>
<td>3° 25’</td>
<td>15° 19’</td>
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<td>Ekassaka</td>
<td>3° 1’</td>
<td>15° 28’</td>
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<td>Epopé</td>
<td>3° 1’</td>
<td>15° 27’</td>
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<tr>
<td>Etsotso</td>
<td>3° 2’</td>
<td>15° 29’</td>
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<td>Iboubikro</td>
<td>3° 16’</td>
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<td>Idzoua Inkou</td>
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<td>Kiani</td>
<td>3° 13’</td>
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<td>Lac Bleu</td>
<td>3° 19’</td>
<td>15° 29’</td>
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<td>Lac Sampion</td>
<td>3° 14’</td>
<td>15° 30’</td>
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<tr>
<td>Loubilika-Lefini confluence</td>
<td>3° 2’</td>
<td>15° 16’</td>
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<td>Mâh</td>
<td>3° 21’</td>
<td>15° 30’</td>
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<td>Mbouambé</td>
<td>2° 55’</td>
<td>15° 38’</td>
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<td>Mpoumako</td>
<td>3° 7’</td>
<td>15° 37’</td>
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<tr>
<td>Mt Abio</td>
<td>3° 2’</td>
<td>15° 30’</td>
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<tr>
<td>Mt Blanc (near Mâh)</td>
<td>3° 20’</td>
<td>15° 29’</td>
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<tr>
<td>Mt Epopé</td>
<td>3° 1’</td>
<td>15° 27’</td>
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<td>Mt Ngaka</td>
<td>3° 15’</td>
<td>15° 26’</td>
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<td>Ngondoro</td>
<td>3° 12’</td>
<td>15° 31’</td>
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<td>Port Albert</td>
<td>3° 10’</td>
<td>15° 32’</td>
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*Tigriornis leucolophus* White-crested Tiger Heron. R. Rare. One on a nest consisting of a few twigs on a fork in a small branch overhanging the Louna River (Fig. 4), c. 3 m above river, near Abio, Oct–Nov 2006, first observed 17 Oct. A single chick hatched 19 Nov (N. Ngoulou pers. comm.). The first record for the Batéké Plateau.


*Bubulcus ibis* Cattle Egret. R. Widespread, frequent. Breeding plumage Nov.

Egretta garzetta Little Egret. P. Singles observed twice, Nov, Dec, Iboubikro ponds and Confluent camp.


*Scopidae*

*Scopus umbretta* Hamerkop. R. Singles or pairs all year along Louna River and at Iboubikro ponds; groups of 3–5, Jul–Oct. Common on Louna River, less so on Lefini River, confirming preference for open rather than forested habitats (Brown *et al.* 1982).

*Ciconiidae*

*Ciconia abdimii* Abdim’s Stork. M. Large migratory flocks, sometimes of thousands of birds, Feb–May (earliest 6 Feb 2007; latest 14 May 2005), especially along Louna and Lefini rivers.


*C. ciconia* White Stork. V. Two birds in freshly burnt grassland half-way up the escarpment of Epopé, along the Lefini River, 21 Dec 2004 (Rainey *et al.* 2009). First record for Batéké Plateau, the second for Congo (Mokoko Ikonga & Bokandza-Paco 2001, Rainey *et al.* 2009).

*Threskiornithidae*

*Bostrychia rara* Spot-breasted Ibis. R. Frequently heard at dawn and dusk flying over gallery forests.

*Anatidae*

*Pteronetta hartlaubii* Hartlaub’s Duck. R/V? One flushed along Lefini River c. 3 km west of the confluence with the Louna, 15 Oct 2003.


*Pandionidae*


*Accipitridae*

Figure 2. Views of the Lesio-Louna and Lefini Reserves: (a) Lefini gallery forest looking southeast from Mt Epopé; (b) Louna gallery forest looking north from Mt Ngaka towards Mt Abio; (c) *Loudetia* grassland with scattered *Hymenocardia acida* trees near Mt Epopé; (d) *Loudetia* grassland between Mpoumako and Abio; (e) seasonal ponds at Iboubikro; (f) cliff forests near Mâh from ridge above Lac Bleu. Photos: (a) A. Sully, (b–e) T. King, (f) P. King.

Figure 4. White-crested Tiger Heron on nest overhanging the Louna river, near Abio island, 2006. Photo: T. King.


*Elanus caeruleus* Black-shouldered Kite. R. Singles frequently observed Sep–Mar, especially on Mâh plateau.

*Milvus migrans* Black Kite. R/M? Frequent. Widespread, singly or in small groups, all year (except May, Nov–Dec).


dead tree in Lesio gallery forest to investigate holes of a colony of Sladen’s Barbets, Nov 2006.


*C. ranivorus* African Marsh Harrier. R/V? Singly at Mt Blanc marsh, 5 and 7 Jan 2006. Barred tail and rufous rump clearly seen. First record for Batéké Plateau, known in Congo only from the southwest (Loudima: Dowsett & Dowsett-Lemaire 1989) and the north (Odzala, one pair passing in Feb: Dowsett-Lemaire 1997b).

*C. aeruginosus* Eurasian Marsh Harrier. P. Singles observed four times, two males and two females, at Mt Blanc marsh, Confluent camp, Abio and Etsotso marsh, 13 Jan
and 2 Dec 2004, 6 and 8 Feb 2007. Already recorded from the southwest (Kouilou region: Dowsett-Lemaire et al. 1993) and north (Odzala and Nouabalé-Ndoki: Dowsett-Lemaire 1997b, 1997c) of the country.


*A. castanilius* Chestnut-flanked Sparrowhawk. R? One flying low over *Hymenocardia acida* trees in grassland between two gallery forest patches of the Lefini River, mobbed by Lesser Striped Swallows, 29 Dec 2003. Few records from Congo, known from the southwest (Goumina: Dowsett-Lemaire et al. 1993) and north (Odzala: Dowsett-Lemaire 1997b), while the closest record is probably Loukolela on the Congo River in DRC (Chapin 1932).


*Buteo auguralis* Red-necked Buzzard. R. Frequent. Singles or pairs throughout, all year. In moult Feb.

[Aquila rapax* Tawny Eagle. R. Breeding resident (Dowsett-Lemaire 1997a).]

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Figure 7. Finsch’s Francolin, Lesio-Louna Reserve, Mar 2006. Photo: T. King.
*A. wahlbergi* Wahlberg’s Eagle. M. One soaring above Louna River near Abio island, 31 Mar 2007 (Fig. 5): distinctive silhouette unmistakeable. Few records in Congo. Satellite tracking demonstrated that a female of this species tagged in Namibia passed over Congo on both legs of her annual migration, in Apr and Aug 1994 (Meyburg *et al.* 1995), and an immature was seen in Odzala, 17 Aug 1994 (Dowsett-Lemaire & Dowsett 1998).

*[Lophaetus occipitalis* Long-crested Eagle. R? Forest (Dowsett-Lemaire 1997a).]


**Falconidae**

*Falco tinnunculus* Common Kestrel. R (and P?). Frequent. Singles and pairs in grassland and around rocky escarpments throughout, all year except May–Jun. Group of three Aug. The resident subspecies is richly coloured and thought to be *rupicolus* (Dowsett-Lemaire & Dowsett 1998). One bird perched in a savanna tree along the track between Mpoumako and Abio, 11 Mar 2007, appeared to have a plain (not barred) grey tail, and may have been of the Palaearctic race *F. t. tinnunculus*, which is not yet confirmed for Congo but of which a specimen was collected in Kinshasa, DRC (Malbrant & Maclatchy 1949).


*F. peregrinus* Peregrine Falcon. R? One juvenile photographed at dusk at Confluent camp, 6 Feb 2007 (Fig. 6). The colours of the underparts and head (with apparent rufous nape) indicate the resident ssp. *minor*, while the highly vocal behaviour also suggests a local bird (D. Forsman *in litt*.). No resident populations previously reported in Congo, but considered resident in the Batéké Plateau in Gabon (Borrow & Demey 2001).

**Phasianidae**

*Francolinus finschi* Finsch’s Francolin. R. Frequent. Singles or pairs in Loudetia grassland, particularly on both tracks towards Mâh from Iboubikro, but also Mpoumako–Abio region and Camp des écogardes (Fig. 7). Dowsett-Lemaire (1997a) estimated the species density in open Loudetia grassland at c. 1 pair/km².

*[F. squamatus* Scaly Francolin. R. Forest and thickets (Dowsett-Lemaire 1997a).]


**Numididae**

*[Guttera pucherani* Crested Guineafowl. R. Forest (Dowsett-Lemaire 1997a).]

**Turnicidae**

*Turnix sylvatica* Little Buttonquail. R? Frequent in grassland.


**Rallidae**

*[Sarothrura pulchra]* White-spotted Flufftail. R. Gallery forest (Dowsett-Lemaire 1997a).


*Crex egregia* African Crake. R/M? Frequent. Singles and pairs, especially in rank grassland along roads on plateau, Nov–May.


**Heliornithidae**

*Podica senegalensis* African Finfoot. R. Frequent. Singles all year, Louna River. Also on Lefini and Lesio rivers.

**Otididae**

*Eupodotis senegalensis* White-bellied Bustard. R. Common. Singles, pairs and small groups (usually 3–4) in grassland all year, especially Mpoumako to Abio. Small chicks Sep 2005. Side-striped Jackals *Canis adustus* often observed near family groups, probably hunting young birds.

*E. melanogaster* Black-bellied Bustard. R. Frequent. Singles and pairs in grassland all year (except May–Jun).

**Jacanidae**


**Glareolidae**

*Cursorius temminckii* Temminck’s Courser. R/M? Frequent. Singles, pairs and groups (< 10) in grassland, often in recently burnt areas, Apr–Nov.


**Charadriidae**

*Vanellus lugubris* Lesser Black-winged Lapwing. R (and M?). Frequent. Grassland throughout. Singles and pairs all year; flocks (7–20), Dec–Apr.

**Scolopacidae**


**Rynchopidae**


**Columbidae**


[Oena capensis Namaqua Dove. V. One male, Sep (Dowsett-Lemaire 1997a).]


*Streptopelia semitorquata* Red-eyed Dove. R. Common. Singles, pairs and groups in wooded grassland and forest edges throughout, all year. One adult netted Jan 2006, in primary moult: mass 220; wing 180; tail 125.


**Psittacidae**

*Psittacus erithacus* Grey Parrot. R. Common. Singles, pairs, flocks up to 60, all year, in forest throughout, but especially Lefini River.


**Musophagidae**

*Corythaëola cristata* Great Blue Turaco. R. Uncommon. Singles or pairs in gallery forest along Louna, Lefini and Loubilika rivers, and at Lac Bleu. Pair Apr.
**Tauraco persa** Green Turaco. R. Frequent. Heard in forest throughout, seen occasionally, mainly along Louna river. Small group Nov.


**Cuculidae**

**Oxylophus levaillantii** Levaillant’s Cuckoo. M? Three singles, gallery forest and forest edge at Lefini River, hill above Lac Bleu and Camp des ecogardes, Jul, Sep, Dec.

**Cuculus solitarius** Red-chested Cuckoo. R. Singing in forest throughout, Sep–Mar.


**C. gularis** African Cuckoo. R/M? Two in wooded grassland, Jul, Nov.

*Cercococcyx meehowi* Dusky Long-tailed Cuckoo. R. Forest (Dowsett-Lemaire 1997a).


**Chrysococcyx cupreus** African Emerald Cuckoo. R. Singing in forest throughout, Aug–Feb.

*C. klaas* Klaas’s Cuckoo. R. Forest (Dowsett-Lemaire 1997a).

*C. caprius* Didric Cuckoo. R. Six singles in wooded grassland, Jan, Mar, Sep–Nov–Dec. Two males and two females netted, male in primary moult Nov: mass (m) 26, 32, (f) 36, 39; wing (m) 106, 112, (f) 114, 119; tail (m) 77, 77, (f) 80, 83. The two males showed great variation in the amount of white in the plumage (Fig. 8).

**Ceuthmochares aereus** Yellowbill. R. Frequent. Singles and pairs in forest or forest edge throughout, Mar, May, Sep–Oct, Dec.

**Centropus anselli** Gabon Coucal. R. Uncommon. Four singles in forest or forest edge, Iboubikro and Louna River, Jan, Mar, Oct.


**C. senegalensis** Senegal Coucal. R. Frequent. Singles in wooded grassland and forest edges throughout, although no observations May–Aug.

*C. monachus* Blue-headed Coucal. R? One juvenile at Iboubikro ponds, 3 Jul 2005. It was small for a coucal, with black tail, rufous back, streaky brown head and pale dirty white throat. First record for Batéké Plateau, although widespread in southern Congo (Dowsett & Dowsett-Lemaire 1989).

**Tytonidae**


**Strigidae**


**Bubo africanus** Spotted Eagle Owl. R. Pair at Idzoua Inkou, 1 Mar 2004.

*Scotopelia peli* Pel’s Fishing Owl. R. Forested rivers (Dowsett-Lemaire 1997a).

*S. bouvieri* Vermiculated Fishing Owl. R. Swamp forest (Dowsett-Lemaire 1997a).

Caprimulgidae

*Caprimulgus natalensis* Swamp Nightjar. R. Abundant in grassland throughout. Three netted in 2002; mass (to nearest 5 g) 50, 50, 50; wing 141, 142, 142; tail 87, 88, 92. Smaller than measurements given in Fry et al. (1988) for *C. n. natalensis*, although they note that “Gabon birds are small”.


[C. *pectoralis* Fiery-necked Nightjar. R. Forest edges and ponds (Dowsett-Lemaire 1997a).]


Apodidae

*Cypsiurus parvus* African Palm Swift. R. Common. Singles, pairs and small groups throughout, all year.

*Apus* *apus* Common Swift. P. Large flocks throughout, Sep–Mar; earliest 20 Sep, latest 29 Mar.


*A. affinis* Little Swift. R. Large breeding colony at bridge over Lefini River in Mboouambé, on nest Feb; small numbers observed throughout reserves.

Coliidae

*Colius striatus* Speckled Mousebird. R. Small groups common around Mâh.

Trogonidae

[Apaloderma *narina* Narina’s Trogon. R. Forest (Dowsett-Lemaire 1997a).]

Alcedinidae

*Halcyon* *badia* Chocolate-backed Kingfisher. R. One in forest at Iboubikro, 8 Apr 2006.

*H. albiventris* Brown-hooded Kingfisher. R. Frequent. Singles in wooded grassland and forest clearings at Mt Blanc, Idzoua Inkou, Ekassaka, Confluent, and plateau near Mpoumako, Jan–Feb, Nov.

*H. leucocephala pallidiventris* Grey-headed Kingfisher. M. Singles in wooded grassland throughout, including Iboubikro camp, Idzoua Inkou, Mt Blanc, Etsotsso. Of the 18 observations, 17 were during the period mid-Apr to early Aug, the other in Dec. Photos from Apr, May and Aug are clearly of the southern race *pallidiventris*, which has been reported as a non-breeding visitor in S Congo (Borrow & Demey 2001). No photo or description is available for the one observation in Dec 2005 at Idzoua Inkou.

*H. m. malimbica* Blue-breasted Kingfisher. R. Common. Calling in forest throughout, Oct–Apr. Three netted: mass (to nearest 5 g) 75, 80, 85; wing 106, 115, 117; tail 70, 79, 79.

**H. c. chelicuti** Striped Kingfisher. R. Frequent in wooded grassland in Lesio-Louna and on Mâh plateau. Singles all year except Apr–Jun; pair Dec.

**Ceyx lecontei** African Dwarf Kingfisher. R. One at Iboubikro ponds, 2 Dec 2006.

**C. pictus** African Pygmy Kingfisher. R and M. Common. Mostly the resident ssp. ferruginus or pictus, but also the migratory southern African natalensis (Fry et al. 1988). Forest edges throughout, including Iboubikro, Idzoua Inkou, Mt Blanc, Confluent. Singles all year; pairs Feb, Nov. Hunting dragonflies Feb. Sixteen C. p. ferruginus or pictus netted (all Aug–Feb, see Fig. 9 left): primary moult Dec; active brood patch Oct; juvenile Oct. Fifteen adults: mass 11–14 (12.3 ± 0.9); wing 50–54 (52.3 ± 1.4); tail 22–26 (24.9 ± 1.0); one juvenile (dark bill): mass 14; wing 54; tail 25. Four recaptured (including one twice), maximum distance c. 600 m. One C. p. natalensis netted (Fig. 9 right), identified by blue spot above the white blaze on side of neck, orange superciliary stripe broad at the rear, and deep bill (C.H. Fry, in litt.), apparently a young bird as it had dark markings at the base of its bill, 16 May 2006: wing 55 (longer than the C. p. ferruginus/pictus); mass 12; tail 23. First record of this subspecies in Congo.

**Alcedo leucogaster** White-bellied Kingfisher. R. Swamp forest (Dowsett-Lemaire 1997a).

**A. c. cristata** Malachite Kingfisher. R. Uncommon. One perched by ox-bow lake behind Abio camp, 8 Dec 2006; one at puddles in road along the northern limit of the Lefini Reserve, Feb 2007.

**A. quadribachys guentheri** Shining-blue Kingfisher. R. Frequent. Lefini, Louna and Lesio rivers, Iboubikro ponds; singles throughout year. One male netted, 4 Nov 2005: mass 32; wing 79; tail 36; recaptured seven weeks later, same net.

**Megaceryle maxima** Giant Kingfisher. R. Singles and pairs, all year. Common along Lefini and Louna rivers, also Louibilika River and Iboubikro ponds.


**Meropidae**

**Merops breweri** Black-headed Bee-eater. R. Frequent. Singles and pairs all year. Small groups Feb, Jun, Nov. Forest edges, Louna and Lefini rivers, Iboubikro.

**M. gularis australis** Black Bee-eater. R. Frequent. Singles and pairs all year. Small groups Jan, Apr. Forest edges, Lefini, Louna and Lesio rivers, Iboubikro. Often at sandbank at Camp des ecogardes, Aug (nesting?). One netted, Jun 2002: mass 33; wing 99; tail 75. The large size of the netted bird confirmed the subspecific identity, with a distinct but ill-defined green superciliary stripe (Fig. 10), as Chapin (1939)
noted to occur occasionally in this subspecies. Recent texts claim the head of *australis* to be all black, except in W Africa towards the boundary of the subspecific limit with nominate *gularis*, which exhibits a clear blue supercilium (Fry *et al.* 1988, Hoyo *et al.* 2001, Borrow & Demey 2001).

*M. pusillus meridionalis* Little Bee-eater. R. Frequent in grassland from Iboubikro to Mâh. Singles and pairs all year, small groups Jan, May–Jun, Dec, juveniles Nov–Jan. Netted three adults, one in primary moult Nov, one with possible active brood patch Aug, and one juvenile in primary moult, Dec: mass 13, 15, 15 (ad), 14 (juv); wing 78, 78, 79 (ad), 78 (juv); tail 59, 61, 62 (ad), 63 (juv).

*M. v. variegatus* Blue-breasted Bee-eater. R. Common in grassland throughout, including Iboubikro to Mâh, Ngondoro, Abio, Etsotso, all year. Small groups all year except Mar–May; juveniles Nov–Jan. Eight adults netted: mass 18–21 (20.1 ± 1.1); wing 80–86 (82.9 ± 2.6); tail 59–64 (61.6 ± 1.9); possible brood patch Aug. Smaller than measurements in Fry *et al.* (1988) for ssp. *bangweoloensis*, and by Chapin (1939) for ssp. *loringi*.

*M. albicollis* White-throated Bee-eater. M. Flocks up to 30, occasionally more, in wooded grassland and forest edges throughout, Nov–Apr; earliest 7 Nov 2006, latest 2 Apr 2007. One adult in primary moult netted, 2 Dec 2005: mass 23; wing 95; tail 76.

[M. persicus* Blue-cheeked Bee-eater. P/V. One observation, Feb (Dowsett-Lemaire 1997a).]

*M. apiaster* European Bee-eater. P. Flocks up to 100 in wooded grassland and forest edges throughout, Sep–Apr; earliest 26 Sep 2006, latest 3 Apr 2007.


**Coraciidae**


*C. c. caudatus* Lilac-breasted Roller. R. Frequent. Singly or in pairs in wooded grassland between Mpieri forest (just west of Idzoua Inkou) and Mâh, and between Mpoumako and Abio, all year. Pair copulating Aug.


*E. glaucurus* Broad-billed Roller. R (and M?). Common. Singles and small groups all year in wooded grassland and forest edges throughout. Large flocks Dec–Jan.

**Phoeniculidae**


**Upupidae**

*Upupa epops* Hoopoe. M? Seven observations, singly or in groups of 3–5, in wooded grassland between Camp des ecogardes and Mâh, and between Mpoumako and Abio, 21 Sep to 14 Oct 2006. Otherwise only a single undated observation in 2002.
Bucerotidae
[Tropicranus albocristatus White-crested Hornbill. R? Forest (Dowsett-Lemaire 1997a).]

*Tockus fasciatus African Pied Hornbill. R. Common and conspicuous in gallery forest throughout. Singles, pairs and small groups all year. Carrying nest material Feb.
*Bycanistes fistulator sharpii Piping Hornbill. R. Frequent in gallery forest along Lefini and Louna rivers, also Iboubikro and Idzoua Inkou. Singles, pairs and small groups all year. Large flocks Feb (seven pairs), Jul (nine birds), Dec (11 birds).

Bucerotidae

Capitonidae


Pogoniulus scolopaceus flavisquamatus Speckled Tinkerbird. R. Common. Forest edges throughout. Singles all year, pairs Jun, Dec. Five netted, primary moult Nov–Jan, possible active brood patch Dec–Jan: mass 15–17 (15.8 ± 0.8); wing 57–60 (57.8 ± 1.3); tail 31–34 (33.2 ± 1.3). One recaptured four weeks later, close to original net.


P. subsulphureus flavimentum Yellow-throated Tinkerbird. R. Common. Forest edges throughout. Singles all year, pairs Jun, Oct, Dec. Observed feeding on small flying termites. Twelve netted (including at least 1 juvenile, Oct): mass 8–10 (9.3 ± 0.7); wing 47–52 (48.8 ± 1.5); tail 22–24 (22.6 ± 0.8, n = 10).


Tricholaema hirsuta Hairy-breasted Barbet. R. Uncommon. Camp des ecogardes and Iboubikro camp (King 2008a). Apparently intermediate between race ansorgii and either flavipunctata or angolensis (King 2008a).

T. frontata Miombo Pied Barbet. R. Wooded grassland at Idzoua Inkou, Jul 2005 to May 2006 (King & Chamberlan 2007). Feeding nestlings in a hole in a dead branch of


**Indicatoridae**

*I. indicator* Greater Honeyguide. R? An adult male on the trunk of a dead tree in a burnt area of gallery forest at the confluence of the Lefini and Louna rivers, 21 Jan 2004. Few records in Congo, only from the coast (Dowsett-Lemaire *et al.* 1993), although known from the Batéké Plateau in Gabon (Borrow & Demey 2001).


**Picidae**

*Jynx ruficollis* Red-throated Wryneck. R? Open wooded grassland (Dowsett-Lemaire 1997a).]

*Campethera cailliautii permista* Green-backed Woodpecker. R. Frequent. Singles and pairs in forest edge, Ngondoro and Iboubikro. One female (in primary moult Oct) and two males netted: mass (m) 43, 46, (f) 48; wing (m) 92, 98, (f) 97; tail (m) 54, 57, (f) 63.

*C. n. nivosa* Buff-spotted Woodpecker. R. Two netted in forest and forest edge: one male, 19 Dec 2005, one female with active brood patch, 7 Oct 2006: mass (m) 35, (f) 38; wing (m) 82, (f) 90; tail (m) 42, (f) 45.


*D. elliotii* Elliot’s Woodpecker. V? One in gallery forest, Iboubikro, 12 Dec 2002 (King *et al.* 2004).]

**Alaudidae**

*Mirafracia africana* Rufous-naped Lark. R. *Loudetia* grassland (Dowsett-Lemaire 1997a).]

*M. rufocinnamomea* Flappet Lark. R. Abundant. Conspicuous display flight common above grassland throughout, including Mt Blanc, all year. One netted: mass 29; wing 79; tail 52.

**Hirundinidae**

*Psalidoprocne nitens* Square-tailed Saw-wing. R. Forest (Dowsett-Lemaire 1997a).]

*P. pristoptera* Black Saw-wing. R. Frequent. Singles, pairs and small groups at Mt Blanc, Confluent, Lac Bleu and Epopé, especially Nov–Apr, also Jun, Sep.

*Phedina brazzae* Brazza’s Martin. V. One along wooded grassland ridge above Lac Bleu, 20 Jun 2005 (King 2007).
**Riparia cincta** Banded Martin. R. Abundant. Singles, pairs and small groups over grassland throughout, all year. Flock of \( \geq 12 \), Dec. Carrying nest materials, Mt Blanc, Nov. Visiting holes in large sand bank along Louna River, Nov.


*H. rufigula* Red-throated Cliff Swallow. M? Large flocks in various grassland habitats at Ngondoro, 8–9 Jan 2004, associated with other swallows and swifts. A huge flock of hundreds or even thousands in moist grassland south of Abio along the Louna River, 6 Dec 2006; two at Mt Abio the next day. Apparently expanding northwards (Borrow & Demey 2001), and recorded from coastal Congo (Dowsett & Dowsett-Lemaire 1989) and central and southeast Gabon (Borrow & Demey 2001).


**H. rustica** Barn Swallow. P. Uncommon, only seven observations in the reserves. Usually singly, Nov–Dec, Apr; latest 3 Apr 2007. Abundant elsewhere on Batéké Plateau in both Congo and Gabon, Feb 2007 (pers. obs.).


**Motacillidae**


*[Anthus cinnamomeus* Grassland Pipit. R? Local (Dowsett-Lemaire 1997a, as *A. richardi*).]*

**A. nyassae** Woodland Pipit. R. Common, wooded grassland.

**A. leucophras** Plain-backed Pipit. R. Common, Ngondoro, Lac Bleu.


*[A. brachyurus* Short-tailed Pipit. R. Short grassland (Dowsett-Lemaire 1997a).]*

**Macronyx croceus** Yellow-throated Longclaw. R. Common. Grassland throughout. Singles and pairs all year; groups of three Mar, Nov. Carrying nest material Jan, Feb.

**Pycnonotidae**

**Andropadus virens** Little Greenbul. R. Abundant in forest throughout, all year. Small groups Jun–Jul, Nov. Of 164 netted: active brood patch Dec; primary moult all year but especially Oct–Feb; juveniles Oct–Dec, Mar–Jun. Adults: mass 20–30 (24.7 ± 1.8,
n = 130); wing 69–84 (76.8 ± 2.9, n = 130); tail 62–77 (70.7 ± 3.1, n = 128). Juveniles and immatures: mass 19–26 (23.6 ± 1.9, n = 34); wing 70–80 (75.0 ± 2.6, n = 34); tail 63–75 (70.0 ± 2.7, n = 32).


*C. flavicollis Yellow-throated Leaflove. R. Gallery forest and thickets (Dowsett-Lemaire 1997a).*


[C. flavicollis Yellow-throated Leaflove. R. Gallery forest and thickets (Dowsett-Lemaire 1997a).]

* Thesecelocichla leucopleura Swamp Palm Bulbul. R. Common. Small, vocal groups in gallery forest along Lefini and Louna rivers, and Ngondoro, all year. Carrying nest material Jan. Three netted at Ngondoro, 2002: mass (to nearest 5 g) 50, 50, 55; wing 100, 109, 112; tail 97, 102, 105.

[Pyrrhurus scandens Leaflove. R. Forest (Dowsett-Lemaire 1997a).]

*Bleda notatus ugandae* Lesser Bristlebill. R. Forest understorey, Iboubikro (Rainey et al. 2009). Six netted, including one female: mass 44, wing 99, tail 88. Five larger birds, primary moult Dec: mass 45–50 (48.0 ± 2.3); wing 102–106 (103.8 ± 1.5); tail 91–97 (95.2 ± 2.5).

* Pycnonotus barbatus tricolor Common Bulbul. R. Abundant and conspicuous. Singles, pairs and small groups in wooded grassland and forest edges throughout, all year. Carrying nest material Jul. Among 39 netted (including two juveniles), active brood patches Aug, Oct, many in primary moult Oct–May, juveniles Oct–Nov. Adults: mass 30–42 (26.4 ± 2.2, n = 37); wing 85–103 (94.2 ± 4.3, n = 37); tail 78–92 (83.8 ± 3.5, n = 36). Juveniles: mass 36, 37; wing 89, 89; tail 74, 82. One recapture, four days and c. 600 m away (Iboubikro to Camp des ecogardes).


* Nicator chloris Western Nicator. R. Frequent. Forest at Iboubikro, Confluent. One male, three females (based on size) and one juvenile netted: mass (m) 61, (f) 43, 46, 47, (j) 41; wing (m) 112, (f) 92, 94, 96, (j) 94; tail (m) 114, (f) 92, 95, (j) 94.

**Turdidae**

* Cossypha natalensis larischi Red-capped Robin Chat. R? Four adults netted in gallery forest understorey, Iboubikro, Jun 2002, Nov–Dec 2005, primary moult Dec, probable active brood patch Dec: mass 31–35 (32.8 ± 1.7); wing 90–91 (90.3 ± 0.5); tail 66–68 (67.0 ± 0.8). The short tail is typical of ssp. larischi (Keith et al. 1992). These are the only records for the Batéké Plateau (King et al. 2004).

[C. niveicapilla Snowy-crowned Robin Chat. R. Thickets (Dowsett-Lemaire 1997a).]

*Stizorhina fraseri* Rufous Flycatcher Thrush. R. Frequent and vocal in forest, Iboubikro.

*Cercotrichas leucophrys* White-browed Scrub Robin. R. Frequent. Singles and pairs in wooded grassland, Idzoua Inkou. Five adults netted match ssp. *munda* in coloration, including extensive brown band on tail (Fig. 11); primary moult Feb; mass 15–17 (16.0 ± 1.0); wing 60–66 (62.6 ± 2.6); tail 52–64 (57.4 ± 4.4).


*M. nigra* Sooty Chat. R. Common in wooded grassland throughout. Singles, pairs and small groups all year. Nine netted, active brood patch Aug, primary moult Nov–Dec. Seven males: mass 39–46 (41.3 ± 2.3); wing 95–100 (97.6 ± 1.5); tail 52–60 (57.1 ± 2.8). Two females: mass 36, 40; wing 94, 95; tail 55, 57. Tails shorter than those cited by Keith *et al.* (1992).

**Sylviiidae**


*Cisticola lateralis* Whistling Cisticola. R. Frequent at Idzoua Inkou.

*C. rufilatus* Tinkling Cisticola. R. One singing in wooded grassland at Idzoua Inkou, Oct.

*C. galactotes* Winding Cisticola. R. Common. Grassy marshes, ponds and rivers throughout. Vocal all year. Three netted, primary moult Dec: mass 17, 19, 19; wing 60, 61, 63; tail 50, 51, 56.

*C. natalensis* Croaking Cisticola. R. Frequent in grassland throughout. Vocal Sep–Apr. One adult (Aug) and one juvenile (Apr) netted: mass 26 (a), 22 (j); wing 74 (a), 66 (j); tail 61 (a), 57 (j). Long tail of adult suggests non-breeding plumage (Urban *et al.* 1997).

*C. brachypterus* Short-winged Cisticola. R. Frequent in wooded grassland at Idzoua Inkou and Camp des ecogardes. One netted: mass 8; wing 48; tail 32.


*C. juncidis* Zitting Cisticola. R. Common in grassland throughout. Vocal Sep–May.


*Prinia subflava* Tawny-flanked Prinia. R. Common in wooded and rank grassland throughout. Singles and pairs all year, small groups Dec–Jan. Carrying nest material Feb. Six netted (but no data for one). One small bird: mass 6, wing 48. Four larger, primary moult Dec–Jan: mass 8–10 (9.3 ± 0.96), wing 52–55 (53.3 ± 1.5), tail 52–56 (53.3 ± 2.31, n = 3). Short tails indicate all birds (Dec–Jan, Mar, Jul) were in breeding plumage (Urban *et al.* 1997).
Schistolais leucopogon White-chinned Prinia. R. Small, vocal groups frequent in rank grassland and forest edge, Idzoua Inkou; also Mt Blanc.  

[Apalis rufogularis Buff-throated Apalis. R. Forest (Dowsett-Lemaire 1997a).]  
Camaroptera brachyura tincta Grey-backed Camaroptera. R. Common in forest edge, Iboubikro and Idzoua Inkou. Ten netted, brood patch Aug, Oct (same bird), primary moult May: mass 11–14 (12.4 ± 1.17); wing 50–56 (54.1 ± 2.51); tail 31–40 (37.6 ± 3.16, n = 8).  
[C. superciliaris Yellow-browed Camaroptera. R. Forest clearings (Dowsett-Lemaire 1997a).]  
Eremomela salvadorii Salvadori’s Eremomela. R. Frequent in wooded grassland, Mt Blanc and Idzoua Inkou. One netted: mass 8; wing 56; tail 27.  

E. scotops congensis Green-capped Eremomela. R. Small, vocal groups common in wooded grassland, Idzoua Inkou; also Camp des ecogardes. All year.  
[Sylvietta ruficapilla Red-capped Crombec. R. Wooded grassland (Dowsett-Lemaire 1997a).]  
8–10 (8.9 ± 0.7); wing 48–53 (50.3 ± 1.7); tail 12–20 (16.9 ± 2.2). Several with small yellow streak on belly.


*Sylvia borin* Garden Warbler. P. One adult netted 2 Dec 2005: mass 18; wing 79; tail 54; plumage worn.

*Hyliota flavigaster* Yellow-bellied Hyliota. R. Frequent in wooded grassland, especially Idzoua Inkou.

*Hylia p. prasina* Green Hylia. R. Frequent in forest, Iboubikro. Three netted: mass 12, 16, 16; wing 58, 67, 69; tail 40, 48, 49. The smaller individual probably a female, the others probably males (Urban et al. 1997).

**Muscicapidae**

*Fraseria o. ocreata* Fraser’s Forest Flycatcher. R. Frequent. Small, vocal groups in forest canopy, Iboubikro, Confluent, Loubilika. All year.

*F. cinerascens ruthae* White-browed Forest Flycatcher. R. Frequent. Forest understorey, Iboubikro and Lefini River. Three netted: two males, primary moult Dec (mass 23, 22; wing 82, 83, tail 67, 68) and one female with active brood patch (Jan) (mass 19, wing 79, tail 63).

*Malaeornis pallidus murinus* Pale Flycatcher. R. Common in wooded grassland throughout. Singles and pairs all year; small groups Nov–Dec. Six netted, primary moult Dec: mass 24–31 (27.7 ± 2.7); wing 89–105 (96.7 ± 6.1); tail 72–82 (77.3 ± 4.5).

Figure 10. Black Bee-eater *Merops gularis australis* netted in the Lesio-Louna Reserve, Jun 2002. Photo: C. Chamberlan.

Figure 11. Two White-browed Scrub Robins, netted in the Lesio-Louna Reserve, Nov 2005 (left) and Feb 2006. Photos: C. Chamberlan (left) and T. King.
Figure 12. Bates’s Paradise Flycatcher, ssp. *bannermani*, Lesio-Louna Reserve: left, male, Aug 2006; centre, male on nest, Dec 2005; right, female, Dec 2006. Photos: C. Chamberlan (left) and T. King.


Myioparus p. plumbeus Lead-coloured Flycatcher. R. Frequent. Singles or pairs in wooded grassland and forest edges, Iboubikro, Idzoua Inkou, Ngondoro, Aug, Oct, Dec–Mar. Juvenile Feb. Seven netted. Six adults: mass 12–18 (14.5 ± 2.1); wing 62–67 (64.3 ± 2.0); tail 53–61 (57.8 ± 3.3, n = 5). One juvenile: mass 11; wing 63; tail 61.

Monarchidæ


T. batesi bannermani Bates’s Paradise Flycatcher. R. Common. Singles and pairs in forest interior and forest edge, Iboubikro. On nest (both sexes) Oct, Dec–Jan. Nestlings Oct, Dec. Thirteen netted, active brood patch Aug (possibly), Oct, Dec, primary moult Dec. Six males: mass 15–16 (15.3 ± 0.5); wing 77–83 (79.0 ± 2.3); tail (T2) 82–89 (84.4 ± 2.70, n = 5); projection of central tail feathers (T1–T2) 15, 19, 20, 25, 63. Six females: mass 13–16 (14.2 ± 1.0); wing 72–77 (74.8 ± 2.3); tail (T2) 72–77 (74.5 ± 2.1); projection of T1–T2 0–9 (4.5 ± 3.3). One unsexed (female or young male): mass 15, wing 80, tail (T2) 82, projection of T1–T2 7. The combination of the long central tail feathers and uncrested head (Fig. 12) are diagnostic of ssp. bannermani, but the measurements appear closer to those of T. rufocinerea than of other races of T. batesi, as given by Urban et al. (1997). Often (Fig. 12 left) but not always (Fig. 12 right), the head appeared significantly darker than the rest of the underparts, a characteristic also considered more typical of T. rufocinerea than of T. batesi (Urban et al. 1997).

Platysteiridae

Bias m. musicus Black-and-white Flycatcher. R. Frequent. Singles and pairs near forest edges throughout, Nov–Mar, Jul. One male netted 6 Nov 2005: mass 22; wing 88; tail 50.

Dyaphorophyia c. castanea Chestnut Wattle-eye. R. Frequent in forest understorey, Iboubikro. One male and two females netted: mass (m) 15, (f) 13, 15; wing (m) 62, (f) 59, 60; tail (m) 28, (f) 24, 26.


Batis minor erlangeri Black-headed Batis. R. Frequent in wooded grassland at Idzoua Inkou, also Camp des ecogardes. Singles and pairs all year, small group Jul. One female netted Dec 2005; mass 11; wing 58; tail 43.

B. minulla Angola Batis. R. Frequent, Idzoua Inkou and Camp des ecogardes.

Paridæ

Parus leucomelas White-winged Black Tit. R. Common in wooded grassland throughout Lesio-Louna. Singles and pairs all year, small groups Aug–Feb, May. Four adults netted, active brood patch Aug: mass 21–28 (24.8 ± 3.0); wing 80–89 (84.8 ± 3.8); tail 66–72 (69.0 ± 2.6).
Remizidæ

Nectariniidæ


[Deleornis fraseri] Fraser’s Sunbird. R. Forest (Dowsett-Lemaire 1997a).]

*Anabathmis reichenbachii* Reichenbach’s Sunbird. R. Common. Singles, pairs and small groups at Lefini, Louna and Lesio rivers, Iboubikro ponds, and Ngondoro marsh. Often aggressive towards other sunbirds, especially *A. aurantium*. Nesting Mar, Jun–Nov–Dec. Feeding nestlings and fledglings Nov. Feeding juvenile Feb. Nesting Feb, Jul, Oct–Nov. Seven adults (Fig 13 left) and one juvenile netted, active brood patch Dec, primary moult Mar, Jul: mass (a) 7–12 (8.8 ± 1.72, n = 6), (j) 10; wing (a) 53–60 (56.2 ± 2.8, n = 6), (j) 58; tail (a) 40–50 (44.0 ± 4.4, n = 5), (j) 46. First records in the Batéké Plateau region of Congo (King et al. 2004). Given its apparent abundance and conspicuousness, it is surprising that it has been previously overlooked, unless it has increased in recent years. Recently recorded from the BPNP, Batéké Plateau in Gabon, Jun 2007 (P. Christy pers.comm.), and in Franceville, Sep 2007 (pers. obs.).

*Cyanomitra verticalis bohndorffi* Green-headed Sunbird. R. Common in forest edges, Iboubikro and Idzoua Inkou, also Mt Blanc and Confluent. Singles and pairs all year, juveniles Feb–Mar. Four males and five females netted, active brood patch Feb, head moulting from juvenile to female plumage Dec: mass (m) 10–15 (13.5 ± 2.4), (f) 10–16 (12.6 ± 2.2); wing (m) 64–67 (65.3 ± 1.3), (f) 58–62 (60.6 ± 1.7); tail (m) 44–49 (46.3 ± 2.06), (f) 39–45 (41.3 ± 2.63, n = 4).

*C. cyanolaema* Blue-throated Brown Sunbird. R. Uncommon in forest and forest edge, Iboubikro. One male netted: mass 14, wing 71, tail 54.

*C. olivacea cephaelis* Western Olive Sunbird. R. Abundant in forest and forest edge throughout. Singly or in pairs, all year. Netted 38 males, 14 females, five juveniles (May, Nov–Dec), one immature male, probable brood patches Dec, primary moult Jul–Dec, Feb: mass (m) 10–14 (11.4 ± 0.9, n = 37), (f) 9–12 (10.0 ± 0.8), (j/i) 8–11 (10.2 ± 1.3, n = 6); wing (m) 61–68 (65.1 ± 1.9, n = 37), (f) 56–60 (57.4 ± 1.3), (j/i) 56–64 (59.7 ± 3.2, n = 6); tail (m) 47–60 (53.2 ± 2.9, n = 36), (f) 40–44 (42.5 ± 1.4, n = 13), (j/i) 39–47 (44.3 ± 3.1, n = 6). Four recaptured: maximum distance c. 600 m (Iboubikro to Camp des ecogardes).
*Chalcomitra r. rubescens* Green-throated Sunbird. R. Common in forest edge throughout, including Mt Blanc. Singles and pairs all year, also small groups. Nest-building Sep (using parts of old nest and spiders web). At nest high in forest edge tree and harassing Woodland Kingfisher, Mar. Pair with juvenile Oct. Feeding on flying termites Sep. Three males (one adult; two immature, Nov) and one female netted, primary moult Oct–Nov: mass (ad m) 11, (imm m) 11, 11, (f) 10; wing (ad m) 68, (imm m) 66, 67, (f) 60; tail (ad m) 46, (imm m) 41, 41, (f) 36.

*C. amethystina* Amethyst Sunbird. R. Common in wooded grassland throughout, especially Idzoua Inkou. Singles and pairs all year, also small groups. Juvenile Feb, immature males May, Aug, Nov. Five males (two adult, three immature) and three females netted, primary moult Feb (female), May and Aug (immature males): mass (m) 12–14 (13.2 ± 0.8), (f) 11, 13, 14 ; wing (m) 69–71 (69.8 ± 0.8), (f) 63, 64, 65; tail (m) 41–45 (43.2 ± 1.5), (f) 38, 38, 40.

*Hedydipna collaris* Collared Sunbird. R. Frequent in forest edge throughout (but not Idzoua Inkou or Mt Blanc). Singles and pairs all year, also small groups. Carrying nest material April. Feeding on flying termites Sep. One male and two females netted, active brood patch Dec, primary moult Oct: mass (m) 8, (f) 8, 8; wing (m) 53, (f) 50, 51; tail (m) 33, (f) 29.

*Cinnyris c. chloropygius* Olive-bellied Sunbird. R. Common in forest edge throughout, including Mt Blanc, but not Idzoua Inkou. Singles all year, pairs Dec–Apr, also small groups. Five males (Fig. 13 centre), two females and three juveniles (Oct–Nov) netted, active brood patch Nov, primary moult Dec: mass (m) 6–7 (6.4 ± 0.5), (f) 6, 6, (j) 5, 6, 7; wing (m) 50–52 (50.8 ± 0.8), (f) 47, 48, (j) 47, 50, 50; tail (m) 31–36 (33.0 ± 2.0), (f) 32, 32, (j) 30, 32, 33. These measurements are slightly larger than those given by Fry *et al.* 2000 for ssp. *chloropygius*, but smaller than those given for ssp. *orphogaster*.

*C. congensis* Congo Sunbird. V? One male between Lefini River and Ngo, 1 Feb 1994 (Dowsett-Lemaire 1997a.)

*C. bouvieri* Orange-tufted Sunbird. R? One photographed, perched conspicuously on an Annona senegalensis shrub in rank grassland beside the road along the northern boundary of Lefini north (2°24’S 15°25’E), 1 Mar 2007. The only sunbirds known from western and west-central Africa with the combination of green head, throat and mantle, dark purple breast band and dark belly are Palestine *C. osea*, Purple-banded *C. bifasciata* and Orange-tufted; of these only Orange-tufted has a dark brown, rather than black, belly, and the small bluish forehead and throat patches apparent in Fig. 13 (right).

*C. johannae* Johanna’s Sunbird. R. Forest (Dowsett-Lemaire 1997a.)

*C. c. cupreus* Copper Sunbird. R. Abundant in wooded grassland and degraded forest throughout. Singles all year, also pairs and small groups. Carrying nest material Feb. At nest Feb. Male and female feeding nestlings Mar. One male and one female netted: mass (m) 8, (f) 9; wing (m) 59, (f) 57; tail (m) 46, (f) 41.

**Laniidae**

[L. souzae Sousa’s Shrike. R? Local in wooded grassland (Dowsett-Lemaire 1997a).]

**Malconotidae**

*Bocagia minuta* Marsh Tchagra. R. In pairs at Mt Blanc marsh, frequent.

*Tchagra senegala* Black-crowned Tchagra. R. Common in wooded grassland throughout. Singles and pairs all year; small group Nov.

*Dryoscopus gambensis* Northern Puffback. R. Three observations: Idzoua Inkou and Mt Blanc.


**Dicruridae**

*Dicrurus ludwigii* Square-tailed Drongo. R. Frequent in forest edge, Idzoua Inkou.

*D. modestus* Velvet-mantled Drongo. R. Uncommon. Confluent (five observations) and Louna River (once). Always singly, perched high on exposed branch in gallery forest. Widespread in Congo (Dowsett & Dowsett-Lemaire 1989, as *D. adsimilis*), but not previously recorded from the Batéké Plateau (Borrow & Demey 2001), except in the BPNP in Gabon (pers. obs. Feb, Aug–Sep 2007, P. Christy unpubl.).

**Corvidae**

*Corvus albus* Pied Crow. R. Mâh village, uncommon. Also one flying high westwards over Confluent, 16 Apr 2004.

**Sturnidae**

*Onychognathus fulgidus* Forest Chestnut-winged Starling. R. Frequent in Lefini River gallery forest.


*Cinnyricinclus leucogaster verreauxi* Violet-backed Starling. M. Wooded grassland throughout, especially Idzoua Inkou. All records Feb–Oct (earliest 25 Feb 2004, latest 4 Oct 2004), therefore a non-breeding migrant. Pairs Mar–Sep, small groups Feb–Oct, flocks ≥ 10 Apr–May, Sep. Two males and four females netted, primary moult Dec: mass (m) 38, 39 (m), (f) 40–43 (41.5 ± 1.7); wing (m) 104, 106, (f) 97–103 (100.0 ± 2.4); tail (m) 59, 60, (f) 53–56 (54.5 ± 1.3). The two netted males had white bases to the outer web of their outer tail feathers (T6), a feature diagnostic of ssp. *verreauxi* (Fry et al. 2000, Borrow & Demey 2001).

**Passeridae**


*Petronia superciliaris* Yellow-throated Petronia. R. Common in wooded grassland, especially at Idzoua Inkou. Singles and pairs all year, small groups May, Sep. Feeding juvenile Sep. Juvenile Nov. Sixteen adults and two juveniles or immatures netted,
primary moult Nov–Dec (all), also May; mass (a) 23–28 (24.5 ± 1.5), (j/i) 24, 26; wing (a) 87–95 (90.8 ± 2.7), (j/i) 82, 85; tail (a) 53–60 (56.7 ± 2.1), (j/i) 53, 54.

**Ploceidae**


*P. xanthops* Holub’s Golden Weaver. R. Mt Blanc marsh, 28 Feb 2004 (one) and 7 Jan 2006 (pair): large, bright yellow weavers with black bill, one with reddish throat patch. First records for the Batéké Plateau, otherwise known in Congo from only the extreme south (Dowsett & Dowsett-Lemaire 1989, Borrow & Demey 2001).

*P. n. nigerrimus* Vieillot’s Black Weaver. R. Common in wooded grassland, forest edges, rivers, camps and villages. Nesting colonies Aug–Feb. Among 28 netted, primary moult Mar, possible active brood patches Dec–Jan. Seven adult males and 21 females (may include some immature males): mass (m) 35–39 (37.4 ± 1.4), (f) 28–34 (30.3 ± 1.8, n = 20); wing (m) 82–86 (84.1 ± 1.5), (f) 73–81 (76.2 ± 2.1, n = 20); tail (m) 52–55 (53.0 ± 1.4, n = 4), (f) 46–50 (48.0 ± 1.6, n = 4).

*P. cucullatus collaris* Village Weaver. R. Breeding colonies in villages, where abundant. One male in breeding plumage netted 27 Dec 2005, Camp des ecogardes: mass 40; wing 85; tail 51 (Fig. 14). The broad chestnut breast band and only very thin strip of chestnut on the back of the neck indicates ssp. *collaris* (known from coastal Gabon to S Congo: Borrow & Demey 2001), rather than *bohdorffi* (most of Gabon and Congo), although the mantle is not as heavily marked as the figure of *collaris* shown in Borrow & Demey (2001).


*Pachyphantes superciliosus* Compact Weaver. R. Pairs or small groups, Mt Blanc, frequent. Breeding plumage Nov–Mar.

*Malimbus nitens* Blue-billed Malimbe. R. Frequent. Singles and pairs in gallery forest and by ponds, Iboubikro and Louna river, Jan–Feb, Nov.

[M. malimbicus* Crested Malimbe. R. Gallery forest (Dowsett-Lemaire 1997a).]


*Quelea erythrops* Red-headed Quelea. R. Frequent. Flocks in grassland throughout (Ngondoro, Mt Blanc, Camp des ecogardes, Lefini River). Breeding plumage Dec–Mar. Two females or non-breeding males netted, Aug, Nov: mass 15, 16; wing 60, 64; tail 31, 32.

*Euplectes hordeaceus* Black-winged Red Bishop. R. Abundant in tall plateau grasslands in Lefini north, but only two observations from Mâh plateau. Breeding plumage Feb–Mar, May.
**E. m. macroura** Yellow-mantled Widowbird. R. Abundant. Singles and flocks in grassland throughout. Breeding plumage Nov–May, non-breeding Jul–Nov, in moult Nov. Three males (including two in breeding plumage) and four females netted, active brood patch Feb, male ending primary moult to non-breeding plumage Aug, primary moult finished and tail moult nearly finished to breeding plumage 29 Nov: mass (m) 24, 27, 29, (f) 19–25 (21.8 ± 2.7); wing (m) 81, 81, 81, (f) 66–75 (69.3 ± 4.0); tail (m) 55 (non-breeding), 104 (breeding), (f) 49, 54, 57.

**E. albonotatus** White-winged Widowbird. R. Two observations at Mt Blanc marsh: 14 Feb 2005 (breeding plumage); 28 Dec 2005 (in moult).

*E. ardens concolor* Red-collared Widowbird. R. Frequent in rank grassland on plateau, especially near Mpoonako, abundant in tall plateau grasslands of Lefini north, one observation at Iboubikro ponds. All-black breeding plumage Feb–May. Previously unreported from the Batéké Plateau, and known in Congo only from the southeast (Loudima and Divénié, Dowsett & Dowsett-Lemaire 1989, Borrow & Demey 2001).


**Estrildidae**


[N. fusconotus White-breasted Negrofinch. R. Forest (Dowsett-Lemaire 1997a).]

**Ptytilia afra** Orange-winged Ptytilia. R. Small flocks frequent in wooded grassland at Idzoua Inkou, Camp des ecogardes. Twelve adults and two juveniles (Oct) netted, primary moult Aug, Oct, Feb: mass (a) 14–19 (16.8 ± 1.5), (j) 17, 19; wing (a) 57–63 (60.0 ± 1.5), (j) 61, 61; tail (a) 31–37 (33.7 ± 1.8, n = 7), (j) 32.


**Spermophaga haematina pustulata** Western Bluebill. R. Frequent in forest understorey, Iboubikro and Confluent. Four males, one female and one juvenile (Jan) netted, primary moult Dec: mass (m) 23–25 (24.0 ± 0.8), (f) 24, (j) 22; wing (m) 67–75 (71.5 ± 3.4), (f) 66, (j) 70; tail (m) 55–59 (57.5 ± 1.7), (f) 52, (j) 54.

**Lagonosticta rubricata congica** Blue-billed Firefinch. R. Singles and pairs frequent at Mt Blanc and elsewhere on Mâh plateau. One male netted, Ngondoro, 4 Dec 2002: mass 10; wing 46; tail 40.

E. m. melpoda  Orange-cheeked Waxbill. R. Pairs, small groups and flocks abundant in tall grassland throughout. Juveniles Feb. Four netted: mass 6–8 (7.0 ± 0.8); wing 43–47 (45.0 ± 1.8); tail 43 (n = 1).


[L. bicolor  Black-and-white Mannikin. R? Tall grassland (Dowsett-Lemaire 1997a).]

Viduidae

Vidua macroura  Pin-tailed Whydah. R. Common in grassland on plateau; rarely in reserve except non-breeding birds at camps. Breeding plumage Nov–Apr, non-breeding plumage Sep–Nov. One adult netted, non-breeding plumage, in primary moult, Iboubikro, 4 Nov 2006: mass 13; wing 70; tail 50.

Fringillidae

Serinus atrogularis  Black-throated Seedeater. R. Pairs and small flocks frequent in wooded grassland throughout. Carrying nest material Feb. Eleven netted: many in primary moult Nov–Dec: mass 9–11 (10.2 ± 0.6); wing 65–70 (66.4 ± 1.6); tail 40–45 (41.3 ± 1.5).


Emberizidae

Emberiza t. tahapisi  Cinnamon-breasted Rock Bunting. M. Singles, pairs and small groups in wooded grassland and camps with bare ground, Oct–Apr (earliest 16 Oct 2004, latest 9 Apr 2007). Seven netted (including at least six females), primary moult Mar: mass 12–16 (14.3 ± 1.6); wing 72–78 (74.6 ± 2.2); tail 56–62 (59.2 ± 2.2, n = 6).

E. cabanisi cognominata  Cabanis’s Bunting. R. One adult netted, Camp des ecogardes, 5 Nov 2005: mass 23, wing 76, tail 64.

Discussion

In total, I recorded 264 species during the study period. Fifty of the species given by Dowsett-Lemaire (1997a) were not recorded, mainly due to differences in survey
effort and observer experience, although ten of these were based on observations other than her own (Wood Sandpiper, Long-crested Eagle, Montagu’s Harrier, Western Grey Plantain-eater, Black Wood-hoopoe, Blue-cheeked Bee-eater, Namaqua Dove, Red-headed Lovebird, Congo Sunbird, Common Waxbill). Fifty-nine species are newly published here, giving a total of 317 species now known from the two reserves (240 given by Dowsett-Lemaire 1997a, 16 more by King et al. 2004, King 2007, 2008a, King & Chamberlan 2007 and Rainey et al. 2009, and two more in an unpublished 1996 report by K. Bailey, D. Daramani, R.J. Dowsett and F. Dowsett-Lemaire). Sixty-three families are represented, the most species-rich being Sylviidae and Accipitridae (23 species each), followed by Nectarinidae (16), Estrildidae (16) and Ploceidae (15). At least 217 of the species are resident, and another 37 probably are, accounting for 80 % of the species. The remaining species are intra-African migrants (c. 4 %), Palearctic migrants (c. 7 %), rare visitors (c. 3 %) and undetermined (c. 6 %). Four species constitute first records for Congo, details of which have been published elsewhere: Miombo Pied Barbet, Yellow-fronted Tinkerbird, Sladen’s Barbet (King & Chamberlan 2007) and Martial Eagle (Rainey et al. 2009). One subspecies also represents a new record for Congo, and is newly reported here: the intra-African migrant African Pygmy Kingfisher *Ceyx p. natalensis*, which occurs sympatrically with the resident subspecies. The Common Kestrel may also be represented by two subspecies, a resident and possibly the Palearctic migrant *F. t. tinnunculus*. The Grey-headed Kingfisher is represented mostly by the migratory ssp. *pallidiventris*, but there may also be a resident subspecies.

**Possible additional species**

Staff of the Lesio-Louma management project claim at least another five species for the reserves, which are not included in the present list as they require confirmation: Goliath Heron *Ardea goliath* (Lefini River: F. Ikoli), Saddle-billed Stork *Ephippiorhynchus senegalensis* (Iboubikro ponds, c. 2005: P. Mobie), Marabou Stork *Leptoptilos crumeniferus* (Etsotso marsh: B. Ngamouno), Crowned Eagle *Stephanoaetus coronatus* (no specific record but local people have a Téké name for a large, forest-dwelling eagle that eats monkeys: P. Mobie & B. Ngamouno pers. comm.) and Black-casqued Hornbill *Ceratogymna atrata* (Lefini gallery forest: L. Okandza). Additionally, there are surely some species that remain overlooked. The undescribed “Téké Cisticola”, known only from the Batéké Plateau region of Gabon (Borrow & Demey 2001), is likely to be present in the reserves, and should be searched for by someone familiar with its distinctive song. Similarly, the locally distributed Dambo Cisticola *Cisticola dambo* may occur in appropriate habitat (rank grass in valley bottoms, F. Dowsett-Lemaire in litt.), but also requires expert identification.

The observations presented here are to a large extent restricted to areas at or near the base camps of the reserves management project. Large areas of the reserves remain unsurveyed and some habitats have received little attention. Future work
focussing on such areas is likely to discover further species. Palaearctic migrants appear to be under-recorded, and careful observation of raptors during migration periods may also reveal additional species.

**Biogeographical considerations**

The list of 317 species presented here for the two reserves includes 74 Guineo-Congolian and five Zambezian biome species (following Fishpool & Evans 2001), reinforcing the categorisation by Dowsett-Lemaire (2001) of the Batéké Plateau as the northern limit of the Guinea-Congolian/Zambezian transition zone of White (1983) (King & Chamberlan 2007, Dowsett *et al.* 2008). The five Zambezian biome species recorded from the reserves are Black-backed Barbet, Miombo Pied Barbet, Red-throated Cliff Swallow, Sousa’s Shrike and Red-capped Crombec. Additionally, several other species recorded in the reserves are also distributed primarily in south-central Africa, either with apparently isolated populations in the Batéké Plateau, such as Pale-crowned, Tinkling and Piping Cisticolas, or which reach their northern limit in the Batéké Plateau through apparently continuous distributions, such as Short-tailed Pipit, Grey Penduline Tit, Green-capped Eremomela and Orange-winged Pytilia.

**Conservation and management**

The mixing of these two major African avifaunas provides a varied bird community, although overall species richness is poor when compared to other sites in Congo with more complete forest avifaunas. For example, of the six IBAs recognised in Congo, the present site is the only one to support less than half of the 200 Guinea-Congolian biome species known from the country (Dowsett-Lemaire 2001). Therefore it is the savanna avifauna of the reserves which is of higher conservation value than that of the forest. As elsewhere on the Batéké Plateau (Christy 2001, Dowsett-Lemaire 2001),

![Figure 14. Left: male Village Weaver, Lesio-Louna Reserve, Dec 2005 (photo: C. Chamberlan). Right: Zebra Waxbills, Lesio-Louna Reserve, Dec 2006 (photo: T. King).](image)
the reserves are an important refuge for Black-chinned Weaver, Finsch’s Francolin and Congo Moor Chat. Finsch’s Francolin presumably suffers from hunting, although the species most frequently observed for sale in villages were Red-necked Francolin, African Crake, and Little Buttonquail. The other major threats to the birds of the reserves appear to be the excessive burning of savanna areas, often four or five times a year, which surely disrupts grassland nesting activities and perhaps also availability of arthropod and seed food sources, and deforestation of the cliff forests along the eastern boundary of the Lesio-Louna Reserve for charcoal and crop plantations. The joint management project for the reserves (Mathot et al. 2006) is tackling deforestation and to some extent the excessive burning of the savannas, but hunting of birds is not generally regarded as a management concern, certainly not to the same extent as hunting of large mammals. With none of the game birds known from the reserves currently considered of global conservation concern, it is debatable whether efforts to reduce hunting of birds would be useful or justifiable. Conservation recommendations for the birds of the area would therefore simply be to continue to assure sustainable management of the various ecosystems of the Lefini watershed, while investigating the impacts of excessive grassland burning on birds and other fauna and flora. Such information would help in developing an extensive fire management strategy for the area, although any such strategy would be extremely difficult to implement in most areas given the high level of human activity within and around the reserves.

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