



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



Violet-backed Starling, *Cinnyricinclus leucogaster*, Spréo améthyste

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Summary

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

This report collates all known information regarding the avifauna of the Lesio-Louna and Lefini Reserves, located approximately 140 km north of Brazzaville in the Batéké Plateaux region of the Republic of Congo. During the period 2002 to 2007, a total of 264 species were recorded. Seventy-five of these can be added to the list of 240 species given by Dowsett-Lemaire (1997), plus two more species given only by Bailey *et al.* (1996), giving a total of 317 species recorded from the two reserves. Four species are reported for the first time in Congo (Miombo Pied Barbet, Yellow-fronted Tinkerbird, Sladen's Barbet and Martial Eagle).

Resumé

Les oiseaux des Réserves Lesio-Louna et Lefini, Congo

Ce rapport regroupe toutes les informations connues concernant l'avifaune des Réserves Lesio-Louna et Lefini, situées à environ 140 km au nord de Brazzaville dans la région des Plateaux Bateke en République du Congo. Entre 2002 et 2007, un total de 264 espèces a été enregistré. 75 d'entre elles peuvent compléter la liste de 240 espèces établie par Dowsett-Lemaire (1997), à laquelle s'ajoutent deux espèces supplémentaires données par Bailey *et al.* (1996), ce qui représente un total de 317 espèces enregistrées pour les deux réserves (voir Appendix 7). Quatre espèces sont rapportées pour la première fois au Congo (Barbican du Miombo, Petit Barbu à front jaune, Barbican de Sladen et Aigle martial).

Les 317 espèces enregistrées pour les deux réserves représentent 63 familles différentes. Les familles les plus riches en espèces dans les réserves sont Sylviidae et Accipitridae (23 espèces chacune), suivies de Nectarinidae (16), Estrilidae (16) et Ploceidae (15). Le statut de nombreuses espèces demeure incertain, mais parmi les 317 espèces, au moins 213 sont résidentes, et 30 à 45 autres pourraient l'être. 20 à 25 sont des espèces migratrices du Paléarctique, et probablement 4 à 15 sont des espèces migratrices du continent africain. Environ 10 espèces sont de rares visiteurs. Toutes les observations connues sur chaque espèce sont exposées et reprennent des notes succinctes sur la distribution, les types d'habitat, les observations à caractère saisonnier et de reproduction, ainsi qu'un résumé des informations issues d'études utilisant la méthode des Listes MacKinnon, de transects par rivière et véhicule, et de tout oiseau pris au filet.

225 listes MacKinnon de 10 espèces chacune ont été établies entre décembre 2003 et avril 2007. 185 d'entre elles ont été réalisées sur 7 sites principaux, parmi lesquels les étangs Iboubikro et Idzoua Inkou abritaient l'avifaune la plus diverse. 175 espèces ont été enregistrées sur les 7 sites. L'espèce la plus communément enregistrée était le Bulbul des jardins, avec un IRV (Indice de Visibilité Relative) $\geq 0,1$ sur les 7 sites, et un IRV moyen de 0,55. Quatre autres espèces ont également été enregistrées sur les 7 sites, mais avec des IRV moyen plus faibles (Martinet noir, Hirondelle à collier, Tourtelette améthystine et Guêpier d'Europe).

Des transects par véhicule ont été effectués le long de deux routes principales, de Iboubikro à Mt Blanc (63 transects), et de Mpoumako à Abio (39). Les pourcentages des observations sont présentés pour une sélection de 25 espèces. En général, les rapaces ont été observés plus souvent entre Mpoumako et Abio, à l'exception du Faucon crécerelle plus souvent observé entre Iboubikro et Mt Blanc. Les Francolin de Finsch et Francolin à gorge rouge ont été plus souvent aperçus entre Iboubikro et Mt Blanc. Les Outardes à ventre noir ont été observées à des fréquences similaires le long des deux transects, tandis que les Outardes du Sénégal étaient

beaucoup plus fréquentes entre Mpoumako et Abio. Le Traquet du Congo a été observé durant plus des trois quarts des déplacements le long de la route Abio/Mpoumako, mais seulement durant le tiers de ceux effectués le long de la route Iboubikro/Mt Blanc. Le Tisserin à menton noir n'a été que rarement observé sur les deux routes.

638 oiseaux ont été pris au filet durant la période d'échantillonnage, représentant 86 espèces différentes, comprenant un pipit pour lequel l'identification spécifique requiert confirmation, et deux souimangas non identifiés. L'espèce la plus fréquemment prise au filet était de loin le Bulbul verdâtre (26,6% de toutes les captures), suivi du Souimanga olivâtre de l'Ouest (9%) et du Bulbul des jardins (5,9%). Le Bulbul verdâtre et le Souimanga olivâtre de l'Ouest étaient également les espèces les plus fréquemment prises au filet en forêt, suivis des Bulbul jaunelore, Cossyphes à calotte rousse, Pririt châtain, Sénégalais (ou Grosbec) sanguin et Gobemouche à sourcils blancs. En savane, les espèces les plus fréquemment capturées étaient les Tisserin noir, Beaumarquet à dos jaune, Guêpier à collier bleu, Traquet commandeur, Moineau bridé, Souimanga améthyste et Euplecte à dos d'or. Des 638 oiseaux pris au filet, 39 ont été recapturés, notamment trois qui l'ont été deux fois. 11 oiseaux ont été recapturés plus de deux semaines après la première capture, les périodes les plus longues entre captures étant de 16 semaines (Souimanga olivâtre de l'Ouest), 14 et 12 semaines (toutes deux pour Tchitrec de Bates). Trois oiseaux ont été recapturés à un site autre que celui de la première capture, tous trois ayant été capturés d'abord à Iboubikro, ensuite au camp des écogardes, à environ 600 m sur le côté opposé de la forêt-galerie de la Lesio (Martin-pêcheur pygmée, Bulbul des jardins et Souimanga olivâtre de l'Ouest). Les oiseaux recapturés n'ont pas été pris en compte pour l'analyse de la mue, à l'exception de ceux capturés à des périodes différentes, ce qui représente un total de 647 données de mue. Parmi celles-ci, 171 ont été enregistrées comme mue des primaires, et trois demeurent inconnues. Les observations des mues des primaires sont reprises dans les informations individuelles pour chaque espèce, tandis qu'une présentation préliminaire simple du caractère saisonnier de la mue est fournie. Il semble qu'une saison de mue majeure commence en octobre chez les oiseaux des savanes, suivie d'une période de plus petite activité durant la saison sèche. Par exemple, plusieurs espèces de Ploceidae, telles des euplectes et travailleurs, ont des plumages de reproduction distincts arborés durant la saison des pluies, plus ou moins de novembre à mai, avant de muer en un plumage de non reproduction pour la saison sèche. De nombreux oiseaux de forêt semblent également muer entre octobre et décembre, mais la tendance est moins nette que pour les oiseaux des savanes, et plusieurs ont aussi été observés en mue durant la saison sèche.

Tant la découverte d'espèces de savanes arbustives d'Afrique méridionale, telles le Barbican du Miombo, que celle d'espèces de forêt humide d'Afrique centrale, telles le Barbican de Sladen, abondent dans le sens de la catégorisation par Dowsett-Lemaire (2001) des Plateaux Bateke comme partie de la zone de transition Guinéo-Congolienne/Zambézienne de White (1983). Le mélange de ces deux majeures avifaunes africaines sur les Plateaux résulte en une communauté aviaire hautement diversifiée, bien que la richesse générale en espèces soit pauvre en comparaison avec d'autres sites du Congo abritant des avifaunes forestières beaucoup plus complètes.

Par conséquent, dans une optique de conservation, l'avifaune de savane des deux réserves présente une valeur plus élevée que celle de forêt. Comme partout ailleurs sur les Plateaux Bateke, les réserves sont un refuge important pour les Tisserin à menton noir, Francolin de Finsch et Traquet du Congo. Toujours en matière de conservation, parmi d'autres espèces intéressantes, l'observation unique d'une Hirondelle de Brazza, seulement la cinquième donnée publiée pour le Congo, suggère que l'espèce visite les deux réserves en-dehors de sa période de reproduction. Le Guêpier à tête noire, l'une des plus grandes espèces de la famille et peut-être la plus rare, est relativement commun, se reproduisant dans des trous creusés à même le sol sableux

à la lisière de la forêt-galerie. A part la chasse au gibier, les menaces majeures pesant sur les oiseaux des réserves semblent être le brûlage excessif des zones savaniques, souvent quatre ou cinq fois par an, et la déforestation des falaises le long de la limite orientale de la Réserve Lesio-Louna pour la production de charbon de bois et les plantations.

Les Réserves Lesio-Louna et Lefini n'abritent pas une communauté aviaire particulièrement riche en espèces, et les visiteurs sont souvent surpris par l'apparente absence d'une avifaune bruyante et visible. Cependant, avec temps et effort, les réserves peuvent permettre à un ornithologue enthousiaste d'entrevoir une diversité satisfaisante et unique d'espèces forestières et savaniques, comprenant notamment de grandes espèces de savanes telles l'Outarde à ventre noir et l'Outarde du Sénégal, des espèces endémiques des savanes d'Afrique centrale telles les Traquet du Congo, Francolin de Finsch et Tisserin à menton noir, des spécialités rarement observées telles les Guêpier à tête noire et Barbican de Sladen, des favoris des forêts tels le Perroquet gris et des espèces variées de calaos et touracos, une mine de martin-pêcheurs, barbicans, petits barbous, souimangas, euplectes ou tisserins, sans oublier le spectacle extraordinaire de la migration annuelle de milliers de Cigognes d'Abdim entre février et mai. Explorer la diversité des habitats des deux réserves est la clé pour en apprécier la diversité de l'avifaune, depuis la forêt-galerie de la Lesio et les étangs saisonniers à Iboubikro, la savane arborée cernant l'îlot forestier d'Idzoua Inkou, le marais herbeux et la savane à *Hyparrhenia* environnante du Mt Blanc, les plaines herbeuses à *Loudetia* entre Mpoumako et Abio, et la sinueuse rivière Louna entre le camp Abio et l'île Abio. Avec un peu plus d'effort, les impressionnants escarpements des Mt Abio, Mt Epopé et Mt Ngaka augmentent les chances d'apercevoir des rapaces et hirondelles. Pour les plus aventureux, les forêts sur les falaises le long de la limite orientale de la Réserve Lesio-Louna ont jusqu'à présent été peu visitées, et doivent probablement abriter d'autres espèces forestières non encore enregistrées. De la même manière, le Lac Sampion a été insuffisamment étudié, tout comme l'entièreté des secteurs nord et est de la Réserve Lefini. Bien que ce rapport accroisse de façon non négligeable notre connaissance des oiseaux des Réserves Lesio-Louna et Lefini, beaucoup reste encore à découvrir et toutes les données fiables sur la zone devraient être regroupées et transmises aux autorités en charge, telles la Société Ornithologique d'Afrique de l'Ouest ou l'« African Bird Club ».



African Pygmy Goose, *Nettapus auritus*, Anserelle naine

Introduction

The Lesio-Louna and Lefini Reserves lie approximately 140 km north of Brazzaville in the Republic of Congo (fig 1). The two reserves form part of the Batéké Plateaux, an area of rolling savanna and patchy forest extending from south-west Gabon across central Congo and extending into the Democratic Republic of Congo. This region is well-known amongst ornithologists for the unique diversity of its avifauna (Dowsett-Lemaire 1997, 2001, Christy 2001b), which may be

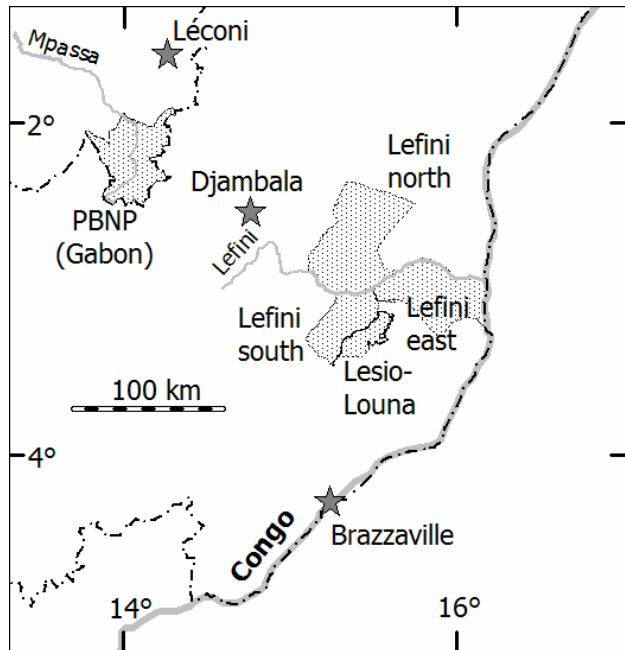


Fig 1. Location of the Lesio-Louna and Lefini Reserves in the Republic of Congo, and other sites mentioned in the text, including the Plateaux Batéké National Park (PBNP) in Gabon.

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 Zambebian (southern grassland/woodland) biome avifaunas (Fishpool & Evans 2001), and the presence of certain near-endemics of the Zambebian biome, such as Sousa's Shrike *Lanius souzae* and Tinkling Cisticola *Cisticola rufilatus*, prompted Dowsett-Lemaire (2001) to categorise the Batéké Plateaux as part of the Guinea-Congolian/Zambebian transition zone of White (1983). The richness of the savanna avifauna of the Batéké Plateaux was one of the principle reasons for the classification of the Lesio-Louna and Lefini Reserves as an "Important Bird Area" (IBA) of Congo (Dowsett-Lemaire 2001), the Bombo-Lumene Game Reserve as an IBA in DRC (Demey & Louette 2001), and for the creation of the Plateaux Batéké National Park (PBNP) in Gabon (Christy 2001b).

Despite the internationally recognised diversity and importance of the Batéké Plateaux avifauna, in reality very little is known about it. The main reports available for Gabon give 267 species for the zone around Léconi (Christy 2001b) and 255 species for the PBNP (Christy 2001b, King 2007b, 2007d). In Congo, Dowsett-Lemaire (1997) gives a list of 240 species for the Lefini Reserve, based primarily on a week-long visit to the Mâh and Lac Bleu region of the Lesio-Louna Reserve, and a further nine species were added by King *et al.* (2004). King *et al.* (2004) also provide information on timing of moult amongst forest and savanna birds, based on a small mist-net survey during 2002.

The current report collates all known information regarding the avifauna of the Lesio-Louna and Lefini Reserves in Congo, including records of another 66 species newly reported for the reserves, plus a preliminary analysis of seasonality, breeding, moult and morphological data collected during the period 2002 to 2007. This report supercedes the preliminary analysis presented in 2007 (King 2007c).

Legislation and Management of the Lesio-Louna and Lefini Reserves

The Lefini Reserve was created in 1951, covering approximately 400,000 ha, with the original aims of "saving from destruction the wildlife typical of the Batéké Plateaux, and protecting its

forests, basin and watercourses, and to encourage photography of the landscape and live animals” (*Arrêté no 3671 créant une Réserve de Chasse dite « de la Lefini »*, 26/11/1951). Following the request of the Téké King Makoko, the reserve was enlarged to 630,000 ha in 1963 (*Arrêté 0046/MAEEFGR-CH-CN*, 7/1/1963), to include a large area to the east of the previous limits, stretching all the way to the Congo river (fig 1). From this moment, the reserve became known as a Faunal Reserve, rather than a Hunting Reserve. In 1984, a further document (*Arrêté no 7262/MEF/SGEF/PIAF*, 7/8/1984) corroborated the previous laws, removing all user rights from the area (except photography and cinematography) and providing complete protection of the natural resources of the reserve (Ikoli *et al.* 1998). Despite the legislation, the reserve has received very little management or enforcement since its creation.

The Lesio-Louna Reserve is an area of 44,000 ha adjacent to the eastern boundary of the south-west portion of the Lefini Reserve (fig 1). It was created in 1993 through an agreement between The Aspinall Foundation (TAF) of the UK and the Ministry of Forest Economy (MEF) of the government of Congo, as a sanctuary for the reintroduction of gorillas orphaned by the illegal bush-meat trade (*Protocole d'accord portant création du Sanctuaire Lesio-Louna...*, 28/12/1993). It was upgraded to a Natural Reserve by Presidential Decree in 1999 (*Décret no 99-309 du 31 décembre 1999 portant création et organisation de la réserve naturelle de gorilles de Lésio-Louna*).

The Lesio-Louna reserve is currently managed through a joint TAF-MEF partnership project, created through a partnership protocol in 2002 (*Protocole d'accord sur l'aménagement et la gestion de la Réserve Naturelle de gorilles de Lésio-Louna*) and officially titled 'Projet Lesio-Louna'. Since 2003, the Projet Lesio-Louna has also been managing the south-west portion of the Lefini Reserve, with the gradual transfer of the gorilla reintroduction programme from the original Lesio-Louna to the south-west Lefini between 2003 and 2007 (King *et al.* 2006, King & Chamberlan 2007a). The northern and eastern sectors remain under the management of MEF, but with little logistical or financial support (Mathot *et al.* 2006).

The aims of the Lesio-Louna Reserve are given in the 1999 Presidential decree creating the reserve, and are fairly standard for protected areas, except for the rather unique addition of gorilla reintroduction:

- To assure, conforming with the two 1993 agreements with TAF, the reintroduction of orphan gorillas;
- To protect the gorillas and the ecosystem of the reserve;
- To organise and promote education, training, outreach, and biodiversity research;
- To promote and develop, in collaboration with appropriate services, tourism;
- To organise, with local community participation, an integrated system of natural resource protection in the reserve.

Site description

The major habitats of the two reserves are open *Loudetia* grassland and lightly wooded *Loudetia* or *Hyparrhenia* grassland, with gallery and swamp forests along the water-courses, plus some patches of dry forest on higher ground (Moutsamboté 1994, 1998, Dowsett-Lemaire 1997, King *et al.* 2004). Much of the wooded grassland is dominated by *Hymenocardia acida*, while other woody species present include *Anonna senegalensis*, *Bridelia ferruginea*, *Gardenia ternifolia*, *Syzygium guineense* var. *macrocarpum*, *Maprounea africana*, *Chaetocarpus africanus*, *Nauclea latifolia*, *Strychnos* spp., *Vitex* spp. and *Albizia adianthifolia*.

The climate of the reserves is similar to that elsewhere on the plateaux, 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 (Moutsamboté 1994, Dowsett-Lemaire 1997, King *et al.* 2004). The altitude ranges from 300 m to 750 m. The savanna within and outside the reserve is burned regularly by local users, perhaps four or five times per year in places. These fires can spread into forest patches, particularly in the latter parts of the dry season.

Weather records

Rainfall and temperature was measured from June 2002 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 2). A long dry season in 2005, with no rain at all in August and the first big rains of the wet season on the 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 (table 1).

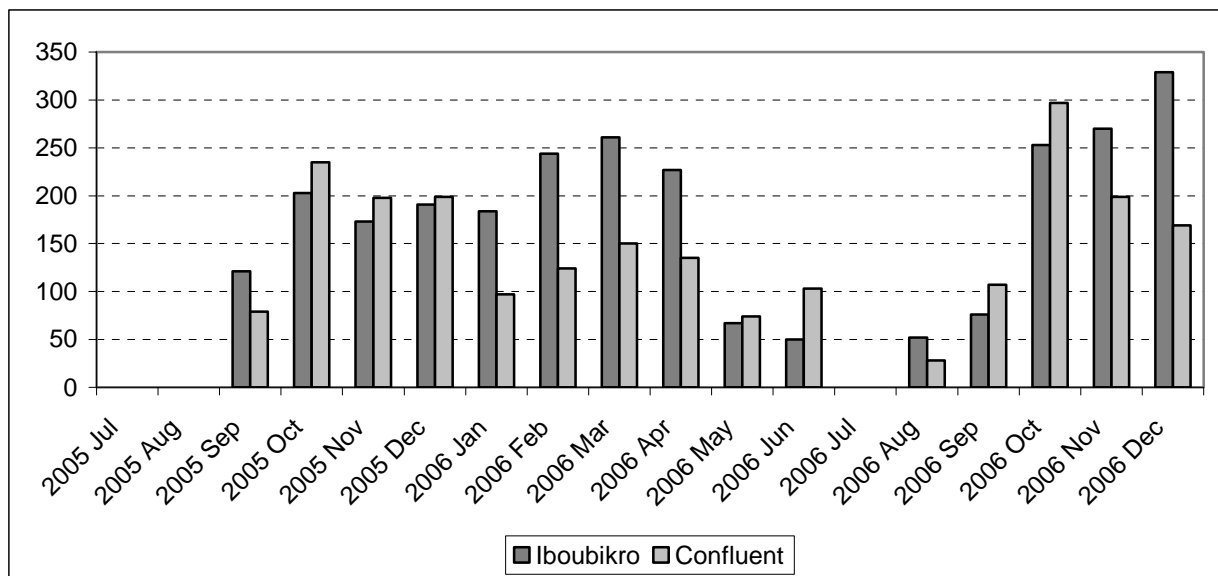


Fig 2. Rainfall in mm for Iboubikro (Lesio-Louna Reserve) and Confluent (Lefini Reserve) from July 2005 to Dec 2006.

Table 1. Monthly rainfall figures available for Iboubikro and Confluent, 2002 to 2006, with mean monthly rainfall calculated

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Iboubikro 2002							0	30	165	177	247		
Iboubikro 2005							0	0	121	203	173	191	
Iboubikro 2006	184	244	261	227	67	50	0	52	76	253	270	329	2013
Confluent 2005							0	0	79	235	198	199	
Confluent 2006	97	124	150	135	74	103	0	28	107	297	199	169	1483
Mean	140.5	184	205.5	181	70.5	76.5	0	22	109.6	233	217.4	222	1662

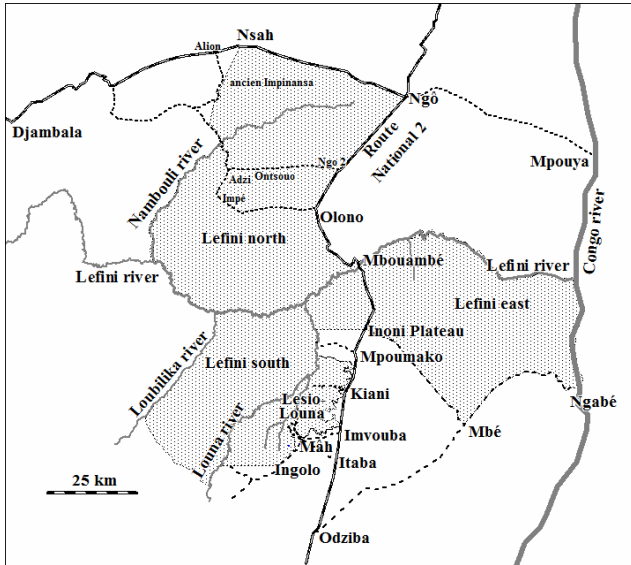


Fig 3. The Lesio-Louna & Lefini Reserves, and selected villages and other features.

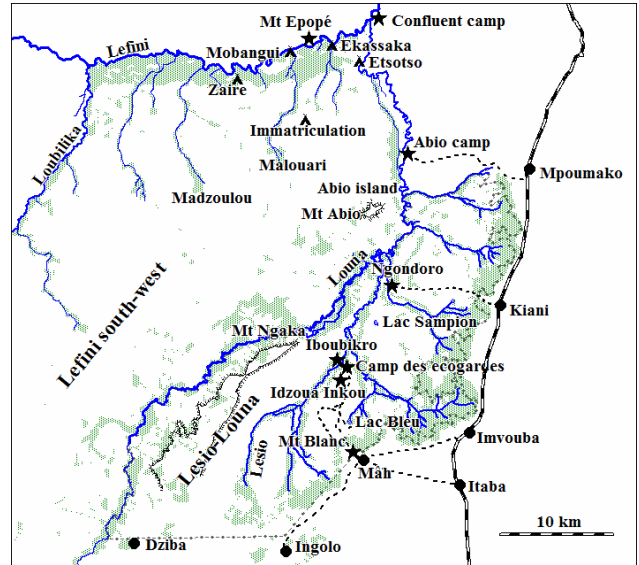


Fig 4. Survey sites & other localities in the Lesio-Louna & south-west Lefini Reserves, with forest cover within the study area in green.



Fig 5. Views of the Lesio-Louna & Lefini Reserves: (a) Lefini gallery forest looking south-east from Mt Epopé; (b) Louna gallery forest looking north from Mt Ngaka towards Mt Abio; (c) Abio island on Louna river from Mt Abio; (d) *Loudetia* grassland between Mpoumako and Abio; (e) seasonal ponds at Iboubikro; (f) cliff forests near Mâh from ridge above Lac Bleu. (Photos: A. Sully (a), T. King (b-e), P. King (f))

Methods

Mist-netting

Mist-netting was carried out 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 in the close vicinity of Iboubikro, the base camp for the Lesio-Louna management project (named “Base-Vie” in King *et al.* 2004), and the nearby sites of Camp des ecogardes and Idzoua Inkou. In 2002 (and briefly in 2003), netting was also carried out at Ngondoro, and very briefly at Lac Bleu. Habitats surveyed included gallery forest interior, forest/savanna transition, and lightly wooded savanna. Generally, three to five 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), whose nomenclature we follow. Mass was measured using spring balances to the nearest g, except heavier 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 undertail coverts (unless otherwise stated). Other measurements were taken using a pair of dial callipers, such as bill length to the feathers of the head (Bill (f)), bill length to the skull (Bill (s)), tarsus, body length (tip of bill to base of tail feathers) and total length (tip of bill to tip of tail). Notes on brood patch were recorded from November 2005 onwards. Moulting 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 exhibiting primary moult were assigned cumulative scores between 0 and 50 based on a score between 0 and 5 for each primary feather (0 = old feather, 1 = pin, 2 = pin with emerging feather, 3 = half-grown feather, 4 = three-quarter-length feather, 5 = full-grown new feather). Similarly, birds exhibiting secondary moult were assigned cumulative scores between 0 and 30 for most species (with six secondaries), or more for some non-passerines with more than six secondaries. Moulting scores presented here are for the left wing; right wing scores were generally but not always similar. Birds were marked with marker pen on the underside of the wings, to allow identification of recaptured birds for up to several weeks after capture.



Figs 6 & 7. Primary & secondary wing moult in Common Bulbul, and tail moult in a Western Olive Sunbird. (Photos: C. Chamberlan)

MacKinnon Lists

A variation on the MacKinnon List method (Bibby *et al.* 1998) was used for quantitative comparisons between species and sites. Various sites were visited on a regular basis, and the first ten bird species seen were noted in sequence of being seen. The proportion of times each species was noted at each site was then used as an 'Index of Relative Visibility' (IRV) for the species at that site. The more popular term 'Index of Relative Abundance' was not used, as various factors other than abundance affect the Index value, for example the behaviour of the species or the ease of identification. Extreme examples include the Grey Parrot and the African Pied Hornbill which are very vocal and can be seen and identified from great distance, compared to secretive and cryptic species such as many of the small passerines, or species groups that are hard to distinguish except at close quarters such as Blue-Breasted and Little Bee-eaters. Pipits (*Anthus* spp.) were generally excluded from the list samples due to the difficulty of identification. Species that were heard but not seen were not included in the lists, as the competence of the observer was not sufficient to identify many species by voice. Had such species been included, the term 'Index of Relative Detectability' would have been appropriate (Turner *et al.* 2002).

Motorised transects

Several routes were used regularly to travel between sites in the two reserves, either by vehicle or by motorised pirogue. These travel routes were utilised as effective transects for the recording of various appropriate species. In the case of vehicle routes, these included bustards, francolins, waders, raptors, and some other selected species of particular interest such as Congo Moor Chat. During the pirogue rides, all species seen could be recorded. These transects allowed the calculation of the percentage chance of seeing a particular species on each route.

Opportunistic observations

While the MacKinnon List method utilised the first ten species seen as the sample for quantitative analysis, all other species seen or heard at the same time were also noted as complementary observations, as were any unusual or interesting observations made *ad hoc* throughout the reserve. 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. Identification of food stuffs was generally difficult, but occasional notes on food plants were made, with botanical identifications based on Nsongola *et al.* (2006).

General results

A total of 264 species were recorded during the period 2002 to 2007. Eight of these species were recorded only during the mist-net survey, including 5 new to the reserves (Yellow-fronted Tinkerbird, Buff-spotted Woodpecker, Red-capped Robin Chat, Fire-crested Alethe, Garden Warbler) and three already given by Dowsett-Lemaire (1997) (Thick-billed Honeyguide, Cabanis' Bunting and *Anthus* sp.). In all, 75 of the species recorded can be added to the list of 240 given by Dowsett-Lemaire (1997), plus two more species given only by Bailey *et al.* (1996) (African Scops Owl, Square-tailed Nightjar), giving a total of 317 species recorded from the two reserves. Fifty-two of the species given by Dowsett-Lemaire (1997) were not recorded during the survey period, including ten 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). Four species constitute the first records for Congo (Miombo Pied Barbet, Yellow-fronted Tinkerbird, Sladen's Barbet (King & Chamberlan 2007c) and Martial Eagle). Full details of all known observations of each species are given in the individual species accounts below.

The 317 species recorded for the two reserves represent 63 different families. The most species-rich families in the reserves are Sylviidae and Accipitridae (23 species each), followed by Nectarinidae (16), Estrilidae (16) and Ploceidae (15) (table 2).

Table 2. The most species-rich bird families in the Lesio-Louna and Lefini Reserves.

Family		Total
Sylviidae	Warblers etc	23
Accipitridae	Eagles, buzzards, kites etc	23
Nectariniidae	Sunbirds	16
Estrildidae	Finches, waxbills etc	16
Ploceidae	Weavers, widowbirds etc	15
Cuculidae	Coucals & cuckoos	14
Alcedinidae	Kingfishers	13
Ardeidae	Hérons, bitterns & egrets	12
Hirundinidae	Swallows & martins	12
Pycnonotidae	Bulbuls, greenbuls etc	12
Capitonidae	Barbets & tinkerbirds	10
Columbidae	Doves & pigeons	9
Meropidae	Bee-eaters	8
Turdidae	Chats, thrushes etc	8
Picidae	Woodpeckers	7
Motacillidae	Pipits, wagtails, longclaws	7
Muscicapidae	Flycatchers	6

The status of many species remains uncertain, but of the 317 species recorded from the reserves, at least 213 are resident, and another 30-45 may well be. Between 20 and 25 are Palearctic migrants, and probably between 4 and 15 are intra-African migrants. About 10 species are rare visitors. The status given for each species in this report will be further reviewed and refined for publication of the final list.

Photographs of many species will be presented in a photographic guide to the birds of the two reserves (King in prep.), but a few photos and descriptions are presented here to facilitate resolution of some debatable or unresolved specific or subspecific identifications.

MacKinnon List Results

A total of 225 lists of 10 species were completed between December 2003 and April 2007. There was an uneven sampling effort between months of the year, with many lists carried out between November and February, and few between May and August (fig 8). 185 of these lists were conducted at 7 sites, the remaining 40 lists at a further 20 sites. Only the 7 most frequently visited sites will be used in the analysis.

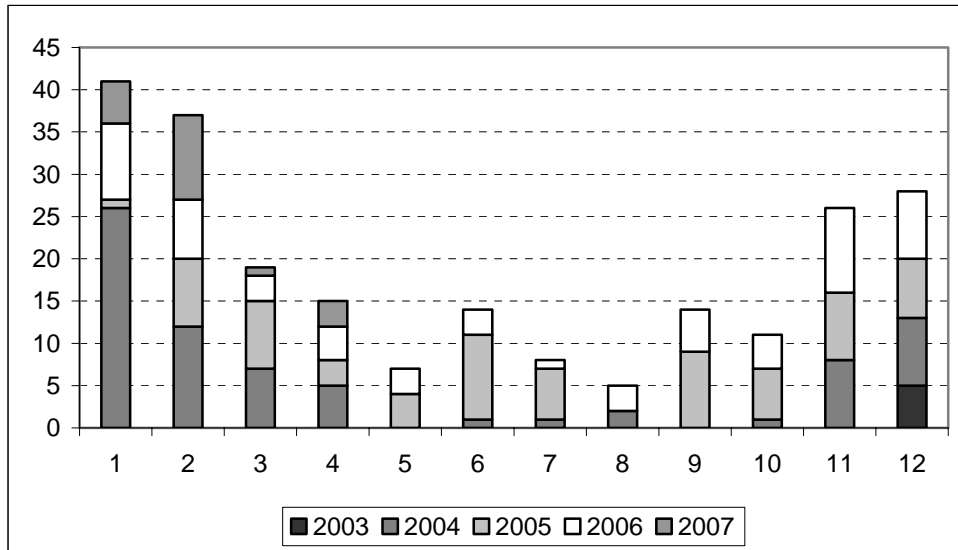


Fig 8. Number of lists of 10 species completed by month.

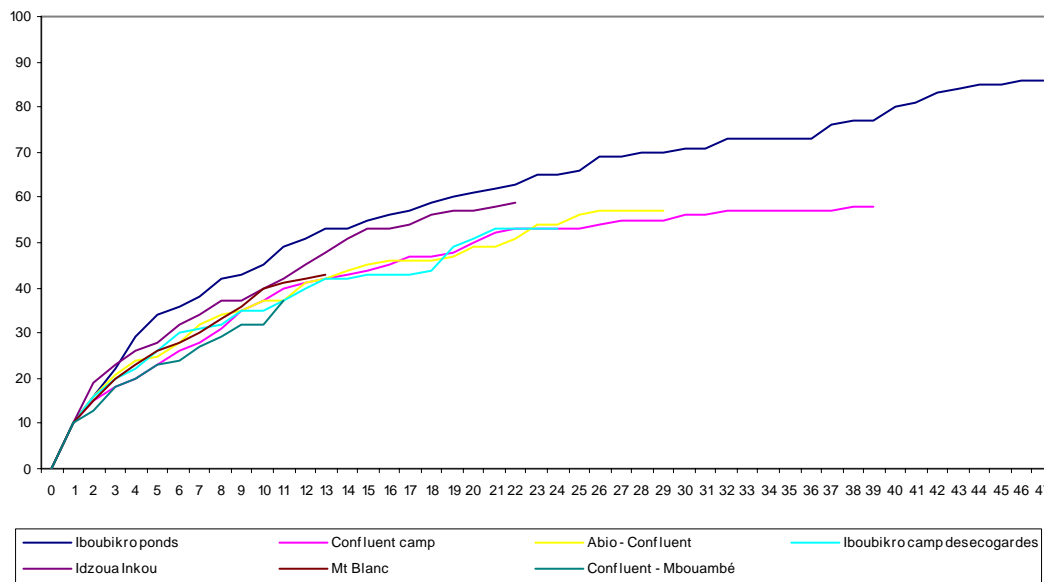


Fig 9. Species discovery curves for each site (species totals by number of completed lists).

The most frequently visited site was Iboubikro ponds, with 47 lists, followed by confluent camp (39 lists), Louna river from Abio camp to confluent camp (29), camp des ecogardes (24), Idzoua Inkou (22), Mt Blanc (13) and Lefini river from confluent camp to Mbouambé (13). Of the five most frequently-visited sites, Iboubikro ponds and Idzoua Inkou supported the most diverse avifauna, with 63 and 59 species respectively recorded after 22 lists, while the other three sites exhibited very similar diversities with 51 to 53 species each after the same number of lists (fig 9).

175 species were recorded at the 7 principle sites (appendix 1), and a further 4 at the remaining sites. The most commonly recorded species was the common bulbul, with an IRV ≥ 0.1 at all 7 sites, and a mean IRV of 0.55 (table 3). Four other species were also recorded at all 7 sites, but with lower mean IRVs (Common Swift, Banded Martin, Blue-spotted Wood Dove and European Bee-eater).

Table 3. Indices of Relative Visibility (IRVs) for 33 bird species recorded at 4 or more of the 7 sites.

English name	Abio - Confluent	Confluent - Mbouambé	Confluent camp	Iboubikro ponds	Camp des ecogardes	Idzoua Inkou	Mt Blanc	Sites	Mean IRV
Common Bulbul	0.52	0.18	0.62	0.81	0.46	0.50	0.77	7	0.55
Common Swift	0.24	0.45	0.28	0.15	0.08	0.23	0.08	7	0.22
Banded Martin	0.38	0.09	0.03	0.04	0.17	0.05	0.62	7	0.20
Blue-spotted Wood Dove	0.07	0.18	0.18	0.19	0.04	0.14	0.15	7	0.14
European Bee-eater	0.14	0.09	0.08	0.09	0.13	0.09	0.15	7	0.11
Bronze Mannikin	0.10	0.09		0.28	0.38	0.27	0.54	6	0.24
Red-eyed Dove	0.10	0.09	0.26	0.26	0.42	0.45		6	0.23
Rufous-chested Swallow	0.10	0.09		0.02	0.17	0.05	0.08	6	0.07
Grey Parrot	0.62	0.82	1.00	0.19	0.33			5	0.42
Copper Sunbird			0.23	0.23	0.33	0.05	0.85	5	0.24
Yellow-mantled Widowbird	0.03			0.02	0.42	0.23	0.92	5	0.23
African Pied Hornbill	0.34	0.45	0.31	0.23	0.21			5	0.22
Blue-breasted Bee-eater	0.10			0.02	0.42	0.14	0.62	5	0.18
African Green Pigeon	0.17	0.36	0.31	0.09		0.09		5	0.15
Broad-billed Roller	0.28	0.27	0.21	0.02	0.13			5	0.13
Cinnamon-breasted Rock Bunting			0.18	0.11	0.42	0.05	0.08	5	0.12
Vieillot's Black Weaver	0.03	0.27		0.02	0.38		0.08	5	0.11
African Palm Swift		0.18		0.13	0.08	0.05	0.08	5	0.07
Green-throated Sunbird			0.15	0.09	0.04	0.09	0.08	5	0.06
White-throated Blue Swallow	1.00	1.00	0.38		0.04			4	0.35
Woodland Kingfisher	0.38	0.64	0.82	0.43				4	0.32
Sooty Chat	0.21				0.75	0.41	0.23	4	0.23
Orange-cheeked Waxbill	0.03			0.34	0.21		0.85	4	0.20
Reichenbach's Sunbird	0.14	0.09	0.49	0.70				4	0.20
Hamerkop	0.48	0.09	0.05	0.28				4	0.13
Yellow-throated Longclaw	0.03			0.09	0.63	0.14		4	0.13
Violet-backed Starling	0.03			0.04	0.04	0.55		4	0.09
Tawny-flanked Prinia				0.06	0.33	0.18	0.08	4	0.09
Western Bronze-naped Pigeon	0.14	0.27	0.15	0.09				4	0.09
Violet-tailed Sunbird	0.03	0.09	0.28	0.17				4	0.08
Black-headed Bee-eater	0.24	0.09	0.05		0.04			4	0.06
African Pygmy Kingfisher	0.03		0.13	0.13		0.05		4	0.05
Piping Hornbill	0.03		0.15	0.04	0.04			4	0.04

Site descriptions

The lists of most frequently recorded species at the three sites on the Louna and Lefini rivers are made up of a mixture of water-loving birds, including White-throated Blue Swallow, Cassin's Flycatcher, Giant and Pied Kingfisher, forest birds, such as Grey Parrot, African Pied Hornbill, Swamp Palm Bulbul and African Green Pigeon, and ubiquitous species such as Common Bulbul, Woodland Kingfisher and the Palearctic migrant Common Swift (tables 4 & 5).

Table 4. Indices of Relative Visibility (IRVs) for the most frequently recorded species along the Louna river between Abio and confluent, and along the Lefini river between confluent and Mbouambé.

Abio – Confluent		Confluent – Mbouambé		
1	White-throated Blue Swallow	1.00	White-throated Blue Swallow	1.00
2	Cassin's Flycatcher	0.90	Grey Parrot	0.82
3	Grey Parrot	0.62	Little Swift	0.82
4	Giant Kingfisher	0.52	Cassin's Flycatcher	0.64
5	Common Bulbul	0.52	Woodland Kingfisher	0.64
6	Hamerkop	0.48	African Pied Hornbill	0.45
7	Banded Martin	0.38	Common Swift	0.45
8	Woodland Kingfisher	0.38	Swamp Palm Bulbul	0.45
9	Pied Kingfisher	0.38	Lesser Striped Swallow	0.45
10	African Pied Hornbill	0.34	African Green Pigeon	0.36
11	Swamp Palm Bulbul	0.31	Pied Kingfisher	0.36
12	Broad-billed Roller	0.28	Broad-billed Roller	0.27
13	Black-headed Bee-eater	0.24	Giant Kingfisher	0.27
14	Common Swift	0.24	Western Bronze-naped Pigeon	0.27
15	Sooty Chat	0.21	Vieillot's Black Weaver	0.27
16	African Green Pigeon	0.17	Village Weaver	0.18
17	Abdim's Stork	0.17	Northern Grey-headed Sparrow	0.18
18	Green-backed Heron	0.17	African Palm Swift	0.18
19	Black Bee-eater	0.14	Common Bulbul	0.18
20	Western Bronze-naped Pigeon	0.14	Blue-spotted Wood Dove	0.18
21	Marsh Widowbird	0.14		
22	European Bee-eater	0.14		
23	Reichenbach's Sunbird	0.14		
24	African Jacana	0.10		
25	Blue-breasted Bee-eater	0.10		
26	Bronze Mannikin	0.10		
27	Common Sandpiper	0.10		
28	Black Kite	0.10		
29	Rufous-chested Swallow	0.10		
30	Purple Heron	0.10		
31	Red-eyed Dove	0.10		

Human-associated species were regularly recorded on the Lefini river towards the village of Mbouambé, such as Little Swift, Vieillot's Black Weaver, Village Weaver, Northern Grey-headed Sparrow and African Palm Swift. The Louna river passes through more areas of grassland than the Lefini river, hence the presence of grassland species such as Banded Martin, Sooty Chat and Marsh Widowbird. Species such as Hamerkop and Black-headed Bee-eater were more frequently recorded along the Louna river than elsewhere, while Grey Parrot was more often recorded along the Lefini river. While the Abio-Confluent and Confluent-Mbouambé sites were assessed by boat, the confluent camp site was assessed in a more sedentary manner, hence

the prominence of smaller species such as Olive-bellied, Reichenbach's, Violet-tailed and Copper Sunbirds, Little Greenbul and Speckled Tinkerbird.

Table 5. Indices of Relative Visibility (IRVs) for the most frequently recorded species at sites Confluent camp and Iboubikro ponds.

Confluent camp		Iboubikro ponds		
1	Grey Parrot	1.00	Common Bulbul	0.81
2	Woodland Kingfisher	0.82	Reichenbach's Sunbird	0.70
3	Olive-bellied Sunbird	0.74	Olive-bellied Sunbird	0.62
4	Common Bulbul	0.62	Woodland Kingfisher	0.43
5	Reichenbach's Sunbird	0.49	Winding Cisticola	0.43
6	Little Greenbul	0.41	African Jacana	0.40
7	White-throated Blue Swallow	0.38	Orange-cheeked Waxbill	0.34
8	African Green Pigeon	0.31	Bronze Mannikin	0.28
9	African Pied Hornbill	0.31	Hamerkop	0.28
10	Common Swift	0.28	Western Olive Sunbird	0.28
11	Violet-tailed Sunbird	0.28	Red-eyed Dove	0.26
12	Red-eyed Dove	0.26	African Pied Hornbill	0.23
13	Copper Sunbird	0.23	Copper Sunbird	0.23
14	Speckled Tinkerbird	0.21	Green-headed Sunbird	0.21
15	Broad-billed Roller	0.21	Senegal Coucal	0.21
16	Giant Kingfisher	0.21	Blue-spotted Wood Dove	0.19
17	Pied Kingfisher	0.18	Grey Parrot	0.19
18	Blue-spotted Wood Dove	0.18	White-winged Black Tit	0.17
19	Swamp Palm Bulbul	0.18	Violet-tailed Sunbird	0.17
20	Cassin's Flycatcher	0.18	Yellow-throated Tinkerbird	0.17
	Cinnamon-breasted Rock			
21	Bunting	0.18	Green Crombec	0.15
22	Green-throated Sunbird	0.15	Common Swift	0.15
23	Piping Hornbill	0.15	Little Grebe	0.13
24	Western Bronze-naped Pigeon	0.15	African Pygmy Kingfisher	0.13
25	Long-tailed Hawk	0.13	Speckled Tinkerbird	0.13
26	Collared Sunbird	0.13	Collared Sunbird	0.13
27	African Pygmy Kingfisher	0.13	African Palm Swift	0.13
28	Afep Pigeon	0.10	Bates's Paradise Flycatcher	0.11
29	Yellow-crested Woodpecker	0.10	Black-throated Seed-eater	0.11
			Cinnamon-breasted Rock	
30	Splendid Glossy Starling	0.10	Bunting	0.11
31	Fraser's Forest Flycatcher	0.10	Marsh Widowbird	0.11
32	Velvet-mantled Drongo	0.10		

The Iboubikro ponds site was dominated by forest edge or thicket and wooded grassland species, plus a few species associated with water such as Winding Cisticola, African Jacana, Hamerkop and Little Grebe (table 5). Of the two wooded grassland sites (table 6), Idzoua Inkou supported the more diverse avifauna, with species such as Violet-backed Starling, Black-headed Batis, Amethyst Sunbird and Green-capped Eremomela featuring in the top-ten most visible species. The camp des ecogardes site supported a variety of more open grassland species, such as Yellow-throated Longclaw, Bronze Mannikin, Tawny-flanked Prinia and Croaking Cisticola.

Table 6. Indices of Relative Visibility (IRVs) for the most frequently recorded species at the wooded grassland sites Idzoua Inkou and Camp des ecogardes.

Idzoua Inkou		Camp des ecogardes		
1	Flappet Lark	0.68	Sooty Chat	0.75
2	Violet-backed Starling	0.55	Yellow-throated Longclaw	0.63
3	Common Bulbul	0.50	Flappet Lark	0.58
4	Red-eyed Dove	0.45	Common Bulbul	0.46
			Cinnamon-breasted Rock	
5	Black-headed Batis	0.45	Bunting	0.42
6	Sooty Chat	0.41	Yellow-mantled Widowbird	0.42
7	Yellow-throated Petronia	0.41	Red-eyed Dove	0.42
8	White-winged Black Tit	0.36	Blue-breasted Bee-eater	0.42
9	Amethyst Sunbird	0.36	Bronze Mannikin	0.38
10	Green-capped Eremomela	0.32	Common Fiscal	0.38
11	Zitting Cisticola	0.32	Zitting Cisticola	0.38
12	Pale Flycatcher	0.27	Vieillot's Black Weaver	0.38
13	Bronze Mannikin	0.27	Tawny-flanked Prinia	0.33
14	Piping Cisticola	0.23	Grey Parrot	0.33
15	Green-headed Sunbird	0.23	Copper Sunbird	0.33
16	Yellow-mantled Widowbird	0.23	Croaking Cisticola	0.25
17	Black-throated Seedeater	0.23	Little Bee-eater	0.21
18	Common Swift	0.23	White-winged Black Tit	0.21
19	Yellow-rumped Tinkerbird	0.18	African Pied Hornbill	0.21
20	Dark Chanting Goshawk	0.18	Orange-cheeked Waxbill	0.21
21	Striped Kingfisher	0.18	Rufous-chested Swallow	0.17
22	Tawny-flanked Prinia	0.18	Banded Martin	0.17
23	Little Bee-eater	0.18	European Bee-eater	0.13
24	Yellow-bellied Hyliota	0.18	Sladen's Barbet	0.13
25	Blue-spotted Wood Dove	0.14	Spotted Flycatcher	0.13
26	Pale-fronted Negrofinch	0.14	Broad-billed Roller	0.13
27	Yellow-throated Longclaw	0.14	Red-necked Francolin	0.13
28	Blue-breasted Bee-eater	0.14		

The Mt Blanc site shared numerous grassland species with Idzoua Inkou and Camp des ecogardes, but in addition supported marsh-associated species such as Marsh Tchagra, White-winged Widowbird and Winding Cisticola. It also supported various species seemingly more abundant on the plateau than in the valley-bottom locations of the other sites, including Speckled Mousebird, Compact Weaver, Blue-billed Firefinch and Pin-tailed Whydah (table 7).

A small number of lists made at Ngondoro in late 2003 and early 2004 require further analysis and are not presented here.

Table 7. Indices of Relative Visibility (IRVs) for the most frequently recorded species at Mt Blanc.

Mt Blanc		
1	Yellow-mantled Widowbird	0.92
2	Orange-cheeked Waxbill	0.85
3	Copper Sunbird	0.85
4	Common Bulbul	0.77
5	Banded Martin	0.62
6	Blue-breasted Bee-eater	0.62
7	Lesser Striped Swallow	0.54
8	Bronze Mannikin	0.54
9	Speckled Mousebird	0.46
10	Compact Weaver	0.31
11	Black Saw-wing	0.23
12	Sooty Chat	0.23
13	European Bee-eater	0.15
14	Marsh Tchagra	0.15
15	Blue-spotted Wood Dove	0.15
16	Piping Cisticola	0.15
17	Red-headed Quelea	0.15
18	Blue-billed Firefinch	0.15
19	White-winged Widowbird	0.15
20	Winding Cisticola	0.15
21	Pin-tailed Whydah	0.15



Figs 10 & 11. Common Bulbul, the most frequently recorded species during the MacKinnon List survey, and European Bee-eater, also recorded from all seven survey sites (Photos: T. King).

River Transect Results

66 species were sighted during 37 transects along the Louna river between Abio and the confluence, and 41 species during 15 transects along the Lefini river between the confluence and Mbouambé (appendix 2). The most frequently sighted species are given in table 8.

Table 8. Percentage values for most frequently sighted species during river transects.

Louna			Lefini	
1	White-throated Blue Swallow	100.0	White-throated Blue Swallow	100.0
2	Cassin's Flycatcher	91.9	Grey Parrot	93.3
3	Grey Parrot	75.7	Little Swift	80.0
4	Giant Kingfisher	62.2	African Pied Hornbill	80.0
5	Hamerkop	54.1	Cassin's Flycatcher	80.0
6	Pied Kingfisher	54.1	Woodland Kingfisher	66.7
7	African Pied Hornbill	54.1	Lesser Striped Swallow	53.3
8	Banded Martin	54.1	Giant Kingfisher	46.7
9	Common Bulbul	54.1	Vieillot's Black Weaver	46.7
10	Woodland Kingfisher	51.4	Common Swift	40.0
11	Swamp Palm Bulbul	35.1	African Palm Swift	33.3
12	Sooty Chat	35.1	Pied Kingfisher	33.3
13	Green-backed Heron	32.4	Swamp Palm Bulbul	33.3
14	Broad-billed Roller	29.7	African Green Pigeon	26.7
15	Common Swift	27.0	Western Bronze-naped Pigeon	26.7
16	Abdim's Stork	24.3	Broad-billed Roller	26.7
17	Black-headed Bee-eater	24.3	Northern Grey-headed Sparrow	26.7
18	Piping Hornbill	21.6	Blue-spotted Wood Dove	20.0
19	African Green Pigeon	18.9	Red-eyed Dove	20.0
20	Red-eyed Dove	18.9	Common Bulbul	20.0
21	Black Bee-eater	18.9	Bronze Mannikin	20.0
22	European Bee-eater	18.9	Black Kite	13.3
23	African Fish Eagle	16.2	Banded Martin	13.3
24	African Jacana	16.2	Village Weaver	13.3
25	Western Bronze-naped Pigeon	16.2		
26	Bronze Mannikin	16.2		



Figs 12 & 13. White-throated Blue Swallow and Cassin's Flycatcher, two of the most frequently recorded species along the Louna and Lefini rivers (Photos: T. King).

Vehicle Transect Results

Vehicle transects were conducted along two principle routes, from Iboubikro to Mt Blanc (63 transects) and from Mpoumako to Abio (39). The percentages of sightings are presented for 25 selected species in table 9. Raptors were generally more often sighted between Mpoumako and Abio than between Iboubikro and Mt Blanc, with the notable exception of Common Kestrel which was observed more often between Iboubikro and Mt Blanc. Finsch's and Red-necked Francolins were more often sighted between Iboubikro and Mt Blanc, but African Crake was observed considerably more often between Mpoumako and Abio (mainly in the rank grassland on the plateau near Mpoumako). Black-bellied Bustards were sighted at similar frequencies along the two transects, but White-bellied Bustards were a lot more frequent between Mpoumako and Abio. A pair of lilac-breasted rollers resident in the zone around Mpieri accounted for the high frequency of sightings between Iboubikro and Mt Blanc. Congo Moor Chat was sighted on more than three quarters of trips along the Abio/Mpoumako road, compared to a third of trips along the Iboubikro/Mt Blanc route. Conversely, Common Fiscal was more often seen towards Mt Blanc. Black-chinned Weaver were sighted only rarely on both routes, and Red-collared Widowbird exclusively in the zone of rank grassland near Mpoumako.

Table 9. Percentage values for selected species sighted during vehicle transects.

English name (B&D 2001)	Iboubikro - Mt Blanc	Mpoumako-Abio
Black-shouldered Kite	1.6	2.6
Black Kite	1.6	10.3
Black-breasted Snake Eagle	0.0	2.6
Bateleur	0.0	2.6
Eurasian Marsh Harrier	0.0	2.6
Dark Chanting Goshawk	1.6	0.0
African Goshawk	1.6	0.0
Lizard Buzzard	0.0	2.6
Red-necked Buzzard	9.5	12.8
Martial Eagle	0.0	2.6
Common Kestrel	25.4	12.8
Finsch's Francolin	7.9	2.6
Red-necked Francolin	9.5	2.6
Helmeted Guineafowl	3.2	2.6
African Crake	6.3	23.1
White-bellied Bustard	19.0	53.8
Black-bellied Bustard	23.8	23.1
Temminck's Courser	4.8	10.3
Lesser Black-winged Lapwing	11.1	7.7
Lilac-breasted Roller	28.6	7.7
Hoopoe	6.3	5.1
Congo Moor Chat	30.2	79.5
Common Fiscal	31.7	7.7
Black-chinned Weaver	3.2	2.6
Red-collared Widowbird	0.0	17.9
Total transects	63	39

Mist-netting Results

638 birds were netted over the course of the sampling period (table 10). 39 of these were subsequently recaptured, including 3 which were recaptured a third time, giving a total of 680 net registrations. An additional bird, a Woodland Kingfisher, was rescued from a bar in Imvouba having been captured by local people apparently near Itaba. These birds represent 86 different species, including one pipit for which the specific identification requires confirmation, plus two unidentified sunbirds (see below).

Table 10. Number of birds netted per location per year.

	2002	2003	2004	2005	2006	2007	Total
Iboubikro	83	2		129	152	14	380
Camp des ecogardes	5			83	47		135
Ngondoro	74	4					78
Idzoua-Inkou	4			11	28		43
Lac Bleu	2						2
Total (no recaptures)	168	6	0	223	227	14	638
Recaptures	2	0	0	20	20	0	42
Imvouba rescue				1			1
Total	170	6	0	244	247	14	681

Table 11. Number of birds netted per location per habitat type (including recaptures).

Location	Forest interior	Savanna	Transition forest/savanna	Total
Iboubikro	93	0	318	411
Camp des ecogardes	0	42	102	144
Ngondoro	0	46	33	79
Idzoua-Inkou	0	34	10	44
Lac Bleu	1	1	0	2
Total birds	94	123	463	680
Total species	19	40	66 (+ 2 sunbirds?)	86 (+2?)

The majority of birds (and species) were netted in transitional forest/savanna habitat, with much fewer in forest interior or savanna (Table 11). The most frequently netted species overall was by far the Little Greenbul (26.6% of all netted birds), followed by Western Olive Sunbird (9%) and Common Bulbul (5.9%) (table 12). The same three species were also the most frequently netted birds in the forest/savanna transition habitat class. Little Greenbul and Western Olive Sunbird were also the most frequently netted species in forest interior, while Common Bulbul was never netted in this habitat type (table 13). Lesser Bristlebill, Red-capped Robin Chat, Chestnut Wattle-eye, Western Bluebill and White-browed Forest Flycatcher were the next most frequently netted species in forest interior. In savanna nets, the most frequently netted species were Vieillot's Black Weaver, Orange-winged Pytilia, Blue-breasted Bee-eater, Sooty Chat, Yellow-throated Petronia, Amethyst Sunbird and Yellow-mantled Widowbird (table 13).

Table 12. Twenty most frequently netted species, including recaptures, all habitats combined and by habitat type 'Transition forest/savanna'.

Combined total		n	%	Transition forest/savanna		n	%
1	Little Greenbul	181	26.6	Little Greenbul	138	29.8	
2	Western Olive Sunbird	61	9.0	Western Olive Sunbird	47	10.2	
3	Common Bulbul	40	5.9	Common Bulbul	37	8.0	
4	Vieillot's Black Weaver	29	4.3	African Pygmy Kingfisher	18	3.9	
5	African Pygmy Kingfisher	22	3.2	Bates's Paradise Flycatcher	14	3.0	
6	Yellow-throated Petronia	20	2.9	Yellow-throated Petronia	14	3.0	
7	Bates's Paradise Flycatcher	15	2.2	Green Crombec	11	2.4	
8	Orange-winged Pytilia	14	2.1	Olive-bellied Sunbird	10	2.2	
9	Yellow-throated Tinkerbird	12	1.8	Yellow-throated Tinkerbird	9	1.9	
10	Green Crombec	12	1.8	Black-throated Seedeater	9	1.9	
11	Grey-backed Camaroptera	11	1.6	Grey-backed Camaroptera	8	1.7	
12	Black-throated Seedeater	11	1.6	Lead-coloured Flycatcher	8	1.7	
13	Olive-bellied Sunbird	10	1.5	Reichenbach's Sunbird	8	1.7	
14	Sooty Chat	9	1.3	Green-headed Sunbird	7	1.5	
15	Green-headed Sunbird	9	1.3	Sladen's Barbet	6	1.3	
16	Amethyst Sunbird	9	1.3	Speckled Tinkerbird	6	1.3	
17	Blue-breasted Bee-eater	8	1.2	Cinnamon-breasted Rock Bunting	6	1.3	
18	Lead-coloured Flycatcher	8	1.2	Western Nicator	5	1.1	
19	Reichenbach's Sunbird	8	1.2	Pale Flycatcher	5	1.1	
20	Lesser Bristlebill	7	1.0	Violet-tailed Sunbird	5	1.1	
21	Yellow-mantled Widowbird	7	1.0	Vieillot's Black Weaver	5	1.1	
22	Cinnamon-breasted Rock Bunting	7	1.0				

Table 13. Twenty most frequently netted species, including recaptures, by habitat types 'Forest interior' and 'Savanna'.

Forest interior		N	%	Savanna		n	%
1	Little Greenbul	42	44.7	Vieillot's Black Weaver	24	19.5	
2	Western Olive Sunbird	14	14.9	Orange-winged Pytilia	13	10.6	
3	Lesser Bristlebill	7	7.4	Blue-breasted Bee-eater	6	4.9	
4	Red-capped Robin Chat	4	4.3	Sooty Chat	6	4.9	
5	Chestnut Wattle-eye	4	4.3	Yellow-throated Petronia	6	4.9	
6	Western Bluebill	4	4.3	Amethyst Sunbird	5	4.1	
7	White-browed Forest Flycatcher	3	3.2	Yellow-mantled Widowbird	5	4.1	
8	Blue-breasted Kingfisher	2	2.1	African Pygmy Kingfisher	4	3.3	
9	Shining-blue Kingfisher	2	2.1	Tawny-flanked Prinia	4	3.3	
10	Yellow-throated Tinkerbird	2	2.1	Orange-cheeked Waxbill	4	3.3	
11	Green Hylia	2	2.1	Bronze Mannikin	4	3.3	
12	Red-eyed Dove	1	1.1	Swamp Nightjar	3	2.4	
13	Black Bee-eater	1	1.1	Common Bulbul	3	2.4	
14	Buff-spotted Woodpecker	1	1.1	Grey-backed Camaroptera	3	2.4	
15	Western Nicator	1	1.1	Little Bee-eater	2	1.6	
16	Fire-crested Alethe	1	1.1	Yellow-rumped Tinkerbird	2	1.6	
17	Green Crombec	1	1.1	Flappet Lark	2	1.6	
18	Bates's Paradise Flycatcher	1	1.1	Croaking Cisticola	2	1.6	
19	Violet-tailed Sunbird	1	1.1	Green-headed Sunbird	2	1.6	
20				Violet-backed Starling	2	1.6	
21				Black-throated Seedeater	2	1.6	

Recaptures

Of 638 birds netted, 39 were recaptured, including 3 which were recaptured twice. 17 species were recaptured, the most frequent being little greenbul (table 14). Eleven birds were recaptured more than two weeks after first capture, the longest time between captures being 16 weeks (Western Olive Sunbird), 14 weeks and 12 weeks (both Bates' Paradise Flycatcher) (table 15). Three birds were recaptured at a site different to the original capture site, all three being first netted at Iboubikro and then subsequently at camp des ecogardes, approximately 600 m away on the opposite side of the Lesio gallery forest (African Pygmy Kingfisher, Common Bulbul and Western Olive Sunbird) (table 16).

Table 14. Recaptures during mist-netting.

Bird Species	Birds recaptured once	Birds recaptured twice	Total birds recaptured
Little Greenbul	13	2	15
African Pygmy Kingfisher	3	1	4
Western Olive Sunbird	4		4
Bates's Paradise Flycatcher	2		2
Yellow-throated Petronia	2		2
Shining-blue Kingfisher	1		1
Speckled Tinkerbird	1		1
Yellow-rumped Tinkerbird	1		1
Lesser Bristlebill	1		1
Common Bulbul	1		1
Western Nicator	1		1
Winding Cisticola	1		1
Grey-backed Camaroptera	1		1
Lead-coloured Flycatcher	1		1
Chestnut Wattle-eye	1		1
Amethyst Sunbird	1		1
Vieillot's Black Weaver	1		1
Total	36	3	39

Table 15. Recaptures two weeks or more after first capture.

BirdID	Bird Species	First	Last	Time between captures
572	Western Olive Sunbird	24 Jan 06	17 May 06	16 weeks
667	Bates's Paradise Flycatcher	10 Aug 06	14 Nov 06	14 weeks
679	Bates's Paradise Flycatcher	10 Aug 06	29 Oct 06	12 weeks
694	Little Greenbul	11 Aug 06	07 Oct 06	8 weeks
685	Grey-backed Camaroptera	10 Aug 06	07 Oct 06	8 weeks
391	Shining-blue Kingfisher	04 Nov 05	22 Dec 05	7 weeks
524	Western Nicator	22 Dec 05	23 Jan 06	5 weeks
414	Speckled Tinkerbird	29 Nov 05	25 Dec 05	4 weeks
728	African Pygmy Kingfisher	07 Oct 06	28 Oct 06	3 weeks
640	Chestnut Wattle-eye	18 May 06	10 Jun 06	3 weeks
747	Little Greenbul	28 Oct 06	15 Nov 06	2.5 weeks

Table 16. Recaptures at different sites.

BirdID	Bird Species	First	Last	Distance	Time
347	African Pygmy Kingfisher	Iboubikro	Camp des ecogardes	600 m	9 days
535	Common Bulbul	Iboubikro	Camp des ecogardes	600 m	4 days
529	Western Olive Sunbird	Iboubikro	Camp des ecogardes	600 m	3 days



Figs 14 - 16. Little Greenbul, Lesser Bristlebill & Red-capped Robin Chat, three of the most frequently netted species in forest interior (Photos: C. Chamberlan)



Figs 17 - 19. Vieillot's Black Weaver, Orange-winged Pytilia & Blue-breasted Bee-eater, three of the most frequently netted species in wooded savanna (Photos: C. Chamberlan, D. Hayman & T. King)

Moult

Recaptured birds were excluded from the moult analysis except those captured in different time periods, giving a total of 647 moult registrations. Of these 171 were recorded as being in primary moult, and three as unknown. Observations of primary moult are given in the individual species accounts below, but a full analysis of the moult data, including secondary, tertiary and tail moult, is out of the scope of this preliminary report. However, a simplified preliminary presentation of seasonality of moult is provided, in order to investigate the suggestion by King *et al.* (2004) that there was a difference in moult seasons between forest and savanna species in the reserve, based on an analysis of a relatively small sample size collected during 2002. Savanna species were suggested to start moult 'perhaps as early as September, but certainly by October' and to end 'before the end of February'. Forest species were suggested to start moult 'no earlier than November', and continuing to March.

To test these suggestions, species netted were categorised as “forest resident” or “savanna resident”, based on observations of preferred habitat in the Lesio-Louna. A small number of species could be argued either way, but their placement should not affect the statistical rigour of the analysis. Migrant species are excluded from the analysis.

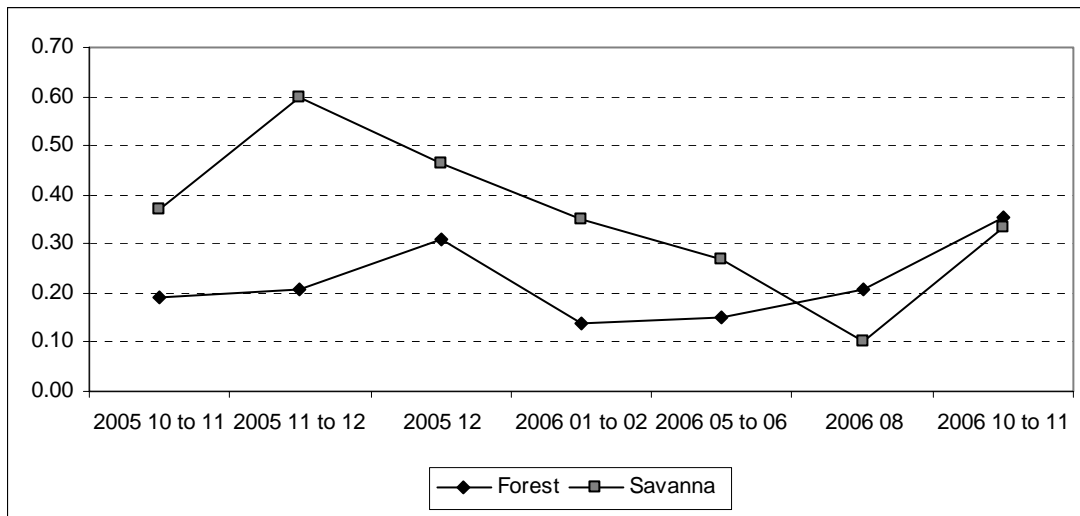


Fig 20. Proportion of resident forest and savanna birds netted exhibiting primary moult during distinct periods from Oct 2005 to Nov 2006. Note that no data is available for the period late Feb to early May 2006.

The data from 2005 to 2006 corroborate the general patterns from 2002, in that a major moult season starts around the beginning of the wet season (Oct/Nov; unfortunately no data is available for September). In 2005, as in 2002, savanna birds showed a peak in moult activity slightly earlier than forest birds (late Nov/early Dec and mid- to late Dec respectively), followed by a decline in moult activity in Jan/Feb. The lack of data from late Feb to early May is unfortunate, obscuring any pre-dry season moult patterns (analysis of moult scores and secondary and tail moult may give some idea of moult activity through this time though). Moult activity in savanna birds then declined through the dry season, before another steep increase in Oct/Nov 2006. In contrast, forest bird moult appeared to increase slowly through the dry season, and then rapidly in Oct/Nov 2006, apparently earlier than was the case in 2002 or 2005. Generally, though, forest birds showed milder fluctuations in moult proportions over the season, suggesting their annual cycles may be more flexible than the seemingly relatively rigid cycle of savanna birds.

A second way of analysing the data was to group data from all years into periods of one to three consecutive months, with sample size relatively equal between periods. The “Jun-Aug” period corresponds to the dry season in the reserve, and the “Jan-Mar” period to a generally drier period of the long wet season. Figure 21 shows that very few savanna birds were in primary moult during the dry season “Jun-Aug” (10%), but almost half were in primary moult by “Sep-Oct” (45%), a figure sustained through November (40%) and December (51%). The proportion in moult then declined relatively slowly through “Jan-Mar” (35%) and “Apr-May” (33%). The forest birds exhibited less fluctuation, with the proportion in primary moult increasing slowly from the dry season “Jun-Aug” (17%) through “Sep-Oct” (24%) to Nov (31%) and Dec (28%), then decreasing in “Jan-Mar” (14%) before a little increase in “Apr-May” (18%). These results confirm the major moulting season to follow the dry season, with few birds in moult from Jun-Aug, and many in moult between Sep/Oct and Dec. The lack of sufficient sample sizes in each of the following months, however, obscures the detail of moult during the second half of the wet season. The current presentations suggest a possible second period of moult in Apr-May, prior to the following dry season, but further analysis is required to add precision to this hypothesis.

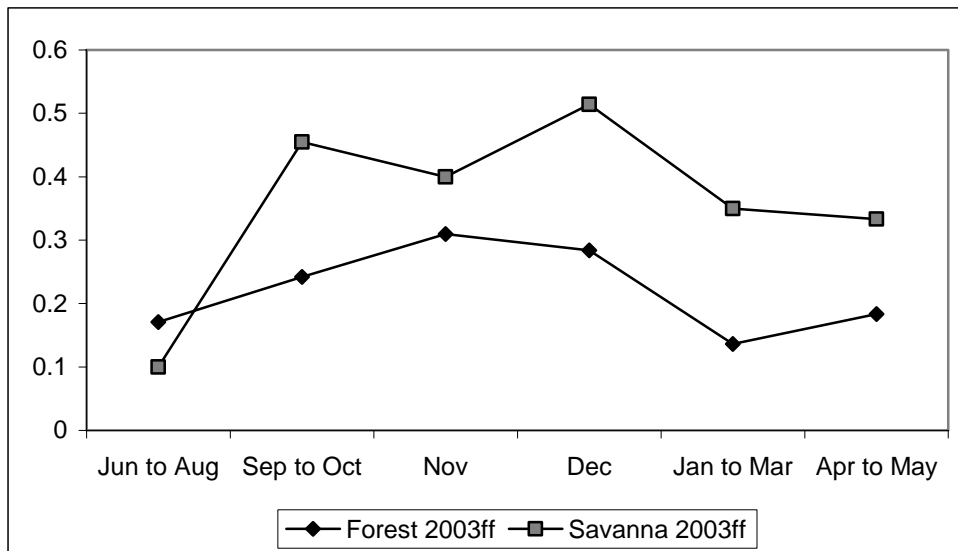


Fig 21. Proportion of resident forest and savanna birds netted in primary moult during different months (excluding birds from 2002).

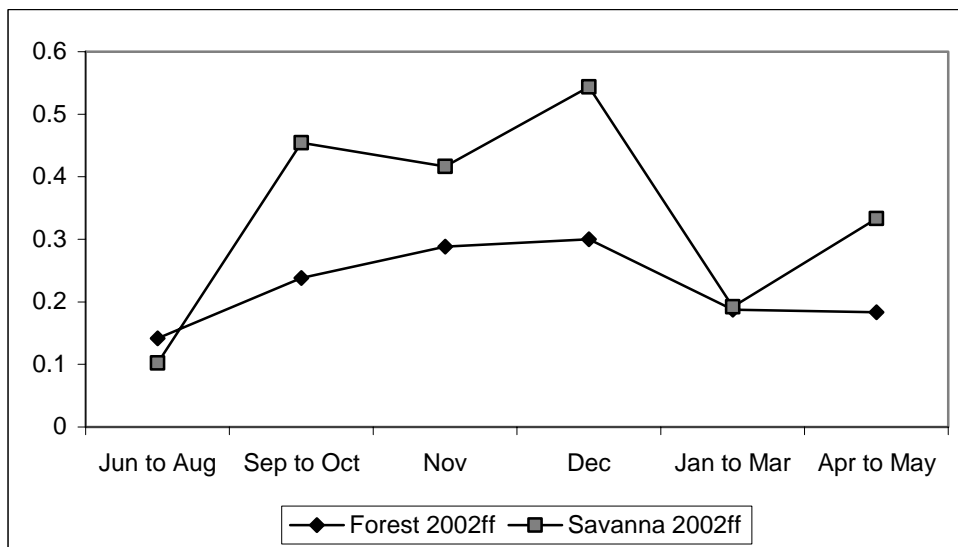


Fig 22. Proportion of resident forest and savanna birds netted in primary moult during different months (including birds from 2002).

Morphometrics

Ranges for mass and wing measurements are given in the individual species accounts below, while full details of morphometric measurements are given in appendices 3 & 4.

Identification of netbird 224

The identification of bird 224 netted 1 Jul 2002 remains unclear. Apart from the mass, which in any case must surely be erroneous, the morphometrics for bird 224 seem consistent with that of the Flappet Lark netted in 2005, and with published measurements for this species in Birds of Africa (table 17), but the photo (fig 23) is inconclusive.

Table 17. Morphometrics of Flappet Lark, unidentified netbird 224, and published morphometrics for Rufous-naped and Flappet Larks (from Birds of Africa (BoA)).

	Bird Species	Sex	Mass	Wing	Tail (f)	Tarsus	Bill (f)
BoA	Rufous-naped Lark	M	41.3-47.5	89-102	56-65		
BoA	Rufous-naped Lark	F	33-49	79-99	47-62		
BoA	ssp nykae		51, 51.7				
BoA	Flappet Lark	M	21-30	75-81	48-55		
BoA	Flappet Lark	F	21-32.4	67-80	45-53		
05-Nov-05	Flappet Lark		29	79	52	24.4	18.3
01-Jul-02	Bird 224		55?	75	56	24	19



Fig 23. Flappet Lark & unidentified netbird 224 netted in the Lesio-Louna Reserve. (Photos: C Chamberlan (a), T King (b)).



Fig 24. Sunbird 293, netted 1 Dec 2002, Iboubikro. (Photo: T King).

Identification of sunbird 293

The morphometrics of sunbird 293, netted 1 Dec 2002 at Iboubikro, are consistent with those of olive-bellied sunbirds (table 18), but the photo (fig 24) is inconclusive. Therefore the individual remains unidentified.

Table 18. Morphometrics of selected sunbirds netted in the Lesio-Louna Reserve, for comparison with unidentified sunbird 293.

Bird Species	Sex	N	Mass	Wing	Tail (f)	Tarsus	Bill (s)
Reichenbach's	Ad	6	7-12	53-60	40-50	14.9-18.5	19.2-20.6
Copper	M&F	2	8-9	57-59	41-46	14-14.5	20.8-23.1
Collared	M&F	3	8	50-53	29-33	13.7-15.5	16.2-17.8
Olive-bellied	M	5	6-7	50-52	31-36	14.4-17.1	21.5-22.4
Olive-bellied	F	2	6	47-48	32	13.4-14.9	21.1-21.8
Olive-bellied	Juv	3	5-7	47-50	30-33	13.8-15.1	21.4-22.5
<i>Sunbird 293</i>		1	6	46	33	15.8	21.7

Species accounts

The following species accounts follow the sequence and nomenclature of Borrow & Demey (2001). Brief notes are given on distribution, habitat types, seasonality and breeding observations, plus a summary of information from the MacKinnon List surveys, the river and vehicle transects, and from any netted birds. For the list survey sites, “Louna river” refers to the Louna between Abio camp and the confluence with the Lefini river, and “Lefini river” refers to the Lefini between the confluence with the Louna and the village of Mbouambé. Observations are by T King unless stated otherwise. Comments preceded by ‘DL 97’ are those given by Dowsett-Lemaire (1997) for the species she listed, and are her own observations unless followed by the initials of another observer (K Bailey (KB), L Booth (LB), R Dowsett (RJD), L Mastromatteo (LM)). A preliminary assessment of status is given after each English name: Resident (R), Intra-African Migrant (M), Palearctic Migrant (P), Rare Visitor (V), or identification to be confirmed (X).

Little Grebe, R, Podicipedidae, *Tachybaptus ruficollis*, Grèbe castagneux

Singly or pair Iboubikro ponds Oct, Nov, Jan, Feb (2004, 2005) & Lac Bleu Nov (2006); small groups Lac Bleu Jul 2004 (5), Jul 2005 (7); breeding plumage Nov
DL 97: ponds & lakes (LM)

African Darter, R/M?, Anhingidae, *Anhinga rufa*, Anhinga d'Afrique

Lefini, Louna & Lesio rivers, Feb-Aug; singly except pair resident at Abio island Jul 2006
DL 97: visitor Lac Sanpion (LM)

Little Bittern, P, Ardeidae, *Ixobrychus minutus*, Blongios nain

Etsotso, 8 Jan 2007; ssp *minutus* (migrant)
DL 97: 1 imm, Nov, marsh (LM)

White-crested Tiger Heron, R, Ardeidae, *Tigriornis leucolophus*, Onoré à huppe blanche

One on nest Oct-Nov 2006, Louna river, Abio

White-backed Night Heron, R, Ardeidae, *Gorsachius leuconotus*, Bihoreau à dos blanc

DL 97: gallery forest; Lac Bleu (KB) (Lac Bleu 15 juin 1975 et seq. KB in Dowsett & Dowsett-Lemaire 1989)

Black-crowned Night Heron, R, Ardeidae, *Nycticorax nycticorax*, Bihoreau gris

Louna river near Etsotso, 13 Apr & 20 Jul 2003; Abio island March 2007; 1-3 individuals
DL 97: gallery forest & ponds

Squacco Heron, P, Ardeidae, *Ardeola ralloides*, Crabier chevelu

4 obs; Oct, Dec, Mar, Iboubikro ponds & Lefini river
DL 97: Pal. Visitor, marsh (LM)

Cattle Egret, R, Ardeidae, *Bubulcus ibis*, Héron garde-boeufs

Widespread; breeding plumage Nov
DL 97: mainly near villages

Green-backed Heron, R, Ardeidae, *Butorides striatus*, Héron strié

Louna river Nov-Jun; juvenile Feb; also Iboubikro ponds & Lefini river

Little Egret, P, Ardeidae, *Egretta garzetta*, Aigrette garzette

2 obs; Nov, Dec; Iboubikro ponds & Confluent
DL 97: Pal. Visitor, ponds (LM)

Intermediate Egret, R/M?, Ardeidae, *Egretta intermedia*, Aigrette intermédiaire

Nov, Dec; Iboubikro, Louna river

Great Egret, P?, Ardeidae, *Egretta alba*, Grande Aigrette

Mt Blanc, Jan, Feb 2005; Iboubikro ponds Dec 2004
DL 97: Pal. Visitor, ponds & lakes (LM)

- Purple Heron**, R, Ardeidae, *Ardea purpurea*, Héron pourpré
Resident, Louna & Lefini rivers; Visitor Iboubikro ponds Oct-Dec; Juvenile Apr, Oct
Similar IRV values along Louna (0.10) & Lefini (0.09) rivers
DL 97: Pal visitor, marsh (LM)
- Grey Heron**, P, Ardeidae, *Ardea cinerea*, Héron cendré
Iboubikro ponds & Louna river, Feb-Mar 2003
DL 97: Pal visitor, marsh (LM)
- Hamerkop**, R, Scopidae, *Scopus umbretta*, Ombrette africaine
Singly or pairs all year Louna river & Iboubikro ponds; groups of 3-5 Jul-Oct; rare Lefini river
Variable IRV values show preference for Louna river (0.48) over Lefini river (0.09)
DL 97: ponds (LM)
- Abdim's Stork**, M, Ciconiidae, *Ciconia abdimii*, Cigogne d'Abdim
Feb-May (earliest 6 Feb 2007; latest 14 May 2005); esp Louna & Lefini rivers
DL 97: esp Mar-Apr
- Woolly-necked Stork**, V/M?, Ciconiidae, *Ciconia episcopus*, Cigogne épiscopale
1 obs 22 Nov 2004, on sand bank opposite confluent camp; a pair reported from Lesio-Louna Reserve, probably Iboubikro, 5-12 Jul 1998 (Mbani Akangala in PPG 1998).
- White Stork**, V/P?, Ciconiidae, *Ciconia ciconia*, Cigogne blanche
Two birds 21 Dec 2004 in freshly burnt grassland half-way up the escarpment of Epopé, along the Lefini river
- Spot-breasted Ibis**, R, Threskiornithidae, *Bostrychia rara*, Ibis vermiculé
Regularly heard at dawn & dusk
DL 97: common, gallery forest
- Hartlaub's Duck**, R?, Anatidae, *Pteronetta hartlaubii*, Canard de Hartlaub
1 obs 15 Oct 2003, Lefini river 3km west of confluent
- Knob-billed Duck**, V/M?, Anatidae, *Sarkidiornis melanotos*, Canard à bosse
20 Nov 2004 Louna river (C Chamberlan); two 5 Jun 2006 Iboubikro ponds
DL 97: rare visitor to ponds, Aug (LM)
- African Pygmy Goose**, V/M?, Anatidae, *Nettapus auritus*, Anserelle naine
29 Dec 2002 Lefini river east of confluent, group of 3; 7 Jan 2007 Abio lac, 1 male & 2 females
DL 97: rare visitor to ponds, Apr (LM)
- Osprey**, P, Pandionidae, *Pandion haliaetus*, Balbuzard pêcheur
2 obs: 31 Jan 2005 Lac Bleu, 16 Oct 2006 Louna river south of Abio island
- African Cuckoo Hawk**, R, Accipitridae, *Aviceda cuculoides*, Baza coucou
4 obs: Louna river Jun & Oct 2005, Iboubikro camp des ecogardes Dec 2005
- European Honey Buzzard**, P, Accipitridae, *Pernis apivorus*, Bondrée apivore
Nov-Dec 2003 & Jan 2006, Lefini river confluent to Epopé;
- Bat Hawk**, R?, Accipitridae, *Macheiramphus alcinus*, Milan des chauves-souris
1 obs 25 May 2006, Idzoua Inkou
- Black-shouldered Kite**, R, Accipitridae, *Elanus caeruleus*, Elanion blanc
Sep-Mar, esp on Mâh plateau
DL 97: tall grassland, plateau (LM)
- Black Kite**, R/M?, Accipitridae, *Milvus migrans*, Milan noir
Widespread, incl Lefini north; all year
Observed during 10.3% of vehicle transects between Mpoumako & Abio, but only during 1.6% from Iboubikro to Mâh
DL 97: rare visitor, ponds, Aug (LM)

African Fish Eagle, R, Accipitridae, *Haliaeetus vocifer*, Pygargue vocifer

Louna & Lefini rivers, all year; juvenile Oct, Feb

Observed during 16.2% of river transects along Louna

DL 97: rare visitor (LM)

Palm-nut Vulture, R, Accipitridae, *Gypohierax angolensis*, Palmiste africain

Dec-Jul, Lefini, Louna & Lesio rivers; juvenile Feb, Mar, May

DL 97: rare visitor to ponds, Aug (LM)

Black-breasted Snake Eagle, R/M?, Accipitridae, *Circaetus pectoralis*, Circaète à poitrine noire

1 obs 5 Feb 2007, between Abio & Mpoumako

Bateleur, R, Accipitridae, *Terathopius ecaudatus*, Bateleur des savanes

Sep-Dec, Mar, general area of Abio; juvenile Oct (with 2 adults)

DL 97: Rare resident

African Harrier Hawk, R, Accipitridae, *Polyboroides typus*, Gymnogène d'Afrique

Jun - Jan; wooded savanna & gallery forest throughout; juvenile Dec; adult landed on dead tree in Lesio gallery forest to investigate holes of Sladen's Barbets, Nov 2006

DL 97: common in forest

Montagu's Harrier, P/X?, Accipitridae, *Circus pygargus*, Busard cendré

DL 97: rare pal migrant, Jan (LM)

African Marsh Harrier, R/M?, Accipitridae, *Circus ranivorus*, Busard grenouillard

5 & 7 Jan 2006, Mt Blanc marsh; barred tail

Eurasian Marsh Harrier, P, Accipitridae, *Circus aeruginosus*, Busard des roseaux

4 obs: 13 Jan (Mt Blanc marsh) & 2 Dec 2004 (Confluent), 6 (Abio) & 8 Feb 2007 (Etsotso marsh)

Dark Chanting Goshawk, R, Accipitridae, *Melierax metabates*, Autour sombre

Singles regularly in wooded grassland near Idzoua Inkou; carrying nesting material late March 2006; pair Oct 2005

DL 97: wooded grassland

African Goshawk, R, Accipitridae, *Accipiter tachiro*, Autour tachiro

4 Jul 2005, heavily wooded grassland ancienne piste

DL 97: forest

Chestnut-flanked Sparrowhawk, R?, Accipitridae, *Accipter castanilius*, Autour à flancs roux

1 obs 29 Dec 2003, flying low over *Hymenocardia acida* trees between two gallery forest patches of the Lefini river, mobbed by Lesser Striped Swallows

Long-tailed Hawk, R, Accipitridae, *Urotriorchis macrourus*, Autour à longue queue

5 obs, all at confluent; Feb, Jun, Nov; juvenile Nov 2004

Lizard Buzzard, R, Accipitridae, *Kaupifalco monogrammicus*, Autour unibande

Singles Jul, Dec-Feb; wooded grassland throughout

DL 97: wooded grassland

Red-necked Buzzard, R, Accipitridae, *Buteo auguralis*, Buse d'Afrique

Singles or pairs throughout, all year; in moult Feb

Observed during 12.8% of vehicle transects between Mpoumako & Abio, and during 9.5% from Iboubikro to Mâh

DL 97: common, nests on cliffs

Tawny Eagle, R?, Accipitridae, *Aquila rapax*, Aigle ravisseur

DL 97: not uncommon resident; one nest in tree Lac Sanpion (LM)

Wahlberg's Eagle, M/V?, Accipitridae, *Aquila wahlbergi*, Aigle de Wahlberg

1 photographed 31 Mar 2007, soaring above Louna river near Abio island; distinctive silhouette unmistakable (fig 25)



Fig 25. Wahlberg's Eagle, 31 Mar 2007, near Abio island. (Photos: T King).

Long-crested Eagle, R?, Accipitridae, *Lophaetus occipitalis*, Aigle huppard
DL 97: forest (LM)

Martial Eagle, R?, Accipitridae, *Polemaetus bellicosus*, Aigle martial
New species for Congo (Rainey *et al.* in prep.); juvenile 21 Jul 2006 photographed near port Albert perched on termite mound in savanna beside Louna river; 2 sightings of adults Nov 2006 Epopé & Abio

Common Kestrel, R & P?, Falconidae, *Falco tinnunculus*, Faucon crécerelle
Grassland throughout; observed all year (except May & June); group of three Aug; a pair seems to be resident in the zone between Iboubikro and Mâh, being recorded in all months of the year except May, June and September, and is therefore most probably the afrotropical race *rufescens*; a male observed perched in a savanna tree the 11 Mar 2007 along the track between Mpoumako and Abio appeared to have a plain (not-barred) grey tail, which suggests it may have been of the Palaearctic race *tinnunculus*

Observed during 12.8% of vehicle transects between Mpoumako & Abio, and during 25.4% from Iboubikro to Mâh

DL 97: common resident, seen daily by cliffs

Grey Kestrel, R?, Falconidae, *Falco ardosiaceus*, Faucon ardoisé
1 obs 4 Oct 2004, perched on *Hymenocardia acida* tree in lightly wooded grassland near Lac Bleu

Peregrine Falcon, R?, Falconidae, *Falco peregrinus*, Faucon de Cuvier
One juv photographed at dusk at confluent camp 6 Feb 2007; tentatively identified by King (2007c, p9) as an African Hobby *F. cuvierii*, subsequently identified as a peregrine by two raptor experts based on various photos perched and in flight (fig 26); the colours of the underparts and the apparent rufous nape indicate the resident ssp. *minor*, while the highly vocal behaviour also suggests a locally-born bird



Fig 26. Peregrine Falcon, 6 Feb 2007, confluent camp. (Photos: T King).

Finsch's Francolin, R, Phasianidae, *Francolinus finschi*, Francolin de Finsch
Singles or pairs in grassland, particularly on both pistes towards Mâh, but also camp des ecogardes & Mpoumako-Abio region

Observed during 2.6% of vehicle transects between Mpoumako & Abio, and during 7.9% from Iboubikro to Mâh

DL 97: widespread in open *Loudetia* grassland, but low densities (c. 1 pair/km²)

Scaly Francolin, R, Phasianidae, *Francolinus squamatus*, Francolin écailléux
DL 97: common, forests & thickets

- Red-necked Francolin**, R, Phasianidae, *Francolinus afer*, Francolin à gorge rouge
 Grassland throughout; all year; group of three Oct
 Observed during 2.6% of vehicle transects between Mpoumako & Abio, and during 9.5% from Iboubikro to Mâh
 DL 97: common, wooded grassland, tall rank grassland
- Crested Guineafowl**, R, Numididae, *Guttera pucherani*, Pintade huppée
 DL 97: forest
- Helmeted Guineafowl**, R, Numididae, *Numida meleagris*, Pintade commune
 Singles & pairs in Oct 2002, 2005, 2006 (twice); small group Jun
- Little Buttonquail**, R?, Turnicidae, *Turnix sylvatica*, Turnix d'Andalousie
 DL 97: widespread in grassland
- Black-rumped Buttonquail**, R?, Turnicidae, *Turnix hottentotta*, Turnix nain
 DL 97: moist grassland
- White-spotted Flufftail**, R, Rallidae, *Sarothrura pulchra*, Râle perlé
 DL 97: common in gallery forest
- Red-chested Flufftail**, R, Rallidae, *Sarothrura rufa*, Râle à camale
 DL 97: marsh
- African Crane**, R/M?, Rallidae, *Crex egregia*, Râle des prés
 Singles & pairs Nov - May; esp along roads on plateau
 Observed during 23.1% of vehicle transects between Mpoumako & Abio, and during 6.3% from Iboubikro to Mâh
 DL 97: tall grassland
- Black Crane**, R, Rallidae, *Amaurornis flavirostris*, Râle à bec jaune
 Lac Sampion, 28 Aug 2002
 DL 97: marsh
- African Finfoot**, R, Heliornithidae, *Podica senegalensis*, Grébifoulque d'Afrique
 Singles all year, Louna river; also Lefini & Lesio rivers
 DL 97: forest streams
- White-bellied Bustard**, R, Otididae, *Eupodotis senegalensis*, Outarde du Sénégal
 Singles, pairs & small groups in grassland all year, esp Mpoumako-Abio; small chicks Sept 2005 (jackal nearby)
 Observed during 53.8% of vehicle transects between Mpoumako & Abio, and during 19.0% from Iboubikro to Mâh
 DL 97: common in Loudetia grassland
- Black-bellied Bustard**, R, Otididae, *Eupodotis melanogaster*, Outarde à ventre noir
 Singles & pairs in grassland all year (except May-June), esp Iboubikro-Mt Blanc;
 Observed during 23.1% of vehicle transects between Mpoumako & Abio, and during 23.8% from Iboubikro to Mâh
 DL 97: widespread in open & wooded grassland
- African Jacana**, R, Jacanidae, *Actophilornis africana*, Jacana à poitrine dorée
 Singles & pairs all year; juveniles Feb-Jun; Iboubikro ponds (esp Jan-Jun) & Louna river, also Lefini river
 IRV values 0.40 at Iboubikro ponds & 0.10 Louna river
 DL 97: marsh (LM)
- Temminck's Courser**, R/M?, Glareolidae, *Cursorius temminckii*, Courvite de Temminck
 Singles, pairs & groups in grassland Apr-Nov
 Observed during 10.3% of vehicle transects between Mpoumako & Abio, and during 4.8% from Iboubikro to Mâh

DL 97: short grassland

Bronze-winged Courser, M?, Glareolidae, *Rhinoptilus chalcopterus*, Courvite à ailes bronzées
Singles 21 & 23 Jan 2004, grassland towards Ngondoro, at dusk

Lesser Black-winged Lapwing, R/M?, Charadriidae, *Vanellus lugubris*, Vanneau terne

Grassland throughout; singles & pairs all year, flocks Dec-Apr

Observed during 7.7% of vehicle transects between Mpoumako & Abio, and during 11.1% from Iboubikro to Mâh

DL 97: short grassland

Great Snipe, P, Scolopacidae, *Gallinago media*, Bécassine double

Single Ngondoro marsh, flushed 4 times 8 & 9 Jan 2004; silent when flushed

Common Greenshank, P, Scolopacidae, *Tringa nebularia*, Chevalier aboyeur

Singles 28 Oct 2006 (Iboubikro ponds) & 6 Jan 2007 (Louna river)

Wood Sandpiper, P/X?, Scolopacidae, *Tringa glareola*, Chevalier sylvain

DL 97: pal visitor, marsh (LM)

Common Sandpiper, P, Scolopacidae, *Actitis hypoleucos*, Chevalier guignette

Singles Jul-Apr, commonly from Sep; three in Aug 2004; Louna river; also Lefini river & Iboubikro ponds

African Skimmer, V, Rynchopidae, *Rynchops flavirostris*, Bec-en-ciseaux d'Afrique

Pair 15 Jun 2003, Lefini river at confluent

African Green Pigeon, R, Columbidae, *Treron calva*, Colombar (ou Pigeon vert) à front nu

Common in forest; singles all year; small groups Oct-Jun; calling Aug-May

Highest IRV values along Lefini river (0.36), including Confluent camp (0.31)

One netted Dec 2005, in 1° moult; mass 190; wing 167

DL 97: as *T. australis*; common in forests & thickets

Blue-headed Wood Dove, R, Columbidae, *Turtur brehmeri*, Tourtelette demoiselle

4 singles obs: Lefini river (near Loubilika 24 Aug 2003 & near confluent 16 Feb 2006) & Louna river (near Abio island 12 Jul 2006 & 14 Feb 2007)

Tambourine Dove, R, Columbidae, *Turtur tympanistria*, Tourtelette tambourette

Singles & pairs; confluent & Iboubikro

One male netted Aug 2006, in 1° moult; mass 80; wing 119

DL 97: common in forests & thickets

Blue-spotted Wood Dove, R, Columbidae, *Turtur afer*, Tourtelette améthystine

Singles in wooded grassland & forest edges throughout, all year; pairs Jan, Feb

Recorded at all 7 list sites, IRV range 0.04-0.19

Three netted; 1° moult Feb; mass 59-68; wing 109-111

DL 97: thickets, forest edges

Namaqua Dove, V, Columbidae, *Oena capensis*, Toutelette masquée

DL 97: vagrant, 1 male, Sept (LM)

Western Bronze-naped Pigeon, R, Columbidae, *Columba iriditorques*, Pigeon à nuque bronzée

Singles & pairs in forest throughout, all year; calling Oct-Feb

Recorded at 4 most-forested list sites, esp Lefini river (IRV 0.27)

One female netted Feb 2006; mass 125; wing 152

DL 97: as *C. delegorguei*; forest

Afep Pigeon, R, Columbidae, *Columba uncinata*, Pigeon gris

8 obs, Lefini & Louna rivers, confluent camp; Jul, Aug, Nov, Dec, Jan, Mar

DL 97: forest, seasonal? (KB)

Red-eyed Dove, R, Columbidae, *Streptopelia semitorquata*, Tourterelle à collier

Singles, pairs & groups in wooded grassland & forest edges throughout, all year

Recorded at 6 of 7 list sites (not Mt Blanc), esp Idzoua Inkou (IRV 0.45) & camp des ecogardes (0.42)

One adult netted Jan 2006; in 1° moult; mass 220; wing 180

DL 97: wooded grassland & thickets

Ring-necked Dove, R/V?, Columbidae, *Streptopelia capicola*, Tourterelle du Cap

2 singles obs: on track from Mâh to Imvouba 19 Feb 2004; camp des ecogardes 13 Nov 2006

Grey Parrot, R, Psittacidae, *Psittacus erithacus*, Perroquet gris

Forest throughout, but especially Lefini river; singles, pairs, small & large flocks all year

Recorded at 5 list sites, esp in north along Lefini river; IRV values: Confluent camp (1.00), Lefini river (0.82), Louna river (0.62), camp des ecogardes (0.33), Iboubikro ponds (0.19)

DL 97: fairly common in forest

Red-headed Lovebird, V?, Psittacidae, *Agapornis pullarius*, Inséparable à tête rouge

DL 97: occasional visitor (flocks) (LM)

Great Blue Turaco, R, Musophagidae, *Corythaeola cristata*, Touraco géant

4 obs: Louna, Lefini & Loubilika rivers, Lac Bleu; pair April

DL 97: wanderer to Lac Bleu (KB)

Green Turaco, R, Musophagidae, *Tauraco persa*, Touraco vert

Heard in forest throughout, but only 6 direct obs, mainly on Louna river; small group Nov

DL 97: common in forest

Western Grey Plantain-eater, X?, Musophagidae, *Crinifer piscator*, Touraco gris

DL 97: 1 on Lesio river, Feb (JB)

Levaillant's Cuckoo, M, Cuculidae, *Oxylophus levaillantii*, Coucou de Levaillant

3 singles obs: Jul, Sep, Dec

DL 97: occasional visitor to forest edges (LM)

Red-chested Cuckoo, R, Cuculidae, *Cuculus solitarius*, Coucou solitaire

Singing in forest throughout, Sep-Mar; only one direct obs

DL 97: common in forest

Black Cuckoo, R?, Cuculidae, *Cuculus clamosus*, Coucou criard

ssp *gabonensis*; one photographed along Louna river 9 Jan 2007

DL 97: forest (LM)

African Cuckoo, M?, Cuculidae, *Cuculus gularis*, Coucou africain

2 singles obs in wooded grassland, Jul & Nov

DL 97: common in wooded grassland

Dusky Long-tailed Cuckoo, R, Cuculidae, *Cercococcyx mechowi*, Coucou de Mechow

DL 97: common in forest

Olive Long-tailed Cuckoo, R, Cuculidae, *Cercococcyx olivinus*, Coucou olivâtre

DL 97: forest

African Emerald Cuckoo, R, Cuculidae, *Chrysococcyx cupreus*, Coucou foliotocol

Singing in forest throughout Aug-Feb; only 3 direct obs

DL 97: widespread in forest

Klaas's Cuckoo, R, Cuculidae, *Chrysococcyx klaas*, Coucou de Klaas

DL 97: widespread in forest

Didric Cuckoo, R, Cuculidae, *Chrysococcyx caprius*, Coucou didric

6 obs in wooded grassland: Jan, Mar, Sep, Nov, Dec

Two males (mass 26-32; wing 106-112) & two females netted (mass 36-39; wing 114-119); male in 1° moult Nov

Yellowbill, R, Cuculidae, *Ceuthmochares aereus*, Malcoha à bec jaune

Singles & pairs in forest or forest edge throughout; Mar, May, Sep, Oct, Dec

DL 97: common, forests & thickets

Gabon Coucal, R, Cuculidae, *Centropus anselli*, Coucal du Gabon
4 singles in forest/forest edge, Iboubikro & Louna river; Jan, Mar, Oct
DL 97: forest

Black Coucal, R?, Cuculidae, *Centropus grillii*, Coucal de Grill
Singles & pairs in dense grassland on Mâh plateau; also near Etsotso marsh 6 Jan 2007
DL 97: tall grassland

Senegal Coucal, R, Cuculidae, *Centropus senegalensis*, Coucal du Sénégal
Singles in wooded grassland & forest edges throughout; no obs May-Aug
Recorded at 2 list sites: Iboubikro ponds (IRV 0.21) & Louna river (0.07)
DL 97: common in wooded grassland

Blue-headed Coucal, R/X?, Cuculidae, *Centropus monachus*, Coucal moine
One juvenile at Iboubikro ponds 3 Jul 2005: small coucal, black tail, rufous back, streaky brown head, pale dirty white throat

Barn Owl, R?, Tytonidae, *Tyto alba*, Effraie des clochers
One 14 Dec 2005 between Mâh & Mt Blanc

African Scops Owl, X?, Strigidae, *Otus senegalensis*, Petit-duc africain
Given by Bailey et al. 1996, but no other observations

Spotted Eagle Owl, R, Strigidae, *Bubo africanus*, Grand-duc africain
Pair at Idzoua Inkou 1 Mar 2004
DL 97: common near cliffs

Pel's Fishing Owl, R, Strigidae, *Scotopelia peli*, Chouette-pêcheuse de Pel
DL 97: forested rivers

Vermiculated Fishing Owl, R, Strigidae, *Scotopelia bouvieri*, Chouette-pêcheuse de Bouvier
DL 97: swamp forest

African Wood Owl, R, Strigidae, *Strix woodfordii*, Chouette africaine
DL 97: common in forest

Swamp Nightjar, R, Caprimulgidae, *Caprimulgus natalensis*, Engoulevent du Natal
Grassland throughout
Three netted in 2002; mass 50 (to nearest 5g); wing 141-142
DL 97: abundant in any grassland

Long-tailed Nightjar, R/M?, Caprimulgidae, *Caprimulgus climacurus*, Engoulevent à longue queue
Camp des ecogardes (Nov 2005) & grassland near SE forest 5 (Jun 2005)
DL 97: grassland, less numerous than *C. natalensis*

Square-tailed Nightjar, X?, Caprimulgidae, *Caprimulgus fossii*, Engoulevent du Mozambique
Given by Bailey et al. 1996, but no other observations

Fiery-necked Nightjar, R, Caprimulgidae, *Caprimulgus pectoralis*, Engoulevent musicien
DL 97: forest edges & ponds

Pennant-winged Nightjar, M, Caprimulgidae, *Macrodipteryx vexillarius*, Engoulevent porte-étendard
Grassland; Jul, Aug
DL 97: common intra-African migrant (LM)

African Palm Swift, R, Apodidae, *Cypsiurus parvus*, Martinet des palmiers
Singles, pairs & small groups throughout, all year
Recorded at 5 list sites, IRV range 0.05-0.18
DL 97: breeds on palms

Common Swift, P, Apodidae, *Apus apus*, Martinet noir

Large flocks throughout Sep-Mar; earliest 20 Sep, latest 29 Mar

Recorded at all 7 list sites, IRV range 0.08-0.45

DL 97: common pal visitor

White-rumped Swift, ?, Apodidae, *Apus caffer*, Martinet cafre

DL 97: uncommon

Horus Swift, ?, Apodidae, *Apus horus*, Martinet horus

Small numbers at Abio camp 29 Mar 2007, with large flock of common swifts and a few little swifts; probably previously overlooked due to similarity to little swift

Little Swift, R, Apodidae, *Apus affinis*, Martinet des maisons

Large breeding colony at bridge over Lefini river in Mbouambé, on nest Feb; small numbers observed throughout reserve

IRV 0.82 for Lefini river due to colony at Mbouambé

Speckled Mousebird, R, Coliidae, *Colius striatus*, Coliou rayé

Small groups common around Mâh

Recorded at just list site: Mt Blanc (IRV 0.46)

DL 97: wooded grasslands & thickets

Narina's Trogon, R, Trogonidae, *Apaloderma narina*, Trogon narina

DL 97: common in forest

Chocolate-backed Kingfisher, R, Alcedinidae, *Halcyon badia*, Martin-chasseur marron

One in forest at Iboubikro parking 8 Apr 2006

DL 97: common in forest

Brown-hooded Kingfisher, R, Alcedinidae, *Halcyon albiventris*, Martin-chasseur à tête brune

Singles in Jan, Feb & Nov at Mt Blanc, Idzoua Inkou, Ekassaka, Confluent, & plateau near Mpoumako

Recorded at 2 list sites: Mt Blanc (IRV 0.08) & Idzoua Inkou (0.05)

DL 97: thickets and dense wooded grassland

Grey-headed Kingfisher, M & R?, Alcedinidae, *Halcyon leucocephala*, Martin-chasseur à tête grise

Singles in wooded grassland throughout, including Iboubikro camp, Idzoua Inkou, Mt Blanc, Etsotso; of a total of 18 obs, 17 were during the 4 month period mid-Apr to early Aug; photos in King (2007c, p9) are clearly of the southern *pallidiventris* race, which has been reported as a non-breeding visitor in S Congo (Borrow & Demey 2001); no photo is available for the one observation in Dec 2005 at Idzoua Inkou

Recorded at 2 list sites: Idzoua Inkou (IRV 0.09) & Louna river (0.07)

Blue-breasted Kingfisher, R, Alcedinidae, *Halcyon malimbica*, Martin-chasseur à poitrine bleue

Heard in forest throughout Oct-Apr; only 2 direct obs

Three netted; mass 75-85 (to nearest 5g); wing 106-117

DL 97: common in forest

Woodland Kingfisher, R, Alcedinidae, *Halcyon senegalensis*, Martin-chasseur du Sénégal

Singles & pairs all year; forest edges, esp along Louna & Lefini rivers and Iboubikro ponds; groups of three Jan, Feb, Jun, Nov; juvenile Nov

Recorded at 4 most forested list sites, with high IRV values (range 0.38-0.82)

Three netted: mass 54-58; wing 95-104

DL 97: forest edges

Striped Kingfisher, R, Alcedinidae, *Halcyon chelicuti*, Martin-chasseur strié

Wooded grassland in LL & on Mâh plateau; singles all year (except Apr-Jun), pair Dec

Recorded at 1 list site, Idzoua Inkou (IRV 0.18)

DL 97: common in wooded grassland

African Dwarf Kingfisher, R, Alcedinidae, *Ceyx lecontei*, Martin-pêcheur à tête rousse

One Iboubikro ponds 2 Dec 2006

DL 97: forest

African Pygmy Kingfisher, R, Alcedinidae, *Ceyx pictus*, Martin-pêcheur pygmée

Forest edges throughout, including Iboubikro, Idzoua Inkou, Mt Blanc, Confluent; singles all year, pair Feb, Nov; hunting dragonflies Feb

Recorded at 4 list sites, IRV range 0.03-0.13

17 netted: mass 11-14; wing 50-55; 1° moult Dec; active brood patch Oct; juv Oct; imm May; 4 recaptured (incl 1 twice): max time 9 days; max distance Iboubikro to camp des ecogardes (c600m)

DL 97: thickets & forest edges

White-bellied Kingfisher, R, Alcedinidae, *Alcedo leucogaster*, Martin-pêcheur à vent blanc

DL 97: swamp forest

Malachite Kingfisher, R, Alcedinidae, *Alcedo cristata*, Martin-pêcheur huppé

One 8 Dec 2006 perched by ox-bow lake behind Abio camp; one at puddles in road along Lefini north Feb 2007

DL 97: ponds in savanna

Shining-blue Kingfisher, R, Alcedinidae, *Alcedo quadibrachys*, Martin-pêcheur azuré

Lefini, Louna & Lesio rivers, Iboubikro ponds; singles throughout year

1 male netted 4 Nov 2005; mass 32; wing 79; recaptured 22 Dec 05 (same net, 7 weeks)

DL 97: forest streams

Giant Kingfisher, R, Alcedinidae, *Megaceryle maxima*, Martin-pêcheur géant

Singles & pairs; all year; Lefini & Louna rivers, also Loubilika river & Iboubikro ponds

Recorded at 3 river-based list sites, IRV range 0.21-0.52 (highest along Louna river)

DL 97: large forest streams

Pied Kingfisher, R, Alcedinidae, *Ceryle rudis*, Martin-pêcheur pie

Singles & pairs all year; Lefini & Louna rivers; fight with swimming cobra Jun 2005 (Epopé)

Recorded at 3 river-based list sites, IRV range 0.18-0.38

DL 97: occ visitor to ponds & lakes (LM)

Black-headed Bee-eater, R, Meropidae, *Merops breweri*, Guêpier à tête noire

Singles & pairs all year; small groups Feb, Jun, Nov; forest edges, Louna & Lefini rivers, Iboubikro

Recorded at 4 list sites, esp Louna river (IRV 0.24), other 3 sites IRV range 0.04-0.09

DL 97: ecotone of gallery forest/savanna, not uncommon

Black Bee-eater, R, Meropidae, *Merops gularis*, Guêpier noir

Singles & pairs all year; small groups Jan, Apr; forest edges Lefini, Louna & Lesio rivers, Iboubikro; often at sandbank at camp des ecogardes Aug

Recorded at 2 list sites, Louna river (IRV 0.14) & camp des ecogardes (0.04)

1 netted in Jun 2002; mass 33; wing 99

DL 97: forest edges

Little Bee-eater, R, Meropidae, *Merops pusillus*, Guêpier nain

Grassland from Iboubikro to Mâh; singles & pairs all year; small groups Jan, May, Jun, Dec; juveniles Nov-Jan

Recorded at 3 least-forested list sites: camp des ecogardes (IRV 0.21), Idzoua Inkou (0.18) & Mt Blanc (0.08)

3 adults & 1 juv netted: mass 13-15 (ad), 14 (juv); wing 78-79 (ad), 78 (juv); juv Dec, in 1° moult; adult in 1° moult Nov; possible active brood patch Aug

DL 97: tall grassland

- Blue-breasted Bee-eater**, R, Meropidae, *Merops variegatus*, Guêpier à collier bleu
 Grassland throughout, including Iboubikro to Mâh, Ngondoro, Abio, Etsotso; all year; small groups all year except Mar-May; juveniles Nov-Jan
 Recorded at 5 list sites, esp Mt Blanc (IRV 0.62) & camp des ecogardes (0.42); more widespread than Little Bee-eater, and generally higher IRV values except Idzoua Inkou (0.14 compared to 0.18)
 8 adults netted: mass 18-21; wing 80-86; possible active brood patch Aug
 DL 97: grassland (more in valley bottoms?)
- White-throated Bee-eater**, P, Meropidae, *Merops albicollis*, Guêpier à gorge blanche
 Flocks Nov-Apr in wooded grassland & forest edges throughout; earliest 7 Nov 2006, latest 2 Apr 2007
 1 adult netted 2 Dec 2005; in 1° moult; mass 23; wing 95
 DL 97: common intra-African migrant
- Blue-cheeked Bee-eater**, P/V?, Meropidae, *Merops persicus*, Guêpier de Perse
 DL 97: pal migrant, 2 on 4 Feb (JB)
- European Bee-eater**, P, Meropidae, *Merops apiaster*, Guêpier d'Europe
 Flocks Sep-Apr in wooded grassland & forest edges throughout; earliest 26 Sep 2006, latest 3 Apr 2007
 Recorded at all 7 list sites, IRV range 0.08-0.15
 DL 97: common pal migrant
- Rosy Bee-eater**, R/M?, Meropidae, *Merops malimbicus*, Guêpier gris-rose
 Flocks Nov-Feb, Jun, Aug, Sep; forest edges near Louna river, also Lefini river
 Recorded at 1 list site: Louna river (IRV 0.07)
 DL 97: one flock in Aug (LM)
- European Roller**, P, Coraciidae, *Coracias garrulus*, Rollier d'Europe
 One 16 Feb 2007, perched in wooded grassland between Mâh & Ingolo
- Lilac-breasted Roller**, R, Coraciidae, *Coracias caudatus*, Rollier à longs brins
 Singly or in pairs in wooded grassland between Mpieri forest (just west of Idzoua Inkou) & Mâh, & between Mpoumako & Abio; all year; pair copulating Aug
 Observed during 7.7% of vehicle transects between Mpoumako & Abio, and during 28.6% from Iboubikro to Mâh
 DL 97: widespread in wooded grassland
- Blue-throated Roller**, R, Coraciidae, *Eurystomus gularis*, Rolle à gorge bleue
 Gallery forest from Abio to confluent, Sep, Jan; pair investigating hole in dead tree at confluent
 Jan 2007
 DL 97: visitor (forest) in Oct (LM)
- Broad-billed Roller**, R?, Coraciidae, *Eurystomus glaucurus*, Rolle violet
 Wooded grassland & forest edges throughout; all year; large flocks Dec, Jan
 Recorded at 5 list sites, esp Louna, Lefini & confluent camp (IRVs 0.28, 0.27, 0.21)
 DL 97: migrant (gallery forest), mainly Feb - Apr (LM)
- Black Wood-hoopoe**, R/X?, Phoeniculidae, *Rhinopomastus aterrimus*, Irrisor noir
 DL 97: edges of gallery forest (LM)
- Hoopoe**, M?, Upupidae, *Upupa epops*, Huppe fasciée
 7 observations in 3-week period between 21 Sep & 14 Oct 2006, singly or in groups of 3 to 5, in wooded grassland between camp des ecogardes & Mâh, and between Mpoumako & Abio; otherwise only an undated obs in 2002
 DL 97: rare, 1 obs on plateau
- White-crested Hornbill**, R?, Bucerotidae, *Tropicranus albocristatus*, Calao à huppe blanche
 DL 97: forest, often follows monkeys

Red-billed Dwarf Hornbill, R?, Bucerotidae, *Tockus camurus*, Calao pygmée

One 31 Oct 2005 in gallery forest at Iboubikro

African Pied Hornbill, R, Bucerotidae, *Tockus fasciatus*, Calao longibande

Common in gallery forest throughout; singles, pairs and small groups all year; carrying nest material Feb

Recorded at 5 most forested list sites, IRV range 0.21-0.45

DL 97: common in forest

Piping Hornbill, R, Bucerotidae, *Bycanistes fistulator*, Calao siffleur

Gallery forest along Lefini & Louna rivers, also Iboubikro & even Idzoua Inkou; singles, pairs & small groups all year; large flocks Feb (7 pairs), Jul (9 birds), Dec (11)

Recorded at 4 list sites, IRVs much lower than African Pied Hornbill (range 0.03-0.15)

White-thighed Hornbill, R, Bucerotidae, *Bycanistes albotibialis*, Calao à cuisses blanches

Three above forest canopy at base of cliffs, Mâh, 7 Nov 2006

DL 97: rare, forest

Grey-throated Barbet, R, Capitonidae, *Gymnobucco bonapartei*, Barbican à gorge grise

Singles, pairs & small groups in forest & forest edge, Iboubikro

1 adult netted in Oct 2006; active brood patch & in 1° moult; mass 45; wing 83

DL 97: common in any forest

Sladen's Barbet, R, Capitonidae, *Gymnobucco sladenii*, Barbican de Sladen

New species for Congo (King & Chamberlan 2007b); small groups in gallery forest at Iboubikro all year; nesting colony Oct 2006; large feeding flocks c20-30 birds Nov 2006; fruits eaten include *Vitex*, *Uapaca*, *Canthium*, *Dioscorea*; apparent predation at colony by African Harrier Hawk

Recorded at 1 list site: camp des ecogardes (IRV 0.13)

5 adults & 1 imm netted: mass 45-48 (ad), 42 (imm); wing 85-88 (ad), 86 (imm); 1° moult Aug, Nov; active brood patch Aug

Speckled Tinkerbird, R, Capitonidae, *Pogoniulus scolopaceus*, Barbion grivelé

Forest edges throughout; singles all year; pairs Jun, Dec

Recorded at 3 forested list sites, IRV range 0.03-0.21

5 netted: mass 15-17; wing 57-60; 1° moult Nov-Jan; possible active brood patch Dec, Jan; 1 recaptured (4 weeks later, near-by net (242 & 243))

DL 97: common, forest & thickets

Red-rumped Tinkerbird, R, Capitonidae, *Pogoniulus atroflavus*, Barbion à croupion rouge

Forest edge Iboubikro; Dec, Jan, Mar

3 netted: mass 18; wing 62-66

Yellow-throated Tinkerbird, R, Capitonidae, *Pogoniulus subsulphureus*, Barbion à gorge jaune

Forest edges throughout; singles all year; pairs Jun, Oct, Dec; fed on small flying termites

Recorded at 3 list sites, esp Iboubikro ponds (IRV 0.17), also Idzoua Inkou (0.05) & confluent (0.05)

12 netted (incl at least 1 juv, Oct): mass 8-10; wing 47-52

DL 97: common, forest & thickets

Yellow-rumped Tinkerbird, R, Capitonidae, *Pogoniulus bilineatus*, Barbion à croupion jaune

Forest edges throughout, esp Idzoua Inkou; all year

Recorded at 3 list sites, esp Idzoua Inkou (IRV 0.18), also Mt Blanc (0.18) & confluent (0.03)

3 adults netted: mass 11; wing 51-53; possible active brood patch Feb; 1 recapture (1 day, near-by net (295 & 296))

DL 97: common, thickets, open forest

Yellow-fronted Tinkerbird, R?, Capitonidae, *Pogoniulus chrysoconus*, Petit Barbu à front jaune

New species for Congo (King & Chamberlan 2007b); one mist-netted in wooded grassland at Idzoua Inkou

1 adult netted 30 May 2006; mass 10; wing 58

Hairy-breasted Barbet, R, Capitonidae, *Tricholaema hirsuta*, Barbican hérissé

Pair excavating hole in dead tree 2 to 5 Dec 2005 near camp des ecogardes; nesting in hole for rest of Dec; single singing in gallery forest at Iboubikro camp Feb 2007; heard again Apr

Subspecific placement unclear, apparently intermediate between the *ansorgii* race and either the *flavipunctata* or the *angolensis* race (King in press, plus further photos in King 2007c, p8)

Miombo Pied Barbet, R, Capitonidae, *Tricholaema frontata*, Barbican du Miombo

New species for Congo (King & Chamberlan 2006, 2007b); pair in wooded grassland at Idzoua Inkou Jul to Oct 2005, Feb & May 2006; seen feeding on *Hymenocardia acida* seeds, *Maprounea africana* fruits, invertebrates

1 adult netted 3 Oct 2005; mass 28; wing 74

Black-backed Barbet, R?, Capitonidae, *Lybius minor*, Barbican de Levailant

One in wooded grassland at Mt Blanc 28 Nov 2006; yellowish bill, whitish head sides, grey crown/nape

Greater Honeyguide, R?, Indicatoridae, *Indicator indicator*, Grand Indicateur

One in burnt clearing at confluent 21 Jan 2004

Thick-billed Honeyguide, R, Indicatoridae, *Indicator conirostris*, Indicateur à gros bec

1 netted in Nov 2005; mass 29; wing 94

DL 97: as *I. minor*; forest

Red-throated Wryneck, R?, Picidae, *Jynx ruficollis*, Torcol à gorge rousse

DL 97: common in open wooded grassland (with scattered low trees)

Green-backed Woodpecker, R, Picidae, *Campethera cailliautii*, Pic à dos vert

Ngondoro (one, Jan) & Iboubikro (pair, Nov)

2 males & 1 female netted: mass 43-46 (m), 48 (f); wing 92-98 (m), 97 (f); female in 1° moult Oct

DL 97: forest & thickets

Buff-spotted Woodpecker, R, Picidae, *Campethera nivosa*, Pic tacheté

1 male (19 Dec 05) & 1 female (7 Oct 06, active brood patch) netted; mass 35 (m), 38 (f); wing 82 (m), 90 (f)

Brown-eared Woodpecker, R, Picidae, *Campethera caroli*, Pic à oreillons bruns

Singles or pairs in burnt clearing at confluent Mar, Apr, Dec 2004; Iboubikro Mar 2007

DL 97: forest

Cardinal Woodpecker, R, Picidae, *Dendropicos fuscescens*, Pic cardinal

Wooded grassland, esp near Idzoua Inkou; Jan, May, Jun, Oct, Nov

Recorded at 2 list sites: Idzoua Inkou (IRV 0.09) & camp des ecogardes (0.04)

2 males netted: mass 22-24; wing 79-80; in 1° moult Nov, Dec

DL 97: common in wooded grassland

Yellow-crested Woodpecker, R, Picidae, *Dendropicos xantholophus*, Pic à couronne d'or

Degraded forest, confluent & Iboubikro; singles, pairs, small groups; Feb, Mar, Jun, Oct-Dec; male in hole Dec

Recorded at 1 list site: confluent (IRV 0.10)

Elliot's Woodpecker, V?, Picidae, *Dendropicos elliotii*, Pic d'Elliot

One in gallery forest, Iboubikro, 12 Dec 2002 (Simon Tyler)

Rufous-naped Lark, R, Alaudidae, *Mirafra africana*, Alouette à nuque rousse

DL 97: common in Loudetia grassland

Flappet Lark, R, Alaudidae, *Mirafraga rufocinnamomea*, Alouette bourdonnante

Grassland throughout, incl Mt Blanc; all year

Recorded at 2 list sites: Idzoua Inkou (IRV 0.68) & camp des ecogardes (0.58)

1 netted: mass 29; wing 79; 1 other lark netted, 1 Jul 2002, mass 55 (surely an error), wing 75, in 1° moult; identification unclear (fig 23 & King 2007c, p26)

DL 97: common in any grassland

Square-tailed Saw-wing, R?, Hirundinidae, *Psolidoprocne nitens*, Hirondelle à queue courte

DL 97: forest

Black Saw-wing, R, Hirundinidae, *Psolidoprocne pristoptera*, Hirondelle hérissée

Singles, pairs & small groups; Mt Blanc, confluent, Lac Bleu, Epopé; esp Nov-Apr, also Jun, Sep

Recorded at 1 list site: Mt Blanc (IRV 0.23)

DL 97: common at edges of forest & thickets

Brazza's Martin, V, Hirundinidae, *Phedina brazzae*, Hirondelle de Brazza

One observed along wooded grassland ridge above Lac Bleu 20 Jun 2005; with small numbers of Lesser Striped Swallows and Rock Martins (King 2007a)

Banded Martin, R, Hirundinidae, *Riparia cincta*, Hirondelle à collier

Most frequently observed grassland hirundine, throughout; singles, pairs & small groups all year; large flock (12+) Dec; carrying nest materials Nov (Mt Blanc); visiting holes in large sand bank Nov (Louna river)

Recorded at all 7 list sites, esp Mt Blanc (IRV 0.62), Louna river (0.38) & camp des ecogardes (0.17); other sites IRV range 0.03-0.09

DL 97: savanna

Rufous-chested Swallow, R/M?, Hirundinidae, *Hirundo semirufa*, Hirondelle à ventre roux

Grassland throughout; singles & pairs Jul-Feb; flock Jul; investigating buildings Aug, Nov (camp des ecogardes)

Recorded at 6 list sites, not confluent; IRV range 0.02-0.17

DL 97: savanna

Mosque Swallow, R?, Hirundinidae, *Hirundo senegalensis*, Hirondelle des mosquées

Two at Ngondoro 8 Jan 2004

DL 97: savanna (rocks)

Lesser Striped Swallow, R, Hirundinidae, *Hirundo abyssinia*, Hirondelle striée

Grassland throughout; all year; carrying nest material Jan; nesting Jun, Sep (Mt Blanc); juveniles Jan; large flocks Mbouambé

Recorded at 2 list sites closest to villages: Mt Blanc (IRV 0.54) & Lefini river (0.45)

DL 97: savanna (breeds on rocks)

Red-throated Cliff Swallow, V?, Hirundinidae, *Hirundo rufigula*, Hirondelle à gorge fauve

Large flock Ngondoro 8 & 9 Jan 2004

Rock Martin, R, Hirundinidae, *Hirundo fuligula*, Hirondelle isabelline

Rocky outcrops throughout (Mt Abio, Epopé, Ngaka, above Lac Bleu); Feb, Jun, Sep, Nov, Dec

DL 97: cliffs & rocks

White-throated Blue Swallow, R, Hirundinidae, *Hirundo nigrita*, Hirondelle à bavette

Lefini & Louna rivers; occasionally Ngondoro camp & camp des ecogardes; singles & pairs all year; large flocks (10+) Dec-Feb, Apr; nest-building Jan; on nest Feb, Apr; juveniles Mar, Sep, Oct

IRV 1.00 for both Lefini & Louna rivers, 0.38 for confluent camp & 0.04 for camp des ecogardes

DL 97: large forested rivers, visitor to Lesio

Barn Swallow, P, Hirundinidae, *Hirundo rustica*, Hirondelle rustique

Surprisingly uncommon, only 7 obs in the reserves: usually singly; Nov, Dec, Apr; one 19 Jul 2003 (possible misidentification of Red-chested or Angola Swallow?), latest 3 Apr 2007; abundant elsewhere on Batéké Plateaux (eg King 2007b)

Recorded at just 1 list site: camp des ecogardes (IRV 0.04)

DL 97: common pal migrant

Common House Martin, P, Hirundinidae, *Delichon urbica*, Hirondelle de fenêtre

Only 4 obs: pairs or small groups; Sep, Dec, Jan, Mar; earliest 20 Sep 2006, latest 10 Mar 2007

Yellow Wagtail, P, Motacillidae, *Motacilla flava*, Bergeronnette printanière

One 30 Nov 2005, camp des ecogardes

DL 97: pal migrant, ponds (LM)

Grassland Pipit, R?, Motacillidae, *Anthus cinnamomeus*, Pipit africain

DL 97: as *A. richardi*; Loudetia grassland (local)

Woodland Pipit, R, Motacillidae, *Anthus nyassae*, Pipit forestier

1 pipit netted (species to be confirmed, fig 27): mass 26; wing 83; tail(f) 62; long hindclaw: left 8.7mm (toe 7.9) right 9.5 (toe 8.8); 2° 7 longer than 1-6; outer tail feathers dirty whitish, crown & upperparts streaked; breast buff streaked brown; eyebrow distinct whitish; belly & throat whitish; flanks & undertail coverts buffish; of the pipits recorded in the area, short-tailed pipit *A. brachyurus* is too small, and plain-backed pipit *A. leucophrys* and long-legged pipit *A. pallidiventris* have plain not streaked crown and upperparts. This leaves woodland pipit *A. nyassae* and grassland pipit *A. cinnamomeus* as the most likely candidates, with woodland pipit the more likely of the two due to the relatively weak head and breast markings

DL 97: as *A. similis* Long-billed Pipit; common in woodland & rocky hills



Fig 27. *Anthus cf nyassae*, camp des ecogardes, 14 Aug 2006. (Photos: T King).

Plain-backed Pipit, R, Motacillidae, *Anthus leucophrys*, Pipit à dos uni

Ngondoro, Lac Bleu; generally overlooked

DL 97: common in short grassland

Long-legged Pipit, R?, Motacillidae, *Anthus pallidiventris*, Pipit à longues pattes

Iboubikro ponds Jul & Sep 2005; very plain pipit, greyish head, pale eyebrow, bobbing tail

Short-tailed Pipit, R, Motacillidae, *Anthus brachyurus*, Pipit à queue courte

DL 97: common in short grassland

Yellow-throated Longclaw, R, Motacillidae, *Macronyx croceus*, Sentinelle à gorge jaune

Grassland throughout; singles & pairs all year; groups of three Mar, Nov; carrying nest material Jan, Feb

Recorded at 4 list sites, esp camp des ecogardes (IRV 0.63); elsewhere IRV range 0.03-0.14

DL 97: widespread in any grassland

Little Greenbul, R, Pycnonotidae, *Andropadus virens*, Bulbul verdâtre

Forest throughout; all year; small groups Jun, Jul, Nov

Most frequently netted species, but recorded at only 2 list sites: confluent (IRV 0.41) & Iboubikro ponds (0.09)

164 netted (incl juvs): mass 20-30 (ad), 19-26 (juv); wing 69-84 (ad), 70-80 (juv); active brood patch Dec; 1° moult all year but esp Oct-Jan/Feb; juvs Oct-Dec, Mar-Jun; 15 recaptured (2 twice; all Iboubikro camp; max time 8 weeks)

DL 97: common in forest & large thickets

Little Grey Greenbul, R, Pycnonotidae, *Andropadus gracilis*, Bulbul gracile

Forest throughout; Mar, Jun, Oct, Dec

2 adults netted; mass 18-21; wing 73-74; 1° moult Apr, Aug

DL 97: common in forest & large thickets

Slender-billed Greenbul, R, Pycnonotidae, *Andropadus gracilirostris*, Bulbul à bec grêle

Pair 6 Apr 2007, Iboubikro; otherwise overlooked

DL 97: common in forest & large thickets (canopy)

Honeyguide Greenbul, R, Pycnonotidae, *Baeopogon indicator*, Bulbul à queue blanche

Pair regularly in mixed species flocks for 2 weeks in Jun 2006, Iboubikro camp

DL 97: common in forest

Simple Leaflove, R?, Pycnonotidae, *Chlorocichla simplex*, Bulbul modeste

One 15 Jan 2004, Iboubikro camp

Yellow-throated Leaflove, R, Pycnonotidae, *Chlorocichla flavicollis*, Bulbul à gorge claire

DL 97: gallery forest & thickets

Swamp Palm Bulbul, R, Pycnonotidae, *Thescelocichla leucopleura*, Bulbul des raphias

Small vocal groups in gallery forest Lefini & Louna rivers, & Ngondoro; all year; carrying nest material Jan

Recorded at 3 gallery forest list sites, esp Lefini river; IRV range 0.18-0.45

3 netted at Ngondoro, 2002: mass 50-55 (to nearest 5g); wing 100-112

DL 97: gallery forest (with palms)

Leaflove, R, Pycnonotidae, *Pyrrhurus scandens*, Bulbul à queue rousse

DL 97: common in any forest

Lesser Bristlebill, R, Pycnonotidae, *Bleda notata*, Bulbul jaunelore

Yellow eyes => ssp *ugandae*; forest understorey Iboubikro

1 female netted (mass 44, wing 99) & 5 others (males?; mass 45-50; wing 102-106); 1° moult Dec; 1 recapture (1 day, distance approx 100m (nets 259 & 260))

DL 97: as *B. exima*; common in forest understorey

Common Bulbul, R, Pycnonotidae, *Pycnonotus barbatus*, Bulbul des jardins

Bright yellow undertail coverts => ssp *tricolor*; singles, pairs & small groups in wooded grassland & forest edges throughout; all year; carrying nest material Jul

Most visible species, recorded from all 7 list sites, in top five most frequently recorded species at 6 sites (IRV range 0.46-0.81), except Lefini river (0.18)

39 netted (incl 2 juvs); mass 30-42 (ad), 36-37 (juv); wing 85-103 (ad); 89 (juv); active brood patch Aug, Oct; large props in 1° moult Oct-May; juv Oct, Nov; 1 recapture (4 days; Iboubikro - ecogarde camp, 600m)

DL 97: common in wooded grassland, thickets, forest edges

Black-collared Bulbul, R, Pycnonotidae, *Neolestes torquatus*, Bulbul à collier noir

2 obs: wooded grassland; Ngondoro, Mt Blanc; Jan, Feb

1 female netted, camp des ecogardes 25 Dec 2005; active brood patch; mass 25, wing 76

DL 97: widespread in wooded grassland

Western Nicator, R, Pycnonotidae, *Nicator chloris*, Bulbul nicator

Forest Iboubikro, confluent

1 male, 3 females (based on size) & 1 juv netted: mass 61 (m), 43-47 (f), 41 (juv); wing 112 (m), 92-96 (f), 94 (juv); 1 recapture (5 weeks, Iboubikro (nets 257 & 262))

DL 97: common in forest

Red-capped Robin Chat, R?, Turdidae, *Cossypha natalensis*, Cossyphe à calotte rousse

4 adults netted in gallery forest understorey, Iboubikro, Jun 2002, Nov-Dec 2005

4 adults netted: mass 31-35; wing 90-91; 1° moult Dec; probable active brood patch Dec

Snowy-crowned Robin Chat, R, Turdidae, *Cossypha niveicapilla*, Cossyphe à calotte neigeuse

DL 97: common in thickets

Fire-crested Alethe, R?, Turdidae, *Alethe diademata*, Alèthe à huppe rousse

1 adult netted, 22 Dec 2005, gallery forest understorey, Iboubikro; mass 33; wing 85

Rufous Flycatcher Thrush, R, Turdidae, *Stizorhina fraseri*, Stizorhin de Fraser

Vocal in forest, Iboubikro

DL 97: common in forest

White-browed Scrub Robin, R, Turdidae, *Cercotrichas leucophrys*, Agrobate à dos roux

Singles & pairs, Idzoua Inkou

5 adults netted: mass 15-17; wing 60-66; 1° moult Feb

DL 97: common in wooded grassland & thicket edges

Common Stonechat, R, Turdidae, *Saxicola torquata*, Tarier pâtre

ssp *salax*; rocky grassland above Lac Bleu 25 Jan 2004 & 11 Apr 2007; sand bank at Epopé 12 Nov 2006

DL 97: rocky grassland

Congo Moor Chat, R, Turdidae, *Myrmecocichla tholloni*, Traquet du Congo

Non-wooded grassland throughout, esp Mpoumako-Abio; singles & pairs all year; small groups Sep-Mar, Jun

Observed during 79.5% of vehicle transects between Mpoumako & Abio, and during 30.2% from Iboubikro to Mâh

DL 97: common in open Loudetia grassland (few or no trees), up to 6 pairs/km² near Mâh

Sooty Chat, R, Turdidae, *Myrmecocichla nigra*, Traquet commandeur

Wooded grassland throughout; singles, pairs, small groups all year

Recorded at 4 most grassy list sites, esp camp des ecogardes (IRV 0.75, others range 0.21-0.45)

7 males & 2 females netted: mass 39-46 (m), 36-40 (f); wing 95-100 (m), 94-95 (f); active brood patch Aug; 1° moult Nov, Dec

DL 97: common in wooded grassland

African Moustached Warbler, R?, Sylviidae, *Melocichla mentalis*, Mélocichle à moustaches

DL 97: tall rank grassland

Whistling Cisticola, R, Sylviidae, *Cisticola lateralis*, Cisticole siffleuse

Idzoua Inkou

DL 97: locally common in rank grass & thicket edges

Tinkling Cisticola, R, Sylviidae, *Cisticola rufilatus*, Cisticole grise

DL 97: common in wooded grassland

Winding Cisticola, R, Sylviidae, *Cisticola galactotes*, Cisticole roussâtre

Grassy marshes, ponds & rivers throughout; vocal all year

Recorded at 2 marshy list sites: Iboubikro ponds (IRV 0.43) & Mt Blanc (0.15); under-recorded along rivers due to elusive habits

3 netted: mass 17-19; wing 60-63; 1° moult Dec; 1 recapture (same net, same day)

DL 97: common in tall grass/sedges near water

Croaking Cisticola, R, Sylviidae, *Cisticola natalensis*, Cisticole striée

Grassland throughout; vocal Sep-Apr

Recorded at 1 list site: camp des ecogardes (IRV 0.25)

1 adult & 1 juv netted: mass 26 (ad), 22 (juv); wing 74 (ad), 66 (juv); juv Apr

DL 97: common in grassland

Short-winged Cisticola, R, Sylviidae, *Cisticola brachypterus*, Cisticole à ailes courtes

Idzoua Inkou

1 netted at camp des ecogardes: mass 8; wing 48

DL 97: fairly common in wooded grassland

Piping Cisticola, R, Sylviidae, *Cisticola fulvicapillus*, Cisticole à couronne rousse

Wooded grassland throughout; vocal Dec-Jun

Recorded at 3 list sites, esp Idzoua Inkou (IRV 0.23) & Mt Blanc (0.15)

DL 97: common in wooded grassland

Zitting Cisticola, R, Sylviidae, *Cisticola juncidis*, Cisticole des joncs

Grassland throughout; vocal Sep-May

Recorded at 2 list sites: camp des ecogardes (IRV 0.38) & Idzoua Inkou (0.32)

DL 97: common in any grassland

Pectoral-patch Cisticola, R, Sylviidae, *Cisticola brunnescens*, Cisticole brune

Ngondoro, Jan 2004

DL 97: common in short grassland (Loudetia)

Pale-crowned Cisticola, R?, Sylviidae, *Cisticola cinnamomeus*, Cisticole châtain

DL 97: very local (grassy marsh, Mâh), June 1989

Tawny-flanked Prinia, R, Sylviidae, *Prinia subflava*, Prinia modeste

Wooded/rank grassland throughout; singles & pairs all year; small groups Dec, Jan; carrying nest material Feb

Recorded at 4 most grassy list sites, esp camp des ecogardes (IRV 0.33) & Idzoua Inkou (0.18)

6 netted (but data missing for 1 in 2002): 1 small (mass 6, wing 48), 4 larger (mass 8-10, wing 52-55); 1° moult Dec, Jan

DL 97: common in rank grassland

White-chinned Prinia, R, Sylviidae, *Schistolais leucopogon*, Prinia à gorge blanche

Small vocal groups, Idzoua Inkou; also Mt Blanc

Recorded at 1 list site: Idzoua Inkou (IRV 0.09)

DL 97: rank grass & thickets

Buff-throated Apalis, R, Sylviidae, *Apalis rufogularis*, Apalis à gorge rousse

DL 97: common in forest

Grey-backed Camaroptera, R, Sylviidae, *Camaroptera brachyura*, Camaroptère à tête grise

Forest edge, Iboubikro & Idzoua Inkou

10 netted: mass 11-14; wing 50-56; active brood patch Aug, Oct (same bird); 1° moult May; 1 recapture (8 weeks, Iboubikro (nets 291 & 298))

DL 97: common in thickets & forest understorey

Yellow-browed Camaroptera, R, Sylviidae, *Camaroptera superciliaris*, Camaroptère à sourcils jaunes

DL 97: locally common in forest clearings

Salvadori's Eremomela, R, Sylviidae, *Eremomela salvadorii*, Erémomèle de Salvadori

Mt Blanc, Idzoua Inkou

1 netted: mass 8; wing 56

DL 97: as *E. icteropygialis*; widespread in wooded grassland

Green-capped Eremomela, R, Sylviidae, *Eremomela scotops*, Erémomèle à calotte verte

Small vocal groups in wooded grassland, Idzoua Inkou; also camp des ecogardes; all year

Recorded at 2 list sites, esp Idzoua Inkou (IRV 0.32)

DL 97: common in wooded grassland

Red-capped Crombec, R, Sylviidae, *Sylvietta ruficapilla*, Crombec à calotte rousse

DL 97: widespread in wooded grassland

Green Crombec, R, Sylviidae, *Sylvietta virens*, Crombec vert

Forest edge, Iboubikro; singles & pairs all year; small group Mar

12 netted: mass 8-10; wing 48-53; 1° moult May, Oct, Nov

DL 97: common in forest & thickets

Willow Warbler, P, Sylviidae, *Phylloscopus trochilus*, Pouillot fitis

Iboubikro, 17 Sep 2005, 1 & 18 Oct 2006

Garden Warbler, P, Sylviidae, *Sylvia borin*, Fauvette des jardins

1 adult netted 2 Dec 2005; mass 18; wing 79; plumage worn

Yellow-bellied Hyliota, R, Sylviidae, *Hyliota flavigaster*, Hyliote à ventre jaune

Wooded grassland, esp Idzoua Inkou

DL 97: dense wooded grassland

Green Hylia, R, Sylviidae, *Hylia prasina*, Hylia verte

Forest, Iboubikro

3 netted: mass 12,16,16; wing 58,67,69

DL 97: common in forest

Fraser's Forest Flycatcher, R, Muscicapidae, *Fraseria ocreata*, Gobemouche forestier

Small vocal groups in forest canopy, Iboubikro, confluent, Loubilika; all year

DL 97: common in forest canopy

White-browed Forest Flycatcher, R, Muscicapidae, *Fraseria cinerascens*, Gobemouche à sourcils blancs

Forest understorey, Iboubikro, Lefini river

3 netted, incl 2 larger (mass 23, 22; wing 82, 83) & 1 smaller (mass 19, wing 79) with active brood patch (Jan); 1° moult Dec

DL 97: forest understorey near water

Pale Flycatcher, R, Muscicapidae, *Malaenornis pallidus*, Gobemouche pâle

Wooded grassland throughout; singles & pairs all year; small groups Nov, Dec

Recorded at 2 wooded grassland list sites: Idzoua Inkou (IRV 0.27) & camp des ecogardes (0.08)

6 netted: dimorphic?; 4 smaller (mass 24-28, wing 89-95), 2 larger (mass 30-31, wing 103-105); 1° moult Dec

DL 97: as *Bradornis pallidus*; widespread in wooded grassland

Spotted Flycatcher, P, Muscicapidae, *Muscicapa striata*, Gobemouche gris

Wooded grassland throughout (camp des ecogardes, Idzoua Inkou, Abio); singles, pairs, small groups; Sep (4 obs), Mar (1), Apr (1); earliest 19 Sep 2005, latest 7 Apr 2006

1 adult netted 5 Nov 2006; mass 14; wing 88

Cassin's Flycatcher, R, Muscicapidae, *Muscicapa cassini*, Gobemouche de Cassin

Lefini, Louna & Lesio rivers; singles & pairs all year; nest-building Feb; on nest Jan, Feb, Sep

Recorded frequently at Louna & Lefini river list sites (IRV 0.90 & 0.64), also confluent (0.18)

DL 97: common on large forest streams

Lead-coloured Flycatcher, R, Muscicapidae, *Myioparus plumbeus*, Gobemouche mésange

Wooded grassland & forest edges Iboubikro, Idzoua Inkou, Ngondoro; Oct, Dec-Feb; juvenile Feb

6 adults & 1 juv netted: mass 12-18 (ad), 11 (juv); wing 62-67 (ad), 63 (juv); juv Feb; 1 recapture (2 days, ecogarde nets 242 & 296)

DL 97: widespread in wooded grassland, thickets, forest edges

Blue-headed Crested Flycatcher, R, Monarchidae, *Trochocercus nitens*, Tchitrec noir

DL 97: forest with dense mid-stratum

African Paradise Flycatcher, R?, Monarchidae, *Terpisiphone viridis*, Tchitrec d'Afrique

4 obs: Iboubikro & Ngondoro

DL 97: wooded grassland & thickets

Bates's Paradise Flycatcher, R, Monarchidae, *Terpsiphone batesi*, Tchitrec de Bates

Forest & forest edge, Iboubikro; singles & pairs; on nest Oct, Dec, Jan; nestlings Oct, Dec; males & females on nest

13 netted: mass 13-16; wing 72-83; active brood patch Aug (?), Oct, Dec; 1° moult Dec; 2 recaptures (12 & 14 weeks, Iboubikro nets 291 & 406, 290 & 299)

DL 97: as *T. rufocinerea bannermani*; widespread in forest

Black-and-white Flycatcher, R, Platysteiridae, *Bias musicus*, Bias musicien

Forest edges throughout; singles & pairs; Nov-Mar, Jul

Recorded at 3 list sites, IRV range 0.02-0.04

1 male netted 6 Nov 2005; mass 22; wing 88

DL 97: forest, locally thickets & wooded grassland

Chestnut Wattle-eye, R, Platysteiridae, *Dyaphorophya castanea*, Pirit châtain

Forest understorey, Iboubikro

1 male & 2 females netted: mass 15 (m), 13-15 (f); wing 62 (m), 59-60 (f); possible active brood patches both males & females Apr, May, Jun; 1 recapture (male, 3 weeks, Iboubikro nets 259 & 284)

DL 97: common in forest understorey

Common Wattle-eye, R, Platysteiridae, *Platysteira cyanea*, Pirit à collier

Pair, Idzoua Inkou 25 Feb 2004

DL 97: thickets, also village groves

Black-headed Batis, R, Platysteiridae, *Batis minor*, Pirit à joues noires

Idzoua Inkou, also camp des ecogardes; singles & pairs all year; small group Jul

Recorded at 2 list sites: Idzoua Inkou (IRV 0.45) & camp des ecogardes (0.04)

1 female netted Dec 2005; mass 11; wing 58

DL 97: widespread in wooded grassland

Angola Batis, R, Platysteiridae, *Batis minulla*, Pirit de l'Angola

Idzoua Inkou & camp des ecogardes; less frequent than Black-headed Batis

Recorded at 1 list site: camp des ecogardes (IRV 0.04)

DL 97: widespread in thickets & forest edges/gallery forest

White-winged Black Tit, R, Paridae, *Parus leucomelas*, Mésange à epaulettes

Wooded grassland throughout LL; singles & pairs all year; small groups Aug-Feb, May

Recorded at 3 list sites, esp Idzoua Inkou (IRV range 0.17-0.36)

4 adults netted: mass 21-28; wing 80-89; active brood patch Aug

DL 97: common in wooded grassland

Grey Penduline Tit, R, Remizidae, *Anthoscopus caroli*, Rémiz de Carol

Iboubikro 5 Nov 2004 & 1 Oct 2006

DL 97: wooded grassland (local); race ansorgei

Violet-tailed Sunbird, R, Nectariniidae, *Anthreptes aurantium*, Souimanga à queue violette

Lefini, Louna & Lesio rivers, also Lac Bleu; singles & pairs all year, also small groups; nest-building Apr, Jul; at nest Nov; feeding nestlings Dec; feeding juveniles Jan, Jul, Oct; juveniles Jan, Mar, Jun, Jul, Oct, Dec; cooperative breeding observed (King & Cheke submitted)

Recorded at 4 list sites, esp confluent camp (IRV 0.28) & Iboubikro ponds (0.17)

2 males, 3 females & 1 juv netted: mass 12-13 (m), 12-13 (f), 13 (juv); wing 65-66 (m), 62 (f), 64 (juv); 1° moult Jan; juv Jan

DL 97: forest on the edge of water

Green Sunbird, R, Nectariniidae, *Anthreptes rectirostris*, Souimanga à bec droit

7 obs: Iboubikro Oct-Dec, Mar; almost always in pairs

Little Green Sunbird, R?, Nectariniidae, *Anthreptes seimundi*, Souimanga de Seimund

One 8 Mar 2005, confluent; small group 30 Mar 2007, Abio island

Fraser's Sunbird, R, Nectariniidae, *Deleornis fraseri*, Souimanga de Fraser

DL 97: common in forest

Reichenbach's Sunbird, R, Nectariniidae, *Anabathmis reichenbachii*, Souimanga de Reichenbach

Lefini, Louna & Lesio rivers, Iboubikro ponds, Ngondoro marsh; singles, pairs, small groups; carrying nest material Mar; nesting Mar, Jun, Nov, Dec; feeding nestlings & fledglings Nov; feeding juvenile Feb; juveniles Feb, Jul, Oct, Nov; aggressive

Recorded at 4 list sites, esp Iboubikro ponds (where 2nd most visible species, IRV 0.70) & confluent camp (5th most visible species, IRV 0.49)

7 adults & 1 juv netted: mass 7-12 (ad), 10 (juv); wing 53-60 (ad), 58 (juv); active brood patch Dec; 1° moult Mar, Jul

Green-headed Sunbird, R, Nectariniidae, *Cyanomitra verticalis*, Souimanga à tête verte

Iboubikro & Idzoua Inkou; also Mt Blanc & confluent; singles & pairs all year; juveniles Feb, Mar

Recorded at 3 list sites, esp Idzoua Inkou (IRV 0.23) & Iboubikro ponds (0.21)

4 males & 5 females netted: mass 10-15 (m), 10-16 (f); wing 64-67 (m), 58-62 (f); active brood patch Feb; head moulting from juv to female plumage Dec; data modified from King (2007c) as a photo was found of one formerly recorded as male which in fact was a female (see King 2007c, p28)

DL 97: thickets

Blue-throated Brown Sunbird, R, Nectariniidae, *Cyanomitra cyanoalaema*, Souimanga à gorge bleue

Forest & forest edge, Iboubikro

1 male netted: mass 14, wing 71

DL 97: forest

Western Olive Sunbird, R, Nectariniidae, *Cyanomitra obscura*, Souimanga olivâtre de l'Ouest

Forest & forest edge throughout; singly or in pairs; all year

Most frequently netted sunbird, but recorded at only 2 list sites: Iboubikro ponds (IRV 0.28) & confluent camp (0.08)

37 males, 14 females, 5 juvs & 2 imm males netted: mass 10-14 (m), 9-12 (f), 8-11 (juv); wing 61-68 (m), 56-60 (f), 56-64 (juv), 59-64 (imm male); prob brood patches Dec; 1° moult Jul-Dec, Feb; juv May, Nov, Dec; 4 recaptured (max Ib-eco; max time 16 wks); data includes netbird185 (King 2007c, p28)

DL 97: as *Nectarinia olivacea*; common in forest & thickets

Green-throated Sunbird, R, Nectariniidae, *Chalcomitra rubescens*, Souimanga à gorge verte

Forest edge throughout, incl Mt Blanc; singles & pairs all year, also small groups; nest-building Sep (using parts of old nest & spiders web); at nest Mar; pair with juvenile Oct

With Copper Sunbird, most widely recorded sunbird, from 5 lists sites, but IRV range lower (0.04-0.15)

3 males (1 ad & 2 imm) & 1 female netted: mass 11 (m), 10 (f); wing 66-68 (m), 60 (f); 1° moult Oct, Nov; imm male Nov

Amethyst Sunbird, R, Nectariniidae, *Chalcomitra amethystina*, Souimanga améthyste

Wooded grassland, esp Idzoua Inkou; singles & pairs all year, also small groups; juvenile Feb; imm male Aug, Nov

Recorded at 3 list sites, esp Idzoua Inkou (IRV 0.36)

5 males (2 ad & 3 imm) & 3 females netted: mass 12-14 (m), 11-14 (f); wing 69-71 (m), 63-65 (f); 1° moult Feb (ad female), May & Aug (imm males); 1 recapture (female, 1 day, ecogarde nets 296 & 297)

DL 97: common in wooded grassland & thicket edges

Collared Sunbird, R, Nectariniidae, *Hedydipna collaris*, Souimanga à collier

Forest edge throughout (but not Idzoua Inkou or Mt Blanc); singles & pairs all year; also small groups; carrying nest material April

Recorded at 2 list sites, Iboubikro ponds & confluent camp (both IRV 0.13)

1 male & 2 females netted: mass 8 (m), 8 (f); wing 53 (m), 50-51 (f); active brood patch Dec; 1° moult Oct

DL 97: common in forest & thickets

Olive-bellied Sunbird, R, Nectariniidae, *Cinnyris chloropygius*, Souimanga à ventre olive

Forest edge throughout, incl Mt Blanc (but not Idzoua Inkou); singles all year; pairs Dec-Apr; also small groups

Recorded at 3 list sites, with high IRV values at confluent camp (0.74) & Iboubikro ponds (0.62)

5 males, 2 females & 3 juveniles netted: mass 6-7 (m), 6 (f), 5-7 (juv); wing 50-52 (m), 47-48 (f), 47-50 (juv); active brood patch Nov; 1° moult Dec; juv Oct, Nov

DL 97: common in forest & thickets

Congo Sunbird, V?, Nectariniidae, *Cinnyris congensis*, Souimanga du Congo

DL 97: male between Lefini R. & Ngo, 1 Feb 1994 (RJD)

Orange-tufted Sunbird, ?, Nectariniidae, *Cinnyris bouvieri*, Souimanga de Bouvier

One photographed 1 Mar 2007 on road along northern boundary of Lefini north; the only sunbirds known from western and western central Africa with the combination of green head, throat and mantle, dark purple breast band and dark belly are Palestine, purple-banded and orange-tufted sunbirds; of these only the orange-tufted has a dark brown, rather than black, belly, and the small bluish forehead and throat patches apparent in the photos (fig 28)



Fig 28. Left: Orange-tufted Sunbird, Lefini north, 1 Mar 2007; right: specimens of Purple-banded Sunbird (above) and Orange-tufted Sunbird (below). (Photos: T. King, d & e © Natural History Museum, London)

Johanna's Sunbird, R, Nectariniidae, *Cinnyris johanna*, Souimanga de Johanna

DL 97: forest

Copper Sunbird, R, Nectariniidae, *Cinnyris cupreus*, Souimanga cuivré

Wooded grassland & degraded forest throughout; singles all year; also pairs & small groups; carrying nest material Feb; at nest Feb; feeding nestlings Mar
 With Green-throated Sunbird, most widely recorded sunbird, from 5 lists sites, with high IRV values, esp Mt Blanc (IRV 0.85, others IRV range 0.05-0.33)
 1 male & 1 female netted: mass 8 (m), 9 (f); wing 59 (m), 57 (f);
 DL 97: common in wooded grassland

Common Fiscal, R, Laniidae, *Lanius collaris*, Pie-grièche fiscale

Wooded grassland throughout LL & plateau; singles all year; juveniles Nov, Dec, Jan
 Recorded at 3 list sites, esp camp des ecogardes (IRV 0.38, others 0.02-0.05). Observed during 7.7% of vehicle transects between Mpoumako & Abio, and during 31.7% from Iboubikro to Mâh
 DL 97: common in wooded & rocky grassland

Sousa's Shrike, R?, Laniidae, *Lanius souzae*, Pie-grièche de Sousa

DL 97: wooded grassland (local)

Marsh Tchagra, R, Malaconotidae, *Antichromus minutus*, Tchagra des marais

Mt Blanc marsh, in pairs
 IRV value 0.15 at Mt Blanc
 DL 97: as *Tchagra minuta*; rank grassland

Black-crowned Tchagra, R, Malaconotidae, *Tchagra senegala*, Tchagra à tête noire

Wooded grassland throughout; singles & pairs all year; small group Nov
 DL 97: common in wooded grassland

Northern Puffback, R, Malaconotidae, *Dryoscopus gambensis*, Cubla de Gambie

3 obs: Idzoua Inkou & Mt Blanc
 DL 97: thickets & forest

Sooty Boubou, R, Malaconotidae, *Laniarius leucorhynchus*, Gonolek fuligineux

Iboubikro ponds
 3 adults netted: mass 54-57; wing 94-101; 1° moult Aug, Dec
 DL 97: common in forest & large thickets

Square-tailed Drongo, R, Dicruridae, *Dicrurus ludwigii*, Drongo de Ludwig

Forest edge, Idzoua Inkou (4 obs)
 DL 97: gallery forest

Velvet-mantled Drongo, R, Dicruridae, *Dicrurus modestus*, Drongo modeste

Confluent (5 obs) & Louna river (1); always singly, perched high on exposed branch in gallery forest

Pied Crow, R, Corvidae, *Corvus albus*, Corbeau pie

Mâh; one flying high westwards over confluent 16 Apr 2004
 DL 97: villages

Forest Chestnut-winged Starling, R, Sturnidae, *Onychognathus fulgidus*, Rufipenne de forêt

Lefini river (2 obs)
 DL 97: common in forest

Purple-headed Glossy Starling, R, Sturnidae, *Lamprotornis purpureiceps*, Choucador à tête pourprée

Iboubikro (3 obs), confluent (2) & Louna river (1); pairs; all year

Cape Glossy Starling, V?, Sturnidae, *Lamprotornis nitens*, Choucador à épaulettes rouges

DL 97: 1 pair at Lac Bleu (2nd record for Congo)

Splendid Glossy Starling, R, Sturnidae, *Lamprotornis splendidus*, Choucador splendide

Gallery forest throughout; pairs & small groups; flock of 24 at Ngondoro 9 Jan 2004; Aug-Jan, Apr, Jun
 DL 97: On passage (forest: LM)

Violet-backed Starling, R, Sturnidae, *Cinnyricinclus leucogaster*, Spréo améthyste

Wooded grassland throughout, esp Idzoua Inkou; pairs Mar-Sep; small groups Feb-Oct; flocks 10+ Apr, May, Sep

Recorded at 4 list sites, esp Idzoua Inkou (where 2nd most visible species, IRV 0.55, elsewhere IRV range 0.03-0.04)

2 males & 4 females netted: mass 38-39 (m), 40-43 (f); wing 104-106 (m), 97-103 (f); 1° moult Dec

DL 97: common in wooded grassland & thickets

Northern Grey-headed Sparrow, R, Passeridae, *Passer griseus*, Moineau gris

Singles & pairs in camps & villages; Dec-Jun

1 netted Feb 2002: mass 28; wing 85

DL 97: villages

Yellow-throated Petronia, R, Passeridae, *Petronia superciliaris*, Moineau bridé

Wooded grassland, esp Idzoua Inkou; singles & pairs all year; small groups May, Sep; feeding juvenile Sep

Recorded at 2 list sites: Idzoua Inkou (IRV 0.41) & camp des ecogardes (0.04)

16 adults & 2 juv/imm netted: mass 23-28 (ad), 24-26 (juv/imm); wing 87-95 (ad), 82-85

(juv/imm); all in 1° moult Nov-Dec, also May; juv Nov; 2 recaptures (3 days, ecogarde nets 242 & 243, 243 & 249)

DL 97: common in wooded grassland

Black-chinned Weaver, R, Ploceidae, *Ploceus nigrimentum*, Tisserin à menton noir

Wooded grassland; between Iboubikro & Mâh (13 Jan 2004, 20 Jun 2006) & by sand-pits near Abio camp (11 Sep 2006)

DL 97: widespread in wooded grassland, in pairs/families

Holub's Golden Weaver, R, Ploceidae, *Ploceus xanthops*, Tisserin safran

Mt Blanc; 28 Feb 2004 (1) & 7 Jan 2006 (pair): “two large, bright yellow weavers, black bill, one with reddish throat patch”; a weaver photographed 16 Apr 2007 between Mâh and Imvouba, in rank plateau grassland may also be this species: the photos show the bird to have a yellow head, black beak, thin black eye-stripe, pale eye, orangey throat, yellow breast, belly & undertail coverts, rest of undertail dark, darkish wings, and pink legs (fig 29); a female slender-billed weaver has blackish legs and a dark eye, a female lesser masked weaver has bluish-grey legs, horn-coloured beak and a whitish vent, a non-breeding male village weaver has a dark red eye, a female spectacled weaver has a thick eye-stripe and blackish legs, a male orange weaver has a deeper orange tinge to the head and underparts; therefore it is most likely a male Holub’s golden weaver, although the thin eye-stripe is not apparent in Borrow & Demey (2001) or Sinclair & Ryan (2003), and only weakly shown in BoA



Fig 29. *Ploceus* sp., Mâh Plateau, 16 Apr 2007. (Photos: T King).

Vieillot's Black Weaver, R, Ploceidae, *Ploceus nigerrimus*, Tisserin noir

Wooded grassland, forest edges, rivers, camps & villages; nesting colonies Aug-Feb;

Recorded at 5 list sites, IRV range 0.02-0.38

7 m, 13 f & 8 others (see King 2007c, p29) netted: mass 35-39 (m), 28-33 (f), 28-34 (?); wing 82-86 (m), 73-81 (f), 73-80 (?); 1° moult Mar; possible active brood patches Dec, Jan (but fairly yellow eyes); does eye colour in male change during moult to ad plumage?; 1 recap

Village Weaver, R, Ploceidae, *Ploceus cucullatus*, Tisserin gendarme

Breeding colonies in villages; ssp *collaris*? See photos

1 adult male netted in breeding plumage 27 Dec 2005, camp des ecogardes: mass 40; wing 85; the broad chestnut breast band and only a very thin strip of chestnut on the back of the neck (fig 30) indicate the race *collaris* (known from coastal Gabon to S Congo after Borrow & Demey 2001), rather than of the race *bohndorfii* known from most of Gabon and Congo; however, the mantle is not as heavily marked as the figure of *collaris* shown in Borrow & Demey (2001), and therefore may be an intermediate form



Fig 30. Adult male village weaver in breeding plumage, camp des ecogardes, 27 Dec 2005. (Photos: T King).

Yellow-mantled Weaver, R/V?, Ploceidae, *Ploceus tricolor*, Tisserin tricolore

Confluent 19-21 Jan 2004 (1) & 6 Dec 2004 (pair)

Compact Weaver, R, Ploceidae, *Ploceus superciliosus*, Tisserin gros-bec

Pairs or small groups, Mt Blanc; breeding plumage Nov, Jan-Mar

IRV 0.31 at Mt Blanc

Blue-billed Malimbe, R, Ploceidae, *Malimbus nitens*, Malimbe à bec bleu

Gallery forest & ponds, Iboubikro (3 obs) & Louna river (1 obs); Jan, Feb, Nov; singles & pairs
DL 97: gallery forest (LM)

Crested Malimbe, R, Ploceidae, *Malimbus malimbicus*, Malimbe huppé

DL 97: gallery forest

Red-headed Malimbe, R/V?, Ploceidae, *Malimbus rubricollis*, Malimbe à tête rouge

Singles high in gallery forest at confluent 19 & 20 Jan 2004, 25 Mar 2004

Red-headed Quelea, R, Ploceidae, *Quelea erythrops*, Travailleur à tête rouge

Flocks in grassland throughout (Ngondoro, Mt Blanc, camp des ecogardes, Lefini river);
breeding plumage Dec-Mar

2 females or non-breeding males netted, Aug & Nov: mass 15-16; wing 60-64

Black-winged Red Bishop, R, Ploceidae, *Euplectes hordeaceus*, Euplecte monseigneur

Mâh plateau (only 2 obs), Lefini north (abundant); breeding plumage Feb, Mar, May

Yellow-mantled Widowbird, R, Ploceidae, *Euplectes macrourus*, Euplecte à dos d'or

Singles & flocks common in grassland throughout; breeding plumage Nov-May, non-breeding
Jul-Nov, in moult Nov

Recorded at 5 list sites, esp Mt Blanc (IRV 0.92), camp des ecogardes (0.42) & Idzoua Inkou (0.23)

3 m (incl 2 in breeding plumage) & 4 f netted; mass 24-29 (m), 19-25 (f); wing 81 (m), 66-75 (f); active brood patch Feb; male at end of 1° moult to non-breeding plumage Aug; 1° moult finished & tail moult nearly finished to breeding plumage 29 Nov; data includes the unidentified *Euplectes* sp. of King *et al.* (2004) (see King 2007c, p27)

DL 97: common in any grassland

White-winged Widowbird, R, Ploceidae, *Euplectes albonotatus*, Euplecte à épaules blanches
Mt Blanc marsh (2 obs): 14 Feb 2005 (breeding plumage), 28 Dec 2005 (in moult)

DL 97: v local, tall plateau grassland

Red-collared Widowbird, R, Ploceidae, *Euplectes ardens*, Euplecte veuve-noire

Rank grassland on plateau, esp near Mpoumako; Lefini north (abundant); Iboubikro ponds (1 obs); breeding plumage Feb-May

Observed during 17.9% of vehicle transects between Mpoumako & Abio, and during 0% from Iboubikro to Mâh

Marsh Widowbird, R, Ploceidae, *Euplectes hartlaubi*, Euplecte des marais

Moist grasslands throughout, but not on plateau; singles pairs, & small groups; breeding plumage Nov-Jun, non-breeding Jun-Jul

Recorded at 2 list sites: Louna river (IRV 0.14) & Iboubikro ponds (0.11)

DL 97: common in dense moist grassland

Grey-crowned Negrofinch, R, Estrildidae, *Nigrita canicapilla*, Nigrette à calotte grise

Iboubikro camp, 17 & 26 Sep 2005

1 female netted 16 Aug 2006: mass 12; wing 56; possible active brood patch; 1° moult

DL 97: forest (LM)

Pale-fronted Negrofinch, R, Estrildidae, *Nigrita luteifrons*, Nigrette à front jaune

Forest edges throughout (Idzoua Inkou, Iboubikro, confluent); singles & pairs; nest-building Jan

Recorded at 3 list sites, IRV range 0.03-0.14

DL 97: forest edges

Chestnut-breasted Negrofinch, R, Estrildidae, *Nigrita bicolor*, Nigrette à ventre roux

Iboubikro ponds (14 Jan 2004), confluent (12 Nov 2004)

DL 97: gallery forest

White-breasted Negrofinch, R, Estrildidae, *Nigrita fusconota*, Nigrette à ventre blanc

DL 97: widespread in any forest

Orange-winged Pytilia, R, Estrildidae, *Pytilia afra*, Beaumarquet à dos jaune

Small flocks in wooded grassland (Idzoua Inkou, camp des ecogardes)

12 adults & 2 juveniles netted: mass 14-19 (ad), 17-19 (juv); wing 57-63 (ad), 61 (juv); 1° moult Aug, Oct, Feb; juv Oct

DL 97: wooded grassland with rank grass

Black-bellied Seedcracker, R, Estrildidae, *Pyrenestes ostrinus*, Pyréneste ponceau

Bushy vegetation, Iboubikro ponds (2 obs) & confluent (2 obs); singles; singing Jan

DL 97: rank grass with bushes, thicket edges

Western Bluebill, R, Estrildidae, *Spermophaga haematina*, Sénégal (ou Grosbec) sanguin
ssp *pustulata*; forest, Iboubikro & confluent

4 males, 1 female & 1 juvenile netted: mass 23-25 (m), 24 (f), 22 (juv); wing 67-75 (m), 66 (f), 70 (juv); 1° moult Dec; juv Jan

DL 97: forest understorey

Blue-billed Firefinch, R, Estrildidae, *Lagonosticta rubricata*, Amarante flambé

Singles & pairs, Mt Blanc & elsewhere on Mâh plateau

1 male netted Ngondoro 4 Dec 2002: mass 10; wing 46

DL 97: thickets & forest understorey (near edges)

Fawn-breasted Waxbill, R, Estrildidae, *Estrilda paludicola*, Astrild à poitrine fauve
Moist grassland (Ngondoro marsh, Mt Blanc, Etsotso); juveniles Jan
DL 97: moist grassland

Orange-cheeked Waxbill, R, Estrildidae, *Estrilda melpoda*, Astrild à joues oranges
Tall grassland throughout; pairs, small groups & flocks; juveniles Feb
Recorded at 4 list sites, esp Mt Blanc (IRV 0.85), Iboubikro ponds (0.34) & camp des ecogardes (0.21)
4 netted: mass 6-8; wing 43-47
DL 97: wooded grassland & open secondary grassland

Common Waxbill, X?, Estrildidae, *Estrilda astrild*, Astrild ondulé
DL 97: moist grassland (LM)

Zebra Waxbill, M?, Estrildidae, *Amandava subflava*, Bengali zébré
ssp *clarkei*; tall grassland Nov-Jan (8 obs); camp des ecogardes, Iboubikro, Idzoua Inkou, Ngondoro; singles, pairs & small groups

Locust Finch, R?, Estrildidae, *Ortygospiza locustella*, Astrild-caille à gorge rouge
DL 97: short moist grassland

Black-chinned Quailfinch, R?, Estrildidae, *Ortygospiza gabonensis*, Astrild-caille à gorge noire
One Iboubikro ponds 1 Jun 2006
DL 97: widespread in short grassland

Bronze Mannikin, R, Estrildidae, *Lonchura cucullata*, Capucin nonnette
Small & large flocks common in grassland throughout; nest-building Jan, Feb; at nest Dec, Feb; juveniles Feb-May, Sep; group of 7 juveniles without adults Feb 2007
Recorded at 6 list sites, IRV range 0.09-0.54
5 netted: mass 8-9; wing 47-49; 1° moult Apr, Jul
DL 97: common in tall grassland & wooded grassland

Black-and-white Mannikin, R, Estrildidae, *Lonchura bicolor*, Capucin bicolor
DL 97: common in tall grassland (more on forest edges)

Pin-tailed Whydah, R, Viduidae, *Vidua macroura*, Veuve dominicaine
Common in grassland on plateau; rarely in reserve except non-breeding birds at camps; breeding plumage Nov-Apr, non-breeding plumage Sep-Nov
1 adult netted, non-breeding plumage, but in 1° moult, Iboubikro 4 Nov 2006: mass 13; wing 70

Black-throated Seedeater, R, Fringillidae, *Serinus atrogularis*, Serin à gorge noire
Wooded grassland throughout; pairs & small flocks; carrying nest material Feb
Recorded at 3 list sites, esp Idzoua Inkou (IRV 0.23)
11 netted: mass 9-11; wing 65-70; large propn in 1° moult Nov, Dec
DL 97: common in wooded grassland

Yellow-fronted Canary, R, Fringillidae, *Serinus mozambicus*, Serin du Mozambique
Mt Blanc 15 Jan 2004 (small group) & 11 Feb 2005 (single)

Cinnamon-breasted Rock Bunting, M, Emberizidae, *Emberiza tahapisi*, Bruant cannelle
Wooded grassland & camps with bare ground, Oct-Apr; singles, pairs & small groups
Recorded at 5 list sites, IRV range 0.05-0.42
7 netted (incl at least 6 females), Oct-Dec, Mar: mass 12-16; wing 72-78; 1° moult Mar
DL 97: bare ground with rocks, with seasonal movements

Cabanis's Bunting, R, Emberizidae, *Emberiza cabanisi*, Bruant de Cabanis
1 adult netted, camp des ecogardes 5 Nov 2005; mass 23, wing 76
DL 97: widespread in wooded grassland



Figs 31-35. White-crested Tiger Heron on nest, juvenile Martial Eagle, Black-breasted Snake Eagle, Common Greenshank & Zebra Waxbill – five of the 66 species newly reported for the Lesio-Louna & Lefini Reserves (Photos: T. King)

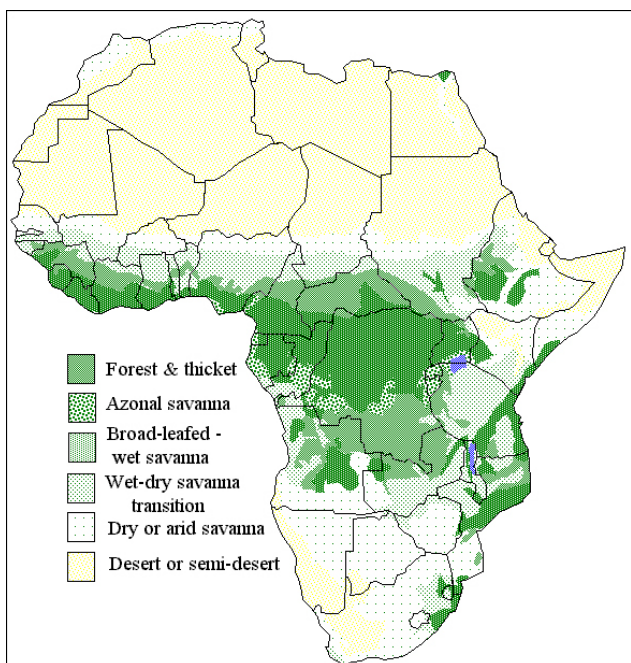


Fig 36. Simplified and generalised distribution of major vegetation types in Africa, adapted from NASA (undated). Forest and thicket = “Humid forest” and “Coastal forest, or evergreen thicket”; Azonal savanna = “Azonal savanna in wet savanna zone”; Broad-leafed – wet savanna = “Broad-leafed savanna – wet savanna”; Wet-dry savanna transition = “Transition zone wet and dry savanna (Northern Hemisphere)” and “Fine-leafed dry savanna - transition (Southern Hemisphere)”; Dry or arid savanna = “Fine-leafed dry savanna (Northern Hemisphere)”, “Fine-leafed dry arid savanna (Southern Hemisphere)” and “Fine-leafed dry savanna (Southern Hemisphere)”; Desert or semi-desert = “Desert, semi-desert, and water”.

Discussion

The analysis presented in this report of the information available regarding the avifauna of the Lesio-Louna and Lefini Reserves requires refinement and completion, but still provides the most complete picture currently available for a single location within the Batéké Plateaux region of Central Africa. The discoveries of both southern African woodland species, such as Miombo Pied Barbet, and of central African rainforest species, such as Sladen's Barbet, reinforce the categorisation by Dowsett-Lemaire (2001) of the Batéké Plateaux as part of the Guinea-Congolian/Zambezi transition zone of White (1983). The mixing of these two major African avifaunas on the Plateaux provides a highly diverse bird community, although overall species richness is poor when compared to other sites in Congo with much more complete forest avifaunas. 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 Plateaux, the reserves are an important refuge for the Black-chinned Weaver, Finsch's Francolin and Congo Moor Chat. The Black-chinned Weaver prefers wooded grassland, while the Congo Moor Chat is abundant in open plains of *Loudetia* grassland, being easily seen along the track from Mpoumako to Abio. Finsch's Francolin is generally difficult to see, except when surprised along savanna tracks, but is widely distributed in both wooded and open *Loudetia* grasslands. The species presumably suffers to a certain extent from local hunting pressure, although the species most frequently observed for sale in villages were Red-necked Francolin, African Crake, and Little Buttonquail. Of other species of conservation interest, the single sighting of Brazza's Martin, only the fifth published record for Congo (King 2007a), suggests that the species is a non-breeding visitor to the reserves, as breeding birds would otherwise have been expected to have been recorded during the numerous boat trips along the Louna or Lefini rivers. The Black-headed Bee-eater, one of the largest members of the family and possibly the rarest, is fairly common, breeding in holes in the sandy grassland border of gallery forest throughout the area. Apart from hunting of game birds, the 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 the deforestation of the cliff forests along the eastern boundary of the Lesio-Louna Reserve for charcoal and crop plantations (fig 37).

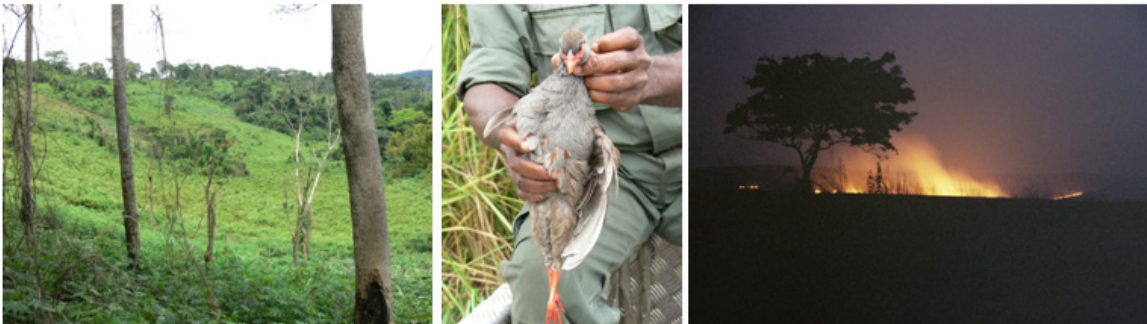


Fig 37. Threats to birds of the Lesio-Louna and Lefini Reserves and surrounding areas: severe deforestation of cliff forests, hunting of game birds, and excessive savanna burning (Photos: T. King (a,b), S. Muilerman (c))

Some of the most interesting discoveries during the survey were of various species of barbet and tinkerbird (family Capitonidae), showing the area to support a particularly rich and diverse assemblage of barbet species, with 10 species recorded in the Lesio-Louna reserve alone. For three of these species (Miombo Pied Barbet, Yellow-fronted Tinkerbird and Sladen's Barbet),

the Lesio-Louna is the only known locality where they exist in Congo (King & Chamberlan 2007b).



Fig 38. Nine of the ten species of Capitonidae found in the Lesio-Louna Reserve: Red-rumped, Yellow-rumped, Yellow-throated & Speckled Tinkerbirds, Miombo Pied Barbet, Yellow-fronted Tinkerbird, Hairy-breasted, Sladen's & Grey-throated Barbets (Photos: D. Hayman (a,b), C. Chamberlan (c,d,e,h,i), T. King (f,g))

Outside Africa, the barbet family is exclusively forest-dwelling (Short & Horne 2001). Their high diversification in Africa is regarded to be due to extreme cyclical changes that have repeatedly restricted lowland and upland forests, favouring adaptations in ancestral barbets to leave the forest and penetrate the woodland, bushland and scrubland habitats that today dominate much of the continent (Short & Horne 2001). Once forest-dependence was broken, speciation processes appear to have been most active within the woodland-grassland fringe of the African forest (Short & Horne 1988), due to the separation of woodland segments by forests or by xeric conditions (Short & Horne 1991), while mutations relating to replacement plumage patterning may also have played a role (Short *et al.* 1983). Given its geographic location in the heart of the Congo Forest Basin and its diversity of woodland and forest habitats it is unsurprising, therefore, that the Batéké Plateaux supports a rich barbet fauna, containing species associated with both the south-central African woodlands and the large Congolian forest block.

Much of the data collected during this survey was aimed at trying to understand the seasonality in breeding and moult cycles of the bird communities. This preliminary analysis has only touched the surface of this wealth of information, and a full analysis was outside the scope of this report. However, some broad patterns have emerged, such as the apparent rigidity of the annual cycles of the savanna avifauna, and the relatively more flexible cycles of the forest avifauna. There appears to be a major moult season in savanna birds beginning around October, following a period of very little moult activity during the dry season. For example, several species of Ploceidae, such as the widowbirds and queleas, have distinct breeding plumages which are worn

during the wet season, more-or-less from Nov to May, before moulting into non-breeding plumage for the dry season. Many forest birds also appear to moult around October to December, but the pattern is less distinct than for savanna birds, and several were also found to be in moult during the dry season.



Figs 39-41. Congo Moor Chat, Finsch's Francolin & Black-headed Bee-eater, three of the highlights of a visit to the Lesio-Louna and Lefini Reserves (Photos: T. King)

The Lesio-Louna and Lefini Reserves do not support a particularly species-rich bird community, and visitors are often surprised by the apparent absence of a noisy and visible avifauna. However, with time and effort, the reserves can provide a rewarding and unique diversity of forest and savanna species for the enthusiastic birdwatcher, including large enigmatic grassland species such as Black-bellied and White-bellied Bustards, central African grassland endemics such as Congo Moor Chat, Finsch's Francolin and Black-chinned Weaver, rarely-seen specialities such as Black-headed Bee-eater and Sladen's Barbet, forest favourites such as Grey Parrot and various species of Hornbill and Turaco, a wealth of kingfishers, barbets, tinkerbirds, sunbirds, widowbirds and weavers, and of course the amazing spectacle of the annual migration of thousands of Abdim's Storks between February and May. Exploring the diversity of habitats within the reserves is the key to appreciating the diversity of the avifauna, from the Lesio gallery forest and seasonal ponds at Iboubikro, the wooded grassland surrounding the forest islet of Idzoua Inkou, the grassy marsh and surrounding rank *Hyparrhenia* grassland at Mt Blanc, the open *Loudetia* grassy plains between Mpoumako and Abio, and the meandering Louna river between Abio camp and Abio island. With a bit more effort, the impressive escarpments of Mt Abio, Mt Epopé and Mt Ngaka provide better chances of seeing raptors and hirundines. For the adventurous, the cliff forests along the eastern boundary of the Lesio-Louna reserve have so far been little visited, and are likely to support further forest species than have yet been recorded. Equally, Lac Sampion has been inadequately surveyed, as has the whole of the northern and eastern sectors of the Lefini Reserve. While this report adds much to our knowledge of the birds of the Lesio-Louna and Lefini Reserves, much is still to be discovered, and any reliable records from the area should be collated and passed on to an appropriate authority, such as the West African Ornithological Society or the African Bird Club.

Acknowledgements

I thank the Ministère de l'Economie Forestière et de l'Environnement of the Republic of Congo, and the John Aspinall Foundation of UK, for their long-term and continued support of the joint management project for the Lesio-Louna Reserve. I also thank the Conservateur of the Lesio-Louna Reserve, Florent Ikoli, and his predecessor Mbani Akangala Mankarika, Christelle Chamberlan, Simon Tyler, Martin Dallimer, David Hayman, Rupert Horsley, Jean Bafinga, Joachim Ombani, Ghislain Mvila, Paco Yoka and Gervais Mviri for their help with the field work, Gilbert Nsongola for help with botanical identifications, Richard and Phyllis King for their help with the literature search, Robert Prÿs-Jones and the staff of the British Museum (Tring) for providing access to their specimen collection and library, Michel Louette and the staff of the Royal Museum for Central Africa at Tervuren, Belgium, for access to their specimen collection and library, Patrice Christy, Bill Clark and Dick Forsman for their enthusiasm and expert opinions on numerous difficult identifications, and Martin Dallimer, Françoise Dowsett-Lemaire, Robert Dowsett, Hugo Rainey and Peter Jones for providing useful background information and advice.

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Appendix 1. Indices of Relative Visibility (IRVs) for 175 bird species at 7 sites in the Lesio-Louna and Lefini reserves.

English name (B&D 2001)	Abio - Confluent	Confluent - Mbouambé	Confluent camp	Camp des ecogardes	Iboubikro ponds	Idzoua Inkou	Mt Blanc	Sites IRV>0
Little Grebe					0.13			1
African Darter	0.03	0.09						2
Squacco Heron			0.03		0.04			2
Cattle Egret	0.03	0.09			0.06			3
Green-backed Heron	0.17		0.03		0.04			3
Little Egret			0.03					1
Intermediate Egret					0.02			1
Great Egret							0.08	1
Purple Heron	0.10	0.09			0.04			3
Grey Heron					0.04			1
Hamerkop	0.48	0.09	0.05		0.28			4
Abdim's Stork	0.17							1
European Honey Buzzard			0.03					1
Black-shouldered Kite					0.02			1
Black Kite	0.10	0.09	0.03					3
African Fish Eagle	0.07							1
Palm-nut Vulture					0.04			1
Eurasian Marsh Harrier							0.08	1
Dark Chanting Goshawk						0.18		1
Long-tailed Hawk			0.13					1
Lizard Buzzard	0.07							1
Red-necked Buzzard	0.03					0.05	0.08	3
Finsch's Francolin				0.04				1
Red-necked Francolin				0.13				1
African Finfoot	0.07							1
White-bellied Bustard						0.05		1
African Jacana	0.10				0.40			2
Temminck's Courser						0.05		1
Lesser Black-winged Lapwing					0.02	0.05		2
Common Sandpiper	0.10		0.03		0.04			3

English name (B&D 2001)	Abio - Confluent	Confluent - Mbouambé	Confluent camp	Camp des ecogardes	Iboubikro ponds	Idzoua Inkou	Mt Blanc	Sites IRV>0
African Green Pigeon	0.17	0.36	0.31		0.09	0.09		5
Blue-headed Wood Dove		0.09						1
Tambourine Dove			0.05					1
Blue-spotted Wood Dove	0.07	0.18	0.18	0.04	0.19	0.14	0.15	7
Western Bronze-naped Pigeon	0.14	0.27	0.15		0.09			4
Afep Pigeon	0.03		0.10					2
Red-eyed Dove	0.10	0.09	0.26	0.42	0.26	0.45		6
Grey Parrot	0.62	0.82	1.00	0.33	0.19			5
Great Blue Turaco	0.03							1
Green Turaco	0.07							1
Red-chested Cuckoo			0.03					1
African Cuckoo						0.05		1
Didric Cuckoo							0.08	1
Gabon Coucal					0.02			1
Senegal Coucal	0.07				0.21			2
Blue-headed Coucal					0.02			1
Spotted Eagle Owl						0.05		1
Swamp Nightjar				0.04				1
Long-tailed Nightjar				0.08				1
African Palm Swift		0.18		0.08	0.13	0.05	0.08	5
Common Swift	0.24	0.45	0.28	0.08	0.15	0.23	0.08	7
Little Swift	0.03	0.82			0.06			3
Speckled Mousebird							0.46	1
Brown-hooded Kingfisher						0.05	0.08	2
Grey-headed Kingfisher	0.07					0.09		2
Blue-breasted Kingfisher					0.02			1
Woodland Kingfisher	0.38	0.64	0.82		0.43			4
Striped Kingfisher						0.18		1
African Pygmy Kingfisher	0.03		0.13		0.13	0.05		4
Shining-blue Kingfisher			0.05		0.02			2
Giant Kingfisher	0.52	0.27	0.21					3

English name (B&D 2001)	Abio - Confluent	Confluent - Mbouambé	Confluent camp	Camp des ecogardes	Iboubikro ponds	Idzoua Inkou	Mt Blanc	Sites IRV>0
Pied Kingfisher	0.38	0.36	0.18					3
Black-headed Bee-eater	0.24	0.09	0.05	0.04				4
Black Bee-eater	0.14			0.04				2
Little Bee-eater				0.21		0.18	0.08	3
Blue-breasted Bee-eater	0.10			0.42	0.02	0.14	0.62	5
White-throated Bee-eater	0.03							1
European Bee-eater	0.14	0.09	0.08	0.13	0.09	0.09	0.15	7
Rosy Bee-eater	0.07							1
Broad-billed Roller	0.28	0.27	0.21	0.13	0.02			5
African Pied Hornbill	0.34	0.45	0.31	0.21	0.23			5
Piping Hornbill	0.03		0.15	0.04	0.04			4
Sladen's Barbet				0.13				1
Speckled Tinkerbird	0.03		0.21		0.13			3
Red-rumped Tinkerbird					0.04			1
Yellow-throated Tinkerbird			0.05		0.17	0.05		3
Yellow-rumped Tinkerbird			0.03			0.18	0.08	3
Miombo Pied Barbet						0.09		1
Black-backed Barbet							0.08	1
Brown-eared Woodpecker			0.08					1
Cardinal Woodpecker				0.04		0.09		2
Yellow-crested Woodpecker			0.10					1
Flappet Lark				0.58		0.68		2
Black Saw-wing							0.23	1
Banded Martin	0.38	0.09	0.03	0.17	0.04	0.05	0.62	7
Rufous-chested Swallow	0.10	0.09		0.17	0.02	0.05	0.08	6
Lesser Striped Swallow		0.45					0.54	2
Rock Martin			0.03					1
White-throated Blue Swallow	1.00	1.00	0.38	0.04				4
Barn Swallow				0.04				1
Long-legged Pipit					0.04			1
Yellow-throated Longclaw	0.03			0.63	0.09	0.14		4

English name (B&D 2001)	Abio - Confluent	Confluent - Mbouambé	Confluent camp	Camp des ecogardes	Iboubikro ponds	Idzoua Inkou	Mt Blanc	Sites IRV>0
Little Greenbul			0.41		0.09			2
Little Grey Greenbul			0.05					1
Swamp Palm Bulbul	0.31	0.45	0.18					3
Common Bulbul	0.52	0.18	0.62	0.46	0.81	0.50	0.77	7
Black-collared Bulbul							0.08	1
Western Nicator		0.09			0.06			2
Sooty Chat	0.21			0.75		0.41	0.23	4
Winding Cisticola					0.43		0.15	2
Croaking Cisticola				0.25				1
Short-winged Cisticola						0.05		1
Piping Cisticola					0.02	0.23	0.15	3
Zitting Cisticola				0.38		0.32		2
Tawny-flanked Prinia				0.33	0.06	0.18	0.08	4
White-chinned Prinia						0.09		1
Grey-backed Camaroptera					0.02	0.05		2
Salvadori's Eremomela						0.05	0.08	2
Green-capped Eremomela				0.08		0.32		2
Green Crombec					0.15			1
Willow Warbler					0.02			1
Yellow-bellied Hyliota						0.18		1
Fraser's Forest Flycatcher			0.10		0.02			2
Pale Flycatcher				0.08		0.27		2
Spotted Flycatcher				0.13		0.09		2
Cassin's Flycatcher	0.90	0.64	0.18					3
Lead-coloured Flycatcher					0.02			1
African Paradise Flycatcher					0.02			1
Bates's Paradise Flycatcher					0.11			1
Black-and-white Flycatcher	0.03			0.04	0.02			3
Common Wattle-eye						0.05		1
Black-headed Batis				0.04		0.45		2
Angola Batis				0.04				1

English name (B&D 2001)	Abio - Confluent	Confluent - Mbouambé	Confluent camp	Camp des ecogardes	Iboubikro ponds	Idzoua Inkou	Mt Blanc	Sites IRV>0
White-winged Black Tit				0.21	0.17	0.36		3
Grey Penduline Tit					0.02			1
Violet-tailed Sunbird	0.03	0.09	0.28		0.17			4
Green Sunbird					0.02			1
Reichenbach's Sunbird	0.14	0.09	0.49		0.70			4
Green-headed Sunbird					0.21	0.23	0.08	3
Blue-throated Brown Sunbird					0.02			1
Western Olive Sunbird			0.08		0.28			2
Green-throated Sunbird			0.15	0.04	0.09	0.09	0.08	5
Amethyst Sunbird				0.04	0.04	0.36		3
Collared Sunbird			0.13		0.13			2
Olive-bellied Sunbird		0.09	0.74		0.62			3
Copper Sunbird			0.23	0.33	0.23	0.05	0.85	5
Common Fiscal				0.38	0.02	0.05		3
Marsh Tchagra							0.15	1
Black-crowned Tchagra					0.02	0.05		2
Northern Puffback						0.09	0.08	2
Sooty Boubou					0.02			1
Square-tailed Drongo						0.09		1
Velvet-mantled Drongo			0.10					1
Pied Crow			0.03					1
Forest Chestnut-winged Starling		0.09	0.03					2
Purple-headed Glossy Starling	0.03		0.03		0.02			3
Splendid Glossy Starling			0.10		0.02			2
Violet-backed Starling	0.03			0.04	0.04	0.55		4
Northern Grey-headed Sparrow		0.18		0.08			0.08	3
Yellow-throated Petronia				0.04		0.41		2
Holub's Golden Weaver							0.08	1
Vieillot's Black Weaver	0.03	0.27		0.38	0.02		0.08	5
Village Weaver		0.18						1
Compact Weaver							0.31	1

English name (B&D 2001)	Abio - Confluent	Confluent - Mbouambé	Confluent camp	Camp des ecogardes	Iboubikro ponds	Idzoua Inkou	Mt Blanc	Sites IRV>0
Blue-billed Malimbe					0.04			1
Red-headed Malimbe			0.05					1
Red-headed Quelea							0.15	1
Yellow-mantled Widowbird	0.03			0.42	0.02	0.23	0.92	5
White-winged Widowbird							0.15	1
Red-collared Widowbird					0.02			1
Marsh Widowbird	0.14				0.11			2
Pale-fronted Negrofinch			0.03		0.04	0.14		3
Chestnut-breasted Negrofinch			0.03		0.02			2
Orange-winged Pytilia						0.05		1
Black-bellied Seedcracker					0.04			1
Western Bluebill			0.03					1
Blue-billed Firefinch							0.15	1
Fawn-breasted Waxbill				0.04			0.08	2
Orange-cheeked Waxbill	0.03			0.21	0.34		0.85	4
Zebra Waxbill				0.04				1
Black-chinned Quailfinch					0.02			1
Bronze Mannikin	0.10	0.09		0.38	0.28	0.27	0.54	6
Pin-tailed Whydah				0.04			0.15	2
Black-throated Seedeater				0.08	0.11	0.23		3
Cinnamon-breasted Rock Bunting			0.18	0.42	0.11	0.05	0.08	5
Total species IRV>0	57	37	58	53	86	59	43	175
Total lists completed	29	11	39	47	24	22	13	185

Appendix 2. Percentages of species sighted during river transects on the Louna and Lefini rivers.

English name (B&D 2001)	Louna (Abio – Confluent)	Lefini (Confluent – Mbouambé)
African Darter	2.7	6.7
Cattle Egret	10.8	6.7
Green-backed Heron	32.4	
Purple Heron	10.8	6.7
Hamerkop	54.1	6.7
Abdim's Stork	24.3	6.7
Black Kite	10.8	13.3
African Fish Eagle	16.2	
Palm-nut Vulture	2.7	
Bateleur	5.4	
Lizard Buzzard	5.4	
Red-necked Buzzard	2.7	
African Finfoot	8.1	
African Jacana	16.2	
Common Sandpiper	13.5	
African Green Pigeon	18.9	26.7
Blue-headed Wood Dove		6.7
Blue-spotted Wood Dove	13.5	20.0
Western Bronze-naped Pigeon	16.2	26.7
Afep Pigeon	2.7	
Red-eyed Dove	18.9	20.0
Grey Parrot	75.7	93.3
Great Blue Turaco	2.7	
Green Turaco	5.4	
Levaillant's Cuckoo		6.7
African Emerald Cuckoo	2.7	
Gabon Coucal	2.7	
Senegal Coucal	5.4	
African Palm Swift	2.7	33.3
Common Swift	27.0	40.0
Little Swift	8.1	80.0
Grey-headed Kingfisher	5.4	
Woodland Kingfisher	51.4	66.7
African Pygmy Kingfisher	8.1	
Shining-blue Kingfisher	8.1	
Giant Kingfisher	62.2	46.7
Pied Kingfisher	54.1	33.3
Black-headed Bee-eater	24.3	6.7
Black Bee-eater	18.9	
Blue-breasted Bee-eater	8.1	
White-throated Bee-eater	5.4	
European Bee-eater	18.9	6.7
Rosy Bee-eater	5.4	
Broad-billed Roller	29.7	26.7
African Pied Hornbill	54.1	80.0
Piping Hornbill	21.6	
Speckled Tinkerbird	5.4	
Banded Martin	54.1	13.3
Rufous-chested Swallow	8.1	6.7
Lesser Striped Swallow		53.3

English name (B&D 2001)	Louna (Abio – Confluent)	Lefini (Confluent – Mbouambé)
White-throated Blue Swallow	100.0	100.0
Yellow-throated Longclaw	2.7	
Swamp Palm Bulbul	35.1	33.3
Common Bulbul	54.1	20.0
Western Nicator		6.7
Sooty Chat	35.1	
Winding Cisticola	2.7	6.7
Cassin's Flycatcher	91.9	80.0
Black-and-white Flycatcher	2.7	
Violet-tailed Sunbird	8.1	6.7
Reichenbach's Sunbird	13.5	6.7
Olive-bellied Sunbird		6.7
Velvet-mantled Drongo	2.7	
Forest Chestnut-winged Starling		6.7
Purple-headed Glossy Starling	2.7	
Violet-backed Starling	2.7	
Northern Grey-headed Sparrow		26.7
Vieillot's Black Weaver	2.7	46.7
Village Weaver		13.3
Blue-billed Malimbe	2.7	
Red-headed Quelea		6.7
Yellow-mantled Widowbird	2.7	
Marsh Widowbird	13.5	
Orange-cheeked Waxbill	2.7	
Bronze Mannikin	16.2	20.0
Total species	66	41
Total transects	37	15

Appendix 3. Summary of mass (g), wing and tail (mm) measurements for birds netted in the Lesio-Louna Reserve 2002-2007.

Bird Species	Age/Sex group	Mass					Wing					Tail (f)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Sunbird 293	Juv	6	6	6.0		1	46	46	46.0		1	33	33	33.0		1
African Green Pigeon	Adult	190	190	190.0		1	167	167	167.0		1	89	89	89.0		1
Tambourine Dove	Male	80	80	80.0		1	119	119	119.0		1	90	90	90.0		1
Blue-spotted Wood Dove	Adult	59	68	62.3	4.93	3	109	111	110.3	1.15	3	85	91	88.0	3.00	3
Western Bronze-naped Pigeon	Female	125	125	125.0		1	152	152	152.0		1	102	102	102.0		1
Red-eyed Dove	Adult	220	220	220.0		1	180	180	180.0		1	125	125	125.0		1
Didric Cuckoo	Female	36	39	37.5	2.12	2	114	119	116.5	3.54	2	80	83	81.5	2.12	2
Didric Cuckoo	Male	26	32	29.0	4.24	2	106	112	109.0	4.24	2	77	77	77.0	0.00	2
Swamp Nightjar		50	50	50.0	0.00	3	141	142	141.7	0.58	3	87	92	89.0	2.65	3
Blue-breasted Kingfisher	Adult	75	85	80.0	5.00	3	106	117	112.7	5.86	3	70	79	76.0	5.20	3
Woodland Kingfisher	Adult	54	58	55.7	2.08	3	95	104	100.0	4.58	3	60	65	63.3	2.89	3
African Pygmy Kingfisher		11	14	12.3	0.90	15	50	54	52.3	1.40	15	22	26	24.9	1.03	15
African Pygmy Kingfisher	Imm	12	12	12.0		1	55	55	55.0		1	23	23	23.0		1
African Pygmy Kingfisher	Juv	14	14	14.0		1	54	54	54.0		1	25	25	25.0		1
Shining-blue Kingfisher	Male	32	32	32.0		1	79	79	79.0		1	36	36	36.0		1
Black Bee-eater	Adult	33	33	33.0		1	99	99	99.0		1	75	75	75.0		1
Little Bee-eater	Adult	13	15	14.3	1.15	3	78	79	78.3	0.58	3	59	62	60.7	1.53	3
Little Bee-eater	Juv	14	14	14.0		1	78	78	78.0		1	63	63	63.0		1
Blue-breasted Bee-eater		18	21	20.1	1.13	8	80	86	82.9	2.59	8	59	64	61.6	1.92	8
White-throated Bee-eater	Adult	23	23	23.0		1	95	95	95.0		1	76	76	76.0		1
Grey-throated Barbet	Adult	45	45	45.0		1	83	83	83.0		1	46	46	46.0		1
Sladen's Barbet	Adult	45	48	46.6	1.14	5	85	88	86.8	1.10	5	47	51	49.4	1.52	5
Sladen's Barbet	Imm	42	42	42.0		1	86	86	86.0		1	47	47	47.0		1
Speckled Tinkerbird		15	17	15.8	0.84	5	57	60	57.8	1.30	5	31	34	33.2	1.30	5
Red-rumped Tinkerbird		18	18	18.0	0.00	3	62	66	64.0	2.00	3	30	32	31.3	1.15	3
Yellow-throated Tinkerbird		8	10	9.2	0.75	11	47	52	48.7	1.49	11	22	24	22.7	0.87	9
Yellow-throated Tinkerbird	Juv	10	10	10.0		1	50	50	50.0		1	22	22	22.0		1
Yellow-rumped Tinkerbird		11	11	11.0	0.00	3	51	53	52.3	1.15	3	26	27	26.7	0.58	3
Yellow-fronted Tinkerbird		10	10	10.0		1	58	58	58.0		1	33	33	33.0		1
Miombo Pied Barbet	Adult	28	28	28.0		1	74	74	74.0		1	45	45	45.0		1

Bird Species	Age/Sex group	Mass					Wing					Tail (f)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Thick-billed Honeyguide		29	29	29.0		1	94	94	94.0		1	60	60	60.0		1
Green-backed Woodpecker	Female	48	48	48.0		1	97	97	97.0		1	63	63	63.0		1
Green-backed Woodpecker	Male	43	46	44.5	2.12	2	92	98	95.0	4.24	2	54	57	55.5	2.12	2
Buff-spotted Woodpecker	Female	38	38	38.0		1	90	90	90.0		1	45	45	45.0		1
Buff-spotted Woodpecker	Male	35	35	35.0		1	82	82	82.0		1	42	42	42.0		1
Cardinal Woodpecker	Male	22	24	23.0	1.41	2	79	80	79.5	0.71	2	40	41	40.5	0.71	2
Flappet Lark		29	29	29.0		1	79	79	79.0		1	52	52	52.0		1
<i>Mirafra</i> sp.		55?				1	75					56				1
<i>Anthus</i> cf. <i>nyassae</i>		26	26	26.0		1	83	83	83.0		1	62	62	62.0		1
Little Greenbul		20	30	24.7	1.85	130	69	84	76.8	2.88	130	62	77	70.7	3.06	128
Little Greenbul	Imm	20	26	23.4	2.13	9	72	77	75.1	1.69	9	64	73	70.0	2.74	9
Little Greenbul	Juv	19	26	23.5	1.95	23	70	80	75.0	2.86	23	63	75	70.2	2.82	21
Little Greenbul	Juv?	25	25	25.0	0.00	2	72	77	74.5	3.54	2	67	70	68.5	2.12	2
Little Grey Greenbul	Adult	18	21	19.5	2.12	2	73	74	73.5	0.71	2	68	69	68.5	0.71	2
Swamp Palm Bulbul		50	55	53.3	2.89	3	100	112	107.0	6.24	3	97	105	101.3	4.04	3
Lesser Bristlebill		45	50	48.0	2.35	5	102	106	103.8	1.48	5	91	97	95.2	2.49	5
Lesser Bristlebill	Female	44	44	44.0		1	99	99	99.0		1	88	88	88.0		1
Common Bulbul		30	42	36.4	2.25	35	85	103	94.3	4.45	35	78	92	83.8	3.62	34
Common Bulbul	Female	34	36	35.0	1.41	2	92	94	93.0	1.41	2	83	84	83.5	0.71	2
Common Bulbul	Juv	36	37	36.5	0.71	2	89	89	89.0	0.00	2	74	82	78.0	5.66	2
Black-collared Bulbul	Adult	25	25	25.0		1	76	76	76.0		1	63	63	63.0		1
Western Nicator	Adult	43	47	45.3	2.08	3	92	96	94.0	2.00	3	92	95	93.5	2.12	2
Western Nicator	Juv	41	41	41.0		1	94	94	94.0		1	94	94	94.0		1
Western Nicator	Male?	61	61	61.0		1	112	112	112.0		1	114	114	114.0		1
Red-capped Robin Chat	Adult	31	35	32.8	1.71	4	90	91	90.3	0.50	4	66	68	67.0	0.82	4
Fire-crested Alethe	Adult	33	33	33.0		1	85	85	85.0		1	66	66	66.0		1
White-browed Scrub Robin	Adult	15	17	16.0	1.00	5	60	66	62.6	2.61	5	52	64	57.4	4.45	5
Sooty Chat	Female	36	40	38.0	2.83	2	94	95	94.5	0.71	2	55	57	56.0	1.41	2
Sooty Chat	Male	39	46	41.3	2.29	7	95	100	97.6	1.51	7	52	60	57.1	2.79	7
Winding Cisticola		17	19	18.3	1.15	3	60	63	61.3	1.53	3	50	56	52.3	3.21	3
Croaking Cisticola		26	26	26.0		1	74	74	74.0		1	61	61	61.0		1

Bird Species	Age/Sex group	Mass					Wing					Tail (f)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Croaking Cisticola	Juv	22	22	22.0		1	66	66	66.0		1	57	57	57.0		1
Short-winged Cisticola		8	8	8.0		1	48	48	48.0		1	32	32	32.0		1
Tawny-flanked Prinia		6	10	8.6	1.67	5	48	55	52.2	2.68	5	52	56	53.3	2.31	3
Grey-backed Camaroptera		11	14	12.4	1.17	10	50	56	54.1	2.51	10	31	40	37.6	3.16	8
Salvadori's Eremomela		8	8	8.0		1	56	56	56.0		1	27	27	27.0		1
Green Crombec		8	10	8.9	0.67	12	48	53	50.3	1.71	12	12	20	16.9	2.23	12
Garden Warbler		18	18	18.0		1	79	79	79.0		1	54	54	54.0		1
Green Hylia		12	16	14.7	2.31	3	58	69	64.7	5.86	3	40	49	45.7	4.93	3
White-browed Forest Flycatcher	Adult	19	23	21.3	2.08	3	79	83	81.3	2.08	3	63	68	66.0	2.65	3
Pale Flycatcher		24	31	27.7	2.73	6	89	105	96.7	6.12	6	72	82	77.3	4.55	6
Spotted Flycatcher	Adult	14	14	14.0		1	88	88	88.0		1	62	62	62.0		1
Lead-coloured Flycatcher		12	18	14.5	2.07	6	62	67	64.3	1.97	6	53	61	57.8	3.35	5
Lead-coloured Flycatcher	Juv	11	11	11.0		1	63	63	63.0		1	61	61	61.0		1
Bates's Paradise Flycatcher		13	16	14.7	0.95	10	72	80	76.7	2.91	10	73	109	87.6	12.97	9
Bates's Paradise Flycatcher	Female	14	14	14.0		1	76	76	76.0		1	84	84	84.0		1
Bates's Paradise Flycatcher	Male	15	16	15.5	0.71	2	77	83	80.0	4.24	2	103	152	127.5	34.65	2
Black-and-white Flycatcher	Male	22	22	22.0		1	88	88	88.0		1	50	50	50.0		1
Chestnut Wattle-eye	Female	13	15	14.0	1.41	2	59	60	59.5	0.71	2	24	26	25.0	1.41	2
Chestnut Wattle-eye	Male	15	15	15.0		1	62	62	62.0		1	28	28	28.0		1
Black-headed Batis	Female	11	11	11.0		1	58	58	58.0		1	43	43	43.0		1
White-winged Black Tit	Adult	21	28	24.8	2.99	4	80	89	84.8	3.77	4	66	72	69.0	2.58	4
Violet-tailed Sunbird	Female	12	13	12.7	0.58	3	62	62	62.0	0.00	3	42	44	43.0	1.00	3
Violet-tailed Sunbird	Juv	13	13	13.0		1	64	64	64.0		1	45	45	45.0		1
Violet-tailed Sunbird	Male	12	13	12.5	0.71	2	65	66	65.5	0.71	2	46	48	47.0	1.41	2
Reichenbach's Sunbird	Adult	7	12	9.0	1.87	5	53	60	56.4	3.05	5	40	50	44.3	5.06	4
Reichenbach's Sunbird	Female	8	8	8.0		1	55	55	55.0		1	43	43	43.0		1
Reichenbach's Sunbird	Juv	10	10	10.0		1	58	58	58.0		1	46	46	46.0		1
Green-headed Sunbird	Female	10	16	12.6	2.19	5	58	62	60.6	1.67	5	39	45	41.3	2.63	4
Green-headed Sunbird	Male	10	15	13.5	2.38	4	64	67	65.3	1.26	4	44	49	46.3	2.06	4
Blue-throated Brown Sunbird	Male	14	14	14.0		1	71	71	71.0		1	54	54	54.0		1
Western Olive Sunbird	Female	9	12	10.0	0.78	14	56	60	57.4	1.28	14	40	44	42.5	1.45	13

Bird Species	Age/Sex group	Mass					Wing					Tail (f)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Western Olive Sunbird	Imm male	11	11	11.0		1	59	59	59.0		1	44	44	44.0		1
Western Olive Sunbird	Juv	8	11	10.0	1.41	5	56	64	59.8	3.56	5	39	47	44.4	3.44	5
Western Olive Sunbird	Male	10	14	11.4	0.90	37	61	68	65.1	1.88	37	47	60	53.2	2.91	36
Green-throated Sunbird	Female	10	10	10.0		1	60	60	60.0		1	36	36	36.0		1
Green-throated Sunbird	Imm male	11	11	11.0		1	66	66	66.0		1	41	41	41.0		1
Green-throated Sunbird	Juv male?	11	11	11.0		1	67	67	67.0		1	41	41	41.0		1
Green-throated Sunbird	Male	11	11	11.0		1	68	68	68.0		1	46	46	46.0		1
Amethyst Sunbird	Female	11	14	12.7	1.53	3	63	65	64.0	1.00	3	38	40	38.7	1.15	3
Amethyst Sunbird	Imm male	12	14	13.3	1.15	3	69	70	69.3	0.58	3	41	45	43.0	2.00	3
Amethyst Sunbird	Male	13	13	13.0	0.00	2	70	71	70.5	0.71	2	43	44	43.5	0.71	2
Collared Sunbird	Female	8	8	8.0	0.00	2	50	51	50.5	0.71	2	29	30	29.5	0.71	2
Collared Sunbird	Male	8	8	8.0		1	53	53	53.0		1	33	33	33.0		1
Olive-bellied Sunbird	Female	6	6	6.0	0.00	2	47	48	47.5	0.71	2	32	32	32.0	0.00	2
Olive-bellied Sunbird	Juv	5	7	6.0	1.00	3	47	50	49.0	1.73	3	30	33	31.7	1.53	3
Olive-bellied Sunbird	Male	6	7	6.4	0.55	5	50	52	50.8	0.84	5	31	36	33.0	2.00	5
Copper Sunbird	Female	9	9	9.0		1	57	57	57.0		1	41	41	41.0		1
Copper Sunbird	Male	8	8	8.0		1	59	59	59.0		1	46	46	46.0		1
Sooty Boubou	Adult	54	57	56.0	1.73	3	94	101	98.0	3.61	3	90	92	91.0	1.00	3
Violet-backed Starling	Female	40	43	41.5	1.73	4	97	103	100.0	2.45	4	53	56	54.5	1.29	4
Violet-backed Starling	Male	38	39	38.5	0.71	2	104	106	105.0	1.41	2	59	60	59.5	0.71	2
Northern Grey-headed Sparrow		28	28	28.0		1	85	85	85.0		1					0
Yellow-throated Petronia	Adult	23	28	24.5	1.55	16	87	95	90.8	2.69	16	53	60	56.7	2.15	16
Yellow-throated Petronia	Imm	26	26	26.0		1	82	82	82.0		1	53	53	53.0		1
Yellow-throated Petronia	Juv	24	24	24.0		1	85	85	85.0		1	54	54	54.0		1
Vieillot's Black Weaver	Female	28	33	30.2	1.57	13	73	81	76.3	2.21	13	48	50	48.7	1.15	3
Vieillot's Black Weaver	Imm male	28	34	30.2	2.40	6	73	80	76.0	2.28	6	46	46	46.0		1
Vieillot's Black Weaver	Juv	32	32	32.0		1	75	75	75.0		1					0
Vieillot's Black Weaver	Male	35	39	37.4	1.40	7	82	86	84.1	1.46	7	52	55	53.0	1.41	4
Village Weaver	Male	40	40	40.0		1	85	85	85.0		1	51	51	51.0		1
Red-headed Quelea	F/nb m	15	16	15.5	0.71	2	60	64	62.0	2.83	2	31	32	31.5	0.71	2
Yellow-mantled Widowbird	Female	19	25	21.8	2.75	4	66	75	69.3	4.03	4	49	57	53.3	4.04	3

Bird Species	Age/Sex group	Mass					Wing					Tail (f)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Yellow-mantled Widowbird	Male (breeding)	24	29	26.5	3.54	2	81	81	81.0	0.00	2	104	104	104.0		1
Yellow-mantled Widowbird	Male (nb)	27	27	27.0		1	81	81	81.0		1	55	55	55.0		1
Pale-fronted Negrofinch	Female	12	12	12.0		1	56	56	56.0		1	36	36	36.0		1
Orange-winged Pytilia		18	18	18.0	0.00	4	59	63	60.5	1.73	4					0
Orange-winged Pytilia	Female	14	16	15.0	1.41	2	59	60	59.5	0.71	2	34	34	34.0	0.00	2
Orange-winged Pytilia	imm male	16	17	16.3	0.58	3	60	62	61.0	1.00	3	31	34	32.7	1.53	3
Orange-winged Pytilia	imm? Male	19	19	19.0		1	60	60	60.0		1					0
Orange-winged Pytilia	Juv	17	19	18.0	1.41	2	61	61	61.0	0.00	2	32	32	32.0		1
Orange-winged Pytilia	Male	15	16	15.5	0.71	2	57	59	58.0	1.41	2	33	37	35.0	2.83	2
Western Bluebill	Female	24	24	24.0		1	66	66	66.0		1	52	52	52.0		1
Western Bluebill	Juv	22	22	22.0		1	70	70	70.0		1	54	54	54.0		1
Western Bluebill	Male	23	25	24.0	0.82	4	67	75	71.5	3.42	4	55	59	57.5	1.73	4
Blue-billed Firefinch	Male	10	10	10.0		1	46	46	46.0		1	40	40	40.0		1
Orange-cheeked Waxbill		6	8	7.0	0.82	4	43	47	45.0	1.83	4	43	43	43.0		1
Bronze Mannikin		8	9	8.4	0.55	5	47	49	47.4	0.89	5	25	33	30.0	3.00	5
Pin-tailed Whydah	Adult (nb)	13	13	13.0		1	70	70	70.0		1	50	50	50.0		1
Black-throated Seedater		9	11	10.2	0.60	11	65	70	66.4	1.57	11	40	45	41.3	1.49	11
Cinnamon-breasted Rock Bunting		16	16	16.0		1	74	74	74.0		1					0
Cinnamon-breasted Rock Bunting	Female	12	16	14.0	1.55	6	72	78	74.7	2.42	6	56	62	59.2	2.23	6
Cabanis's Bunting	Adult	23	23	23.0		1	76	76	76.0		1	64	64	64.0		1

Appendix 4. Summary of tarsus and bill (mm) measurements for birds netted in the Lesio-Louna Reserve 2002-2007.

Bird Species	Age/Sex group	Tarsus					Bill (f)					Bill (s)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Sunbird 293	Juv	15.8	15.8	15.8		1	18.9	18.9	18.9		1	21.7	21.7	21.7		1
African Green Pigeon	Adult	20	20	20.0		1	23.8	23.8	23.8		1					0
Tambourine Dove	Male	22.8	22.8	22.8		1	15	15	15.0		1	20.7	20.7	20.7		1
Blue-spotted Wood Dove	Adult	18.4	21.7	20.1	1.65	3	13.3	14.5	14.0	0.62	3	18.9	19	19.0	0.06	3
Western Bronze-naped Pigeon	Female	20.5	20.5	20.5		1	13.8	13.8	13.8		1	23	23	23.0		1
Red-eyed Dove	Adult	25.9	25.9	25.9		1	20.2	20.2	20.2		1	27.7	27.7	27.7		1
Didric Cuckoo	Female	15.5	16.1	15.8	0.42	2	14.9	14.9	14.9	0.00	2	20.2	21.5	20.9	0.92	2
Didric Cuckoo	Male	15.5	17.2	16.4	1.20	2	13.2	15.8	14.5	1.84	2	19.4	21	20.2	1.13	2
Swamp Nightjar		17	18.7	17.9	0.85	3	7.4	9.1	8.4	0.91	3	15.3	16.6	15.8	0.68	3
Blue-breasted Kingfisher	Adult	15.8	17.4	16.5	0.81	3	43	48.3	45.9	2.69	3	56	58.5	56.9	1.37	3
Woodland Kingfisher	Adult	12.4	16.3	14.2	1.96	3	37	40	38.6	1.52	3	47.1	49.7	48.3	1.32	3
African Pygmy Kingfisher		7.4	104	15.2	24.69	15	21.3	26.2	23.2	1.36	15	25	32.9	29.2	1.95	15
African Pygmy Kingfisher	Imm	8.4	8.4	8.4		1	22.1	22.1	22.1		1	29.9	29.9	29.9		1
African Pygmy Kingfisher	Juv	9	9	9.0		1	21.7	21.7	21.7		1	27.8	27.8	27.8		1
Shining-blue Kingfisher	Male	10.9	10.9	10.9		1	42.4	42.4	42.4		1	52.7	52.7	52.7		1
Black Bee-eater	Adult	11.3	11.3	11.3		1	32	32	32.0		1	41	41	41.0		1
Little Bee-eater	Adult	8.4	8.6	8.5	0.10	3	20.3	22.1	21.5	1.04	3	26.9	29.8	28.5	1.47	3
Little Bee-eater	Juv	8	8	8.0		1	22.5	22.5	22.5		1	29	29	29.0		1
Blue-breasted Bee-eater		8.8	10.5	9.7	0.64	8	23.2	26.5	24.8	1.20	8	29	31.6	30.6	0.87	8
White-throated Bee-eater	Adult	11.9	11.9	11.9		1	28	28	28.0		1	35.7	35.7	35.7		1
Grey-throated Barbet	Adult	19.5	19.5	19.5		1	15.7	15.7	15.7		1	20.3	20.3	20.3		1
Sladen's Barbet	Adult	19.4	21.3	20.3	0.83	5	18.2	20.6	19.9	1.00	5	23.6	25.5	24.5	0.76	5
Sladen's Barbet	Imm	17.8	17.8	17.8		1	19.6	19.6	19.6		1	23.1	23.1	23.1		1
Speckled Tinkerbird		15.1	18.4	16.3	1.30	5	13.2	15.1	14.1	0.73	5	17.3	18.9	18.0	0.66	5
Red-rumped Tinkerbird		15.2	18	16.6	1.40	3	12.5	12.9	12.8	0.23	3	15.9	17	16.3	0.64	3
Yellow-throated Tinkerbird		12	16.3	13.4	1.24	11	9.1	10.8	10.1	0.53	10	12	14	13.0	0.61	9
Yellow-throated Tinkerbird	Juv	11.5	11.5	11.5		1	9.1	9.1	9.1		1	11.6	11.6	11.6		1
Yellow-rumped Tinkerbird		13	14.6	13.9	0.81	3	9	10.7	9.9	0.85	3	13.3	14.8	14.3	0.87	3
Yellow-fronted Tinkerbird		13.4	13.4	13.4		1	9.3	9.3	9.3		1	14.4	14.4	14.4		1

Bird Species	Age/Sex group	Tarsus					Bill (f)					Bill (s)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Miombo Pied Barbet	Adult	18.8	18.8	18.8		1	17.6	17.6	17.6		1	20.5	20.5	20.5		1
Thick-billed Honeyguide		15.9	15.9	15.9		1	10	10	10.0		1	13.7	13.7	13.7		1
Green-backed Woodpecker	Female	15.2	15.2	15.2		1	14.5	14.5	14.5		1	19	19	19.0		1
Green-backed Woodpecker	Male	15.4	15.6	15.5	0.14	2	14.3	14.3	14.3		1	18.3	18.9	18.6	0.42	2
Buff-spotted Woodpecker	Female	16.3	16.3	16.3		1	15.1	15.1	15.1		1	19.2	19.2	19.2		1
Buff-spotted Woodpecker	Male	16.4	16.4	16.4		1	14.4	14.4	14.4		1	20.2	20.2	20.2		1
Cardinal Woodpecker	Male	13.9	14.1	14.0	0.14	2	13.8	14	13.9	0.14	2	17.8	18.4	18.1	0.42	2
Flappet Lark		24.4	24.4	24.4		1	13.9	13.9	13.9		1	18.3	18.3	18.3		1
<i>Mirafra</i> sp.		24	24	24.0		1	14.4	14.4	14.4		1	19	19	19.0		1
<i>Anthus cf nyassae</i>		23.3	23.3	23.3		1	12.5	12.5	12.5		1	16.9	16.9	16.9		1
Little Greenbul		18	26.6	20.1	1.07	130	9.6	13.9	11.2	0.78	130	14.8	18	16.3	0.67	128
Little Greenbul	Imm	18.1	20.7	19.8	0.89	9	10.5	11.9	11.3	0.50	9	15.2	16.8	16.0	0.49	9
Little Greenbul	Juv	16	22	19.4	1.33	23	10.1	13.1	11.2	0.77	23	14.9	18	16.1	0.72	21
Little Greenbul	Juv?	19.2	20.4	19.8	0.85	2	11.1	12.6	11.9	1.06	2	16.5	17.7	17.1	0.85	2
Little Grey Greenbul	Adult	17.6	18	17.8	0.28	2	10.3	12.8	11.6	1.77	2	14.6	17	15.8	1.70	2
Swamp Palm Bulbul		24.3	25.8	25.1	0.76	3	17.5	20.2	18.8	1.36	3	23.3	25.7	24.7	1.25	3
Lesser Bristlebill		24.5	28.3	26.4	1.59	5	16.7	19.1	18.1	1.02	5	23.1	24.7	23.7	0.64	5
Lesser Bristlebill	Female	24.8	24.8	24.8		1	17.2	17.2	17.2		1	23.4	23.4	23.4		1
Common Bulbul		14.6	24.1	21.4	1.59	35	13	17.1	14.8	0.98	35	18.3	21	19.7	0.75	34
Common Bulbul	Female	21.1	21.3	21.2	0.14	2	13.7	14.7	14.2	0.71	2	18.8	20	19.4	0.85	2
Common Bulbul	Juv	21.3	21.8	21.6	0.35	2	14.4	14.6	14.5	0.14	2	19.3	19.4	19.4	0.07	2
Black-collared Bulbul	Adult	20.3	20.3	20.3		1	10.7	10.7	10.7		1	17.2	17.2	17.2		1
Western Nicator	Adult	27.4	29.2	28.5	0.95	3	15.4	19.3	17.5	1.97	3	21.8	23.2	22.5	0.99	2
Western Nicator	Juv	27.7	27.7	27.7		1	16.3	16.3	16.3		1	22	22	22.0		1
Western Nicator	Male?	29.2	29.2	29.2		1	18.1	18.1	18.1		1	24.6	24.6	24.6		1
Red-capped Robin Chat	Adult	24.2	26.6	25.6	1.06	4	13.5	15.4	14.2	0.86	4	19	19.9	19.5	0.39	4
Fire-crested Alethe	Adult	23.5	23.5	23.5		1	15.9	15.9	15.9		1	19.7	19.7	19.7		1
White-browed Scrub Robin	Adult	21.6	23.5	22.3	0.76	5	11.2	12.8	12.0	0.73	5	15.8	16.5	16.3	0.28	5
Sooty Chat	Female	30.1	31.9	31.0	1.27	2	13.9	14.3	14.1	0.28	2	19.2	20.6	19.9	0.99	2
Sooty Chat	Male	31.4	34	32.3	0.97	7	13.7	16.5	15.1	0.97	7	18	21.8	20.0	1.43	7
Winding Cisticola		24.8	28	26.0	1.72	3	12.6	15.4	13.9	1.40	3	17.7	19	18.3	0.67	3

Bird Species	Age/Sex group	Tarsus					Bill (f)					Bill (s)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Croaking Cisticola		29	29	29.0		1	12.6	12.6	12.6		1	17.8	17.8	17.8		1
Croaking Cisticola	Juv	27.5	27.5	27.5		1	13.7	13.7	13.7		1	17.1	17.1	17.1		1
Short-winged Cisticola		18	18	18.0		1	9.3	9.3	9.3		1	12.3	12.3	12.3		1
Tawny-flanked Prinia		19.6	22.2	21.2	0.99	5	10	11.3	10.6	0.53	5	14.8	15.4	15.1	0.31	3
Grey-backed Camaroptera		19.5	24.5	22.1	1.60	10	11	15.6	12.5	1.27	10	16.1	17.1	16.5	0.36	8
Salvadori's Eremomela		18.2	18.2	18.2		1	10	10	10.0		1	13.9	13.9	13.9		1
Green Crombec		14.1	18.1	16.8	1.29	12	8.6	10.7	9.5	0.61	12	11.7	14.4	13.2	0.83	12
Garden Warbler		19.2	19.2	19.2		1	10.1	10.1	10.1		1	15.1	15.1	15.1		1
Green Hylia		18.6	20.3	19.7	0.95	3	9.2	10.8	10.1	0.81	3	13.7	15.3	14.6	0.81	3
White-browed Forest Flycatcher	Adult	18.2	19.5	18.8	0.67	3	10.9	11.4	11.1	0.25	3	16.7	17.4	16.9	0.40	3
Pale Flycatcher		19.9	23	21.0	1.14	6	11.1	13.9	12.1	0.99	6	18	19.9	19.0	0.82	6
Spotted Flycatcher	Adult	14.6	14.6	14.6		1	12	12	12.0		1	18	18	18.0		1
Lead-coloured Flycatcher		16.6	18.1	17.3	0.48	6	8.9	10.3	9.6	0.52	6	14.8	15.9	15.2	0.44	5
Lead-coloured Flycatcher	Juv	17.5	17.5	17.5		1	9.9	9.9	9.9		1	14.6	14.6	14.6		1
Bates's Paradise Flycatcher		14.2	16.2	15.2	0.71	10	9.8	14.2	11.6	1.26	10	16.5	20.7	18.9	1.42	10
Bates's Paradise Flycatcher	Female	14	14	14.0		1	10.9	10.9	10.9		1	19.4	19.4	19.4		1
Bates's Paradise Flycatcher	Male	15	16.3	15.7	0.92	2	10.2	12.5	11.4	1.63	2	19.5	21	20.3	1.06	2
Black-and-white Flycatcher	Male	12.6	12.6	12.6		1	15.5	15.5	15.5		1	25.8	25.8	25.8		1
Chestnut Wattle-eye	Female	14.8	15	14.9	0.14	2	12.2	12.2	12.2	0.00	2	15.4	17.3	16.4	1.34	2
Chestnut Wattle-eye	Male	15.2	15.2	15.2		1	11.5	11.5	11.5		1	17	17	17.0		1
Black-headed Batis	Female	16.5	16.5	16.5		1	11.7	11.7	11.7		1	16.1	16.1	16.1		1
White-winged Black Tit	Adult	16.1	19.3	18.4	1.54	4	8.3	10	9.3	0.77	4	13.9	15.1	14.4	0.51	4
Violet-tailed Sunbird	Female	16.5	16.6	16.5	0.06	3	14.3	15.2	14.6	0.52	3	18.5	19.6	19.1	0.57	3
Violet-tailed Sunbird	Juv	17.5	17.5	17.5		1	14.7	14.7	14.7		1	18.8	18.8	18.8		1
Violet-tailed Sunbird	Male	17.1	17.5	17.3	0.28	2	15.3	15.3	15.3	0.00	2	18.1	20.2	19.2	1.48	2
Reichenbach's Sunbird	Adult	14.9	18.5	16.4	1.38	5	15.7	18.2	16.7	0.94	5	19.2	20.6	20.0	0.58	4
Reichenbach's Sunbird	Female	17	17	17.0		1	15.3	15.3	15.3		1	19.5	19.5	19.5		1
Reichenbach's Sunbird	Juv	17	17	17.0		1	17	17	17.0		1	21.2	21.2	21.2		1
Green-headed Sunbird	Female	16.3	18.7	17.3	0.90	5	20.9	23.4	21.9	0.96	5	25.7	27.2	26.6	0.66	4
Green-headed Sunbird	Male	17.6	19.9	19.1	1.01	4	21.6	25.1	22.8	1.63	4	27	28.5	27.7	0.72	4

Bird Species	Age/Sex group	Tarsus					Bill (f)					Bill (s)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Blue-throated Brown Sunbird	Male	15.4	15.4	15.4		1	20.6	20.6	20.6		1	24.8	24.8	24.8		1
Western Olive Sunbird	Female	14.4	18.0	16.0	1.18	14	20.5	23.5	21.8	0.95	14	24	28.3	25.5	1.10	13
Western Olive Sunbird	Imm male	15.1	15.1	15.1		1	22.5	22.5	22.5		1	26.5	26.5	26.5		1
Western Olive Sunbird	Juv	14.5	16.6	15.2	0.83	5	19.7	23.6	21.5	1.77	5	24	27.7	26.1	1.64	5
Western Olive Sunbird	Male	14.6	19.3	16.3	1.05	37	20.9	28	23.1	1.36	36	24.6	30.3	27.1	1.20	36
Green-throated Sunbird	Female	15.3	15.3	15.3		1	17.6	17.6	17.6		1	23	23	23.0		1
Green-throated Sunbird	Imm male	16.1	16.1	16.1		1	19	19	19.0		1	24.8	24.8	24.8		1
Green-throated Sunbird	Juv male?	15.5	15.5	15.5		1	19.6	19.6	19.6		1	24.4	24.4	24.4		1
Green-throated Sunbird	Male	15.9	15.9	15.9		1	19	19	19.0		1	23.2	23.2	23.2		1
Amethyst Sunbird	Female	16	18.5	17.2	1.25	3	21.2	25.5	23.5	2.17	3	26.2	27.4	26.8	0.60	3
Amethyst Sunbird	Imm male	16.6	16.8	16.7	0.12	3	23	23.9	23.3	0.49	3	28.9	30.7	29.7	0.92	3
Amethyst Sunbird	Male	17.2	17.3	17.3	0.07	2	23.5	24.3	23.9	0.57	2	28.3	28.9	28.6	0.42	2
Collared Sunbird	Female	13.7	15.2	14.5	1.06	2	13	13.3	13.2	0.21	2	16.2	17.6	16.9	0.99	2
Collared Sunbird	Male	15.5	15.5	15.5		1	14.4	14.4	14.4		1	17.8	17.8	17.8		1
Olive-bellied Sunbird	Female	13.4	14.9	14.2	1.06	2	16.5	17.4	17.0	0.64	2	21.1	21.8	21.5	0.49	2
Olive-bellied Sunbird	Juv	13.8	15.1	14.5	0.66	3	17.3	17.9	17.6	0.30	3	21.4	22.5	21.9	0.56	3
Olive-bellied Sunbird	Male	14.4	17.1	15.6	1.20	5	16	19.6	18.1	1.30	5	21.5	24.4	22.9	1.14	5
Copper Sunbird	Female	14.5	14.5	14.5		1	16.6	16.6	16.6		1	20.8	20.8	20.8		1
Copper Sunbird	Male	14	14	14.0		1	18.1	18.1	18.1		1	23.1	23.1	23.1		1
Sooty Boubou	Adult	30.2	31.5	30.8	0.65	3	19.2	22.4	21.3	1.79	3	26.7	32.2	29.4	2.75	3
Violet-backed Starling	Female	19.1	20.7	19.9	0.84	4	8.9	12.2	10.7	1.59	4	17.3	18.2	17.9	0.43	4
Violet-backed Starling	Male	19.1	21.5	20.3	1.70	2	10.4	12.6	11.5	1.56	2	19.4	21.5	20.5	1.48	2
Northern Grey-headed Sparrow		20.8	20.8	20.8		1	12.6	12.6	12.6		1					0
Yellow-throated Petronia	Adult	17	20	18.2	0.82	16	11.6	13.9	12.5	0.61	16	16.5	17.2	16.9	0.23	16
Yellow-throated Petronia	Imm	18.9	18.9	18.9		1	13.1	13.1	13.1		1	16.6	16.6	16.6		1
Yellow-throated Petronia	Juv	17.7	17.7	17.7		1	12.7	12.7	12.7		1	16.8	16.8	16.8		1
Vieillot's Black Weaver	Female	21.1	23.4	22.5	0.68	13	16.6	19.5	18.1	0.76	13	20.8	21.8	21.3	0.50	3
Vieillot's Black Weaver	Imm male	21.2	23	22.4	0.69	6	16.8	19.5	18.3	0.98	6	21.4	21.4	21.4		1
Vieillot's Black Weaver	Juv	23.5	23.5	23.5		1	14.9	14.9	14.9		1					0
Vieillot's Black Weaver	Male	21.5	25.2	23.7	1.23	7	17.9	20	19.0	0.82	7	22.4	24	23.2	0.70	4

Bird Species	Age/Sex group	Tarsus					Bill (f)					Bill (s)				
		Min	Max	Mean	sd	n	Min	Max	Mean	sd	n	Min	Max	Mean	sd	n
Village Weaver	Male	23.7	23.7	23.7		1	19	19	19.0		1	23.3	23.3	23.3		1
Red-headed Quelea	F/nb m	16.9	19	18.0	1.48	2	12.1	13.5	12.8	0.99	2	15.6	16	15.8	0.28	2
Yellow-mantled Widowbird	Female	20.4	22.2	21.4	0.78	4	13.8	14.2	13.9	0.20	4	16.7	17.6	17.0	0.49	3
Yellow-mantled Widowbird	Male (breeding)	22.7	23.4	23.1	0.49	2	13.1	15.8	14.5	1.91	2	17.4	18.4	17.9	0.71	2
Yellow-mantled Widowbird	Male (nb)	22.8	22.8	22.8		1	14.9	14.9	14.9		1	17.5	17.5	17.5		1
Pale-fronted Negrofinch	Female	13.5	13.5	13.5		1	6.1	6.1	6.1		1	11.6	11.6	11.6		1
Orange-winged Pytilia						0					0					0
Orange-winged Pytilia	Female	14	14.6	14.3	0.42	2	9.9	10.7	10.3	0.57	2	12.5	12.7	12.6	0.14	2
Orange-winged Pytilia	imm male	15.2	16.3	15.7	0.55	3	9.2	11.4	10.6	1.19	3	12.5	13.2	12.8	0.38	3
Orange-winged Pytilia	imm? Male					0					0					0
Orange-winged Pytilia	Juv	17.9	17.9	17.9		1	10.4	10.4	10.4		1	13.2	13.2	13.2		1
Orange-winged Pytilia	Male	14.9	16	15.5	0.78	2	11.3	11.4	11.4	0.07	2	13.4	13.5	13.5	0.07	2
Western Bluebill	Female	22.8	22.8	22.8		1	15	15	15.0		1	19.1	19.1	19.1		1
Western Bluebill	Juv	22.7	22.7	22.7		1	15.3	15.3	15.3		1	19.1	19.1	19.1		1
Western Bluebill	Male	21.4	22.3	21.7	0.41	4	14	15.2	14.6	0.51	4	19.2	20.7	19.9	0.64	4
Blue-billed Firefinch	Male	17.1	17.1	17.1		1	11	11	11.0		1	13.9	13.9	13.9		1
Orange-cheeked Waxbill		13.8	14.5	14.2	0.29	4	7.6	8.4	8.1	0.38	4	10.5	10.5	10.5		1
Bronze Mannikin		11.3	12.5	11.7	0.50	5	8	10.2	9.2	0.80	5	10.9	12.7	11.4	0.73	5
Pin-tailed Whydah	Adult (nb)	17.2	17.2	17.2		1	9.4	9.4	9.4		1	12.9	12.9	12.9		1
Black-throated Seedeater		12.1	16.3	14.2	1.45	11	7.2	9.1	8.3	0.72	11	9	11.3	10.0	0.63	11
Cinnamon-breasted Rock Bunting		15.8	15.8	15.8		1	8.6	8.6	8.6		1					0
Cinnamon-breasted Rock Bunting	Female	16.1	16.9	16.5	0.37	6	8.4	9.1	8.9	0.26	6	12.2	13.5	12.8	0.53	6
Cabanis's Bunting	Adult	20.4	20.4	20.4		1	12	12	12.0		1	16.9	16.9	16.9		1

Appendix 5. Number of observations of each species by site (not including netted birds). Note that observation effort varies between sites.

English name	Lesio-Louna								Lefini south					Misc	Total		
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumako-Louna	Ngaka/Mt Abio	Ngo - Djambala	Total
Little Grebe			3			7											10
African Darter						1			4	5							10
Little Bittern										1							1
White-crested Tiger Heron										4							4
Black-crowned Night Heron										4							4
Squacco Heron						2		1	1								4
Cattle Egret					1	7		1	2	7							18
Green-backed Heron						2		3		16							21
Little Egret						1		1									2
Intermediate Egret						4				1							5
Great Egret	2					1											3
Purple Heron						3			6	10	1	2					22
Grey Heron						2				1							3
Hamerkop						23	1	3	1	37		1					66
Abdim's Stork			1		1			4	4	18							28
Woolly-necked Stork								1									1
White Stork									1								1
Spot-breasted Ibis						2											2
Hartlaub's Duck									1								1
Knob-billed Duck						1				1							2
African Pygmy Goose									1		1						2
Osprey			1							1							2
African Cuckoo Hawk					1					3							4
European Honey Buzzard								2	3								5
Bat Hawk				1													1
Black-shouldered Kite	6	1				3							1				11

English name	Lesio-Louna							Lefini south					Misc		Total		
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumakou-Louna		Ngaka/Mt Abio	Ngo - Djambala
Black Kite		1				1	1		3	5	6			4		2	23
African Fish Eagle										5	11	1					17
Palm-nut Vulture						3	1		2	9	7	3	1				26
Black-breasted Snake Eagle														1			1
Bateleur											3	1		1	1		6
African Harrier Hawk		2	1	1		1		1	1	1		1					9
African Marsh Harrier	2																2
Eurasian Marsh Harrier	1								1				1	1			4
Dark Chanting Goshawk		2		6	1												9
African Goshawk		1															1
Chestnut-flanked Sparrowhawk													1				1
Long-tailed Hawk									5								5
Lizard Buzzard						1	1			5	3			1			11
Red-necked Buzzard	1	7		1				1	1	1				5			17
Wahlberg's Eagle											1						1
Martial Eagle										1	1			1			3
Common Kestrel		16	1							1				5			25
Grey Kestrel		1															1
Peregrine Falcon									1								1
Finsch's Francolin		5			1									1			7
Red-necked Francolin	3	6			5									1			15
Helmeted Guineafowl		2								1			1	1			5
African Crake	6	4												9			19
Black Crake																	0
African Finfoot						2			1	4	8						15
White-bellied Bustard	1	13		1		1		1						22			39
Black-bellied Bustard	1	15		1				1						9			27

English name	Lesio-Louna							Lefini south					Misc		Total		
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumakou-Louna		Ngaka/Mt Abio	Ngo - Djambala
African Jacana						26			1	1	16						44
Temminck's Courser		3		1										4			8
Bronze-winged Courser								2									2
Lesser Black-winged Lapwing		8		1		1	3	2						3			18
Great Snipe								2									2
Common Greenshank						1					1						2
Common Sandpiper						2			2	3	20						27
African Skimmer									1								1
African Green Pigeon		1	1	3	5	19	2		18	6	10		1				66
Blue-headed Wood Dove										3	2						5
Tambourine Dove					1				2								3
Blue-spotted Wood Dove	7			3	2	17	2		9	7	6						53
Western Bronze-naped Pigeon						8	2	1	14	8	8	1					42
Afep Pigeon									4	2	1	1					8
Red-eyed Dove		2	3	15	14	21	2	1	14	7	9		1				89
Ring-necked Dove	1				1												2
Grey Parrot	1	1		2	10	29	7	1	53	37	39	2		1			183
Great Blue Turaco			1							2	1						4
Green Turaco						1				1	5						7
Levaillant's Cuckoo		1			1					1							3
Red-chested Cuckoo					3	5			8		2						18
Black Cuckoo											1						1
African Cuckoo		1		1													2
African Emerald Cuckoo	1		1		6	33	5		12	2	2	1					63
Didric Cuckoo	2				2					1		1					6
Yellowbill			1			7			3								11
Gabon Coucal						3					1						4

English name	Lesio-Louna								Lefini south					Misc		Total	
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumakou-Louna	Ngaka/Mt Abio		Ngo - Djambala
Black Coucal	3												1				4
Senegal Coucal	2					10	2				3		1				18
Blue-headed Coucal						1											1
Barn Owl	1																1
Spotted Eagle Owl				1													1
Swamp Nightjar				2	1												3
Long-tailed Nightjar					2								1				3
Pennant-winged Nightjar		2		1													3
African Palm Swift	3	2	3	1	4	9	1			6	1						30
Common Swift	3	2	1	5	3	16	4	1	14	13	14	1			2		79
Horus Swift												1					1
Little Swift						3		1		15	5	1	2		1		28
Speckled Mousebird	12	1															13
Chocolate-backed Kingfisher						1											1
Brown-hooded Kingfisher	1			1					1	1						1	5
Grey-headed Kingfisher	1			3		7	1				2		4				18
Blue-breasted Kingfisher					1	4			3	1	2	1	1				13
Woodland Kingfisher						30			39	19	25	1					114
Striped Kingfisher	2	1	2	4				2									11
African Dwarf Kingfisher						1											1
African Pygmy Kingfisher	1			1		13	1		6		6						28
Malachite Kingfisher												1			2		3
Shining-blue Kingfisher						2			4	4	7						17
Giant Kingfisher						1			12	19	35	1					68
Pied Kingfisher									14	23	32	1					70
Black-headed Bee-eater		1			3	6			5	8	15						38
Black Bee-eater					1		1		4	2	11						19

Birds of the Lesio-Louna & Lefini Reserves, Congo

English name	Lesio-Louna							Lefini south					Misc		Total		
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumako-Louna		Ngaka/Mt Abio	Ngo - Djambala
Little Bee-eater	3	1		5	8	1											18
Blue-breasted Bee-eater	10	5		3	16	2	4			4	1	3					48
White-throated Bee-eater		1		1	3	1			1	3		1					11
European Bee-eater	7	5	2	2	9	9	4	1	9	6	13		2				69
Rosy Bee-eater									1	1	8	2	2				14
European Roller	1																1
Lilac-breasted Roller		18	1											3			22
Blue-throated Roller									1		2						3
Broad-billed Roller					3	1		2	11	5	11						33
Hoopoe		4			1									2			7
Red-billed Dwarf Hornbill						1											1
African Pied Hornbill					9	24	3		22	27	35	2		1			123
Piping Hornbill				1	3	5			13	18	19	5	1				65
White-thighed Hornbill		1															1
Grey-throated Barbet						11											11
Sladen's Barbet					6	25											31
Speckled Tinkerbird					3	16			13		2		1				35
Red-rumped Tinkerbird						3											3
Yellow-throated Tinkerbird			1	2	1	24	1		9	1		1	1				41
Yellow-rumped Tinkerbird	1		1	4		1			2								9
Hairy-breasted Barbet					7	2											9
Miombo Pied Barbet				8													8
Black-backed Barbet	1																1
Greater Honeyguide									1								1
Green-backed Woodpecker						1	1										2
Brown-eared Woodpecker						1			4								5
Cardinal Woodpecker				5	1			1									7

Birds of the Lesio-Louna & Lefini Reserves, Congo

English name	Lesio-Louna								Lefini south					Misc		Total	
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumakou-Louna	Ngaka/Mt Abio		Ngo - Djambala
Yellow-crested Woodpecker					1	4			6								11
Elliot's Woodpecker						1											1
Flappet Lark	1	5	3	23	20	4	11	2				1	2		1		73
Black Saw-wing	5	2	2						3	2							14
Brazza's Martin		1															1
Banded Martin	9	8	2	1	10	2	2	1	2	11	23	1	3	1	1		77
Rufous-chested Swallow	2		1	1	7	3				2	5	1			1		23
Mosque Swallow							1										1
Lesser Striped Swallow	10	2	3				1	1		13			4		2		36
Red-throated Cliff Swallow							2	1			1				1		5
Rock Martin		2							1	1					2		6
White-throated Blue Swallow					1		1		25	29	50	2					108
Barn Swallow					1					2			2		2		7
Common House Martin		1	1			1									1		4
Yellow Wagtail					1												1
Plain-backed Pipit			1				1										2
Long-legged Pipit						2											2
Yellow-throated Longclaw		7	2	4	20	4	8	1		1	1	1	3	2			54
Little Greenbul						16			25								41
Little Grey Greenbul						4			2								6
Slender-billed Greenbul						1											1
Honeyguide Greenbul						5											5
Simple Leaflove						1											1
Swamp Palm Bulbul						1	4		25	12	16		1				59
Lesser Bristlebill						1											1
Common Bulbul	13	2	3	14	19	56	6	1	28	6	26	2	2				178
Black-collared Bulbul	1							1									2

English name	Lesio-Louna							Lefini south					Misc		Total		
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumako-Louna		Ngaka/Mt Abio	Ngo - Djambala
Western Nicator						6				1							7
Rufous Flycatcher Thrush						3											3
White-browed Scrub Robin				4													4
Common Stonechat		2							1								3
Congo Moor Chat	1	21	1					7					31				61
Sooty Chat	3	21	1	12	22			1		13		3		1			77
Whistling Cisticola				2													2
Tinkling Cisticola				1													1
Winding Cisticola	10					44	2		1	5	2	1	2				67
Croaking Cisticola				4	12		1					1					18
Short-winged Cisticola				1	1												2
Piping Cisticola	3			11		1	1	1									17
Zitting Cisticola				10	9			5			1						26
Pectoral-patch Cisticola								1									1
Tawny-flanked Prinia	1	1		5	11	4	7	1									30
White-chinned Prinia	1			5													6
Grey-backed Camaroptera				1		1											2
Salvadori's Eremomela	1			1													2
Green-capped Eremomela				8	2												10
Green Crombec						13											13
Willow Warbler						3											3
Yellow-bellied Hyliota		1		6													7
Green Hylia						1											1
Fraser's Forest Flycatcher						10			5	1							16
White-browed Forest Flycatcher						1				1							2
Pale Flycatcher			1	6	5												12
Spotted Flycatcher				2	3						1						6

English name	Lesio-Louna							Lefini south					Misc		Total		
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumakou-Louna	Ngaka/Mt Abio	Ngo - Djambala	Total
Cassin's Flycatcher						5			16	24	43						88
Lead-coloured Flycatcher				1	1	3		1									6
African Paradise Flycatcher						3		1									4
Bates's Paradise Flycatcher						18											18
Black-and-white Flycatcher			2		1	3		2			2	2	1				13
Chestnut Wattle-eye						2											2
Common Wattle-eye				1													1
Black-headed Batis				12	1												13
Angola Batis				1	2												3
White-winged Black Tit		1	1	16	11	10											39
Grey Penduline Tit						2											2
Violet-tailed Sunbird			1			19			23	4	4						51
Green Sunbird						7											7
Little Green Sunbird									1		1						2
Reichenbach's Sunbird						45		2	34	8	6	2	1				98
Green-headed Sunbird	1			6		12			1								20
Blue-throated Brown Sunbird						3											3
Western Olive Sunbird				1		24		1	8								34
Green-throated Sunbird	2			3	1	16			8								30
Amethyst Sunbird			2	12	1	3											18
Collared Sunbird					1	20			13	1		1					36
Olive-bellied Sunbird	2					40		2	35	2							81
Orange-tufted Sunbird															1		1
Copper Sunbird	14		1	3	13	14		3	13	1	1		2				65
Common Fiscal	1	20		1	14	1		2						3			42
Marsh Tchagra	3																3
Black-crowned Tchagra	1	5	1	2		1								1			12

English name	Lesio-Louna							Lefini south					Misc		Total		
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumakou-Louna		Ngaka/Mt Abio	Ngo - Djambala
Northern Puffback	1			2													3
Sooty Boubou						1											1
Square-tailed Drongo				4													4
Velvet-mantled Drongo								5		1							6
Pied Crow	2							1									3
Forest Chestnut-winged Starling								2	1								3
Purple-headed Glossy Starling						3		2		1							6
Splendid Glossy Starling						4	2	9	1			1					17
Violet-backed Starling			1	19	2	6				1		1					30
Northern Grey-headed Sparrow	2	1			2	1	1	1	4								12
Yellow-throated Petronia				13	3	1											17
Black-chinned Weaver		2											1				3
Holub's Golden Weaver	3																3
Vieillot's Black Weaver	3				11	3	5		8	2	1						33
Village Weaver									2				1				3
Yellow-mantled Weaver								4									4
Compact Weaver	7																7
Blue-billed Malimbe						3				1							4
Red-headed Malimbe								3									3
Red-headed Quelea	2				1		5		1								9
Black-winged Red Bishop	2														2		4
Yellow-mantled Widowbird	21	15		6	14	2	9	2		1		1	6		2		79
White-winged Widowbird	2																2
Red-collared Widowbird	2					1							7		2		12
Marsh Widowbird						7	5			9		7					28
Grey-crowned Negrofinch						2											2
Pale-fronted Negrofinch				3	1	2		2									8

Birds of the Lesio-Louna & Lefini Reserves, Congo

English name	Lesio-Louna								Lefini south					Misc		Total	
	Mâh plateau	Iboubikro - Mâh	Lac Bleu	Idzoua Inkou	Ib camp des eco	Iboubikro	Ngondoro	Ngondoro - Kiani	Confluent camp	Lefini river	Louna river	Abio	Etsotso	Mpoumakou-Louna	Ngaka/Mt Abio	Ngo - Djambala	Total
Chestnut-breasted Negrofinch						1			1								2
Orange-winged Pytilia	1			2													3
Black-bellied Seedcracker						2			2								4
Western Bluebill						1			1								2
Blue-billed Firefinch	3																3
Fawn-breasted Waxbill	1				1	1	4						1				8
Orange-cheeked Waxbill	15	1		1	7	21	7		1	2	1		1				57
Zebra Waxbill		1		1	3	1	2										8
Black-chinned Quailfinch						1											1
Bronze Mannikin	11			9	15	24	6	2	1	6	6	3	2				85
Pin-tailed Whydah	9	1			3	4	1		2					5			25
Black-throated Seedeater	1			10	4	6											21
Yellow-fronted Canary	2																2
Cinnamon-breasted Rock Bunting	3	6		3	15	24	2		9	3	1	1					67
Species totals	71	58	36	76	77	137	57	32	86	82	87	39	40	32	13	6	256
Total observations	265	266	55	341	413	1039	166	47	680	464	748	54	70	136	17	11	4772

Appendix 6. Number of observations of each species by month (not including netted birds). Note that observation effort differs between months.

English name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Little Grebe	3	1					2			1	3		10
African Darter		1	1	2		3	2	1					10
Little Bittern	1												1
White-crested Tiger Heron										2	2		4
Black-crowned Night Heron			2	1			1						4
Squacco Heron			1							1		2	4
Cattle Egret	1	1	1	4		1				2	6	2	18
Green-backed Heron	3	7	2	4		3					1	1	21
Little Egret											1	1	2
Intermediate Egret											3	2	5
Great Egret	1	1										1	3
Purple Heron		2	4	5		2	3		1	2	2	1	22
Grey Heron		2	1										3
Hamerkop	8	4	3	8	1	5	5	4	6	11	8	3	66
Abdim's Stork		7	10	10	1								28
Woolly-necked Stork											1		1
White Stork												1	1
Spot-breasted Ibis			1						1				2
Hartlaub's Duck										1			1
Knob-billed Duck						1					1		2
African Pygmy Goose	1											1	2
Osprey	1									1			2
African Cuckoo Hawk						1				2		1	4
European Honey Buzzard	1					1					1	2	5
Bat Hawk					1								1
Black-shouldered Kite	1	4	2						1	1	2		11
Black Kite	3	5	3	4		2	1	1	2	2			23
African Fish Eagle	2	4	1	2		1	1	1	1	1	1	2	17
Palm-nut Vulture	3	5	4	2	1	4	1					6	26
Black-breasted Snake Eagle		1											1
Bateleur			1						1	1	1	2	6
African Harrier Hawk	2					2	1	1		1	1	1	9
African Marsh Harrier	2												2
Eurasian Marsh Harrier	1	2										1	4
Dark Chanting Goshawk			2	1	1	1			1	2		1	9
African Goshawk							1						1
Chestnut-flanked Sparrowhawk												1	1
Long-tailed Hawk		1				2					2		5
Lizard Buzzard	3	3					2					3	11
Red-necked Buzzard	3	2	1	2			1		2	1	4	1	17
Wahlberg's Eagle			1										1
Martial Eagle							1				2		3
Common Kestrel	2	6	3	3			3	1	1	2	2	2	25
Grey Kestrel										1			1
Peregrine Falcon		1											1
Finsch's Francolin		1	2	1				1		1		1	7
Red-necked Francolin	2	4	1	1		1		1	2	2		1	15

Birds of the Lesio-Louna & Lefini Reserves, Congo

English name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Helmeted Guineafowl						1				4			5
African Crake	2	5	5	3	1						2	1	19
Black Crake								1					1
African Finfoot		1	1	1		2	2	4	1	1	1	1	15
White-bellied Bustard	5	4	2	3	1	1	2	2	9	6	1	3	39
Black-bellied Bustard	1	2	3	2			1	1	5	4	5	3	27
African Jacana	2	10	11	5	3	5	1	1	2	2	1	1	44
Temminck's Courser				2		1		1	2	1	1		8
Bronze-winged Courser	2												2
Lesser Black-winged Lapwing	4	2		3			4	1	2	1		1	18
Great Snipe	2												2
Common Greenshank	1									1			2
Common Sandpiper	3		4	4			1	2	4	5	1	3	27
African Skimmer						1							1
African Green Pigeon	12	15	7	3	4	3	1	2	2	3	7	7	66
Blue-headed Wood Dove		2					1	2					5
Tambourine Dove						1						2	3
Blue-spotted Wood Dove	11	10	5	2	2	1	3	1	4	2	2	10	53
Western Bronze-naped Pigeon	9	6		4	3	3	1	2	2	1	4	7	42
Afep Pigeon	1		1				1	1			2	2	8
Red-eyed Dove	12	16	9	2	4	6	6	4	6	5	9	10	89
Ring-necked Dove		1									1		2
Grey Parrot	30	20	16	20	5	14	18	10	5	13	13	19	183
Great Blue Turaco	1		1	1				1					4
Green Turaco	1			1				1		1	2	1	7
Levaillant's Cuckoo							1		1			1	3
Red-chested Cuckoo	1	3	1						3	3	5	2	18
Black Cuckoo	1												1
African Cuckoo							1				1		2
African Emerald Cuckoo	13	6						1	9	8	15	11	63
Didric Cuckoo	1		1						1		2	1	6
Yellowbill			2		1				1	1		6	11
Gabon Coucal	2		1							1			4
Black Coucal	1	2									1		4
Senegal Coucal	7	1	2	1					1	2		4	18
Blue-headed Coucal							1						1
Barn Owl												1	1
Spotted Eagle Owl			1										1
Swamp Nightjar		2						1					3
Long-tailed Nightjar						1					2		3
Pennant-winged Nightjar							1	2					3
African Palm Swift	7	5	3		1	3	2		2	1	1	5	30
Common Swift	26	19	8	1					4	4	3	14	79
Horus Swift			1										1
Little Swift	6	7	3	3	1	2	1	1	1		1	2	28
Speckled Mousebird	4	2	1				1		3		2		13
Chocolate-backed Kingfisher				1									1
Brown-hooded Kingfisher	2	2									1		5
Grey-headed Kingfisher				2	4	3	7	1				1	18

Birds of the Lesio-Louna & Lefini Reserves, Congo

English name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Blue-breasted Kingfisher	1	2	1	1						1	3	4	13
Woodland Kingfisher	15	18	14	14	1	9	4	3	4	3	14	15	114
Striped Kingfisher	1	2	1				2	1	1		2	1	11
African Dwarf Kingfisher												1	1
African Pygmy Kingfisher	4	7	5	1	1		2		3	2	2	1	28
Malachite Kingfisher		1	1									1	3
Shining-blue Kingfisher	2	3	3	2			2	3	1	1			17
Giant Kingfisher	9	9	5	12	1	9	4	6	1	7	3	3	69
Pied Kingfisher	8	7	5	12		6	3	4	1	6	8	11	71
Black-headed Bee-eater		3	2	4	1	5	3	7	2	5	1	5	38
Black Bee-eater	1	1	2	2		4	1	2		3	1	2	19
Little Bee-eater	3	1			1	2	2	2	3		1	3	18
Blue-breasted Bee-eater	9	3	1	2		4	4	4	6	1	7	7	48
White-throated Bee-eater	2	4		1							1	3	11
European Bee-eater	18	10	7	1					3	5	9	16	69
Rosy Bee-eater	3	1				1		1	2		2	4	14
European Roller		1											1
Lilac-breasted Roller	2	3	3	1			3	1	6	1	2		22
Blue-throated Roller	2								1				3
Broad-billed Roller	5	3	2	1		4	1	1		2	6	8	33
Hoopoe									3	4			7
Red-billed Dwarf Hornbill										1			1
African Pied Hornbill	15	14	9	16	1	10	7	7	5	11	11	17	123
Piping Hornbill	7	8	4	7	2	2	8	5	2	7	4	9	65
White-thighed Hornbill											1		1
Grey-throated Barbet						3	2		2		2	2	11
Sladen's Barbet		3	2	2		6	1	2	1	3	6	5	31
Speckled Tinkerbird	6	4	2	1	2	6	1		2		2	9	35
Red-rumped Tinkerbird	1		1									1	3
Yellow-throated Tinkerbird	5	5	3	2	3	5	2	1	2	2	4	7	41
Yellow-rumped Tinkerbird		1	1		1	1		1		1	2	1	9
Hairy-breasted Barbet		1		1								7	9
Miombo Pied Barbet		1			1		1		2	3			8
Black-backed Barbet											1		1
Greater Honeyguide	1												1
Green-backed Woodpecker	1										1		2
Brown-eared Woodpecker			3	1								1	5
Cardinal Woodpecker	2				2	1				1	1		7
Yellow-crested Woodpecker		1	1			1				2	3	3	11
Elliot's Woodpecker												1	1
Flappet Lark	19	6	2	1	4	4	6	3	6	4	7	11	73
Black Saw-wing	2	1	5	1		1			1		3		14
Brazza's Martin						1							1
Banded Martin	15	10	2	2		1	4	3	8	8	11	13	77
Rufous-chested Swallow	4	2					4	2	3		5	3	23
Mosque Swallow	1												1

Birds of the Lesio-Louna & Lefini Reserves, Congo

English name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lesser Striped Swallow	9	7	6	3		3	1		3		1	3	36
Red-throated Cliff Swallow	3											2	5
Rock Martin		1				1			1		1	2	6
White-throated Blue Swallow	19	17	9	16	1	9	1	5	3	6	10	12	108
Barn Swallow				2			1				2	2	7
Common House Martin	1		1						1			1	4
Yellow Wagtail											1		1
Plain-backed Pipit	1						1						2
Long-legged Pipit							1		1				2
Yellow-throated Longclaw	14	3	6	1		4	3	2	5	1	9	6	54
Little Greenbul	2	4	5	1	2	11	2		1		4	9	41
Little Grey Greenbul			1			1				1		3	6
Slender-billed Greenbul				1									1
Honeyguide Greenbul						5							5
Simple Leaflove	1												1
Swamp Palm Bulbul	13	6	6	3	1	5	1	2	1	4	5	12	59
Lesser Bristlebill								1					1
Common Bulbul	31	26	13	7	6	11	9	2	15	9	24	25	178
Black-collared Bulbul	1	1											2
Western Nicator	1	2					1	1			1	1	7
Rufous Flycatcher		1			1						1		3
Thrush													
White-browed Scrub Robin					2	1			1				4
Common Stonechat	1			1							1		3
Congo Moor Chat	7	7	5	3	1	6	3	2	12	6	5	4	61
Sooty Chat	9	9	3	5	3	5	5	6	10	4	10	8	77
Whistling Cisticola			1		1								2
Tinkling Cisticola										1			1
Winding Cisticola	9	12	7	3	2	2	3		6	6	11	6	67
Croaking Cisticola	1	3		1					2	1	4	6	18
Short-winged Cisticola						1						1	2
Piping Cisticola	5	4	1	1	2	1						3	17
Zitting Cisticola	6	3	1	1	3				1	1	5	5	26
Pectoral-patch Cisticola	1												1
Tawny-flanked Prinia	11	3		1			3		3	1	3	5	30
White-chinned Prinia	2	2							1			1	6
Grey-backed Camaroptera		2											2
Salvadori's Eremomela	1	1											2
Green-capped Eremomela		3	1		2	1			1		1	1	10
Green Crombec	1	3	2			1	2			4			13
Willow Warbler									1	2			3
Yellow-bellied Hylia			1			1	2		1	1		1	7
Green Hylia						1							1
Fraser's Forest Flycatcher		1	2		1		1		2	2		7	16
White-browed Forest Flycatcher				1						1			2
Pale Flycatcher	1	2		2		1	1			1	2	2	12
Spotted Flycatcher			1	1					4				6

Birds of the Lesio-Louna & Lefini Reserves, Congo

English name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cassin's Flycatcher	16	17	9	12	1	8	1	4	2	6	4	8	88
Lead-coloured Flycatcher	2	2								1		1	6
African Paradise Flycatcher						1	1			1		1	4
Bates's Paradise Flycatcher	3	1		1	1				1	3	1	7	18
Black-and-white Flycatcher	3	1	1				3				3	2	13
Chestnut Wattle-eye				1							1		2
Common Wattle-eye		1											1
Black-headed Batis		4	1		2		3	1	1			1	13
Angola Batis						1			2				3
White-winged Black Tit	3	4	1	1	3	2	3	2	5	2	9	4	39
Grey Penduline Tit										1	1		2
Violet-tailed Sunbird	4	6	8	4	1	5	3	1	2	2	7	8	51
Green Sunbird			1							2	3	1	7
Little Green Sunbird			2										2
Reichenbach's Sunbird	12	16	14	4	2	6	4		7	8	13	12	98
Green-headed Sunbird	4	3	2	1	2		1		4	1	1	1	20
Blue-throated Brown Sunbird		1			1	1							3
Western Olive Sunbird	4	3	4		2	3	3			4	6	5	34
Green-throated Sunbird		4	7			2		1	6	6	4		30
Amethyst Sunbird		2	1	1	2		3	1		2	4	2	18
Collared Sunbird	2	3	5	3	2	4		1	3	5	6	2	36
Olive-bellied Sunbird	12	15	9	4	2	2	6	1	5	3	11	11	81
Orange-tufted Sunbird			1										1
Copper Sunbird	11	10	6	1	2	1	2		10	4	10	8	65
Common Fiscal	5	5	2	1		3	2	3	5	4	9	3	42
Marsh Tchagra	2										1		3
Black-crowned Tchagra		1	2		1	1	2			1	3	1	12
Northern Puffback		1					1	1					3
Sooty Boubou												1	1
Square-tailed Drongo	1	1			1		1						4
Velvet-mantled Drongo	1			1			1	1		1	1		6
Pied Crow				1			1	1					3
Forest Chestnut-winged Starling		1	1									1	3
Purple-headed Glossy Starling		2		1	1			1			1		6
Splendid Glossy Starling	2			2		1		2	2	1	4	3	17
Violet-backed Starling		1	2	3	7	2	4	1	8	2			30
Northern Grey-headed Sparrow	3	2	2	2	1	1						1	12
Yellow-throated Petronia		2	2	1	4	1		1	2	1	1	2	17
Black-chinned Weaver	1					1			1				3
Holub's Golden Weaver	1	1		1									3
Vieillot's Black Weaver	7	4	1			2		3	6	1	3	6	33
Village Weaver		1				1						1	3
Yellow-mantled Weaver	3											1	4
Compact Weaver	2	2	1								2		7
Blue-billed Malimbe	1	1									2		4
Red-headed Malimbe	2		1										3

Birds of the Lesio-Louna & Lefini Reserves, Congo

English name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Red-headed Quelea	6	1	1									1	9
Black-winged Red Bishop		1	1		2								4
Yellow-mantled Widowbird	27	12	7	5	2		1	1	4	2	11	7	79
White-winged Widowbird		1										1	2
Red-collared Widowbird		4	5	2	1								12
Marsh Widowbird	9	5	1	4		3	1				3	2	28
Grey-crowned Negrofinch									2				2
Pale-fronted Negrofinch	1	1	2		1						1	2	8
Chestnut-breasted Negrofinch	1										1		2
Orange-winged Pytilia				2						1			3
Black-bellied Seedcracker	2			1							1		4
Western Bluebill						1		1					2
Blue-billed Firefinch	1	1							1				3
Fawn-breasted Waxbill	6						1			1			8
Orange-cheeked Waxbill	15	9	7	5	5	2	1		3	1	3	6	57
Zebra Waxbill	3										2	3	8
Black-chinned Quailfinch						1							1
Bronze Mannikin	18	12	4	5	4	6	3		6	6	8	13	85
Pin-tailed Whydah	3	3	3	2					1	3	7	3	25
Black-throated Seedeater	5	3	1		3		2	1	2			4	21
Yellow-fronted Canary	1	1											2
Cinnamon-breasted Rock Bunting	20	7	3	5						6	14	12	67
Species totals	143	145	125	106	70	99	100	78	105	114	132	143	256
Total observations	754	646	416	333	140	297	244	163	327	326	519	610	4775

Appendix 7. Liste des 317 espèces d'oiseaux connues des Réserves Lesio-Louna et Lefini, mai 2008. Statut : résidente (R), migratrice du Paléarctique (P), migratrice du continent africain (M), rare visiteur (V), incertain (X).

Famille	Nom anglais	Nom français	Nom scientifique	Statut	Bailey et al. 1996	Dowsett-Lemaire 1997	Ce rapport	
							Observé	Pris au filet
Podicipedidae	Little Grebe	Grèbe castagneux	<i>Tachybaptus ruficollis</i>	R		1	1	
Anhingidae	African Darter	Anhinga d'Afrique	<i>Anhinga rufa</i>	R/M?	1	1	1	
Ardeidae	Little Bittern	Blongios nain	<i>Ixobrychus minutus</i>	P		1	1	
Ardeidae	White-crested Tiger Heron	Onoré à huppe blanche	<i>Tigriornis leucolophus</i>	R			1	
Ardeidae	White-backed Night Heron	Bihoreau à dos blanc	<i>Gorsachius leuconotus</i>	R	1	1		
Ardeidae	Black-crowned Night Heron	Bihoreau gris	<i>Nycticorax nycticorax</i>	R		1	1	
Ardeidae	Squacco Heron	Crabier chevelu	<i>Ardeola ralloides</i>	P		1	1	
Ardeidae	Cattle Egret	Héron garde-boeufs	<i>Bubulcus ibis</i>	R	1	1	1	
Ardeidae	Green-backed Heron	Héron strié	<i>Butorides striatus</i>	R	1		1	
Ardeidae	Little Egret	Aigrette garzette	<i>Egretta garzetta</i>	P		1	1	
Ardeidae	Intermediate Egret	Aigrette intermédiaire	<i>Egretta intermedia</i>	R/M?			1	
Ardeidae	Great Egret	Grande Aigrette	<i>Egretta alba</i>	P?		1	1	
Ardeidae	Purple Heron	Héron pourpré	<i>Ardea purpurea</i>	R		1	1	
Ardeidae	Grey Heron	Héron cendré	<i>Ardea cinerea</i>	P		1	1	
Scopidae	Hamerkop	Ombrette africaine	<i>Scopus umbretta</i>	R	1	1	1	
Ciconiidae	Abdim's Stork	Cigogne d'Abdim	<i>Ciconia abdimii</i>	M	1	1	1	
Ciconiidae	Woolly-necked Stork	Cigogne épiscopale	<i>Ciconia episcopus</i>	V/M?			1	
Ciconiidae	White Stork	Cigogne blanche	<i>Ciconia ciconia</i>	V/P?			1	
Threskiornithidae	Spot-breasted Ibis	Ibis vermiculé	<i>Bostrychia rara</i>	R		1	1	
Anatidae	Hartlaub's Duck	Canard de Hartlaub	<i>Pteronetta hartlaubii</i>	R?			1	
Anatidae	Knob-billed Duck	Canard à bosse	<i>Sarkidiornis melanotos</i>	V/M?		1	1	
Anatidae	African Pygmy Goose	Anserelle naine	<i>Nettapus auritus</i>	V/M?		1	1	
Pandionidae	Osprey	Balbuzzard pêcheur	<i>Pandion haliaetus</i>	P			1	
Accipitridae	African Cuckoo Hawk	Baza coucou	<i>Aviceda cuculoides</i>	R			1	
Accipitridae	European Honey Buzzard	Bondrée apivore	<i>Pernis apivorus</i>	P			1	
Accipitridae	Bat Hawk	Milan des chauves-souris	<i>Macheiramphus alcinus</i>	R?			1	

Famille	Nom anglais	Nom français	Nom scientifique	Statut	Bailey <i>et al.</i> 1996	Dowsett-Lemaire 1997	Ce rapport	
							Observé	Pris au filet
Accipitridae	Black-shouldered Kite	Elanion blanc	<i>Elanus caeruleus</i>	R	1	1	1	
Accipitridae	Black Kite	Milan noir	<i>Milvus migrans</i>	R/M?	1	1	1	
Accipitridae	African Fish Eagle	Pygargue vocifer	<i>Haliaeetus vocifer</i>	R		1	1	
Accipitridae	Palm-nut Vulture	Palmiste africain	<i>Gypohierax angolensis</i>	R	1	1	1	
Accipitridae	Black-breasted Snake Eagle	Circaète à poitrine noire	<i>Circaetus pectoralis</i>	R/M?			1	
Accipitridae	Bateleur	Bateleur des savanes	<i>Terathopius ecaudatus</i>	R		1	1	
Accipitridae	African Harrier Hawk	Gymnogène d'Afrique	<i>Polyboroides typus</i>	R		1	1	
Accipitridae	Montagu's Harrier	Busard cendré	<i>Circus pygargus</i>	P/X?		1		
Accipitridae	African Marsh Harrier	Busard grenouillard	<i>Circus ranivorus</i>	R/M?			1	
Accipitridae	Eurasian Marsh Harrier	Busard des roseaux	<i>Circus aeruginosus</i>	P			1	
Accipitridae	Dark Chanting Goshawk	Autour sombre	<i>Melierax metabates</i>	R		1	1	
Accipitridae	African Goshawk	Autour tachiro	<i>Accipiter tachiro</i>	R		1	1	
Accipitridae	Chestnut-flanked Sparrowhawk	Autour à flancs roux	<i>Accipter castanilius</i>	R?			1	
Accipitridae	Long-tailed Hawk	Autour à longue queue	<i>Urotriorchis macrourus</i>	R			1	
Accipitridae	Lizard Buzzard	Autour unibande	<i>Kaupifalco monogrammicus</i>	R		1	1	
Accipitridae	Red-necked Buzzard	Buse d'Afrique	<i>Buteo auguralis</i>	R	1	1	1	
Accipitridae	Tawny Eagle	Aigle ravisser	<i>Aquila rapax</i>	R?		1		
Accipitridae	Wahlberg's Eagle	Aigle de Wahlberg	<i>Aquila wahlbergi</i>	M/V?			1	
Accipitridae	Long-crested Eagle	Aigle huppard	<i>Lophaetus occipitalis</i>	R?		1		
Accipitridae	Martial Eagle	Aigle martial	<i>Polemaetus bellicosus</i>	R?			1	
Falconidae	Common Kestrel	Faucon crécerelle	<i>Falco tinnunculus</i>	R & P?		1	1	
Falconidae	Grey Kestrel	Faucon ardoisé	<i>Falco ardosiaceus</i>	R?			1	
Falconidae	Peregrine Falcon	Faucon de Cuvier	<i>Falco peregrinus</i>	R?			1	
Phasianidae	Finsch's Francolin	Francolin de Finsch	<i>Francolinus finschi</i>	R		1	1	
Phasianidae	Scaly Francolin	Francolin écailleux	<i>Francolinus squamatus</i>	R		1		
Phasianidae	Red-necked Francolin	Francolin à gorge rouge	<i>Francolinus afer</i>	R	1	1	1	

Famille	Nom anglais	Nom français	Nom scientifique	Statut	Bailey <i>et al.</i> 1996	Dowsett-Lemaire 1997	Ce rapport	
							Observé	Pris au filet
Numididae	Crested Guineafowl	Pintade huppée	<i>Guttera pucherani</i>	R		1		
Numididae	Helmeted Guineafowl	Pintade commune	<i>Numida meleagris</i>	R	1		1	
Turnicidae	Little Buttonquail	Turnix d'Andalousie	<i>Turnix sylvatica</i>	R?		1		
Turnicidae	Black-rumped Buttonquail	Turnix nain	<i>Turnix hottentotta</i>	R?	1	1		
Rallidae	White-spotted Flufftail	Râle perlé	<i>Sarothrura pulchra</i>	R		1		
Rallidae	Red-chested Flufftail	Râle à camale	<i>Sarothrura rufa</i>	R		1		
Rallidae	African Crake	Râle des prés	<i>Crex egregia</i>	R/M?	1	1	1	
Rallidae	Black Crake	Râle à bec jaune	<i>Amauornis flavirostris</i>	R		1	1	
Helionithidae	African Finfoot	Grébifoulque d'Afrique	<i>Podica senegalensis</i>	R		1	1	
Otididae	White-bellied Bustard	Outarde du Sénégal	<i>Eupodotis senegalensis</i>	R	1	1	1	
Otididae	Black-bellied Bustard	Outarde à ventre noir	<i>Eupodotis melanogaster</i>	R	1	1	1	
Jacanidae	African Jacana	Jacana à poitrine dorée	<i>Actophilornis africana</i>	R		1	1	
Glareolidae	Temminck's Courser	Courvite de Temminck	<i>Cursorius temminckii</i>	R/M?		1	1	
Glareolidae	Bronze-winged Courser	Courvite à ailes bronzées	<i>Rhinoptilus chalcopterus</i>	M?			1	
Charadriidae	Lesser Black-winged Lapwing	Vanneau terne	<i>Vanellus lugubris</i>	R/M?	1	1	1	
Scolopacidae	Great Snipe	Bécassine double	<i>Gallinago media</i>	P			1	
Scolopacidae	Common Greenshank	Chevalier aboyeur	<i>Tringa nebularia</i>	P			1	
Scolopacidae	Wood Sandpiper	Chevalier sylvain	<i>Tringa glareola</i>	P/X?		1		
Scolopacidae	Common Sandpiper	Chevalier guignette	<i>Actitis hypoleucos</i>	P			1	
Rynchopidae	African Skimmer	Bec-en-ciseaux d'Afrique	<i>Rynchops flavirostris</i>	V			1	
Columbidae	African Green Pigeon	Colombar (ou Pigeon vert) à front nu	<i>Treron calva</i>	R	1	1	1	1
Columbidae	Blue-headed Wood Dove	Tourtelette demoiselle	<i>Turtur brehmeri</i>	R			1	
Columbidae	Tambourine Dove	Tourtelette tambourette	<i>Turtur tympanistris</i>	R		1	1	1
Columbidae	Blue-spotted Wood Dove	Tourtelette améthystine	<i>Turtur afer</i>	R	1	1	1	1
Columbidae	Namaqua Dove	Toutelette masquée	<i>Oena capensis</i>	V		1		

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							Observé	Pris au filet
Columbidae	Western Bronze-naped Pigeon	Pigeon à nuque bronzée	<i>Columba iriditorques</i>	R		1	1	1
Columbidae	Afep Pigeon	Pigeon gris	<i>Columba unicincta</i>	R		1	1	
Columbidae	Red-eyed Dove	Tourterelle à collier	<i>Streptopelia semitorquata</i>	R	1	1	1	1
Columbidae	Ring-necked Dove	Tourterelle du Cap	<i>Streptopelia capicola</i>	R/V?			1	
Psittacidae	Grey Parrot	Perroquet gris	<i>Psittacus erithacus</i>	R	1	1	1	
Psittacidae	Red-headed Lovebird	Inséparable à tête rouge	<i>Agapornis pullarius</i>	V?		1		
Musophagidae	Great Blue Turaco	Touraco géant	<i>Corythaeola cristata</i>	R		1	1	
Musophagidae	Green Turaco	Touraco vert	<i>Tauraco persa</i>	R	1	1	1	
Musophagidae	Western Grey Plantain-eater	Touraco gris	<i>Crinifer piscator</i>	X?		1		
Cuculidae	Levaillant's Cuckoo	Coucou de Levaillant	<i>Oxylophus levaillantii</i>	M		1	1	
Cuculidae	Red-chested Cuckoo	Coucou solitaire	<i>Cuculus solitarius</i>	R		1	1	
Cuculidae	Black Cuckoo	Coucou criard	<i>Cuculus clamosus</i>	R?		1	1	
Cuculidae	African Cuckoo	Coucou africain	<i>Cuculus gularis</i>	M?		1	1	
Cuculidae	Dusky Long-tailed Cuckoo	Coucou de Mechow	<i>Cercococcyx mechowi</i>	R		1		
Cuculidae	Olive Long-tailed Cuckoo	Coucou olivâtre	<i>Cercococcyx olivinus</i>	R		1		
Cuculidae	African Emerald Cuckoo	Coucou foliotocol	<i>Chrysococcyx cupreus</i>	R	1	1	1	
Cuculidae	Klaas's Cuckoo	Coucou de Klaas	<i>Chrysococcyx klaas</i>	R		1		
Cuculidae	Didric Cuckoo	Coucou didric	<i>Chrysococcyx caprius</i>	R			1	1
Cuculidae	Yellowbill	Malcoha à bec jaune	<i>Ceuthmochares aereus</i>	R	1	1	1	
Cuculidae	Gabon Coucal	Coucal du Gabon	<i>Centropus anselli</i>	R		1	1	
Cuculidae	Black Coucal	Coucal de Grill	<i>Centropus grillii</i>	R?		1	1	
Cuculidae	Senegal Coucal	Coucal du Sénégal	<i>Centropus senegalensis</i>	R	1	1	1	
Cuculidae	Blue-headed Coucal	Coucal moine	<i>Centropus monachus</i>	R/X?			1	
Tytonidae	Barn Owl	Effraie des clochers	<i>Tyto alba</i>	R?			1	
Strigidae	African Scops Owl	Petit-duc africain	<i>Otus senegalensis</i>	X?	1			
Strigidae	Spotted Eagle Owl	Grand-duc africain	<i>Bubo africanus</i>	R		1	1	
Strigidae	Pel's Fishing Owl	Chouette-pêcheuse de Pel	<i>Scotopelia peli</i>	R		1		

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Strigidae	Vermiculated Fishing Owl	Chouette-pêcheuse de Bouvier	<i>Scotopelia bouvieri</i>	R		1		
Strigidae	African Wood Owl	Chouette africaine	<i>Strix woodfordii</i>	R		1		
Caprimulgidae	Swamp Nightjar	Engoulevent du Natal	<i>Caprimulgus natalensis</i>	R		1	1	1
Caprimulgidae	Long-tailed Nightjar	Engoulevent à longue queue	<i>Caprimulgus climacurus</i>	R/M?		1	1	
Caprimulgidae	Square-tailed Nightjar	Engoulevent du Mozambique	<i>Caprimulgus fossii</i>	X?	1			
Caprimulgidae	Fiery-necked Nightjar	Engoulevent musicien	<i>Caprimulgus pectoralis</i>	R		1		
Caprimulgidae	Pennant-winged Nightjar	Engoulevent porte-étendard	<i>Macrodipteryx vexillarius</i>	M	1	1	1	
Apodidae	African Palm Swift	Martinet des palmiers	<i>Cypsiurus parvus</i>	R	1	1	1	
Apodidae	Common Swift	Martinet noir	<i>Apus apus</i>	P		1	1	
Apodidae	White-rumped Swift	Martinet cafre	<i>Apus caffer</i>	?		1		
Apodidae	Horus Swift	Martinet horus	<i>Apus horus</i>	?			1	
Apodidae	Little Swift	Martinet des maisons	<i>Apus affinis</i>	R			1	
Coliidae	Speckled Mousebird	Coliou rayé	<i>Colius striatus</i>	R		1	1	
Trogonidae	Narina's Trogon	Trogon narina	<i>Apaloderma narina</i>	R		1		
Alcedinidae	Chocolate-backed Kingfisher	Martin-chasseur marron	<i>Halcyon badia</i>	R		1	1	
Alcedinidae	Brown-hooded Kingfisher	Martin-chasseur à tête brune	<i>Halcyon albiventris</i>	R		1	1	
Alcedinidae	Grey-headed Kingfisher	Martin-chasseur à tête grise	<i>Halcyon leucocephala</i>	M & R?			1	
Alcedinidae	Blue-breasted Kingfisher	Martin-chasseur à poitrine bleue	<i>Halcyon malimbica</i>	R		1	1	1
Alcedinidae	Woodland Kingfisher	Martin-chasseur du Sénégal	<i>Halcyon senegalensis</i>	R		1	1	1
Alcedinidae	Striped Kingfisher	Martin-chasseur strié	<i>Halcyon chelicuti</i>	R	1	1	1	
Alcedinidae	African Dwarf Kingfisher	Martin-pêcheur à tête rousse	<i>Ceyx lecontei</i>	R		1	1	
Alcedinidae	African Pygmy Kingfisher	Martin-pêcheur pygmée	<i>Ceyx pictus</i>	R	1	1	1	1

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Alcedinidae	White-bellied Kingfisher	Martin-pêcheur à vent blanc	<i>Alcedo leucogaster</i>	R		1		
Alcedinidae	Malachite Kingfisher	Martin-pêcheur huppé	<i>Alcedo cristata</i>	R		1	1	
Alcedinidae	Shining-blue Kingfisher	Martin-pêcheur azuré	<i>Alcedo quadribrachys</i>	R		1	1	1
Alcedinidae	Giant Kingfisher	Martin-pêcheur géant	<i>Megaceryle maxima</i>	R		1	1	
Alcedinidae	Pied Kingfisher	Martin-pêcheur pie	<i>Ceryle rudis</i>	R		1	1	
Meropidae	Black-headed Bee-eater	Guêpier à tête noire	<i>Merops breweri</i>	R		1	1	
Meropidae	Black Bee-eater	Guêpier noir	<i>Merops gularis</i>	R		1	1	1
Meropidae	Little Bee-eater	Guêpier nain	<i>Merops pusillus</i>	R	1	1	1	1
Meropidae	Blue-breasted Bee-eater	Guêpier à collier bleu	<i>Merops variegatus</i>	R		1	1	1
Meropidae	White-throated Bee-eater	Guêpier à gorge blanche	<i>Merops albicollis</i>	P		1	1	1
Meropidae	Blue-cheeked Bee-eater	Guêpier de Perse	<i>Merops persicus</i>	P/V?		1		
Meropidae	European Bee-eater	Guêpier d'Europe	<i>Merops apiaster</i>	P		1	1	
Meropidae	Rosy Bee-eater	Guêpier gris-rose	<i>Merops malimbicus</i>	R/M?		1	1	
Coraciidae	European Roller	Rollier d'Europe	<i>Coracias garrulus</i>	P			1	
Coraciidae	Lilac-breasted Roller	Rollier à longs brins	<i>Coracias caudatus</i>	R		1	1	
Coraciidae	Blue-throated Roller	Rolle à gorge bleue	<i>Eurystomus gularis</i>	R		1	1	
Coraciidae	Broad-billed Roller	Rolle violet	<i>Eurystomus glaucurus</i>	R?	1	1	1	
Phoeniculidae	Black Wood-hoopoe	Irrisor noir	<i>Rhinopomastus aterrimus</i>	R/X?		1		
Upupidae	Hoopoe	Huppe fasciée	<i>Upupa epops</i>	M?		1	1	
Bucerotidae	White-crested Hornbill	Calao à huppe blanche	<i>Tropicranus albocristatus</i>	R?		1		
Bucerotidae	Red-billed Dwarf Hornbill	Calao pygmée	<i>Tockus camurus</i>	R?			1	
Bucerotidae	African Pied Hornbill	Calao longibande	<i>Tockus fasciatus</i>	R	1	1	1	
Bucerotidae	Piping Hornbill	Calao siffleur	<i>Bycanistes fistulator</i>	R	1		1	
Bucerotidae	White-thighed Hornbill	Calao à cuisses blanches	<i>Bycanistes albotibialis</i>	R		1	1	
Capitonidae	Grey-throated Barbet	Barbican à gorge grise	<i>Gymnobucco bonapartei</i>	R		1	1	1
Capitonidae	Sladen's Barbet	Barbican de Sladen	<i>Gymnobucco sladenii</i>	R			1	1

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Capitonidae	Speckled Tinkerbird	Barbion grivelé	<i>Pogoniulus scolopaceus</i>	R		1	1	1
Capitonidae	Red-rumped Tinkerbird	Barbion à croupion rouge	<i>Pogoniulus atroflavus</i>	R			1	1
Capitonidae	Yellow-throated Tinkerbird	Barbion à gorge jaune	<i>Pogoniulus subsulphureus</i>	R		1	1	1
Capitonidae	Yellow-rumped Tinkerbird	Barbion à croupion jaune	<i>Pogoniulus bilineatus</i>	R	1	1	1	1
Capitonidae	Yellow-fronted Tinkerbird	Petit Barbu à front jaune	<i>Pogoniulus chrysoconus</i>	R?				1
Capitonidae	Hairy-breasted Barbet	Barbican hérissé	<i>Tricholaema hirsuta</i>	R			1	
Capitonidae	Miombo Pied Barbet	Barbican du Miombo	<i>Tricholaema frontata</i>	R			1	1
Capitonidae	Black-backed Barbet	Barbican de Levailant	<i>Lybius minor</i>	R?			1	
Indicatoridae	Greater Honeyguide	Grand Indicateur	<i>Indicator indicator</i>	R?			1	
Indicatoridae	Thick-billed Honeyguide	Indicateur à gros bec	<i>Indicator conirostris</i>	R		1		1
Picidae	Red-throated Wryneck	Torcol à gorge rousse	<i>Jynx ruficollis</i>	R?		1		
Picidae	Green-backed Woodpecker	Pic à dos vert	<i>Campethera cailliautii</i>	R	1	1	1	1
Picidae	Buff-spotted Woodpecker	Pic tacheté	<i>Campethera nivosa</i>	R				1
Picidae	Brown-eared Woodpecker	Pic à oreillons bruns	<i>Campethera caroli</i>	R		1	1	
Picidae	Cardinal Woodpecker	Pic cardinal	<i>Dendropicos fuscescens</i>	R		1	1	1
Picidae	Yellow-crested Woodpecker	Pic à couronne d'or	<i>Dendropicos xantholophus</i>	R			1	
Picidae	Elliot's Woodpecker	Pic d'Elliot	<i>Dendropicos elliotii</i>	V?			1	
Alaudidae	Rufous-naped Lark	Alouette à nuque rousse	<i>Mirafra africana</i>	R		1		
Alaudidae	Flappet Lark	Alouette bourdonnante	<i>Mirafra rufocinnamomea</i>	R	1	1	1	1
Hirundinidae	Square-tailed Saw-wing	Hirondelle à queue courte	<i>Psalidoprocne nitens</i>	R?	1	1		
Hirundinidae	Black Saw-wing	Hirondelle hérissée	<i>Psalidoprocne pristoptera</i>	R		1	1	
Hirundinidae	Brazza's Martin	Hirondelle de Brazza	<i>Phedina brazzae</i>	V			1	
Hirundinidae	Banded Martin	Hirondelle à collier	<i>Riparia cincta</i>	R		1	1	

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Hirundinidae	Rufous-chested Swallow	Hirondelle à ventre roux	<i>Hirundo semirufa</i>	R/M?		1	1	
Hirundinidae	Mosque Swallow	Hirondelle des mosquées	<i>Hirundo senegalensis</i>	R?	1	1	1	
Hirundinidae	Lesser Striped Swallow	Hirondelle striée	<i>Hirundo abyssinia</i>	R		1	1	
Hirundinidae	Red-throated Cliff Swallow	Hirondelle à gorge fauve	<i>Hirundo rufigula</i>	V?			1	
Hirundinidae	Rock Martin	Hirondelle isabelline	<i>Hirundo fuligula</i>	R		1	1	
Hirundinidae	White-throated Blue Swallow	Hirondelle à bavette	<i>Hirundo nigrita</i>	R		1	1	
Hirundinidae	Barn Swallow	Hirondelle rustique	<i>Hirundo rustica</i>	P	1	1	1	
Hirundinidae	Common House Martin	Hirondelle de fenêtre	<i>Delichon urbica</i>	P			1	
Motacillidae	Yellow Wagtail	Bergeronnette printanière	<i>Motacilla flava</i>	P		1	1	
Motacillidae	Grassland Pipit	Pipit africain	<i>Anthus cinnamomeus</i>	R?		1		
Motacillidae	Woodland Pipit	Pipit forestier	<i>Anthus nyassae</i>	R		1		1
Motacillidae	Plain-backed Pipit	Pipit à dos uni	<i>Anthus leucophrys</i>	R		1	1	
Motacillidae	Long-legged Pipit	Pipit à longues pattes	<i>Anthus pallidiventris</i>	R?			1	
Motacillidae	Short-tailed Pipit	Pipit à queue courte	<i>Anthus brachyurus</i>	R		1		
Motacillidae	Yellow-throated Longclaw	Sentinelle à gorge jaune	<i>Macronyx croceus</i>	R		1	1	
Pycnonotidae	Little Greenbul	Bulbul verdâtre	<i>Andropadus virens</i>	R		1	1	1
Pycnonotidae	Little Grey Greenbul	Bulbul gracile	<i>Andropadus gracilis</i>	R		1	1	1
Pycnonotidae	Slender-billed Greenbul	Bulbul à bec grêle	<i>Andropadus gracilirostris</i>	R		1	1	
Pycnonotidae	Honeyguide Greenbul	Bulbul à queue blanche	<i>Baeopogon indicator</i>	R		1	1	
Pycnonotidae	Simple Leaflove	Bulbul modeste	<i>Chlorocichla simplex</i>	R?			1	
Pycnonotidae	Yellow-throated Leaflove	Bulbul à gorge claire	<i>Chlorocichla flavicollis</i>	R		1		
Pycnonotidae	Swamp Palm Bulbul	Bulbul des raphias	<i>Thescelocichla leucopleura</i>	R		1	1	1
Pycnonotidae	Leaflove	Bulbul à queue rousse	<i>Pyrrhurus scandens</i>	R		1		
Pycnonotidae	Lesser Bristlebill	Bulbul jaunelore	<i>Bleda notata</i>	R		1	1	1
Pycnonotidae	Common Bulbul	Bulbul des jardins	<i>Pycnonotus barbatus</i>	R	1	1	1	1

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Pycnonotidae	Black-collared Bulbul	Bulbul à collier noir	<i>Neolestes torquatus</i>	R		1	1	1
Pycnonotidae	Western Nicator	Bulbul nicator	<i>Nicator chloris</i>	R		1	1	1
Turdidae	Red-capped Robin Chat	Cossyphes à calotte rousse	<i>Cossypha natalensis</i>	R?				1
Turdidae	Snowy-crowned Robin Chat	Cossyphes à calotte neigeuse	<i>Cossypha niveicapilla</i>	R		1		
Turdidae	Fire-crested Alethe	Alèthe à huppe rousse	<i>Alethe diademata</i>	R?				1
Turdidae	Rufous Flycatcher Thrush	Stizorhin de Fraser	<i>Stizorhina fraseri</i>	R		1	1	
Turdidae	White-browed Scrub Robin	Agrobates à dos roux	<i>Cercotrichas leucophrys</i>	R		1	1	1
Turdidae	Common Stonechat	Tarier pâtre	<i>Saxicola torquata</i>	R		1	1	
Turdidae	Congo Moor Chat	Traquet du Congo	<i>Myrmecocichla tholloni</i>	R	1	1	1	
Turdidae	Sooty Chat	Traquet commandeur	<i>Myrmecocichla nigra</i>	R	1	1	1	1
Sylviidae	African Moustached Warbler	Mélocichle à moustaches	<i>Melocichla mentalis</i>	R?		1		
Sylviidae	Whistling Cisticola	Cisticole siffleuse	<i>Cisticola lateralis</i>	R		1	1	
Sylviidae	Tinkling Cisticola	Cisticole grise	<i>Cisticola rufilatus</i>	R		1	1	
Sylviidae	Winding Cisticola	Cisticole roussâtre	<i>Cisticola galactotes</i>	R		1	1	1
Sylviidae	Croaking Cisticola	Cisticole striée	<i>Cisticola natalensis</i>	R		1	1	1
Sylviidae	Short-winged Cisticola	Cisticole à ailes courtes	<i>Cisticola brachypterus</i>	R		1	1	1
Sylviidae	Piping Cisticola	Cisticole à couronne rousse	<i>Cisticola fulvicapillus</i>	R		1	1	
Sylviidae	Zitting Cisticola	Cisticole des joncs	<i>Cisticola juncidis</i>	R		1	1	
Sylviidae	Pectoral-patch Cisticola	Cisticole brune	<i>Cisticola brunnescens</i>	R		1	1	
Sylviidae	Pale-crowned Cisticola	Cisticole châtain	<i>Cisticola cinnamomeus</i>	R?		1		
Sylviidae	Tawny-flanked Prinia	Prinia modeste	<i>Prinia subflava</i>	R		1	1	1
Sylviidae	White-chinned Prinia	Prinia à gorge blanche	<i>Schistolais leucopogon</i>	R		1	1	
Sylviidae	Buff-throated Apalis	Apalis à gorge rousse	<i>Apalis rufogularis</i>	R		1		
Sylviidae	Grey-backed Camaroptera	Camaroptère à tête grise	<i>Camaroptera brachyura</i>	R	1	1	1	1
Sylviidae	Yellow-browed Camaroptera	Camaroptère à sourcils jaunes	<i>Camaroptera superciliaris</i>	R		1		

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Sylviidae	Salvadori's Eremomela	Erémomèle de Salvadori	<i>Eremomela salvadorii</i>	R		1	1	1
Sylviidae	Green-capped Eremomela	Erémomèle à calotte verte	<i>Eremomela scotops</i>	R		1	1	
Sylviidae	Red-capped Crombec	Crombec à calotte rousse	<i>Sylvietta ruficapilla</i>	R		1		
Sylviidae	Green Crombec	Crombec vert	<i>Sylvietta virens</i>	R		1	1	1
Sylviidae	Willow Warbler	Pouillot fitis	<i>Phylloscopus trochilus</i>	P			1	
Sylviidae	Garden Warbler	Fauvette des jardins	<i>Sylvia borin</i>	P				1
Sylviidae	Yellow-bellied Hylota	Hylote à ventre jaune	<i>Hylota flavigaster</i>	R		1	1	
Sylviidae	Green Hylia	Hylia verte	<i>Hylia prasina</i>	R		1	1	1
Muscicapidae	Fraser's Forest Flycatcher	Gobemouche forestier	<i>Fraseria ocreata</i>	R		1	1	
Muscicapidae	White-browed Forest Flycatcher	Gobemouche à sourcils blancs	<i>Fraseria cinerascens</i>	R		1	1	1
Muscicapidae	Pale Flycatcher	Gobemouche pâle	<i>Malaenornis pallidus</i>	R		1	1	1
Muscicapidae	Spotted Flycatcher	Gobemouche gris	<i>Muscicapa striata</i>	P			1	1
Muscicapidae	Cassin's Flycatcher	Gobemouche de Cassin	<i>Muscicapa cassini</i>	R		1	1	
Muscicapidae	Lead-coloured Flycatcher	Gobemouche mésange	<i>Myioparus plumbeus</i>	R		1	1	1
Monarchidae	Blue-headed Crested Flycatcher	Tchitrec noir	<i>Trochocercus nitens</i>	R		1		
Monarchidae	African Paradise Flycatcher	Tchitrec d'Afrique	<i>Terpsiphone viridis</i>	R?		1	1	
Monarchidae	Bates's Paradise Flycatcher	Tchitrec de Bates	<i>Terpsiphone batesi</i>	R		1	1	1
Platysteiridae	Black-and-white Flycatcher	Bias musicien	<i>Bias musicus</i>	R		1	1	1
Platysteiridae	Chestnut Wattle-eye	Pirit châtain	<i>Dyaphorophya castanea</i>	R		1	1	1
Platysteiridae	Common Wattle-eye	Pirit à collier	<i>Platysteira cyanea</i>	R	1	1	1	
Platysteiridae	Black-headed Batis	Pirit à joues noires	<i>Batis minor</i>	R		1	1	1
Platysteiridae	Angola Batis	Pirit de l'Angola	<i>Batis minulla</i>	R		1	1	
Paridae	White-winged Black Tit	Mésange à epaulettes	<i>Parus leucomelas</i>	R		1	1	1
Remizidae	Grey Penduline Tit	Rémiz de Carol	<i>Anthoscopus caroli</i>	R		1	1	

Famille	Nom anglais	Nom français	Nom scientifique	Statut	Bailey <i>et al.</i> 1996	Dowsett-Lemaire 1997	Ce rapport	
							Observé	Pris au filet
Nectariniidae	Violet-tailed Sunbird	Souimanga à queue violette	<i>Anthreptes aurantium</i>	R		1	1	1
Nectariniidae	Green Sunbird	Souimanga à bec droit	<i>Anthreptes rectirostris</i>	R			1	
Nectariniidae	Little Green Sunbird	Souimanga de Seimund	<i>Anthreptes seimundi</i>	R?			1	
Nectariniidae	Fraser's Sunbird	Souimanga de Fraser	<i>Deleornis fraseri</i>	R		1		
Nectariniidae	Reichenbach's Sunbird	Souimanga de Reichenbach	<i>Anabathmis reichenbachii</i>	R			1	1
Nectariniidae	Green-headed Sunbird	Souimanga à tête verte	<i>Cyanomitra verticalis</i>	R		1	1	1
Nectariniidae	Blue-throated Brown Sunbird	Souimanga à gorge bleue	<i>Cyanomitra cyanolaema</i>	R		1	1	1
Nectariniidae	Western Olive Sunbird	Souimanga olivâtre de l'Ouest	<i>Cyanomitra obscura</i>	R		1	1	1
Nectariniidae	Green-throated Sunbird	Souimanga à gorge verte	<i>Chalcomitra rubescens</i>	R			1	1
Nectariniidae	Amethyst Sunbird	Souimanga améthyste	<i>Chalcomitra amethystina</i>	R	1	1	1	1
Nectariniidae	Collared Sunbird	Souimanga à collier	<i>Hedydipna collaris</i>	R		1	1	1
Nectariniidae	Olive-bellied Sunbird	Souimanga à ventre olive	<i>Cinnyris chloropygius</i>	R		1	1	1
Nectariniidae	Congo Sunbird	Souimanga du Congo	<i>Cinnyris congensis</i>	V?		1		
Nectariniidae	Orange-tufted Sunbird	Souimanga de Bouvier	<i>Cinnyris bouvieri</i>	?			1	
Nectariniidae	Johanna's Sunbird	Souimanga de Johanna	<i>Cinnyris johannae</i>	R		1		
Nectariniidae	Copper Sunbird	Souimanga cuivré	<i>Cinnyris cupreus</i>	R		1	1	1
Laniidae	Common Fiscal	Pie-grièche fiscale	<i>Lanius collaris</i>	R		1	1	
Laniidae	Sousa's Shrike	Pie-grièche de Sousa	<i>Lanius souzae</i>	R?		1		
Malaconotidae	Marsh Tchagra	Tchagra des marais	<i>Antichromus minutus</i>	R		1	1	
Malaconotidae	Black-crowned Tchagra	Tchagra à tête noire	<i>Tchagra senegala</i>	R		1	1	
Malaconotidae	Northern Puffback	Cubla de Gambie	<i>Dryoscopus gambensis</i>	R		1	1	
Malaconotidae	Sooty Boubou	Gonolek fuligineux	<i>Laniarius leucorhynchus</i>	R		1	1	1
Dicruridae	Square-tailed Drongo	Drongo de Ludwig	<i>Dicrurus ludwigii</i>	R		1	1	

Famille	Nom anglais	Nom français	Nom scientifique	Statut	Bailey <i>et al.</i> 1996	Dowsett-Lemaire 1997	Ce rapport	
							Observé	Pris au filet
Dicruridae	Velvet-mantled Drongo	Drongo modeste	<i>Dicrurus modestus</i>	R			1	
Corvidae	Pied Crow	Corbeau pie	<i>Corvus albus</i>	R	1	1	1	
Sturnidae	Forest Chestnut-winged Starling	Rufipenne de forêt	<i>Onychognathus fulgidus</i>	R		1	1	
Sturnidae	Purple-headed Glossy Starling	Choucador à tête pourprée	<i>Lamprotornis purpureiceps</i>	R			1	
Sturnidae	Cape Glossy Starling	Choucador à épaulettes rouges	<i>Lamprotornis nitens</i>	V?		1		
Sturnidae	Splendid Glossy Starling	Choucador splendide	<i>Lamprotornis splendidus</i>	R		1	1	
Sturnidae	Violet-backed Starling	Spréo améthyste	<i>Cinnyricinclus leucogaster</i>	R		1	1	1
Passeridae	Northern Grey-headed Sparrow	Moineau gris	<i>Passer griseus</i>	R	1	1	1	1
Passeridae	Yellow-throated Petronia	Moineau bridé	<i>Petronia superciliaris</i>	R		1	1	1
Ploceidae	Black-chinned Weaver	Tisserin à menton noir	<i>Ploceus nigrimentum</i>	R		1	1	
Ploceidae	Holub's Golden Weaver	Tisserin safran	<i>Ploceus xanthops</i>	R			1	
Ploceidae	Vieillot's Black Weaver	Tisserin noir	<i>Ploceus nigerrimus</i>	R	1		1	1
Ploceidae	Village Weaver	Tisserin gendarme	<i>Ploceus cucullatus</i>	R	1		1	1
Ploceidae	Yellow-mantled Weaver	Tisserin tricolore	<i>Ploceus tricolor</i>	R/V?			1	
Ploceidae	Compact Weaver	Tisserin gros-bec	<i>Ploceus superciliosus</i>	R			1	
Ploceidae	Blue-billed Malimbe	Malimbe à bec bleu	<i>Malimbus nitens</i>	R		1	1	
Ploceidae	Crested Malimbe	Malimbe huppé	<i>Malimbus malimbicus</i>	R		1		
Ploceidae	Red-headed Malimbe	Malimbe à tête rouge	<i>Malimbus rubricollis</i>	R/V?			1	
Ploceidae	Red-headed Quelea	Travailleur à tête rouge	<i>Quelea erythrops</i>	R			1	1
Ploceidae	Black-winged Red Bishop	Euplecte monseigneur	<i>Euplectes hordeaceus</i>	R			1	
Ploceidae	Yellow-mantled Widowbird	Euplecte à dos d'or	<i>Euplectes macrourus</i>	R	1	1	1	1
Ploceidae	White-winged Widowbird	Euplecte à épaules blanches	<i>Euplectes albonotatus</i>	R		1	1	
Ploceidae	Red-collared Widowbird	Euplecte veuve-noire	<i>Euplectes ardens</i>	R			1	
Ploceidae	Marsh Widowbird	Euplecte des marais	<i>Euplectes hartlaubi</i>	R		1	1	
Estrildidae	Grey-crowned Negrofinch	Nigrette à calotte grise	<i>Nigrita canicapilla</i>	R		1	1	

Famille	Nom anglais	Nom français	Nom scientifique	Statut	Bailey <i>et al.</i> 1996	Dowsett-Lemaire 1997	Ce rapport	
							Observé	Pris au filet
Estrildidae	Pale-fronted Negrofinch	Nigrette à front jaune	<i>Nigrita luteifrons</i>	R		1	1	1
Estrildidae	Chestnut-breasted Negrofinch	Nigrette à ventre roux	<i>Nigrita bicolor</i>	R		1	1	
Estrildidae	White-breasted Negrofinch	Nigrette à ventre blanc	<i>Nigrita fusconota</i>	R		1		
Estrildidae	Orange-winged Pytilia	Beaumarquet à dos jaune	<i>Pytilia afra</i>	R		1	1	1
Estrildidae	Black-bellied Seedcracker	Pyréneste ponceau	<i>Pyrenestes ostrinus</i>	R		1	1	
Estrildidae	Western Bluebill	Sénégal (ou Grosbec) sanguin	<i>Spermophaga haematina</i>	R		1	1	1
Estrildidae	Blue-billed Firefinch	Amarante flambé	<i>Lagonosticta rubricata</i>	R		1	1	1
Estrildidae	Fawn-breasted Waxbill	Astrild à poitrine fauve	<i>Estrilda paludicola</i>	R		1	1	
Estrildidae	Orange-cheeked Waxbill	Astrild à joues oranges	<i>Estrilda melpoda</i>	R	1	1	1	1
Estrildidae	Common Waxbill	Astrild ondulé	<i>Estrilda astrild</i>	X?		1		
Estrildidae	Zebra Waxbill	Bengali zébré	<i>Amandava subflava</i>	M?			1	
Estrildidae	Locust Finch	Astrild-caille à gorge rouge	<i>Ortygospiza locustella</i>	R?		1		
Estrildidae	Black-chinned Quailfinch	Astrild-caille à gorge noire	<i>Ortygospiza gabonensis</i>	R?		1	1	
Estrildidae	Bronze Mannikin	Capucin nonnette	<i>Lonchura cucullata</i>	R	1	1	1	1
Estrildidae	Black-and-white Mannikin	Capucin bicolor	<i>Lonchura bicolor</i>	R		1		
Viduidae	Pin-tailed Whydah	Veuve dominicaine	<i>Vidua macroura</i>	R	1		1	1
Fringillidae	Black-throated Seedeater	Serin à gorge noire	<i>Serinus atrogularis</i>	R		1	1	1
Fringillidae	Yellow-fronted Canary	Serin du Mozambique	<i>Serinus mozambicus</i>	R	1		1	
Emberizidae	Cinnamon-breasted Rock Bunting	Bruant cannelle	<i>Emberiza tahapisi</i>	M	1	1	1	1
Emberizidae	Cabanis's Bunting	Bruant de Cabanis	<i>Emberiza cabanisi</i>	R		1		1
Total					57	240	256	86