Birds of the Boé region, south-east Guinea-Bissau, including the first country records of Chestnut-backed Sparrow Lark Eremopterix leucotis, Lesser Striped Swallow Cecropis abyssinica and Heuglin's Wheatear Oenanthe heuglini

João L. Guilherme

Aves da região do Boé, sudeste da Guiné-Bissau, incluindo registos de três novas espécies para o país. Durante os meses de janeiro e fevereiro de 2013 foi levado a cabo um levantamento da avifauna no sector do Boé, sudeste da Guiné-Bissau. Este trabalho permitiu identificar um total de 170 espécies de aves, das quais, três constituem novos registos para o país: cotovia-pardal-de-dorso-castanho *Eremopterix leucotis*, andorinha-estriada-pequena *Cecropis abysinica* e chasco de Heuglin *Oenanthe heuglini*. Vinte e três das espécies registadas encontram-se restritas ao bioma de savana Sudano-Guineense, doze são restritas ao bioma de floresta Guineo-Congolense e cinco são espécies prioritárias para a conservação. Este constitui o primeiro levantamento da avifauna desta região da Guiné-Bissau. São também apresentados registos efectuados na região por P. Wit durante 2007–13. O sector do Boé é dominado por diversos habitats de savana e alberga uma elevada diversidade de fauna e flora. Um projecto para a criação de dois parques nacionais e três corredores para a fauna está a ser implementado na região. No entanto, os actuais usos dos solos e recursos naturais constituem potenciais importantes ameaças à preservação da biodiversidade e dos serviços dos ecossistemas do sector do Boé.

Summary. During an ornithological survey of the Boé region, south-east Guinea-Bissau, in January and February 2013, 170 bird species were recorded. Of these, three were new for the country: Chestnut-backed Sparrow Lark *Eremopterix leucotis*, Lesser Striped Swallow *Cecropis abyssinica* and Heuglin's Wheatear *Oenanthe heuglini*. Twenty-three species are restricted to the Sudan-Guinea Savanna biome, 12 to the Guinean-Congo Forest biome and five are of global conservation concern. This was the first avifaunal survey in the area. Additional bird observations made by P. Wit in 2007–13 are also presented. The Boé region is dominated by a variety of savanna habitats and harbours very interesting biodiversity. A project to establish two national parks and three wildlife corridors is being implemented. However, current uses of land and natural resources constitute potentially important threats to the biodiversity and ecosystem services, and require urgent attention.

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The avifauna of Guinea-Bissau is amongst the least known on the African continent. Its ornithological importance is mostly related to the country's coastal-marine biome, a vast area that harbours c.1 million Palearctic waders during the boreal winter (Robertson 2001), of which the Bijagós Archipelago is probably the most important (Dodman & Sá 2005). However, Guinea-Bissau terrestrial ecosystems are also regionally and globally important for their avian diversity and conservation value, and include 35 bird species restricted to the Sudan-Guinea Savanna biome and 58 to the Guinea-Congo Forest biome (Dodman et al. 2004). Guinea-Bissau currently lacks inland reserves. This is of concern as ongoing human population growth is increasing pressure on natural habitats, primarily for agricultural use and associated intensification (Cincotta *et al.* 2000), factors recognised as major threats to biodiversity worldwide (Pereira *et al.* 2012). Cashew tree plantations, which constitute the main economy of the country (World Bank 2009), have increased considerably in recent years at the expense of natural forests (Oom *et al.* 2009).

In 2010, the government engaged in a project aiming to conserve representative terrestrial ecosystems, particularly within the forest belt, in partnership with the Global Environment Facility (GEF) and United Nations Environment Programme (UNEP) (PRODOC 2010). The project plans to establish five protected areas in the south-east: Dulombi and Boé National Parks, and three corridors for fauna (Fig. 1). These include areas of both regional and national ornithological importance. Dulombi is considered to be the most biodiverse region in Guinea-Bissau and is

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an Important Bird Area (IBA) harbouring 202 bird species and a variety of mammals, including ten primate, 13 carnivore and 17 ungulate species (Limoges 1989, Pacheco *et al.* 1997, Dodman *et al.* 2004). Although part of the Boé region is also an IBA, largely based on the Vendu Tcham wetland in the west (Fig. 1), ornithological data from other areas were lacking (Dodman *et al.* 2004).

Here I provide information on the avifauna of the Boé region during the dry-season months of January-February 2013, with additional records made by Piet Wit (PW) during his regular visits to the area since 2007. I also briefly discuss the current threats to, and conservation prospects for, the region. The study was undertaken on behalf of Foundation Chimbo, a Dutch NGO (http://www.chimbo.org) that cooperates with the local NGO Daridibó (http://www.daridibo. org). Both organisations have been active in the Boé region since 2007, implementing a community-based conservation programme primarily aimed to conserve Western Chimpanzee Pan troglodytes verus and its habitat, by integrating nature conservation and ecotourism into local development plans as a potential source of revenue for the local population.

Study area

The Boé is a remote region in south-eastern Guinea-Bissau (13°56'W 11°50'N), extending over $c.3,000 \text{ km}^2$ between the Corubal River and the Guinea border (Fig. 1). It is almost devoid of driveable roads and basic infrastructure, and is sparsely inhabited. The local population practices subsistence agriculture, hunting and gathering. The Fula constitutes the main ethnic group; they have a detailed knowledge of their environment and are traditionally engaged in the sustainable use of natural habitats and wildlife.

Compared to the rest of the country, the area is characterised by higher rainfall and shallow soils (Catarino *et al.* 2008), with a mean annual rainfall of 1,600–2,100 mm and temperature of 28°C. The dry season commences in October and lasts until the end of May; April is the hottest month averaging 29°C. The area covers the main forestsavanna belt of Guinea-Bissau. The dominant vegetation is that of the Sudan-Guinea Savanna biome, comprising a variety of dry and semi-dry habitats (see Wit & Reinjtes 1989 for further

details). The landscape is dominated by wooded savanna interspersed by more open areas of shrub and grassland maintained by frequent fires set by shepherds and hunters (Catarino 2004). Slashand-burn agriculture for rice and other crops is widespread around villages. Cleared land is cultivated for one or two seasons, after which it is left fallow. Savanna woodlands are typically 'edge-like' (i.e. open); the commonest tree species include *Pterocarpus erinaceus*, *Crossopteryx* febrifuga, Parkia biglobosa and Terminalia albida, with Combretum glutinosum the most frequently occurring shrub (Wit & Reinjtes 1989, Catarino et al. 2008). Along rivers and streams remnants of gallery forest remain, which include mostly evergreen trees such as Sterculia tragacantha, Ceiba pentandra, Pterocarpus spp. and Afzelia africana. A large freshwater lake, Vendu Tcham, in the west of the region (Fig. 1), supports a variety of waterbirds (Rodwell 1996, Pacheco et al. 1997).

Methods

Field work was conducted on 16-22 January 2013 and 4-15 February 2013, which corresponds to the middle of the dry season. Bird surveys were undertaken in the environs of three villages (tabancas): Béli (the only tabanca in the region with tourism facilities), Pataque and Lugajole (Fig. 1). The study area is located in the central Boé, just south of the proposed Boé National Park. Bird surveys were conducted during the first five hours after dawn and three hours before dusk, via walked transects, totalling c.100 km, along existing tracks through various habitats. Whenever the vegetation was too dense to permit normal progression, e.g. within some gallery forests, randomly sited ten-minute point counts were employed. All birds seen were recorded and habitat was registered. Some drives along transects were undertaken at night to record nocturnal species. The main field guide used was Borrow & Demey (2001), but Sinclair & Ryan (2003) was also consulted. The xeno-canto website (http:// www.xeno-canto.org) was consulted for bird vocalisations. No playback was used.

Results

A total of 170 bird species was recorded during the surveys. Including records by P. Wit in 2007–13, the number of species known from this part of the Boé totals 188. Given that the

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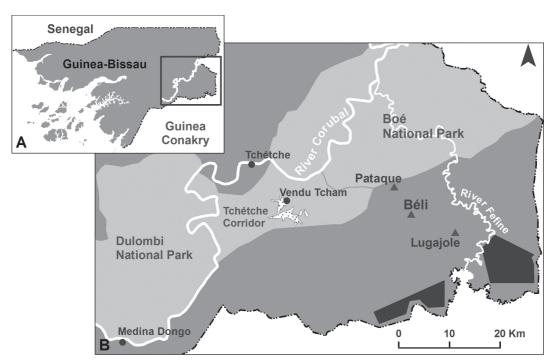


Figure 1. (A) Location of the Boé region, south-east Guinea-Bissau; (B) Map of Boé showing the villages of Béli, Pataque and Lugajole, those of Tchétche and Medina Dongo visited by Rodwell (1996) in 1992, and Vendu Tcham wetland. The prospected Dulombi and Boé National Parks and the Tchétche corridor for fauna are represented in pale grey, bauxite mining concessions areas in dark grey (limits according to Cassamá 2009).

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study was conducted over a short period in the dry season, further surveys, particularly during the wet season (mid June to October), should increase that total. For example, Dwarf Bittern Ixobrychus sturmii was recorded by PW in July, and Spur-winged Goose Plectropterus gambensis is regularly seen (Boé villagers pers. comm.). In the dry season of 1992, Rodwell (1996) visited the villages of Tchétche and Medina Dongo along the Corubal River in the west and south-west of the region for five days (28 March-1 April), reporting 70 species, of which 23 were not detected by the present survey. Adding Rodwell's observations, the Boé region supports 208 bird species, or *c*.41% of the 508 species listed for the country by Dodman et al. (2004).

In total, 23 species of diurnal raptors (Accipitridae, Pandionidae and Falconidae) have been recorded since 2007. These include five species of global conservation concern, three of them classified as Endangered (Hooded Vulture *Necrosyrtes monachus*, White-backed Vulture *Gyps*



Figure 2. Beaudouin's Snake Eagle / Guincho da Guiné *Circaetus beaudouini*, Lugajole, Boé, Guinea-Bissau, 14 February 2013 (João L. Guilherme)

africanus and Rüppell's Vulture *G. rueppellii*), one Vulnerable (Beaudouin's Snake Eagle *Circaetus beaudouini*; Fig. 2) and one Near Threatened

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Figure 3. Some common species found in the Boé region during the dry season: (a) African Harrier Hawk / serpentário-pequeno *Polyboroides typus* (Marco Mirinha); (b) Striped Kingfisher / pica-peixeriscado *Halcyon chelicuti* (Joáo L. Guilherme); (c) Blue-bellied Roller / rolieiro-de-barriga-azul *Coracias cyanogaster* (Marco Mirinha); (d) Green Woodhoopoe / zombeteiro-de-bico-vermelho *Phoeniculus purpureus* (Joost Van Schijndel); (e) African Grey Hornbill / bico-de-serra-cinzento *Tockus nasutus* (Joost Van Schijndel); (f) White Helmetshrike / poupinha *Prionops plumatus* (Joost Van Schijndel)

(Bateleur *Terathopius ecaudatus*) (BirdLife International 2013). Although it was impossible to assess the importance of the area for vultures (see Appendix 1 for encounter rates and number

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of individuals recorded), the fairly high densities of large wild mammals suggest that the area is significant year-round for these scavengers.

Twenty-three species restricted to the Sudan-Guinea Savanna biome were recorded during my surveys (Appendix 1), or 43% of the total species restricted to this biome (Fishpool & Evans 2001). Black-faced Firefinch Lagonosticta larvata (also a Sudan-Guinea Savanna biome-restricted species) was previously recorded in the region in November 2009 (Appendix 1). In Guinea-Bissau, only the nearby Dulombi IBA has more species restricted to this biome (25; Dodman et al. 2004). Although the study area is dominated by savanna habitats, 12 bird species restricted to the Guinea-Congo Forest biome were found (Appendix 1), mostly in gallery forest along rivers and seasonal streams, and included Red-thighed Sparrowhawk Accipiter erythropus, Turati's Boubou Laniarius turatii, Black-winged Oriole Oriolus nigripennis, Forest Chestnut-winged Starling Onychognathus fulgidus and Chestnut-breasted Negrofinch Nigrita bicolor.

Common species in savannas included Bluespotted Wood Dove Turtur afer, Black-billed Wood Dove T. abyssinicus, Vinaceous Dove Streptopelia vinacea, African Grey Hornbill Tockus nasutus, Sun Lark Galerida modesta, Common Wattleeye Platysteira cyanea, Variable Sunbird Cinnyris venustus, Northern Puffback Dryoscopus gambensis, Fork-tailed Drongo Dicrurus adsimilis and Redcheeked Cordon-bleu Uraeginthus bengalus. Also common were mixed flocks of Ploceidae of up to 400 birds, mostly comprising Village Weavers Ploceus cucullatus, Red-billed Queleas Quelea quelea, Black-winged Bishops Euplectes hordeaceus and Northern Red Bishops E. franciscanus. Redeyed Dove Streptopelia semitorquata, African Grey Hornbill Tockus nasutus and a variety of waxbills (Estrildidae), including flocks of up to 80 Orange-cheeked Waxbills Estrilda melpoda, were common in cultivation. In forests along streams and gallery forests, common species included Green Turaco Tauraco persa, Red-bellied Paradise Flycatcher Terpsiphone rufiventer and Greybacked Camaroptera Camaroptera brachyura. In villages, Violet Turaco Tauraco (= Musophaga) violaceus, Common Bulbul Pycnonotus barbatus and Beautiful Sunbird Cinnyris pulchellus were common (see Appendix 1).

Proof of breeding was noted only for Redchested Swallow *Hirundo lucida* and Beautiful Sunbird *Cinnyris pulchellus*, with pairs seen nest building. Behaviour indicative of breeding was observed for Black-bellied Bustard *Eupodotis melanogaster*, African Wattled Lapwing *Vanellus senegallus*, Turati's Boubou and African Paradise Flycatcher *Terpsiphone viridis*, among others.

Finally, two bee-eaters that may have been Blue-moustached Bee-eaters *Merops mentalis* were observed by PW in December 2010. However, as this would constitute a substantial westward range extension, this species' presence requires confirmation.

Species new to Guinea-Bissau

Chestnut-backed Sparrow Lark Eremopterix leucotis

A male and female were observed for *c*.10 minutes on 20 January 2013 by myself and F. Leitão (Daridibó staff) in an open area with bare ground near Béli (11°51'N 13°55'W). The male, which was chasing the female, had a contrasting blackand-white head pattern, black breast and deep chestnut upperparts. The female had a darkmottled head and chestnut wings. Common throughout much of its large African range and known from neighbouring Senegal and Guinea (Borrow & Demey 2001, Dowsett *et al.* 2013c, g).

Lesser Striped Swallow Cecropis abyssinica

Six on 13 February 2013 within a mixed flock comprising eight Red-breasted Swallows *Cecropis semirufa*, 12 Pied-winged Swallows *Hirundo leucosoma* and ten Red-chested Swallows *H. lucida*, over Lugajole (11°48'N 13°51'W). Easily identified by its streaked underparts, rufous head and rump, and long tail streamers. Widespread south of the Sahel and Guinea-Bissau is the only country in the region where the species had not been documented (Borrow & Demey 2001, Dowsett *et al.* 2013a–i).

Heuglin's Wheatear Oenanthe heuglini

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One singing and displaying in recently burnt grassland near Lugajole (11°48'N 13°52'W) on 14 February 2013 (Fig. 4). It was conspicuously long-legged and adopted an erect posture, with a very broad black terminal tail band. Isabelline Wheatear *O. isabellina*, with which I am familiar



Figure 4. Heuglin's Wheatear / chasco de Heuglin *Oenanthe heuglini*, Boé, Guinea-Bissau, 14 February 2013 (João L. Guilherme)



Figure 5. Dwarf Bittern / garçote-preto *Ixobrychus* sturmii, Boé, Guinea-Bissau, 14 July 2011 (Piet Wit)

in Central Asia, has a similar display flight, but could immediately be eliminated, as the bird was smaller, with overall darker plumage and a rufousbuff breast. Intra-African migrant between the Sahel and Sudan-Guinean Savanna (Borrow & Demey 2001), in neighbouring countries it has been recorded only in Guinea and Mali (Dowsett *et al.* 2013c, f).

Notes on selected species

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Species of conservation concern (BirdLife International 2013) are indicated by EN = Endangered, VU = Vulnerable and NT = Near Threatened.

Dwarf Bittern Ixobrychus sturmii

Three singles observed along the Béli–Tchétche road in 14 July 2011, one of them near a temporary pool (Fig. 5). The species, which is known from all neighbouring countries (Barlow *et al.* 1997, Borrow & Demey 2001), is not included in the ABC Guinea-Bissau checklist (Dowsett *et al.* 2013d). However, it is listed for Ilha de Bolama and Rio Grande de Buba IBA by Dodman *et al.* (2004), based on a record at Buba in February 1997 (B. de Bruijn & K. de Jong *in litt.* 2003).

Hooded Vulture Necrosyrtes monachus EN

Often associated with human settlements and frequently observed foraging on rubbish. Approximately 40 roosted in trees near Béli on 17 January. Other observations included 1–11

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soaring over a variety of habitats. Only two were seen in Madina Dongo in the 1990s (Rodwell 1996). The species is apparently not persecuted or poisoned here, unlike elsewhere in Africa (Ogada & Buij 2011).

White-backed Vulture Gyps africanus EN

One soaring over Béli on 21 January 2013, with 11 Hooded and three Rüppell's Vultures *Gyps rueppellii*. One found dead (cause of death unknown) by Daridibó staff in January 2013. Tall trees, providing roosting and potential nest sites, and good populations of large wild mammals may constitute important resources for the species in the study area.

Rüppell's Vulture Gyps rueppellii EN

Three adults soaring over Béli on 21 January 2013, with 11 Hooded Vultures and a Whitebacked Vulture.

Beaudouin's Snake Eagle *Circaetus beaudouini* VU

Three records: one near Vendu Tcham (11°51'20"N 14°07'30"W) on 22 January 2013, one northwest of Béli (11°52'18"N 13°54'44"W) on 11 February, and one over Lugajole (13°51'25"N 11°48'34"W; Fig. 2) on 14 February.

Bateleur Terathopius ecaudatus NT

Singles near Pataque on 7 January 2013, near Vendu Tcham on 15 January, north-east of Béli

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Figure 6. Flappet Lark / cotovia-zumbidora *Mirafra rufocinnamomea*, Boé, Guinea-Bissau, 5 February 2013 (João L. Guilherme)

on 11 and, probably the same individual, 12 February.

Red-thighed Sparrowhawk Accipiter erythropus

Two (possibly a pair) in savanna woodland near Béli on 19 January 2013. Restricted to the Guinea-Congo Forest biome, with scattered records in Guinea-Bissau and neighbouring countries (Borrow & Demey 2001).

African Finfoot Podica senegalensis

Juvenile observed by PW along the Corubal River, *c*.100 m downstream of Tchétche (11°55'N 14°12'W) on 1 May 2008. Although regarded as shy (Sinclair & Ryan 2003), this bird did not seem disturbed by the presence of people and a ferry. Dodman *et al.* (2004) include this species on the list for Vendu Tcham IBA, based on two sightings in 1997 at Tchétche during different seasons (R. Matías *in litt.* 2004). Occurs in neighbouring Senegal and Guinea, and Gambia (Dowsett *et al.* 2013c, g, i).

Senegal Parrot Poicephalus senegalus

Pairs observed at Béli on 17 January 2013, over grassland near Béli on 20 January, and over savanna woodland near Pataque on 7 February. Not considered threatened and population appears stable, perhaps even benefiting from clearance of closed-canopy forests (BirdLife International 2013). However, it is frequently kept as a cagebird and subject to significant poaching for the pet trade, and is therefore listed in Annex II of CITES as of 'possible concern' (Inskipp *et al.* 1988).

Flappet Lark Mirafra rufocinnamomea

One photographed north of Béli on 5 February 2013 (Fig. 6). Four performing display flights accompanied by characteristic wing rattling in a recently burnt grassland near Lugajole on 14 February. Although not listed in the ABC checklist (Dowsett *et al.* 2013d), it has previously been recorded in Guinea-Bissau (Dodman *et al.* 2004), based on sightings in 1997 at Tchétche in different seasons (R. Matías *in litt.* 2004).

Grey-rumped Swallow Pseudhirundo griseopyga

Common in savanna habitats, with flocks of 3–8 regularly seen over open grassland. Borrow & Demey (2001) map one record in Guinea-Bissau.

Turati's Boubou Laniarius turatii

Regularly seen in woodland and gallery forest, often in the understorey.

Black-winged Oriole Oriolus nigripennis

Two were seen near Pataque (11°53'N 13°57'W) on 6 February 2013, foraging at the edge of gallery forest and a cashew plantation. They were located by their melodious oriole-like whute-luw calls. One was an adult with a black head and upper breast, red bill and plain olive back. Black central tail feathers were noted and no white patch at the edge of the wing was present, excluding Western Black-headed Oriole O. brachyrhynchus. The other bird was an immature with a streaked throat and upper breast; bill and overall plumage were slightly duller than in the adult. Not listed in the ABC Guinea-Bissau checklist (Dowsett et al. 2013d), but reported on the Bijagós archipelago by Dodman et al. (2004) based on a record of two in December 1986 (Altenburg & van der Kamp 1992).

Dybowski's Twinspot Euschistospiza dybowskii

Several observations, including a male singing in gallery forest near Béli, a flock of seven in a cashew plantation near Pataque, and singles and pairs in cashew plantations, agricultural land and along streams. Has been recorded in neighbouring Senegal (apparently just three records: Fernández-García *et al.* 2013) and Guinea (Dowsett *et al.* 2013c, g). In Guinea-Bissau, known only from

the Boé (Dodman *et al.* 2004); it is not listed in the ABC Guinea-Bissau checklist (Dowsett *et al.* 2013d).

Threats and conservation

The Boé region harbours a significant and diverse fauna and flora and constitutes an exciting birding destination in West Africa. Aside from birds, the region is important for many mammals. During this survey, Western African Chimpanzee was observed in gallery forest and savanna woodland several kilometres north-east of Béli. Other primates such as Green Monkey Chlorocebus aethiops sabaeus and Red Monkey Erythrocebus patas were common in savanna habitat, whereas more elusive species, such as King Colobus Colobus polykomos, were observed in gallery forest remnants. Other mammals recently observed include Forest Buffalo Syncerus caffer nanus and Leopard Panthera pardus (J. Van Schijndel pers. comm.).

However, current human development and external pressures may constitute serious threats to conservation in the Boé region. The loss of natural forest cover is probably the most serious threat to its biodiversity. Over the last 17 years dense forest has declined by 50% (Cassamá 2009) due to illegal timber exploitation, conversion to agriculture and uncontrolled bushfires set by farmers, hunters and cattle herders. Although timber extraction is illegal, the occurrence of economically important trees, including Afzelia africana (Vulnerable), Pterocarpus erinaceus and Prosopis africana, encourages illegal exploitation (lorries loaded with timber observed leaving the area). No data exist concerning the impact of illegal forest clearance, but some species may have been reduced to alarmingly low densities (Cassamá 2009).

Traditional agricultural practices are primarily based on annual cutting and burning of forest to cultivate rice, the main crop of local communities. The impact of land clearance for agriculture is most evident around settlements but more remote areas are also affected. Immigration of slash-and-burn farmers and livestock herders from neighbouring Guinea, and the establishment of new *tabancas*, may also increase conflict between Man and nature. As observed elsewhere in Guinea-Bissau, the reduction of natural forest is also associated with conversion to cashew plantations. Although the area of such plantations in my study area is not large, around some *tabancas*, such as Pataque and Béli, these are sited near watercourses to the detriment of gallery forest.

Hunting is widespread. All of the hunters encountered were local villagers who target mainly birds, e.g. Double-spurred Francolin Francolinus bicalcaratus and Helmeted Guineafowl Numida meleagris. In villages, Violet Turaco Tauraco violacea is targeted by children. Sport 'trophy' hunting (mainly of mammals) by tourists from Bissau, neighbouring countries and even Europe also occurs (Cassamá 2009). The region is frequently visited by poachers who illegally hunt and export bushmeat to Guinea (Béli villagers pers. comm.). Fire is used by hunters to make target species, especially mammals, move into open areas. During the field work c.140 ha of savanna woodland and grassland near Lugajole was recently burnt by hunters from Guinea (Lugajole villagers pers. comm.). As over most of Africa, unregulated hunting may lead to serious declines in larger mammals. For example, Forest Buffalo Syncerus caffer nanus is now confined to gallery forest along the Fefine River (J. Van Schijndel pers. comm.).

Bauxite mining is expected to become important economically, coupled with the development of infrastructure such as the ongoing construction of roads and a planned railway. The government has already granted concessions for two areas, totalling *c*.400 ha, for bauxite mining near the border with Guinea (Fig. 1).

Despite the study area's biodiversity, and the importance of its conservation, the area was not included within the proposed Boé National Park (see Cassamá 2009). Vendu Tcham Lake and its environs were included within the conservation plan as a faunal corridor but, strangely, most of the area to the south, proposed as an IBA by Dodman et al. (2004), was also omitted. This was probably due to a shortage of scientific data; the present work and future investigation may assist in redefining the limits of Vendu Tcham IBA (Dodman et al. 2004) and, hopefully, the final borders of Boé National Park. The latter may boost sustainable development of the Boé based on nature conservation and ecotourism. To achieve this, joint efforts by the government, international agencies and local NGOs are essential. Development of a conservation strategy

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for the Boé region should follow a communitybased approach, by involving local populations in the planning, decision-making and management of natural resources (Neumann 1998). Special care should be given to avoid ineffective and authoritarian projects, as previously described elsewhere in Guinea-Bissau (Temudo 2012).

Acknowledgements

I am grateful to Annemarie Goedmakers and the Chimbo Foundation (http://chimbo.org) for financing the expedition to the Boé, and to Daridibó NGO (http:// www.daridibo.org) for support in the field. Special thanks to Piet Wit for sharing his field observations and Marco Mirinha and Joost Van Schijndel for permitting use of their photographs. I also thank Aussemane from Béli for guiding in the Boé region and Francisco Leitão (Daridibó) for his support during field work. Valuable suggestions by Dave Showler and Joana Sousa, and referees Tim Dodman and Ron Demey greatly improved the manuscript.

References

- Altenburg, W. & van der Kamp, J. 1992. Faunistical notes. In Altenburg, W., Wymenga, E. & Zwarts, L. (eds.) Ornithological Importance of the Coastal Wetlands of Guinea-Bissau. WIWO Rep. 26. Zeist: Working Group International Waterbird & Wetland Research.
- Barlow, C., Wacher, T. & Disley, T. 1997. *A Field Guide to the Birds of The Gambia and Senegal.* Robertsbridge: Pica Press.
- BirdLife International. 2013. IUCN Red List for birds. www.birdlife.org (accessed 8 August 2013).
- Borrow, N. & Demey, R. 2001. *Birds of Western Africa*. London, UK: Christopher Helm.
- Cassamá, V. S. 2009. Análise da biodiversidade no complexo Dulombi-Boé-Tchétche. Projecto – Apoio à Consolidação do Sistema de Áreas Protegidas Terrestres na Faixa de Floresta da Guiné-Bissau. UNDP. Unpubl. rep.
- Catarino, L. 2004. Fitogeografia da Guiné-Bissau. Ph.D. thesis. Lisbon: Instituto Superior de Agronomia, Universidade Técnica de Lisboa.
- Catarino, L., Martins, E. S., Pinto Basto, M. F. & Diniz, M. A. 2008. An annotated checklist of the vascular flora of Guinea-Bissau (West Africa). *Blumea* 53: 1–222.
- Cincotta, R. P., Wisnewski, J. & Engelman, R. 2000. Human population in the biodiversity hotspots. *Nature* 404: 990–992.
- Dodman, T. & Sá, J. 2005. Monitorização de Aves Aquáticas no Arquipélago dos Bijagós, Guiné Bissau

/ Waterbird monitoring in the Bijagós Archipelago, Guinea Bissau. Dakar: Wetlands International & Bissau: Gabinete de Planificação Costeira & ODZH.

- Dodman, T., Barlow, C., Sá, J. & Robertson, P. 2004. Zonas Importantes para as Aves na Guiné-Bissau / Important Bird Areas in Guinea-Bissau. Dakar: Wetlands International & Bissau: Gabinete de Planificação Costeira & ODZH.
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013a. Checklist of the birds of Chad. www. africanbirdclub.org (accessed 30 March 2013).
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013b. Checklist of the birds of Côte d'Ivoire. www.africanbirdclub.org (accessed 30 March 2013).
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013c. Checklist of the birds of Guinea. www. africanbirdclub.org (accessed 23 March 2013).
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013d. Checklist of the birds of Guinea-Bissau. www.africanbirdclub.org (accessed 30 March 2013).
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013e. Checklist of the birds of Liberia. www. africanbirdclub.org (accessed 30 March 2013).
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013f. Checklist of the birds of Mali. www. africanbirdclub.org (accessed 30 March 2013).
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013g. Checklist of the birds of Senegal. www. africanbirdclub.org (accessed 30 March 2013).
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013h. Checklist of the birds of Sierra Leone. www. africanbirdclub.org (accessed 30 March 2013).
- Dowsett, R. J., Atkinson, P. W. & Caddick, J. A. 2013i. Checklist of the birds of The Gambia. www. africanbirdclub.org (accessed 30 March 2013).
- Fernández-García, J. M., Azua, N. R. & Pacheco, L. 2013. Birds of Dindéfello Nature Reserve, southeast Senegal. *Bull. ABC* 20: 49–59.
- Fishpool, L. D. C. & Evans, M. I. (eds.) 2001. Important Bird Areas in Africa and Associated Islands: Priority Sites for Conservation. Newbury: Pisces Publications & Cambridge, UK: BirdLife International.
- Inskipp, T., Broad, S. & Luxmoore, R. 1988. Significant Trade in Wildlife: A Review of Selected Species in CITES Appendix II, 3: Birds. Cambridge, UK: IUCN & CITES Secretariat.
- Limoges, B. 1989. *Résultats de l'inventaire faunique au niveau national et propositions de modifications à la loi sur la chasse.* Bissau: Centre canadien d'Études et Coopération international & IUCN.

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7/20/14 1:56 PM

- Neumann, R. P. 1998. *Imposing Wilderness: Struggles Over Livelibood and Nature Preservation in Africa*. Berkeley: University of California Press.
- Ogada, D. L. & Buij, R. 2011. Large declines of the Hooded Vulture *Necrosyrtes monachus* across its African range. *Ostrich* 82: 101–113.
- Oom, D., Lourenço, P., Cabral, A. R., Vasconcelos, M. P., Catarino, L. & Cassamá, V. 2009. Quantification of Deforestation Rates in Guinea-Bissau – A Baseline for Carbon Trading under REDD. Stresa: 33rd International Symposium on Remote Sensing of Environment.
- Pacheco, C., Rosa, G. & Araújo, A. 1997. Contagens de Aves Aquáticas na Guiné-Bissau. Bissau: IUCN.
- Pereira, H. M., Navarro, L. M. & Martins, I. S. 2012. Global biodiversity change: the bad, the good, and the unknown. *Ann. Rev. Environ. Resources* 37: 25–50.
- PRODOC. 2010. Support to the Consolidation of a Protected Area System in Guinea-Bissau's Forest Belt. Bissau: UNDP, Institute for Biodiversity and Protected Areas, Ministry of Agriculture and Rural Development, Government of Guinea-Bissau.
- Robertson, P. 2001. Guinea-Bissau. In Fishpool, L. D. C. & Evans, M. I. (eds.) Important Bird

Areas in Africa and Associated Islands: Priority Sites for Conservation. Newbury: Pisces Publications & Cambridge, UK: BirdLife International.

- Rodwell, S. P. 1996. Notes on the distribution and abundance of birds observed in Guinea-Bissau, 21 February to 3 April 1992. *Malimbus* 18: 25–43.
- Sinclair, I. & Ryan, P. 2003. Birds of Africa South of the Sahara. Cape Town: Struik.
- Temudo, M. P. 2012. "The white men bought the forests": conservation and contestation in Guinea-Bissau, western Africa. *Conserv. Soc.* 10: 354–366.
- Wit, P. & Reintjes, H. C. 1989. An agro-ecological survey of the Boé Province, Guinea-Bissau. Agri. Ecosys. Environ. 27: 609–620.
- World Bank. 2009. Country at a glance indicators: Guinea-Bissau. http://devdata.worldbank.org/ AAG/gnb_aag.pdf (accessed 30 March 2013).

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Received 9 September 2013; revision accepted 14 May 2014.

Appendix 1. List of bird species recorded in January–February 2013 in the Boé region, south-east Guinea-Bissau. Additional species recorded by Piet Wit in 2007–13 (with approximate date of observation) are included. Sequence and taxonomy follow Dowsett *et al.* (2013d) with some amendments. Species marked * represent additions to the Guinea-Bissau list. Encounter rate = no. of individuals recorded per ten hours of census. IUCN threat status (BirdLife International 2013): EN = Endangered, VU = Vulnerable, NT = Near Threatened. Biome-restricted species (Fishpool & Evans 2001): SGS = Sudan-Guinea Savanna, GCF = Guinean-Congo Forest. Species recorded by Rodwell (1996) in Tchétche and Medina Dongo, and also recorded during the present study, are indicated.

Lista das espécies de aves registadas em janeiro e fevereiro de 2013 no sector do Boé, sudeste da Guiné-Bissau. Incluem-se os registos efectuados na região por P. Wit durante 2007–13 (datas de observação aproximadas). Sequência e taxonomia de acordo com Dowsett *et al.* (2013d) com pequenas alterações. As espécies com * constituem novos registos para a Guiné-Bissau. Taxa de encontro = nº de indivíduos registado por dez horas de observação. Categorias de ameaça IUCN (BirdLife International 2013): EN = Em Perigo, VU = Vulnerável, NT = Quase Ameaçado. Espécies restritas a um bioma (Fishpool & Evans 2001): SGS = Savana Sudano-Guineense, GCF = Floresta Guineo-Congolesa. São ainda indicadas as espécies registadas por Rodwell (1996) em Tchétche e Medina Dongo que também foram observadas neste estudo.

English name	Scientific name	Encounter rate	Wit 2007-13	IUCN	Biome	Rodwell (1996)
Ardeidae						
Dwarf Bittern	Ixobrychus sturmii	-	Jul 11			
Squacco Heron	Ardeola ralloides	0.3				
Cattle Egret	Bubulcus ibis	0.9				
Green-backed Heron	Butorides striata	0.1				Х
Intermediate Egret	Egretta intermedia	0.1				
Scopidae						
Hamerkop	Scopus umbretta	0.3				
Pandionidae						
Osprey	Pandion haliaetus	-	May 09			
Accipitridae						
Black Kite	Milvus migrans	0.3				
African Fish Eagle	Haliaeetus vocifer	-	common			Х
Palm-nut Vulture	Gypohierax angolensis	0.3				
Hooded Vulture	Necrosyrtes monachus	4.9		EN		Х

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ColumbidaeAfrican Green PigeonTreron calva4.3Blue-spotted Wood DoveTurtur afer3.1Black-billed Wood DoveTurtur abyssinicus4.6Namaqua DoveOena capensis0.4Red-eyed DoveStreptopelia semitorquata6.9Vinaceous DoveStreptopelia semegalensis2.3PsittacidaeStreptopelia senegalus0.8Senegal ParrotPoicephalus senegalus0.8Rose-ringed ParakeetPsittacula krameri-Dec 09MusophagidaeGreen TuracoTauraco persa1.5Violet TuracoTauraco persa3.8Violet TuracoTauraco violaceus3.8Westem Grey Plantain-eaterCrinifer piscatorKlaas's CuckooChrysococcyx klaas0.3x		Pterocles quadricinctus	0.1				
Blue-spotted Wood DoveTurtur afer3.1Black-billed Wood DoveTurtur abyssinicus4.6Namaqua DoveOena capensis0.4Red-eyed DoveStreptopelia semitorquata6.9Vinaceous DoveStreptopelia senegalensis2.3PsittacidaeStreptopelia senegalus0.8Senegal ParrotPoicephalus senegalus0.8Rose-ringed ParakeetPsittacula krameri-Dec 09MusophagidaeGreen TuracoTauraco persa1.5Violet TuracoTauraco violaceus3.8Western Grey Plantain-eaterCrinifer piscatorKlaas's CuckooChrysococcyx klaas0.3x	0						
Blue-spotted Wood DoveTurtur afer3.1Black-billed Wood DoveTurtur abyssinicus4.6Namaqua DoveOena capensis0.4Red-eyed DoveStreptopelia semitorquata6.9Vinaceous DoveStreptopelia senegalensis2.3PsittacidaeStreptopelia senegalus0.8Senegal ParrotPoicephalus senegalus0.8Rose-ringed ParakeetPsittacula krameri-Dec 09MusophagidaeGreen TuracoTauraco persa1.5Violet TuracoTauraco violaceus3.8Western Grey Plantain-eaterCrinifer piscatorKlaas's CuckooChrysococcyx klaas0.3x	African Green Pigeon	Treron calva	4.3				
Black-billed Wood DoveTurtur abyssinicus4.6Namaqua DoveOena capensis0.4Red-eyed DoveStreptopelia semitorquata6.9Vinaceous DoveStreptopelia vinacea5.4Laughing DoveStreptopelia senegalensis2.3PsittacidaeSenegal ParrotPoicephalus senegalus0.8SGSSenegal ParrotPoicephalus senegalus0.8SGSSenegal ParrotPoittacula krameriPsittacula krameri-Dec 09MusophagidaeGreen TuracoTuraco persa1.5Violet TuracoTauraco persa2.5CuculidaeKlaas's CuckooChrysococcyx klaas0.3x	5	Turtur afer	3.1				
Namaqua DoveOena capensis0.4Red-eyed DoveStreptopelia semitorquata6.9Vinaceous DoveStreptopelia vinacea5.4Laughing DoveStreptopelia senegalensis2.3PsittacidaeSenegal ParrotPoicephalus senegalus0.8SGSRose-ringed ParakeetPsittacula krameri-Dec 09MusophagidaeI.5GCFxGreen TuracoTauraco persa1.5GCFxViolet TuracoTauraco violaceus3.8SGSImage: SGSWestern Grey Plantain-eaterCrinifer piscator2.5Image: SGSImage: SGSKlaas's CuckooChrysococcyx klaas0.3xX							
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PsittacidaeSenegal ParrotPoicephalus senegalus0.8SGSRose-ringed ParakeetPsittacula krameri-Dec 09Musophagidae-Dec 09Green TuracoTauraco persa1.5GCFxViolet TuracoTauraco violaceus3.8SGS-Western Grey Plantain-eaterCrinifer piscator2.5CuculidaeKlaas's CuckooChrysococcyx klaas0.3			5.4				
PsittacidaeSenegal ParrotPoicephalus senegalus0.8SGSRose-ringed ParakeetPsittacula krameri-Dec 09Musophagidae-Dec 09Green TuracoTauraco persa1.5GCFxViolet TuracoTauraco violaceus3.8SGS-Western Grey Plantain-eaterCrinifer piscator2.5CuculidaeKlaas's CuckooChrysococcyx klaas0.3	Laughing Dove	Streptopelia senegalensis	2.3				
Rose-ringed ParakeetPsittacula krameri-Dec 09Musophagidae-Dec 09Green TuracoTauraco persa1.5GCFxViolet TuracoTauraco violaceus3.8SGSSGSWestern Grey Plantain-eaterCrinifer piscator2.5CuculidaeKlaas's CuckooChrysococcyx klaas0.3x	Psittacidae						
Musophagidae Green Turaco Tauraco persa 1.5 GCF x Violet Turaco Tauraco violaceus 3.8 SGS SGS Western Grey Plantain-eater Crinifer piscator 2.5 Cuculidae X Klaas's Cuckoo Chrysococcyx klaas 0.3 x	Senegal Parrot	Poicephalus senegalus	0.8			SGS	
MusophagidaeGreen TuracoTauraco persa1.5GCFxViolet TuracoTauraco violaceus3.8SGSVestern Grey Plantain-eaterCrinifer piscator2.5CuculidaeKlaas's CuckooChrysococcyx klaas0.3x	Rose-ringed Parakeet		-	Dec 09			
Violet Turaco Tauraco violaceus 3.8 SGS Western Grey Plantain-eater Crinifer piscator 2.5 Cuculidae Klaas's Cuckoo Chrysococcyx klaas 0.3 x							
Western Grey Plantain-eater Crinifer piscator 2.5 Cuculidae Klaas's Cuckoo Chrysococcyx klaas 0.3 x	Green Turaco	Tauraco persa	1.5			GCF	Х
Cuculidae Klaas's Cuckoo Chrysococcyx klaas 0.3 x	Violet Turaco	Tauraco violaceus	3.8			SGS	
Klaas's Cuckoo Chrysococcyx klaas 0.3 x	Western Grey Plantain-eater	Crinifer piscator	2.5				
	Cuculidae						
Black-throated Coucal Centropus leucogaster 0.3 GCF	Klaas's Cuckoo	Chrysococcyx klaas					Х
	Black-throated Coucal	Centropus leucogaster	0.3			GCF	

Birds of the Boé region, south-east Guinea-Bissau: Guilherme

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Black Coucal Senegal Coucal Tytonidae Barn Owl Strigidae African Scops Owl Spotted Eagle Owl Caprimulgidae Long-tailed Nightjar Standard-winged Nightjar	Centropus grillii Centropus senegalensis Tyto alba Otus senegalensis Bubo africanus Caprimulgus climacurus Macrodipteryx longipennis	- 2.0 0.1 0.4 0.1 0.1	Oct 07		X
Tytonidae Barn Owl Strigidae African Scops Owl Spotted Eagle Owl Caprimulgidae Long-tailed Nightjar	Tyto alba Otus senegalensis Bubo africanus Caprimulgus climacurus	0.1 0.4 0.1			Х
Barn Owl Strigidae African Scops Owl Spotted Eagle Owl Caprimulgidae Long-tailed Nightjar	Otus senegalensis Bubo africanus Caprimulgus climacurus	0.4 0.1			
Strigidae African Scops Owl Spotted Eagle Owl Caprimulgidae Long-tailed Nightjar	Otus senegalensis Bubo africanus Caprimulgus climacurus	0.4 0.1			
African Scops Owl Spotted Eagle Owl Caprimulgidae Long-tailed Nightjar	Bubo africanus Caprimulgus climacurus	0.1			
Spotted Eagle Owl Caprimulgidae Long-tailed Nightjar	Bubo africanus Caprimulgus climacurus	0.1			
Caprimulgidae Long-tailed Nightjar	Caprimulgus climacurus				Х
Long-tailed Nightjar		0.1			
	Macroupleryx longiperinis	0.1			
Apodidae		0.1			
African Palm Swift	Cypsiurus parvus	3.1			
Little Swift	Apus affinis	0.6			
Alcedinidae	Apus uninis	0.0			
Blue-breasted Kingfisher	Halcyon malimbica	0.9			Х
Striped Kingfisher	Halcyon chelicuti	0.8			A
Shining-blue Kingfisher	Alcedo quadribrachys	0.3			Х
Giant Kingfisher	Megaceryle maxima	0.1			X
Meropidae	mogaoorpio manina	0.1			A
Blue-cheeked Bee-eater	Merops persicus	0.4			
European Bee-eater	Merops apiaster	5.4			
Coraciidae					
Rufous-crowned Roller	Coracias naevius	-	Jan 09		
Blue-bellied Roller	Coracias cyanogaster	1.4		SGS	
Abyssinian Roller	Coracias abyssinicus	1.0			
Phoeniculidae					
Green Wood-hoopoe	Phoeniculus purpureus	0.6			
Black Scimitarbill	Rhinopomastus aterrimus	1.0			
Upupidae					
Ноорое	Upupa epops	-	Jan 12		
Bucerotidae					
African Pied Hornbill	Tockus fasciatus	2.5		GCF	Х
African Grey Hornbill	Tockus nasutus	6.1			Х
Capitonidae					
Yellow-rumped Tinkerbird	Pogoniulus bilineatus	1.3			
Yellow-fronted Tinkerbird	Pogoniulus chrysoconus	0.9			
Bearded Barbet	Lybius dubius	0.1		SGS	
Indicatoridae		A 4			
Greater Honeyguide	Indicator indicator	0.1			
Picidae		<u>.</u>			
Fine-spotted Woodpecker	Campethera punctuligera	0.4		005	
Buff-spotted Woodpecker	Campethera nivosa	0.3		GCF	
Cardinal Woodpecker	Dendropicos fuscescens	0.5			
Grey Woodpecker	Dendropicos goertae	0.8			
Alaudidae	Mirafra rufocinnamomea	0.6			
Flappet Lark Sun Lark	Galerida modesta	3.6		SGS	
*Chestnut-backed Sparrow Lark	Eremopterix leucotis	0.3		363	
Hirundinidae	Liemoplenx leacous	0.5			
Fanti Saw-wing	Psalidoprocne obscura	0.1		GCF	
*Lesser Striped Swallow	Cecropis abyssinica	0.6		001	
Red-brested Swallow	Cecropis semirufa	2.6			
Grey-rumped Swallow	Pseudhirundo griseopyga	0.6			
Pied-winged Swallow	Hirundo leucosoma	5.4		SGS	Х
Red-chested Swallow	Hirundo lucida	0.5		000	~
Motacillidae		0.0			
Tree Pipit	Anthus trivialis	1.9			
Yellow-throated Longclaw	Macronyx croceus	0.3			

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English name	Scientific name	Encounter rate	Wit 2007-13	IUCN	Biome	Rodwell (1996
Campephagidae						
Red-shouldered Cuckooshrike	Campephaga phoenicea	0.6				Х
White-breasted Cuckooshrike	Coracina pectoralis	0.6				
Pycnonotidae						
Yellow-throated Leaflove	Chlorocichla flavicollis	3.6				
_eaflove	Phyllastrephus scandens	0.5				х
Common Bulbul	Pycnonotus barbatus	30				
Turdidae						
Snowy-crowned Robin Chat	Cossypha niveicapilla	0.3				х
White-crowned Robin Chat	Cossypha albicapilla	0.4			SGS	
Whinchat	Saxicola rubetra	0.4				
'Heuglin's Wheatear	Oenanthe heuglini	0.1				
White-fronted Black Chat	Myrmecocichla albifrons	0.5			SGS	
African Thrush	Turdus pelios	1.1				
Cisticolidae						
Singing Cisticola	Cisticola cantans	0.4				Х
Rufous Cisticola	Cisticola rufus	0.3			SGS	~
Tawny-flanked Prinia	Prinia subflava	4.6			000	Х
Red-winged Warbler	Heliolais erythropterus	0.5				X
Yellow-breasted Apalis	Apalis flavida	0.5				~
Grey-backed Camaroptera	Camaroptera brachyura	3.4				х
Siey-backed Camaloptera Sylviidae	Califaroplera brachyura	0.4				*
African Moustached Warbler	Melocichla mentalis	0.9				
Velodious Warbler		0.9 1.1				
	Hippolais polyglotta	2.6			000	
Senegal Eremomela	Eremomela pusilla				SGS	Х
Villow Warbler	Phylloscopus trochilus	0.4			000	
Oriole Warbler	Hypergerus atriceps	0.6			SGS	
Garden Warbler	Sylvia borin	0.1				
Yellow-bellied Hyliota	Hyliota flavigaster	0.1				Х
Muscicapidae		<u>.</u> -				
Northern Black Flycatcher	Melaenomis edolioides	3.5				Х
Pale Flycatcher	Melaenomis pallidus	0.1				
_ead-coloured Flycatcher	Myioparus plumbeus	0.3				
Pied Flycatcher	Ficedula hypoleuca	1.8				
Monarchidae						
African Paradise Flycatcher	Terpsiphone viridis	0.3				Х
Red-bellied Paradise Flycatcher	Terpsiphone rufiventer	2.5			GCF	
Platysteiridae						
Common Wattle-eye	Platysteira cyanea	6.3				Х
Senegal Batis	Batis senegalensis	1.1				Х
Timaliidae						
Brown Illadopsis	Illadopsis fulvescens	0.1			GCF	
Brown Babbler	Turdoides plebejus	3.0				
Blackcap Babbler	Turdoides reinwardtii	2.3			SGS	
Paridae						
White-shouldered Black Tit	Parus guineensis	0.3				х
Salpornithidae	0					
Spotted Creeper	Salpornis spilonotus	0.3				
Vectariniidae						
Green-headed Sunbird	Cyanomitra verticalis	1.1				Х
Scarlet-chested Sunbird	Chalcomitra senegalensis	1.1				X
Collared Sunbird	Hedydipna collaris	0.4				Λ
Pygmy Sunbird	Hedydipna platura	0.4				х
Beautiful Sunbird		3.3				
	Cinnyris pulchellus	3.3 3.8				X
/ariable Sunbird	Cinnyris venustus				000	X
Splendid Sunbird	Cinnyris coccinigaster	0.9			SGS	Х
Zosteropidae	Zectores constructions's	F 0				
fellow White-eye	Zosterops senegalensis	5.8				

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Laniidae						
Yellow-billed Shrike	Corvinella corvina	1.3			SGS	
Malaconotidae						
Grey-headed Bush-shrike	Malaconotus blanchoti	0.3				
Sulphur-breasted Bush-shrike	Malaconotus sulfureopectus	1.3				Х
Black-crowned Tchagra	Tchagra senegalus	1.8				Х
Northern Puffback	Dryoscopus gambensis	2.8				Х
Turati's Boubou	Laniarius turatii	1.4			GCF	
Yellow-crowned Gonolek	Laniarius barbarus	0.1				
Brubru	Nilaus afer	1.1				
Prionopidae						
White Helmetshrike	Prionops plumatus	3.4				
Driolidae						
Black-winged Oriole	Oriolus nigripennis	0.3			GCF	
African Golden Oriole	Oriolus auratus	0.4				
Dicruridae						
Square-tailed Drongo	Dicrurus ludwigii	0.3				
Fork-tailed Drongo	Dicrurus adsimilis	2.8				
Corvidae	· · · · · · · · · ·	-				
Pied Crow	Corvus albus	0.3				
Piapiac	Ptilostomus afer	1.5			SGS	
Sturnidae						
Forest Chestnut-winged Starling	Onychognathus fulgidus	0.1			GCF	
Purple Glossy Starling	Lamprotornis purpureus	0.5			SGS	
Bronze-tailed Glossy Starling	Lamprotornis chalcurus	0.3			SGS	
Lesser Blue-eared Starling	Lamprotornis chloropterus	0.9			000	
ong-tailed Glossy Starling	Lamprotornis caudatus	2.0				
Violet-backed Starling	Cinnyricinclus leucogaster	-	Apr 11			
Passeridae	ommy nomona neurogadich		Лрі П			
Northern Grey-headed Sparrow	Passer griseus	0.5				
Bush Petronia	Petronia dentata	4.1			SGS	
Chestnut-crowned Sparrow-weaver	Plocepasser superciliosus	1.1			SGS	х
Ploceidae	i locepasser supercinosus	1.1			000	^
Little Weaver	Ploceus luteolus	0.3				
Black-necked Weaver	Ploceus nigricollis	1.0				
Village Weaver	Ploceus rughcollis Ploceus cucullatus	60.0				
Red-billed Quelea	Quelea quelea	4.0				
Black-winged Bishop	Euplectes hordeaceus	3.8				
Northern Red Bishop	Euplectes franciscanus	2.8				
Yellow-mantled Widowbird	1	2.8 0.3				
	Euplectes macrourus	0.5				Х
Estrildidae	Nigrita hicolor	0.4			GCF	v
Chestnut-breasted Negrofinch	Nigrita bicolor					Х
Red-winged Pytilia	Pytilia phoenicoptera	1.1			SGS	
Dybowski's Twinspot	Euschistospiza dybowskii	1.6			SGS	
Red-billed Firefinch	Lagonosticta senegala	21.0	Nev 00		000	
Black-faced Firefinch	Lagonosticta larvata	-	Nov 09		SGS	
African Firefinch	Lagonosticta rubricata	-	Dec 10		000	Х
Lavender Waxbill	Estrilda caerulescens	1.3			SGS	
Drange-cheeked Waxbill	Estrilda melpoda	3.4				Х
Red-cheeked Cordon-bleu	Uraeginthus bengalus	11.0				
Bronze Mannikin	Lonchura cucullata	3.1				
Viduidae		4.0				
/illage Indigobird	Vidua chalybeata	1.0				
Pin-tailed Whydah	Vidua macroura	6.6				
Sahel Paradise Whydah	Vidua orientalis	0.3				
Exclamatory Paradise Whydah	Vidua interjecta	0.1			SGS	
Fringillidae						
Yellow-fronted Canary	Serinus mozambicus	2.9				х

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