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New observations on breeding of the Swamp Flycatcher *Muscicapa aquatica* in The Gambia, including the first description of a nest not built in a disused weaver's nest

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Summary

We present new breeding information for the Swamp Flycatcher *Muscicapa aquatica* based on observations made in The Gambia. We provide the first description and photograph of a Swamp Flycatcher nest not constructed in the roofed shell of an abandoned *Ploceus* weaver nest, along with descriptions of nest sites. The new observations indicate laying in October (rains), November–December (early dry season) and March–April (late dry season); these extend the breeding season in The Gambia (previously considered to be July–October). Observations indicating helpers at the nest for Swamp Flycatcher are reported for the first time.

Resume

Nouvelles observations en Gambie sur la reproduction du Gobemouche des marais *Muscicapa aquatica*, avec la première description d'un nid non construit dans un nid de tisserin abandonné. Nous présentons des informations nouvelles sur la reproduction du Gobemouche des marais *Muscicapa aquatica*, basées sur des observations faites en Gambie. Nous fournissons la première description et photographie d'un nid de Gobemouche des marais non construit dans la coque d'un nid abandonné de tisserin *Ploceus*, avec la description des sites des nids. Les nouvelles observations indiquent que la ponte a lieu en octobre (pluies), novembre–décembre (début de saison sèche) et mars–avril (fin de saison sèche); ce qui allonge la saison de reproduction en Gambie (auparavant située en juillet–octobre). Les observations faisant part d'aides au nid pour le Gobemouche des marais sont présentées pour la première fois.

Introduction

The Swamp Flycatcher *Muscicapa aquatica* is patchily distributed from Senegal to Kenya and south to Zambia, with four races differing in plumage (Urban *et al.* 1997). In The Gambia, *M. a. aquatica* is a frequent to common resident in the freshwater habitats of Central River Region (CRR) and Upper River Region (URR) with sight records in every month. A single adult photographed in dead *Avicennia* mangroves at the Kotu Stream (13.4583°N, 16.7012°W), Western Region, 19–22 Dec 2018 is the only known record nearer the coast (G. Dobbs & B.G. Bah pers. comm.).

There is little information on breeding in West Africa or elsewhere in the patchy distribution of the Swamp Flycatcher, but across its range it is said to build a cup-shaped nest in a crevice behind bark or within an old weaver nest (Barlow *et al.* 1997). Oschadleus (2018b) considers the species an "occasional" user of weaver nests for breeding (ten records known), but does not state a number for nest records outside weaver nests. Other references state that nesting usually occurs inside the abandoned roofed nests of weavers, to which it adds a scant lining of feathers and grasses (Bannerman 1936, Urban *et al.* 1997, Taylor 2017). Swamp Flycatcher has also been recorded nesting in "crevices of rough bark or trees" (Mackworth-Praed & Grant 1973). There are seven nests and egg sets of *M. a. infulatus* taken in Uganda accompanied with comprehensive field notes held in the collection of the Natural History Museum, Tring, U.K.: all are enclosed in disused weaver nests. NHM holds no nests collected from West Africa (D. Russell pers. comm.).

Considered a solitary nester, apparently monogamous (Urban *et al*. 1997), with a nestling period reported as *c*. 15 days (Taylor 2017), the breeding season of Swamp Flycatcher in The Gambia is said to be "during the rains, Jul–Oct, feeding young in Nov" (Gore 1990).

Over its continental range the nests of four *Ploceus* weaver species are reported as used by Swamp Flycatcher: Yellow-backed Weaver *P. melanocephalus*, Golden-backed Weaver *P. jacksoni*, Northern Brown-throated Weaver *P. castanops* and Slender-billed Weaver *P. pelzelni* (Urban *et al.* 1997). Of these only the Yellow-backed Weaver occurs in The Gambia, where it breeds in large crowded colonies alongside even greater numbers of Village Weaver *P. cucullatus*, in the tangled vegetation overhanging the banks of the River Gambia in CRR and URR. The breeding period of these two *Ploceus* species occurs during the rains (Jun–Oct) and well into November in most years. Multitudes of old weaver nests remain firmly in position for many months and into the following year, after the weavers have left. Village Weaver nests might therefore also prove suitable for nesting Swamp Flycatchers in The Gambia.

In Senegal there are at least two Swamp Flycatcher breeding records, one at Nieri Ko, Tambacounda, where an adult was feeding a fledgling in January 1988 (Sauvage & Rodwell 1998) and one in the north at Richard-Toll, in March (Morel & Morel 1990). There are no recent Swamp Flycatcher observations at Richard-Toll, where major habitat changes have occurred in recent years (B. Piot pers. comm.). Breeding is also cited in Senegal in April (Mackworth-Praed & Grant 1973). In Mali, adults were feeding fledglings in June (Taylor 2017). In Togo an adult was feeding a fledgling in July (Cheke & Walsh 1997), and adults were feeding nestlings in Ghana in April (Dowsett-Lemaire & Dowsett 2014) but the type of nest was not mentioned. An inaccessible nest possibly with young was found in a cavity below a thatched roof at Yo, Nigeria in March in 1963 (Elgood 1994), and in Adamawa State a specimen was collected in April which was "certainly breeding" (Bannerman 1936).

Observations

We present here 14 breeding-related observations of Swamp Flycatcher at five locations in CRR, collected over the period 1997–2019 (Table 1).

14 Feb 1997. In the late afternoon Swamp Flycatchers were watched for 20 min. carrying fine nest-building materials to an unseen site under the flattened folded sails of a sea-going yacht moored in the river near Bird Safari Camp on Janjanbureh (Georgetown) Island, CRR (A. Nason, Army Ornithological Society & CRB).

25 Aug 1999. During intensive studies of breeding Village Weaver *P. cucullatus* and its relations with the brood parasitic Dieclerik Cuckoo *Chrysococcyx caprius* along the river banks of Janjanbureh Island, a small drab unidentified bird the size of a sparrow was seen coming out of a Village Weaver nest; it did not return during the observation period (Lahti *et al.* 2002). In the late 90s (details of the date are mislaid) an adult Swamp Flycatcher was observed from a moving pirogue in the same area in December, as it left an abandoned Village Weaver nest situated low over water, then perched nearby and sang (CRB and a group of visiting birdwatchers). These two observations provisionally add Village Weaver nests to the list of those used for nesting by Swamp Flycatcher, and constitute the only reports known to us of Swamp Flycatcher association with weaver nests in Senegambia, but see 15 Dec 2013 observation below.

Table 1. Locations of 14 breeding-related observations of Swamp Flycatcher from Central River Region, The Gambia.

Location	Coordinates	Dates
Janjanbureh Island north bank	14.7617°N, 13.4686°W	14 Feb 1997; 25 Aug 1999; Dec, late 1990s; 15 Dec 2013; 8 Aug 2018; 4 Dec 2018
Jahally-Pacharr pump house	14.9518°N, 13.5598°W	11 Dec 2000; 10 Apr 2005; 11 Jan 2008; 6 Aug 2018
Janjanbureh Island south bank	14.7645°N, 13.5233°W	10 Jan 2009; 7 Dec 2017
Water-House	14.5740°N, 13.3884°W	12 May 2010
Kuntaur north bank	14.8843°N, 13.6774°W	8 Jan 2019

11 Dec 2000. A well-grown and active buff-spotted fledgling Swamp Flycatcher was heard and seen begging food from foraging adults whilst perched low over water on Leopard's Claw (known as *Solonoringo* in Mandinka) *Machaerium lunatum*, a densely tangled thorny creeper at Jahally-Pacharr pump house, Sapu, CRR (CRB). A recording of the begging calls is deposited at the National Sound Archive, U.K. and University of Michigan, U.S.A., where a further 11 recordings made by CRB of Swamp Flycatcher songs in CRR during Feb–Apr and Oct are held (Barlow *et al.* 2002).

10 Apr 2005. At the Jahally-Pacharr rice project, Sapu, CRR, a nest site was watched mid-morning for 90 min. The nest was behind a chain pulley *c*. 10 metres up inside a disused pump-house (Fig. 1), *c*. 2 km from the nearest concrete agricultural construction or human dwelling. Adults were observed delivering food to the nest with regular views of three birds carrying insects close to the nest at the same time. The pump house was situated at the end of a permanently irrigated channel leading to the Gambia River, thickly bordered with *M. lunatum* in 2005. This plant has since mostly been cleared by rice farmers, probably to reduce nest site opportunities for weavers, but the whole rice-growing area is now frequented by large numbers of the crop pest Red-billed Quelea *Quelea quelea*, which nest on growing rice stalks.

11 Jan 2008. A little way along a channel from the same Jahally-Pacharr pump house, a fully grown juvenile (Fig. 2) was watched for 30 min. being fed by adults (N. Harcourt-Brown, J. Waine & CRB). The number of adults involved was not determined.

10 Jan 2009. A fledged juvenile with milky-yellowish gape marks was being fed by adults on the edge of bank side vegetation close to the Janjanbureh Island south bank ferry crossing (J. Tucker pers. comm.).

May 2010. From 2008–10 MS worked as manager of the Gambia Chimpanzee Rehabilitation Project at the Gambia River National Park, CRR. During this period he regularly noted Swamp Flycatcher adults with fledglings at the Water-House (Fig. 3). On 12 May 2010, he observed a fledged Swamp Flycatcher perched on a railing of the Water-House, facing the river. The fledgling was being fed by adults and attempting its own foraging sallies. Some days later, a search under the main viewing platform revealed a deserted but fresh-looking nest built on a horizontal cross-beam (not visible on Fig. 3) facing the river, on the eastern side of the building. The nest was collected and examined, measured and photographed by CRB (Fig. 4). The exterior of the bulky, insulated cup nest measured 140 x 135 mm with a depression 30 mm in diameter and 28 mm deep at its centre. Materials consisted of numerous fibres and other plant materials (Fig. 4). The few white downy feathers were assumed to have dropped from an *Egretta* sp. as no domestic fowl *Gallus gallus* were maintained in the vicinity of the camp. The nest contained the dried out trampled corpse of a partly feathered chick estimated to be *c*. 9–11 days old. Up to 15 dry faecal sacs littered the rim of the nest. In May, high tide is 1–1.5 m from the nest site. Frequent potential predators seen in the rafters of the Water-House included Nile Monitor *Varanus niloticus*,

Figure 1. The pump house at Jahally-Pacharr, Sapu, CRR (photo: CRB).

Figure 2. A buff-spotted fledgling Swamp Flycatcher perched on *Machaerium lunatum*, Jahally-Pacharr, Sapu, 11 Jan 2008 (photo: J. Waine).

Figure 3. The Water-House, Gambia River National Park, where a Swamp Flycatcher nest was built at the point indicated by the arrow, 20 cm below the platform (photo: MS).

Figure 4. Nest of Swamp Flycatcher collected by MS at the Water-House, 30 May 2010, containing desiccated chick and faecal sacs, with a 150 mm rule (photo: CRB).

African Rock Python *Python sebae*, Forest Cobra *Naja melanoleuca* and Black-necked Spitting Cobra *Naja nigricollis* (MS pers. obs.).

15 Dec 2013. MS photographed from a boat a recently fledged juvenile still with a short tail (Fig. 5) alongside a weaver's nest built in *M. lunatum*, on the north bank of the Gambia River opposite Janjanbureh Island. There were no man-made constructions on this stretch of the river bank. No further information concerning a possible connection with the weaver nest is available.

Figure 5. A newly fledged Swamp Flycatcher beside a weaver's nest along the north bank of the River Gambia opposite Janjanbureh Island, 15 Dec 2013 (photo: MS).

7 Dec 2017. On the south bank of Janjanbureh Island, two fledglings with spotted plumage and fully grown tails were seen being attended by an adult. The observation was brief, made from a moving boat, but the adult was photographed (B. Keita pers. comm.).

6 Aug 2018. Two adults were active in and around the pumping station at Jahally-Pacharr during mid-afternoon, returning to perch on girders high inside the building after being disturbed. No nest was evident anywhere inside the building. A large Village Weaver colony (the same one as noted during the Jan 2008 observation above) was active in a Mango tree *Mangifera indica* adjacent to the pump station, with the ground littered with hatched weaver egg shells (R. Cryer, G. Dobbs, F. Mendy & CRB).

8 Aug 2018. At 7h30, R. Cryer, G. Dobbs, F. Mendy and CRB watched three birds over water near the river bank at the busy Janjanbureh north bank ferry crossing, and 10 m from a dwelling occupied by state security personnel. At least one bird was in full persistent song and another, which retained some juvenile wing covert feathers (Fig. 6), spent time collecting nest materials; this included tearing off bark fibres and strands of plant material, and pulling at fibres from a sun shade of sewn-up rice-bags on a small river-boat (Fig. 6). Transfer of these materials to a nest site was not observed but a full check of the structure of the security staff residence was not made. A small Yellow-backed Weaver colony (<20 nests) was active close by on the riverbank.

4 Dec 2018. A family group of five birds was studied and photographed by MH at the busy Janjanbureh north bank ferry crossing, where three birds had been observed on 8 Aug 2018. Two heavily spotted juveniles were present, and at least two of the adults were singing perched close to each other (Fig. 7) over a protracted period.

8 Jan 2019. A family group of five birds including two fully-grown spotted juveniles was found in the late afternoon around a *c*. 15-m concrete and girder bridge over a stream at Kuntaur rice fields, CRR. The stream was densely bordered with overhanging *M. lunatum* and the site *c*. 500 m from the main river. Mid-morning the next day at least one of the juveniles was feeding independently of the three adults. No nest was seen, but at least six inaccessible old weaver nests were present *c*. 30 m away from the bridge. A complete check for any nest evidence beneath the bridge was not made (G. Dobbs pers. comm.).

Discussion

New observations reported here, including collecting and carrying nest materials in Feb and Aug, and fledglings being fed in Jan, Apr, May, Nov and Dec, indicate that laying can occur at least in Mar, Apr, Oct, Nov and Dec. This extends the breeding season, previously cited as Jul–Oct (Gore 1990), and confirms that Swamp Flycatcher breeds across all seasons in The Gambia, including early and late dry seasons and during the rains. Nest helpers were seen on three occasions: at least three birds attending one nest with chicks (Jan); three birds, of which one retained first plumage features, behaving sociably while one collected nest material (Aug); three adults with two fledglings at the same site (Dec). This is worthy of more investigation, particularly of colour-ringed birds. The relative frequencies of construction of a bulky, open, exposed type of nest and a concealed scant nest sited in a weaver's nest cannot be determined without more widespread searches for nests on houses, jetties and bridges in areas where Swamp Flycatchers are found, but the use of old weaver nests for breeding in The Gambia is not yet proven. Discussions with the fishermen who net daily along the riverbanks from dugout canoes may help to provide information on flycatcher interactions with weavers.

Figure 6. Swamp Flycatchers, Janjanbureh Island north bank ferry crossing, 8 Aug 2018 (photos: G. Dobbs). The adult (far left) had been in full song and the younger bird (centre and right), which retained buffy covert fringes, had been collecting nest material, including fibres from a river-boat sun-shade made from rice bags (right).

Figure 7. Two adult Swamp Flycatchers (which were attending two fledglings) singing side by side, Janjanbureh, 4 Dec 2018 (photo: MH).

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The avifauna of Kumbira Forest and surroundings, western Angola

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Summary

The central escarpment forests of Angola are a global priority for bird conservation, holding four Endangered endemics. Despite this, no example of this forest type falls within a conservation area. Kumbira Forest is the most important known locality of this eco-region, holding populations of three Endangered endemics, namely Gabela Akalat *Sheppardia gabela*, Gabela Bushshrike *Laniarius amboimensis* and Pulitzer's Longbill *Macrosphenus pulitzeri*. However, no comprehensive list of its avifauna has been made. I summarise available information to produce a complete list of the birds of Kumbira Forest, drawing on published and unpublished data and my own field records made during *c*. 80 days spent on site. A total of 227 bird species has been recorded at Kumbira Forest, including nine of the 14 restricted-range species of the Western Angola Endemic Bird Area, the highest number of any site in the country, and a number of biome-restricted species including 39 Guinea-Congo Forest species and six Afrotropical Highland species. There is an urgent need to establish a conservation area at Kumbira Forest, but difficulties with obtaining land for conservation make this problematic.

Resumo

A avifauna da Floresta de Kumbira e do seu entorno, Angola occidental. As florestas da escarpa central de Angola são uma prioridade global para a conservação de aves. Delas dependem quatro espécies endémicas de Angola ameaçadas de extinção. Apesar disso, nenhuma parte deste tipo de florestas está incluída na rede de áreas protegidas de Angola. A Floresta de Kumbira é a mais importante localidade conhecida deste tipo de eco-região, mantendo populações de três espécies de aves endémicas ameaçadas de extinção, o Pisco da Gabela *Sheppardia gabela*, o Picanço de Amboim *Laniarius amboimensis* e o Bico-longo de Angola *Macrosphenus pulitzeri*. Apesar da importância desta floresta, não existe nenhuma síntese sobre a sua avifauna. Com base em dados publicados e não publicados e nos meus próprios registros de campo obtidos durante *c*. 80 dias passados nesta floresta produzi a lista mais completa e actualizada das aves da floresta de Kumbira. Um total de 227 espécies de aves foi registado nesta floresta, incluindo nove das 14 espécies restritas à Área de Endemismo de Angola Ocidental, o que representa a maior concentração de espécies endémicas no país, e um número de espécies dependentes de biomas específicos, como 39 espécies das Florestas Guineo-Congolianas e seis espécies das Montanhas Afrotropicais. Existe uma necessidade urgente de estabelecer uma área de conservação na Floresta de Kumbira, mas dificuldades com a obtenção de terras para este efeito tem dificultado a implementação deste objectivo.

Introduction

The forests of the Angolan escarpment form a globally important region for the evolution and conservation of biodiversity (Hall 1960, Stattersfield *et al*. 1998). In particular, the forests located along the central part of the escarpment, from the Kwanza River southwards to the northern border of Benguela province, are among the most important forests in Africa for bird conservation (Collar & Stuart 1988). Together with the Afromontane forests, they form the core of the Western Angola Endemic Bird Area (EBA), a "critical" priority for bird conservation (Hawkins 1993, Stattersfield *et al*. 1998). Of the 14 restricted-range species of this EBA (BirdLife International 2016a), at least 11 are recorded from the central escarpment.

Between 1974 and 2002 a protracted civil war prevented ornithological work in Angola, with the result that this region was poorly known at the turn of the century (Dean 2001). However, since 2003 numerous visits have been made to Angola by ornithologists and birdwatchers, greatly improving our knowledge of the avifauna, although the eastern half of the country is still little-known.

From the first ornithological visits in 2003 (Ryan *et al*. 2004) Kumbira Forest was recognised as an important site for birds. This was confirmed by surveys at 13 different sites along the central escarpment; significantly, Kumbira Forest holds populations of the three Endangered endemics confined to the central escarpment, namely Gabela Bushshrike *Laniarius amboimensis*, Gabela Akalat *Sheppardia gabela* and Pulitzer's Longbill *Macrosphenus pulitzeri*, the only known site to do so (Mills 2010). A concerted conservation project is now underway there, and several studies have elucidated threatened bird distributions, bird community responses to habitat structure and farming, plant community composition and carbon sequestration potential of Kumbira Forest (*e.g*. Cáceres *et al*. 2014, Cáceres *et al*. 2016, Gonçalves & Goyder 2016, Cáceres *et al*. 2017, Leite *et al*. 2018).

Despite the ornithological importance of Kumbira Forest, no comprehensive review has been made of its birds. While some bird lists based on early visits have been published (Ryan *et al*. 2004, Sekercioğlu & Riley 2005), these contain several errors and the visits were very short. My aim here it to provide a more complete annotated checklist of birds recorded at and around Kumbira Forest, drawing on all available sources, including my own unpublished field records.

Study site

The escarpment of western Angola runs north–south, parallel to the Atlantic Ocean coast. To the north of the Kwanza River the coastal plain is broad and the slope of the escarpment relatively gradual, whereas south of the Kwanza River the plain is narrower (*c*. 40–50 km wide) and the scarp steep and well-defined, rising rapidly from *c*. 300 m a.s.l. to >1000 m (Mills 2010). This sharp rise and proximity to the ocean result in moisture-laden, westerly winds from the cold Benguela current being trapped against the central escarpment, forming clouds, mist and light rain. Additional high summer rainfall from the east culminates in very mesic conditions, allowing forest and thickets to develop between the drier habitats of the coastal plain and woodland-covered inland plateau. These forests are an impoverished outlier of the Guinea-Congo forests that extend southwards along the escarpment and spill over to the coastal plain along some of the larger rivers, such as the Kwanza (Hall 1960, Huntley & Matos 1994). South of the Lobito-Benguela area, conditions become drier and forest patches smaller and more isolated (Airy Shaw 1947)

Much of the central escarpment falls within Kwanza Sul province, as does Kumbira Forest which is located within the municipal boundaries of Conda. While the forest itself is more restricted in extent, the limits of the study area were the river crossing at 11°5′35″S, 14°19′4″E in the north, the top of Njelo Mountain in the east, 11°14′S in the south and 14°15′E in the west, thereby encapsulating Kumbira Forest and accessible adjacent areas. The elevation varies from 680 m in the bottom of the valley, to 1690 m on top of Njelo Mountain. The forest is mostly semi-deciduous moist forest with Congo Basin affinities (Grandvaux-Barbosa 1970). Common tree species include *Albizia adianthifolia*, *Trema orientalis*, *Markhamia zanzibarica*, *Antidesma venosum* and several species of *Ficus* (Gonçalves & Goyder 2016). The main forest block extends up to 1160 m altitude, with Afromontane forest containing *Podocarpus milanjensis* in narrow gullies above this altitude on Njelo Mountain. By the 1970s up to 95 % of the natural forest in the region had been transformed into shade coffee plantations (Hawkins 1993), although most of these plantations became overgrown during the war years. Now, slash-and-burn agriculture is transforming many of the remaining forest areas to secondary habitats such as scrubby grassland, open, secondary forest and agricultural fields. The invasive South American tree *Inga vera*, initially planted to provide shade for coffee, is now dominant in many secondary habitats (Rejmánek *et al*. 2016). Besides forest, other habitats include thickets, tall grassland, swampy areas around rivers, open savanna, and steep cliffs on Njelo Mountain. Most of the surrounding habitat in the region is tall grassland and open savanna.

The climate is characterized by warmer, wet summers (Nov–Mar) and cool, overcast winters (May–Sep). Records for Conda give the average annual rainfall as 790 mm, with the winter months (Jun–Aug) accounting for no precipitation. The mean annual temperature at Conda is 23.2°C and varies little throughout the year, from 20.2°C in July to 25.0°C in March (<http://en.climate-data.org/location/772644/>, consulted 7 Jan 2019).

Methods

I have made regular visits to Kumbira Forest since Oct 2003, compiling bird lists during many of these visits and keeping *ad hoc* records of interesting observations when not compiling lists. A total of 2674 records were acquired. My records from 15–16 Oct 2003 were published in Ryan *et al*. (2004). From 2005 to 2008 six visits were made (20–23 Aug 2005, 29 Aug 2005, 20–27 Sep 2005, 13–14 October 2005, 1–4 Aug 2006, 5–7 Nov 2008), totalling 22 field days. Then from 12 Sep to 1 Oct 2010, I conducted 20 days of surveys (201 point counts) throughout Kumbira Forest (see Cáceres *et al*. 2014 for details). A further ten visits were made between 2011 and 2016 (16–18 May 2011, 24–26 Aug 2011, 2–5 Sep 2012, 3–10 Jun 2013, 5–8 Sep 2013, 2–10 Jun 2014, 16–17 Sep 2014, 5–7 Aug 2015, 19 Mar 2016 and 2–6 Oct 2016), totalling 43 field days. Data from these trips are presented here, together with published records of Ryan *et al*. (2004) and Sekercioğlu & Riley (2005; hereafter S&R 2005). Additional bird records were gleaned from unpublished reports (BirdQuest 2005, 2014, Rockjumper 2010, 2011, 2012, hereafter "BQ" and "RJ" respectively) and personal communications detailed in the species list.

A complete, annotated checklist is presented below, including, in square brackets, species that are regarded as requiring confirmation. Endemic subspecies are given according to Dean (2000). In the species accounts, the scientific and English names of each species are followed by, in parentheses, a list of presence (1) and absence (0) in five sources, namely Ryan *et al*. (2004), S&R (2005), my records from 2005–8, from 2010, and from 2011–16, in that order. This is followed by a letter and a number. The letter is an abundance estimate following Morel & Tye (1995): A = Abundant (11–100 per day), C = Common (1–10 per day), F = Frequent (recorded often but not every day), U = Uncommon (several records per year), R = Rare (less than one record per year for resident species) and V = Vagrant (less than one record per year for non-residents). The number is the number of records of the species in my database (out of a total 2674 records in the database); as not all of my *ad hoc* records were databased there may be a zero for a species even though I recorded it, but this number supports

the abundance estimate, especially for resident forest species (non-forest species are under-represented due to receiving lower survey effort). All visits were focussed on recording birds in forest and visits to other habitats were made only opportunistically, so species in them are probably more abundant than records suggest. In cases where species are infrequently or seasonally recorded, dates of records are given. Records are my own unless otherwise stated. Finally, comments are given on endemicity to Angola, range restriction (categories following Dean 2001: RR = restricted to the Western Angola EBA, GCF = restricted to Guinea-Congo Forests, ATH = restricted to Afrotropical Highlands, ZAM = restricted to Zambezian biome, KHV = restricted to Kalahari-Highveld), and Red List category if threatened or near-threatened (BirdLife International 2016a).

Results

Numididae

Guttera verreauxi Western Crested Guineafowl. (0, 0, 0, 1, 0) R, 0. Feathers found in 2005, and one sight record in forest, Sep 2010. Probably fairly common in the past but now hunted to the verge of extinction.

Phasianidae

Pternistis griseostriatus Grey-striped Francolin. (1, 1, 1, 1, 1) C, 31. Seen rarely but heard almost daily in forest, usually just after sunset or before sunrise. RR, GCF, Endemic species.

P. afer Red-necked Spurfowl. (1, 1, 1, 1, 1) C, 14. Resident in grasslands and cultivated areas.

Anatidae

[*Anas sparsa* African Black Duck. (0, 0, 0, 0, 0). One reported Sep 2012 (RJ 2012), but the exact locality may be outside the study area.]

Columbidae

Columba arquatrix Olive Pigeon. (0, 0, 0, 0, 0) V, 0. One record of a single bird in Oct 2012 (M. Melo pers. comm.), the most northerly in Angola.

C. iriditorques Western Bronze-naped Pigeon. (0, 0, 0, 0, 0) V, 0. One record Sep 2011 (RJ 2011), the only record from the central escarpment and the first for Kwanza Sul. GCF species.

Aplopelia larvata Lemon Dove. (0, 0, 1, 0, 0) R, 2. Recorded in forest, Sep 2005, Aug 2006; also Oct 2012 (M. Melo pers.comm.). The first Angolan records were from Kumbira (Mills & Dowd 2007).

Streptopelia semitorquata Red-eyed Dove. (0, 1, 1, 1, 1) F, 16. Resident in wooded areas.

[*Turtur chalcospilos* Emerald-spotted Wood Dove. I recall seeing one in Oct 2005 but failed to record details, so treat the species as unconfirmed.]

T. afer Blue-spotted Wood Dove. (1, 1, 1, 1, 1) C, 32. Resident in wooded habitats.

T. tympanistria Tambourine Dove. (1, 1, 1, 1, 1) C, 11. Resident in forest.

Treron calvus African Green Pigeon. (1, 1, 1, 1, 1) C, 35. Resident in wooded habitats.

Caprimulgidae

Caprimulgus pectoralis Fiery-necked Nightjar. (0, 0, 0, 0, 1) R, 3. Recorded outside forest, June 2013.

C. tristigma Freckled Nightjar. (0, 0, 1, 1, 0) R, 2. Heard from rocky mountain slopes above the forest on Njelo Mountain, Aug 2005, Sep 2010.

Apodidae

Telacanthura ussheri Mottled Spinetail. (0, 0, 0, 0, 0) V, 0. Two records: Sep 2012 (RJ 2012), Sep 2014 (BQ 2014).

Cypsiurus parvus African Palm Swift. (0, 1, 1, 1, 1) F, 8. Resident outside forest.

Tachymarptis aequatorialis Mottled Swift. (0, 1, 1, 1, 1) C, 15. Resident, breeds on cliffs on Njelo Mountain. Due to distinctive but then unrecognised vocalisations, discussed by Mills (2009) but not identified until later.

Apus affinis Little Swift. (0, 1, 1, 1, 0) U, 2. Resident in Conda town; occasionally seen near Kumbira, Aug 2005, Sep 2010.

A. caffer White-rumped Swift. (0, 0, 1, 0, 0) R, 2. Recorded outside forest, Sep 2005.

Cuculidae

Centropus anselli Gabon Coucal. (1, 1, 1, 1, 1) F, 41. Heard almost daily from thickets and tangles in forest. Resident. GCF species.

C. monachus Blue-headed Coucal. (1, 0, 1, 0, 0) U, 1. Recorded from swampy vegetation near Conda, 2003, Sep 2005. The most southerly Angolan records.

C. superciliosus White-browed Coucal. (0, 1, 1, 0, 1) F, 6. Seen regularly outside forest. Resident.

Ceuthmochares aereus Yellowbill. (1, 1, 1, 1, 1) F, 21. Resident in forest.

Clamator levaillantii Levaillant's Cuckoo. (0, 0, 1, 0, 0) V, 1. One record from outside forest, Nov 2008.

Chrysococcyx caprius Diederik Cuckoo. (0, 1, 0, 0, 0) V. One record from outside forest, Jan 2004 (S&R 2005).

C. klaas Klaas's Cuckoo. (1, 1, 1, 1, 1) F, 28. Probably resident.

C. cupreus Emerald Cuckoo. (1, 1, 1, 1, 1) F, 7. Recorded from forest, Mar, Jun, Sep–Nov.

Cercococcyx mechowi Dusky Long-tailed Cuckoo. (0, 0, 1, 0, 0) R, 1. One record of a bird singing in forest, Sep 2005. GCF species.

C. olivinus Olive Long-tailed Cuckoo. (1, 0, 1, 0, 0) R, 2. Singing birds in forest, Oct 2003, Oct 2005, Oct 2010. GCF species.

Cuculus clamosus Black Cuckoo. (1, 0, 0, 0, 0) R, 0. One record, 2003.

C. canorus Common Cuckoo. (0, 1, 0, 0, 0) R, 0. One record, Jan 2004 (S&R 2005).

Rallidae

Sarothrura elegans Buff-spotted Flufftail. (0, 1, 1, 0, 0) R, 1. Heard twice in forest: Jan 2004 (S&R 2005), Nov 2008.

S. rufa Red-chested Flufftail. (0, 0, 0, 0, 1) R, 0. One record (heard and seen) from a swamp in forest, Sep 2014.

Musophagidae

Corythaeola cristata Great Blue Turaco. (0, 0, 0, 0, 1) R, 1. Seen once in forest, Jun 2013.

Tauraco erythrolophus Red-crested Turaco. (1, 1, 1, 1, 1) C, 41. Resident in forest. Endemic and ZAM species.

Ardeidae

Butorides striata Green Heron. (0, 0, 0, 0, 0) V, 0 One record of a single bird Oct 2012 (M. Melo pers. comm.).

Ardea melanocephala Black-headed Heron. (0, 0, 1, 0, 0) V, 1. One record of a single bird flying over the area, Sep 2005.

Scopidae

Scopus umbretta Hamerkop. (0, 0, 1, 0, 0) V, 1. One record of a single bird at a wetland near Conda, Aug 2006.

Tytonidae

Tyto alba Barn Owl. (0, 0, 0, 0, 1) R, 2. Heard a few times outside forest: Sep 2011 (RJ 2011); June 2013, Sep 2015 (BQ 2015). All records are recent, suggesting that it may have moved into the area following forest clearance.

Strigidae

[*Ptilopsis granti* Southern White-faced Owl. Mentioned by S&R (2005), but unlikely to be found at Kumbira because its typical habitat is absent.]

Bubo africanus Spotted Eagle-Owl. (0, 0, 0, 0, 1) R, 0. Heard a few times outside forest: Dec 2005 (BQ 2005); Sep 2010 (RJ 2010); Jun 2013.

B. lacteus Verreaux's Eagle-Owl. (0, 0, 0, 0, 1) R, 1. Heard once from forest edge, Aug 2011.

Strix woodfordii Wood Owl. (1, 1, 1, 1, 1) C, 34. Resident in forest.

Accipitridae

Elanus caeruleus Black-winged Kite. (0, 0, 1, 0, 0) V, 1. One record of a single bird in open habitat towards Conda, Aug 2005.

Polyboroides typus Harrier-Hawk. (0, 1, 1, 1, 1) F, 15. Resident and seen over all habitats.

Gypohierax angolensis Palm-nut Vulture. (0, 1, 1, 1, 1) C, 25. Resident, seen daily over forest.

Aviceda cuculoides Cuckoo-Hawk. (0, 0, 1, 1, 0) U, 6. Seen only Sep 2005, Nov 2008, Sep 2010.

Circaetus cinereus Brown Snake Eagle. (0, 0, 1, 0, 0) R, 1. Two records: a single bird, Sep 2005; a pair, Oct 2016.

Macheiramphus alcinus Bat Hawk. (0, 0, 0, 0, 0) R, 0. One record of a single bird, Sep 2012 (RJ 2012).

Stephanoaetus coronatus Crowned Eagle. (0, 0, 1, 1, 1) U, 3. Seen Sep 2005, Sep 2010, Sep 2015; also Oct 2015 (RJ 2015). Near-Threatened.

Lophaetus occipitalis Long-crested Eagle. (0, 1, 1, 1, 0) F, 2. Resident forest edge.

Hieraaetus wahlbergi Wahlberg's Eagle. (0, 1, 0, 0, 0) V, 0. One record Jan 2004 (S&R 2005).

H. pennatus Booted Eagle. (0, 0, 0, 0, 1) V, 1. One record of a single bird, Jun 2013. Winter records along the Angolan escarpment are probably of South African breeders (Dean 2000). Few records from Angola (Mills & Dean 2007), and this is by far the most northerly (Dean 2000) and the first for Kwanza Sul province.

H. ayresii Ayres's Hawk-Eagle. (0, 0, 0, 0, 0) R, 0. Seen once, Sep 2014 (BQ 2014).

Aquila verreauxii Verreaux's Eagle. (0, 0, 0, 0, 1) V, 0. Two records from Njelo Mountain: Aug 2011; Sep 2011 (RJ 2011). These are the most northerly records for Angola, and the first records for the province.

Kaupifalco monogrammicus Lizard Buzzard. (1, 0, 1, 1, 1) C, 34. Resident in secondary forest and farmlands.

Accipiter tachiro African Goshawk. (1, 0, 1, 1, 1) C, 36. Resident in forest.

A. badius Shikra. (0, 0, 0, 0, 0) V, 0. One record, Jun 2013 (A. Cáceres pers. comm.).

A. minullus Little Sparrowhawk. (0, 0, 1, 0, 0) R, 2. Seen twice flying over forest, Aug 2005.

A. melanoleucus Black Sparrowhawk. (0, 1, 1, 0, 0) R, 2. Seen in forest: Jan 2004 (S&R 2005); Aug 2005; Sep 2014 (BQ 2014).

Buteo auguralis Red-necked Buzzard. (0, 1, 1, 0, 1) F, 7. Seen at forest edge and in savannas.

Coliidae

Colius castanotus Red-backed Mousebird. (1, 1, 1, 1, 1) F, 9. Resident outside forest. Endemic and ZAM species.

Trogonidae

Apaloderma narina Narina Trogon. (1, 0, 1, 1, 1) F, 10. Resident in forest.

Bucerotidae

Lophoceros alboterminatus Crowned Hornbill. (0, 1, 1, 1, 1) F, 37. Resident in wooded habitats.

Bycanistes bucinator Trumpeter Hornbill. (1, 0, 1, 1, 1) F, 17. Recorded most visits.

Upupidae

Upupa epops Hoopoe. (0, 0, 1, 0, 0) R, 1. One record (ssp. *africana*) outside forest, Sep 2005.

Meropidae

Merops hirundineus Swallow-tailed Bee-eater. (0, 0, 1, 0, 0) V, 1. One record outside forest, Sep 2005.

M. pusillus Little Bee-eater. (0, 1, 0, 0, 1) U, 1. Seen outside forest: Jan 2004 (S&R 2005); Sep 2013, Oct 2016.

[*M. superciliosus* Olive Bee-eater. Heard once above the forest, Sep 2015, but may be impossible to differentiate on call from *M. persicus* Blue-cheeked Bee-eater. The latter species is unlikely to have arrived at Kumbira by Sep, whereas Olive Bee-eater is regular on the coastal plain of Angola at this time of the year.]

M. apiaster European Bee-eater. (0, 0, 0, 1, 0) U, 1. Recorded Oct 2003, Sep 2010, Oct 2016.

Alcedinidae

Halcyon chelicuti Striped Kingfisher. (0, 1, 1, 0, 0) U, 1. Seen outside forest, Jan 2004, Sep 2005.

H. senegalensis Woodland Kingfisher. (0, 0, 0, 0, 0) R, 0. One record, Sep 2012 (RJ 2012).

Ispidina picta Pygmy Kingfisher. (0, 1, 1, 1, 0) U, 6. Seen Aug–Sep 2005, Sep 2010.

Lybiidae

Gymnobucco vernayi Pale-throated Barbet. (1, 1, 1, 1, 1) U, 10. Recorded from wooded habitats during every visit prior to 2010, but only once with certainty since. Seems to be sensitive to forest disturbance, as it is now extinct at Mount Moco (Mills *et al*. 2011). This is particularly concerning since it is an endemic species; it is certainly threatened and its current Red List status of Least Concern needs revision. Endemic and GCF species.

Pogoniulus coryphaea Western Green Tinkerbird. (0, 0, 1, 0, 0) V, 1. Two records from forest: Nov 2008; Oct 2010 (RJ 2010). Endemic subspecies *angolensis*, ATH species.

P. subsulphureus Yellow-throated Tinkerbird. (0, 0, 0, 0, 0) V, 0. One record, Oct 2012 (M. Melo pers. comm.); also recorded nearby (Mills & Dean 2007). GCF species.

P. bilineatus Yellow-rumped Tinkerbird. (1, 1, 1, 1, 1) C, 40. Resident in forest.

Tricholaema hirsuta Hairy-breasted Barbet. (1, 1, 1, 1, 1) C, 39. Resident in forest. GCF species

Lybius macclounii White-faced Barbet. (1, 0, 0, 0, 1) U, 2. Seen occasionally on the edge of forest: Aug 2011; Sep 2011 (RJ 2011); Jun 2013, Oct 2016. ZAM species

Tracholaemus purpuratus Eastern Yellow-billed Barbet. (1, 1, 1, 1, 1) C, 40. Resident in forest. GCF species.

Indicatoridae

Prodotiscus regulus Brown-backed Honeybird. (0, 0, 1, 1, 1) U, 5. Seen occasionally in wooded habitats, Sep 2005, Nov 2008, Sep 2010, Aug 2011.

[*Indicator meliphilus* Pallid Honeyguide. Records in Sep 2012 (RJ 2012) and more recently by the same observers are not fully described and are probably of misidentified Lesser Honeyguide, especially since all published recordings claiming to be of Pallid Honeyguide calls (Gibbon 1995, Chappuis 2000, Stjernstedt 2001) are actually of Lesser Honeyguide (pers. obs.).]

[*I. exilis* Least Honeyguide. (0, 1, 0, 0, 0). The only record, Jan 2004 (S&R 2005) is unsubstantiated and probably of a misidentified Lesser Honeyguide.]

I. minor Lesser Honeyguide. (1, 0, 1, 1, 1) F, 19. There is at least one regularly-used song post at Kumbira Forest.

I. variegatus Scaly-throated Honeyguide. (0, 0, 1, 1, 1) U, 6. Probably resident.

I. indicator Greater Honeyguide. (0, 0, 1, 1, 0) U, 2. Recorded outside forest, Sep 2005, Sep 2010.

Picidae

Campethera cailliautii Green-backed Woodpecker. (0, 0, 1, 1, 0) R, 2. Two records from forest, Sep 2005, Sep 2010.

C. nivosa Buff-spotted Woodpecker. (1, 1, 1, 1, 0) U, 2. Recorded in forest: Jan 2004, Aug 2005, Dec 2005, Sep 2010; Sep 2012 (RJ 2012); Jun 2013 (M. Melo pers. comm.). GCF species.

C. caroli Brown-eared Woodpecker. (1, 1, 1, 1, 0) F, 12. Resident in forest. GCF species.

Dendropicos fuscescens Cardinal Woodpecker. (0, 1, 1, 1, 0) U, 4. Seen in wooded habitats: Oct 2003; Jan 2004 (S&R 2005); Nov 2008, Sep 2010.

D. elliotii Elliot's Woodpecker. (0, 0, 1, 0, 1) U, 4. Seen in forest, Sep 2005, Aug 2006; Oct 2010 (RJ 2010), Sep 2011 (RJ 2011), Sep 2012 (RJ 2012); Jun 2013, Sep 2016. Endemic subspecies *gabela*.

D. griseocephalus Olive Woodpecker. (1, 0, 1, 0, 0) V, 1. Four records from forest, 2003, Aug 2005; Sep 2014 (BQ 2014); Oct 2016.

Falconidae

Falco tinnunculus Rock Kestrel. (0, 0, 1, 0, 0) R, 1. Two records from Njelo Mountain, Nov 2008, Oct 2016.

F. ardosiaceus Grey Kestrel. (0, 0, 1, 0, 0) V, 1. Two records outside forest, Aug 2006, Mar 2016

F. cuvierii African Hobby. (0, 0, 1, 0, 0) R, 1. Seen occasionally in wooded areas; Aug 2005; Dec 2005 (BQ 2005); Sep 2011 (RJ 2011), Sep 2012 (RJ 2012).

F. biarmicus Lanner Falcon. (0, 0, 0, 0, 1) R, 0. One record outside forest, Jun 2013.

F. peregrinus Peregrine Falcon. (0, 0, 1, 0, 0) R, 2. Seen twice on Njelo Mountain, Oct 2003, Aug 2006.

Eurylaimidae

Smithornis capensis African Broadbill. (1, 1, 1, 1, 1) C, 39. Resident in forest.

Oriolidae

Oriolus auratus African Golden Oriole. (0, 0, 1, 0, 1) F, 8. Recorded in wooded habitats, mostly in June but also Aug 2006 and Nov 2008.

O. larvatus Black-headed Oriole. (1, 1, 1, 1, 1) C, 37. Resident in wooded habitats.

Campephagidae

Campephaga petiti Petit's Cuckooshrike. (1, 1, 1, 1, 1) F, 17. Resident in forest. GCF species.

C. quiscalina Purple-throated Cuckooshrike. (0, 0, 1, 1, 0) U, 8. Resident in forest.

Platysteiridae

Batis minulla Angolan Batis. (1, 1, 1, 1, 1) C, 37. Resident in wooded habitats.

Dyaphorophyia castanea Chestnut Wattle-eye. (0, 0, 1, 1, 1) U, 9. Resident in forest. GCF species.

D. concreta Yellow-bellied Wattle-eye. (1, 1, 1, 1, 1) C, 38. Resident in forest. Endemic subspecies *ansorgei*.

Platysteira peltata Black-throated Wattle-eye. (1, 1, 1, 1, 0) U, 5. Seen occasionally in forest.

Malaconotidae

Malaconotus monteiri Monteiro's Bushshrike. (1, 1, 1, 1, 1) U, 18. Recorded almost daily up to 2010 but only twice since, in June 2013 and Mar 2016. Perhaps sensitive to forest clearance, and its Red List status of Near-Threatened may need to be revised. Endemic, RR and GCF species.

Chlorophoneus multicolor Many-coloured Bushshrike. (0, 1, 1, 0, 0) R, 3. Recorded prior to 2011: Dec 2005 ((BQ 2005); Nov 2008, Sep 2010; Oct 2010 (RJ 2010).

C. sulfureopectus Orange-breasted Bushshrike. (1, 1, 1, 1, 0) U, 10. Recorded from forest edge and savanna.

Telophorus viridis Gorgeous Bushshrike. (1, 1, 1, 1, 1) F, 29. Resident in thickets and at forest edge.

Bocagia minuta Marsh Tchagra. (0, 0, 0, 0, 1) R, 0. Two records from tall grassland: Sep 2012 (RJ 2012); Mar 2016.

Tchagra australis Brown-crowned Tchagra. (0, 0, 1, 1, 1) F, 5. Resident outside forest.

T. senegalus Black-crowned Tchagra. (0, 0, 1, 0, 0) R, 1. One record from outside forest, Sep 2005.

Dryoscopus angolensis Pink-footed Puffback. (1, 1, 1, 1, 1) C, 40. Resident in forest.

D. cubla Black-backed Puffback. (0, 1, 1, 1, 1) F, 18. Resident in wooded habitats.

Laniarius amboimensis Gabela Bushshrike. (1, 0, 1, 1, 1) F, 30. Resident but appears to be declining (pers. obs.). Localised within forest, entirely absent from large areas. Endemic, RR and GCF species. Endangered.

L. aethiopicus Tropical Boubou. (0, 0, 1, 0, 0) U, 2. Recorded outside forest, Aug 2006, Nov 2008.

Dicruridae

Dicrurus ludwigii Square-tailed Drongo. (1, 0, 1, 0, 1) U, 2. Recorded in forest, 2003, Aug 2006, Sep 2010.

Monarchidae

Trochocercus nitens Blue-headed Crested Flycatcher. (1, 1, 1, 1, 1) C, 33. Resident in forest. GCF species.

Terpsiphone rufocinerea Rufous-vented Paradise Flycatcher. (1, 1, 0, 1, 1) U, 3. Seen occasionally in forest. GCF species.

T. batesi Bates's Paradise Flycatcher. (0, 0, 0, 0, 0) R, 0. A few records from forest: Dec 2005 (BQ 2005); Sep 2011 (RJ 2011); Sep 2014 (BQ 2014). The head shape and coloration of birds recently observed (pers. obs.) and photographed at Kumbira indicate that both this and the previous species occur there.

T. viridis African Paradise Flycatcher. (1, 1, 1, 1, 1) F, 13. Recorded regularly in wooded habitats.

Laniidae

Lanius mackinnoni Mackinnon's Shrike. (1, 1, 1, 0, 0) U, 3. Recorded occasionally, but seemingly less often after 2009, when the only records are from Oct 2010 (RJ 2010) and Oct 2012 (M. Melo pers. comm.).

L. collaris Common Fiscal. (0, 0, 1, 0, 0) U, 4. Seen occasionally outside forest.

Corvidae

Corvus albus Pied Crow. (0, 0, 1, 1, 1) F, 16. Resident outside forest.

Hyliotidae

[*Hyliota flavigaster* Yellow-bellied Hyliota. Records from 2003 (Ryan *et al*. 2004) and Jan 2004 (S&R 2005) are unsubstantiated and probably relate to confusion with the following species, in which the females at Kumbira look greyer and the breast in males darker yellow than the birds from the miombo belt depicted in all field guides.]

H. australis Southern Hyliota. (1, 1, 1, 1, 1) C, 37. Resident in forest. Specimens in the Lubango Bird Skin Collection show features resembling ssp. *slatini* and are classified as such. This ssp. is otherwise known from eastern Africa and, tentatively, Cameroon (Urban *et al*. 1997).

Stenostiridae

Elminia longicauda African Blue Flycatcher (1, 1, 1, 1, 1). F, 29. Resident in forest.

Paridae

Melaniparus funereus Dusky Tit. (1, 0, 1, 1, 1) F, 25. Resident in forest. Endemic ssp. *gabela* and GCF species.

Nicatoridae

Nicator vireo Yellow-throated Nicator. (1, 1, 1, 1, 1) C, 43. Resident in forest. GCF species.

Macrosphenidae

Melocichla mentalis Moustached Grass Warbler. (0, 0, 1, 0, 0) U, 1. Recorded in swampy areas near Conda, Aug 2006

Achaetops pycnopygius Rockrunner. (1, 0, 1, 0, 1) F, 5. Resident above the forest on rocky slopes of Njelo Mountain. Endemic ssp. *spadix* and KHV species.

Macrosphenus pulitzeri Pulitzer's Longbill. (1, 1, 1, 1, 1) F, 17. Resident but apparently declining, with most records before 2006. Endemic, RR and GCF species, Endangered.

Sylvietta virens Green Crombec. (1, 1, 1, 1, 1) C, 42. Resident in forest. GCF species.

Cisticolidae

Cisticola erythrops Red-faced Cisticola. (0, 0, 1, 1, 0) U, 3. Resident in swampy areas near Conda, Sep 2005, Aug 2006, Sep 2010. Endemic ssp. *lepe*.

C. bulliens Bubbling Cisticola. (1, 1, 1, 1, 1) C, 25. Resident outside forest. GCF species.

C. lais Wailing Cisticola. (0, 0, 1, 0, 0) F, 5. Resident on Njelo Mountain. Endemic ssp, *namba*.

C. brachypterus Short-winged Cisticola. (0, 0, 0, 0, 1) R, 0. Two records from tall grassland: Oct 2010 (RJ 2010); Mar 2016.

Prinia subflava Tawny-flanked Prinia. (0, 0, 1, 1, 1) C, 19. Resident outside forest.

Apalis binotata Lowland Masked Apalis. (1, 1, 1, 1, 1) F, 11. Resident in thickets at forest edge. GCF species.

A. jacksoni Black-throated Apalis. (1, 0, 0, 1, 1) U, 9. Resident in forest.

A. rufogularis Buff-throated Apalis. (1, 1, 1, 1, 1) C, 39. Resident in forest. Endemic ssp. *brauni* and GCF species.
A. cinerea Grey Apalis. (1, 1, 1, 0, 0) F, 5. Recorded with certainty only from Afromontane Forest on Njelo Mountain. Other records (Ryan *et al*. 2004, S&R 2005, RJ 2010) are probably of misidentified Buff-throated Apalis. Endemic ssp. *grandis.*
Camaroptera harterti Hartert's Camaroptera. (1, 1, 1, 1, 1) C, 40. Resident in forest and thickets. Endemic species.

Acrocephalidae

Iduna natalensis African Yellow Warbler. (0, 0, 0, 1, 1) R, 2. A few records from outside forest: Sep 2010; Oct 2012 (M. Melo pers. comm.); Jun 2013.

Locustellidae

Schoenicola brevirostris Fan-tailed Grassbird. (0, 0, 1, 0, 0) R, 1. One record from swampy areas near Conda, Aug 2006.

Hirundinidae

Psalidoprocne pristoptera Black Saw-wing. (1, 1, 1, 1, 1) C, 31. Resident.
Hirundo angolensis Angolan Swallow. (0, 0, 1, 1, 0) U, 2. A few records outside forest, Sep 2005, Nov 2008.
Ptyonoprogne fuligula Rock Martin. (0, 0, 1, 1, 0) F, 5. Resident on Njelo Mountain.
Cecropis cucullata Greater Striped Swallow. (0, 0, 0, 0, 1) V, 1. One record outside forest, Jun 2013.
C. abyssinica Lesser Striped Swallow. (0, 1, 1, 1, 1) F, 21. Resident.
C. senegalensis Mosque Swallow. (0, 0, 0, 0, 0) V, 0. One record outside forest, Sep 2012 (RJ 2012).

Pycnonotidae

Pycnonotus barbatus Common Bulbul. (0, 1, 1, 1, 1) C, 39. Resident in all wooded habitats.
[*Stelgidillas gracilirostris* Slender-billed Greenbul. Claimed records (Ryan *et al*. 2004) are probably of misidentified Falkenstein's Greenbul (Mills & Dean 2007).]
[*Eurillas virens* Little Greenbul. Claimed records from Oct 2010 and Sep 2011 (RJ 2010, 2011) were not described and are therefore questionable, especially as it is normally a vocal species and I have not heard it in more than 60 days of field work.]
[*E. curvirostris* Plain Greenbul. One heard, Sep 2015, awaits confirmation by future sight records. GCF species.]
E. latirostris Yellow-whiskered Greenbul. (1, 1, 1, 1, 1) C, 39. Resident.
Chlorocichla flaviventris Yellow-bellied Greenbul. (0, 0, 1, 1, 1) U, 3. Seen on forest edge, Sep 2010, Jun 2013.
C. falkensteini Falkenstein's Greenbul. (1, 1, 1, 1, 1) A, 37. Resident in forest. GCF species.
Atimastillas flavigula Pale-throated Leaflove. (0, 0, 1, 0, 0) R, 1. One record from gallery forest near Conda, Aug 2005.
Phyllastrephus fulviventris Pale-olive Greenbul. (1, 1, 1, 1, 1) C, 37. Resident in forest. GCF species.

Bleda syndactylus Red-tailed Bristlebill. (1, 0, 1, 1, 1) U, 9. Resident in forest. GCF species.
Neolestes torquatus Black-collared Bulbul. (0, 0, 1, 0, 1) U, 3. A few records outside forest near Conda, Sep 2005, Aug 2006, Jun 2013.

Phylloscopidae

Phylloscopus trochilus Willow Warbler. (0, 1, 0, 0, 1) U, 0. A few records from wooded habitats, Jan 2004, Dec 2005, Oct 2010.

Scotocercidae

Hylia prasina Green Hylia. (1, 1, 1, 1, 1) C, 32. Resident in forest. GCF species.

Zosteropidae

Zosterops senegalensis Yellow White-eye. (1, 1, 1, 1, 1) C, 24. Resident in wooded habitats.

Pellorneidae

Illadopsis fulvescens Brown Illadopsis. (1, 1, 1, 1, 1) C, 40. Resident in forest. Endemic ssp. *dilutior*, GCF species.

Sturnidae

Cinnyricinclus leucogaster Violet-backed Starling. (0, 1, 1, 1, 1) F, 10. Recorded from wooded habitats.

Turdidae

Stizorhina fraseri Rufous Flycatcher-Thrush. (1, 0, 1, 1, 1) F, 24. Resident in forest. GCF species.
Turdus pelios African Thrush. (1, 1, 1, 1, 1) C, 33. Resident in forest.

Muscicapidae

Tychaedon leucosticta Forest Scrub Robin. (1, 1, 1, 1, 1) C, 42. Resident in forest. Endemic ssp. *reichenowi*, GCF species.
Melaenornis brunneus Angolan Slaty Flycatcher. (1, 0, 1, 0, 0) U, 2. Recorded only from the slopes of Njelo Mountain at the upper border of the forest, Oct 2003, Aug 2006 (juveniles seen). Endemic, RR and ATH species.
Fraseria caerulescens Ashy Flycatcher. (1, 1, 1, 1, 1) C, 23. Resident in wooded habitats.
Muscicapa adusta African Dusky Flycatcher. (1, 0, 0, 0, 0) R, 0. Only one old record, 2003.
Chamaetylas poliocephala Brown-chested Alethe. (1, 1, 1, 1, 1) F, 22. Resident in forest. Endemic ssp. *hallae*.
Xenocopsychus ansorgei Angolan Cave Chat. (1, 0, 1, 0, 0) U, 5. Seen only on rocks on Njelo Mountain, Oct 2003, Aug, Sep 2005, Aug 2006. RR and ATH species.
Cossypha heuglini White-browed Robin-Chat. (1, 1, 1, 1, 0) F, 8. Resident in wooded habitats outside forest.
C. natalensis Red-capped Robin-Chat. (0, 1, 1, 1, 1) F, 18. Resident in forest.
Sheppardia bocagei Bocage's Akalat. (0, 0, 1, 0, 0) R, 1. One record from Afromontane Forest on Njelo Mountain, Aug 2005. Endemic ssp. *bocagei*.
S. gabela Gabela Akalat. (1, 1, 1, 1, 1) C, 38. Resident in forest. Kumbira holds the most important known population of this Endangered endemic, RR and GCF species.

Cichladusa ruficauda Rufous-tailed Palm Thrush. (0, 0, 1, 0, 0). One record outside forest, Nov 2008.
Monticola angolensis Miombo Rock Thrush. (0, 0, 1, 0, 0) U, 3. A few records from Njelo Mountain, Oct 2003, Aug 2005, Oct 2005, Oct 2016. ZAM species.
Myrmecocichla monticola Mountain Wheatear. (0, 0, 1, 0, 0) U, 2. A few records from Njelo Mountain, Aug 2005, Oct 2005, Oct 2016. Endemic ssp. *nigricauda*.
M. nigra Sooty Chat. (0, 0, 0, 0, 1) R, 0. Recorded once from the top of Njelo Mountain, Oct 2016.
Oenanthe familiaris Familiar Chat. (0, 0, 1, 0, 0) U, 2. Three records from Njelo Mountain, Oct 2003, Nov 2008, Oct 2016.

Nectariniidae

Anthreptes seimundi Little Green Sunbird. (0, 0, 1, 1, 1) F, 10. Resident in forest. GCF species.
Hedydipna collaris Collared Sunbird (1, 1, 1, 1, 1) C, 38. Resident in wooded habitats.
Cyanomitra verticalis Green-headed Sunbird. (1, 1, 1, 1, 1) F, 21. Resident in forest and gallery forest.
[*C. bannermani* Bannerman's Sunbird. All claimed records (S&R 2005, BQ 2005, RJ 2010) are probably of misidentified Green-headed Sunbird. Photographs of birds reported by S&R (2005) have been examined and are of Green-headed Sunbird.]
C. olivacea Olive Sunbird. (1, 1, 1, 1, 1) C, 39. Resident in forest.
Chalcomitra fuliginosa Carmelite Sunbird. (1, 1, 1, 1, 1) F, 22. Resident in wooded habitats. GCF species.
C. amethystina Amethyst Sunbird. (1, 0, 1, 0, 0) R, 3. Seen occasionally outside forest: Aug 2005; Oct 2010 (RJ 2010).
C. senegalensis Scarlet-chested Sunbird. (0, 0, 1, 0, 0) R, 1. One record outside forest, Aug 2008.
Cinnyris chloropygius Olive-bellied Sunbird. (1, 1, 1, 1, 1) C, 37. Resident at forest edge.
C. ludovicensis Ludwig's Double-collared Sunbird. (1, 0, 1, 1, 0) U, 10. Resident above forest on Njelo Mountain, occasionally coming down into the higher forested areas. Endemic, RR and ATH species.
C. bifasciatus Purple-banded Sunbird. (1, 0, 1, 1, 1) F, 21. Resident at forest edge.
C. superbus Superb Sunbird. (1, 0, 1, 1, 1) F, 27. Resident in forest. GCF species.
C. oustaleti Oustalet's Sunbird. (1, 0, 1, 0, 0) F, 6. Recorded from savanna on Njelo Mountain. Endemic subspecies.
C. venustus Variable Sunbird. (0, 0, 0, 1, 0) R, 1. One record, Sep 2010.
C. cupreus Copper Sunbird. (0, 0, 1, 0, 0) R, 1. One record, from swampy area near Conda, Aug 2008.

Ploceidae

Amblyospiza albifrons Thick-billed Weaver. (1, 1, 1, 1, 0) F, 6. Resident outside forest.

Ploceus ocularis Spectacled Weaver. (0, 0, 1, 0, 1) U, 4. Recorded outside forest.
P. nigricollis Black-necked Weaver. (1, 1, 1, 1, 1) C, 33. Resident in wooded habitats.
P. xanthops Holub's Golden Weaver. (0, 0, 1, 1, 0) U, 3. Recorded in swampy areas near Conda, Oct 2003, Aug 2005, Aug 2006.
P. cucullatus Village Weaver. (0, 1, 1, 1, 1) F, 17. Resident outside forest.
P. nigerrimus Vieillot's Black Weaver. (0, 1, 1, 1, 1) F, 9. Resident outside forest. GCF species.
P. superciliosus Compact Weaver. (0, 0, 1, 0, 0) U, 2. A few records from swampy habitat near Conda: Sep 2005, Aug 2006; Sep 2011 (RJ 2011), Oct 2012 (M. Melo pers. comm.).
P. bicolor Dark-backed Weaver. (1, 1, 1, 1, 1) C, 31. Resident in forest.
P. insignis Brown-capped Weaver. (1, 1, 1, 0, 1) U, 4. Resident in forest, but most records are from 2005–6, the few more recently being Oct 2010 (RJ 2010), Sep 2011, Sep 2012, Sep 2014. This suggests a decline, probably due to loss of large trees. ATH species.
Malimbus rubricollis Red-headed Malimbe. (0, 0, 1, 0, 0) R, 2. Recorded occasionally in forest: Oct 2005, Nov 2008; Sep 2011 (RJ 2011). Endemic ssp. *praedi*, GCF species.
Quelea erythrops Red-headed Quelea. (0, 0, 0, 0, 0). Breeding plumage birds recorded in Mar 2016.
Quelea quelea Red-billed Quelea. (0, 0, 0, 0, 1) R, 1. Recorded outside forest: Oct 2012 (M. Melo pers. comm.); Jun 2013).
Euplectes gierowii Black Bishop. (0, 0, 0, 0, 0). Only one record, Apr 2005 (D. Biggs pers. comm.), but seen and photographed near but outside the study area on the western side of Njelo Mountain in May 2011, and 10 km west of Conda, Mar 2016.
E. hordeaceus Black-winged Red Bishop. (0, 1, 0, 0, 1) C, 1. A few records outside forest, Jan 2004, June 2013, Mar 2016.
E. aureus Golden-backed Bishop. (0, 0, 1, 0, 0) V, 1. One dry-season record, Sep 2005. Endemic, RR and ZAM species.
E. capensis Yellow Bishop. (0, 0, 1, 0, 0) R, 1. Recorded from the slopes of Njelo Mountain, Aug 2006, Oct 2016. Endemic ssp. *angolensis.*
E. albonotatus White-winged Widowbird. (0, 1, 0, 0, 1) F, 1. A few records outside forest: Jan 2004; Sep 2011 (RJ 2011); Sep 2012, Jun 2013, Mar 2016.

Estrildidae

Nigrita canicapillus Grey-headed Nigrita. (1, 1, 1, 1, 1) C, 39. Resident in forest.
[*Nigrita bicolor* Chestnut-breasted Nigrita. The only record (Sep 2014: BQ 2014) is not supported by any description, and would be the first record south of the Kwanza River in Angola.]
Pytilia melba Green-winged Pytilia. (0, 0, 0, 0, 1) R, 1. One record from dry bush near Conda, Jun 2013.
Mandingoa nitidula Green Twinspot. (0, 0, 0, 1, 0) R, 1. Two sightings in forest: Sep 2010; Oct 2012 (M. Melo pers. comm.).

Cryptospiza reichenovii Red-faced Crimsonwing. (1, 1, 1, 1, 0) U, 7. Resident in forest. ATH species.
Spermophaga ruficapilla Red-headed Bluebill. (1, 1, 1, 1, 1) U, 9. Resident in swampy areas and rank growth. GCF species.
Clytospiza monteiri Brown Twinspot. (0, 0, 1, 0, 1) R, 2. Two records from thickets, Aug 2005, Jun 2013.
Euschistospiza cinereovinacea Dusky Twinspot. (0, 0, 1, 0, 0) F, 4. Recorded from the slopes of Njelo Mountain, Aug 2005, Oct 2005, Aug 2006. Endemic ssp. *cinereovinacea.*
Lagonosticta rubricata African Firefinch. (1, 1, 1, 1, 1) F, 8. Resident at forest edge, especially along roadsides. GCF species.
L. rhodopareia Jameson's Firefinch. (0, 0, 0, 0, 1) R, 0. Recorded once from miombo woodland on top of Njelo Mountain, Oct 2016.
Uraeginthus angolensis Blue Waxbill. (0, 1, 1, 1, 1) F, 10. Resident outside forests.
Estrilda perreini Grey Waxbill. (1, 1, 1, 1, 1) U, 8. Resident in thickets.
E. melpoda Orange-cheeked Waxbill. (0, 1, 1, 1, 1) F, 14. Resident outside forest.
E. astrild Common Waxbill. (0, 1, 1, 1, 1) F, 11. Resident outside forest.
Amandava subflava Orange-breasted Waxbill. (0, 0, 1, 0, 0) R, 1. One record outside forest, Nov 2008.
Spermestes cucullata Bronze Mannikin. (0, 1, 1, 1, 1) C, 20. Resident outside forest.
S. bicolor Black-and-white Mannikin. (1, 1, 1, 1, 1) F, 12. Resident at forest edge.
S. fringilloides Magpie Mannikin. (1, 0, 0, 0, 1) R, 0. Recorded twice from rank growth, 2003, Sep 2015.

Viduidae

Vidua funerea Dusky Indigobird. (0, 0, 0, 0, 1) R, 0. One breeding-plumage bird observed mimicking African Firefinch in savanna, May 2011.
V. macroura Pin-tailed Whydah. (0, 1, 1, 0, 1) C, 8. Resident outside forest.

Passeridae

P. griseus Northern Grey-headed Sparrow. (0, 1, 0, 0, 0). Reported by S&R (2005), although *P. diffusus* Southern Grey-headed Sparrow has been reported in Nov 2005 (BQ 2005). In Mar 2016 I paid special attention to these sparrows, which in my opinion are all *P. griseus* based on size (too large for *diffusus*), dark head, deep red eye and almost absent white bar across the scapulars.

Motacillidae

Anthus lineiventris Striped Pipit. (0, 0, 1, 0, 0) U, 4. Recorded from the slopes of Njelo Mountain, Oct 2003, Aug 2005, Sep 2005, Nov 2008, Oct 2016.

Fringillidae

Crithagra capistrata Black-faced Canary. (1, 1, 1, 1, 1) F, 27. Resident at forest edge.
C. mozambica Yellow-fronted Canary. (0, 0, 1, 1, 1) F, 5. Resident in savannas.

Emberizidae

Emberiza tahapisi Cinnamon-breasted Bunting. (0, 0, 1, 0, 0) R, 1. One record, Njelo Mountain, Aug 2006.

Discussion

In total 227 bird species have been recorded from the study area and an additional eight species have been reported but are here treated as unconfirmed. Among the 227 species are three Endangered species, all of which are endemic to the central escarpment, and two Near-Threatened species, of which one is endemic to western Angola, confirming the high conservation priority of Kumbira. Kumbira also holds the highest number of Angolan endemics of any site in Angola (11 of 17: Mills 2017), along with 20 endemic subspecies. Nine of 14 restricted range species of the Western Angola EBA are also recorded from Kumbira, a higher number than from any other Angolan IBA (Dean 2001). Biome-restricted species are well represented too, with 39 of 161 GCF species; six of 17 ATH species, five of 49 ZAM species and one of 11 KHV species. Only three Angolan IBAs have more GCF species, (Maimbo 95, Camabatela 79, Luachimo River 65), and three have more ATH species (Mount Moco 15, Mombolo-Namba 15, Tundavala seven).

While Kumbira Forest holds a relatively high diversity of birds, it is the endemic elements that make it a high priority for conservation and bird tourism. No other area is known to hold a significant amount of habitat suitable for Gabela Bushshrike, Gabela Akalat and Pulitzer's Longbill. Kumbira's special position is that it is at the northern edge of the range of Pulitzer's Longbill and towards the southern edge of the range of Gabela Akalat; the only other area where all three species have been recorded is Bango (Mills 2010), 15 km south of Kumbira and essentially part of the same forest block. However, at Bango the forest above 800 m altitude is much smaller, and is more degraded. While there is more forest at Bango below 800 m, the forests on the main escarpment (500–800 m altitude) lack these three endemic species, although they are richer in Congo Basin species than the forests above 800 m (Mills 2010). Bango appears to be the southern limit of Gabela Akalat although the longbill and bushshrike both occur further south (Mills & Dean 2007).

The conservation of natural habitat at Kumbira Forest is of prime conservation importance. However, Angola presents many challenges for the establishment of conservation areas. No new ones have been successfully established since the end of the colonial era (1975). There are also no private conservation areas exist, largely because of the difficulty of securing land. In areas with high human population densities, such as at Kumbira Forest, local communities are clearing more and more land for subsistence farming and are invading unmanaged private land.

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New observations of five species of pelagic seabirds in The Gambia in early 2018, with information from previous years

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Summary

We report an unseasonal record of Wilson's Storm-Petrel *Oceanites oceanicus* and high counts for The Gambia of European Storm-Petrel *Hydrobates pelagicus*, Gannet *Morus bassanus*, Arctic Skua *Stercorarius parasiticus* and Pomarine Skua *Stercorarius pomarinus*, based on observations made from southern beaches in The Gambia in January and February 2018. Older records back to 1965 are also discussed.

Resume

Nouvelles observations de cinq espèces d'oiseaux de mer pélagiques en Gambie, début 2018, avec des informations sur les années précédentes. Nous rapportons une observation hors saison de l'Océanite de Wilson *Oceanites oceanicus* et, pour la Gambie, les comptages de nombreux Océanites tempête *Hydrobates pelagicus*, Fous de Bassan *Morus bassanus*, Labbes parasite *Stercorarius parasiticus* et Labbes pomarin *Stercorarius pomarinus*, lors d'observations à partir des plages du sud de la Gambie en janvier et février 2018. Des observations plus anciennes, remontant jusqu'à 1965, sont également discutées.

Introduction

The continental shelf lies approximately 75 km off The Gambia and therefore the numbers of pelagic species encountered near land are low. In late January and early February 2018, The Gambia experienced fresh northerly winds in the mornings followed by cool onshore winds in the late afternoon and evening. Clear skies associated with high pressure resulted in some extreme day and night time temperatures. On 31 January the maximum and minimum temperatures recorded in Banjul were 31°C and 15°C, dropping to 27° and 16° at the beginning of February. There was some unseasonal early morning drizzle on at least two days.

Methods

Throughout Jan–Feb 2018, GED made frequent visits to beaches and other vantage points along the coast in south Gambia to survey pelagic seabirds. Observations were made using 8 x 32 binoculars and a 15–60 x telescope. When many birds were present a hand-held counter was used to keep a tally and annotations entered into a notebook at 30-min. intervals. Additional records submitted to the authors are identified by their initials, with their full names given in Acknowledgments. Skeletal specimens referred to are stored in The Gambia with CRB.

Observations

Oceanites oceanicus Wilson's Storm-petrel

Wilson's Storm-Petrel is widespread in the Atlantic Ocean and is to be expected off The Gambia during Apr–Sep (Barlow *et al.* 1997). It breeds in the southern hemisphere migrating into the northern hemisphere in May and returning south in Oct–Nov (Onley & Scofield 2007). It was first recorded in Gambian waters by A. Vittery who observed up to 25 birds in the estuary off Banjul in Apr–Jun and a few in Aug–Sep 1965 (Bray *et al*. 1969). All other records up to 1977 are from the mouth of the Gambia River in Apr–May *e.g*. a total of 62 birds in parties of up to 12 on 9 May 1975 and, in 1977, *c*. 50 counted from the Banjul–Barra ferry on 16 Apr and *c*. 5 off Banjul Wharf, 20 Apr (Gore 1990). The only other verified records known to us are four birds photographed *c*. 30 km off Banjul foraging in clear "blue water" (away from turbid estuarine water) close to a sport-fishing catamaran, 3 Jun 1999 (M. Wilson & M. Green pers. comm.) and 25 birds also 30 km out seen from the same vessel, 2 Jul 2005 (CRB).

On 20 Jan 2018, a group of students observed from a moving boat *c*. 25 foraging European Storm-petrels *Hydrobatus pelagicus* off the Bijol Islands (16.79375°N, 13.36912°W) and noted the possible presence of Wilson's Storm-Petrel. In response GED visited the beach at Tanji Bird Reserve on 22 Jan at 9h00. There was a light northerly wind, visibility was poor and the Bijol Islands were obscured by a misty haze. A group of storm-petrels were found feeding on a stretch of relatively calm water 200 m long by 10–20 m wide surrounded by choppy waves, *c*. 500 m off-shore. An estimated 30 storm-petrels were present, with birds constantly flying in both directions over the flatter water. Whilst watching the feeding birds, GED noted that there were two species; some birds were clearly larger than the European Storm-Petrels, with longer wings and legs and a longer, paddle-shaped outer wing. Up to ten

of the larger storm-petrels were present. The larger birds showed dark or greyish underwings when in brighter light and their progress along the feeding area was slower than that of the European Storm-petrels, by which they were frequently overtaken. The flight of the larger birds involved more swooping and gliding and more periods of extended bouncing and foot pattering with raised, swept backed wings. On photographs, the long legs projecting beyond the tail can be discerned, characteristic of Wilson's Storm-Petrel, and the wing proportions, prominent carpal bar and frequent foot pattering also suggest this species (Fig. 1), and distinguish the birds from the smaller European Storm-Petrel. Leach's Storm-Petrel *Oceanodroma leucorhoa* (one Gambian record, Sep 1967), though large, is longer winged with a prominently forked tail and no foot projection (Barlow *et al.* 1997).

GED returned on 23 Jan when sea conditions had changed and the calm feeding area had split into two smaller areas. Some 15 storm-petrels were present, including at least seven European Storm-Petrels and at least eight of the slightly larger storm-petrels. The larger storm-petrels all showed foot projection, a pale grey carpal bar and more paddle-shaped wings with a distinctive bouncing flight action. They held their wings very straight when pattering and these characteristics confirmed all eight birds to be Wilson's Storm-Petrels. On a boat trip to the area on 26 Jan, no storm-petrels were located. These birds constitute the first record of this species for The Gambia outside the period Apr–Sep and the first verified record known to us since Jul 2005.

***Hydrobates pelagicus* European Storm-petrel**

European Storm-Petrel is irregular in the Gambia estuary in May–Jul, when up to ten birds can be counted on a single crossing of the Banjul-Barra ferry (Cawkell & Moreau 1965) but is sometimes present in large numbers, picking up of food items well up the beach at fish landing sites (Barlow *et al.* 1997). Around Barra (North Bank Division), 100 were reported on 30 Jan 1984 (Gambia Ornithological Society 1986), and up to 60 were seen feeding with other seabirds *c*. 30 km off Banjul in blue

Figure 1. **Wilson's Storm-petrel *Oceanites oceanicus* off Tanji Bird Reserve beach, 22 Jan 2018, showing pattering with wings held high, long legs, and upperwing pattern and shape (photo: GED).**

water close to a sport-fishing catamaran, 3 Jun 1999 (M. Wilson pers. comm.). One fresh corpse was collected on the Bijol Islands on 24 Apr 2003 and is saved as a skeleton (R. Armstrong, M. Longster & CRB).

Thirteen observations of European Storm-Petrels made throughout Feb 2018, including a record count of 178, are presented in Table 1. Despite regular watches at the Tanji Fish Landing Beach site during the last week in February by a number of observers, there were no further records. On 5 and 6 Feb during the same period, three European Storm-Petrels were reported on the River Gambia at Tendaba (15.8065°N, 13.4488°W), Lower River Region (PB, JB, GJ, TC, TV).

There was considerable variation in the state of plumage of the birds reported in Table 1. Some were pristine and appeared to have completed a recent moult, while others were still in moult, with fresh black feathers contrasting with faded old grey outer primaries (Fig. 2). Some of the fresh-plumage birds showed all-black upperwings while others showed pale feathering and covert tips, presumably also effects of plumage age.

***Morus bassanus* Gannet**

The Gannet can be temporarily common after strong harmattan winds, particularly in Jan–Feb (Barlow *et al.* 1997). Gore (1990) reported a maximum count of 20 first-winter birds off Cape St Mary, 13 Jan 1983, and a group of 43 on 18 Feb 2005 flying in a long arc close to the beach off Toll Point (16.6070°N, 13.4670°W), Banjul (CRB pers. obs.) is the largest previous count seen from land. In recent years, corpses in plumages representing all ages have been found in the dry season (Nov–Jun) on southern beaches (CRB), several of which have been saved as full skeletal specimens**.**

Table 1. Observations of European Storm-Petrel *Hydrobates pelagicus* from beaches in southern Gambia over a three-week period in Feb 2018.

Date	Observation Point	Coordinates	Number	Observers
2 Feb	Tujering Beach	16.8014°N, 13.3148°W	30	GED & AH
3 Feb	Kotu Beach	16.8014°N, 13.3148°W	25	PB, JB & GJ
5 Feb	Bantakunku Rocks	16.8135°N, 13.3395°W	178	GED
6 Feb	Kartong Beach	16.7716°N, 13.0776°W	101	TCJS
6 Feb	Tanji Fish Beach	16.7964°N, 13.3520°W	25	TCJS
7 Feb	Tanji Fish Beach	16.7964°N, 13.3520°W	25	TVDT
8 Feb	Tanji Fish Beach	16.7964°N, 13.3520°W	50	PB, JB & GJ
8 Feb	Gunjur Fish Beach	16.7844°N, 13.1545°W	52	TC & TV
11 Feb	Tanji Fish Beach	16.7964°N, 13.3520°W	>100	GED
16 Feb	Cape Point	16.6672°N, 13.4896°W	92	GED
18 Feb	Cape Point	16.6672°N, 13.4896°W	15	GED & AH
22 Feb	Tujering Beach	16.8014°N, 13.3148°W	25	GED & AH
22 Feb	Bantakunku Rocks	16.8135°N, 13.3395°W	20	GED & AH

Figure 2. European Storm-Petrels *Hydrobates pelagicus*, Tanji, 11 Feb 2018: left, in fresh plumage; right, in wing moult. (Photos: GED.)

They are often found with their mandible tips entangled or tied with shreds of rope or strips of fabric (Fig. 3) but the cause of this remains unknown.

The following new, large counts of Gannets were made from land in Feb 2018. Bantakunku Point Beach (16.8135°N, 13.3395°W) south of Tanji Bird Reserve in drizzle, a total of 527 on passage counted 5 Feb from 9h30–11h30, with an estimated ten adults, six 4th calendar-year birds, and the remainder (*c*. 97 %) 2nd calendar-year birds. Counting finished only when the falling tide forced the birds further off-shore and out of range of observation by telescope from the beach (GED). Cape Point, Bakau, 2529 counted flying north on 16 Feb from 8h15–10h15, with an estimated 10 % adults and the rest immature, consisting predominantly of 2nd calendar-year birds. Many were fishing as they slowly moved northwards (GED). Cape Point, 105 moving north on 18 Feb from 8h00–9h30 (AH, GED).

Arctic Skua *Stercorarius parasiticus* and Pomarine Skua *S. pomarinus*

Skuas listed for The Gambia include Arctic Skua *S. parasiticus* and Pomarine Skua *Stercorarius pomarinus*, with Great Skua *Catharaca skua* recently confirmed (Fox *et al.* 2015). Long tailed Skua *S. longicaudus* and South Polar Skua *C. maccormiciki*, both recorded for Senegal, are yet to be confirmed for The Gambia. Gore (1990) and Barlow *et al.* (1997) discuss records of single Pomarine and Arctic Skuas, commonly seen Oct–Mar, and a single northerly passage of multiple Arctic Skuas in Apr. Skuas seen on land in The Gambia often appear exhausted or in worn plumage (Fig. 4). The late T. Vittery (*per* A. Vittery *in litt*.) made regular sea watches from his residence at Fajara Cliffs (16.6757°N 13.4821°W) over 15 months in 1995–6 and observed the first Arctic Skua of the season on 22 Sep 1995 and the first Pomarine Skua on 28 Sep 1995, and 20 Sep 1996 at Tanji.

Figure 3. Gannet *Morus bassanus* in first winter plumage with mandibles inexplicably tangled with textile, Tanji Beach, 1 Jan 2006 (photo: CRB).

We report here the first records of high numbers of passage Pomarine Skuas, with fewer Arctic Skuas, seen from land in The Gambia. On 5 Feb 2018 off Bantakunku Point, 9h30–11h30, six Arctic Skuas and 91 Pomarine Skuas flew north, and on 16 Feb off Cape Point, 8h15–10h15, seven Arctic Skuas and 66 Pomarine Skuas were registered (GED). On 18 Feb at Cape Point, 8h00–9h30, 12 Arctic Skuas and 84 Pomarine Skuas moved north (A. Holmes & GED).

Discussion

Despite regular monitoring from land for pelagic seabirds in Gambian waters, data remain few. Three species have been added to the Gambian list since 2014: Great Skua

Figure 4. Pomarine Skua *Stercorarius pomarinus* with worn plumage at the Bijol Islands, Tanji Bird Reserve, 14 Nov 2013 (photo: J. Hamilton).

Stercorarius skua was photographed on the Bijol Islands, Tanji Bird Reserve in Nov 2014 (Fox *et al.* 2015) and a Sooty Shearwater *Puffinus griseus* corpse and a mass mortality of Great Shearwater *Puffinus gravis* have been discovered on southern beaches (Barlow 2017, Barlow *et al.* 2018). The results reported here, including the exceptional passage of 2529 Gannets increase our knowledge of seabird species and numbers off the Gambian coast. Continued watching from land and investigations further out to sea are recommended, along with enquiries (using photographs) with fishermen operating from Gambian beaches. Surveys in the offshore upwelling zone during the autumn and winter, combined with studies at other times of the year could help to determine if pelagic species are as abundant off The Gambia as they are off the better studied waters of northern Senegal and Mauritania (Leopold 1993, Camphuysen & Meer 2005).

In Senegal, Wilson's Storm-Petrel is regularly reported off the coast at Dakar Apr–Sep, sometimes in hundreds (Barlow *et al.* 1997). Outside of these months, other records in recent years include 80 on 14 Oct and at least ten on 15 Nov 2017 (B. Piot pers. comm.). During surveys off the Mauritanian coast Nov–Apr, Wilson's Storm-Petrel sightings were rare and ship-based surveys in Nov 2012 found only one bird (Camphuysen *et al*. 2015), although *c*. 5000 were recorded in July 2005 (Wynn & Krastel 2012) and large numbers in Sep 2015 (Camphuysen 2015).

The largest numbers of European Storm-Petrel off Senegal are to be expected in Apr (Barlow *et al*. 1997). In Senegal, Gannet is common on passage Nov–Mar, peaking at the end of Nov to early Dec and with a conspicuous northbound migration from end of Feb to early Apr; a much stronger Gannet passage than in 2017 was noted from Dakar in 2018, with 1690 birds counted flying southwest during 31 surveys from 1 Nov to 18 Dec (max. 331 in 1 h on 13 Nov) (B. Piot pers. comm.). Arctic Skua numbers peak Sep to mid-Oct and the more numerous Pomarine Skua peaks Sep to mid-Oct (B. Piot pers. comm.).

As increased commercial fishing in Gambian waters is imminent, following recent agreements with the European Union, the outcomes must be carefully monitored if the future of the guild of piscivores is to be sustained.

Acknowledgments

Roy Armstrong and students of The University of Cumbria, U.K., alerted us to the presence of storm-petrels at Tanji Bird Reserve, and the likely presence of Wilson's Storm-Petrel. We thank Bram Piot for observations and helpful comments. GED thanks Allen Holmes (AH) for help in the field and Bob Flood and Catarina Correia-Fagundes for their comments on the storm petrel identification. Tanji Bird Reserve is a protected area managed by The Department of Parks and Wildlife Management. We are grateful to the following for contributing their observations of European Storm-Petrels: Peter Baalbergen (PB), Joey Braat (JB), Thomas Cansse (TC), Guus Jenniskens (GJ), Ted C.J. Sluijter (TCJS), Tim van der Torre (TVDT), Tim Vochten (TV). Martyn Wilson dug out old notes at short notice and John Hamilton is thanked for his skua photo. The records of Tony Vittery (deceased) were kindly made available by his brother Alan Vittery. Malcolm Green supplied the catamaran.

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News & Comment — Nouvelles & Commentaires

The African Bird Atlas Project

The African Bird Atlas Project (ABAP) aims to map the distribution of Africa's birds, promote public engagement and build capacity for citizen science in Africa. ABAP was officially launched on 4 Dec 2018, though even before that it had started in many countries, including southern Africa, Kenya and Nigeria, with technical support from the Animal Demography Unit and Fitzpatrick Institute of Ornithology, University of Cape Town. The project hopes to engage volunteer members of the African public to collect information on the distribution of birds to be published in African national bird atlases, and in the process increase public awareness about biodiversity and environmental conservation in Africa.

ABAP adopts the current Southern Africa Bird Atlas Project protocol which has been adopted in Kenya and Nigeria as well as the southern African countries. This involves a minimum of 2 h of watching and recording birds within a pentad (5′ x 5′ of latitude and longitude, equivalent to *c*. 9 x 9 km at the equator). Bird lists are submitted via the project web portal or using the mobile phone app BirdLasser, which is readily downloadable from the Google Play Store and Apple Store.

Now we want to spread this project over the whole of Africa, including *via* BirdLife Africa and its partners. The main benefit will be at the national level and in the long term for the African people. This is about more than just birds: it is also focused on building capacity and increasing public awareness.

ABAP is organising a workshop to be held in June 2019 for representatives of BirdLife partners and others across Africa. If you are interested, don't hesitate to contact us.

Dr Ulf Ottosson, APLORI, Nigeria <ulfottossonlux@gmail.com>
Prof. Les Underhill, ADU and SABAP2, South Africa <les.underhill@uct.ac.za>
Dr Colin Jackson, Arocha, Kenya <colin.jackson@arocha.org>

Society Notices — Informations de la Société

Disposal of W.A.O.S. exchange journal collection

W.A.O.S. has long maintained journal exchanges with institutions that wish to receive *Malimbus* and can offer a journal of their own. This has two main purposes: to enable institutions to take *Malimbus* at low cost and to provide the *Malimbus* editor with access to ornithological journals useful for reference when editing *Malimbus*. These purposes are now less important, owing to the availability of much scientific literature online and, as more journals have moved away from print publication, the number of exchanges has dwindled. The exchange journal stock has remained with successive editors, despite a number of attempts to donate it to a suitable library. Council recently agreed to send several journals to the A.P. Leventis Ornithological Research Institute in Nigeria, and to sell a few more to a private collector. The rest awaits disposal.

We therefore welcome requests from (or suggestions of) libraries that might wish to receive all or part of the remaining stock as a donation, especially if carriage could be paid by the institution or otherwise. Failing that, we welcome offers from private collectors to purchase all or part of the collection. The full list of journals and issues available has been placed on the W.A.O.S. website here <www.malimbus.org /en/newssoci.html>, and an abbreviated list of titles only is in the table opposite. I can also supply the full list by email on request. If you can suggest a good home for these journals, please let me know.

Disposition de la collection de journaux reçus à titre d'échange par la S.O.O.A.

La S.O.O.A. s'est longtemps entendue avec des institutions désirant recevoir *Malimbus* et pouvant proposer leur propre bulletin en échange. L'objectif est double: permettre à ces institutions de recevoir *Malimbus* pour un coût très faible et fournir au rédacteur de *Malimbus* un accès à des journaux ornithologiques de référence utiles pour la rédaction. Ce système d'échange est moins nécessaire aujourd'hui, en raison de la disponibilité sur internet d'une grande partie de la littérature scientifique, et les échanges ont en pratique diminué du fait que nombre de journaux ont renoncé à être imprimés. Le stock de journaux échangés est resté avec les rédacteurs successifs en dépit des tentatives de les donner à une bibliothèque susceptible de les recevoir. Le Conseil a récemment donné son accord pour l'envoi de plusieurs journaux à l'Institut de Recherche Ornithologique A.P. Leventis du Nigeria et de vendre quelques autres à un collectionneur privé. Le reste demeure disponible pour une cession éventuelle.

Par conséquent, les requêtes (ou suggestions) de bibliothèques qui pourraient souhaiter recevoir tout ou partie du reste du stock à titre de don seraient la bienvenue, en particulier si le transport pouvait être pris en charge par l'institution ou d'une autre

manière. A défaut, des offres de collectionneurs privés pour l'achat de tout ou partie de la collection seraient bienvenues. La liste complète des journaux et numéros disponibles a été mise sur le site web de la S.O.O.A. <www.malimbus.org/fr/nouvsoci.html> et seule une liste abrégée de tires figure dans le tableau ci-dessous. Je puis aussi fournir la liste complète par email sur demande. Si vous pouvez suggérer une bonne adresse pour ces journaux, merci de m'en informer.

Main journals available — Principaux journaux disponibles

Acrocephalus	Mirafra
Acta Ornithologica	National Museums of Kenya Annual Report
Aves y Naturaleza	Nature East Africa (formerly EANHS Bulletin)
Bee-eater & ECWBS News	Ornithologische Beobachter
BirdLife Magazine (formerly World Birdwatch)	Ornithologische Schriftenschau
	Ornitología Neotropical
Durban Museum Novitates	Ricerche di Biologia della Selvagina
Garcia de Orta	Supplementi, Ricerche di Biologia della Selvagina
Ist. Nazionale Fauna Selvatica Posters	The Ring
Journal of East African Natural History	Thola (formerly Palmnut Post)
Kenya Past and Present	Vår Fuglefauna

Plus small numbers of issues of 20 other journals, details on request. Plus quelques exemplaires des numéros de 20 autres journaux, détails sur demande.

Alan TYE, Editor <alantye@gmail.com>

W.A.O.S. membership changes
Changements à la liste d'adhérents de la S.O.O.A.

New members — Membres nouveaux

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Resignations and deletions — Renonciations et enlèvements

WOODCOCK, M. WILSON ORNITHOLOGICAL SOCIETY
THE RING

Address changes — Changements d'adresse

CAUCANAS, G., 9 rue d'Isly, 13005 Marseille, **France**

FANSHAWE, Dr J., BirdLife International, The David Attenborough Building, Pembroke Street, Cambridge CB2 3QZ, **U.K.**

Tim DODMAN, Treasurer and Membership Secretary

West African Ornithological Society
Société d'Ornithologie de l'Ouest Africain

Revenue Account for the year ended 31 December 2018

Income	**£ Sterling**	**€ Euro**	**Total (£)**	**2017 (£)**
Subscriptions	2076	508	2533	2720
Sale of exchange journals	145	0	145	0
Interest and donations	0	0	0	0
	2221	508	2678	2720
Expenditure				
Malimbus production and distribution	3131	0	3131	1979
WAOS web site and leaflets	0	0	0	589
Bank charges and office costs	0	0	0	13
	3131	0	3131	2582
Surplus/deficit per account for year	–910	508	–454	138

Balance Sheet as at 31 December 2018

Bank balances at 1 January	2107	3162	4915	4658
Surplus/deficit for year	–910	508	–454	138
Transfer from Euro to Sterling account	-	-	-	-
Exchange rate gains/losses	-	-	34	119
Bank balances at 31 December	£1197	€3669	*£4495	£4915

*Combined balance in £ Sterling as at 31 December (€1 = £0.899).

Notes

There was a deficit of £454 during 2018, mainly due to a higher cost for production and distribution of *Malimbus* than in 2017 (printing costs were higher due to an increase in the number of pages from 2017, and there was a bulk purchase of stamps and stationery). The combined balance decreased from last year by £420, a result of the 2018 deficit of £454 combined with a gain of £34 on the Euro balance of 1 Jan 2018 (due to an increase in the value of the Euro against the Pound from 0.888 on 1 January to 0.899 on 31 December). Any apparent errors of £1 in the above tables are due to rounding. The sterling balance comprised £2104 in the bank and £3 in cash on 1 Jan 2018, and £1194 in the bank and £3 in cash on 31 Dec 2018. Thanks to Nils and Marine Robin for managing the WAOS Euro account.

Tim DODMAN, Treasurer and Membership Secretary

Instructions for Authors

Malimbus publishes research articles, reviews and news about West African ornithology.

Papers and **Short Notes** must be original contributions; material published elsewhere, in whole or in part, will not normally be accepted. Short Notes are articles not exceeding 1500 words (including references) or four printed pages in length. Wherever possible, manuscripts should first have been critically scrutinised by at least one other ornithologist or biologist before submission. Manuscripts will be sent for critical review to specialist reviewers.

Items for **News & Comment** should not exceed 1000 words.

Contributions are accepted in English or French; editorial assistance will be made available to authors whose first language is not one of these. Submission by email (attached file) is preferred. Consult the editor for further details, *e.g.* acceptable software.

All Papers (but not Short Notes) should include a **Summary**, not exceeding 5 % of the paper's length. The Summary should include brief reference to major findings of the paper and should not simply review what was done. Summaries will be published in both English and French (or in the official language of the country in which the work was done) and will be translated as appropriate by the Editorial Board.

Format of tables, numbers, metric units, references, *etc*. should match recent issues. Note particularly: authors' names should be listed with surname (family name) last, with given names or initials preceding it (*e.g.* John A. SMITH); dates are written 2 Feb 1990 but months standing alone may be written in full; times of day are written 6h45, 17h32 and coordinates as *e.g.* 7°46′13″N (no leading zeros) or as decimal degrees with up to five decimal places (*e.g.* 1.23456°N), but not as decimal minutes; numbers up to ten are written in full, except when followed by abbreviated units (*e.g.* 6 m), numbers from 11 upwards are written in figures except at the beginning of a sentence. All references mentioned in the article, and only such, must be listed in the bibliography.

Taxonomic sequence and **scientific names** of birds should follow the BirdLife International Checklist <http://datazone.birdlife.org/species/taxonomy>, unless reasons for departure from this list are stated. **French names** should follow *Noms Français des Oiseaux du Monde* <www.digimages.info/listeoiseauxmonde/genre_cinfo.htm>. **English names** from the BirdLife Checklist, or long-established alternatives in common use in West Africa, are preferred. Adjectives such as "Common" and "African" should only be used if they are part of a long-established common name.

Avifaunal articles must contain a map or gazetteer, including all localities mentioned. They should include brief notes on climate, topography, vegetation, and conditions or unusual events prior to or during the study (*e.g.* late rains *etc*.). **Species lists** should include only significant records; full lists are justified only for areas previously unstudied or unvisited for many years. Otherwise, include only species for which the study provides new information on range, period of residence, breeding *etc.* For each species, indicate range extensions, an assessment of abundance (see *Malimbus* 17: 36) and dated breeding records; indicate migratory status and period of residence only if revealed by the study. Where appropriate, put data in context by brief comparison with an authoritative regional checklist. Lengthy species lists may be in tabular form (*e.g. Malimbus* 25: 4–30, 24: 15–22, 23: 1–22, 1: 22–28, or 1: 49–54) or in the textual format of recent issues. A **more complete guide for authors** of avifaunal papers, including the preferred abundance scale, appeared in *Malimbus* 17: 35–39 and a fuller version of this may be found at (http://malimbus.free.fr/instmale.htm). The Editor will be happy to advise on the presentation of specific studies.

When designing **Figures**, and particularly font size, pay attention to *Malimbus* page shape and size. Figures prepared in a graphics package and saved at high resolution are preferred. Low-resolution files and poor-quality scans will not be accepted. Authors are encouraged to submit **photographs** that illustrate salient points of their article. Photographs should preferably be in colour and at high resolution. Figures and photographs should be supplied as graphics files (*e.g.* jpg or tif), not pasted into a Word file. Consult the Editor for further advice.

A pdf file of Papers and Short Notes, and one paper copy of the issue in which they appear, will be sent to single or correspondence authors, *gratis*.

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