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African Bird Club



Bulletin of the African Bird Club

Vol 19 No 2 September 2012

Status of birds in
coastal forest in Kilwa
District, southern
Tanzania

Lesser Kestrels and
Amur Falcons in
Lesotho

Grey-striped Francolin

Sooty Terns on
Ascension

Vocal behaviour of
diurnal forest raptors
in the Guineo-
Congolian region

Additions to the
avifauna of Eritrea

Fiery-necked Nightjar
and Black-shouldered
Nightjar in Rwanda

Oberländer's
Ground Thrush

Identification of Aquatic
Warbler on its wintering
grounds in Africa

Dwarf Bittern and
Purple Heron on
St. Helena





African Bird Club

The African Bird Club aims to:

- provide a worldwide focus for African ornithology
- encourage an interest in the conservation of the birds of the region
- liaise with and promote the work of existing regional societies
- publish a twice-yearly colour bulletin
- encourage observers to visit lesser known areas of the region
- encourage observers to actively search for globally threatened and near-threatened species
- run the ABC Conservation Programme

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Life	UK£500	

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ABC Website

<http://www.africanbirdclub.org>

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ABC is always looking for drawings and photos to publish in the Bulletin. If you are interested in contributing, please contact the Graphics Editor, Pete Leonard, pleonard@care4free.net

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The Bulletin of the African Bird Club

The Bulletin of the ABC provides a forum for news, letters, notices, recent publications, expedition results, reviews and publication of studies on African birds by contributors from throughout the world. Publication of results in the Bulletin of the ABC does not preclude publication of final results as journal papers either by the ABC or elsewhere. No material

should, however, be submitted simultaneously to the Bulletin of the ABC and to any other publication.

Brief notes for contributors appear elsewhere in this Bulletin and further details are available from the Editor (editor@africanbirdclub.org).



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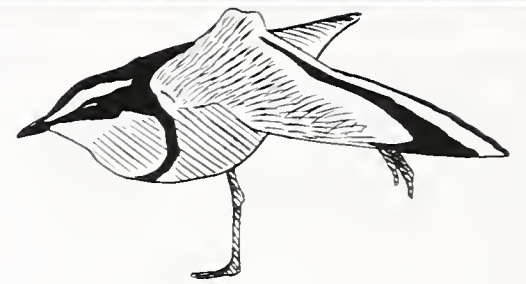
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Club News



ABC 2012 Meeting and AGM in Thetford

On 28 April 2012 around 60 members and guests attended the ABC Annual Meeting at the Norfolk headquarters of the British Trust for Ornithology (BTO). The event included the Club's 18th AGM. After a brief opening address from the Chairman, Keith Betton, the main programme opened with a talk by one of the Club's Trustees, Phil Atkinson, the Head of International Research at the BTO. He spoke about research into the current challenges facing Palearctic migrants wintering in Africa and how they are affected by changes in climate and habitat.

The next speaker, David Richardson of the University of East Anglia, Norwich, is one of the principal investigators of the Seychelles Warbler *Acrocephalus sechellensis* project. He spoke about conservation work over the last 50 years to increase the Seychelles Warbler's population from just 29 known individuals on Cousin Island in the 1960s to >8,000 birds on several islands in the archipelago. It has been possible to obtain data from

these birds over many years, which has brought insight into a range of issues such as breeding behaviour and responses to diseases and stress.

Sir Clive Elliott then discussed the problems posed by the Red-billed Quelea *Quelea quelea*—with the first syllable pronounced in the same way as in 'question'! They are special because of their numbers—estimated at 1,500 million—and they can do enormous damage to grain crops. Sir Clive told the meeting about his studies designed to understand how such large numbers can be sustained, the extent of the damage they cause and efforts to control them. In fact <5% of grain crops are damaged across the continent, but local damage can be very serious.

Following lunch, Nigel Collar of BirdLife International and since 2001 Leventis Fellow in Conservation Biology at Cambridge University, talked about recent research on the threatened Stresemann's Bushcrow *Zavattariornis stresemanni*. This species inhabits a small, specific area of Ethiopia, which his research has shown to equate to a region that experiences mean annual temperatures below 20°C and to

specific levels of precipitation, which means the crow is highly vulnerable to the effects of climate change (see also p. 140). Nigel pointed out that some individuals have developed a bare patch behind the eye, which may be a thermoregulatory adaptation to help the birds cope with extremes of temperature within their range.

Rob Sheldon of the Royal Society for the Protection of Birds then spoke about the work being done to prevent extinction of bird species in Africa. But for human impacts, perhaps just one bird species would become extinct each century. Currently, global rates of extinction are 50 times greater than this and a significant number of particularly threatened birds are in Africa. He informed the meeting of work being undertaken to move Vulnerable, Endangered and Critically Endangered species along the 'Species Recovery Curve', i.e. from understanding the reason for the decline, the solutions needed, deploying those solutions and, finally, recovery.

We were fortunate to be joined by Abdulmanla Hamza, who spent a few minutes describing the conservation



Speakers at the ABC Thetford meeting and AGM, April 2012, from left to right: David Richardson, Sir Clive Elliott, Phil Atkinson, Jason Anderson, Rob Sheldon and Nigel Collar (Keith Betton)

Conférenciers à l'Assemblée générale annuelle de l'ABC, Thetford, avril 2012 ; de gauche à droite : David Richardson, Sir Clive Elliott, Phil Atkinson, Jason Anderson, Rob Sheldon et Nigel Collar (Keith Betton)



Abdulmaula Hamza from Libya with ABC Chairman Keith Betton (Keith Betton)

Abdulmaula Hamza de Libye avec le président de l'ABC Keith Betton (Keith Betton)

of Lesser Crested Terns *Sterna bengalensis* in Libya. He has ringed 1,140 chicks so far and is keen to receive details of sightings (please contact him at abdhamza@gmail.com). He has also established the Libyan Society for Birds and anyone interested should contact him at the same address.

Finally, Jason Anderson spoke about birding and bird conservation in Eritrea. He covered the climate zones and habitats, endemic birds, seabirds, and the difficulties of birding in the country due to political restrictions on the use of binoculars, etc.

It was agreed that the meeting had been very successful, with a broad range of excellent speakers and interesting talks.

Changes in Trustees

At the AGM two Trustees, Nigel Redman and Clive Dickson, stood down after both having served a five-year term. The Club is very grateful to them—and to Clive's wife,

Janet—for all the work they have done for the Club during this period. Two new Trustees were elected at the AGM—Anthony Cizek and Stephen Pringle. Both have contributed to the work of the Club in the past and we now welcome them in a more formal capacity as Trustees. All the other officers and Executive Officers were re-elected for another year.

ABC Library

The ABC Library lacks several journals that are listed below. If you have spare copies of these journals that you are prepared to contribute to the library please contact Keith Betton.

Malimbus: 24(2); 28(1–2); 29(1–2); 30(1)

Ostrich: 77(1–4); 78(1, 4); 79(3, 4); 80(1, 4); 81(1–4)

Alauda: 71(1, 2, 4); 75(1–4); 77(3); 78(4); 79(1)

Africa—Birds & Birding: 3(6); 16(1–4, 6)

Joint ABC / BOC / NHM meeting and 2013 AGM

The next AGM of the African Bird Club will be run jointly with the British Ornithologists' Club and the Natural History Museum, and will be held in the Flett Theatre, Natural History Museum, Cromwell Road, London SW7 5BD, UK, on Saturday 6 April 2013. This is a new venture for the Club, which we believe will offer an interesting and wider range of talks and speakers, and an opportunity for members to meet new people. Such events are unlikely to occur annually but, if it works well and members enjoy the day, we may look for other opportunities to organise similar events. As usual there will be a range of illustrated talks covering topics connected with bird conservation in Africa. Books, CDs and other items will be on sale. The full programme will be released in early 2013 and updates will be given on the ABC website.

New Trustees

At the Club's AGM in April we thanked outgoing Trustees Clive Dickson and Nigel Redman for their time on Council. Since then Sue Walsh has stood down as Secretary and the Club is grateful to her contribution to our work. ABC Council has therefore been joined by three new Trustees.

Anthony Cizek takes on the role of Membership Secretary. He is a Zimbabwean with a general interest in natural history and conservation biology, especially of the Zambezian biome. He studied at the University of Zimbabwe and has an M.Sc. in Conservation Biology from the Percy Fitzpatrick Institute. He has spent much time in the field in south-central Africa and is a regular contributor to *Honeyguide*.

Geoff Orton was co-opted as a Trustee following the AGM in April and has agreed to take the role of Secretary. He is very active in birding in his home county of Kent in south-east England, is currently Bird Recorder for the Thames & Medway region of North Kent, and he is also the Kent representative for the British Trust for Ornithology. Geoff also serves on the Wildlife Awareness and Education Committee of the Kent Wildlife Trust.

Stephen Pringle has no specific role this year, but will be nominated as Treasurer from 2013. He is a physicist who has worked in high technology over the past 30 years. His interest in African birding and conservation stems from participation in wader ringing and bird surveys of Namibian and South African coastlines in the 1970s, which led to Walvis Bay and Langebaan becoming Ramsar sites.



New Awards

The Conservation Committee reviewed 13 proposals ahead of the February 2012 Council meeting, recommending four for funding; and 16 proposals before the May 2012 Council meeting, recommending six for funding. Council approved all ten proposals and incredibly nine of the ten were once again fully funded by ABC's generous sponsors. A total of £14,784 was therefore released, as follows.

Waterbird-aquaculture conflict: baseline survey for sustainable control of birds in village fish farms, Kenya

Maurice Ogoma from Kenya's Dept. of Fisheries Development received UK£1,500 for this study, generously contributed by Tasso Leventis. Aquaculture facilities, especially open ponds, attract fish-eating birds. Trees surrounding such facilities may also provide nesting areas for terrestrial birds, and fish-eating birds come into conflict with pond and shallow-dam owners when the birds focus on this convenient source of food. Waterbirds can have significant impacts on aquaculture and cause serious damage to fisheries, while fish farmers often respond by indiscriminately shooting the birds. The project will document birds that are frequent visitors and / or a threat to fish farms; determine habitat factors that attract birds to fish ponds besides fish availability; investigate when certain birds appear in large numbers and at what stage of fish development; investigate traditional bird control methods used by fish farmers; and propose ways of controlling birds at fish farms to minimise any conflict.

Investigating the dynamics of infectious diseases at lake ecosystems: the case of the East African Rift Valley and Lesser Flamingo mass die-offs

Juliet Kinyua, a Kenyan Ph.D. student based at Texas Tech University in the USA, received UK£1,430 to explore the potential role of vector-borne diseases in Lesser Flamingo *Phoeniconaias minor* die-offs with a focus on mosquito-borne arboviruses. The study will involve collecting mosquitoes in three Rift Valley lakes used by flamingos (Nakuru, Elementaita and Bogoria) and screening them for Togaviridae, Flaviviridae and Bunyaviridae. In addition, any previous exposure to these arboviruses will be tested by screening flamingo serum. The data will be used to create predictive disease models for arboviruses. The funds were donated by the Puffback Trust.

Taita Apalis in Msidunji, Kenya

A grant of UK£900 was awarded to Luca Borghesio of the University of Illinois for an urgent survey of a recently discovered subpopulation of the Critically



Lesser Flamingos / Flamants nains *Phoeniconaias minor* (Dave Richards)

Endangered Taita Apalis *Apalis fuscigularis*. A small (8-ha) forest, Msidunji had apparently not been visited by scientists until October 2011 despite years of intensive work in the area. It is extremely threatened as the forest is unprotected and surrounded by agriculture. Preliminary observations suggest that Msidunji is a key site not only for Taita Apalis, a species whose population might now number <200 individuals, but also for several other endemic and threatened species in the Taita Hills. The award, generously provided by Tasso Leventis, should enable Luca and his colleagues at the National Museums of Kenya to acquire the necessary biological data in order to submit an application to the Kenya Forest Service urging the forest be protected.

Shelley's Crimsonwing in Burundi: assessment of conservation status

Geoffroy Citegese, former Director of the Association Burundaise pour la Protection des Oiseaux (BirdLife Partner in Burundi), requested UK£1,500 as part-funding for a long-term study of Shelley's Crimsonwing *Cryptospiza shellei*. This threatened species (listed as Vulnerable) has a disjunct distribution, occurring in the eastern Democratic Republic of Congo (DRC), Uganda, Rwanda and Burundi. In Burundi, it has been recorded in the Afromontane forests of Kibira National Park and Bururi Forest Nature Reserve. However, the species' status is unknown there because, until now, security problems have prevented detailed research. Geoffroy will re-assess the species' conservation status: estimating population size, assessing distribution, basic habitat requirements and threats at the two Burundi sites. The work will make use of local human resources, including protected areas staff and communities familiar with the area. This study should permit better conservation planning both for the crimsonwing and the two reserves, which are important sites for much



Swynnerton's Robin / Rougegorge de Swynnerton
Swynnertonia swynnertonii (Adam Riley / Rockjumper
Birding Tours)

other unique biodiversity in the Albertine Rift. The award was generously sponsored by Tasso Leventis.

Conservation of Swynnerton's Robin in the Bvumba Highlands of Zimbabwe

The Bvumba Highlands 25 km south-east of Mutare are home to Swynnerton's Robin *Swynnertonia swynnertonii* (listed as Vulnerable) and the only two near-endemic birds in Zimbabwe, Chirinda Apalis *Apalis chirindensis* and Roberts' Warbler *Oreophilais robertsi*. It is an Important Bird Area (IBA) of montane grassland, forest and botanical reserves, a mosaic of privately owned land, small holdings and National Parks Estate. The area is threatened by deforestation, conversion of land to agriculture, invasive plant species (wattle and pine) and poaching. UK£1,500 was awarded to Peter Magosvongwe, a local resident and bird guide, to work with BirdLife Zimbabwe to establish the population status of Swynnerton's Robin and promote conservation through environmental education and awareness by establishing a Site Support Group. The award was generously sponsored by the Puffback Fund.

Is disease contributing to the decline of European Turtle Doves?: *Trichomonas gallinae* infection in Nigeria and its potential for transmission among other African doves

Danaë Sheehan and Jenny Dunn of the Royal Society for the Protection of Birds (BirdLife in the UK) received the Expedition Award of UK£2,000, to investigate whether disease is a significant mortality factor for European Turtle Doves *Streptopelia turtur* wintering in Africa. The UK population declined by 89% in 1970–2008, with a 69% decline across Europe since 1980. The field work will be undertaken at Dagona Waterfowl Sanctuary, in the Chad Basin National Park, north-east Nigeria. Up to 200 doves,



Hinde's Pied Babbler / Cratérope pie de Hinde
Turdoides hindei (Nik Borrow)

including a minimum sample of 25 *S. turtur*, will be caught using whoosh nets and static mist-nets at sites with large numbers of both this species and Afrotropical columbids (African Collared *S. roseogrisea*, African Mourning *S. decipiens*, Laughing *S. senegalensis*, Vinaceous *S. vinacea* and Red-eyed Doves *S. semitorquata*). Samples will be taken and all birds will be measured, ringed and released. Danaë and Jenny will be joined by a Nigerian Ph.D. student from the University of Copenhagen, and the samples will be analysed in Europe. Tasso Leventis kindly sponsored this project.

Population survey of a little-known population of the threatened Hinde's Pied Babbler in Kitui, Kenya

Hinde's Pied Babbler *Turdoides hindei* is a group-living, territorial, range-restricted species endemic to the region east of the Central Kenya highlands. ABC has supported several previous surveys of the species (see, e.g. *Bull. ABC* 18: 133), which is listed as Vulnerable. Alex Mutati Syingi of the National Museums of Kenya was awarded UK£1,454 to assess the distribution and population densities of a previously unsurveyed population in the Mui Basin, Kitui District. Olle Holst of Avifauna generously sponsored this project.

Blue Swallow: ecological survey and current status in Ruma National Park, Kenya

Blue Swallow *Hirundo atrocaerulea* is a rare intra-African migrant considered Vulnerable. It breeds in highland grasslands and winters at mid-altitude moist grasslands and swamps, often near lakes. Maurice Ogoma of the National Museums of Kenya was awarded UK£1,500 to survey Blue Swallow and its locally threatened moist grassland habitats in Ruma National Park—one of the two most important wintering sites in Kenya—as a baseline to guide future



scientific and management work. The award was kindly co-sponsored by Paul Bristow and Olle Holst of Avifauna.

Monitoring greenbuls as bio-indicators in Yangambi Reserve, DRC

Frank Bapeamoni of the University of Kisangani and Stijn Cooleman were awarded UK£1,500 to examine spatial and seasonal variations in biodiversity in the UNESCO 'Man and Biosphere' Reserve at Yangambi in the Democratic Republic of the Congo. They will focus on habitat selection by three species of greenbul: Icterine *Phyllastrephus icterinus*, Yellow-whiskered *Andropadus latirostris* and Little *A. virens*, and Common Bulbul *Pycnonotus barbatus*. The project will involve mist-netting, ringing and measuring birds in different habitats at different seasons. Once again Tasso Leventis generously sponsored this project.

Survey of breeding Grey Crowned Cranes in Kampala, Uganda

Ndibaisa Dylis of A Rocha Uganda was awarded UK£1,500 to undertake the first-ever survey of the Vulnerable Grey Crowned Crane *Balearica regulorum* at Lubigi wetland. Up to 90 cranes have been seen there, and this study will aim to determine the size of the breeding and non-breeding populations, seasonal variation in the use of the wetland, location of roost sites, critical habitat parameters and potential threats.

Reports received

Hinde's Pied Babbler survey

In February 2011 Council approved an award of UK£940 for a survey of Hinde's Pied Babbler *Turdoides hindei*, by Phil Shaw of the University of St. Andrews and Peter Njoroge of the National Museums of Kenya. Hinde's Pied Babbler is a globally Vulnerable Kenyan endemic, whose small, patchy range is centred on the fertile, intensively farmed southern slopes of Mt. Kenya and the foothills of the Aberdares. In 2000–01 a survey was conducted at six of seven sites known to support the species. The survey provided estimates of its global population and range, and demonstrated a positive relationship between babbler density, breeding success and scrub cover. Highest densities were in fertile, high-rainfall sites where much of the land is intensively cultivated, offering limited scope for protection.

The team resurveyed three of the six sites: the Kianyaga, Mukurweini and Machakos Valleys IBAs. Together, these held over 80% of the birds detected in 2000–01. Using methods identical to those applied earlier, they aimed: to estimate the level of change in population at each site; assess any changes in breeding success (from the proportion of juveniles and recent



Grey Crowned Crane / Grue royale *Balearica regulorum* (Adam Riley / Rockjumper Birding Tours)

fledglings present); and determine the amount of change in scrub cover associated with any change in the babbler's abundance and breeding success.

During July 2011 the team resurveyed 74 km of transects. As in 2000–01, each transect was divided into 1-km sections, encompassing four habitat survey points, relocated using GPS. The team located 308 Hinde's Pied Bblers in 75 groups, indicating little overall change in numbers of individuals (+1.3%), groups (-3.8%) or the percentage of juveniles present (down from 19% to 13%). Trends at the three sites differed markedly, however. At Mukurweini and Kianyaga (both high-rainfall sites), the number of birds had risen, while at Machakos (low rainfall), the team recorded fewer than half the number of birds and one-third of the number of groups in 2000–01.

The survey also demonstrated a positive relationship between change in the number of Hinde's Pied Bblers within 1-km transect sections, and change in scrub cover. Transect sections in which the number of adults, juveniles or whole groups had declined over the previous ten years showed a significant reduction in scrub cover.

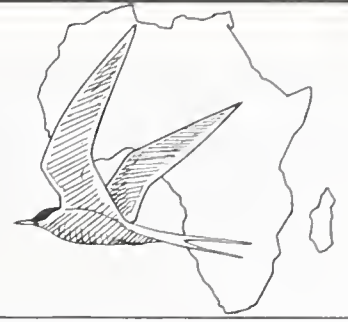
These findings will help to quantify the impact of scrub removal on Hinde's Pied Babbler abundance at a local scale, and will enable the development of guidelines for managing the species' populations in intensively cultivated areas.

Dr Chris Magin, ABC Conservation Officer on behalf of the ABC Conservation Committee

The ABC website (www.africanbirdclub.org/club/consfund_projects.html) shows the full list of conservation projects and awards made since the inception of the programme over a decade ago. **A remarkable total in excess of £121,000 has been donated during this period.** You can also view many of the final project reports on this page, by clicking on the hyperlinks.

Africa Round-up

Compiled by Ron Demey, Guy M. Kirwan and Peter Lack



General

Why some of Europe's summer migrants are faring so badly!

During the last decade a database on the African distributions of Western Palearctic migrants has been collated and now contains just over 250,000 point-locality records (http://macroecology.ku.dk/resources/data_resources/african_migrants/). Use of this database has led to an improved understanding of distributions, including for threatened species such as Corncrake *Crex crex*, Aquatic Warbler *Acrocephalus paludicola*, Basra Reed Warbler *Acrocephalus griseldis*, Cinereous Bunting *Emberiza cineracea* and Oortolan Bunting *E. hortulana*. Bruno Walther and his colleagues mapped the sub-Saharan distribution of 65 species of passerine migrants using a combination of presence-only and presence-absence distribution modelling techniques. Combining these with data on the conservation status and population declines of 64 of the 65 species, they found that species which declined during the period 1970–2000 were concentrated in the Sahelian region, while species with more stable populations overwintered more widely across Africa. The authors of the study then reviewed recent climatological, biological and ecological changes in the Sahelian and more southerly Sudanian zone. Their main conclusions are: (1) the 1968–1997 drought was exceptionally severe; (2) year-to-year climatic variability was very high in the Sahel, and higher than in the rest of sub-Saharan Africa; (3) these climate extremes had unusually strong repercussions on soil erosion, above- and below-ground water levels, and natural vegetation, especially perennial woody vegetation, with some negative effects still apparent to this day despite the

recent re-greening of the Sahel; (4) driven by one of the highest human population growth rates in the world, agricultural expansion and loss of natural non-forest vegetation was higher in the Sahelian and Sudanian zones than in any other sub-Saharan region; (5) the effects of cattle grazing and wood exploitation may also have been more severe in this region than in other sub-Saharan regions. The implications for migrant birds are that, even before the drought beginning in the late 1960s, there was a long-term trend of humans appropriating natural resources, recently accelerated through exponential population growth and more intensive agricultural methods. The recent re-greening of the Sahel and parallel improvements in agricultural techniques during the last decade have improved the welfare of human populations, but have had no or very little positive effect on natural resources utilised by animals. This widespread ecological transformation may therefore be one of the main long-term drivers of the population declines of those migrants overwintering in these regions, and possibly even for bird species which use these regions only for refuelling.

Source: <http://www.bou.org.uk/bouproc-net/migratory-birds/walther-et-al.pdf>

Zino's Petrel movements at sea

Movements at sea of the Endangered Zino's Petrel *Pterodroma madeira* remained unknown until recently. In 2007–2010 14 lightweight geolocators were attached to breeding Zino's Petrels caught at their nests on Madeira, the species' sole breeding locality. A preliminary analysis of the results from 12 recovered dataloggers show that in the breeding season, between April and late September, the birds ranged widely, predominantly to the north

and north-west of Madeira, with a few flying south to the West African Upwelling at $c.10^{\circ}\text{N}$, and north to the coasts of Portugal and Ireland up to almost 60°N , but no further west than 45°W . In the non-breeding season, from late October to late March, they stayed more in the central Atlantic with just one bird north of Madeira, and all others migrating to waters off West Africa (mainly Mauritania and Senegal), and north-eastern Brazil, south to the tropical Atlantic west of the Gulf of Guinea to St. Helena.

Source: *Birding World* 24, pp. 216–219

Eurasian Bitterns tracked by satellite

Where Eurasian Bitterns *Botaurus stellaris* spend the non-breeding season is still inadequately known. To gather information on their movements, a few individuals were satellite-tagged in the Netherlands in 2010. An adult female ('Elly'), which was tagged at her nest on 17 June 2010, migrated south via France, Morocco and Mauritania to arrive in The Gambia on 5 November 2010. She spent the summer of 2011 in Normandy, France, and subsequently travelled south to Morocco again, where she was first reported on 31 October 2011. She remained in northern Morocco until mid-March 2012, then travelled north via Normandy to the Netherlands, and in early May arrived at the location where she was originally satellite-tagged; she was incubating four eggs by the end of the month.

Source: www.roerdomp.info

Lesser Kestrels and Montagu's Harriers also satellite-tagged

Ruben Limiñana and his colleagues have reported the results of two satellite-tagging studies. One paper reports the results obtained from



Lesser Kestrel / Faucon crécerellette
Falco naumanni (Stein Nilsen)



Montagu's Harrier / Busard cendré
Circus pygargus (Adam Riley /
Rockjumper Birding Tours)

five Lesser Kestrels *Falco naumanni* breeding at a colony in Spain. The birds all spent the winter in the border region of Mauritania, Mali and Senegal, although they were widely spaced. Spring migration was prolonged compared to autumn because of longer stopovers, and there was also more migration at night in the autumn leading to longer distances travelled in a single flight. Routes were variable too: some birds followed the Atlantic coast, but others crossed the Sahara with some even adding a loop to the east. The second study tagged 14 Montagu's Harriers *Circus pygargus* in Spain

and tracked 18 autumn journeys and ten spring migrations. The birds wintered in much the same area as the Lesser Kestrels and also were at times widely spaced although all had bred in a relatively small region. The harriers migrated via a relatively narrow corridor between the coast of Morocco and Western Sahara and western Algeria. However, individuals did not necessarily follow the same route during each migration, although there was relatively high fidelity to their winter quarters once the birds arrived.

Source: *Ibis* 154, pp. 389–399;
J. Ornithol. 153, pp. 85–93

More satellite tracking: Sooty Falcon

A Sooty Falcon *Falco concolor* has been tracked from the west coast of Abu Dhabi to Madagascar by Salim Javed and colleagues. It crossed the Arabian desert at night but all subsequent journeys through eastern Africa were by day. Stopovers occurred in southern Arabia, south-east Ethiopia, east Kenya, south-east Tanzania, and it reached its expected wintering area in southern Madagascar after just 13 days having travelled 5,656 km. Sadly, the bird died in late January but the researchers intend to tag additional individuals in the future.

Source: *Bird Conserv. Intern.* 22,
pp. 106–119



Sooty Falcon / Faucon concolore
Falco concolor (Callan Cohen /
www.birdingafrica.com)

Migration pattern of Northern Wheatear revealed by geolocators

Northern Wheatear *Oenanthe oenanthe*, which breeds in the Northern Hemisphere, from the east Canadian Arctic, through Greenland and Eurasia into Alaska and north-west Canada, spends the non-breeding season mainly in the Afrotropics. Research using geolocators, supported by stable hydrogen isotope analyses of feathers grown in winter, has demonstrated that birds breeding in Alaska fly across northern Asia to their winter quarters in East Africa—a journey of 14,500 km each way. Those breeding in eastern Arctic Canada migrate across the northern Atlantic Ocean to winter in western sub-Saharan Africa, 3,500 km distant.

Source: *Biol. Lett.*, [dx.doi.org/10.1098/rsbl.2011.1223](https://doi.org/10.1098/rsbl.2011.1223)

Statistically defined biogeographical regions in sub-Saharan Africa

Peter Linder and colleagues used one-degree grid cell resolution databases for birds, mammals, amphibians and snakes (4,142 species) and c.13% of plants (5,881 species) from the Afrotropics. These databases were analysed using cluster analysis techniques to define biogeographical regions. They found evidence for seven well-defined regions in sub-Saharan Africa, with only minor taxon-specific biogeographical variation. The proposed regions are: Congolian, Zambezan, Southern African, Sudanian, Somalian, Ethiopian and Saharan. East Africa, the West African coast, and the transitions between the Congolian, Sudanian and Zambezan regions could not be assigned. Perhaps surprisingly, the Cape area in South Africa, Afromontane areas and the coastal region of East Africa did not emerge as distinct regions but are characterised by rapid turnover of species and high levels of narrow endemism. These regions are broadly similar to those proposed using expert opinion approaches.

Source: *J. Biogeogr.* DOI:
[10.1111/j.1365-2699.2012.02728.x](https://doi.org/10.1111/j.1365-2699.2012.02728.x)



African White-backed Vulture /
Vautour africain *Gyps africanus*
(Per Holmen)

The plight of African vultures

A Pan-African Vulture Summit has urged governments to conserve vultures across the continent. Governments have also been called upon to legislate and enforce stringent measures to prosecute and impose harsh penalties on perpetrators of poisoning and those illegally trading in vultures and/or their body parts. Speaking at the summit, IUCN Regional Director for eastern and southern Africa, Ali Kaka pointed out the need to ensure that equal emphasis is placed on creating awareness among policy and decision-makers, and the general public on the importance of these species to our wellbeing. He notes that this will be vital in mobilising support outside the conservation fraternity. The Vulture Specialist Group of the IUCN Species Survival Commission, working with the Birds of Prey Programme of the Endangered Wildlife Trust and The Peregrine Fund and their partners in the African Raptor Network, aimed to assess the population status of all African vulture species. They also set out to identify and initiate the implementation of appropriate conservation actions to attempt to effectively address the key threats to these birds from a

continental perspective. To achieve this, a Pan-African Vulture Summit was convened in the Masai Mara, Kenya, with the support of the Masai Mara Authorities on 16–20 April 2012 and invited input from a wide range of vulture specialists, researchers and government wildlife representatives from across the continent to provide input from a local perspective and to devise and promote the implementation of a Pan-African Vulture Conservation Plan that will address the above needs. The participants called for the effective regulation of the import, manufacture, sale and use of poisons, including agricultural chemicals and pharmaceutical products known to be lethal to vultures. They would like to see that all new energy infrastructures are vulture-friendly and that existing unsafe infrastructure is modified accordingly. In addition, the participants called upon governments to support research, capacity building and outreach programmes for the conservation and survival of healthy vulture populations.

Sources: *IUCN SSC Species e-bulletin April 2012*; http://www.iucn.org/about/union/secretariat/offices/lesarol?9695/A-call--to-save-Africas-vulture-populations-from-extinction&utm_source=IUCN+SSC+Species+e-Bulletin&utm_campaign=f159eab93-SSC_Species_e_bulletin_April_20125_2_2012&utm_medium=email

North Africa

Lake Ichkeul under threat (again!)

Lake Ichkeul in northern Tunisia, an important wetland for wintering and migrant waterfowl, is coming under increasing threat from several sources. Nabil Hamdi and Faouzia Charf, who have been monitoring the site, found that between September 2001 and August 2004 the salinity level in the lake doubled, and that this was accompanied by reduced overall water levels and reduced productivity. The consequence was that overall numbers of waterbirds declined by 40% (wintering birds

by 55% and migrants by 22%). The reason was quite obvious—an increasing number of dams blocking the input streams and rivers from the nearby mountains. They propose an action plan to preserve the site for the wildlife it supports.

Source: *Alauda* 80, pp. 57–64

Asian Desert Warbler found in Libya

In January 2011, Asian Desert Warbler *Sylvia nana* was discovered in a remote part of the Libyan Desert, in the extreme south-east of the country, near the border with Egypt and North Sudan. The species, which was split from African Desert Warbler *S. deserti* and breeds in Central Asia, is known to winter in Egypt and Sudan, but there are no previous records from Libya. African Desert Warbler breeds in the north-western Sahara, presumably east to western Libya. Previous statements concerning the occurrence of Asian Desert Warbler in the country are questionable. Future studies should clarify the status and distribution of the two taxa in the country.

Source: *Dutch Birding* 34, pp. 172–174

Mourning Collared Dove found in Egypt

A short paper in the journal *Dutch Birding* documents the discovery of Mourning Collared Doves *Streptopelia decipiens* in southern Egypt, the first record in the Western Palearctic, in December 2010. At least two birds have been present at Abu Simbel into 2012. A photograph appeared in *Bull. ABC* 19: 99.

Source: *Dutch Birding* 34, pp. 104–107

African Crane in Mauritania

Two Dutch birders observed an African Crane *Crex egregia* at the Banc d'Arguin, Mauritania, in November 2011. Although the fourth or fifth country record, it was only the second for the north of the country and thus within the Western Palearctic, from where there are also four records in the Canaries, one in



African Crake / Râle des prés
Crex egregia (Nik Borrow)

the Cape Verdes and one in southern Morocco.

Source: Dutch Birding 34, pp. 95–96

Atlantic Ocean Islands

White-tailed Tropicbird in the Azores

Keen rarity finders have been heading to the Azorean archipelago, especially in the autumn, with the aim of finding new birds for the Western Palearctic for a number of years. Their main ‘targets’ unsurprisingly are North American vagrants, but one of the highlights of the 2011 season was a well-documented White-tailed Tropicbird *Phaethon lepturus* on Flores and Corvo in October, which was only the third Western Palearctic record.

Source: Dutch Birding 34,
pp. 100–104



White-tailed Tropicbird / Phaéton à bec jaune
Phaethon lepturus
(Peter Berglin)

Population decline of Macaronesian Shearwater on Tenerife suspected

Estimating and monitoring breeding populations of petrels and shearwaters is notoriously difficult, given these species’ secretive breeding behaviour, the majority being nocturnal, nesting in burrows at often remote and inaccessible locations. To assess population trends of Cory’s Shearwater *Calonectris diomedea*, Bulwer’s Petrel *Bulweria bulwerii* and Macaronesian Shearwater *Puffinus baroli* (formerly Little Shearwater *P. assimilis*) on Tenerife, in the Canary Islands, Airam Rodríguez and co-workers therefore used data from rescue campaigns during 1990–2010 that aim to reduce mortality of young petrels attracted to artificial lights on their first flights from the nest burrow out to sea. It appeared that the number of rescued fledglings of Cory’s Shearwater increased, that of Bulwer’s Petrel remained stable, whilst numbers of rescued Macaronesian Shearwaters sharply decreased. The researchers conclude that, in the absence of more accurate population estimates, these results suggest a sharp decline in the latter species’ breeding population, estimated at 70 pairs in 1997–2003.

Source: Ibis 154, pp. 167–172

Cape Verdes report

The latest (seventh) Cape Verdes bird report was published in 2012 and summarises recent data on the status and distribution of resident and migrant birds in the archipelago, including records of nine species new to the islands: Dwarf Bittern *Ixobrychus sturmi*, Eurasian Bittern *Botaurus stellaris*, Green-backed Heron *Butorides striatus*, Hen Harrier *Circus cyaneus*, Baillon’s Crake *Porzana pusilla*, Common Coot *Fulica atra* (cf. Bull. ABC 19: 69–70), Black Tern *Chlidonias niger*, Sedge Warbler *Acrocephalus schoenobaenus* and Melodious Warbler *Hippolais polyglotta*. Also of great interest is the first record of the endemic Raso Lark *Alauda razae* away from the islet of Raso (photographed on São Nicolau) and the perilous situation of

the Magnificent Frigatebird *Fregata magnificens*, with perhaps just two individuals in Cape Verde. During the past decade, breeding populations of Common Moorhen *Gallinula chloropus* appear to have become well established on the islands of Santiago and Boavista. Following its expansion through north-west Africa and the Canary Islands, Eurasian Collared Dove *Streptopelia decaocto* has now also colonised the Cape Verdes.

Source: Zool. Caboverdiana 3(1),
pp. 1–28

First assessment of Endangered Northern Rockhopper Penguins since 2011 oil spill

Almost a year after the oil spill on Nightingale Island (part of Tristan da Cunha, a UK Overseas Territory in the South Atlantic), a survey to assess the penguin’s population has taken place (see Bull. ABC 18: 141–142). The islands support >65% of the global population of Northern Rockhopper Penguin *Eudyptes moseleyi*, and although efforts to rescue the birds were considerable, it was unknown just how much the population had been affected by the spill. While the counts suggest the breeding population has suffered less than anticipated, scientists warn that the news should be treated cautiously. Dr Juliet Vickery, the Royal Society for the Protection of Birds’ (RSPB) Head of International Research, said: “It’s a big relief that the initial results of the counts are better than we had anticipated. We should not, however, relax our watch. There is much we don’t know about this species and the extent to which breeding colony counts reveal the true picture of population trends is hard to ascertain...so it is vital that we continue to monitor the birds closely for several more years to establish the true impact of the oil spill.” Estimates show approximately 154,000 penguins bred on the island in 2011, but estimates in the 1950s suggest there were two million pairs on Gough alone. The species is globally threatened and the causes of the historic decline are unknown. As well as long-term effects on the penguins, the oil spill has caused

concern for the important rock lobster fishery, which is Marine Stewardship Council (MSC) certified as a sustainable and well-managed fishery, and is a mainstay of the island's economy. Latest evidence shows that catches are far below normal and rotting soya has been spotted on the traps. A dive survey revealed that the wreck had broken up considerably over the winter. On the advice of experts, the Nightingale fishery has closed and the quota for the fishery at Inaccessible Island was reduced from 92 to 53 tonnes for the 2011/12 season. Following the disaster, the RSPB launched an emergency appeal to help with the clean up; this raised almost UK£70,000 and will be used to support penguin monitoring, strengthen the island's biosecurity, and facilitate rodent control on Tristan to reduce the risk of rats being introduced to Nightingale. The African Bird Club and its members contributed £1,250 to the appeal.

Sources: *BirdLife press release February 2012;*

World Birdwatch 34(1), p. 9

West and Central Africa

Niger creates the largest protected area in Africa

The Termit and Tin Toumma regions of eastern Niger are the last remaining strongholds in the entire Sahara for a suite of threatened desert species, including the Addax *Addax nasomaculatus*, Dama Gazelle *Gazella dama*, Barbary Sheep *Ammotragus lervia* and Cheetah *Acinonyx jubatus*. The Addax antelope is one of the rarest and most endangered species on earth. With <300 left in the wild, the species' survival depends on urgent and comprehensive action in its last remaining strongholds in the Sahelian nations of Niger and Chad. With its partners, the Sahara Conservation Fund has been working for nearly a decade to establish a vast new protected area whose management will benefit both wildlife and local nomadic people through improved habitat use and the development of appropriate



Addax *Addax nasomaculatus*
(Werner Suter)

ecotourism. These efforts were crowned in March 2012, when Niger formally gazetted the Termit & Tin Toumma National Nature Reserve. At 100,000 km² the reserve is one of the largest in Africa.

Sources: *IUCN SSC Species e-Bulletin February 2012; http://www.saharacconservation.org/?Termit-Tin-Toumma-Niger&utm_source=IUCN+SSC+Species+e-Bulletin&utm_campaign=1cc527eaf9-e_bulletin_February_20123_8_2012&utm_medium=email*

Additions to Nigeria's Omo Forest birdlist

The results of recent survey work in Omo Forest Reserve, the most important protected area in southwestern Nigeria, have been published in this journal (see *Bull. ABC* 16: 184–196) and in *Malimbus* (29: 16–30, 2007). Three additions to the list of birds recorded at the site have now been documented: Black Sparrowhawk *Accipiter melanoleucos*, Grey Kestrel *Falco ardosiaceus* and Mottled Spinetail *Telacanthura ussheri*. All three are associated with anthropogenic habitats, which have increased in the area in recent years.

Source: *Malimbus 34, pp. 41–43*

Blue-billed Malimbe associating with crocodiles year-round

Blue-billed Malimbe *Malimbus nitens*, which builds its nest on branches overhanging forest streams and ponds, is known to prefer the vicinity of dens of Dwarf Crocodile *Osteolaemus tetraspis* for nesting. Previously it was assumed this was

because of the protection provided by the presence of crocodiles, but recent observations in Cameroon and Gabon revealed that the malimbes also preferred sites with crocodiles when not breeding. Local villagers are apparently well aware of this year-round association and poachers trapping Dwarf Crocodiles for bush-meat use Blue-billed Malimbe as an indicator of crocodile presence. Why the birds show this preference year-round is unclear.

Source: *Malimbus 34, pp. 39–41*

Elephant meat trade

An investigation into the dynamics, scale and impact of the trade in elephant meat in four Congo Basin countries has revealed that the demand for elephant meat is higher than previously expected. The demand for this meat outstrips supply and the perception in cities that this meat is prestigious causes the price of elephant meat to be greater than most other. This demand and high earning potential gives hunters a great incentive to poach elephants for more than just their tusks. Due to the fear of being caught with illegal elephant products, the hunters do not achieve the maximum value of an elephant carcass. Often, only the tusks and a small amount of meat are taken, but the meat from an adult male could earn a hunting party up to US\$5,000, a price that could only be achieved from very large tusks. Potentially, the carcass of a single adult elephant with large tusks could earn a hunting group over US\$10,000. Any relaxation in the enforcement of legislation would provide greater opportunities to hunters and increase the frequency of poaching. The report also revealed the importance of commanditaires in the hunting of elephants. Commanditaires are usually influential people in the government, military or business that provide the equipment, money and, often, weapons to an elephant hunting party. The primary aim of these hunting parties is to collect ivory, which the commanditaires will sell on. Without these wealthy people

funding the hunting parties, fewer elephants would be poached. The main reasons for elephant poaching given by those who participate were lack of law enforcement and poverty. Therefore the recommendations made by the report address these issues. In particular, efforts should be concentrated on the commanditaires who initiate and support the hunting groups, as without these people many hunts would not occur. Additionally poor hunters who are employed by the commanditaires need alternative livelihoods or training opportunities to reduce the incentive to hunt. However, ultimately it is the demand for ivory and elephant meat that is driving the killing of elephants. If consumer demand can be reduced, or better, eliminated, elephant products would sell for very little or not at all thereby removing the economic incentive to carry out the expensive, arduous and risky elephant hunts. Education and public awareness programmes should be increased to generate stigma associated with buying elephant products and persuade the public that elephants should be protected. The report concludes that conservation of elephants in Central Africa requires integrated regional development and conservation policies that should be carried out by the COMFIFAC-CBFP (Commission of Ministers in Charge of Forest in Central Africa – Congo Basin Forest Partnership). By combining both development and nature conservation policies the incentive and opportunities to hunt elephants could be reduced.

Source: *IUCN SSC Species e-Bulletin*
February 2012

The perils of nature conservation on the front line

A ranger and two Congolese soldiers protecting evacuating civilians in Virunga National Park were gunned down in an ambush in early May 2012. The men came under machine gun fire from a group of 100 unidentified militia members while attempting to secure an important transit route. Ranger Paris Paluku leaves behind a wife and two children. “Paris will be remembered

as one of the most courageous men to have worked in the park,” Chief Warden Emmanuel de Merode said. More than 150 Virunga rangers have died in the line of duty since 1990. Virunga National Park, on the Democratic Republic of Congo’s border with Rwanda and Uganda, has been infiltrated by four distinct militia groups, according to de Merode. Local residents reportedly fled and the park is currently closed to tourists due to the ongoing instability. A patrol of two Congolese and Rwandan rangers sent to remove poachers’ snares from Mountain Gorilla *Gorilla beringei beringei* habitat were forced to flee into Rwanda at the outbreak of unrest. At least 23 of Virunga National Park’s gorillas have been killed since 1990. In February, a gorilla was found dead after being caught in an illegal snare intended for antelope. Just c.786 gorillas remain in the Democratic Republic of Congo, Rwanda and Uganda.

Source: <http://www.surfbirds.com/community-blogs/blog/2012/05/14/wwf-mourns-virunga-ranger-death/#more-31274>

East Africa

Why the Stresemann’s Bushcrow is so range-restricted

Why would an adaptable bird that eats almost anything and can survive in heavily degraded habitats, have a world range of <5,000 km²? That question has baffled and confused scientists ever since Stresemann’s Bushcrow’s *Zavattariornis stresemanni* peculiarly restricted distribution was discovered in the 1930s. But now, a new study published in the *Journal of Ornithology* shows the globally threatened bird’s range exactly coincides with a unique bubble of cool, dry climate. Lead author, Dr Paul Donald said “The mystery surrounding this bird and its odd behaviour has stumped scientists for decades—many have looked and failed to find an answer. But the reason they failed, we now believe, is that they were looking for a barrier invisible to the human eye,



Stresemann’s Bushcrow / Corbin de Stresemann *Zavattariornis stresemanni* (Callan Cohen / www.birdingafrica.com)

like a glass wall. Inside the ‘climate bubble’, where mean temperature is <20°C, the bushcrow is almost everywhere. Outside, where the average temperature hits 20°C or more, there are no bushcrows at all.” The reason for this is as yet unknown, but it seems probable that it is physically limited by temperature; either the adults, or more likely its chicks, simply cannot survive outside the bubble, despite the existence of thousands of square miles of identical habitat. BirdLife International’s Dr Nigel Collar is co-author of the study. He added “Whatever the reason this bird is confined to a bubble, alarm bells are now ringing loudly. The storm of climate change threatens to swamp the bushcrow’s little climatic lifeboat and once it’s gone, it’s gone for good.” Stresemann’s Bushcrow is listed as Endangered and could be the most vulnerable species to climate change in the world. Scientists are now planning to start a monitoring programme on the temperature of the birds’ nests to see if it can unlock the answer to the question: why are they so sensitive to climate?

Source: *J. Ornithol.* DOI: 10.1007/s10336-012-0832-4

First Grey Pratincoles for Uganda documented

The first record of Grey Pratincole *Glareola pratincola* for Uganda, mentioned in a previous *Bull. ABC* (19: 108), has now been formally

documented. Three to five birds were observed on the Kasinga Channel, Queen Elizabeth National Park, on 10 November 2011, with one, which was photographed, still present two days later. One was photographed again on 25 December 2011, which suggests there was at least one long-staying individual. Apart from being the first for Uganda, these birds are apparently also only the second record for East Africa, a single having been reported previously, from Rusizi National Park in Burundi in 1991.

Source: Dutch Birding 34, p. 175

Farmland is of little use to forest birds in Kenya

Some forest birds do use surrounding farmland but few details of how they respond overall are available. N. E. Otieno and colleagues from the National Museums of Kenya have studied 30 farms in an area up to 12 km around Kakamega Forest in western Kenya, examining farm structure (hedge lines, heterogeneity, plant diversity, crop cover etc.) and how these affect birds. The most important variable for increasing bird diversity was hedge volume, with this increasing bird species richness, specifically of shrubland and insectivorous birds. Overall bird density increased with tree density and indigenous trees were especially important for insectivores and nectarivores. However, true forest birds were few and far between so, although good practices of a similar kind to those well known in Europe can enhance bird species conservation on farmland, these will be of little or no assistance to forest birds.

Source: Afr. J. Ecol. 49, pp. 410–417

Indian Ocean islands

Madagascar Pochards hatch in captivity

Eighteen Madagascar Pochards *Aythya innotata*, one of the world's rarest bird species, have hatched in a captive-breeding centre, bringing the world population to just 60 individuals. The Wildfowl and Wetlands Trust (WWT) and Durrell Wildlife Conservation Trust, who



Madagascar Pochard /
Fuligule de Madagascar
Aythya innotata (Adam Riley /
Rockjumper Birding Tours)

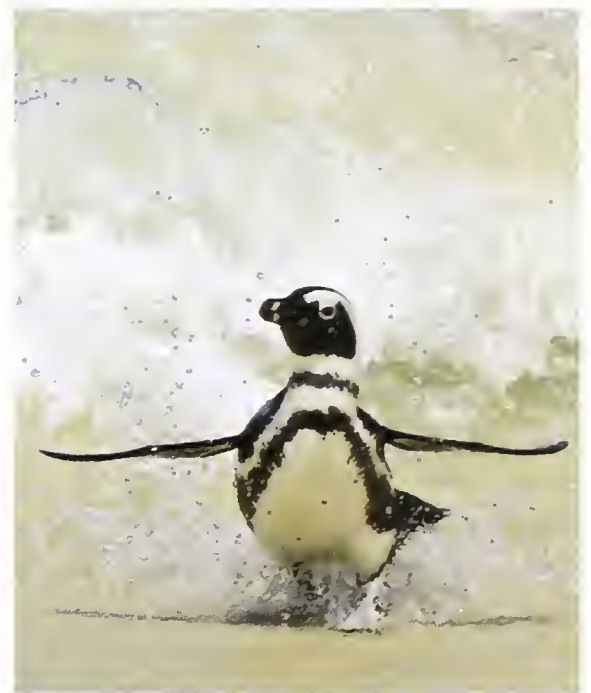
are leading the captive-breeding programme, have described this first success as an important step on the ladder to saving the bird from extinction. The pochards are being reared at a specially built centre in Antsohihy, Madagascar. Madagascar Pochard was thought to have become extinct in the late 1990s, but was rediscovered in 2006, when 22 birds were observed at Lake Matsaborimena, in northern Madagascar (see *Bull. ABC* 14: 171–174). Dr Glyn Young, of the Durrell Wildlife Conservation Trust, and the WWT launched an emergency mission to rescue the Critically Endangered bird in 2009. The aim was to collect eggs to start a captive-breeding programme; 24 eggs were collected from nests at the lake. The ducklings were initially reared in a hotel bathroom, while a captive-breeding centre was prepared. Those ducks have now bred in captivity for the first time. Young said: "The ducklings represent an incredible step forward in the fight to save the pochard from extinction. The arrival of these ducklings has led to real hope that the birds can one day flourish again."

Source: <http://www.bbc.co.uk/nature/17616488>

Southern Africa

African Penguins corral fish schools cooperatively

Groups of feeding African Penguins *Spheniscus demersus* have been found cooperating with each other to encircle and corral schools of pelagic fish, sometimes forcing them to the surface. Thirteen groups of birds



African Penguin / Manchot du Cap
Spheniscus demersus (Stein Nilsen)

(each of 25–165 individuals) were observed to do this, but not in the breeding season. Some 66–75% of birds were noted as being underwater at any one time. At times they joined groups of foraging Cape Gannets *Morus capensis* or Cape Cormorants *Phalacrocorax capensis*, although the penguins did not attempt corraling when they were outnumbered by these species. Common Terns *Sterna hirundo* were occasionally noted as taking advantage of the penguins' behaviour. The conservation message is that it must be increasingly difficult for the species to form large foraging groups as the numbers of birds overall continue to decline.

Source: *Ardea* 100, pp. 89–94

Southern Pied Babbler as host of Jacobin Cuckoo

The southern African subspecies of Jacobin Cuckoo *Clamator jacobinus serratus* was recently discovered to parasitise a previously unknown host, Southern Pied Babbler *Turdoides bicolor*. The researchers, Amanda Ridley and Alex Thompson, investigated rates of brood parasitism and the survival of the young. Jacobin Cuckoos do not evict host young and it was found that Southern Pied Babbler young tended to survive the nestling period and maintain similar body mass to babbler young in unparasitised nests, which is unusual. However, host young were less likely to reach independence than young of

unparasitised broods. A possible reason for the lower survival rates may be that the quantity of food appropriated by the cuckoo limits the amount of nutrition received by the babbler young, as has been observed for other host species of Jacobin Cuckoo. It is also possible that the loud begging of the young cuckoos attracted predators, resulting in higher predation of host young. Cuckoo survival was also low: only one Jacobin Cuckoo out of six raised by Southern Pied Babbler reached independence.

Source: *Ibis* 154, pp. 195–199

South Africa's Important Bird Areas being updated

The online text for the 124 IBAs in South Africa has been launched thanks to efforts by the BirdLife South Africa IBA Team. The text is based on the *Important Bird Areas of Southern Africa* directory. Over 45 IBA texts have been updated. The revision is an ongoing activity. Updated IBA assessments for all 124 sites should be ready by the end of 2013. The success of this initiative depends on inputs and feedback from observers with local knowledge of the sites. Observers are therefore invited to provide information on any South African IBA by visiting www.birdlife.org.za/conservation/iba/iba-directory, or contacting Ernst Retief at conservation.gauteng@birdlife.org.za.

Source: BirdLife International Africa Partnership e-bulletin May 2012 No. 30, pp. 6–7

Taxonomic proposals

Some name changes

Bob Dowsett has pointed out the existence of two pre-occupied names for southern African birds, namely those of a subspecies of Cardinal Woodpecker *Dendropicos fuscescens intermedius* and Forest Canary *Crithagra scotops transvaalensis*. In the latter case, he has proposed the replacement name *Crithagra scotops kirbyi*, the trinomial commemorating the holotype's collector, Frederick Vaughan-Kirby. For now, Dowsett

recommends no new name for the woodpecker as he suggests that it would be best to maintain this taxon in the genus *Thripias* until a well-resolved phylogeny of these Picidae becomes available. In a separate publication, Albrecht Manegold has suggested that the recently named subspecies of Blue Tit on the island of Gran Canaria, *Parus caeruleus hedwigii*, should more correctly be named *P. c. hedwigae*.

Sources: Bull. Br. Ornithol. Cl. 132, p. 68; Bull. Br. Ornithol. Cl. 132, pp. 69–70

Three new (but extinct) species of columbids from the Mascarene Islands

The original diversity of the pigeons and doves of the Mascarene Islands (Mauritius, Réunion and Rodrigues) has been poorly understood. Only two of perhaps as many as ten species are known from skin specimens, whereas the rest are known from old accounts and subfossil remains alone. Most accounts, however, do not distinguish between species, so accurate identification is difficult to determine. The introduction of non-native pigeons has further exacerbated the problem and has led to erroneous interpretations. In a recent paper, Julian Hume, long-time student of these islands' extinct avifaunas, provides a detailed re-analysis of the Mascarene columbid fauna (excluding the large, terrestrial 'didines', the Dodo *Raphus cucullatus* and Solitaire *Pezophaps solitaria*), based partly on newly discovered subfossil remains. He has described a new species from Rodrigues, Rodrigues Blue Pigeon *Alectroenas payandeei* as well as Mauritian Turtle Dove *Nesoenas cicur* and Mauritian Wood Pigeon *Columba thiriouxi* from Mauritius. Furthermore, he recommends that the problematic '*Columba*' *rodericana* of Rodrigues be placed in the genus *Nesoenas* and he provides new morphological and historical information concerning the extant Pink Pigeon *Nesoenas mayeri* and the extinct Mauritius Blue Pigeon *Alectroenas nitidissima*. The Columbidae comprises the largest avian radiation in the Mascarenes

and probably colonised the islands at least four times from Madagascar and South-East Asia during low sea level stands.

Source: *Zootaxa* 3124, pp. 1–64

Evolution of the Indian Ocean parrots

The parrots that occur in and around the Indian Ocean islands display a high heterogeneity in distribution and levels of speciation. S. Kundua and colleagues have analysed their relationships at a molecular level and hypothesise that the islands have acted as stepping stones in the radiation of Old World parrots and that sea-level changes may have been important determinants of current distribution patterns and speciation. Extensive species-level data suggest a complex pattern with Africa, Asia and the islands being colonised by multiple routes from Australia and that the island populations may have 'seeded' the continents. They also found several new specific relationships such as that the vasa parrots (*Coracopsis* spp.) of Madagascar share a common ancestor with monotypic *Psitttrichas* (of New Guinea).

Source: *Mol. Phyl. & Evol.* 62, pp. 296–305

Origins of bushshrikes, vangas and batises

Jerome Fuchs and his colleagues investigated the relationships of a group of passerines encompassing the Malaconotidea (essentially the bushshrikes, vangas and batises) along with the butcherbirds of Australia. They looked at DNA sequences from 10 loci and found the first strong evidence for a close 'sister-group' relationship between the Platysteiridae and Vangidae along with the Malaconotidae. It also appears that the major radiation of this group in Africa results from a single over-water invasion from Australia between 45 and 34 MYA, which in turn leads to further insights into the origins of the Afrotropical fauna.

Source: *Mol. Phyl. & Evol.* 64, pp. 93–105



Gorgeous Bushshrike / Gladiateur vert *Telophorus viridis* (Hugh Chittenden)

More on Willard's Sooty Boubou

Two years ago we reported on the description of Willard's Sooty Boubou *Laniarius willardi*, described in 2010 based on specimens collected by Tom Gnoske, Ben Marks and Charles Kahindo in Uganda more than a decade ago (cf. *Bull. ABC* 17: 17). Very recently, Tom Gnoske, Josh Engel and John Bates spent time in the eastern Democratic Republic of Congo and neighbouring Uganda searching, among other things, for *L. willardi*. Eventually, at Buhoma, in Bwindi National Park, the new species' type locality, Bates and Engel were able to find *willardi* and sound-record it, in the process apparently confirming its distinctiveness from Mountain Sooty Boubou *L. poensis*. A month later, Nik Borrow also managed to photograph Willard's Sooty Boubou in the same area. Nik's photo is online at www.surfbirds.com/gallery/ and Josh's sound-recordings at www.xeno-canto.org/.

Source: <http://fieldmuseum.org/users/john-bates/blog/vocalizations-willards-sooty-boubou>

Internet resources

African–Eurasian Waterbird Census website launched

A new website dedicated to the African–Eurasian Waterbird Census has been launched by Wetlands International. It provides information on how and when counts are conducted, how data are submitted and what the counts are used for. A range of freely downloadable documents and manuals to assist national coordinators in their work is provided. It also has new data submission forms, which are now the preferred format for receiving data. The website lists upcoming events, and has links to sister schemes under the International Waterfowl Census, specialist groups, and other waterbird work undertaken by Wetlands International. Visit www.wetlands.org/AfricanEurasianWaterbirdCensus/tabid/2788/Default.aspx

New website for Azores bird records

The original website providing up-to-date news on rarities in the Azores, www.birdingazores.com, was discontinued on 31 December 2011 due to the workload of its proprietor Staffan Rodebrand. However, a new website, Azores Bird Sightings (www.azoresbs.weebly.com) has taken over since 1 January 2012. It is run by a team of experienced volunteers, has no affiliation with any organisation, and aims to disseminate interesting bird news from the archipelago. The site welcomes sightings and reports from birders visiting the islands and invites contributors to provide photographs or a detailed description in the case of vagrants with fewer than five accepted records. The original website of Birding Azores will remain the site for records up to the end of 2011 and information on birding locations for each island can still be found there.

New website on Africa's world heritage sites

The site www.AfricanWorldHeritageSites.org is aimed at raising awareness of Africa's most precious heritage and the conservation challenges the sites face. It provides maps, information and a slideshow of each site. There are 120 UNESCO World Heritage Sites across Africa, 35 of which are inscribed for their outstanding natural qualities and five on the basis of both natural and cultural criteria; most, if not all of these are also Important Bird Areas. The website is a private initiative of conservationist, author and photographer Dr Peter Howard, who has worked in the field of African wildlife conservation since 1980. It is designed to complement the websites of the official agencies (UNESCO and the World Conservation Monitoring Centre), and presents independent opinion on the values and conservation of each site.

The status and habitat preferences of birds associated with coastal forest and grassland in Kilwa District, southern Tanzania

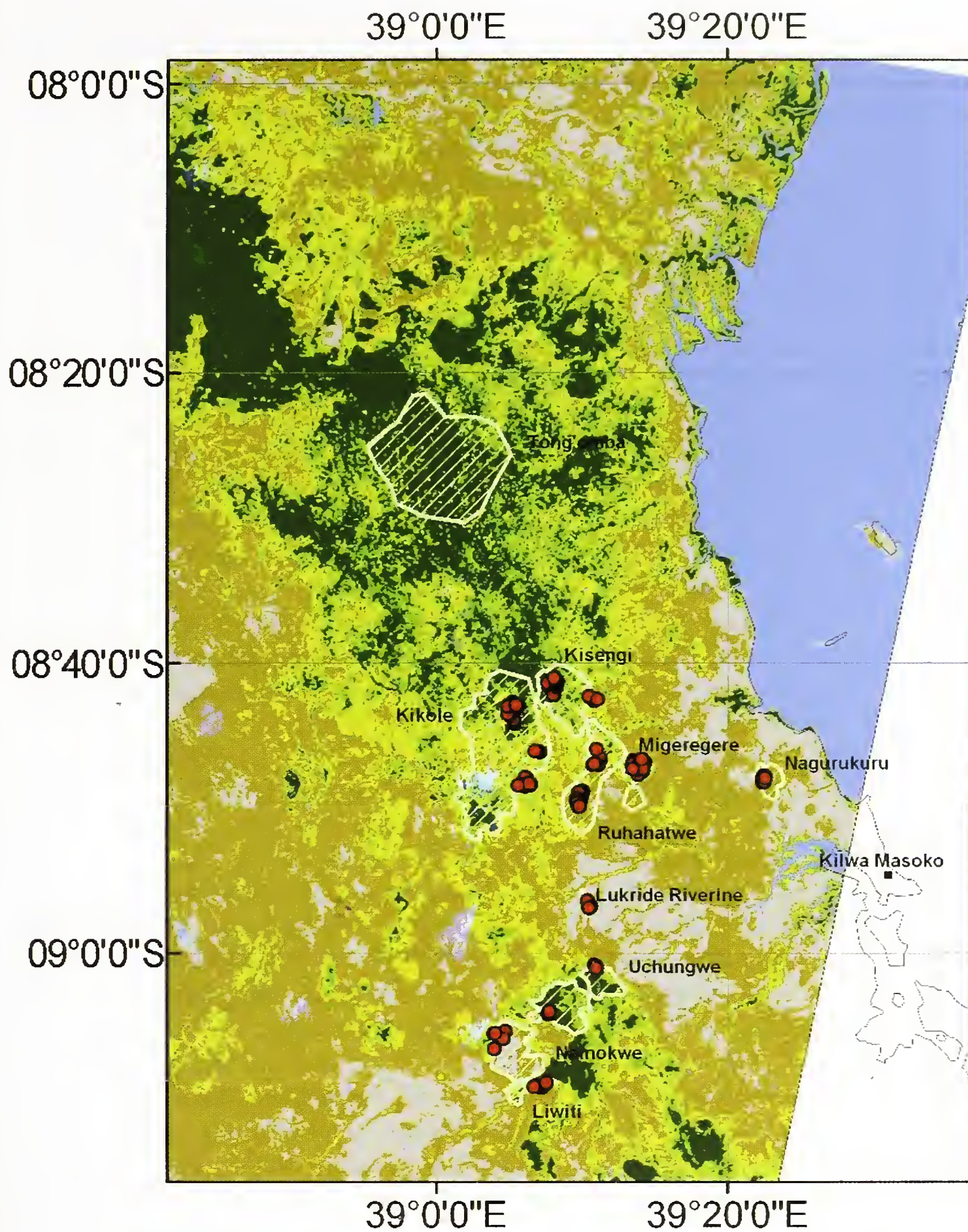
Ilya M. D. Maclean^a, James Bray^b, David Andrews^c, Leo Mlawila^d, Kurwa Kitaluta^d and Jonas Timothy^e

Statut et préférences d'habitat des oiseaux associés à la forêt côtière et la savane du district de Kilwa, Tanzanie du sud. Les forêts côtières de l'Afrique de l'Est sont un 'hotspot' de diversité et d'endémisme aviaire, mais il n'y a eu que peu d'inventaires des oiseaux associés aux forêts côtières en Tanzanie du sud, en particulier dans le district de Kilwa. Dans ce district, la structure des forêts continue d'être substantiellement modifiée par l'exploitation forestière, et de vastes étendues de forêt encore relativement intactes sont menacées par la production projetée de biofuel. À présent, on ne dispose que de peu de données sur les oiseaux de cette région et les effets probables des modifications de la structure forestière. L'objectif principal de l'étude exécutée en juin–septembre 2008, dont les résultats sont présentés ici, était d'arriver à mieux connaître l'association entre les espèces et les habitats et, si possible, de dresser la carte de distribution des espèces d'oiseaux de la région. La présence est rapportée de trois espèces Quasi Menacées et de 11 espèces confinées au biome des forêts côtières. La carte de distribution de l'endémique Pririt de Reichenow *Batis capensis reichenowi* est présentée et la présence d'une population précédemment inconnue du Barbican olivâtre *Stactolaema olivacea* est signalée. Les résultats confirment que la majorité des espèces d'intérêt pour la conservation sont capables d'occuper une variété d'habitats forestiers et de savane, mais la plupart de ces espèces n'était présente qu'à l'intérieur de forêts vastes ou juste à côté de celles-ci. Les auteurs postulent que la perte d'habitat causée par la production de biofuels est une menace plus immédiate que les changements dans la structure des forêts dues à l'exploitation forestière.

Summary. The coastal forests of East Africa are a hotspot of avian diversity and endemism, but there have been few surveys of the birds associated with coastal forests in southern Tanzania, and Kilwa District in particular. Within Kilwa District, logging for timber continues to substantially modify the structure of the forests and plans for biofuel cultivation threaten large tracts of still relatively undisturbed forest. At present, there are few baseline data on the birds of this region and the probable impacts of changes in forest structure. The primary purpose of this study, conducted in June–September 2008, was to provide an insight into bird–habitat associations and, where possible, to map the bird species in the region. We report the presence of three Near Threatened and 11 biome-restricted species, and map the presence of the endemic Reichenow's Batis *Batis capensis reichenowi*. We also report the presence of a previously unknown population of Green Barbet *Stactolaema olivacea*. Our results confirm that most species of conservation concern are capable of occupying a range of forest and savanna habitats, but most were only present in or adjacent to extensive tracts of forest. We postulate that habitat loss from biofuels poses a more immediate threat to birds than changes in forest structure as a result of logging.

The coastal forests of East Africa represent a biodiversity hotspot of global importance, not least for their avifauna (Burgess *et al.* 1998, Burgess & Clarke 2000). Although estimates vary according to the region included and the taxonomy employed, *c.*31 bird species are endemic to this biome many of which are classified as Endangered or Vulnerable (BirdLife International 2011c). These forests once formed a fairly continuous tract from Somalia to Mozambique, but clearance and logging have contributed to extensive habitat fragmentation. Biological surveys of the remaining

coastal forests have been highly uneven, focusing mainly on those patches in Kenya and northern Tanzania (*cf.* Fanshawe 1994, Burgess & Clarke 2000, Borghesio *et al.* 2008). With the exception of the Rondo and Litipo Forest Reserves in southern coastal Tanzania, the remaining area of coastal forest, *i.e.* from the Rufiji River in Tanzania to southern Mozambique, is virtually unsurveyed (Prins & Clarke 2007; although see Eriksen *et al.* 1994 and Tottrup *et al.* 2005). An analysis of all available botanical data suggests that floristic endemism and diversity in these coastal



Legend

- Point count locations
- Forest Reserves
- water
- other habitat
- grassland
- open woodland
- secondary forest
- primary forest

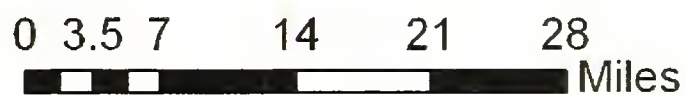


Figure 1. Study area showing the main habitat types as derived from satellite imagery. The area in the bottom right-hand corner, in which habitat cover was not derived, lies outside that covered by the satellite image.

Site d'étude montrant les types principaux d'habitat basé sur des images satellitaires. La zone dans le coin droit en bas, dans lequel l'habitat n'est pas indiqué, n'est pas couverte par les images satellitaires.

forests peaks in south-east Tanzania (Burgess & Clarke 2000) and the same may well be true of other taxa, including birds.

The forests of Kilwa District, southern Tanzania, are part of the East African Coastal Forest biome. They comprise a relatively complex matrix of habitats ranging from mangrove and coastal thickets to extensive *Brachystegia*-dominated woodland further inland, with closed-canopy coastal forest along some river valleys and on east-facing slopes (BirdLife International 2011a,b). Their structure is at least partially determined by fire. During the dry season, when the grass understorey is highly flammable, large areas of open grassland are susceptible to burning (Eva & Lambin 2000, Moe *et al.* 2009). However, the forests themselves are thought to be relatively resilient to fire as the presence of a closed canopy prevents the development of a grass understorey and ensures moisture retention (Moe *et al.* 2009).

In recent years, logging for timber has posed a severe threat to this habitat by reducing its overall extent, removing mature trees and altering habitat structure (Oyugi *et al.* 2008). The threat posed by logging in Kilwa District has increased as infrastructure improvements have enhanced accessibility to this previously isolated region and the demand for charcoal and timber has grown due to human population growth (Milledge *et al.* 2007). Logging, even if selective, also alters the dynamics of the system. When trees are removed the canopy is opened, stimulating the development of a grass understorey, which in turn makes the habitat more susceptible to fire, causes tree mortality and further abets understorey development.

Although Kilwa District currently lies outside the East African coastal forests Endemic Bird Area (Stattersfield *et al.* 1998), the few previous surveys of Kilwa have recorded several species of conservation concern. For example, the Near Threatened Southern Banded Snake Eagle *Circaetus fasciolatus* and Plain-backed Sunbird *Anthreptes reichenowi*, subspecies *yokanae*, are present (Baker & Baker 2002, BirdLife International 2011a), although their present status is poorly known. Anecdotal evidence suggests that many of these species are adversely affected by human disturbance, and that they favour forest with minimal understorey and a high proportion of mature trees (Baker & Baker 2002, BirdLife International 2011c). Logging,

even if selective (and thus not resulting in overall habitat loss), may therefore pose a significant direct threat by causing disturbance and removing mature trees, whilst the indirect threats posed by enhanced fire susceptibility may be even greater. Biofuel production represents another severe threat to the region's forests, as 350 km² of forest and grassland have been leased to a Netherlands-based company, Bio-Shape, for *Jatropha* cultivation (BioShape 2009), with further large-scale (>50,000 ha) biofuel initiatives planned (Martin *et al.* 2009). However, despite the potential threat of habitat destruction from biofuel production and logging in Kilwa District, no baseline data have been collected and, consequently, the impacts of these activities on bird populations are difficult to predict. The primary purpose of this study was to remedy this situation by providing insight into the bird-habitat associations and, where possible, to map and document the status of bird species in the region.

Methods

Study area

Our study focused on an area of *c.*37,000 km² between 08°40'–09°20'S and 39°00'–39°30'E (Fig. 1). The area comprises 4,396 km² of primary forest, 2,642 km² of secondary forest, 6,078 km² of open woodland, 14,771 km² of wooded grassland, 5,032 km² of open grassland and 2,444 km² of other habitats. Several of the forests are owned and managed by local communities (Maganga & Odgaard 2002) whereas other larger tracts are government-owned. In the latter, despite formal protection, logging is rarely prevented. Small areas, mostly near villages, are used for subsistence crops and, at the time of the survey, *c.*20% of the area had been leased for *Jatropha* cultivation, although this project subsequently collapsed. Between June and August 2008, 222 sampling points were established using a Global Positioning System (GPS). The location of these points was somewhat constrained by access and safety concerns (African Elephants *Loxodonta africana*), but were chosen to ensure that a broad geographic area was covered and that the complete spectrum of forest and more open habitat types was represented. Nevertheless, the locations were somewhat clustered and the interior of some of the larger forested areas were not surveyed (Fig. 3d).

Bird surveys

We surveyed the avifauna at sampling sites using 15-minute point counts, recording all birds heard or seen within 50 m of the observer. Counts were conducted between dawn (c.06.00 hrs) and 09.00 hrs. At all times, including when travelling to and from study sites, opportunistic observations of noteworthy species were also documented. All observers except one (DA) had considerable previous experience of conducting avian surveys in East Africa and were very familiar with the bird species associated with coastal forest. DA was given extensive training prior to commencing surveys. To supplement the point counts, mist-nets were erected by LM & KK at several sites. Although no additional species were trapped, several of the more elusive species such as Narina's Trogon *Apaloderma narina* (not heard throughout the survey) and Scaly-throated Honeyguide *Indicator variegates*, were caught.

Vegetation surveys

At each of the point count locations, canopy, understorey and tree measurements were taken. Canopy cover was estimated as an average of spherical densitometer readings taken at four random locations within 50 m of the point count location. Understorey was measured in two ways: as a proxy of the extent of understorey shrub development, a 2-m pole was swung round at breast height at five locations within 50 m of the point count location and the number of woody stems it touched counted. To measure the lower understorey, five 2 m × 2 m plots were randomly chosen within 50 m of the point count location, and the percentage of grass, woody herbaceous and bare cover estimated in each. Tree sizes and densities were measured using circumference at breast height (CBH). These results were used to elucidate relationships between canopy and ground cover, to understand the habitat requirements of different bird species and to ground-truth satellite images to produce a habitat map of the entire study area, and objectively identify distinct habitat types (for details see Maclean *et al.* 2009; Fig. 1).

Satellite image classification

A relatively cloud-free (cloud cover = 9%) Landsat 5TM satellite image of the study area from May 2008 was obtained from the US Geological Survey Earth Resources Observation and Science Centre

(<http://glovis.usgs.gov/>). Landsat 5 satellites have seven sensors (Bands) onboard, capable of obtaining images using different wavelengths. The reflectance values in different wavelength bands are useful at distinguishing different vegetation types (Lillesand *et al.* 2004). By adapting a method based on calculating reflectance value ratios and performing principal components analysis as recommended by Trisurat *et al.* (2000) and fully described in Maclean *et al.* (2009), we statistically combined the information recorded by the different sensors into a single metric that objectively distinguishes different vegetation types, hereafter referred to as principal component 1 (PC1). This was confirmed by comparing the values of PC1 to our field vegetation measurements. For canopy cover of less than 50%, the correlation between canopy cover and PC1 was extremely high, with a r^2 value of 0.97. For canopy cover in excess of 50%, the correlation between CBH and PC1 was higher with a r^2 of 0.87. This makes ecological sense as both primary and secondary forest possess dense canopy cover, but the former is typically characterised by more mature trees. By performing cluster analysis on the remotely derived metric, we were able to objectively identify five distinct habitat types of relevance to our study area (and several others such as swamp, urban, bare ground, etc., of less relevance). In practise this means that five meaningful habitat types could be distinguished using a combination of canopy cover and the CBH of trees. These are shown in Table 1.

Table 1. Definitions of habitat type used in this study.
CBH = tree circumference at breast height.

Tableau 1. Définitions du type d'habitat utilisé dans cette étude.
CBH = circonférence des arbres à hauteur de poitrine.

Habitat type	Canopy cover	Mean CBH
Open grassland	<10%	Any
Wooded grassland	10–30%	Any
Open woodland	30–50%	Any
Secondary forest	>50%	<50 cm
Primary forest	>50%	>50 cm

Results

Bird–habitat associations

A total of 5,824 individuals comprising 167 positively identified species was recorded. A small

number of birds could not be identified to species level and these were excluded from subsequent analyses. When a particular habitat type was assigned to each point count (defined using canopy cover and mean CBH; see Table 1), and the survey effort in different habitat types accounted for, most of these species exhibited a preference for a particular habitat type (i.e. more than 50% of records were within that habitat type), although rather few species recorded more than once were restricted entirely to one habitat type. A total of 21 species was recorded mainly in primary forest (Appendix 1), 18 in secondary forest (Appendix 2) and a further 26 in forest generally (Appendix 3). Fifteen species were recorded primarily in open woodland (Appendix 4), 30 in wooded grassland (Appendix 5), 20 in open grassland (Appendix 6) and a further five in grassland generally (Appendix 7). The remaining 28 species were not recorded primarily in one habitat type and could thus be described as generalists (Appendix 8).

It should be noted, however, that in some instances only a small number of individuals of a species were recorded so habitat preferences cannot be ascribed with certainty or may reflect the accidental occurrence of some species more usually associated with different habitat types.

The majority of species we recorded are widespread within Tanzania or Africa generally (and are of little conservation concern; cf. Brown *et al.* 1982, Urban *et al.* 1986, 1997, Fry *et al.* 1988, 2000, Keith *et al.* 1992, Fry & Keith 2004, Nilsen *et al.* 2009). However, several species are restricted to the coastal forest biome and a few of these are also listed as Near Threatened (BirdLife International 2011c). Two taxa, Rondo Green Barbet *Stactolaema olivacea woodwardii* and Reichenow's Batis *Batis capensis reichenowi* are potentially distinct species and, if so, are of conservation interest.

Notes on selected species

(NT) = Near Threatened.

Southern Banded Snake Eagle *Circaetus fasciolatus* (NT)

This coastal forest biome-restricted species was recorded once during point counts in open grassland, but on the edge of the large forested region in the north-west of our study area (Fig. 2a). The fact that it was recorded in open grassland

is unlikely to be an indication of its true habitat preferences, but probably more accurately reflects the difficulties associated with observing this species within closed-canopy forest. Individuals silently perch-hunting within the forest canopy or flying above the canopy are likely to have gone undetected. Three individuals were observed elsewhere during the course of the survey, with two in open woodland and one in closed-canopy forest. Furthermore, four separate individuals were also heard calling at dawn suggesting a wider distribution than the point counts would indicate. This eagle occurs from southern Somalia to northern KwaZulu-Natal and is associated with dense coastal and riverine forest, although it is known from other habitats including open village land (Brown *et al.* 1982; N. Baker *in litt.* 2010). It may occur more widely albeit at low densities in the study area, but the absence of extensive forest close to the coast might account for its scarcity.

Bateleur *Terathopius ecaudatus* (NT)

Recorded once in the north of the study area (Fig. 2a), flying over secondary forest surrounded by open grassland, and once opportunistically in the Tong'omba Forest Reserve also in the north of the study area, which is densely forested. The species occurs widely throughout Africa, typically in open broadleaf woodland rather than more open grassland, as it depends on trees for nesting (Brown *et al.* 1982). In Tanzania it is still common and widespread throughout the south-east woodlands (Baker & Baker *in prep.*).

Brown-headed Parrot *Poicephalus cryptoxanthus*

Twenty-three individuals of this coastal forest biome-restricted species (BirdLife International 2011c) were recorded, mostly in forested habitats, but also in open grassland (three times) and open woodland (six times). It was also recorded opportunistically at five further locations. All records were from the forested region in the north of the study area, but there was one from a small forest fragment in the south, albeit close to an extensive forest (Fig. 3c). The species' preferred habitat is described as forest-savannah mosaic (Fry *et al.* 1988) or mopane woodland and thicket-clump savanna (Dowsett-Lemaire & Dowsett 2006). Our results suggest this parrot may be dependent on larger forests in the study area, but visits a variety of habitats in adjacent localities.

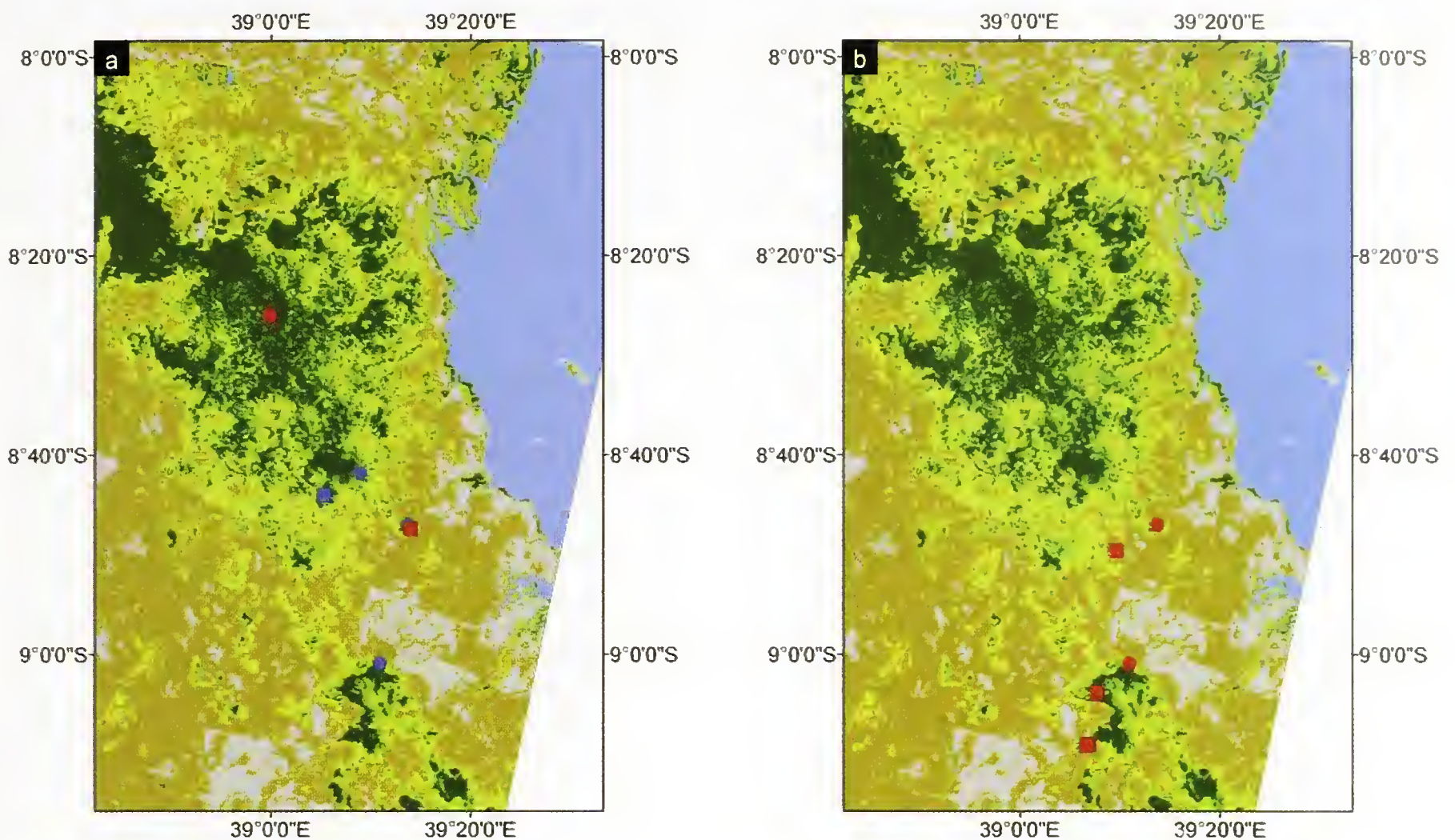


Figure 2. Distribution of Near Threatened species recorded during surveys of coastal forests in Kilwa District, Tanzania, in June–August 2008. Circles represent opportunistic records and squares records obtained during point-count surveys.

Distribution des espèces Quasi Menacées enregistrées pendant l'inventaire des forêts côtières du district de Kilwa, Tanzanie, en juin–août 2008. Les cercles représentent des observations faites de façon opportuniste, les carrés celles faites pendant les comptages par point.

(a) Southern Banded Snake Eagle *Circaetus fasciolatus* (red) and Bateleur *Terathopius ecaudatus* (dark blue)

(b) Plain-backed Sunbird *Anthreptes reichenowi*

Mangrove Kingfisher *Halcyon senegaloides*

The species was recorded opportunistically in mangroves near Kilwa Masoko, where it was relatively common. It is probably quite common throughout coastal mangroves (N.-Baker *in litt.* 2010).

Rondo Green Barbet *Stactolaema olivacea woodwardii*

The conservation status of this taxon depends on which taxonomic evaluation of the Green Barbet group as a whole is accepted. One view is that Green Barbet comprises two isolated populations (at Ngoye Forest in South Africa and the Rondo Plateau in Tanzania) and that two additional species, *S. belcheri* and *S. olivacea*, occur in Malaŵi, south-east Kenya and elsewhere in Tanzania (e.g. Clancey 1980a,b). In contrast, Dowsett-Lemaire & Dowsett (1987) and Fry *et al.* (1988), among others, treat the group as one species with five subspecies: *olivacea* (south-east Kenya

and north-east Tanzania), *howelli* (the Udzungwe and Mahenge mountains in central Tanzania), *rungweensis* (highlands of south-west Tanzania and northern Malaŵi), *woodwardi* (disjunctly in the Ngoye Forest and Rondo Plateau) and *belcheri* (Mount Namuli in north-west Mozambique and formerly Mount Thyolo in southern Malaŵi). A Green Barbet resembling *woodwardi* was recorded twice during our survey in the forested region in the south (Fig. 4a). The majority of this forest is on Unchungwe Mountain, a plateau at c.300–500 m. The forest itself is not typical of the region, being higher in altitude and in places dominated by cycads *Cycadophyta* spp. Geographically, this record is closest to the Rondo Plateau population, but nevertheless separated by c.100 km and is slightly lower in altitude. Our record represents a previously undocumented population of Green Barbet, and the taxonomic status of the population within the study area warrants further investigation.

African Green Tinkerbird *Pogoniulus simplex*

Sixteen individuals of this coastal forest biome-restricted species were recorded, mostly in forested habitats, but also in open woodland (five times) and wooded grassland (once), always close to forested areas. It was also recorded opportunistically at one additional location, also in forest. The species is probably forest dependent. Although most records were from the larger forests in the study area, it was also recorded in smaller forest fragments near Nangurukuru and the species was widely distributed (Fig. 3c). The species is thought to favour dense forest understorey (Fry *et al.* 1988) or mid-altitude and montane rainforest, or riverine forest at lower altitudes (Dowsett-Lemaire & Dowsett 2006). It may also be dependent on mistletoes, although the exact extent of this dependence is unknown (Dowsett-Lemaire & Dowsett 2006). The species thus probably prefers closed-canopy secondary forest. It occurs in many of the forested areas throughout the region, including fairly degraded remnants (Baker & Baker in prep.).

Brown-breasted Barbet *Lybius melanopterus*

Two individuals of this coastal forest biome-restricted species were recorded during point-count surveys, both in open grassland, but adjacent to the largest forest of the study area (Fig. 3c). However, it was also recorded in Kilwa Masoko away from forest. It is known to favour forest edge and more open habitats (Fry *et al.* 1988) and is probably capable of occupying a range of open and more lightly wooded habitats. However, the species does not appear to be common in the study area, but is probably quite common in thickets and

bushveld near the coast and in riverine habitat (N. Baker *in litt.* 2010).

Fischer's Greenbul *Phyllastrephus fischeri*

Five individuals of this coastal forest biome-restricted species were recorded during point-count surveys, all in secondary forest. The species was also observed opportunistically in Tong'omba Forest in the north. In the study area, it appears to be confined to the large forested region in the north (Fig. 3b). This greenbul prefers lowland forest and thickets, and favours areas with at least some understorey present (Urban *et al.* 1997). Elsewhere within the region it is a relatively common species (F. Dowsett-Lemaire *in litt.* 2011), so the absence of records may be due to low detection and it is difficult to ascertain how widely distributed the species is within our study area. However, it is likely to be tolerant of fairly degraded forest.

Tiny Greenbul *Phyllastrephus debilis*

The nominate race of this coastal forest biome-restricted species was recorded once during point-count surveys, in open woodland adjacent to the extensive forested region in the south of the study area. It was also observed opportunistically at three additional locations, all in forest (Fig. 3a). Tiny Greenbul occurs in dense scrub, lowland forest, second growth and forest-woodland mosaics, but it is generally absent from *Brachystegia* (Urban *et al.* 1997). It is probably dependent on large tracts of non-*Brachystegia* forest and is unlikely to be widespread throughout the study area.

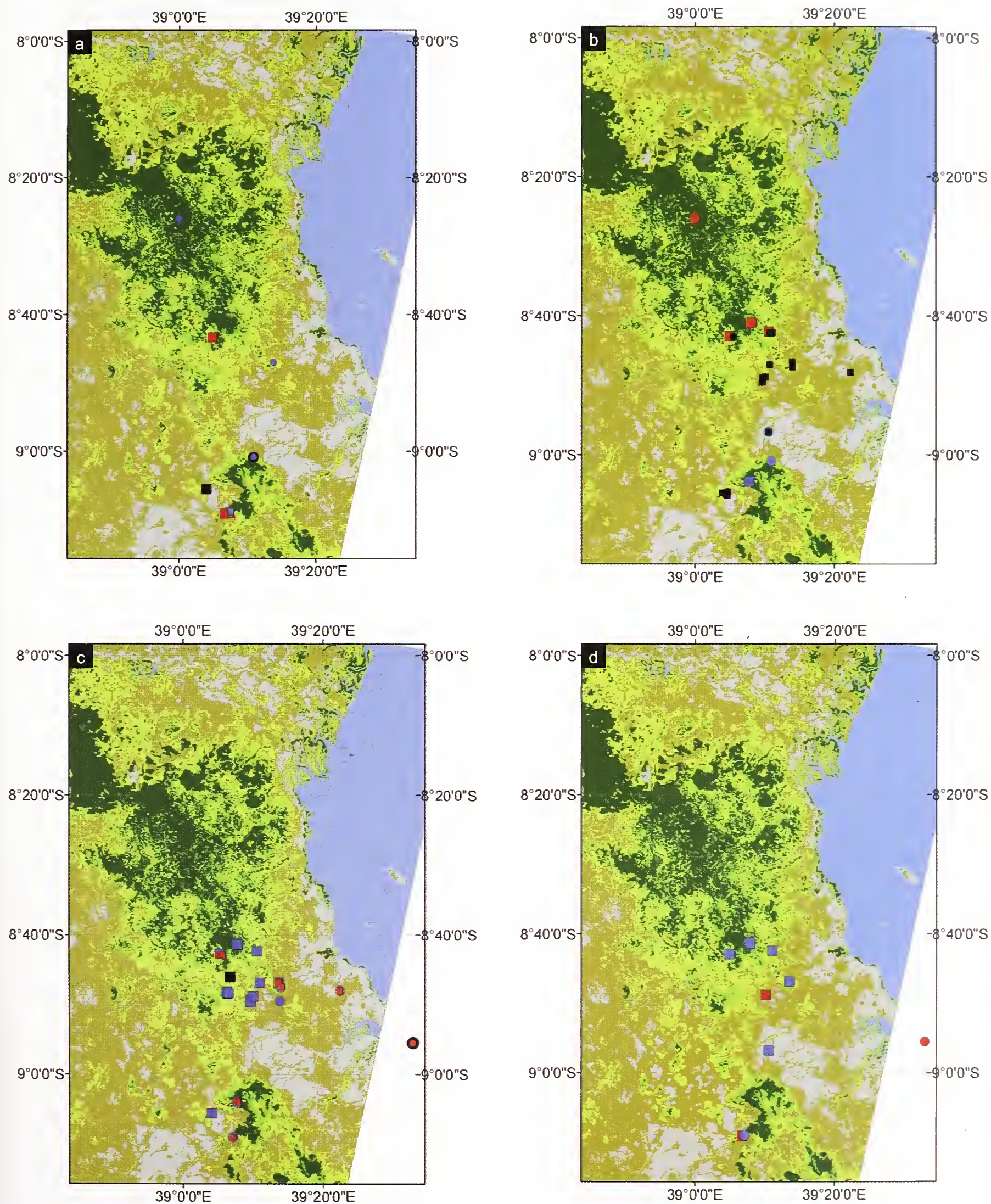
Figure 3. (page opposite) Distribution of coastal forest biome-restricted species recorded during surveys of coastal forests in Kilwa District, Tanzania, in June–August 2008. Circles represent opportunistic records and squares records obtained during point-count surveys.

Distribution des espèces confinées au biome de la forêt côtière enregistrées pendant l'inventaire des forêts côtières du district de Kilwa, Tanzanie, en juin–août 2008. Les cercles représentent des observations faites de façon opportuniste, les carrés celles faites pendant les comptages par point.

- (a) Tiny Greenbul *Phyllastrephus debilis* (blue), Kretschmer's Longbill *Macrosphenus kretschmeri* (red) and Black-bellied Glossy Starling *Lamprotornis corruscus* (black)
- (b) Pale Batis *Batis soror* (blue), Chestnut-fronted Helmetshrike *Prionops scopifrons* (red) and Fischer's Greenbul *Phyllastrephus fischeri* (black)
- (c) Brown-headed Parrot *Poicephalus cryptoxanthus* (blue), African Green Tinkerbird *Pogoniulus simplex* (red) and Brown-breasted Barbet *Lybius melanopterus* (black)
- (d) Uluguru Violet-backed Sunbird *Anthreptes neglectus* (blue) and Mouse-coloured Sunbird *Cyanomitra veroxii* (red)

Kretschmer's Longbill *Macrosphenus kretschmeri*
 Three individuals of this coastal forest biome-restricted species were recorded during point-count surveys, two in secondary forest and one in open woodland. All three records were from the larger forests in the study area (Fig. 3a). The species favours the interior of forests with

dense undergrowth or forest edge with thickets, provided vines are present (Urban *et al.* 1997; N. Baker *in litt.* 2010). It appears to be dependent on larger forest fragments in the study region, but may be capable of occupying more degraded forest, provided there are vines.



Reichenow's Batis *Batis capensis reichenowi*

Reichenow's Batis is usually treated as a subspecies of Cape Batis *B. capensis* (Urban *et al.* 1997) or as a species in its own right, but might be a subspecies of Forest Batis *B. mixta* (Britton 1980, Dowsett-Lemaire 1989). Recent evidence suggests that the taxon is genetically nested within Forest Batis, although it is morphologically distinct (Fjeldså *et al.* 2006). This batis is confined to coastal forests in south-east Tanzania and our five records (Fig. 4b) represent a slight extension to the north-west of the previously known range (Baker & Baker 2009). Including our records, the total range is approximately 11,100 km², which would be sufficient for the species to qualify as Vulnerable against IUCN criteria based on Extent of Occurrence (BirdLife International 2009) given that the population is also probably declining. The presence of a species with a range of less than 50,000 km² would be sufficient to qualify forests in Kilwa and Lindi Districts as a secondary Endemic Bird Area (Stattersfield *et al.* 1998). In the study area, the taxon appears to be confined mainly to primary forests, with two records from secondary forest. All records are from around the large forested area in the south. It is probably fairly widespread in suitable habitat within this forest tract.

Pale Batis *Batis soror*

Twenty-one individuals of this coastal forest biome-restricted species were recorded, all during point-count surveys and most frequently in wooded grassland, but also in open grassland (twice), open woodland (four times), secondary forest (five times) and primary forest (twice). It does not appear to be dependent on forest as some records were away from forested habitat (Fig. 3b). The species occurs in a variety of woodland and forest habitats (Keith *et al.* 1992) and was found in nearly all of the areas surveyed. It is probably quite common throughout the region.

Uluguru Violet-backed Sunbird *Anthreptes neglectus*

Twelve individuals of this coastal forest biome-restricted species were recorded during point-count surveys, primarily in primary forest, but with three records from secondary forest and one in open woodland. It was recorded at many forest sites in the study area and does not appear to be

confined to larger fragments (Fig. 3d). The species is probably widespread in forests throughout the study area. Nevertheless, Fry & Keith (2004) suggest it is a rare species with only 44 recent site records. More recently collected data have boosted this total to 247 records, which includes the 12 recorded during this study (Baker & Baker in prep.). The relatively high abundance in our study area is therefore noteworthy.

Plain-backed Sunbird *Anthreptes reichenowi yokanae* (NT)

Twelve individuals of this coastal forest biome-restricted species were recorded, primarily in forested habitats, with two records in open woodland. It was also recorded opportunistically at one additional location. Most records were from the larger forest region in the north of the study area, with one from a smaller forest fragment near the northern forested region (Fig. 2b). The species is capable of occupying a variety of lowland and semi-deciduous forest types, including degraded areas (Fry & Keith 2004). It is probably most abundant within the large forested area, but may be sparsely distributed in smaller fragments elsewhere. Plain-backed Sunbird is well known just to the south in Lindi District, in south-east Tanzania (N. Baker *in litt.* 2010).

Mouse-coloured Sunbird *Cyanomitra veroxii*

This coastal forest biome-restricted species was recorded twice during point-count surveys, once in wooded grassland and once in primary forest (Fig. 3d). It was also recorded opportunistically in thickets around Kilwa Masoko. The species occurs in various wooded and forested habitats, almost always near the coast (Keith & Urban 2004). Our records, one more than 40 km from the coast, suggest that in Kilwa District the association with coastal habitat is less strong. Overall, the species is unlikely to be abundant within the study area, although it is widespread at low densities in coastal bush habitats ((Baker & Baker in prep.).

Chestnut-fronted Helmetshrike *Prionops scopifrons*

This coastal forest biome-restricted species was recorded once during point-count surveys, in secondary forest in the large forested region in the south of the study area (Fig. 3b). It was also recorded opportunistically at two further locations

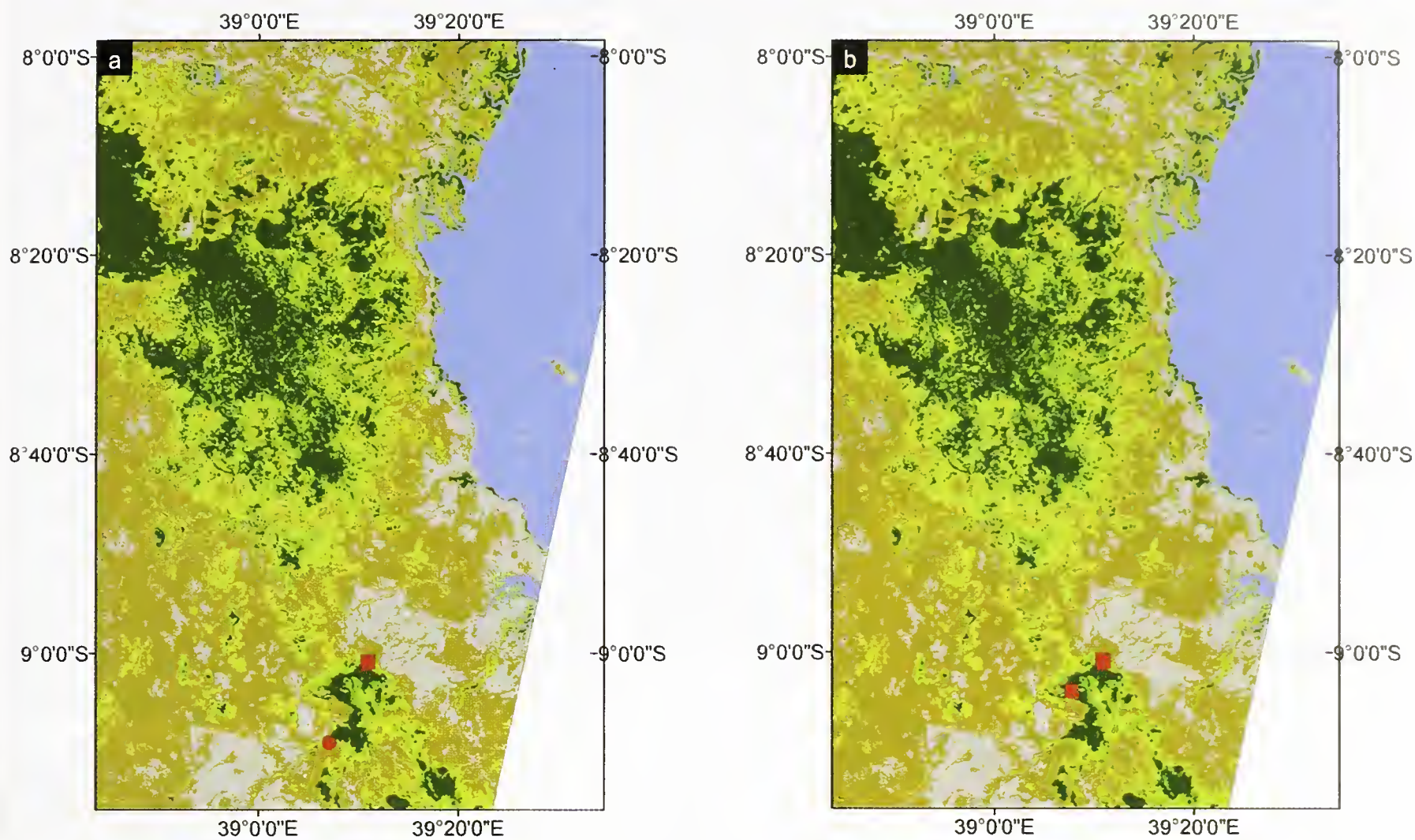


Figure 4. Distribution of noteworthy species of uncertain taxonomy recorded during surveys of coastal forests in Kilwa District, Tanzania, in June–August 2008. Circles represent opportunistic records and squares records obtained during point-count surveys.

Distribution des espèces remarquables à taxonomie incertaine enregistrées pendant l'inventaire des forêts côtières du district de Kilwa, Tanzanie, en juin–août 2008. Les cercles représentent des observations faites de façon opportuniste, les carrés celles faites pendant les comptages par point.

(a) Rondo Green Barbet *Stactolaema olivacea woodwardii*

(b) Reichenow's Batis *Batis capensis reichenowi*

within the same general area. The species occurs in forest and dense bushveld, but is rare and declining throughout much of its range (Urban *et al.* 1997). In our study area it is probably quite rare and associated with larger forest tracts, although further surveys in the north of the area may reveal its presence there.

Black-bellied Glossy Starling *Lamprolornis corruscus*

This coastal forest biome-restricted species was recorded once during point-count surveys in open grassland away from any forested area. It was also recorded opportunistically at one additional location in the same general area (Fig. 3a). Black-bellied Glossy Starling is capable of occupying a variety of habitats, including more open areas (Fry *et al.* 2000). The species is probably widely but sparsely distributed throughout the study area (Baker & Baker in prep.).

Concluding remarks

Of the 13 biome-restricted species known from the Kilwa District Coastal Forest Important Bird Area (IBA) (Baker & Baker 2002), we located all but the Zanzibar Red Bishop *Euplectes nigroventris*, a wetland species not associated with woodland habitats. We also confirmed the presence of Kretschmer's Longbill and Brown-breasted Barbet, two species thought to occur, but not certainly known to be present. Additionally, we recorded Mangrove Kingfisher, in mangrove swamps around Kilwa Masoko. This species was not initially noted as being present within the area encompassed by the IBA. Two additional species merit mention: Rondo Green Barbet and Reichenow's Batis. The taxonomy of these species is uncertain, but should they prove to be separate species from the closely related African Green Barbet and Forest Batis, respectively, the avian importance of the area would be enhanced greatly. Even if not elevated to specific status, the presence



of these two taxa highlights the ornithological importance of these forests.

Most of the noteworthy species we recorded appear to be capable of occupying a variety of habitat types, although their associations are difficult to quantify due to the paucity of records. Of the biome-restricted species recorded more than once, only Fischer's Greenbul was confined entirely to forest habitats and all five records of this species were from secondary forest. This suggests that logging-induced changes in forest structure do not pose a significant immediate threat to these species. A more dominant pattern that emerges from our work is the tendency for most of the species of conservation concern to occur in or adjacent to larger forested tracts. This suggests that habitat loss and fragmentation, such as that expected as a result of biofuel production, pose a greater threat to these species than logging, which presents a challenge for forest conservation practitioners. At present, the most effective tool for coastal forest conservation in Tanzania is thought to be Participatory Forest Management (Campbell *et al.* 2007), a legal process under which rural communities can take control over their local forests. The end result is known as a Village Land Forest Reserve and is governed by a management plan, developed in a partnership between the rural community and the District Forestry Office, and local byelaws. Of necessity, such initiatives are small-scale and often implemented in smaller forest fragments. This process ensures sustainable exploitation of forest resources (Blomley *et al.* 2006) and undoubtedly benefits forest birds. Nevertheless, a less intensive method, whereby

conservation effort and resources are spread more thinly over a larger area, is likely to be a more effective means of avian conservation. At present, no such initiatives exist.

Most of the species of conservation concern recorded during our survey are those expected to occur, and are present in most of the other coastal forests in southern Tanzania (Baker & Baker 2002). Species of conservation concern accounted for 10% of all species recorded but only 3% of records. This suggests that most persist at low densities over a wide area, again highlighting the need for large-scale conservation measures. Nevertheless, our surveys also highlighted the importance of several forested areas within Kilwa District that are not currently included within Kilwa District Coastal Forests IBA. Although this is primarily because the designation process was restricted to sites that, at the time, had officially defined boundaries (N. Baker *in litt.* 2010), it is worth highlighting several additional areas. Foremost is the Uchungwe Forest Block located between the Mitaurure and Rungo Forest Reserves shown on the Kilwa District Coastal Forests IBA map in Baker & Baker (2002). This forested area was the only one in which Rondo Green Barbet was found and was one of only two areas in which Reichenow's Batis was found. It also hosts the Near Threatened Southern Banded Snake Eagle and Plain-backed Sunbird. The Nainokwe Coastal Forest area adjoining Uchungwe is also important, hosting Reichenow's Batis as well as other biome-restricted species such as Brown-headed Parrot, African Green Tinkerbird and Chestnut-fronted Helmetshrike. We also highlight the importance of Migeregere and Kisangi Forests. These sites host seven and five biome-restricted species respectively. Both host Southern Banded Snake Eagle and the former also harbours Plain-backed Sunbird. Ruhatwe and Kikole also hosted the former species and Ruhatwe the latter.

Legend to figures on facing page

Figure 5. Brown-hooded Kingfisher / Martin-chasseur à tête brune *Halcyon albiventris*, Kikole, Tanzania, July 2008 (J. Bray)

Figure 6. Böhm's Bee-eater / Guêpier de Böhm *Merops boehmi*, Migeregere, Tanzania, July 2008 (D. Andrews)

Figure 7. Brown-breasted Barbet / Barbican à poitrine brune *Lybius melanopterus*, Kikole, Tanzania, July 2008 (J. Bray)

Figure 8. African Broadbill / Eurylaime du Cap *Smithornis capensis*, Migeregere, Tanzania, July 2008 (D. Andrews)

Figures 9. Eastern Bearded Scrub Robin / Agrobate à moustaches *Cercotrichas quadrivirgata*, Pugu Hills, Tanzania, August 2008 (J. Bray)

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References

- Baker, N. E. & Baker, E. M. 2002. *Important Bird Areas in Tanzania*. Dar es Salaam: Wildlife Conservation Society of Tanzania.
- Baker, N. E. & Baker, E. M. (in prep.) *The Birds of Tanzania: An Atlas of Distribution and Seasonality*. <http://tanzaniabirdatlas.com/> (accessed 25 August 2009).
- BioShape. 2009. Maps of the plantation. <http://bioshape.phpwebhosting.com/nl/node/159> (accessed 25 August 2009).
- BirdLife International. 2011a. BirdLife IBA Factsheet TZ050, Kilwa District coastal forests. www.birdlife.org (accessed 16 December 2011).
- BirdLife International. 2011b. Endemic Bird Areas of the world. www.birdlife.org (accessed 16 December 2011).
- BirdLife International. 2011c. Species factsheets. www.birdlife.org (accessed 16 December 2011).
- Blomley, T. & Ramadhani, H. 2006. Going to scale with Participatory Forest Management: early lessons from Tanzania. *Intern. Forestry Rev.* 8: 93–100.
- Britton, P. L. 1980. *Birds of East Africa*. Nairobi: East Afr. Nat. Hist. Soc.
- Borghesio, L., John, J., Mulungu, E., Mkongewa, V., Joho, M. & Cordeiro, N. J. 2008. Observations of threatened birds in the East Usambara Mountains, Tanzania. *Bull. ABC* 15: 59–70.
- Brown, L. H., Urban, E. K. & Newman, K. 1982. *The Birds of Africa*. Vol. 1. London, UK: Academic Press.
- Burgess, N. D. & Clarke, G. P. 2000. *The Coastal Forests of Eastern Africa*. Gland & Cambridge, UK: IUCN Forest Conservation Programme.
- Burgess, N. D., Clarke, G. P. & Rodgers, W. A. 1998. Coastal forests of eastern Africa: status, endemism patterns and their potential causes. *Biol. J. Linn. Soc.* 64: 337–367.
- Campbell, B. M., Angelson, A., Cunningham, A., Katerere, Y., Siteo, A. & Wunder S. 2007. Miombo woodlands – opportunities and barriers to sustainable forest management. CIFOR Report. <http://www.cifor.cgiar.org/miombo/pubs.htm> (accessed 25 August 2009).
- Dowsett-Lemaire, F. 1989. Ecological and biogeographical aspects of forest bird communities in Malawi. *Scopus* 13: 1–80.
- Dowsett-Lemaire, F. & Dowsett, R. J. 2006. *The Birds of Malawi: an Atlas and Handbook*. Liège: Tauraco & Aves.
- Eriksen, T., Halberg, K., Lehmsberg, T. & Petersen, F. S. 1994. *A Survey of Bird Life in Five Coastal Forests of South-Eastern Tanzania, 1993*. Copenhagen: Danish Ornithological Society.
- Eva, H. & Lambin, E. F. 2000. Fires and land-cover change in the tropics: a remote sensing analysis at the landscape scale. *J. Biogeogr.* 27: 765–776.
- Fanshawe, J. H. 1994. Birding Arabuko-Sokoke Forest and Kenya's northern coast. *Bull. ABC* 1: 79–88.
- Fjeldså, J., Bowie, R. C. K. & Kiure, J. 2006. The forest batis, *Batis mixta*, is two species: description of a new, narrowly distributed batis species in the Eastern Arc biodiversity hotspot. *J. Ornithol.* 147: 578–590.
- Fry, C. H. & Keith, S. (eds.) 2004. *The Birds of Africa*. Vol. 7. London, UK: Christopher Helm.
- Fry, C. H., Keith, S. & Urban, E. K. (eds.) 1988. *The Birds of Africa*. Vol. 3. London, UK: Academic Press.
- Fry, C. H., Keith, S. & Urban, E. K. (eds.) 2000. *The Birds of Africa*. Vol. 6. London, UK: Academic Press.
- Jensen, F. P., Tottrup, A. P. & Christensen, K. D. 2005. The avifauna of coastal forests in southeast Tanzania. *Scopus* 25: 1–22.
- Keith, S., Urban, E. K. & Fry, C. H. (eds.) 1992. *The Birds of Africa*. Vol. 4. London, UK: Academic Press.
- Leisler, B., Heidrich, P., Schulze-Hagen, K. & Wink, M. 1997. Taxonomy and phylogeny of reed warblers (genus *Acrocephalus*) based on mtDNA sequences and morphology. *J. Ornithol.* 138: 469–496.
- Maclean, I. M. D., Bray, J., Andrews, D., Mlawila, L., Kitaluta, K. & Timothy, J. 2009. *Mpingo Bird Conservation: Impacts of Harvesting on Tanzanian Forest Avifauna*. Report No. 5524. London, UK: Royal Geographical Society. Available: <http://www.rgs.org/>
- Maganga, F. P. & Odgaard, R. 2002. UTUMI: planning and implementing community based forest management in Kilwa and Lindi Districts. Report to DANIDA, Copenhagen.
- Martin, M., Mwakajeb, A. G. & Eklunda, M. 2009. Biofuel development initiatives in Tanzania: development activities, scales of production and

conditions for implementation and utilization. *J. Cleaner Production* 17: S69–S76.

Milledge, S. A. H., Gelvas, I. K. & Ahrends, A. 2007. *Forestry, Governance and National Development: Lessons Learned From a Logging Boom in Southern Tanzania. An Overview*. Dar es Salaam: TRAFFIC East & Southern Africa / Tanzania Development Partners Group / Ministry of Natural Resources of Tourism.

Moe, S. R., Rutina, L. P., Hytterborn, H. & du Toit, J. T. 2009. What controls woodland regeneration after elephants have killed the big trees? *J. Appl. Ecol.* 46: 223–230.

Oyugi, J. O., Brown, J. S. & Whelan, C. J. 2008. Effects of human disturbance on composition and structure of *Brachystegia* woodland in Arabuko-Sokoke Forest, Kenya. *Afr. J. Ecol.* 46: 374–383.

Prins, E. & Clarke, G. P. 2007. Discovery and enumeration of Swahilian coastal forests in Lindi region, Tanzania, using Landsat TM data analysis. *Biodiver. & Conserv.* 16: 1551–1565.

Stattersfield, A. J., Crosby, M. J., Long, A. J. & Wege, D. C. 1998. *Endemic Bird Areas of the World: Priorities for Biodiversity Conservation*. Cambridge, UK: BirdLife International.

Trisurat, Y., Eiumnoh, A., Murai, S., Hussain, M. Z. & Stretha, R. P. 2000. Improvement of tropical vegetation mapping using a remote sensing technique: a case of Khao Yai National Park, Thailand. *Intern. J. Remote Sensing* 21: 2031–2042.

Tottrup, A. P., Jensen, F. P. & Christensen, K. D. 2005. The avifauna of two woodlands in southeast Tanzania. *Scopus* 25: 23–36.

Urban, E. K., Fry, C. H. & Keith, S. (eds.) 1986. *The Birds of Africa*. Vol. 2. London, UK: Academic Press.

Urban, E. K., Fry, C. H. & Keith, S. (eds.) 1997. *The Birds of Africa*. Vol. 5. London, UK: Academic Press.

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Appendices / Annexes

Habitat preferences of species recorded during point-count surveys. The preference score is an indication of the proportion of recorded birds occurring in a particular habitat type, weighted by survey effort in each habitat type. A score of 1 indicates that all birds were recorded in the habitat type with which it is associated. Forest generalists are those species for which the majority of birds were recorded in forest habitat, but with no particular association to either primary or secondary forest. Similarly, grassland generalists are those species for which the majority of birds were recorded in grassland, but with no particular association with either open or wooded grassland. Note that in some cases only a small number of individuals were recorded so the habitat association cannot be ascribed with confidence. Conservation status: NT = Near Threatened, LC = Least Concern and BR = biome-restricted (see BirdLife International 2011c). TX indicates that there is taxonomic uncertainty associated with the species in question (see Results).

Préférence d'habitat des espèces enregistrées pendant les comptages par point. Le score de préférence est une indication de la proportion des oiseaux enregistrés fréquentant un type d'habitat particulier, pesé par effort d'inventaire dans chaque type d'habitat. Un score de 1 signifie que tous les oiseaux ont été enregistrés dans le type d'habitat avec lequel il est associé. Les généralistes forestiers sont les espèces dont la majorité des individus a été enregistrée en forêt, sans association particulière avec la forêt primaire ou secondaire. De la même façon, les généralistes savaniques sont les espèces dont la majorité des individus a été enregistrée en savane, sans association particulière avec la savane herbeuse ou arborée. Noter que dans certains cas seulement un petit nombre d'individus a été enregistré et que l'association avec l'habitat ne peut donc être établie avec certitude. Statut de conservation : NT = Quasi Menacé (Near Threatened), LC = de préoccupation mineure (Least Concern) et BR = confiné à un biome (cf. BirdLife International 2011c). TX indique que le statut taxonomique de l'espèce en question est incertain.

Appendix 1. Species recorded mainly in primary forest (mean circumference at breast height of trees >50 cm, canopy cover >50%).

Annexe 1. Espèces observées principalement dans la forêt dense primaire (circonférence moyenne des arbres à hauteur de poitrine >50 cm, couverture de la canopée >50%).

Species	Scientific name	Status	Preference score	Number recorded
Shikra	<i>Accipiter badius</i>	LC	1.00	1
African Wood Owl	<i>Strix woodfordii</i>	LC	1.00	2
White-eared Barbet	<i>Stactolaema leucotis</i>	LC	1.00	1
Rondo Green Barbet	<i>S. olivacea woodwardii</i>	TX	1.00	1
Red-fronted Tinkerbird	<i>Pogoniulus pusillus</i>	LC	1.00	3
Red-tailed Ant Thrush	<i>Neocossyphus rufus</i>	LC	1.00	11
White-browed Robin Chat	<i>Cossypha heuglini</i>	LC	1.00	1
Black-and-white Mannikin	<i>Lonchura bicolor</i>	LC	1.00	3
Little Swift	<i>Apus affinis</i>	LC	0.86	3
Crested Guineafowl	<i>Guttera pucherani</i>	LC	0.85	107
Retz's Helmetshrike	<i>Prionops retzii</i>	LC	0.73	14
Hooded Vulture	<i>Necrosyrtes monachus</i>	LC	0.72	2
Reichenow's Batis	<i>Batis capensis reichenowi</i>	TX	0.72	5
Grey Tit-flycatcher	<i>Myioparus plumbeus</i>	LC	0.72	2
Uluguru Violet-backed Sunbird	<i>Anthreptes neglectus</i>	BR	0.69	12
Purple-crested Turaco	<i>Tauraco porphyreolophus</i>	LC	0.66	11
Little Sparrowhawk	<i>Accipiter minullus</i>	LC	0.66	7
Ashy Flycatcher	<i>Muscicapa caerulescens</i>	LC	0.57	18
Klaas's Cuckoo	<i>Chrysococcyx klaas</i>	LC	0.56	3
Black-throated Wattle-eye	<i>Platysteira peltata</i>	LC	0.56	4

Appendix 2. Species recorded mainly in secondary forest (mean circumference at breast height of trees <50 cm, canopy cover >50%).

Annexe 2. Espèces observées principalement dans la forêt dense secondaire (circonférence moyenne des arbres à hauteur de poitrine <50 cm, couverture de la canopée >50%).

Species	Scientific name	Status	Preference score	Number recorded
Bateleur	<i>Terathopius ecaudatus</i>	NT	1.00	1
Lizard Buzzard	<i>Kaupifalco monogrammicus</i>	LC	1.00	1
Mottled Spinetail	<i>Telacanthura ussheri</i>	LC	1.00	4
Narina's Trogon	<i>Apaloderma narina</i>	LC	1.00	2
European Bee-eater	<i>Merops apiaster</i>	LC	1.00	4
Common Scimitarbill	<i>Rhinopomastus cyanomelas</i>	LC	1.00	7
Scaly-throated Honeyguide	<i>Indicator variegatus</i>	LC	1.00	1
Green-backed Woodpecker	<i>Campethera cailliautii</i>	LC	1.00	2
Bearded Woodpecker	<i>Dendropicos namaquus</i>	LC	1.00	1
Chestnut-fronted Helmetshrike	<i>Prionops scopifrons</i>	BR	1.00	1
African Paradise Flycatcher	<i>Terpsiphone viridis</i>	LC	1.00	1
Fischer's Greenbul	<i>Phyllastrephus fischeri</i>	BR	1.00	5
Southern Black Flycatcher	<i>Melaenornis pammelaina</i>	LC	1.00	3
Yellow-bellied Waxbill	<i>Estrilda melanotis</i>	LC	1.00	2
Böhm's Spinetail	<i>Neafrapus boehmi</i>	LC	0.80	16
Red-capped Robin Chat	<i>Cossypha natalensis</i>	LC	0.78	10
Lesser Honeyguide	<i>Indicator minor</i>	LC	0.53	3
Kretschmer's Longbill	<i>Macrosphenus kretschmeri</i>	BR	0.53	3

Appendix 3. Species recorded mainly in forest (canopy cover >50%), but not specifically in primary or secondary forest.

Annexe 3. Espèces observées principalement en forêt dense, mais pas spécifiquement primaire ou secondaire.

Species	Scientific name	Status	Preference score	Number recorded
Yellow-streaked Greenbul	<i>Phyllastrephus flavostriatus</i>	LC	0.87	49
Square-tailed Drongo	<i>Dicrurus ludwigii</i>	LC	0.84	156
Plain-backed Sunbird	<i>Anthreptes reichenowi</i>	NT	0.76	12
Forest Weaver	<i>Ploceus bicolor</i>	LC	0.74	106
Eastern Nicator	<i>Nicator gularis</i>	LC	0.72	55
Blue-mantled Crested Flycatcher	<i>Trochocercus cyanomelas</i>	LC	0.70	35
Black-headed Batis	<i>Batis minor</i>	LC	0.70	13
Bearded Scrub Robin	<i>Cercotrichas quadrivirgata</i>	LC	0.69	11
Olive Sunbird	<i>Cyanomitra olivacea</i>	LC	0.67	101
Livingstone's Flycatcher	<i>Erythrocercus livingstonei</i>	LC	0.66	88
Crowned Hornbill	<i>Tockus alboterminatus</i>	LC	0.66	65
African Goshawk	<i>Accipiter tachiro</i>	LC	0.64	7
Green-backed Camaroptera	<i>Camaroptera brachyura</i>	LC	0.64	166
Trumpeter Hornbill	<i>Bycanistes bucinator</i>	LC	0.59	45
Brown-hooded Kingfisher	<i>Halcyon albiventris</i>	LC	0.59	16
Collared Sunbird	<i>Anthreptes collaris</i>	LC	0.57	246
Yellow-fronted Tinkerbird	<i>Pogoniulus chrysoconus</i>	LC	0.57	23
Yellow-breasted Apalis	<i>Apalis flavida</i>	LC	0.54	87
African Green Tinkerbird	<i>Pogoniulus simplex</i>	BR	0.53	16

Species	Scientific name	Status	Preference score	Number recorded
Yellow-bellied Greenbul	<i>Chlorocichla flaviventris</i>	LC	0.53	124
African Green Pigeon	<i>Treron calvus</i>	LC	0.52	20
Little Bee-eater	<i>Merops pusillus</i>	LC	0.52	20
Yellow-rumped Tinkerbird	<i>Pogoniulus bilineatus</i>	LC	0.51	37
African Broadbill	<i>Smithornis capensis</i>	LC	0.51	16
Böhm's Bee-eater	<i>Merops boehmi</i>	LC	0.51	9
Brown-headed Parrot	<i>Poicephalus cryptoxanthus</i>	BR	0.51	23

Appendix 4. Species recorded mainly in open woodland (canopy cover 30–50%).

Annexe 4. Espèces observées principalement dans la forêt claire (couverture de la canopée 30–50%).

Species	Scientific name	Status	Preference score	Number recorded
Crested Francolin	<i>Francolinus sephaena</i>	LC	1.00	1
Red-necked Spurfowl	<i>Francolinus afer</i>	LC	1.00	1
Hadada Ibis	<i>Bostrychia hagedash</i>	LC	1.00	1
African Pygmy Kingfisher	<i>Ceyx pictus</i>	LC	1.00	2
African Grey Hornbill	<i>Tockus nasutus</i>	LC	1.00	1
Greater Honeyguide	<i>Indicator indicator</i>	LC	1.00	1
Tiny Greenbul	<i>Phyllastrephus debilis</i>	BR	1.00	1
Jameson's Firefinch	<i>Lagonosticta rhodopareia</i>	LC	1.00	1
Terrestrial Brownbul	<i>Phyllastrephus terrestris</i>	LC	0.88	6
Hamerkop	<i>Scopus umbretta</i>	LC	0.81	3
Peters's Twinspot	<i>Hypargos niveoguttatus</i>	LC	0.78	3
Red-headed Weaver	<i>Anaplectes rubriceps</i>	LC	0.64	2
Livingstone's Turaco	<i>Tauraco livingstonii</i>	LC	0.61	7
Black-and-white Shrike-flycatcher	<i>Bias musicus</i>	LC	0.58	6
Black-collared Barbet	<i>Lybius torquatus</i>	LC	0.52	4

Appendix 5. Species recorded mainly in wooded grassland (canopy cover 10–30%).

Annexe 5. Espèces observées principalement dans la savane boisée (couverture de la canopée 10–30%).

Species	Scientific name	Status	Preference score	Number recorded
Laughing Dove	<i>Streptopelia senegalensis</i>	LC	1.00	1
Speckle-throated Woodpecker	<i>Campethera scriptoricauda</i>	LC	1.00	1
White Helmetshrike	<i>Prionops plumatus</i>	LC	1.00	3
African Penduline Tit	<i>Anthoscopus caroli</i>	LC	1.00	2
Flappet Lark	<i>Mirafraga rufocinnamomea</i>	LC	1.00	1
Piping Cisticola	<i>Cisticola fulvicapilla</i>	LC	1.00	8
Miombo Wren Warbler	<i>Calamonastes undosus</i>	LC	1.00	2
Kurrichane Thrush	<i>Turdus libyanus</i>	LC	1.00	3
Blue Waxbill	<i>Uraeginthus angolensis</i>	LC	1.00	5
Red-faced Crombec	<i>Sylvietta whytii</i>	LC	0.95	4
Yellow-throated Petronia	<i>Petronia superciliaris</i>	LC	0.94	9
Pale Flycatcher	<i>Bradornis pallidus</i>	LC	0.93	4

Brubru	<i>Nilaus afer</i>	LC	0.91	6
Green-winged Pytilia	<i>Pytilia melba</i>	LC	0.86	6
Spectacled Weaver	<i>Ploceus ocularis</i>	LC	0.83	13
Singing Cisticola	<i>Cisticola cantans</i>	LC	0.79	6
Green-capped Eremomela	<i>Eremomela scotops</i>	LC	0.78	8
Common Waxbill	<i>Estrilda astrild</i>	LC	0.75	235
Grosbeak Weaver	<i>Amblyospiza albifrons</i>	LC	0.70	6
Brown-necked Parrot	<i>Poicephalus robustus</i>	LC	0.68	10
Wire-tailed Swallow	<i>Hirundo smithii</i>	LC	0.64	14
Scarlet-chested Sunbird	<i>Chalcomitra senegalensis</i>	LC	0.63	46
Yellow-fronted Canary	<i>Serinus mozambicus</i>	LC	0.62	7
Pale Batis	<i>Batis soror</i>	BR	0.62	21
Brown-crowned Tchagra	<i>Tchagra australis</i>	LC	0.61	2
Striped Kingfisher	<i>Halcyon chelicuti</i>	LC	0.61	4
Black-crowned Tchagra	<i>Tchagra senegalus</i>	LC	0.56	6
Red-billed Firefinch	<i>Lagonosticta senegala</i>	LC	0.56	5
Fork-tailed Drongo	<i>Dicrurus adsimilis</i>	LC	0.53	64
Mouse-coloured Sunbird	<i>Cyanomitra veroxii</i>	BR	0.52	2

Appendix 6. Species recorded mainly in open grassland (scattered trees, canopy cover <10%).

Annexe 6. Espèces observées principalement dans la savane herbeuse (arbres espacés, couverture de la canopée <10%).

Species	Scientific name	Status	Preference score	Number recorded
Cattle Egret	<i>Bubulcus ibis</i>	LC	1.00	21
Southern Banded Snake Eagle	<i>Circaetus fasciolatus</i>	NT	1.00	1
Lilac-breasted Roller	<i>Coracias caudatus</i>	LC	1.00	3
Racket-tailed Roller	<i>Coracias spatulatus</i>	LC	1.00	1
Pied Kingfisher	<i>Ceryle rudis</i>	LC	1.00	1
Swallow-tailed Bee-eater	<i>Merops hirundineus</i>	LC	1.00	5
Brown-breasted Barbet	<i>Lybius melanopterus</i>	BR	1.00	2
African Golden Oriole	<i>Oriolus auratus</i>	LC	1.00	1
Mosque Swallow	<i>Cecropis senegalensis</i>	LC	1.00	2
Short-winged Cisticola	<i>Cisticola brachypterus</i>	LC	1.00	2
Yellow-bellied Eremomela	<i>Eremomela icteropygialis</i>	LC	1.00	1
Arrow-marked Babbler	<i>Turdoides jardineii</i>	LC	1.00	3
Black-bellied Glossy Starling	<i>Lamprotornis corruscus</i>	BR	1.00	1
Southern Grey-headed Sparrow	<i>Passer diffusus</i>	LC	1.00	5
Red-headed Quelea	<i>Quelea erythrops</i>	LC	1.00	89
Red-billed Quelea	<i>Quelea quelea</i>	LC	1.00	602
Yellow-throated Longclaw	<i>Macronyx croceus</i>	LC	1.00	2
African Pipit	<i>Anthus cinnamomeus</i>	LC	1.00	1
African Golden-breasted Bunting	<i>Emberiza flaviventris</i>	LC	1.00	1
Burchell's Coucal	<i>Centropus burchelli</i>	LC	0.51	25

Appendix 7. Species recorded mainly in wooded or open grassland (canopy cover <30%).

Annexe 7. Espèces observées principalement dans la savane boisée ou herbeuse (couverture de la canopée <30%).

Species	Scientific name	Status	Preference score	Number recorded
African Golden Weaver	<i>Ploceus subaureus</i>	LC	0.83	29
Winding Cisticola	<i>Cisticola galactotes</i>	LC	0.79	17
African Palm Swift	<i>Cypsiurus parvus</i>	LC	0.72	18
Madagascar Bee-eater	<i>Merops superciliosus</i>	LC	0.59	30
Ring-necked Dove	<i>Streptopelia capicola</i>	LC	0.53	102

Appendix 8. Species not associated with any particular habitat type.

Annexe 8. Espèces n'étant pas associées avec un type d'habitat particulier.

Species	Scientific name	Status	Number recorded
Hildebrandt's Francolin	<i>Francolinus hildebrandti</i>	LC	3
Crowned Eagle	<i>Stephanoaetus coronatus</i>	LC	3
Red-eyed Dove	<i>Streptopelia semitorquata</i>	LC	115
Emerald-spotted Wood Dove	<i>Turtur chalcospilos</i>	LC	170
Green Wood-hoopoe	<i>Phoeniculus purpureus</i>	LC	52
Silvery-cheeked Hornbill	<i>Bycanistes brevis</i>	LC	5
Golden-tailed Woodpecker	<i>Campethera abingoni</i>	LC	5
Cardinal Woodpecker	<i>Dendropicos fuscescens</i>	LC	10
Sulphur-breasted Bushshrike	<i>Telophorus sulfureopectus</i>	LC	13
Grey-headed Bushshrike	<i>Malaconotus blanchoti</i>	LC	19
Black-backed Puffback	<i>Dryoscopus cubla</i>	LC	86
Tropical Boubou	<i>Laniarius aethiopicus</i>	LC	91
Black Cuckooshrike	<i>Campephaga flava</i>	LC	9
White-breasted Cuckooshrike	<i>Coracina pectoralis</i>	LC	3
Eastern Black-headed Oriole	<i>Oriolus larvatus</i>	LC	52
Eastern Saw-wing	<i>Psaldiprocne orientalis</i>	LC	24
Lesser Striped Swallow	<i>Cecropis abyssinica</i>	LC	207
Red-faced Cisticola	<i>Cisticola erythrops</i>	LC	15
Tawny-flanked Prinia	<i>Prinia subflava</i>	LC	70
Red-winged Warbler	<i>Heliolais erythropterus</i>	LC	5
Common Bulbul	<i>Pycnonotus barbatus</i>	LC	238
Sombre Greenbul	<i>Andropadus importunus</i>	LC	101
Yellow White-eye	<i>Zosterops senegalensis</i>	LC	42
White-browed Scrub Robin	<i>Cercotrichas leucophrys</i>	LC	13
Amethyst Sunbird	<i>Chalcomitra amethystina</i>	LC	19
Purple-banded Sunbird	<i>Cinnyris bifasciatus</i>	LC	58
Village Weaver	<i>Ploceus cucullatus</i>	LC	206
Bronze Mannikin	<i>Lonchura cucullata</i>	LC	46

Changes in numbers of Lesser Kestrels *Falco naumanni* and Amur Falcons *F. amurensis* at a winter roost in Lesotho

Grzegorz Kopij

Changements des effectifs du Faucon crécerellette *Falco naumanni* et du Faucon de l'Amour *F. amurensis* dans un dortoir hivernal au Lesotho. Pendant les 20 dernières années des changements importants ont été enregistrés dans la composition d'un groupe de Faucons crécerellettes *Falco naumanni* et de Faucons de l'Amour *F. amurensis* dans un dortoir sur le campus de l'Université nationale de Lesotho à Roma. Les effectifs du Faucon de l'Amour ont augmenté, tandis que ceux du Faucon crécerellette ont chuté de façon impressionnante. Les changements dans le nombre de Faucons de l'Amour enregistrés en février–mars semblent indiquer que leur migration vers le sud continue jusqu'à début février, et que peu après le départ vers le nord débute, la majorité des oiseaux quittant le dortoir pendant la première moitié de mars. La première arrivée du Faucon crécerellette a été notée le 26 octobre, le dernier départ le 9 avril. L'arrivée la plus précoce du Faucon de l'Amour a eu lieu le 19 décembre, le dernier départ le 7 avril. Le départ du dortoir le matin prenait jusqu'à 40 minutes, la majorité des oiseaux quittant toutefois pendant les premières 5–10 minutes.

Summary. Over the last 20 years drastic changes have been recorded in the composition of a flock of Lesser Kestrels *Falco naumanni* and Amur Falcons *F. amurensis* at a roost on the campus of the National University of Lesotho at Roma. Numbers of the latter have increased, while those of the former species have dramatically decreased. Changes in the number of Amur Falcons recorded in February–March suggest that their southward migration continues until early February and soon thereafter a departure north starts, with most birds vacating the roost in the first half of March. The earliest arrival of Lesser Kestrel was 26 October, the latest departure 9 April. The earliest arrival date of Amur Falcon was 19 December, the latest departure date 7 April. Early-morning departure from the roost lasted for up to 40 minutes, but most birds left during the first 5–10 minutes.

Lesser Kestrel *Falco naumanni* and Amur Falcon *F. amurensis* are common Palearctic migrants in southern Africa (Hockey *et al.* 2005). Both species take advantage of favourable feeding conditions in this region, where they prey mainly on locusts, dung beetles, alate termites and sun spiders (Kopij 1998, 2002, 2004, 2006, 2010). Amur Falcon breeds in north-east Asia and arrives in southern Africa in late November / early December, frequenting mainly the eastern part of the region, and departs in March. Lesser Kestrel breeds in the southern Palearctic. It arrives in southern Africa in October / November, occurring commonly in the Highveld and neighbouring areas, and departs in March / April (Hockey *et al.* 2005). On their wintering grounds both species roost commonly in large trees, usually on the outskirts of towns (Hockey *et al.* 2005). These roosts are often occupied in consecutive years. Temporal and spatial changes in numbers at roost sites occur (Colahan 1992, Nuttall 1992, 1993) and have been quantified in detail at Vrede, Free State (Warden *et al.* 2008).

Because of the difficulties of reliably estimating numbers of wintering falcons, which fluctuate markedly on a daily and seasonal basis (Colahan 1992, Nuttall 1992, 1993, Warden *et al.* 2008), it has been recommended to repeat counts up to 50 times to precisely estimate the size of a flock and to establish trends (Warden *et al.* 2008). This is, of course, an unrealistic recommendation, even if researchers are resident near roost sites. Large-scale monitoring, as conducted by Colahan (1992) and Nuttall (1992, 1993), would prove impossible if each roost had to be counted at least 50 times. Moreover, such a meticulous count at a single roost site will not necessarily establish clear population trends, as numbers may fluctuate in response to local weather conditions. However, in places where relatively stable rainy conditions (and food availability) prevail, long-term counts may reveal real trends in numbers and changes in the structure of a wintering flock.

Here I present the results of quantified studies on temporal changes in a mixed flock of Lesser Kestrels and Amur Falcons roosting at a

traditional site in Lesotho under relatively stable rainy conditions.

Roost site

Observations were made on the campus of the National University of Lesotho (NUL) at Roma. The NUL campus is in a valley surrounded by high sandstone cliffs at the base of the Maloti / Drakensberg Mountains (29°32'–29°26'S 28°42'–28°48'E), at 1,500–2,000 m. The Roma Valley is basically a rural area with just one major settlement and c.30 villages in the environs surrounded by cultivated fields. Maize is the dominant crop, whilst sorghum and beans are cultivated to lesser extent. Plateaux south of the Roma Valley are mainly grass-covered and used as pasture for sheep, goats and cattle (Kopij 2001). Roma is well timbered with exotic trees such as *Eucalyptus* spp., *Pinus* spp., *Chamaecyparis* spp., *Cupressus* spp., *Cedrus atlantica*, *Populus deltoids*, *P. canescens*, *P. nigra 'italica'*, *Salix babylonica*, *Quercus* spp., *Acacia* spp. and many others (Kopij 2001, 2006b, Talukdar & Ambrose 2003).

Falcons winter in Lesotho during the wet season, i.e. October–March, when mean precipitation accounts for 77% of the total annual rainfall (Kopij 2001). Rainfall at Roma during the main study period, i.e. the wet season of 1999 / 2000, was much higher (1,010 mm) than the long-term average (670 mm), while the wet season of 2000 / 01 was very close to the long-term average (Kopij 2001). The amount of rainfall in the wet season at Roma never fell below 400 mm during a recent 40-year period (1961–2001) and in almost 50% of these years was greater than 700 mm (Kopij 2001). These figures contrast with lower and much more erratic precipitation in most of the Highveld in South Africa.

The roost site on the NUL campus is a tall (32 m) and old (c.130 years) *Eucalyptus camaldulensis*. It is the tallest tree in the entire Roma Valley. The tree is close to student residences and to other *Eucalyptus* and cedars *Cedrus atlantica*.

Methods

Dates of the first arrival and last departure of Lesser Kestrels and Amur Falcons at the Roma roost were determined for each winter season during 1995–2002 by daily checking their presence.

Data on the maximal flock size of roosting falcons during five winter seasons in 1982–98

were taken from the literature (Ambrose & Maphisa 1999, Bonde 1993, Kopij 2001a) while those for 1999–2002 were obtained by direct counts made by the author. Counts in 1978–98 and 1999–2002 were conducted at the start of each month when birds were present at the roost site. Seasonal maxima simply represent the largest single count during a given winter. During the 2001 / 02 season observations commenced on 1 January 2002, when the first birds arrived, and were discontinued after 15 January 2002.

All counts in 1999–2002 were made from c.05.00 hrs, i.e. before sunrise, until all birds had departed the roost. Each count was subdivided into ten-minute-units and the birds were counted afresh during each time unit.

To elucidate how the number of roosting kestrels changed over the course of a winter, counts were conducted each fortnight during one austral summer (2000 / 01) from 15 December 2000, when the falcons had just arrived, to 1 April 2001, when all had departed.

To uncover a pattern of departure of falcons to their Palearctic breeding ranges, from 9 March to 8 April 1998 (the end of the wintering period), regular counts were conducted every 3–6 days in the evening, when birds were arriving at the roost.

To establish a pattern of early-morning departure in relation to season (date of sunrise / sunset), falcons were counted on 3 and 15 February, 1 March 2001, and 16 February 2002. Each count commenced at 04.30 hrs when all of the birds were still roosting, and ended at c.06.00 hrs, when all had departed for hunting. On each morning the birds were counted from a distance of c.100 m in an exposed site from where all of the departing birds could easily be observed. Observations were made using 10×50 binoculars.

In the darkness of the early mornings and evenings it was sometimes difficult to distinguish between the two species. In the 2001 / 2002 season this problem was probably virtually non-existent, as the wintering flock was apparently composed entirely of Amur Falcons. Similarly, few problems with identification existed prior to 1988, when in contrast the roosting flock probably almost entirely comprised Lesser Kestrels. In other years, however, the flock was clearly mixed, and some misidentifications may have occurred, although attempts were made to identify each individual. Male Amur Falcons were

easily distinguished from male Lesser Kestrels by their pale underwing-coverts and by the generally much darker coloration of the upperparts. Female or juvenile Amur Kestrels were distinguished from female or juvenile Lesser Kestrels by their much darker heads.

Results

The Lesser Kestrels adopted the NUL campus as a roost site on 11 February 1982. Six days later, the size of the flock was estimated at 300–500 birds. Most left the campus between 27 and 29 March 1982, and only nine remained until 2 April 1982. A similar pattern for departure occurred in subsequent years. On 24 January 1998 the roosting flock was estimated at 522 individuals (Ambrose & Maphisa 1999).

Amur Falcons made their first appearance in the Lesser Kestrel roost on 16 February 1988. Subsequently, numbers gradually increased to at least 40 in 1993 / 94 and *c.*70 in 1996 / 97 (Ambrose & Maphisa 1999). In 1997 / 98, the max. number of Amur Falcons was 322 (on 9 March) (Ambrose & Maphisa 1999).

Over the next few years, major changes were observed in the composition of the roosting flock (Fig. 1). Whereas in 1994 no more than 40 Amur Falcons were recorded, 75 were counted on 12 January 1997 and 322 on 9 March 1998 (Ambrose & Maphisa 1999). The largest flock in 2000 / 01 comprised 926 individuals, on 15 February 2001. No systematically collected data on numbers of roosting Amur Falcons are available for the following austral summer, but on 16 January 2002, there were 282 individuals.

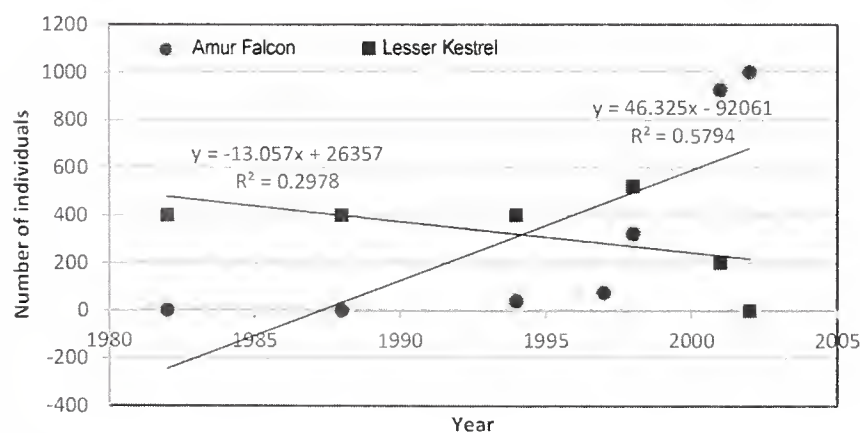


Figure 1. Annual changes in the number of Lesser Kestrels *Falco naumanni* and Amur Falcons *F. amurensis* at the Roma roost, Lesotho, during 1982–2002.

Changements annuels des effectifs du Faucon crécerellette *Falco naumanni* et du Faucon de l'Amour *F. amurensis* sur le dortoir de Roma, Lesotho, en 1982–2002.

One year earlier at the same time, only *c.*50 Amur Falcons were present in the roost. On the other hand, the numbers of Lesser Kestrels present at the roost declined dramatically over the same period. On 24 January 1998, 522 were counted, and it appears that between 1982 and 1998 there were always 300–500 birds in the roost (Ambrose & Maphisa 1999). However, no more than 200 roosted on the NUL campus in 2000 / 01 (Kopij 2001a), and by 20 January 2002, none was present (Fig. 1).

Changes in the number of roosting Amur Falcons recorded in January–March 2001 suggest that their southbound migration continues until early February and soon thereafter a gradual departure north starts, with most birds vacating the roost site in the first half of March (Figs. 3–4). The departure of the remaining birds may, however, continue for another 20–30 days (Fig. 3). In 2001 / 02, the first three birds did not appear on the campus until as late as 1 January 2002, but one week later *c.*50 were present and on 16 January 282 birds were counted.

The earliest arrival of Lesser Kestrels on the NUL campus was 26 October 1995; the latest departure 9 April 1998 (Table 1). The earliest arrival for Amur Falcon was 19 December 2001 (GK), the latest date 7 April 1998 (D. Maphisa). In 1999 / 2000, all Lesser Kestrels departed unusually early, on 10 February (Kopij 2001).

Both Amur Falcons and Lesser Kestrels roosted on the campus by night, with only a few during the day. Generally, they returned half an hour before to an hour after sunset. However, on a few occasions almost annually, falcons returned to the roosting site later than usual. On such occasions they were seen preying on emerging alate termites. Such events happened once or twice p.a. on wet

Table 1. Earliest and latest dates for Lesser Kestrels *Falco naumanni* at Roma, Lesotho, in 1995–2002.

Tableau 1. Premières et dernières dates pour le Faucon crécerellette *Falco naumanni* à Roma, Lesotho, en 1995–2002.

Earliest arrival date	Latest departure date	Observer
27.10.1995	04.03.1996	D. Maphisa
26.10.1997	09.04.1998	D. Ambrose
05.11.1998	?	D. Ambrose
11.11.1999	10.02.2000	G. Kopij
31.12.2000	25.03.2001	G. Kopij
01.01.2002	?	G. Kopij

days, usually in November and March. Following such evening hunting, falcons did not disperse normally from the roost site next morning. Most remained in the tree throughout the following day, merely loafing, except for some comfort movements (e.g. preening).

Early-morning exodus lasted up to >40 minutes (Table 2). Most birds, however, departed during the first 5–10 minutes (Fig. 2). On 15 February 2001, a flock of 926 Amur Falcons started leaving the roost at 05.23 hrs (i.e. 28 minutes before sunrise) during the same period that three dove species (the commonest breeding birds on the campus, Kopij 2001): Cape Turtle *Streptopelia capicola* (05.19 hrs), Red-eyed *S. semitorquata* (05.20 hrs) and Laughing Dove (05.29 hrs) *S. senegalensis*, were starting to sing. Most falcons departed after 20–40 minutes and the last birds left at 06.03 hrs. However, a smaller

Table 2: Departure times from the Roma roost in relation to sunrise and Lesser Kestrel *Falco naumanni* and Amur Falcon *F. amurensis* flock size in the 2000 / 2001 austral summer.

Tableau 2. Heures de départ du dortoir à Roma par rapport au lever du soleil et la taille des groupes du Faucon crécerellette *Falco naumanni* et du Faucon de l'Amour *F. amurensis* pendant l'été austral de 2000 / 2001.

Date	Time of departure		Sunrise [™]	Flock size	Duration of departure
	start at	end at			
16 January	04.52	05.07	05.26	282	15 minutes
3 February	05.06	05.51	05.42	847	45 minutes
15 February	05.23	06.06	05.51	926	43 minutes
1 March	05.23	05.56	06.02	535	33 minutes
20 March	05.56	06.12	06.14	195	16 minutes
Mean	05.20	06.50	05.51	557	30 minutes

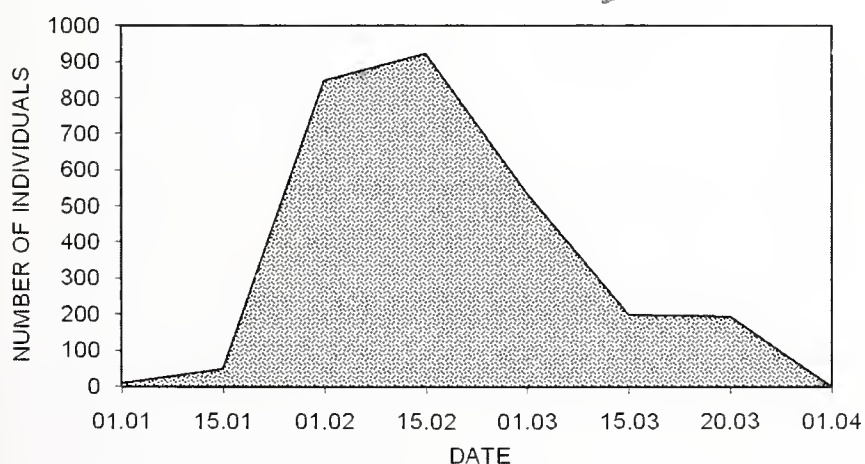


Figure 2. Seasonal changes in the number of the Amur Falcons *Falco amurensis* at the end of the 2000 / 2001 austral summer at the Roma roost, Lesotho

Changements saisonniers des effectifs du Faucon de l'Amour *Falco amurensis* à la fin de l'été austral 2000 / 2001 dans le dortoir de Roma, Lesotho

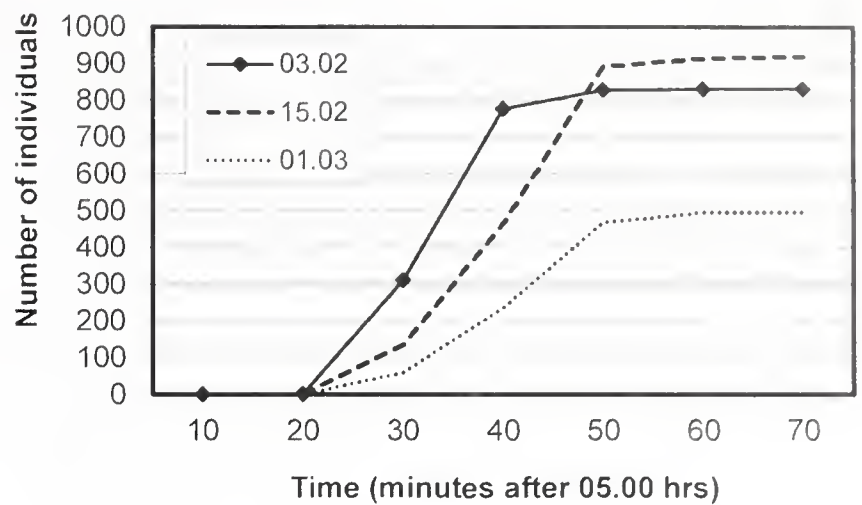


Figure 3. Patterns of morning departures of Amur Falcon *Falco amurensis* from the Roma roost, Lesotho, with the advancing of the 2000 / 2001 wintering season (birds were counted in ten-minute units; see text).

Pattern des départs matinaux du Faucon de l'Amour *Falco amurensis* du dortoir de Roma, Lesotho, pendant l'hivernage de 2000 / 2001 (les oiseaux ont été comptés par unité de dix minutes ; voir le texte).

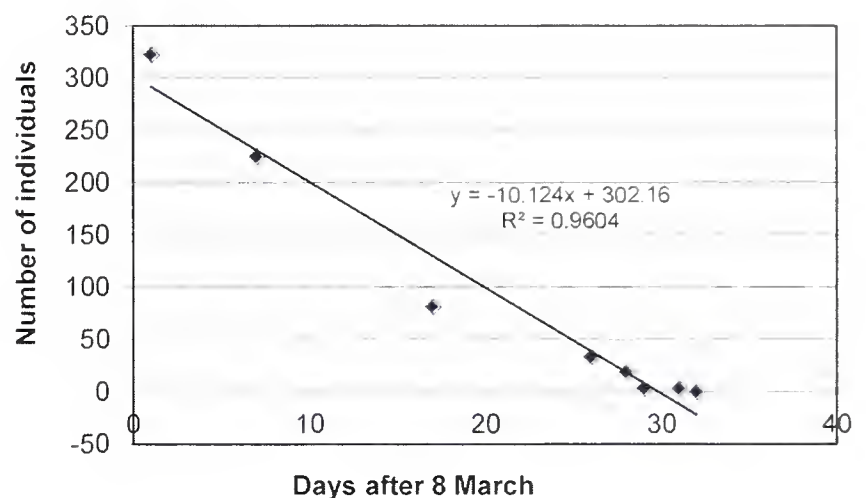


Figure 4. Patterns of morning departures of Amur Falcons *Falco amurensis* from the Roma roost, Lesotho, with the advancing of the wintering season.

Pattern des départs matinaux du Faucon de l'Amour *Falco amurensis* du dortoir de Roma, Lesotho, pendant la saison d'hivernage.

flock of 282 birds left the roost between 04.52 and 05.07 hrs (Fig. 2). On average, birds started to leave 31 minutes before sunrise (SD = 8.31; N=5), but this may range from 18 to 39 minutes.

Discussion

Eucalyptus trees in towns and villages are the principal roost sites for Amur Falcons and Lesser Kestrels in southern Africa (Nuttall 1992, 1993, Hockey *et al.* 2005), where the two species occasionally share roosts (Steyn 1982, Maclean 1993). In Free State, in addition to the main Lesser Kestrel flock, other small falcons, such as Amur and Red-footed Falcons *Falco vespertinus*, have been recorded in a few of 110 known roosts,

always in small numbers (Colahan 1992, Nuttall 1992, 1993). These latter species are commoner further north in southern Africa (Hockey *et al.* 2005). Probably most roosts in Lesotho previously occupied exclusively by Lesser Kestrels are now shared with Amur Falcons (pers. obs.).

Roost sites of Lesser Kestrels and Amur Falcons can often be regarded as 'traditional' (Hockey *et al.* 2005). The Roma site has been occupied by Lesser Kestrels for 20 years, and by Amur Falcons for 14 years (this study). A roost in *Eucalyptus* trees in Maseru near the King's Palace and the Anglican Cathedral has been used by Lesser Kestrels since 1973 (I. de la Rosa) and by Amur Falcons since 1980 (Bonde 1993, Kopij 2000). A roost at Senekal, in neighbouring South Africa, has been used by Lesser Kestrels since 1956 (Kolbe 1972) until the present (B. Barnes pers. comm.). There is also a large *Eucalyptus* in the centre of Bloemfontein that has been used by Lesser Kestrels since c.1950 (Kopij 2001b) until the present (D. de Swardt). A roost 25 km west of Dedza, Malaŵi, was occupied by several thousand Amur Falcons for at least ten years (Benson 1951).

Kolbe (1972) gives extreme arrival dates of Lesser Kestrels at Senekal, eastern Free State, as 23 October 1969, 24 October 1970 and 26 October 1971, and extreme departure dates as 29 March 1970 and 3 April 1971. Warden *et al.* (2008) give extreme dates for Lesser Kestrels at Vrede, Free State, as 24 October and 9 April. Benson (1951) gives 12 December and 7 March as extreme dates for Amur Falcons roosting near Dedza, Malaŵi. One could reach the false conclusion that the duration of the wintering season of Lesser Kestrel is uniform across southern Africa. However, at least in the Highveld it appears to become shorter southwards, e.g. at Vrede the mean time is 139 days ($n=5$) (Warden *et al.* 2008), compared to 117 days at Roma (this study).

It appears that during 1995–2001 not only were there substantial changes in the wintering flocks of Lesser Kestrel, but that a substantial shift in arrival dates at the Roma roost occurred. Over the last six winters, they gradually started to arrive up to 63 days earlier (Table 1). During 1993–97 Warden *et al.* (2008) recorded a similar pattern of seasonal changes in the number of roosting kestrels. Numbers increased from late October to late December, remained relatively stable in January–February and sharply decreased

in March, while the site was vacated in early April. However, no shifts between years were recorded. Data both from Free State (Warden *et al.* 2008) and Roma (this study) reveal that the best time to count falcons at their roosts is January–February, when numbers are relatively stable. Therefore, any large-scale surveys of sites should be undertaken at this time of the year, preferably in the second half of January and first half of February.

Benson (1951) observed that almost all Amur Falcons leave their roost within ten minutes, almost immediately after dawn and return shortly before sunset, circling for c.0.5–1.0 hours before settling. My observations suggest that the time during which falcons leave their roost varies from 15 to 50 minutes ($\chi = 30$ minutes), depending on the size of the roost, periods being shorter if the flock is small. The time of departure from and return to the roost varies depending on the time of sunrise and sunset respectively. Birds left their roost as early as 05.00 hrs at the start of February and as late as 06.00 hrs at the end of March. If the sky is overcast, however, the falcons may leave the roost 2–3 hours later than in sunny conditions.

Lesser Kestrel roosting flocks are unstable, changing continually in size and composition both within and between seasons, and numbers seem to depend on prevailing rainy conditions (Nuttall 1993, Warden *et al.* 2008). Warden *et al.* (2008) proved that three counts, a system commonly applied to count roosting kestrels, are likely to be unreliable to estimate population size and trends in *F. naumanni*. The max. size of the falcon roost at Roma might be therefore underestimated, especially prior to 1998.

Causes of the changes in numbers and composition of the roosting flock at Roma are unclear. It is also unknown if similar changes took place at other roosts in Lesotho. Such changes may have occurred locally, and be caused by human disturbance. On 22 February 1998, NUL hosted the Inter-Varsity Games, accompanied for seven days by very loud music at night, broadcast from a house <100 m from the roost. The falcons decamped to a similar tree 820 m away (Ambrose & Maphisa 1999). Similar disturbance continued during subsequent years. It is, however, interesting to note that only Lesser Kestrels abandoned this site, while Amur Falcons remained. Perhaps Amur Falcons are less susceptible to human disturbance than Lesser Kestrels.

It is also plausible that the changes that occurred at the Roma roost could have been induced by unfavourable weather conditions (much-reduced rainfall) for Amur Kestrel in its main wintering grounds in the former Transvaal (Hockey *et al.* 2005). The reverse may be true for Lesser Kestrel. Warden *et al.* (2008) noted an increase in the size of the wintering Lesser Kestrel flock at Vrede, Free State, during 1993–97 and no changes in the structure of the flock.

The substantial changes recorded at the Roma roost could, however, also reflect the general situation of these species in their breeding ranges. In Europe, Lesser Kestrel has dramatically declined over the last few decades, although most recently numbers have stabilised (www.birdlife.org/datazone/speciesfactsheet.php?id=3589). Population trends in Amur Falcon are apparently unknown (Ferguson-Lees & Christie 2001), but it is possible that the species is increasing.

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References

- Ambrose, D. & Maphisa, D. H. 1999. *Guide to the Birds of the Roma Campus National University of Lesotho*. Roma: National University of Lesotho Publishing House.
- Benson, C. W. 1951. A roosting of the Eastern Red-footed Kestrel *Falco amurensis*. *Ibis* 93: 467–468.
- Bonde, K. 1993. *Birds of Lesotho. A Guide to Distribution, Past and Present*. Pietermaritzburg: University of Natal Press.
- Brown, L. H., Urban, E. K. & Newman, K. 1982. *The Birds of Africa*. Vol. 1. London, UK: Academic Press.
- Colahan, B. 1993. Status of the Lesser Kestrel in urban and periurban areas in the Orange Free State, South Africa. *Mirafra* 10(2): 33–39.
- Ferguson-Lees, J. & Christie, D. A. 2001. *Raptors of the World*. London, UK: Christopher Helm.
- Hockey, P. A. R., Dean, W. R. J. & Ryan, P. G. (eds.) 2005. *Roberts—Birds of Southern Africa*. Seventh edn. Cape Town: Trustees of the John Voelcker Bird Book Fund.
- Kolbe, F. F. 1972. The Lesser Kestrel of Senekal, Orange Free State. *Bokmakierie* 24(1): 18–21.
- Kopij, G. 1998. Stomach contents, biometrics and tail moult of Lesser Kestrels *Falco naumanni* overwintering in the Bloemfontein area, South Africa. *J. Afr. Raptor Biol.* 13: 10–14.
- Kopij, G. 2000. Birds of Maseru. *Natl. Univ. Lesotho J. Res.* 8: 104–151.
- Kopij, G. 2001a. *Birds of Roma Valley, Lesotho*. Roma: National University of Lesotho.
- Kopij, G. 2001b. *Atlas of Birds of Bloemfontein*. Roma: National University of Lesotho & Bloemfontein: Free State Bird Club.
- Kopij, G. 2002. Food of the Lesser Kestrel (*Falco naumanni*) in its winter quarters in South Africa. *J. Raptor Res.* 36: 149–153.
- Kopij, G. 2004. The role of sun spiders (Solifugae) in the diet of wintering Lesser Kestrels *Falco naumanni*. *Buteo* 14: 19–22.
- Kopij, G. 2006a. *The Structure of Assemblages and Dietary Relationships in Birds of South African Grasslands*. Wrocław: Wydawnictwo AR we Wrocławiu.
- Kopij, G. 2006b. Breeding biology of the Fiscal Shrike, *Lanius collaris* (Laniidae), in a peri-urban environment in Roma (Lesotho). *Vestnik Zool.* 40(6): 39–45.
- Kopij, G. 2010. Seasonal variation in the diet of the Amur kestrel (*Falco amurensis*) in its winter quarters in Lesotho. *Afr. J. Ecol.* 48: 559–562.
- Macleay, G. L. 1993. *Roberts' Birds of Southern Africa*. Cape Town: John Voelcker Bird Book Fund.
- Nuttall, R. J. 1992. The Lesser Kestrel: an endangered species. *Mirafra* 9(2): 50–53.
- Nuttall, R. J. 1993. The Lesser Kestrel *Falco naumanni* in the Orange Free State and Lesotho: 1991–1993. *Mirafra* 10(2): 39–45.
- Steyn, P. 1982. *Birds of Prey of Southern Africa*. Claremont: D. Philip.
- Talukdar, S. & Ambrose, D. 2003. *Checklist of Trees of the National University of Lesotho Roma Campus*. Roma: House 9 Publications, National University of Lesotho.
- Warden, D., Pepler, D. & Botha, R. 2008. The influence of sample size on the determination of population trends in the vulnerable Lesser Kestrel *Falco naumanni* in South Africa. *Ostrich* 79: 199–204.

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Estimate of Sooty Tern *Onychoprion fuscatus* population size following cat eradication on Ascension Island, central Atlantic

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Estimation de la population de Sternes fuligineuses *Onychoprion fuscatus* suivant l'éradication des chats sur l'île de l'Ascension, Atlantique centrale. Les chats d'origine domestique, qui avaient tué de nombreuses Sternes fuligineuses *Onychoprion fuscatus* sur l'île de l'Ascension, ont été éradiqués en 2002–2004. Les effets bénéfiques de cette éradication sur la taille de la population nicheuse devaient cependant encore être prouvés. Des données ont été rassemblées entre 1990 et 2009, et il est estimé qu'en 2010 la population comprenait 414,000 oiseaux. La durée de la saison de nidification était de 193 jours, ce qui constitue une augmentation de 30 jours (ou 18%) par rapport à la durée moyenne des saisons de nidification précédentes. Bien qu'il y ait une augmentation du nombre des oiseaux nicheurs, celle-ci n'est pas statistiquement significative. Des inventaires supplémentaires sont nécessaires pour étudier l'évolution de la population. Il y a des rapports anecdotiques selon lesquels de nombreux jeunes ont été élevés avec succès en 2010.

Summary. Feral cats, which had been depredating the population of Sooty Terns *Onychoprion fuscatus* on Ascension Island, were eradicated between 2002 and 2004. However, beneficial effects of this eradication with respect to the size of the breeding population have yet to be demonstrated. Census data have been gathered between 1990 and 2009, and we estimate that in 2010 the population comprised 414,000 birds. The duration of the breeding season was 193 days which is an increase of 30 days (or 18%) on the mean length of previous breeding seasons. There is an apparent increase in abundance of breeding birds but this was not statistically significant. Further censuses are imperative to characterise the population trend. There were anecdotal reports of numerous chicks fledging in 2010.

Isolated seabird populations are often slow to recover when threats to their existence are removed and repeat population censuses are essential to evaluate the effectiveness of remedial conservation action (Mitchell *et al.* 2004). Removing predators can benefit seabirds by reducing mortality (Nogales *et al.* 2004), permitting recolonisation (Ratcliffe *et al.* 2009) and population recovery (Donlan *et al.* 2007). Because large numbers of fledglings may be an important attribute in population recovery (Jenouvrier *et al.* 2009), it is essential to maintain records of population size and relative productivity over the years of a population's recovery.

The United Kingdom Overseas Territory (UKOT) of Ascension in the central Atlantic Ocean (07°57'S 14°24'W) is a geographically isolated island of 9,700 ha that lies approximately 2,000 km from the African coast, 2,300 km from South America and 1,400 km from the nearest island, St. Helena (Fig. 1). The introduction of feral cats *Felis silvestris* in 1815 resulted in the extirpation of many avian species from the main

island (Ashmole *et al.* 1994). Only Sooty Terns *Onychoprion fuscatus* (Fig. 2) have managed to co-exist with cats on the main island but even their population has decreased in size (Ashmole *et al.* 1994). The eradication of alien predators such as feral cats has resulted in the recovery of native populations (Nogales *et al.* 2004) but the removal of such top predators can have unforeseen consequences for seabird populations (e.g. Stonehouse 2002). Therefore, the outcome of any intervention requires careful monitoring.

On Ascension cats were eradicated between 2002 and 2004. As a result, relict seabird populations have returned from offshore stacks to breed on the main island of Ascension (Ratcliffe *et al.* 2009). The breeding range, numbers of nests and their success in these small populations of boobies (Sulidae) and tropicbirds (Phaethontidae) are regularly monitored and show an increase (e.g., Ratcliffe *et al.* 2009, Hughes *et al.* 2011).

The outcome of cat eradication for Sooty Terns is less easily evaluated as the population is large (Hughes *et al.* 2008) and young adults

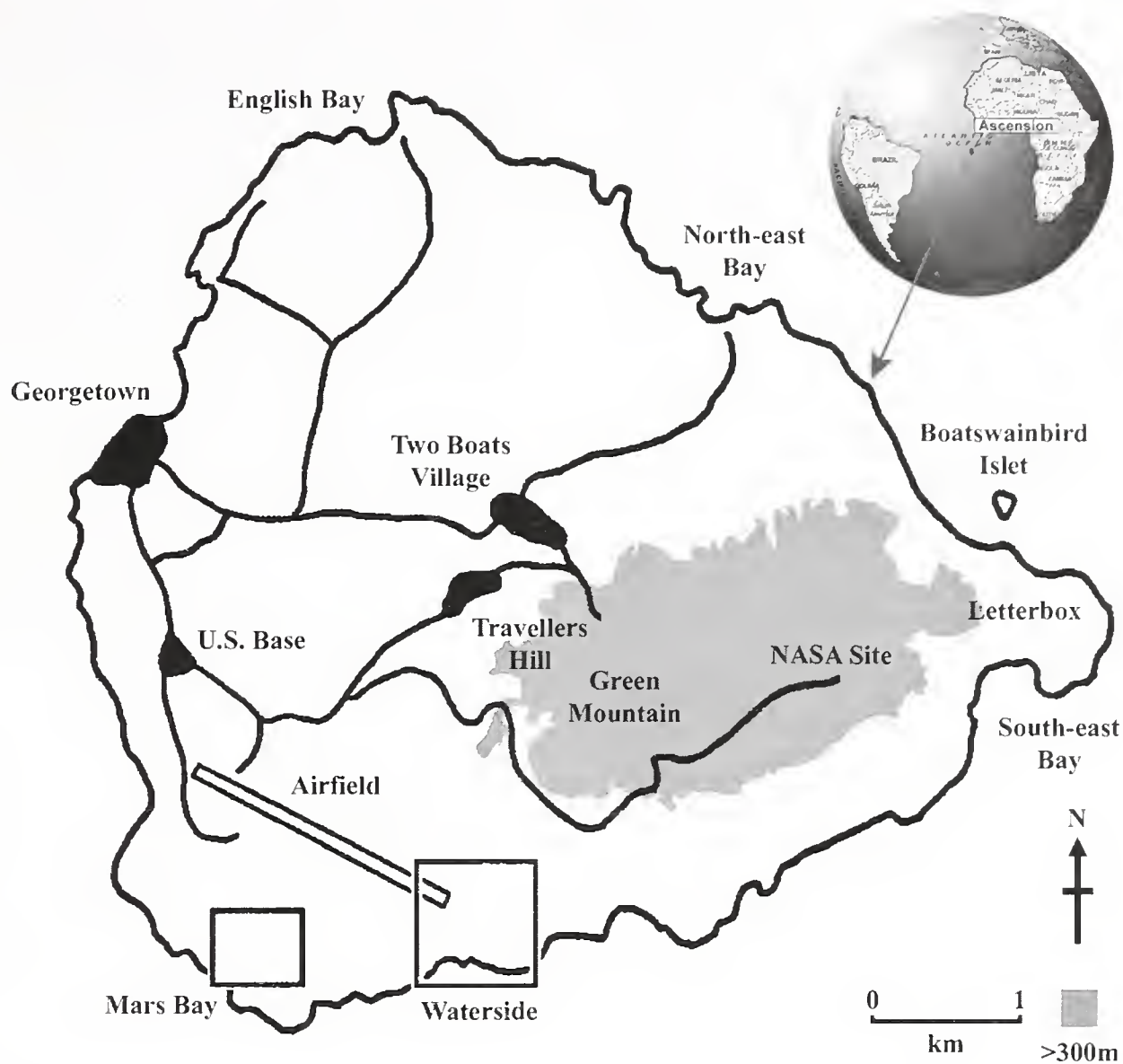


Figure 1. The location of the United Kingdom Overseas Territory (UKOT) of Ascension Island in the central Atlantic relative to the African and South American continents, and a map of the island showing the locations of the main colonies of Sooty Terns *Onychoprion fuscatus*.

Situation du Territoire d'Outre-mer du Royaume-Uni de l'île de l'Ascension dans l'Atlantique central par rapport aux continents africain et sud-américain, et carte de l'île indiquant la localisation des colonies principales de Sternes fuligineuses *Onychoprion fuscatus*.

defer breeding for five or more years (Schreiber *et al.* 2002). On Ascension Sooty Terns breed sub-annually (every 9.6 months) (Chapin 1954) and are absent from the island for three months between breeding seasons (Hughes *et al.* 2008). These factors must be considered when predicting the date of the peak of the breeding season, to ensure that field work coincides with the population maximum of each breeding cycle. The number of adults that returned to breed in 1990–2007 has varied between 150,000 and 420,000 birds (Hughes *et al.* 2008). Seasons with high egg productivity are characterised by above-average numbers of birds returning to breed and a long breeding season. Sooty Terns have the ability to replace eggs lost early in the season (Feare 1976) and on Ascension 13% of egg losses are replaced (Ashmole 1963). Estimates of breeding density and colony area are used to census large colonies of ground-nesting seabirds (Bibby *et al.* 2000)

and were used in the first census of Sooty Terns on Ascension in 1990 and during subsequent breeding seasons. In the decade prior to cat eradication the population appeared stable with a mean population size of $368,000 \pm 82,000$ birds ($\pm 95\%$ CI, $n = 4$) (Ratcliffe *et al.* 1999).

Sooty Terns are not unusual among seabirds in having life histories characterised by longevity, low fecundity and deferred breeding (Schreiber & Burger 2002). To obtain a reliable estimate of population trends of adult Sooty Terns on Ascension, multi-season censuses of breeding adults are required. To achieve this, censuses of the species' colonies were completed each breeding season between 2000 and 2009 by teams from the Army Ornithological Society (AOS), but they were unable to undertake a census in 2010. However, by pooling information from visiting ornithologists, the AOS and the Ascension Island Government (AIG), sufficient data were available

to estimate the population size and bridge the potential gap in the AOS long-term dataset. Here, we report on the success of the Sooty Tern breeding season between May and September 2010.

Methods

The breeding population in 2010 was estimated using similar census techniques to those employed between 1990 and 2009. However, the 2010 census was not planned and the survey dates may have missed the peak in breeding activity. Sooty Terns breed in two colonies, at Mars Bay and Waterside (Fig. 1). To census the colonies the estimated mean nest density was applied to the estimated area of the breeding colony (Bibby *et al.* 2000). The perimeter of the Sooty Tern colony was surveyed twice during the 2010 breeding season. A Global Positioning System (GPS) survey of the colony at Mars Bay was completed on 21 May 2010 and GPS surveys at both Mars Bay and Waterside were made on 25 September 2010. To estimate the area occupied by nesting birds the survey data were inputted to

an ESRI's ArcMap 9.2 Geographical Information System (GIS). Population size was estimated by multiplying the area of the colony in 2010 by the mean nest density obtained from previous breeding seasons. Between 2000 and 2009 mean nest density was obtained from surveys of 3,587 quadrats in the Sooty Tern colonies at Mars Bay and Waterside. Dates of egg-laying initiation and departure, and duration of the breeding season were obtained from AOS field records and regular visits by Conservation Office staff to the tern colonies. Further details of the survey methods are reported in Hughes *et al.* (2008). In 2010 AIG weekly reports also provided anecdotal evidence of breeding success.

Results

The duration of the 2010 breeding season was 193 days, with the first egg laid on 14 April (AIG 2010a) and the last juveniles departing on 24 October (AIG 2010c).

The area of the Mars Bay colony on 21 May (37 days after the first-egg date) was 7.57 ha and on 25 September (164 days after the first-



Figure 2. The Sooty Tern *Onychoprion fuscatus* colony at Waterside, Ascension Island (B. J. Hughes)
Colonie de Sternes fuligineuses *Onychoprion fuscatus* à Waterside, île de l'Ascension (B. J. Hughes)

egg date) the area was 12.38 ha. The egg / nest density at Mars Bay during the breeding seasons between November 2000 and October 2009 varied between 2.02 and 0.96 eggs / nests m⁻² and the mean was 1.436 eggs / nests m⁻² (se = 0.107, n = 10) (BJH unpubl. data). The numbers breeding on 21 May and 25 September were 218,000 ± 36,000 (± 95% CI) and 356,000 ± 60,000 birds, respectively.

The area of the Waterside colony on 25 September was 3.51 ha while the egg / nest density at Waterside during the breeding seasons between November 2000 and October 2009 varied between 2.23 and 1.41 eggs / nests m⁻² and the mean was 1.817 eggs / nests m⁻² (se = 0.081, n = 10) (BJH unpubl. data). Therefore, the number breeding was estimated to be 127,600 ± 13,000 birds.

Taken together, the best estimate of the size of the breeding population of Sooty Terns on Ascension in 2010 was 414,000 ± 50,000 birds.

Discussion

Monitoring is essential for evaluating the outcome of conservation action. Clear evidence of the recovery of the UK population of Cirl Bunting *Emberiza cirlus* following the provision of grass margins was obtained via monitoring (Peach *et al.* 2001). However, despite possessing 15 years of monitoring data, Girardet *et al.* (2001) were unable to distinguish between the possible effect of cat predation and natural variation in bird numbers, and recommended collecting a longer dataset. Long-lived species require long-term monitoring and a continuous sequence of census data is needed to avoid missing significant population fluctuations. In 2010 the Sooty Tern breeding population was estimated to be 414,000 ± 50,000 birds, representing an increase in population size from the mean of censuses in 2008–09 when it numbered 339,000 ± 103,000 birds (n = 3) (BJH unpubl. data). The Sooty Tern population in 2010 was greater than estimates from post-cat

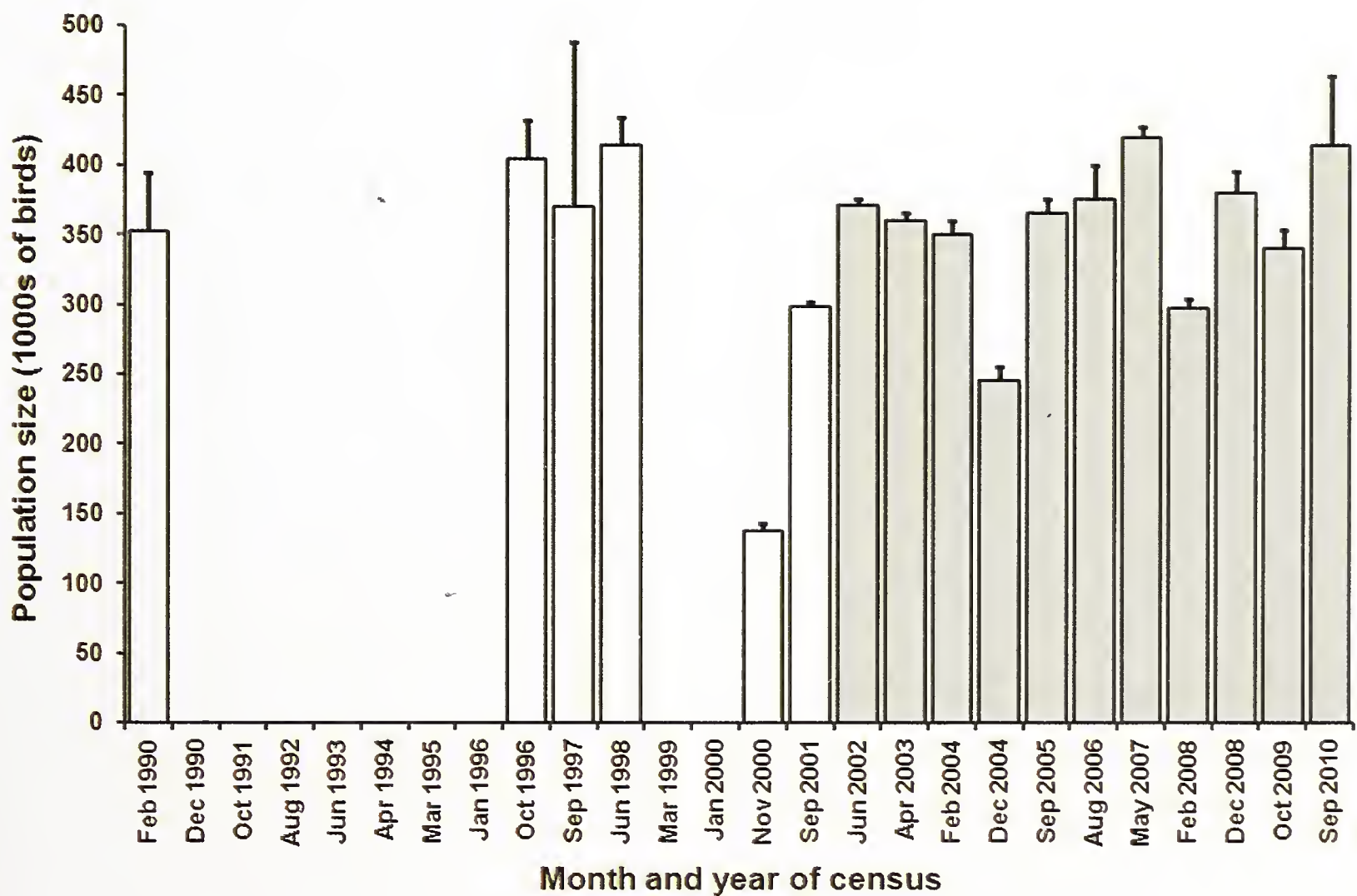


Figure 3. Estimated population size (mean >95% confidence limit) of Sooty Terns *Onychroprion fuscatus* breeding on Ascension Island from 17 censuses undertaken before (open bars) and after (grey bars) the cat-eradication programme. Note that the sub-annual breeding cycle resulted in birds breeding twice in 2004 and 2008. The census in 1997 was completed by N. Ratcliffe (Royal Society for the Protection of Birds).

Population estimée (moyenne avec intervalle de confiance >95%) de Sternes fuligineuses *Onychroprion fuscatus* nichant sur l'île de l'Ascension d'après 17 inventaires organisés avant (barres blanches) et après (barres grises) le programme d'éradication des chats. Noter que le cycle de nidification infra-annuel fait que les oiseaux ont niché deux fois en 2004 et 2008. L'inventaire de 1997 a été exécuté par N. Ratcliffe (Royal Society for the Protection of Birds).

eradication censuses between 2002 and 2007 (i.e. $359,000 \pm 51,000$ birds ($n = 7$); Hughes *et al.* 2008) and also greater than the pre-cat eradication status when a baseline survey revealed $368,000 \pm 82,000$ birds (Ratcliffe *et al.* 1999). However, this apparent increase needs to be placed in context. Large fluctuations in breeding population size are relatively common such as between 2000 and 2001 when the population more than doubled (Hughes *et al.* 2008), but this did not result in a significant increase in the long-term trend (Fig. 3). The large disparity between the May survey (218,000 birds) and the September survey (356,000 birds) in 2010 at Mars Bay clearly indicates that caution is needed when comparing the 2010 census with previous, more comprehensive surveys.

The duration of the 2010 breeding season was 193 days, which is an increase of 30 days (or 18%) on the mean length of previous breeding seasons ($n = 13$). Of the preceding breeding seasons that were monitored, 2006 had the longest duration at 200 days when 68,000 chicks, sufficient to sustain the population, fledged (BJH unpubl. data). In 2010 large numbers of juveniles in flight during the course of the breeding season were recorded (AIG 2010b).

Previous censuses were scheduled for a period 40–60 days after the first egg was laid (Hughes *et al.* 2008), when the area of the colony was at its maximum (Ashmole 1963). Towards the end of the breeding season unsuccessful breeders usually begin to depart and the colony size reduces (BJH unpubl. data). Surveys in September 2010 were close to the end of the breeding season and may have under-estimated the maximum size of the colony. Why the September 2010 count was higher than the May 2010 count remains to be explained.

The spatial distribution of birds between the two breeding colonies in 2010 was the inverse of previous breeding seasons. Traditionally, two-thirds of the birds nest at Waterside with the remainder at Mars Bay. In May 2010 there were estimated to be 286,600 birds breeding at Mars Bay and in September 127,600 at Waterside. Sooty Terns on Ascension are not site-faithful (BJH unpubl. data) and severe rat predation at Waterside in 2008–09 may have stimulated more Sooty Terns to nest at Mars Bay in 2010.

Although we make the case that long-term population monitoring is key to recording

population recoveries in taxa such as seabirds (Mitchell *et al.* 2004), we recognise that the logistics and finances of such exercises, especially on remote islands such as Ascension, can be prohibitive to their success. Although in the breeding seasons prior to 2010 we have managed to overcome such obstacles, it was only through cooperation and data sharing between different agencies that this study was possible. This highlights the need for further cooperation to make such long-term population monitoring a reality and it opens up the possibility perhaps for future reliance on data collected by volunteers (Greenwood 2007). This may be especially attractive in times of austerity when expeditions to remote islands can be prohibited by financial constraints. However, fundamental to the success of volunteer involvement in such data collection is their appropriate level of training (Greenwood 2007). Considerable commitment throughout the breeding season is also required if a reliable estimate of productivity is to be obtained.

Above, we discuss our findings and consider improvements in monitoring efforts on Ascension. Like any predator-eradication programme, our long-term aim is to monitor the Sooty Tern population to detect and monitor its predicted recovery. To date, evidence for an increase in the population size of Sooty Terns from censuses over 13 consecutive seasons is mixed. Three seasons with small breeding populations in 2008 and 2009 were preceded and followed by seasons of relatively large breeding populations. We conclude that further censuses are imperative to characterise the population trend for this species and to detect its predicted recovery since the cat-eradication programme. Allied to this census work is further monitoring of Black Rat *Rattus rattus* populations to detect potential mesopredator release (Courchamp *et al.* 1999) that would have further effects on the progress of recovery because of their adverse impacts on both eggs and chicks (Jones *et al.* 2008). Such rat monitoring work is ongoing and, indeed, will form part of the integrated approach during future AOS field work.

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References

- AIG. 2010a. *Seabird restoration project weekly report 178: April 2010*. Georgetown: Ascension Island Government.
- AIG. 2010b. *Seabird restoration project weekly report 193: July 2010*. Georgetown: Ascension Island Government.
- AIG. 2010c. *Seabird restoration project weekly report 207: October 2010*. Georgetown: Ascension Island Government.
- Ashmole, N. P. 1963. The biology of the Wideawake or Sooty Tern *Sterna fuscata* on Ascension Island. *Ibis* 103: 297–364.
- Ashmole, N. P., Ashmole, M. & Simmons, K. E. L. 1994. Seabird conservation on Ascension Island. In Nettleship, D. N., Burger, J. & Gochfeld, M. (eds.) *Seabirds on Islands: Threats, Case Studies and Action Plans*. Cambridge, UK: BirdLife International.
- Bibby, C. J., Burgess, N. D., Hill, D. A. & Mustoe, S. H. 2000. *Bird Census Techniques*. Second edn. London, UK: Academic Press.
- Chapin, J. P. 1954. The calendar of wideawake fair. *Auk* 71: 1–15.
- Courchamp, F., Langlais, M. & Sugihara, G. 1999. Cats protecting birds: modelling the mesopredator release effect. *J. Anim. Ecol.* 68: 282–292.
- Donlan, C. J., Campbell, K., Cabrera, W., Lavoie, C., Carrion, V. & Cruz, F. 2007. Recovery of the Galapagos rail (*Laterallus spilonotus*) following the removal of invasive mammals. *Biol. Conserv.* 138: 520–524.
- Feare, C. J. 1976. The breeding of the Sooty Tern *Sterna fuscata* in the Seychelles and the effects of experimental removal of eggs. *J. Zool., Lond.* 179: 317–360.
- Girardet, S. A. B., Veitch, C. R. & Craig, J. L. 2001. Bird and rat numbers on Little Barrier Island, New Zealand, over the period of cat eradication 1967–80. *New Zealand J. Zool.* 28: 13–29.
- Greenwood, J. J. D. 2007. Citizens, science and bird conservation. *J. Ornithol.* 148: (Suppl. 1) S77–S124.
- Hughes, B. J., Martin, G. R. & Reynolds, S. J. 2008. Cats and seabirds: effects of feral Domestic Cat *Felis silvestris catus* eradication on the population of Sooty Terns *Onychoprion fuscata* on Ascension Island, South Atlantic. *Ibis* 150 (Suppl. 1): 122–131.
- Hughes, B. J., Martin, G. R. & Reynolds, S. J. 2011. The use of Google Earth™ satellite imagery to detect the nests of Masked Boobies *Sula dactylatra*. *Wildl. Biol.* 17: 210–216.
- Jenouvrier, S., Barbraud, C., Weimerskirch, H. & Caswell, H. 2009. Limitation of population recovery: a stochastic approach to the case of the emperor penguin. *Oikos* 118: 1292–1298.
- Jones, H., Tershy, B., Zavaleta, E., Croll, D., Keitt, B., Finkelstein, M. & Howald, G. 2008. Severity of the effects of invasive rats on seabirds: a global review. *Conserv. Biol.* 22:16–26.
- Mitchell, P. I., Newton, S. F., Ratcliffe, N. & Dunn, T. E. 2004. *Seabird Populations of Britain and Ireland*. London, UK: T. & A. D. Poyser.
- Nogales, M., Martin, A., Tershy, B. R., Donlan, C. J., Veitch, D., Puerta, N., Wood, B. & Alonso, J. 2004. A review of feral cat eradication on islands. *Conserv. Biol.* 18: 310–319.
- Peach, W. J., Lovett, L. J., Wotton, S. R. & Jeffs, C. 2001. Countryside stewardship delivers cirl buntings *Emberiza cirlus* in Devon, UK. *Biol. Conserv.* 101: 361–373.
- Ratcliffe, N., Hughes, J. & Roberts, F. A. 1999. The population status of Sooty Terns *Sterna fuscata* on Ascension Island. *Atlantic Seabirds* 1: 159–168.
- Ratcliffe, N., Bell, M., Pelembe, T., Boyle, D., Benjamin, R., White, R., Godley, B., Stevenson, J. & Sanders, S. M. 2009. The eradication of feral cats from Ascension Island and its subsequent recolonization by seabirds. *Oryx* 44: 20–29.
- Schreiber, E. A. & Burger, J. 2002. *Biology of Marine Birds*. Boca Raton, FL: CRC Press.
- Schreiber, E. A., Feare, C. F., Harrington, B. J., Murray, B. G., Robertson, W. B., Robertson, M. J. & Woolfenden, G. E. 2002. Sooty Tern (*Sterna fuscata*). In Poole, A. & Gill, F. (eds.) *The Birds of North America*, No. 665. Philadelphia, PA: The Birds of North America, Inc.
- Stonehouse, B. 2002. Ornithologist expresses concerns about Ascension conservation programme. *The Islander* 4 April 2002: 9.
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Grey-striped Francolin *Pternistis griseostriatus*: specimens, distribution and morphometrics

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Le Francolin à bandes grises *Pternistis griseostriatus* : spécimens, distribution et mensurations.

Le Francolin à bandes grises *Pternistis griseostriatus* est une espèce endémique à l'Angola et peu étudiée. Auparavant il n'était connu que de 25 spécimens et semblait comprendre deux populations distinctes. Les auteurs résument les informations sur 32 spécimens et leurs propres observations récentes, et présentent une carte de distribution des localités connues. Ces données montrent que l'espèce possède une répartition plus étendue qu'on ne le pensait précédemment, étant continue le long de l'escarpement de l'Angola, à environ 08–14°S. Les mensurations des spécimens des trois collections les plus importantes sont présentées. La comparaison du poids et de la taille des deux sexes révèle que les mâles sont bien plus grands que les femelles. Les données collectées ne confirment pas l'hypothèse que les populations méridionales sont plus grandes que celles du nord, comme il était postulé auparavant.

Summary. Grey-striped Francolin *Pternistis griseostriatus* is a poorly studied Angolan endemic. Previously it was known from 25 specimens, and appeared to comprise two distinct populations. Here we summarise information on 32 specimens and our own recent observations, and map the distribution of known localities. These data show that the species has a continuous range along the Angolan escarpment, at c.08–14°S, and a wider distribution than previously thought. We also summarise morphometric data for specimens in the three largest museum holdings, and compare male and female mass and size, demonstrating that males are significantly larger than females. However, our data do not support the hypothesis that southern populations are larger than northern populations, as was previously postulated.

Grey-striped Francolin *Pternistis griseostriatus* is a little-known, Near Threatened, Angolan endemic that occurs in densely vegetated habitats associated with the Angolan escarpment (Pinto 1983, Urban *et al.* 1986, Dean 2000, BirdLife International 2009) (Figs. 1a–b). What little was known of the species prior to 1975 was summarised by Pinto (1983) and Dean (2000), and no new data were obtained during the final

quarter of the 20th century (Dean 2000, Ryan *et al.* 2004). Since 2002 some additional data have improved our knowledge of the species' vocalisations, local abundance, distribution and behaviour (Vaz Pinto 2002, Ryan *et al.* 2004, Mills 2007, 2009, 2010, Mills & Dean 2007), although no comprehensive summary of museum specimens, other localities or morphometrics is available. Here we present a chronological

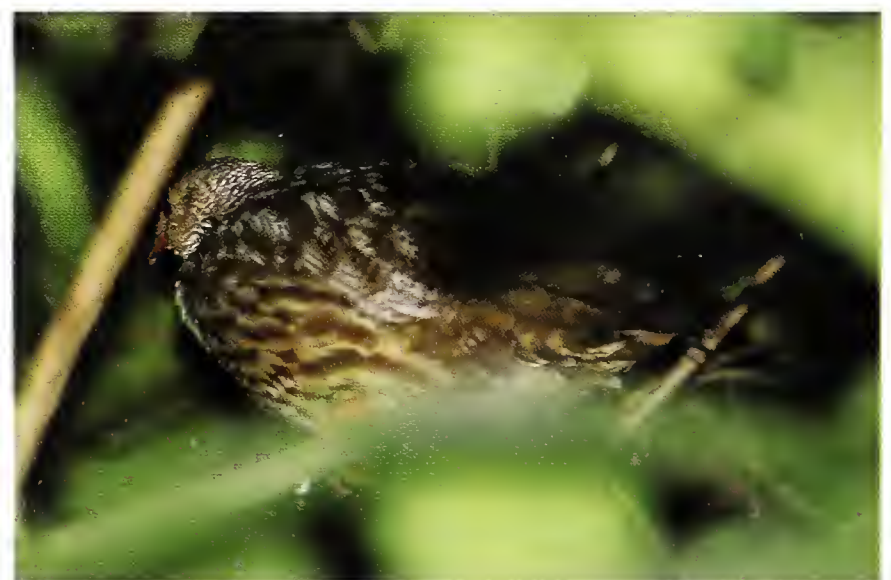


Figure 1 a–b. Grey-striped Francolin *Pternistis griseostriatus*, here photographed at night at its roost at Kumbira Forest in August 2006, is a little-known, Near Threatened, Angolan endemic (T. Dowd)

Francolin à bandes grises *Pternistis griseostriatus*, ici photographié la nuit à son dortoir dans la forêt de Kumbira en août 2006, est une espèce endémique à l'Angola peu connue et Quasi Menacée (T. Dowd)

Table 1. Chronological list of the 32 known specimens of Grey-striped Francolin *Pternistis griseostriatus* (excluding the specimen in the Instituto de Investigação Científica Tropical) plus three individuals captured by Vaz Pinto (2002), with morphometrics where these could be taken. Mass was taken from specimen labels where mentioned.

Tableau 1. Liste chronologique des 32 spécimens connus du Francolin à bandes grises *Pternistis griseostriatus* (à l'exclusion du spécimen venant de l'Instituto de Investigação Científica Tropical) plus trois individus capturés par Vaz Pinto (2002), avec les mensurations qui ont pu être prises. Le poids est celui mentionné sur l'étiquette du spécimen.

Date	Locality	Collector	Collection	Catalogue no.	Age	Sex	Mass (g)	Wing (mm)	Tail (mm)	Bill (mm)	Tarsus (mm)
Dec 1875	Quanza River	J. J. Monteiro	BMNH	1875.12.31.2	Ad.	M	-	160	75	27.5	43
Jul 1903	Pungo Andongo	W. J. Ansorge	AMNH	541412	Juv.	M	-	125	59	14.0	30
Dec 1903	Canhoca	W. J. Ansorge	AMNH	541414	Ad.	F	-	156	93	20.2	39
Aug 1904	Bongo River	W. J. Ansorge	AMNH	541413	Ad.	F	-	161	95	21.9	37
Aug 1908	N'dalatando	W. J. Ansorge	BMNH	1910.5.6.24	Ad.	M	-	161	83	28.3	47
Aug 1908	N'dalatando	W. J. Ansorge	BMNH	1910.5.6.26	Ad.	F	-	150	68	25.3	39
Sep 1908	N'dalatando	W. J. Ansorge	AMNH	541410	Ad.	F	-	153	85	20.9	37
Sep 1908	N'dalatando	W. J. Ansorge	AMNH	541411	Ad.	M	-	161	94	23.3	41
Sep 1908	N'dalatando	W. J. Ansorge	BMNH	1910.5.6.28	Ad.	F	-	159	70	26.5	41
Sep 1908	N'dalatando	W. J. Ansorge	BMNH	1910.5.6.27	Ad.	F	-	155	65	28.2	41
Oct 1908	N'dalatando	W. J. Ansorge	BMNH	1910.5.6.30	Ad.	F	-	151	65	26.3	40
Oct 1908	N'dalatando	W. J. Ansorge	BMNH	1910.5.6.29	Ad.	F	-	150	77	25.8	39
Oct 1930	Chingoroi	R. & L. Boulton	CMNH	108689	Ad.	F	-	-	-	-	-
Jan 1940	N'dalatando	R. H. Braun	AMNH	348799	Ad.	M	-	159	89	24.5	38
Jan 1955	Doñdo	G. Heinrich	FMNH	419131	Ad.	F	-	-	-	-	-
Jan 1955	Dondo	G. Heinrich	FMNH	419132	Ad.	M	-	-	-	-	-
Feb 1955	Dondo	G. Heinrich	ZMH	58.918	Ad.	M	-	-	-	-	-
Aug 1957	Calulo	G. Heinrich	YPM	50066	Ad.	F	-	-	-	-	-
Aug 1957	Calulo	G. Heinrich	YPM	50067	Ad.	F	-	-	-	-	-
Oct 1960	Camucuio	unknown	LBSC	2860	Ad.	F	-	-	-	-	-
Oct 1960	Camucuio	J. C. Cabral	LBSC	2861	Ad.	M	382	168	90	26.4	44
Jan 1961	Caxito	J. C. Cabral	LBSC	3201	Juv.	F	-	139	67	20.5	40
Jul 1966	Cachoeira	D. Maputo	LBSC	18211	Ad.	M	350	155	-	26.5	42
Jul 1966	Salinas	D. Maputo	LBSC	18255	Ad.	M	400	152	75	24.8	42
Jul 1966	Salinas	D. Maputo	LBSC	18274	Ad.	F	350	152	72	22.7	36
Sep 1970	Chingoroi	D. Maputo	LBSC	32346	Ad.	M	275	154	69	22.4	47
Sep 1970	Chingoroi	D. Maputo	LBSC	32350	Ad.	F	215	144	73	20.6	40
Jul 1971	Mumluga, 9 km south	M. Gouveia	LBSC	34346	Ad.	M	410	158	78	25.3	46
Oct 1971	Capira	L. Hangula	LBSC	35652	Ad.	F	213	141	-	22.5	41
Oct 1971	Capira	L. Hangula	LBSC	35653	Ad.	F	260	150	75	24.7	34
Oct 1971	Capira	A. M. Ferreira	LBSC	35728	Ad.	?	203	141	72	22.5	35
Oct 1971	Dolondolo	L. Hangula	LBSC	35709	Ad.	M	265	155	80	24.4	42
Aug 2001	Kawa Camp, Kissama NP	P. Vaz Pinto	Caught and released		Juv.	?	270	-	-	-	-
Aug 2001	Kawa Camp, Kissama NP	P. Vaz Pinto	Caught and released		Subad.	?	360	-	-	-	-
Aug 2001	Kawa Camp, Kissama NP	P. Vaz Pinto	Caught and released		Ad.	M	530	-	-	-	-

history of collecting, an updated summary of the species' distribution based on specimens and our own recent records, and a list of available measurements of specimens held in the three largest museum series'. SH measured specimens in the American Museum of Natural History, New York (AMNH), MSLM measured those in the Lubango Bird Skin Collection (LBSC) (Mills *et al.* 2010) and Hein van Grouw those in the Natural History Museum, Tring (BMNH).

Collecting history

Dean (2000) summarised locality data for 25 specimens of Grey-striped Francolin, one of which is housed in the Centro de Zoologia of the Instituto de Investigação Científica Tropical, Lisbon, Portugal, but for which we have been unable to obtain details. Here we present information on eight further specimens: the type specimen and six other specimens in BMNH, and one additional specimen at the AMNH not listed in Dean (2000) (see Table 1).

Table 2. Recording localities of Grey-striped Francolin *Pternistis griseostriatus*, from north to south. Latitude and longitude are given in decimal degrees. Personal observations are followed by the year and month (for observations from more than one month, each month is listed). Numbers correspond to the localities in Fig. 2.

Tableau 2. Localities où le Francolin à bandes grises *Pternistis griseostriatus* a été observé ou collecté, du nord au sud. Latitude et longitude sont données en degrés décimaux. Les observations personnelles sont suivies de l'année et du mois (pour les observations faites sur plusieurs mois, chaque mois est mentionné). Les chiffres correspondent au localités de la Fig. 2.

Locality (Province)	Lat (°S)	Long (°E)	Alt. (m)	Source and notes
01 = Quitexe, 10 km south (Kwanza Norte)	08.0184	15.0011	795	MSLM pers. obs. (2009–08)
02 = Caxito (Bengo)	08.5830	13.6576	15	Specimens
03 = Kissama National Park, Kawa Camp (Bengo)	09.1741	13.3641	10	MSLM pers. obs. (2005–08), Vaz Pinto (2002)
04 = Canhoca (Kwanza Norte)	09.2507	14.6828	330	Specimens
05 = N'dalatando (Kwanza Norte)	09.3015	14.9118	790	Specimens (locality previously called Salazar)
06 = Tombinga (Kwanza Norte)	09.3480	14.7949	480	MSLM pers. obs. (2009–08)
07 = Kissama National Park, south-east (Bengo)	09.6317	13.7585	180	MSLM pers. obs. (2005–08)
08 = Pungo Andongo (Malanje)	09.6697	15.5889	1,150	Specimens
09 = Dondo (Kwanza Norte)	09.6897	14.4244	50	Specimens
10 = Quitondo (Kwanza Sul)	09.7666	14.9000	600	Dean (2000), precise locality untraced
11 = Mumluga, 9 km south (Kwanza Sul)	09.9126	14.5371	435	Specimens (Mumluga not traced, but assumed to be halfway between Munenga and the Kwanza River)
12 = Calulo (Kwanza Sul)	09.9979	14.8930	995	Specimens
13 = Gabela, 25 km north (Kwanza Sul)	10.5856	14.2756	735	MSLM pers. obs. (2005–09)
14 = Salinas (Kwanza Sul)	10.9199	14.2640	280	Specimens
15 = Fazenda Maria Luisa (Kwanza Sul)	10.9268	14.3039	645	MSLM pers. obs. (2005–10)
16 = Assango-Gabela road (Kwanza Sul)	10.9311	14.3800	970	MSLM pers. obs. (2005–10)
17 = Fazenda Pregredior (Kwanza Sul)	10.9468	14.3457	780	MSLM pers. obs. (2005–09)
18 = Cachoeira (Kwanza Sul)	10.9894	14.0952	70	Specimens
19 = Conda, 15 km west (Kwanza Sul)	11.0690	14.2596	905	MSLM pers. obs. (2005–09)
20 = Bimbe (Kwanza Sul)	11.1071	14.2090	295	MSLM pers. obs. (2005–09, 2006–08, 2008–11, 2009–08)
21 = Kumbira Forest (Kwanza Sul)	11.1530	14.2800	875	MSLM pers. obs. (2005–08/09, 2006–08, 2008–11)
22 = Bango (Kwanza Sul)	11.3576	14.2083	1,060	MSLM pers. obs. (2005–10, 2009–08)
23 = Lower Gungu Road (Benguela)	11.7600	14.0809	295	MSLM pers. obs. (2005–10)
24 = Gungo (Benguela)	11.8109	14.1394	1,030	MSLM pers. obs. (2005–10)
25 = Namba Mountains (Kwanza Sul)	11.8439	14.7557	2,150	MSLM pers. obs. (2010–07)
26 = Canjala (Kwanza Sul)	11.9964	13.9957	50	W. Brock <i>in litt.</i> (2006–10)
27 = Bongo River (Benguela)	13.1606	14.3424	980	Specimens (precise locality unknown; Collar 1998)
28 = Chongoroi (Benguela)	13.5746	13.9420	670	Specimens
29 = Capira (Namibe)	13.7552	13.0586	565	Specimens
30 = Dolondolo (Namibe)	13.8166	13.1333	645	Specimens
31 = Camucuio (Namibe)	14.1152	13.2414	670	Specimens

The first specimen of Grey-striped Francolin was a male presented to the British Museum by R. B. Sharpe, collected on an unknown date prior to 31 December 1875 (the acquisition date) along the Kwanza (Quanza) River (Ogilvie-Grant & Sharpe 1896, Warren 1966), and not the Congo River as reported by Ogilvie-Grant (1890) in his type description. This specimen was perhaps taken by J. J. Monteiro, who collected along the Kwanza River during 1868–69 (W. R. J. Dean *in litt.* 2011). The precise locality is unknown, but it probably falls within the species' known range, somewhere along the Kwanza River between Dondo in the east and Kawa Camp,

Kissama National Park, in the west (Table 2). This specimen is housed at BMNH (Ogilvie-Grant 1893), along with six other specimens; an eighth specimen, not listed in Table 1, is currently missing (H. van Grouw *in litt.* 2010).

It was another 28 years before additional specimens were collected; between 1903 and 1908 W. J. Ansorge collected 11 individuals from the north of the species' range. These are housed at AMNH (Collar 1998) and BMNH, with five and six skins, respectively. Added to this series at AMNH is a sixth specimen collected by R. H. Braun in 1940, from N'dalatando (previously Salazar). In 1930 R. Boulton collected

a single specimen at Chingoroi, the first from the south of the species' range, which is held in the Carnegie Museum of Natural History, Pittsburgh (CMNH). Next, G. Heinrich collected five specimens, three in 1955, two of which were sent to the Field Museum of Natural History, Chicago (FMNH), and one to the Zoologisches Museum, Hamburg (ZMH), and two in 1957 which are housed in the Peabody Museum, Yale (YPM). Finally, between 1960 and 1971 various collectors at the Instituto de Investigação Científica de Angola (IICA) secured a series of 13 specimens from several scattered localities (Table 1), of which one is missing and 12 are now housed at LBSC. Thus a total of 32 specimens are currently traceable, excluding the destroyed Lisbon skin and the missing skins from BMNH and LBSC. There are no specimens in other museums contacted: the Museu Zoológico da Universidade de Coimbra (Carreira 1990), the Museum für Naturkunde, Berlin, the Museu Nacional de História Natural,

Lisbon, the Smithsonian Institution, Washington DC, the Gothenburg Natural History Museum, Gothenburg, and the Academy of Natural Sciences, Philadelphia.

Localities

The 32 specimens listed (Table 1) cover most of the species' current known range (Table 2; Fig. 2). However, there is a paucity of records from the centre of its distribution, with no specimens from between the Gabela area and the Bongo River, a distance of *c.*250 km, affording the impression that the species occurs in two isolated populations (Pinto 1983). However, recent records from various localities between Gabela and Gungo demonstrate that the species occurs continuously along the scarp at least as far as the Kwanza Sul / Benguela provincial border (Mills & Dean 2007, Mills 2010). The *c.*140-km stretch of scarp between Gungo and the Bongo River has not been surveyed, but the species probably occurs wherever suitable habitat exists, especially in the Canjala / Egito area, where several other scarp endemics have been collected (Mills & Dean 2007). In September 2006 W. Brock purchased a live Grey-striped Francolin on the roadside near Canjala, which had been acquired in gallery forest nearby (PVP). Recent records from near Quitexe on the Kwanza Norte / Uige provincial border and in the Namba Mountains of southern Kwanza Sul (Mills *et al.* submitted) extend the known range north and east (Fig. 2): These records reveal that the species has a range of *c.*45,000 km² (Mills 2010), larger than the 17,300 km² estimated by BirdLife International (2009).

Most of the localities from which records are available are sited on or adjacent to the Angolan scarp, and range in altitude from sea level to 1,150 m. The only exceptions are Pungo Andongo, east of the scarp on the Angolan plateau, the high Namba Mountains in the Angolan central highlands, from where there is a record at over 2,000 m (Mills *et al.* submitted), and localities on or near the Serra da Neve (Capira, Dolondolo, Camucuio), an isolated mountain on the coastal plain, which rises to over 1,700 m.

Morphometrics

The only published morphometrics for Grey-striped Francolin are in Pinto (1983) and Urban *et al.* (1986), with mass given for three birds



Figure 2. Google Earth image showing all known Grey-striped Francolin *Pternistis griseostriatus* localities. Specimen localities are denoted using squares and observations with circles. Refer to Table 2 for details of each locality.

Image de Google Earth montrant toutes les localités connues du Francolin à bandes grises *Pternistis griseostriatus*. Les carrés représentent des spécimens ; les cercles des observations. Se référer au Tableau 2 pour les détails concernant chaque localité.

by Vaz Pinto (2002). Here we present data from 23 birds; 20 specimens and three captured birds (Table 1). It should be kept in mind that some individual differences may exist in the way measurements were taken, although we attempted to standardise these as far as possible. Measurements were obtained as follows: mass was taken from specimen labels or as published; wing and tail length to the nearest 1.0 mm using a standard wing rule; bill length to the nearest 0.1 mm and tarsus length to the nearest 1.0 mm with vernier callipers. These measurements were taken as follows: wing length (flattened), from the carpal joint to the tip of the longest primary; tail length, from the base to the tip of the central rectrix; tarsus length, from the tibiotarsus joint to the distal end of the tarsometatarsus; and bill (maxilla) length, from where the culmen enters the feathers of the head to the tip of the bill.

One-tailed student t-tests (Zar 1999) were used to test whether males are, on average, larger and heavier than females, as is the case in many other members of the genus (Hockey *et al.* 2005). We also tested whether southern populations (south of 12°S) are larger and heavier than northern populations, as suggested by Pinto (1983).

Mass of adult males ($n = 7$) was significantly greater than that of adult females ($n = 4$) ($t = 2.203$, d.f. = 9, $P < 0.05$), with mean adult male mass (265–373–530 g) (min.–mean–max.) greater than that of the heaviest adult female (213–260–350 g); all birds ($n = 14$): 213–320–530 g. Adult males ($n = 9$) also had significantly longer wings than adult females ($n = 12$) ($t = 2.664$, d.f. = 19, $P < 0.01$), although there was some overlap; adult males: 152–158–168 mm; adult females: 141–151–161 mm. No difference could be detected in tail length between the sexes ($t = 1.348$, d.f. = 17, $P < 0.10$), although this may be due the small sample size or difficulties associated with inconsistent measuring techniques; adult males: 69–82–94 mm; adult females: 65–76–95 mm. However, adult males do possess significantly longer tarsi than adult females ($t = 3.977$, d.f. = 19, $P < 0.0005$); adult males: 38–43–47 mm; adult females 34–38–41 mm.

Our data do not support the hypothesis that southern birds are larger than northern birds. There was no difference between northern and southern birds in wing or tarsus length for males, females or all birds combined ($P > 0.5$;

Table 3. Mean wing length, tarsus length and mass for male, female and all birds from northerly and southerly (south of 12°S) populations, with sample sizes in parentheses, followed by the significance level (P) of the t-test for differences. An asterisk denotes a significant difference at the 0.05 significance level.

Tableau 3. Longueur moyenne de l'aile et du tarse et poids moyen pour le mâle, la femelle et tous les oiseaux des populations du nord et du sud (au sud de 12°S), avec la taille de l'échantillon entre parenthèses, suivi par le degré de signativité (P) du test de Student pour les différences. Un astérisque indique une différence significative.

	North	South	P
Wing length: males	157.7 (6)	159.0 (3)	0.362
Wing length: females	153.3 (8)	149.0 (4)	0.119
Wing length: all	155.5 (15)	152.0 (8)	0.102
Tarsus length: males	42.7 (6)	44.0 (3)	0.237
Tarsus length: females	39.4 (9)	37.0 (5)	0.082
Tarsus length: all	40.7 (15)	40.0 (8)	0.322
Mass: males	422.5 (4)	307.0 (3)	0.045*
Mass: females	350 (1)	229.3 (3)	N/A
Mass: all	408.0 (5)	259.0 (7)	0.002*

Table 3), although northern males and all birds combined were significantly heavier than their southern counterparts, *contra* the suggestion of Pinto (1983). However, since mass was taken from specimen labels, the accuracy of and means for measuring mass being unknown, and no body size differences were detected, we believe these differences in mass may be spurious. Nonetheless, it should also be noted that comparing small datasets for this character can be notoriously unreliable (e.g., Vuilleumeier 1999).

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References

- BirdLife International. 2009. Species factsheet: *Fringilla monticola*. www.birdlife.org (accessed 31 March 2010)
- Collar, N. J. 1998. Monotypy of *Fringilla monticola*. *Bull. Br. Ornithol. Cl.* 118: 124–126.

- Carreira, I. H. G. 1990. Catálogo das aves de região Afrotropical existentes no Museu Zoológico da Universidade de Coimbra. *Ciênc. Biol. Ecol. Syst. (Portugal)* 10: 51–108.
- Dean, W. R. J. 2000. *The Birds of Angola: An Annotated Checklist*. BOU Checklist No. 18. Tring: British Ornithologists' Union.
- Hockey, P. A. R., Dean, W. R. J. & Ryan, P. G. 2005. *Roberts—Birds of Southern Africa*. Seventh edn. Cape Town: Trustees of the John Voelcker Bird Book Fund.
- Mills, M. S. L. 2007. *Vocalisations of Angolan Birds*. Vol. 1. CD. Cape Town: Birds Angola & Birding Africa.
- Mills, M. S. L. 2009. Vocalisations of Angolan birds: new descriptions and other notes. *Bull. ABC* 16: 150–166.
- Mills, M. S. L. 2010. Angola's central scarp forests: patterns of bird diversity and conservation threats. *Biodivers. & Conserv.* 19: 1883–1903.
- Mills, M. S. L. & Dean, W. R. J. 2007. Notes on Angolan birds: new country records, range extensions and taxonomic questions. *Ostrich* 78: 55–63.
- Mills, M. S. L., Franke, U., Joseph, G., Miato, F., Milton, S., Monadjem, A., Oschadleus, D. & Dean, W. R. J. 2010. Cataloguing the Lubango Bird Skin Collection: towards an atlas of Angolan bird distributions. *Bull. ABC* 17: 43–53.
- Mills, M. S. L., Melo, M. & Vaz, A. submitted. The Namba Mountains: new hope for Afromontane forest birds in Angola.
- Ogilvie-Grant, W. R. 1890. On some new and rare francolins. *Ibis* 6(2): 345–350.
- Ogilvie-Grant, W. R. 1893. *Catalogue of the Birds of the British Museum*. Vol. 22. London, UK: Trustees of the British Museum.
- Ogilvie-Grant, W. R. & Sharpe, R.-B. 1896. *Game Birds*. Part II. London, UK: Edward Lloyd.
- Pinto, A. A. da Rosa. 1983. *Ornitologia de Angola*. Vol. 1. Lisbon: Instituto de Investigação Científica Tropical.
- Ryan, P. G., Sinclair, I., Cohen, C., Mills, M. S. L., Spottiswoode, C. N. & Cassidy, R. 2004. The conservation status and vocalisations of threatened birds from the scarp forests of the Western Angola Endemic Bird Area. *Bird Conserv. Intern.* 14: 247–260.
- Urban, E. K., Fry, C. H. & Keith, S. (eds.) 1986. *The Birds of Africa*. Vol. 2. London, UK: Academic Press.
- Vaz Pinto, P. (2002) Field notes on the Grey-striped Francolin (*Francolinus griseostriatus*) in western Angola. *Newsletter of the Partridge, Quail and Francolin Specialist Group* 17: 3–5.
- Vuilleumeier, F. 1999. The weights of Neotropical birds. *Ornitol. Neotrop.* 10: 207–209.
- Warren, R. L. M. 1966. *Type-Specimens of Birds in the British Museum (Natural History)*. Vol. 1. London, UK: Trustees of the British Museum (Natural History).
- Zar, J. H. 1999. *Biostatistical Analysis*. Fourth edn. Upper Saddle River, NJ: Prentice-Hall.
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Aspects of vocal behaviour, including seasonality of song, of diurnal forest raptors in the Guineo-Congolian region

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Aspects du comportement vocal (dont la saisonnalité des chants) chez les rapaces forestiers de la région guinéo-congolaise. Des observations accumulées sur une vingtaine d'années montrent que, parmi les rapaces forestiers rencontrés en Afrique centrale et occidentale, trois espèces sont particulièrement vocales : l'Autour tachiro *Accipiter tachiro* (toutes races confondues), le Serpentaire du Congo *Dryotriorchis spectabilis* et l'Aigle couronné *Stephanoaetus coronatus* ; l'Aigle-autour de Cassin *Spizaetus africanus*, l'Autour à longue queue *Urotriorchis macrourus* et le Gymnogène d'Afrique *Polyboroides typus* chantent moins fréquemment. Le Serpentaire du Congo et l'Autour à longue queue chantent la plupart du temps d'un perchoir, et surtout en début de matinée, avec une petite resurgence en fin de journée. L'Autour tachiro chante parfois posé mais surtout en vol, principalement dans la première demi-heure suivant l'aube. Les rapaces plus lourds et à grand territoire (Aigles couronné et de Cassin) chantent en parades aériennes concentrées pendant les heures chaudes du milieu de journée. L'Autour tachiro et le Serpentaire du Congo sont des chanteurs nettement saisonniers, avec une saison qui dure souvent cinq à six mois. Le comportement d'autres espèces moins vocales ou d'occurrence plus marginale dans les forêts guinéo-congolaises est également décrit.

Summary. Observations made within the Guineo-Congolian region over 20 years show that three species of raptor are particularly vocal: African Goshawk *Accipiter tachiro* (all races), Congo Serpent Eagle *Dryotriorchis spectabilis* and Crowned Eagle *Stephanoaetus coronatus*, while Cassin's Hawk Eagle *Spizaetus africanus*, Long-tailed Hawk *Urotriorchis macrourus* and African Harrier Hawk *Polyboroides typus* sing less frequently. Congo Serpent Eagle and Long-tailed Hawk usually sing perched and mostly in the early morning, with a slight resurgence in late afternoon. African Goshawks sing mostly in flight and principally in the first half-hour after dawn. Large raptors with big territories (Crowned Eagle and Cassin's Hawk Eagle) sing during aerial displays concentrated in the warmer midday hours. Two species are clearly seasonal callers, African Goshawk and Congo Serpent Eagle, being active for periods of five or six months. The behaviour of other, less vocal species, or of species of more marginal occurrence in Guineo-Congolian forests is also described.

Many of the diurnal raptors of tropical rain forests are known to possess loud and characteristic vocalisations, used in territorial advertisement and / or courtship (Thiollay 1994), but the literature contains almost no quantitative studies of the vocal output of various species. In the Neotropics, mention can be made of short studies of two forest falcons *Micrastur* spp. (Thorstrom *et al.* 2000a, 2000b), and in south-east Asia, Kemp *et al.* (2011, Tables S5 & S6) have revealed seasonal and diurnal variations in vocal activity in a couple of species, mainly Crested Serpent Eagle *Spilornis cheela*. Some of the raptors inhabiting Guineo-Congolian rain forests are remarkably noisy, advertising their territories with loud vocal signals, whether from a perch, or in the course of aerial displays. Most of these vocalisations have been described in the standard literature (e.g. Brown *et al.* 1982) and are well represented on commercial recordings (Chappuis 2000). However, very little has been published on the behaviour associated

with territorial songs, including seasonality (the main exception being Gatter 1997 for Liberia), and almost nothing on daily variations in singing activity. This paper presents information on the singing behaviour of various species collected during opportunistic observations since the 1990s until the present. The six most vocal species are considered in detail; the behaviour of six others, either less vocal or of more marginal occurrence in the forest zone, is described more briefly. Mention is also made of the vocal behaviour of dependent immatures, which in some species can be very noisy and thus facilitate detection. Most observations come from visits to Congo-Brazzaville, totalling about two years, a series of shorter visits to Cameroon and more recently extensive work in West Africa (mainly Ghana). As population densities and singing activities of some raptors are related to forest types and local seasonality respectively, some details of the main study sites are presented first.

Main study sites

1. Mayombe and Kouilou basin (southern Congo-Brazzaville). One three-week visit in the cold dry season of May–June 1989; six months (August 1990–January 1991) in the late dry season and early summer rains, the main rains starting in mid October. Main forest types: semi-evergreen and swamp forests.

2. Odzala National Park (northern Congo-Brazzaville). Thirteen months from late December 1993 to early April 1995, the only month not covered being June 1994. Odzala is on the equator and is subject to two dry seasons (a hot one about December–March, a cool one in June–August) and two rainy seasons, the main one being from late August to November, with a short one from late March to April or May. Annual rainfall measured at Odzala in 1994 was 1,500 mm; in 1993 the rains extended until December whereas in 1994 they finished abruptly in mid November. Main dry-land forest type is semi-evergreen, with a very open canopy; there are also broad swamp forests along rivers.

3. Nouabalé-Ndoki National Park (northern Congo-Brazzaville) and adjacent Lobéké, Boumba-Bek and Nki National Parks (south-east Cameroon). Several visits totalling nearly five months between November and May, in 1996–1999, the only month not covered within this period being February. These visits coincided with the main dry season (starting in December) and the start of the rains in April. In April–May rain showers are irregular, and the heavier rains take place later, until November. Annual rainfall was not known precisely, but is estimated to be in the region of 2,000 mm. Extensive swamp forests in Ndoki; dry-land forest in the whole region is semi-evergreen, with an open canopy.

4. Kupe and Manenguba to Mount Cameroon and Yabassi Hills (western Cameroon) and Monte Alen (Equatorial Guinea). Several visits totalling just over eight months in 1998–2001, covering the months of November–April, with a short visit 30 September–3 October 1998 (Kupe). The single rainy season lasts from late March to mid November, with annual rainfall much higher than in the east of the country. It is over 4,000 mm around Kupe (Bowden 2001), probably more in the Bakossis, but less in the Yabassi Hills. Mostly evergreen rain forest with a closed canopy, but

drier and tending towards semi-evergreen with a semi-open canopy in the Yabassi Hills.

5. Forest zone of south-west Ghana. About six months in evergreen and semi-evergreen rain forests between 2004 and 2010, covering the months of August–March. The main dry season is December to mid March, but there is a short dry season about July–August and annual rainfall approaches 2,000 mm (Grimes 1987).

6. Forest / savanna transition zone of eastern Ghana (Volta Region). A few months all east of the Volta, in January–early May, July and late October–November between 2004 and 2011. These semi-evergreen forests experience one main dry season, from December to March. Rains are intermittent in April–May, becoming heavy by June.

7. Gola Forest National Park (Sierra Leone). One visit of six weeks in the dry season of late January–February 2007. Evergreen rain forest with a single dry season from November to March and annual rainfall of approximately 3,000 mm.

8. Western Togo and southern Benin: one month in forests of Togo (covering parts of February 2010, March and May 2011) and two months in Benin (February 2009, April 2011). Weather patterns similar to eastern Ghana.

9. Nyungwe National Park (Rwanda). Five months in 1989–90. Montane rain forest, with extensive rainy season.

Table 1 shows the distribution of forest raptors encountered in the nine forest regions as defined above. Abbreviations used hereafter: N.P. = National Park; F.R. = Forest Reserve.

Results

Congo Serpent Eagle *Dryotriorchis spectabilis*
Guineo-Congolian endemic ranging from south-west Sierra Leone (Matru: Harrop 1961) to the Semliki Valley in western Uganda (Carswell *et al.* 2005). Until recently unknown from the Dahomey Gap but has been found in some dry forests of the transition zone of eastern Ghana (Dowsett-Lemaire & Dowsett 2007; pers. obs.) to the Togo border. One of the commonest forest raptors, especially in open-canopy semi-evergreen rain forest; also in swamp forest, mainly at edges and in broken canopy. Thus, three

Table 1. Distribution of diurnal forest raptors in the nine main study sites (numbered as above). x = present, (x) = rare or vagrant, - = absent.

Tableau 1. Distribution des espèces diurnes de rapaces forestiers dans les neuf sites d'étude principaux (numérotés comme ci-dessus). x = présent, (x) = rare ou accidentel, - = absent.

Species / espèces	Study sites								
	1	2	3	4	5	6	7	8	9
African Cuckoo Hawk / Baza coucou <i>Aviceda cuculoides</i>	-	(x)	(x)	(x)	(x)	x	-	x	-
Palm-nut Vulture / Palmiste africain <i>Gypohierax angolensis</i>	x	x	x	x	x	(x)	x	x	-
Western Banded Snake Eagle / Circaète cendré <i>Circaetus cinerascens</i>	-	-	-	-	(x)	(x)	-	x	-
Congo Serpent Eagle / Serpentaire du Congo <i>Dryotriorchis spectabilis</i>	x	x	x	x	x	x	x	-	-
African Harrier Hawk / Gymnogène d'Afrique <i>Polyboroides typus</i>	x	x	x	x	x	x	x	x	-
Black Sparrowhawk / Autour noir <i>Accipiter melanoleucus</i>	x	x	x	x	x	x	x	x	x
Chestnut-flanked Sparrowhawk / Autour à flanc roux <i>Accipiter castanilius</i>	x	x	x	x	-	-	-	-	-
Red-thighed Sparrowhawk / Epervier de Hartlaub <i>Accipiter erythropus</i>	x	x	x	x	x	x	x	x	-
African Goshawk / Autour tachiro <i>Accipiter tachiro</i>	x	x	x	x	x	x	x	x	x
Long-tailed Hawk / Autour à longue queue <i>Urotriorchis macrourus</i>	x	x	x	x	x	-	x	(x)	-
Ayres's Hawk Eagle / Aigle d'Ayres <i>Hieraaetus ayresii</i>	-	-	x	-	x	x	-	x	-
Cassin's Hawk Eagle / Aigle-autour de Cassin <i>Spizaetus africanus</i>	x	x	x	x	x	x	x	x	x
Crowned Eagle / Aigle couronné <i>Stephanoaetus coronatus</i>	x	x	x	x	x	-	x	(x)	x

adjacent territories in a mixture of swamp and dry-land forest in Odzala N.P. measured *c.* 1 km² each (Dowsett-Lemaire 1997a): they consisted of galleries of forest 500 m wide and birds were often singing at distances of 2 km from each other. Two birds in riparian forest on the Afram River (central Ghana) were singing *c.* 1.5 km from each other; two birds answering each other at forest edges in Gola (Sierra Leone) were less than 1 km apart, as also in Oda River F.R. and Atewa Range F.R. in Ghana. It is unknown whether females sing as well, but I have never come across two birds calling in the same tree or in close proximity.

The species is not known to occur any higher than 900 m in West Africa (in Liberia, Gatter 1997). In Cameroon the highest records of calling birds were at 1,250 m (pers. obs. in Bakossi Mountains, and Ndokbou Forest in the Yabassi Hills), whereas Prigogine's (1971) collector obtained one as high as 1,800–1,900 m in Itombwe in eastern Congo-Kinshasa. Hunts from a perch at the edges of small clearings, roads and rivers, in open canopy (taking arboreal reptiles) or dropping to the ground to catch snakes, lizards and chameleons (Chapin 1932, Brosset & Erard 1986; pers. obs.).

Congo Serpent Eagles are most frequently located by their loud *kow* notes, uttered in a long series of about three in five seconds (Chappuis 2000) from a medium or tall tree. Songs can also be given during a low, fluttering flight as when a bird crosses a clearing to reach another song post,

but this is rare (pers. obs.). Another, less frequent vocalisation is a prolonged *kloooow*, lasting up to two seconds (first cut on Chappuis 2000). The short *kow* notes are far carrying and clearly possess a territorial content; neighbouring birds may counter-sing for long periods. A particular individual sings from different perches within its territory, and can switch from one to another in the same morning or from one morning to the next. A song series often lasts from a few to ten minutes, and can be repeated after breaks of ten or more minutes. Within the singing season (see below), a territorial owner can sing on several mornings in a row, whether near the beginning or towards the end of the season, but there are some days when it does not appear to sing at all, and possibly this may be related to breeding activities. The exact timing of singing bouts was noted on 128 occasions and peaks during early mornings: 74% of records fall in the first three hours after dawn (Table 2). Most of the later-calling birds were in cool environments (e.g. hills of western Cameroon, cold Harmattan weather in Ghana). Quite frequently some birds resume singing in mid to late afternoon (15% of observations), i.e. the last 2.5 hours of daylight. Finally, a few were heard mid to late morning and around noon. The long *kloooow* call has been heard on eight occasions only, and its significance is unclear; it could conceivably involve the female. It was heard mid to late morning (four times), once at noon, once in mid afternoon and, from two birds,

Table 2. Hourly production (from dawn) of singing bouts in five diurnal raptor species of the Guineo-Congolian forest zone, expressed as percentages.

Tableau 2. Production horaire (depuis l'aube) des chants chez cinq espèces de rapaces diurnes de la zone forestière guinéo-congolaise, exprimée en pourcentages.

Daylight hours	Species				
	Congo Serpent Eagle <i>Dryotriorchis spectabilis</i>	African Goshawk <i>Accipiter tachiro</i>	Long-tailed Hawk <i>Urotriorchis macrourus</i>	Cassin's Hawk Eagle <i>Spizaetus africanus</i>	Crowned Eagle <i>Stephanoaetus coronatus</i>
0-1	37.5	81.0	17.4	0	0
1-2	24.2	5.2	26.0	4.8	0
2-3	12.0	3.6	8.7	2.4	0
3-4	4.6	2.6	8.7	9.7	0
4-5	4.0	1.0	8.7	17.1	6.5
5-6	1.6	0	0	17.1	24.2
6-7	0	0.5	0	31.7	43.5
7-8	1.6	0	0	2.4	16.1
8-9	0	0	4.3	12.2	6.5
9-10	4.0	0	0	2.4	1.6
10-11	5.5	0.5	4.3	0	0
11-12	5.5	5.2	21.7	0	1.6
<i>n</i>	128	190	23	41	62

practically all day long (one at Odzala right at the end of the singing season on 1 February, one in Oda River F.R. (Ghana), on 27–29 November; its neighbour giving the normal song).

Fully fledged immatures may give a persistent, rising whistle, thinner than but nevertheless reminiscent of the whistles of African Harrier Hawk *Polyboroides typus* (Chappuis 2000). One young bird gave this call for a long time perched in a prominent tree on 4 June 1989 in the Mayombe, at a time when adults were completely silent. I have otherwise heard this call only twice: one in Semliki Forest (Uganda) on 4–5 March 1990 (one of two birds followed and well seen by R. J. Dowsett and T. Gullick), and one at Odzala on 3 November 1994, in a territory advertised by a singing adult. A. Hester (*in litt.* 2012) observed an immature call in Ankasa (Ghana) in early June 2005.

This species is a seasonal caller: the one full season measured at our base camp at Odzala lasted from 22 August 1994 to 1 February 1995 (covering the main rains and the first half of the hot dry season). But in the previous year (when the rainy season extended into December, see above), some birds sang until 20 February. The open-canopy Marantaceae forests at Odzala become crackling dry in the dry season, and most forest birds breed just before and during the main rains of September–November (Dowsett-Lemaire 1997b). Further north, in Ndoki and

adjacent south-east Cameroon, none was singing in November or early December as the rains were ending. The first one was heard on 24 December (1997, Nki) and from that day several birds were singing from late December into January. The song was last heard on 12 April (1996, Ndoki), with none at all in the second half of April or May (three visits to south-east Cameroon and Ndoki in April 1996, April–May 1997, April 1999). More fragmentary observations in southern Congo-Brazzaville, where the rainy seasons are reversed, showed birds to be vocally active in the dry season of August–October 1990, with only one singing once in the rains (19 December). None sang in the cold dry season of May–June 1989 in the Mayombe.

In western Cameroon the overall singing season lasts from December to mid April, i.e. from 29 November (near Kupe, 1998) to 17 and 22 April (Bakossi, 1998). None was recorded singing in the heavy rains of October and most of November. In Gola, Sierra Leone, birds were very active in the dry months of January–February (Dowsett-Lemaire & Dowsett 2008), and in general songs are heard throughout the dry season from November or December to March (A. Siaka pers. comm.). In Ghana, fairly extensive observations in the drier forests of the east of the country reveal a singing season extending from late October to late March, thus throughout the dry season. Extreme dates are 26 October (A.

Hester pers. comm., at Kalakpa in 2006) and 1 April (pers. obs., also at Kalakpa, in 2008). None sang in the rains later in May (Kalakpa) or in July (Kyabobo: Dowsett-Lemaire & Dowsett 2007).

In south-west Ghana, which has a bimodal rainfall regime, patterns are less clear. The species was heard in most months but vocal activity varied with location. In the Atewa Range it seems particularly noisy in August–February, with a lull in March–May; in several dry semi-evergreen forests such as Bobiri, Kwei Dabanyin (Winneba) and Sekondi, it is noisy in the dry season but not in August–September.

Thus, with the exception of Odzala, serpent eagles are vocal mostly in the dry season, especially in regions with a single, well-defined dry season. A full season at any one spot is likely to last no more than five or six months. The only previous reference to seasonality of calling was made by Chapin (1932) for Congo-Kinshasa, who noted that in the forests just north of the equator the breeding season extends from June to October or November (based on specimens), ‘the same period at which their voices are heard’; the species being silent in Ituri during the short dry season in January to March. This is a region with bimodal rainfall, as in Odzala.

African Harrier Hawk (Gymnogene)

Polyboroides typus

This raptor occurs almost throughout the Afrotropics, except in the driest habitats, but it is most frequent in the forest zones and moist woodlands. Within the Guineo-Congolian and transition zone forests, it is more common in open-canopy, semi-evergreen and secondary forests than in closed-canopy, evergreen rain forest, and is also frequent in farmbrush. Its feeding habits are well known and need not be presented here, except to stress that in West Africa it is locally a great consumer of *Elaeis* palm nuts (Thiollay 1978). It produces a rising, somewhat whining whistle, *suweeeeew* (Chappuis 2000), given usually in undulating flight (with characteristic short, fluttering wingbeats), more rarely from a perch. This song is not very far carrying and territories are more often defended with silent aerial displays, by the male or both pair members (*cf.* C. J. Vernon & W. R. J. Dean *in* Hockey *et al.* 2005). In consequence, I have paid little attention to the species’ vocal behaviour, but did note the timing

of singing in 2009–11. For a total of 20 timed observations, birds were heard at all hours of the day except the first two and last hour, and with a slight peak (six, or 30%) 4–5 hours after dawn with less activity in the afternoon.

I have heard it in nearly all months of field work: at Kyabobo (Ghana) however, it was not calling on our first visit in July (peak of the rains) but was in the dry season (February). Gatter (1997) has noted some seasonality in Liberia, where it displays in August–November (late rains) and less intensively until March.

African Goshawk *Accipiter tachiro* (subspecies *canescens*, *toussenelii* and *macroscelides*)

Widely distributed in all forest types of the Guineo-Congolian region and transition zones, being particularly common in the drier (semi-evergreen) types with open canopy. It occurs to at least 2,500 m in Cameroon (Mount Oku; pers. obs.). Densities have been estimated at one pair / km² in eastern Liberia (Gatter 1997). It feeds on birds, rodents, frogs, lizards or even large Coleoptera (Chapin 1932, Brosset & Erard 1986, Thiollay 1978), and is able to attack prey as large as Latham’s Forest Francolin *Francolinus lathamii* and African Green Pigeon *Treron calvus* (pers. obs.), White-crested Hornbill *Tropicranus albocristatus* (Chapin 1932) and domestic chickens. Other races occur in the forests and dense woodlands of eastern and southern Africa.

It is most surprising that Brosset & Erard (1986) wrote that in Gabon the taxon *toussenelii* is silent. I found all forest subspecies (*toussenelii*, *canescens* and *macroscelides*) as vocal as those of the *tachiro* group of eastern and southern Africa. A sonogram of the *kwip* display notes of *A. t. toussenelii* recorded in the Kouilou basin was published in Dowsett-Lemaire & Dowsett (1991) and shows the same general pattern as the *kwip* notes of South African birds (sonogram in Maclean 1985), with a basal note just above 1 kHz, although there are differences of detail. The *kwip* notes of *A. t. macroscelides* presented by Chappuis (2000) from Ivory Coast sound a little drier or lower pitched, and are reportedly identical to those of East African birds. Over such a wide range no doubt these *kwip* notes may show geographical variation, and more recordings are necessary to show also the possible extent of individual variation. Birds may sing perched but

do so more often in flight, in a display with wings quivering then gliding while the bird progresses in slow circles. Usually only one bird sings at any one spot, but sometimes two birds do so close to each other (often one perched, the other flying): they are probably pair members, as proven in south-east Africa (the female voice being apparently higher pitched: D. Allan *in* Hockey *et al.* 2005).

The precise timing of singing was not noted everywhere, but is known for 190 occasions. On 154 occasions (81%) birds sang in the first hour after dawn, mostly (all but 11) in the first half-hour of daylight. Vocal activity drops sharply thereafter, with a slight resurgence just before dusk (Table 2). Vernon (1986) showed a similar pattern for one territorial bird in the Eastern Cape studied for 11 months, with perhaps a wider spread of singing in the first three hours of the morning.

Birds in southern Africa are said to sing year-round, although Vernon (1986) showed a decrease of vocal output in the few months following breeding. I have too few dated records from Malawi for comparison, but birds in Nyungwe Forest, Rwanda (*A. t. sparsimfasciatus*) have an off-season lasting at least three months (Dowsett-Lemaire 1990). In 1990 the last song was heard shortly after we arrived, on 26 September, and the first one was noted on 25 December, after which song was regularly heard in January. The period October–December also coincided with the off-season of many forest passerines.

In the Guineo-Congolian region the singing season appears more reduced. In Odzala (*A. t. canescens*) the full season in 1994–95 lasted from August to January (song last heard on 23 January 1995). In the previous year the song was last heard on 28 January. No birds were heard singing in February–May or July (no data for June). In southern Congo-Brazzaville (*A. t. toussenelii*) song was heard August to January (including the summer rains), but none in May–June (no data for February–April or July).

In Ndoki and adjacent Cameroon birds sang December–January, but not much in April and only once in May (2 May). In western Cameroon and Equatorial Guinea song was heard from late December to mid March (none in April, October and November), but I have too few records overall to be sure of extreme dates. In Ghana song has been heard at all seasons overall, but there are local

variations. In Gola (Sierra Leone) birds were quite vocal in the dry months of January–February, and similarly in Liberia, Gatter (1997) noted a singing season mainly in the dry months, November–March in one locality, and January–March in another.

The Congo data reveal that the singing season is limited to *c.* 6 months, ending just before that of Congo Serpent Eagle. In Cameroon and most of West Africa (though not in Congo-Brazzaville) singing is centred on the main dry season.

Long-tailed Hawk *Urotriorchis macrourus*

Guineo-Congolian endemic ranging from Sierra Leone (Kambui Hills: Okoni-Williams *et al.* 2001) to Bwamba Forest in western Uganda (Carswell *et al.* 2005). An inhabitant of moist evergreen and semi-evergreen rain forests of the region, absent from drier forest types of the forest / savanna transition zone. Very little is known about the feeding behaviour of this discreet raptor, except that it may attack poultry (Chapin 1932), take flying squirrels (*Zenkerella insignis*: Bates 1930), squirrels of the genus *Funisciurus* (Brosset & Erard 1986) or *Heliosciurus* (pers. obs.), and its foot structure suggests the species is a mammal hunter (Brosset & Erard 1986).

Long-tailed Hawk is most frequently detected by its loud, distinctive mewing *kweeeuw* or *kweeu-eeeew* lasting up to two seconds (Chappuis 2000; sonogram in Dowsett-Lemaire & Dowsett 1991). Playback provokes a territorial (vocal) reaction (pers. obs.; N. Borrow *in litt.* 2008). The fully fledged immature is very vocal, giving series of three or four shorter *weeue* notes from a perch (at a rate of one per second: Chappuis 2000).

Adults sing mainly from a tall perch in forest, but also in flight. There is no aerial display. On four occasions, I saw two adults sing together, either in flight or perched in the same or neighbouring trees, without any form of aggressive interaction (Congo-Brazzaville, Cameroon and Ghana). N. Borrow (*in litt.* 2008) has also seen two adults sing together (Gabon). Thus, there is little doubt that both pair members are vocal. There was no occupied territory close to our base camp at Odzala, but limited data suggest the species sings at all seasons, as elsewhere in its range. The overall impression, however, is that vocal advertisement is not as regular or as frequent as in other species. In places, I have heard bouts of singing on

three consecutive days (e.g. mid January in the Mayombe). The longest singing bout I witnessed lasted 45 minutes (Gola, Sierra Leone, 1 February 2007), when a rufous-bellied bird sang from atop an emergent tree from 18.00 hrs onwards. This pair had a noisy, fully fledged immature.

The timing of adult songs (noted precisely on 23 of 36 occasions) shows a peak in the first two hours of daylight and the last hour before dark (Table 2). Immatures are persistently noisy, probably for a duration of several months: thus, in the Mayombe, a young bird was calling in mid September and was still calling in the same area on a second visit in late November–early December. In Ghana and elsewhere immatures have been heard at all seasons.

The only reference to the (lack of) seasonality of singing mentioned in the literature is by Gatter (1997) for Liberia, who wrote ‘high calling activity also outside breeding season May–August’.

Cassin’s Hawk Eagle *Spizaetus africanus* (now considered an *Aquila*: Haring *et al.* 2007)

Previously a Guineo-Congolian near-endemic, ranging from Sierra Leone (Western Area Peninsula: Okoni-Williams *et al.* 2001) to western Kenya (Clarke & Edelstam 2001) and Rwanda-Burundi, but since its discovery in the Udzungwa Mountains of Tanzania (Jones 2007), it becomes a Guineo-Congolian / Afromontane species. This small eagle reaches high altitudes in the Albertine Rift, occurring to 2,500 m in Nyungwe Forest in Rwanda (Dowsett-Lemaire 1990), and throughout the highlands of Cameroon, to at least 2,300 m, on Mount Oku (Stuart 1986). It is generally widespread in lowland rain forest (evergreen and semi-evergreen) but can be qualified as common mainly in hills and mountains. It does penetrate drier forests of the forest / savanna transition zone in the Dahomey Gap, and indeed is more conspicuous in the hills of eastern Ghana and western Togo than in the lowlands of the Guineo-Congolian forest zone of south-west Ghana (pers. obs.). Its feeding habits are poorly known. Recent observations in Ghana include one catching a bird (pers. obs.) and a snake (N. Borrow *in litt.* 2011); the stomach of a specimen contained a bird (Chapin 1932) and two different individuals flushed from the forest floor each had a large squirrel (probably *Heliosciurus*) in their claws (Brosset & Erard 1986); the latter authors remark

that foot morphology suggests it is mainly a mammal hunter.

This eagle has a noisy aerial display, albeit on a discreet scale compared to that of Crowned Eagle *Stephanoaetus coronatus*. The song, a distinctive *ku-ku-wee*, *ku-ku-ku-wee*, lasting just under one second, was only described in 1990 (Dowsett-Lemaire 1990, with sonogram). Some variants may contain a few more short notes *ku-ku-ku-*, before the *ku-wee*, and I have also heard a *klee-eeep*, *klee-eeep* from a flying adult. The only call described in Brown *et al.* (1982), where attributed to I. R. Taylor, is a long, high scream lasting 1–2 seconds, which I have never heard from this species and which might better fit Long-tailed Hawk, except that it was said to be given by a bird soaring over forest. Borrow & Demey (2001) also mention a high-pitched whistled *weeee-eh* given from a perch, presumably based on a recording by S. Keith included in Chappuis (2000). This is of about one second duration; no locality is given, but it must come from West Africa (probably Liberia, visited by S. Keith in 1971) as the background noise includes the typical West African song type of Yellow-spotted Barbet *Buccanodon duchaillui*. Macdonald & Taylor (1977) also mention an adult in Ghana calling persistently from a perch, without describing the call.

The song of (normally) three or four notes is usually repeated a few times at short intervals while the bird soars over the forest or flies in a straight line with short, fluttering wingbeats. The aerial singing display attributed to Black Sparrowhawk *Accipiter melanoleucus* in Brosset & Erard (1986: 42) in fact applies to this species (C. Erard *per* C. Chappuis *in litt.* 1998). Playback of song given by a bird in the Bakossi Mountains provoked the caller to dive, still singing, into the canopy towards the tape.

Display songs carry much less distance than those of Crowned Eagles, and it is difficult to know how regularly a particular bird may call. In a known territory at Odzala song was heard on only seven of 35 day or morning visits, but there is no doubt that the territory extended beyond my research area. The longest singing output was over a period of more than two hours, the bird having started at 11.45 hrs, continued almost non-stop to 12.10 hrs, and was still singing when I re-crossed the area at 14.00 hrs (Yabassi Hills, 11 January 2001). The exact timing of singing was not noted

everywhere, but based on 41 observations it is quite spread out, although it shows a peak (66%, Table 2) from late morning to noon (i.e. 10.00–13.00 hrs where dawn starts around 06.00 hrs).

The general impression is that there is no marked seasonality of singing as songs have been heard in all months. The only reference to singing seasonality in the literature is by Gatter (1997) in Liberia who also noted display songs in practically all months (September–February, April and June).

Several Turdidae have been heard imitating the song of this raptor in their own songs, including Crossley's Ground Thrush *Zoothera crossleyi* (Mount Nlonako, Cameroon), Snowy-crowned *Cossypha niveicapilla* and Red-capped Robin Chats *C. natalensis* (Mayombe), Snowy-crowned Robin Chat also in eastern Ghana, and West African Thrush *Turdus pelios* in eastern Ghana (from Kyabobo to Amedzofe).

Crowned Eagle *Stephanoaetus coronatus*

This species has an extensive range throughout the Guineo-Congolian forests and beyond to eastern Africa, north to Ethiopia and south to South Africa. In the forest zone it is the only avian predator of medium-sized mammals, and primates (*Cercopithecus*, *Colobus*, *Mandrillus*) are the main prey (e.g. Chapin 1932), but forest duikers *Cephalophus* spp. are also taken frequently, and eagles are reported to regularly visit lines of traps set by hunters to consume what is caught (Brosset & Erard 1986). The list of other prey items given by Brosset & Erard shows great eclecticism: Pangolins *Manis tricuspis*, Forest Porcupines *Atherurus africanus*, large squirrels *Protoxerus stangeri*, Tree Hyrax *Dendrohyrax dorsalis* and Genet *Genetta servalina*. At Lobéké marsh (Cameroon) one caught a Straw-coloured Bat *Eidolon helvum* from a roost in *Raphia* (pers. obs.). Densities can be relatively high (thus, five pairs along 100 km of the Ivindo River in Gabon: Brosset & Erard 1986), but it has become very scarce in areas where monkeys, and indeed the eagle itself, have been heavily hunted, e.g. the Mayombe (Dowsett-Lemaire & Dowsett 1991), or parts of Liberia (Gatter 1997).

The display songs and breeding biology of this most vocal of African raptors have been well described in eastern Africa: usually one, sometimes both adults give a far-carrying *kewee-kewee-kewee-kewee...* while rising and falling in

undulating display flight (e.g. Brown *et al.* 1982). Dependent, fledged juveniles are also very noisy (*kee-kee-kee-kee-kee* given in series), for extensive periods of time. Observations in the Guineo-Congolian forests concur with the general pattern of a midday caller. Of 62 timed observations, the earliest displays were heard 4.5 hours after dawn; there is a clear peak, with 84% of birds singing in the three midday hours (Table 2). This means that in an area where dawn is around 06.00 hrs, the main period of activity is between 11.00 and 14.00 hrs.

I have heard Crowned Eagles display in all months, but I do not have enough information from during the heavy rains to detect possible seasonal variation. Gatter (1997) for Liberia noted 'call activity high December–May (–July)', centred on the dry season and first half of the rains. Bowden (2001), at Kupe, Cameroon, noticed displays in January–April, centred on the dry season and early rains, but Faucher (1999) heard them display in the very wet, adjacent Bakossi Mountains between May and July, during the peak rains. In south-west Ghana it has been heard in all months (pers. obs.).

Robin Chats *Cossypha* spp. frequently include the song of this eagle in their songs throughout eastern Africa; this is also true of *C. niveicapilla* in Congo-Brazzaville. In Ghana and elsewhere I have no such observations, but *C. niveicapilla* does not penetrate the forest zone, and Blue-shouldered Robin Chat *C. cyanocampter* is mainly in thicket or transition forest, being largely allopatric with the eagle.

Other raptors

African Cuckoo Hawk *Aviceda cuculoides* is infrequent in Guineo-Congolian forests, occurring mainly in clearings (as along large rivers) or in second growth outside. Brosset & Erard (1986) had no personal observations in north-east Gabon in 20 years, and I saw it only once at Odzala in 13 months. In Ghana it is not uncommon in some of the drier forests of the forest / savanna transition zone (e.g. Kalakpa), and its song is given frequently in the late dry season, from February to early April. In late March 2008 at Kalakpa the distinctive *tictictic-tuweeu* song was given persistently, at different times of the day, by one bird perched in a tall *Ceiba*, and a second bird was singing in another *Ceiba* 250 m distant.

Songs were also occasionally performed in flight over the forest canopy. It is also fairly frequent in the forest / savanna transition zone of southern Benin, singing regularly in February–April. The literature dealing with this species in eastern and southern Africa does not clearly refer to seasonality of singing (e.g. Hockey *et al.* 2005). In the woodlands of northern Ghana they sing most frequently from March to May, with the very first rains.

Western Banded Snake Eagle *Circaetus cinerascens* is widespread in savanna regions of Africa, mainly in riparian situations. It barely penetrates the forest zone, having been encountered in the transition zone of western Ghana (Tain Tributaries II F.R.), eastern Ghana (Odomi River F.R.) and southern Benin (Lama Forest and some drier forests to the north), at localities from which Congo Serpent Eagle is absent. Like its close relative, Southern Banded Snake Eagle *C. fasciolatus* of eastern Africa, it has a loud territorial song (*kwaaagh, kokokokokowe*). This is usually given in aerial displays during the hot midday hours, more rarely when perched in the early morning: thus a bird at Odomi was singing in flight six hours after dawn on 24 March 2009, but also from a perch the next morning 40 minutes after dawn. At Tain Tributaries II one was singing 25 minutes after dawn. In Lama one was singing four and just over five hours after dawn (respectively February 2009, April 2011, in the same territory).

Of the other three *Accipiter* species frequenting Guineo-Congolian forests (Black Sparrowhawk, Chestnut-flanked Sparrowhawk *A. castanilius*) or mostly its edges (Red-thighed Sparrowhawk *A. erythropus*), none has a display or territorial song, although Black Sparrowhawk at least can be noisy in the vicinity of nests. I have seen Red-thighed Sparrowhawk call on only two occasions in Ghana (perched), and equally rarely elsewhere: a pair or individual frequently hunting lizards around our house at Odzala was completely silent. The voice of Chestnut-flanked Sparrowhawk is undescribed.

Ayres's Hawk Eagle *Hieraaetus ayresii* is, much like African Cuckoo Hawk, generally absent from the wet block of evergreen rain forest, and is considered uncommon in semi-evergreen rain forest, including drier types in the forest / savanna transition zone. Gatter (1997) reckons it has extended its range south in Liberia through

deforestation. Quite unlike its relative, Cassin's Hawk Eagle, this species has no territorial song, and the impression of scarcity may also be due to unobtrusiveness.

Finally, Palm-nut Vulture *Gypohierax angolensis*, a widespread bird of rain forest and drier riparian forest usually associated with *Elaeis* and *Raphia* palms, has a highly stereotyped 'song', not described accurately in the literature before 2003. Based on a study of captive birds in a Paris zoo, Schlee & Iorgulescu (2003) described this vocalisation, a strange, gurgled *ur-urrrrr* (a bark followed by a prolonged growl, which I would transcribe as *kwak-urrrrr*). It was given mainly by the female in territorial defence as well as when interacting with her mate, and is accompanied by a postural display, with head and chest lowered. The nesting male may also give a modified version of this (not tape-recorded by them), either shortened or with the first note replaced by the contact call. At Odzala we were encumbered with a tame subadult of unknown sex during the year and a half we lived there, and it gave the *kwak-urrrrr* frequently when going to roost in the evening, occasionally at other times of the day. It used to spend the night on the radio antenna above the office and typically gave one song before roosting. I did not record it (mainly as it was given only once) but was nevertheless surprised to note that Chappuis (2000) did not include it. It does not carry far, and I have not heard it more than very occasionally in other forest localities (e.g. Ankasa in Ghana, near an occupied nest). Bates (1930) often heard a bird that used to nest near his home in Cameroon giving 'an explosive bark followed by a deep guttural growl', which certainly refers to the same song. Brosset & Erard (1986) once saw members of a pair calling to each other in flight, one giving an accentuated *kwaaak* and the other a longer gurgling or guttural sound; this is rather odd, as they seem to describe the two parts of the call usually given by a single bird.

Conclusion and discussion

Of the five most vocal forest raptors, two are mainly perch-callers (Congo Serpent Eagle and Long-tailed Hawk), while three sing in aerial displays (African Goshawk, Cassin's Hawk Eagle and Crowned Eagle). Congo Serpent Eagles sing mainly in the early mornings, and some again in the afternoon, much like insectivorous birds:

they sing at times that cannot be profitably spent hunting since their prey is more active in the warm hours of the day. African Goshawks are also most active in the early morning and especially around dawn, but larger raptors using display flights require thermals to save energy and sing mainly in the hot, midday hours. This is especially true of the heavy Crowned Eagle, and also, to some extent, of the medium-sized Cassin's Hawk Eagle. H. Rainey (*in litt.* 2012) adds that Crowned Eagles may also use the midday hours for singing as these may be less favourable for hunting. This is more difficult to prove: the variations in hunting activity and success during the day have not been studied, and monkeys (the favourite prey) tend to go into torpor during the hot hours of the day. This may in fact make them less alert to the dangers of predation.

Two species show marked seasonality of singing, African Goshawk and especially Congo Serpent Eagle, in which the calling season lasts 5–6 months, probably coinciding with the breeding season (*cf.* Chapin 1932, Dowsett-Lemaire 1997b). This suggests that in these species territorial defence can be relaxed for about half the year. It is odd that congeners of some noisy species do not possess a territorial vocal display (e.g. Black Sparrowhawk and Ayres's Hawk Eagle). Similarly, Palearctic species of *Accipiter* lack territorial songs (*pers. obs.*; Cramp 1980).

The marked seasonality of singing in Congo Serpent Eagles is a problem for bird censusing in Guineo-Congolian forests, as this raptor is a perch-hunter that can easily be overlooked when silent. The strong variation in singing output during the day in all species also inevitably will influence detection of these birds.

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References

Bates, G. L. 1930. *Handbook of the Birds of West Africa*. London: J. Bale, Sons & Danielsson Ltd.
 Borrow, N. & Demey, R. 2001. *Birds of Western Africa*. London, UK: Christopher Helm.
 Bowden, C. G. R. 2001. The birds of Mount Kupe, southwest Cameroon. *Malimbus* 23: 13–44.

Brosset, A. & Erard, C. 1986. *Les Oiseaux des Régions Forestières du Nord-est du Gabon*. Paris: Société Nationale de Protection de la Nature.
 Brown, L. H., Urban, E. K. & Newman, K. 1982. *The Birds of Africa*. Vol. 1. London, UK: Academic Press.
 Carswell, M., Pomeroy, D., Reynolds, J. & Tushabe, H. 2005. *The Bird Atlas of Uganda*. Oxford: British Ornithologists' Club & British Ornithologists' Union.
 Chapin, J. P. 1932. The birds of the Belgian Congo. Part 1. *Bull. Amer. Nat. Hist.* 65: 1–756.
 Chappuis, C. 2000. *African Bird Sounds, 2: Birds of West and Central Africa*. 11 CDs. Paris: Société d'Études Ornithologiques de France & London, UK: British Library National Sound Archive.
 Clarke, W. S. & Edelstam, C. 2001. First record of Cassin's Hawk-Eagle *Spizaetus africanus* for Kenya. *Bull. ABC* 8: 138–139.
 Cramp, S. (ed.) 1980. *The Birds of the Western Palearctic*. Vol. 2. Oxford: Oxford University Press.
 Dowsett-Lemaire, F. 1990. Eco-ethology, distribution and status of Nyungwe Forest birds (Rwanda). *Tauraco Res. Rep.* 3: 31–85.
 Dowsett-Lemaire, F. 1997a. The avifauna of Odzala National Park, northern Congo. *Tauraco Res. Rep.* 6: 15–48.
 Dowsett-Lemaire, F. 1997b. Seasonality of breeding and moult in forest and savanna birds in northern Congo. *Rev. Ecol. (Terre & Vie)* 52: 153–171.
 Dowsett-Lemaire, F. & Dowsett, R. J. 1991. The avifauna of the Kouilou basin in Congo. *Tauraco Res. Rep.* 4: 189–239.
 Dowsett-Lemaire, F. & Dowsett, R. J. 2007. The avifauna of the proposed Kyabobo National Park in eastern Ghana. *Malimbus* 29: 61–88.
 Dowsett-Lemaire, F. & Dowsett, R. J. 2008. Selected notes on birds of Gola Forest and surroundings, Sierra Leone, including three new species for the country. *Bull. ABC* 15: 215–227.
 Faucher, I. 1999. Preliminary zoological survey of the Bakossi Mountains. Unpubl. rep. WWF-Cameroon & University College, London.
 Gatter, W. 1997. *Birds of Liberia*. Robertsbridge: Pica Press.
 Grimes, L. G. 1987. *The Birds of Ghana: An Annotated Checklist*. BOU Check-list No. 9. London, UK: British Ornithologists' Union.
 Haring, E., Kvaløy, K., Gjershaug, J. O., Røv, N. & Gamauf, A. 2007. Convergent evolution and paraphyly of the hawk-eagles of the genus *Spizaetus* (Aves, Accipitridae)—phylogenetic analyses based

- on mitochondrial markers. *J. Zool. Syst. Evol. Res.* 45: 353–365.
- Harrop, J. H. 1961. African Serpent Eagle in Sierra Leone. *Bull. Br. Ornithol. Cl.* 81: 52.
- Hockey, P. A. R., Dean, W. R. J. & Ryan, P. G. (eds.) 2005. *Roberts—Birds of Southern Africa*. Seventh edn. Cape Town: John Voelcker Bird Book Fund.
- Jones, T. 2007. Cassin's Hawk-Eagle *Spizaetus africanus* in Ndundulu Forest: a first record for Tanzania, with biogeographical implications. *J. East Afr. Nat. Hist.* 96: 187–192.
- Kemp, A., Kemp, M. & Thong-Aree, S. 2011. Use of lookout watches over forest to estimate detection, dispersion and density of hornbills, Great Argus and diurnal raptors at Bala forest, Thailand, compared with results from in-forest line transects and spot maps. *Bird Conserv. Intern.* 21: 394–410.
- Macdonald, M. A. & Taylor, I. R. 1977. Notes on some uncommon forest birds in Ghana. *Bull. Br. Ornithol. Cl.* 97: 116–120.
- Maclean, G. L. (ed.) 1985. *Roberts' Birds of Southern Africa*. Cape Town: John Voelcker Bird Book Fund.
- Okoni-Williams, A. D., Thompson, H. S., Wood, P., Koroma, A. P. & Robertson, P. 2001. Sierra Leone. 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.
- Prigogine, A. 1971. *Les Oiseaux de l'Itombwe et de son Hinterland*. Vol. 1. Tervuren: Musée Royal de l'Afrique Centrale, sér. in-8°, Sci. zool., N° 185.
- Schlee, M. A. & Iorgulescu, A. E. 2003. Displays and vocalisations in the Palm-nut Vulture, *Gypohierax angolensis*. *Ostrich* 74: 149–158.
- Stuart, S. N. (ed.) 1986. *Conservation of Cameroon Montane Forests*. Cambridge, UK: International Council for Bird Preservation.
- Thiollay, J.-M. 1978. Les rapaces d'une zone de contact savane-forêt en Côte d'Ivoire. 5. Spécialisations alimentaires. *Alauda* 46: 147–170.
- Thiollay, J. M. 1994. Family Accipitridae (hawks and eagles). In del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) *Handbook of the Birds of the World*. Vol. 2. Barcelona: Lynx Edicions.
- Thorstrom, R., Ramos, J. D. & Castillo, J. M. 2000a. Breeding biology and behavior of the Collared Forest-Falcon (*Micrastur semitorquatus*) in Guatemala. *Ornitol. Neotrop.* 11: 1–12.
- Thorstrom, R., Ramos, J. D. & Morales, C. M. 2000b. Breeding biology of Barred Forest-Falcons (*Micrastur ruficollis*) in northeastern Guatemala. *Auk* 117: 781–786.
- Vernon, C. J. 1986. The aerial display of the African Goshawk. *Gabar* 1: 40–44.
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- Appendix.** Gazetteer of localities cited (N.P. = National Park; F.R. = Forest Reserve).
- Annexe.** Répertoire des localités citées (N.P. = Parc National ; F.R. = Réserve forestière).
- Benin**
Lama Forest06°59'N 02°05'E
- Cameroon**
Bakossi Mountains05°00'N 09°40'E
Boumba-Bek N.P.02°40'N 15°00'E
Kupe Mountain04°48'N 09°40'E
Lobéké N.P.02°15'N 15°45'E
Mount Nlonako04°50'N 10°00'E
Mount Oku06°10'N 10°30'E
Nki N.P.02°15'N 14°30'E
Yabassi Hills04°30'N 10°15'E
- Congo-Brazzaville**
Kouilou basin04°40'N 11°50'E
Nouabalé-Ndoki N.P., or 'Ndoki'02°20'N 16°30'E
Odzala N.P.00°30'N 14°45'E
- Equatorial Guinea**
Monte Alen N.P.01°40'N 10°15'E
- Ghana**
Afram River (Kogyae)07°10'N 01°07'W
Amedzofe06°50'N 00°26'E
Ankasa Resource Reserve and N.P.05°18'N 02°38'W
Atewa Range F.R.06°10'N 00°35'W
Bia N.P.06°35'N 03°05'W
Kalakpa Resource Reserve06°25'N 00°20'E
Kyabobo N.P.08°25'N 00°35'E
Oda River F.R.06°05'N 01°53'W
Odomi River F.R.07°21'N 00°29'E
Tain Tributaries II F.R.07°30'N 02°26'W
- Rwanda**
Nyungwe Forest N.P.02°30'S 29°15'E
- Sierra Leone**
Gola Forest N.P.07°30'N 11°00'W
Kambui Hills07°55'N 11°17'W
Mattru07°16'N 12°07'W
Western Area Peninsula08°23'N 13°10'W
- Uganda**
Bwamba Forest, Semliki N.P.00°52'N 30°05'E

Additions to the avifauna of Eritrea and further records of rare species

Giorgio Chiozzi^a, Giuseppe De Marchi^b and Dawit Semere^c

Additions à l'avifaune de l'Érythrée et autres mentions d'espèces rares. Les premières mentions pour l'Érythrée de cinq espèces d'oiseaux sont présentées. Quatre de ces espèces, le Fou à pieds rouges *Sula sula*, le Grand Cormoran *Phalacrocorax carbo*, le Jacana à poitrine dorée *Actophilornis africanus* et le Goéland des steppes *Larus (fuscus) barabensis*, ont été observées sur les îles au large de l'Érythrée et le long de la côte. En outre, un spécimen du Pririt à collier *Platysteira cyanea*, collecté à Ghinda en 1890 par Vittorio Bottego, a été retrouvé au Musée d'Histoire Naturelle de l'Université de Parme, en Italie. La présence est confirmée du Pélican blanc *Pelecanus onocrotalus*, une espèce précédemment observée seulement une fois en Érythrée.

Summary. Five species new for Eritrea are documented. Four of these, Red-footed Booby *Sula sula*, Great Cormorant *Phalacrocorax carbo*, African Jacana *Actophilornis africanus* and Steppe Gull *Larus (fuscus) barabensis*, were observed during surveys of offshore islands and the coast of Eritrea. A fifth record concerns a specimen of Brown-throated Wattle-eye *Platysteira cyanea* collected in Ghinda in 1890 by Vittorio Bottego and held at the Natural History Museum of the University of Parma, Italy. We also confirm the presence of Great White Pelican *Pelecanus onocrotalus*, a species historically recorded just once in Eritrea.

Ornithological research in Eritrea is still recovering from the effects of the 1961–91 war of independence and the 1998–2000 conflict between Eritrea and Ethiopia, which made most Important Bird Areas (IBAs; Coulthard 2001) inaccessible to researchers. Due to the relative lack of opportunities for new field work, knowledge of the Eritrean avifauna has relied on the accounts and collections of 19th century and 20th century European visitors, on which two important recent publications, *Birds of Ethiopia and Eritrea* (Ash & Atkins 2009) and *Birds of the Horn of Africa* (Redman *et al.* 2009), were largely forced to rely.

Due to available research opportunities, travel difficulties in certain parts of the country and the small number of Eritrean ornithologists, information collected about the country's birds during the last decade is highly biased towards the northern and southern Red Sea and Debub regions.

Among the principal modern sources of information, Azeria (2004) studied terrestrial bird communities on 26 islands in the Dahlak archipelago, whilst 15 bird surveys were undertaken between January 2005 and October 2007 by DS, as part of the Eritrean Coastal Marine Island Biodiversity Project (ECMIB) Bird Team, on islands and the coast of Eritrea (Semere *et al.* 2008). Moreover, 90 Eritrean islands and c.500 km of coastline, between Massawa to Assab,

were visited by GDM, GC and staff of the Dept. of Animal Biology at the University of Pavia in 2002–06 to study the breeding and winter distribution of Crab Plover *Dromas ardeola* (De Marchi *at al.* 2006). One island in particular, Dahret (15°54'13.00"N 39°34'43.00"E) in the Dahlak archipelago was visited almost weekly between July 2001 and August 2010, and in June 2011, to study this shorebird's ecology and breeding biology (Chiozzi & De Marchi 2003, De Marchi *et al.* 2008, Chiozzi *et al.* 2011). Our knowledge of the avifauna of the Eritrean islands was also reviewed by De Marchi *et al.* (2009). Finally, Anderson (2010) documented eight additions to Eritrea's bird list (made between October 2007 and April 2009) and Anderson & Berhane (2011) conducted observations on 15 Abyssinian endemic bird species between 2002 and 2009 in Eritrea.

Field records of five species (four new and one rarely observed in Eritrea) are reported here, while re-evaluation of a historical ornithological collection at the Natural History Museum at the University of Parma (Italy) led to the discovery of another species new to Eritrea. This last finding emphasises the importance of critically reviewing collections held in natural history museums, especially smaller and potentially less well-known holdings.

Red-footed Booby *Sula sula*

First record for the Red Sea. On 18 June 2011, approximately halfway between Massawa and Dahret Island (15°54'13.00"N 39°34'43.00"E) in the Dahlak archipelago, GC & GDM noticed a different booby within a flock of Brown Boobies *Sula leucogaster* flying low over the water. Neither observer had binoculars or camera to hand, because of the saltwater spray, but fortunately the bird approached the boat to within *c.*10–20 m permitting several diagnostic features to be seen. Obviously a sulid by its general shape, the bird appeared entirely dark brown on both ventral and dorsal surfaces, with a clearly contrasting greyish bill. The unusual pattern, visibly different from that of the similar-sized Brown Boobies, was indicative of an adult brown-morph Red-footed Booby. The closest records from the Horn of Africa involve one observed in Djibouti in September 1985 (Redman *et al.* 2009), three definite records (two dead and one alive, in May, October and November) and five individuals probably of this species in June and November in south-east Somalia (Ash & Miskell 1998).

Great White Pelican *Pelecanus onocrotalus*

Second record for Eritrea. GDM photographed (Fig. 1) an adult *P. onocrotalus* within a flock of Pink-backed Pelicans *P. rufescens* at the Desset River estuary, 10 km north of Massawa, on 5 January 2009 (De Marchi *et al.* 2009). J.



Figure 1. Adult Great White Pelican *Pelecanus onocrotalus*, Desset River estuary, 10 km north of Massawa, 5 January 2009 (Giuseppe De Marchi)

Pélican blanc *Pelecanus onocrotalus* adulte, estuaire du Desset, 10 km au nord de Massawa, 5 janvier 2009 (Giuseppe De Marchi)

Anderson (*in litt.* 2012) also photographed what was presumably the same overwintering bird on 29 January 2009. Ash & Atkins (2009) report a record from Taulud Island, Massawa, citing Moltoni & Gnechi Ruscone (1942) who give no further details in their account. While the large African population (75,000 pairs) of Great White Pelican is resident, those breeding in the Palearctic are migrants (Izhaki *et al.* 2002). Newton & Symens (1996) reviewed the species' status in the Saudi Arabian Red Sea, recording very small numbers mostly of immatures, and concluded that this pelican is clearly a scarce and erratic winter visitor to the area. European populations migrate through Turkey and the Middle East to winter in East Africa, possibly in Kenya and / or Sudan, making it possible that birds observed in Eritrea were of Palearctic origin.

Great Cormorant *Phalacrocorax carbo*

First and second records for Eritrea. GC & GDM found a dead individual on island NN045 (15°00'09"N 40°29'57.00"E) in Howakil Bay on 30 December 2002 (De Marchi *et al.* 2009). GC & GDM observed another individual (third record for Eritrea) in Zula Bay on 7 January 2006 (De Marchi *et al.* 2009). While the species is a common breeding resident in Ethiopia at alkaline and freshwater lakes and, marginally, rivers in Ethiopia and Somalia (Ash & Miskell 1998, Ash & Atkins 2009), our observations support the suggestion that the species might be an uncommon, irregular winter visitor to coastal Eritrea. Great Cormorant is temporarily given a vagrant status inland due to the scarcity of suitable habitat (Redman *et al.* 2009), but two inland records have already been reported: one, photographed by S. Abraha, represents the second sighting for the country (October 2005, Elaborated agricultural estate, 64 km north of Asmara; http://birdquest.net/afbid/birdspecies.php?func=view&slideno=1&af_bs_id=93&country=21), and the other (and fourth record for Eritrea) on 3 February 2009 (Anderson 2010).

African Jacana *Actophilornis africanus*

First record for Eritrea. DS found a freshly dead bird at low tide on 8 October 2006 (an adult, based on plumage and the pale blue bill and frontal shield) on Harat (16°5'29.00"N 39°28'3.00"E), a flat and arid island of the Dahlak archipelago with

ample mudflats, in the mangrove belt around the inner lagoon. Curiously, it was found in a very different ecological situation to those typical of the species, i.e. freshwater habitats. African Jacana, usually a sedentary species, is nonetheless capable of wide-ranging dispersal or nomadic movements from its breeding grounds, especially in response to drought. The species has even been recorded in temporary pools or waterless parts of Namibia, hundreds of km from their usual habitat (Urban *et al.* 1986).

Steppe Gull *Larus (fuscus) barabensis*

First three records of this gull in Eritrea. Singles in third-year plumage were photographed (Figs. 2–3) by GDM on Dahret Island, Dahlak archipelago (15°54'13.00"N 39°34'43.00"E) on 25 October 2008 and at Massawa on 7 February 2009, while an adult was photographed on Dahret Island on 25 January 2009 (Fig. 4).

Identification of large white-headed gulls is, in general, problematic and is particularly controversial in East Africa due to the probable mixing of different taxa and populations migrating from Central Asia following the East African flyway. Ash & Atkins (2009) reviewed all records in Ethiopia and Eritrea of large white-headed gulls including the forms *argentatus*, *heuglini*, *armenicus*, *cachinnans* and *taimyrensis*, and concluded that *barabensis* could also occur. Following recent molecular work, the British Ornithologists' Union Taxonomic Sub-committee suggests the forms *heuglini*, *taimyrensis* and *barabensis* be included in Lesser Black-backed Gull *L. fuscus* (Sangster *et*

al. 2007) and this policy has also been followed by the BirdLife Taxonomic Working Group (BirdLife International 2012).

The adult's identification was reviewed by eight experts, the majority of whom concluded that it was a Steppe Gull, and not an Armenian Gull *L. (michahellis) armenicus* as we originally



Figure 3. Third calendar-year Steppe Gull *Larus (fuscus) barabensis*, Massawa, 7 February 2009 (Giuseppe De Marchi)

Goéland des steppes *Larus (fuscus) barabensis* de 3^e année, Massawa, 7 février 2009 (Giuseppe De Marchi)



Figure 2. Third calendar-year Steppe Gull *Larus (fuscus) barabensis*, Dahret Island, 25 October 2008 (Giuseppe De Marchi)

Goéland des steppes *Larus (fuscus) barabensis* de 3^e année, île de Dahret, 25 octobre 2008 (Giuseppe De Marchi)



Figure 4. Adult Steppe Gull *Larus (fuscus) barabensis*, Dahret Island, 25 January 2009 (Giuseppe De Marchi)

Goéland des steppes *Larus (fuscus) barabensis* adulte, île de Dahret, 25 janvier 2009 (Giuseppe De Marchi)

hypothesised, principally because of the rather pointed bill shape and elongated nostrils (additional diagnostic characters could not be elucidated from the photographs). Furthermore, *L. (m.) armenicus* tends to migrate over shorter distances and is therefore less likely to reach Eritrea. The photographs of the subadults were compared with images on the Gull Research Organization website (www.gull-research.org) and their identity confirmed by N. Redman (pers. comm.). Steppe Gull could prove to be more numerous than previously considered on the coast and islands of Eritrea.

Brown-throated Wattle-eye *Platysteira cyanea*

First record for Eritrea. A male specimen (Fig. 5) collected at Ghinda in 1890 by Capt. Vittorio Bottego (1860–97) was identified by GC, and forms part of a larger zoological collection (Csermely & Bulla 2007) prepared by the Italian explorer in 1889–90 during his first visit to Eritrea with the purpose of enhancing the collection of the Natural History Museum of the University of Parma, Italy. The specimen, like the rest of the collection, was catalogued in 1891 by Alberto Del Prato (1854–1918) who classified the bird as *Platistira (sic) orientalis* (Del Prato 1891), a

synonym of Grey-headed Batis *Batis orientalis* (Heuglin 1868, Sharpe 1879), which is common in Eritrea. The presence of this forest canopy species in the surroundings of Ghinda, a village situated at c.900 m, and the contemporary collection by Bottego of a Narina Trogon *Apaloderma narina*, another species of dense forest, in the same area also in 1890, suggests to us the presence of a much richer habitat in this area than exists today. This is confirmed by a 1938 tourist guide published by the Consociazione Turistica Italiana (now Touring Club Italiano) where the environs of Ghinda are depicted as possessing luxuriant vegetation and plenty of water. Dramatic habitat loss over the last 100 years would explain the presumed loss of this species in the area.

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References

- Anderson, J. 2010. First records of eight bird species for Eritrea. *Bull. ABC* 17: 66–70.
- Anderson, J. & Berhane, D. 2011. Recent observations of Abyssinian endemic bird species in Eritrea. *Bull. ABC* 18: 31–39.
- Ash, J. & Atkins, J. 2009. *Birds of Ethiopia and Eritrea*. London, UK: Christopher Helm.
- Ash, J. S. & Miskell, J. E. 1998. *Birds of Somalia*. Robertsbridge: Pica Press.
- Azeria, E. T., 2004. Terrestrial bird community patterns on the coralline islands of the Dahlak archipelago, Red Sea, Eritrea. *Global Ecol. & Biogeogr.* 13: 177–187.
- BirdLife International 2012. Species factsheet: *Larus barabensis*. www.birdlife.org (accessed 18 April 2012).
- Chiozzi, G. & De Marchi, G. 2003. Confirmed breeding record of the Crab Plover *Dromas ardeola* in Eritrea. *Bull. Br. Ornithol. Cl.* 123: 46–47.
- Chiozzi, G., De Marchi, G. & Semere, D. 2011. Coloniality in the Crab Plover *Dromas ardeola* does

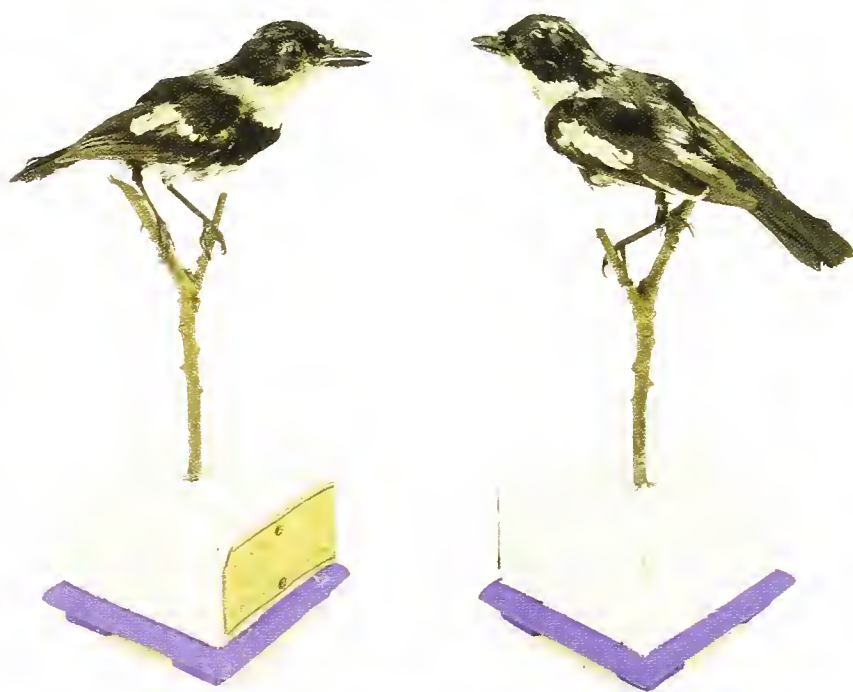


Figure 5. Male Brown-throated Wattle-eye *Platysteira cyanea* collected at Ghinda in 1890 by Capt. Vittorio Bottego, Natural History Museum of the University of Parma, Italy (Nicola Franchini)

Pririt à collier *Platysteira cyanea* mâle, collecté à Ghinda en 1890 par le Capt. Vittorio Bottego, Musée d'Histoire Naturelle de l'Université de Parme, Italie (Nicola Franchini)

- not depend on nest site limitation. *Waterbirds* 34: 77–81.
- Consociazione Turistica Italiana. 1938. *Guida d'Italia della Consociazione Turistica Italiana. Africa Orientale Italiana*. Milano: Tipografia G. Colombi & C.
- Coulthard, N. D. 2001. Eritrea. 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.
- Csermely, D. & Bulla, S. 2007. La collezione zoologica eritrea "Vittorio Bottego". *Publ. Mus. Storia Nat. Univ. Parma* 12: 1–388.
- De Marchi, G., Chiozzi, G. & Fasola, M. 2008. Solar incubation cuts down parental care in a burrow nesting tropical shorebird, the crab plover *Dromas ardeola*. *J. Avian Biol.* 39: 484–486.
- De Marchi, G., Chiozzi, G. & Semere, D. 2009. Wings over the Red Sea. The birds of the Eritrean islands. *Natura* 99: 1–128.
- De Marchi, G., Chiozzi, G., Semere, D., Galeotti, P., Boncompagni, E. & Fasola, M. 2006. Nesting, overwintering, and conservation of the Crab Plover *Dromas ardeola* in central Eritrea. *Ibis* 148: 753–764.
- Del Prato, A. 1891. *I Vertebrati Raccolti Nella Colonia Eritrea dal Capitano Vittorio Bottego*. Firenze: Tipografia Cenniniana.
- Heuglin, M. T. von 1868. *Ornithologie Nordost-Afrika's der Nilquellen- und Küsten-Gebiete des Rothen Meeres und des nördlichen Somal-Landes*. Bd. 1. Cassel: Verlag Theodor Fischer.
- Izhaki, I., Shmueli, M., Arad, Z., Steinberg, Y. & Crivelli, A. 2002. Satellite tracking of migratory and ranging behavior of immature Great White Pelicans. *Waterbirds* 25: 295–304.
- Moltoni, E. & Gneccchi Ruscone, G. 1942. *Gli uccelli dell'Africa Orientale Italiana. Parte seconda*. Pavia: Premiata Tipografia F.lli Fusi.
- Newton, S. F. & Symens, P. 1996. The status of the Pink-backed Pelican (*Pelecanus rufescens*) and the Great White Pelican (*P. onocrotalus*) in the Red Sea: the importance of Saudi Arabia. *Colonial Waterbirds* 19: 56–64.
- Redman, N., Stevenson, T. & Fanshawe, J. 2009. *Birds of the Horn of Africa*. London, UK: Christopher Helm.
- Sangster, G., Collinson, J. M., Knox, A. G., Parkin, D. T. & Svensson, L. 2007. Taxonomic recommendations for British birds: fourth report. *Ibis* 149: 853–857.
- Semere, D., Hagos, T., Seleba, G., Gebrezgabhier, Y., Haile, Z., Chiozzi, G. & De Marchi, G. 2008. The status of breeding seabirds and waterbirds on the Eritrean Red Sea islands. *Bull. ABC* 15: 228–237.
- Sharpe, R. B. 1879. *Catalogue of the Birds in the British Museum*. Vol. 4. London, UK: Taylor & Francis.
- Urban, E. K., Fry, C. H. & Keith, S. (eds.) 1986. *The Birds of Africa*. Vol. 2. London, UK: Academic Press.
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Fiery-necked Nightjar *Caprimulgus pectoralis* and Black-shouldered Nightjar *C. nigriscapularis* in Rwanda

Jason Anderson

Engoulevent musicien *Caprimulgus pectoralis* et Engoulevent à épaulettes noires *C. nigriscapularis* au Rwanda. Le Rwanda se trouve à la limite des aires de distribution de l'Engoulevent musicien *Caprimulgus pectoralis* et de l'Engoulevent à épaulettes noires *C. nigriscapularis*, deux taxons séparés, de façon controversée, par Fry en 1998. La première observation confirmée au Rwanda du premier et une observation probable du second sont présentées, avec des photos. Ces deux observations indiquent également un chevauchement possible des aires de distribution des deux formes. *C. pectoralis* pouvant se disperser pendant la période internuptiale, il reste toutefois à confirmer qu'il est présent au Rwanda pendant la période de reproduction. La reproduction sympatrique sans intergradation, si confirmée, prouverait que *C. pectoralis* et *C. nigriscapularis* sont des espèces distinctes.

Summary. Rwanda lies in the border area between the ranges of Fiery-necked Nightjar *Caprimulgus pectoralis* and Black-shouldered Nightjar *C. nigriscapularis*, split, controversially, by Fry in 1998. I present the first confirmed record for the former and a probable record for the latter, including photographs, from Rwanda. These two records also indicate a possible overlap in the ranges of the two forms. However, because *C. pectoralis* may disperse during the non-breeding period, it remains to be confirmed if it is present in Rwanda during the breeding season. Sympatric breeding without intergradation would, if confirmed, conclusively demonstrate that *C. pectoralis* and *C. nigriscapularis* are separate species.

The split of Fiery-necked Nightjar *Caprimulgus pectoralis* from Black-shouldered Nightjar *C. nigriscapularis* by Fry (1988), while accepted by many, remains controversial. Evidence for the split, including morphology (Fry & Harwin 1988, Cleere 1995) and vocalisations (Fry 1988), is disputed. Louette (1990) argues that colour criteria specified by Fry & Harwin for separating the two taxa does not hold true for specimens from DR Congo, Burundi and Rwanda. Dowsett & Dowsett-Lemaire (1993) contest that 'the voices of *C. pectoralis* and *nigriscapularis* are sufficiently alike to point to them being conspecific'. In agreement with these, Jackson (in prep.) concludes: 'The evidence does not support the elevation of *C. p. nigriscapularis* to species status. The mensural data alone provide sufficient evidence to show that *C. p. nigriscapularis* is no more than the northern subspecies of *C. pectoralis*.' Here, I present two separate observations of *C. pectoralis* and *C. nigriscapularis* from eastern Rwanda and include photographs that show no evidence of intergradation between them. Given that none of the previous records of the *C. pectoralis* superspecies from Rwanda were conclusively identified as either *pectoralis* or *nigriscapularis* (see below), my

record of *C. pectoralis* is the first confirmation of this species from Rwanda.

Black-shouldered Nightjar *Caprimulgus nigriscapularis*

On 13 December 2009, at c.12.10 hrs, c.1.5 km west of Rusumo (02°22'58.41"S 30°46'7.05"E) at 1,365 m, I flushed a nightjar from a thicket on a grassy hillside with overgrown vegetation dominated by *Lantana*. The bird was very pale rufous—almost sandy—overall, with white patches in the outer primaries and white in the outer tail. It landed on the ground, where I was able to observe it closely and take photographs (Fig. 1). It had narrow white submoustachial stripes and two white marks on the throat. The central crown exhibited no strong streaking or contrast with its sides. What was visible of the belly appeared very rufous. The white in the outer tail extended only partially along the outermost feather, while the closed wing was the darkest part of the bird, being generally mid rufous with scattered darker marks and three bands of pale markings on the coverts. The leading edge of the wing had many dark marks and lacked any pale markings, although the 'shoulder' was obscured by the neck feathers. As I attempted to change my



Figure 1. Probable rufous-morph Black-shouldered Nightjar *Caprimulgus nigriscapularis*, Rusumo, Rwanda, 13 December 2009 (Jason Anderson)

Probablement un Engoulevent à épaulettes noires *Caprimulgus nigriscapularis* de la forme rousse, Rusumo, Rwanda, 13 décembre 2009 (Jason Anderson)

viewing angle, the bird flushed again and I could not relocate it. Unable to identify the bird, I sent my photographs to Nigel Cleere, who identified it as a rufous-morph Black-shouldered Nightjar *C. nigriscapularis*, mentioning ‘This species is prone to throwing up the odd rufous individual’ (N. Cleere *in litt.* 2011). Upon examining the same images, H. D. Jackson (*in litt.* 2012) concluded that ‘it is probably *nigriscapularis*.’ However, R. J. Dowsett & F. Dowsett-Lemaire (*in litt.* 2012) consider that, based on the images alone, the identity of the bird cannot be confirmed. When compared with the images of the Fiery-necked Nightjar (Figs. 2–3), despite being much paler in overall tone, the photograph shows the distinctive dark lesser coverts (‘shoulder’ patch) from which the species acquires its English name. The photograph also shows only a few dark streaks on the crown. Holyoak (2001) states: ‘most *nigriscapularis* are distinct in having [...] crown with fewer dark streaks’ and Cleere (1995) also mentions ‘Tends to have less streaking on the crown than the four races of *C. pectoralis*’. I examined nine specimens of both *nigriscapularis* (two males and two females) and *pectoralis* (one male, two females, and one unsexed) at the Natural History Museum (BMNH), Tring, and found that there were no *pectoralis* skins with as few streaks as the bird I had photographed. These included a rufous-morph *C.*

p. fervidus from modern-day Zimbabwe (BMNH 1953.54.161), which was compared directly with a rufous-morph *nigriscapularis* from Sierra Leone (BMNH 1926.5.3.305) (see Fig. 4) and showed significantly more dark streaking on the crown, almost forming a single stripe. R. J. Dowsett & F. Dowsett-Lemaire (*in litt.* 2012) consider uppertail colour to be a reliable feature in separating the two forms (grey for *C. pectoralis* and brown for *C. nigriscapularis*), a feature not mentioned by either Cleere (1995, 1998) or Holyoak (2001). However, this did not hold true for rufous-morph specimens I examined at BMNH, which had brown uppertail feathers in both forms.

Fiery-necked Nightjar *Caprimulgus pectoralis*

On 21 August 2010, at *c.*14.20 hrs, *c.*4 km east of Kibungo town (02°09’15.50”S 30°34’47.30”E) at 1,530 m, I flushed a nightjar from leaf litter within an open mixed eucalyptus and pine plantation with native bushes and grass in the understorey. The bird took off silently, alighting *c.*10 m away. I observed it for five minutes and took photographs (Figs. 2–3). In flight the bird displayed clear white tail corners and obvious white wing patches covering *c.*3–4 primaries. On the ground it showed a fairly square tail, a buffy moustachial stripe, a buff crown with a darker central stripe, clearly visible chestnut ‘shoulders’ on the folded wing, buffy ‘stripes’ over the scapulars with black spots running parallel along both sides, chestnut on the nape and neck-sides as well as on the face,



Figure 2. Fiery-necked Nightjar / Engoulevent musicien *Caprimulgus pectoralis*, Kibungo, Rwanda, 21 August 2010 (Jason Anderson)



Figure 3. Fiery-necked Nightjar / Engoulevent musicien *Caprimulgus pectoralis*, Kibungo, Rwanda, 21 August 2010 (Jason Anderson)



Figure 4. Comparative photo showing extent of streaking in rufous-morph Fiery-necked Nightjar *Caprimulgus pectoralis* (upper) and rufous-morph Black-shouldered Nightjar *C. nigriscapularis* (lower). Upper specimen no. 1953.54.161, male, Rhodesia; lower specimen no. 1926.5.3.305, male, Sierra Leone (Guy M. Kirwan, © Natural History Museum, Tring)

Photo montrant l'étendu des stries dans la forme rousse de l'Engoulevent musicien *Caprimulgus pectoralis* (en haut) et la forme rousse de l'Engoulevent à épaulettes noires *C. nigriscapularis* (en bas). Spécimen du haut no. 1953.54.161, mâle, Rhodésie; Spécimen du bas no. 1926.5.3.305, mâle, Sierra Leone (Guy M. Kirwan, © Natural History Museum, Tring)

and a dark bill and eye. Although I suspected that this was a male Fiery-necked Nightjar, Nigel Cleere again confirmed the identification: 'The bird in the photos, especially on the lesser coverts (the shoulders) is much too pale to be Black-shouldered Nightjar. Despite the altitude, I would have no hesitation in saying that your bird is a Fiery-necked' (N. Cleere *in litt.* 2011). Cleere was unable to confirm the subspecies from the photographs, although it is almost certain to be either *fervidus* or *shelleyi* (see below). I did not record the species again on two subsequent visits to the same woodland.

Discussion

The status of *C. pectoralis* / *nigriscapularis* in Rwanda is unclear. During the 1970s and 1980s, Jean Pierre Vande weghe made numerous observations (based mainly on vocalisations) of nightjars of the *pectoralis* / *nigriscapularis* complex in north-east and south-east Rwanda (see Fig. 5). As these records were made prior to Fry's (1988) separation of the two taxa, no attempt was made to identify records to taxon (Vande weghe &

Vande weghe 2011; J. P. Vande weghe pers. comm.).

The only documented record from Rwanda is a specimen in the Royal Museum for Central Africa (RMCA), Tervuren, Belgium (RMCA 47894, collected at Kamobuga, Rugege Forest, on 2 April 1949 by A. Fain). Although it was labelled *C. nigriscapularis*, M. Louette (1990; *in litt.* 2011) believes this specimen, along with another collected in Burundi and two collected c.110 km further north in present-day DR Congo, to be intermediate between *pectoralis* and *nigriscapularis*. Cleere & Nurney (1998) consider the Rwandan and Burundian specimens from Tervuren to be closer to *C. p. fervidus*.

In short, the identity of RMCA 47894 requires confirmation, either *C. p. fervidus* or an intermediate between *C. pectoralis* and *C. nigriscapularis*. However, Schouteden (1966) lists this specimen as *nigriscapularis* and gives a second bracketed (= not in the RMCA) record for *nigriscapularis* from Mimuli (in north-east Rwanda) by K. Curry-Lindahl, the validity of which I have been unable to confirm and is doubted by F. Dowsett-Lemaire (*in litt.* 2012), although it falls well within the distribution of the north-east Rwandan population that Vande weghe suspects is *nigriscapularis* (see below).

Subsequent authors have followed Schouteden, including Fry & Harwin (*in Fry et al.* 1988), Holyoak (2001), Cleere & Nurney (1998), and all current field guides (e.g. Stevenson & Fanshawe 2002, Sinclair & Ryan 2003), which show the range of *nigriscapularis* to include Rwanda despite the hitherto apparent lack of conclusive evidence. Thus my sighting of *C. pectoralis* documented here confirms this species for the first time from Rwanda, although its presence as a resident or breeding species remains to be elucidated.

My observations are of further interest, as they point to the possibility of overlap in the ranges of *C. pectoralis* and *C. nigriscapularis* (Fig. 5), without any apparent signs of intergradation evident in the images. Previous reports of overlap in the ranges of Fiery-necked (generally to the south) and Black-shouldered Nightjars (to the north) have never been confirmed, and include Cleere's comment that they 'may well overlap in parts of central and southern Zaire [now DRC]' (Cleere 1995), a hypothesis doubted by F. Dowsett-Lemaire (*in litt.* 2012). Cleere's comment may refer to a specimen

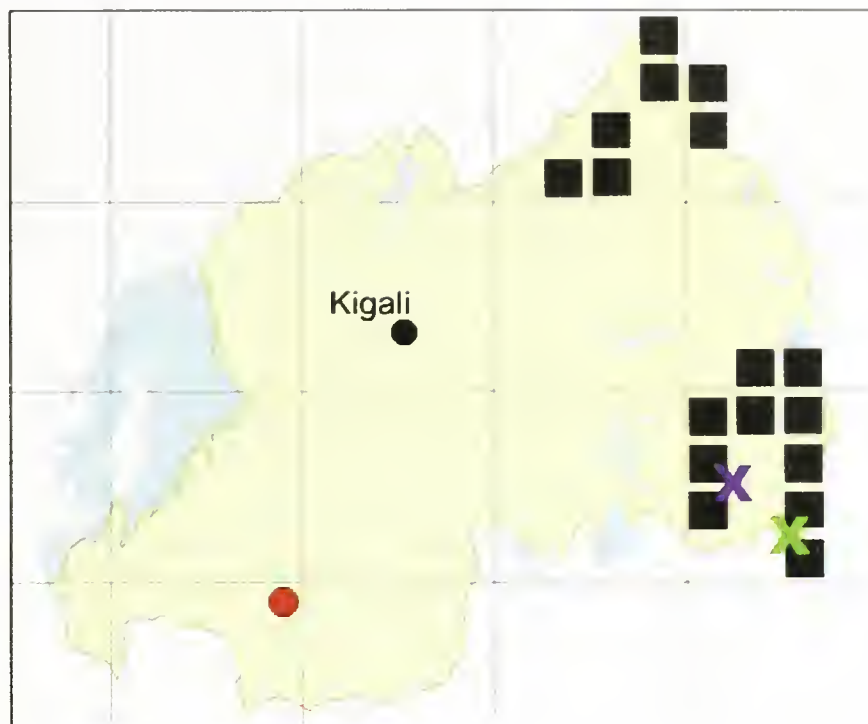


Figure 5. Map showing records of the *Caprimulgus pectoralis* superspecies in Rwanda. Black squares refer to records (mainly audio) by J. P. Vande weghe from the 1970s and 1980s not confirmed as either *pectoralis* or *nigriscapularis*. The red circle refers to RMCA 47894 specimen discussed in the text. The crosses refer to my records, green for probable *nigriscapularis*, purple for *pectoralis*. Adapted with permission from Vande weghe & Vande weghe (2011).

Carte montrant les observations de la superespèce *Caprimulgus pectoralis* au Rwanda. Les carrés noirs indiquent des observations (principalement auditives) de J. P. Vande weghe des années 1970s et 1980s qui ne font pas la distinction entre *pectoralis* et *nigriscapularis*. Le cercle rouge indique le spécimen RMCA 47894 mentionné dans le texte. Les croix indiquent mes observations, vert pour le *nigriscapularis* probable, pourpre pour *pectoralis*. Adapté avec la permission de Vande weghe & Vande weghe (2011).

collected in Matadi (in south-east DRC, on the border with Angola) and initially identified as *C. nigriscapularis* (Chapin 1939) which has since been re-identified as *C. pectoralis* by F. Dowsett-Lemaire (*in litt.* 2012). Vande weghe & Vande weghe (2011) state: 'since most distribution data are based on vocal records, the exact status and distribution of both species in Rwanda remain unclear. In the area of Rwanda and Burundi the two species clearly come together, and we suspect that besides the local breeding population, the country is visited seasonally by wandering individuals.'

Confirmation of sympatry without intergradation in their breeding ranges would conclusively demonstrate that *pectoralis* and *nigriscapularis* are separate species. At least one of the four races of *C. pectoralis* (*fervidus*) has

been speculated to be a partial migrant (Cleere & Nurney 1998, Holyoak 2001), dispersing widely from its southern African breeding grounds during the non-breeding season, although more recent evidence from Dowsett-Lemaire & Dowsett (2006) and Dowsett *et al.* (2008) indicates that populations of *fervidus* in Malaŵi and Zambia are essentially sedentary. *C. p. fervidus* has been confirmed from southern Tanzania (Cleere & Nurney 1998). Cleere (1995), Cleere & Nurney (1998) and Holyoak (2001) consider birds from southern DR Congo (and possibly from central Tanzania and the Kenyan coastal population) to belong to the race *shelleyi* which 'may be partially migratory, possibly moving south after breeding' (Cleere 1995). However, this race is not admitted by Fry & Harwin (1988), who described birds from these areas as *fervidus*. Although the movements of Black-shouldered Nightjar are poorly known, both Cleere & Nurney (1998) and Holyoak (2001) observe that it is 'apparently sedentary throughout its range'.

The distribution map in Vande weghe & Vande weghe (2011) for their observations of *C. pectoralis* / *nigriscapularis* in Rwanda (see Fig. 5) indicate two apparently separate populations (separated by c.60 km), one in the north-east, the other in the south-east. They suspect that the two populations may correspond to the two taxa under discussion, with *C. nigriscapularis* present in the north-east and *C. pectoralis* in the south-east (Vande weghe & Vande weghe 2011). While my record of *C. pectoralis* confirms their suspicions regarding this form (which may be either resident in, or a regular migrant to, south-east Rwanda), my probable record of *C. nigriscapularis* indicates it may be present further south than Vande weghe & Vande weghe (2011) had suspected (>1 km from the Tanzanian border), and 30 km south of my *C. pectoralis* record.

Conclusions

The question as to whether *C. nigriscapularis* and *C. pectoralis* are species may only be conclusively resolved through phylogenetic analysis across the range of these taxa and / or application of objective criteria for species delimitation (e.g. as proposed by Tobias *et al.* 2010). Louette's (1990) contended intermediate specimens indicate the possibility of intergradation between the two forms in western Rwanda and eastern

DR Congo; any attempt to resolve this question should include thorough re-examination of these specimens. A larger number of recordings of vocalisations from the area of geographical overlap / approach would also be useful to determine the extent to which the differences that Fry (1988) describes really are both consistent in these areas and sufficiently significant to serve as a species-isolating mechanism.

Not enough is currently known of the precise breeding seasons or movements of *C. nigriscapularis* and *C. pectoralis* to be certain whether they are sympatric when breeding. The majority of Vande weghe's observations were vocal records made between June and early September, during the dry season and up to the initial September rains (pers. comm.). These probably involved territorial males, possibly in anticipation of breeding. Both Holyoak (2001) and Cleere & Nurney (1998) indicate that most subspecies of *pectoralis* favour the August–December period for breeding across the species' range. Cleere & Nurney (1998) offer the additional observation that (for *C. pectoralis*) the 'breeding season in all countries [...] tends to commence towards the end of the dry season, at the beginning of the rains'. F. Dowsett-Lemaire (*in litt.* 2012) notes that both *fervidus* in Zambia and *nigriscapularis* in West Africa sing for nine months of the year, not only during the breeding season. Thus, although no firm conclusions can be made, it is probable that one of the two forms does indeed breed in Rwanda. However, given the possibility of *nigriscapularis* occurring in the south-east, it could be that all calling males belong to this taxon, with *C. pectoralis* present only as a non-breeding migrant (*fervidus* or *shelleyi*). Thus, it is impossible to draw firm conclusions as to whether the *C. pectoralis* I observed on 21 August would have been present in the likely breeding season that was due to begin soon after. Given that my observations involve just two records, only one of which is confirmed, the question of whether *C. pectoralis* and *C. nigriscapularis* are indeed sympatric during the breeding season remains to be confirmed. However, my two records do at least suggest occasional overlap in the ranges of the two taxa.

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References

- Baker, N. E. & Baker, E. M. (in prep) *Birds of Tanzania: An Atlas of Distribution and Seasonality*. <http://www.tanzaniabirdatlas.com> (accessed September 2011).
- Chapin, J. P. 1939. The birds of the Belgian Congo. Part 2. *Bull. Amer. Mus. Nat. Hist.* 75: 418–420.
- Cleere, N. 1995. The identification, taxonomy and distribution of the Mountain Nightjar *Caprimulgus poliocephalus* / Fiery-necked Nightjar *C. pectoralis* complex. *Bull. ABC* 2: 86–97.
- Cleere, N. & Nurney, D. 1998. *Nightjars: A Guide to Nightjars and Related Nightbirds*. Robertsbridge: Pica Press.
- Dowsett, R. J. 1993 Afrotropical avifaunas: annotated country checklists. Rwanda. *Tauraco Res. Rep.* 5: 205–211. Liège: Tauraco Press.
- Dowsett, R. J. & Dowsett-Lemaire, F. (eds.) 1993. *A Contribution to the Distribution and Taxonomy of Afrotropical and Malagasy Birds*. *Tauraco Res. Rep.* 5. Liège: Tauraco Press.
- Dowsett, R. J. & Dowsett-Lemaire, F. 2006. *The Birds of Malawi*. Liège: Tauraco Press.
- Dowsett, R. J., Aspinwall, D. R. & Dowsett-Lemaire, F. 2008. *The Birds of Zambia*. Liège: Tauraco Press.
- Fry, C. H. 1988. Skulls, songs and systematics of African nightjars. *Proc. VI Pan-Afr. Ornithol. Congr.*: 105–131.
- Fry, C. H. & Harwin, R. M. 1988. Caprimulgiformes. In Fry, C. H., Keith, S. & Urban, E. K. (eds.) *The Birds of Africa*. Vol. 3. London, UK: Academic Press.
- Holyoak, D. T. 2001. *Nightjars and their Allies*. Oxford: Oxford University Press.
- Jackson, H. D. in prep. The taxonomic status of the Black-shouldered Nightjar *Caprimulgus nigriscapularis*, Reichenow, 1893.
- Louette, M. 1990. The nightjars of Zaire. *Bull. Br. Ornithol. Cl.* 110: 71–77.
- Schouteden, H. 1966. *La Faune Ornithologique du Rwanda*. Tervuren: Musée Royal de l'Afrique Centrale.
- Sinclair, I. & Ryan, P. 2003. *Birds of Africa South of the Sahara*. Cape Town: Struik.
- Stevenson, T. & Fanshawe, J. 2004. *Birds of East Africa*. London, UK: Christopher Helm.
- Tobias, J. A., Seddon, N., Spottiswoode, C. N., Pilgrim, J. D., Fishpool, L. D. C. & Collar, N. J. 2001. Quantitative criteria for species delimitation. *Ibis* 152: 724–746.
- Vande weghe, J. P. & Vande weghe, G. R. 2011. *Birds in Rwanda*. Kigali: Rwanda Development Board.
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A record of Oberländer's Ground Thrush *Zoothera oberlaenderi*, with photographs and a description of the alarm-call

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Une observation de la Grive d'Oberlaender *Zoothera oberlaenderi*, avec photos et description du cri d'alarme. Le 13 septembre 2007, une Grive d'Oberlaender *Zoothera oberlaenderi* adulte a été observée au Parc National de Bwindi Impénétrable, Ouganda. La première description du cri d'alarme ainsi que des photos de cette espèce sont présentées.

Oberländer's Ground Thrush *Zoothera oberlaenderi* is a rare and elusive passerine restricted to north-eastern Democratic Republic of Congo (DRC; Congo-Kinshasa) and western Uganda. It is known from just a handful of localities; in Uganda specifically only from Semliki National Park (Bwamba Forest) and Bwindi Impenetrable National Park (Clement & Hathaway 2000). In the latter it inhabits lowland primary and transitional forest at 700–1,935 m (Urban *et al.* 1997, Gottschalk & Pomeroy 2010), but is absent from secondary forest (Collar 2005). The species is listed as Near Threatened (BirdLife International 2011). Gottschalk & Pomeroy (2010) suggest its status should be reconsidered because of a lack of records from sites where it has been recorded previously in DRC and, most notably, its apparent absence from the Semliki Valley in Uganda, despite extensive recent surveys.

On 13 September 2007, in Bwindi Impenetrable National Park, I was walking a trail towards Buhoma at *c.*13.30 hrs when I spotted a

Zoothera in the open with the sunlight shining on it. I identified the bird as Oberländer's Ground Thrush based on the black eyestripe and the broken white eye-ring. The location (*c.*01°00'31.5108"N 29°37'5.9628"E; 1,557 m) was close to where a nest of the species had been found six months previously, in March 2007 (Gottschalk & Ampeire 2008). I took several photographs (Fig. 1), and, on closer approach, the bird stood up (Fig. 2) and entered the dense trailside vegetation where it was glimpsed moving around. Alarm-calls then emanated from the same area, which I recognised as that of a *Zoothera* sp., based on a previous observation and recording of Kivu Ground Thrush *Z. tanganjicae* in Bwindi Impenetrable National Park (at >2,000 m, although this species occurs down to 1,500 m: T. Gottschalk, pers. comm.), and Grey Ground Thrush *Z. princei* in Semliki National Park (at 700 m) in 2004. I recorded the Oberländer's Ground Thrush calls using a Marantz PMD 670 digital recorder and a Sennheiser ME67 shotgun microphone.



Figures 1–2. Oberländer's Ground Thrush *Zoothera oberlaenderi*, Bwindi Impenetrable National Park, Uganda, 13 September 2007 (Alexander N. G. Kirschel)

Grive d'Oberlaender *Zoothera oberlaenderi*, Parc National de Bwindi Impénétrable, Ouganda, 13 septembre 2007 (Alexander N. G. Kirschel)

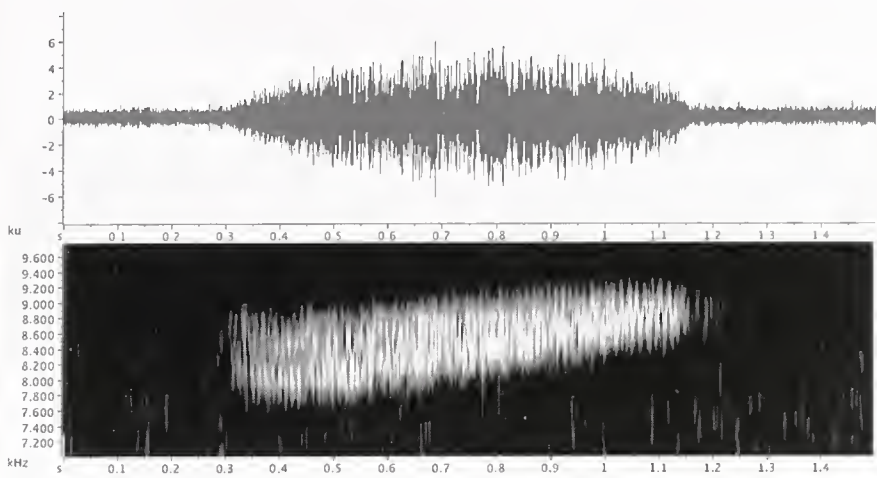


Figure 3. Waveform (above) and spectrogram (Fast Fourier Transformation (FFT) size: 256) of the alarm-call of Oberländer's Ground Thrush *Zoothera oberlaenderi*, Bwindi Impenetrable National Park, 13 September 2007 (Alexander N. G. Kirschel). This was the first call recorded. Figure prepared using Raven 1.4 (Cornell Laboratory of Ornithology).

Forme d'onde (en haut) et spectrogramme (Fast Fourier Transformation (FFT): 256) du cri d'alarme de la Grive d'Oberlaender *Zoothera oberlaenderi*, Parc National de Bwindi Impénétrable, 13 septembre 2007 (Alexander N. G. Kirschel). Il s'agit du premier cri enregistré (voir texte). La figure a été produite avec Raven 1.4 (Cornell Laboratory of Ornithology).

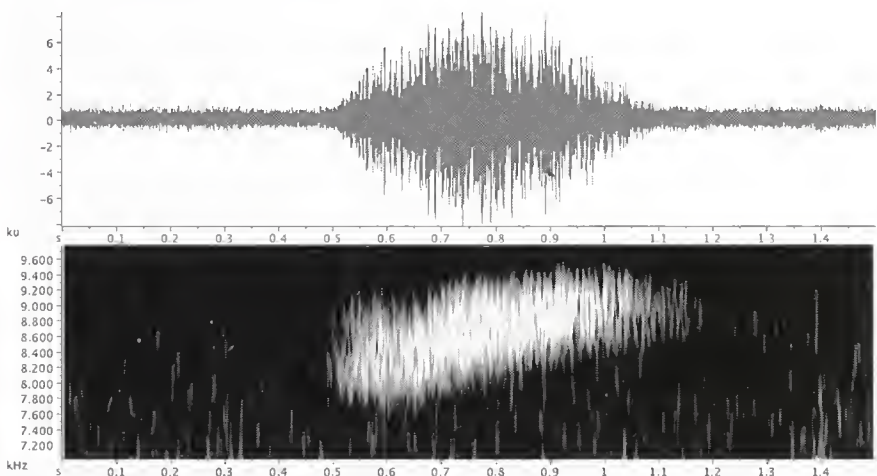


Figure 4. Waveform (above) and spectrogram (FFT: 256) of the fourth alarm-call given by Oberländer's Ground Thrush *Zoothera oberlaenderi*, Bwindi Impenetrable National Park, 13 September 2007 (Alexander N. G. Kirschel). Note how this call is shorter and extends to higher frequencies. This was produced in a series of four calls, fairly evenly spaced, two minutes after the first call. These were presumably emitted by a second individual. Figure prepared using Raven 1.4 (Cornell Laboratory of Ornithology).

Forme d'onde (en haut) et spectrogramme (FFT : 256) du quatrième cri d'alarme émis par la Grive d'Oberlaender *Zoothera oberlaenderi*, Parc National de Bwindi Impénétrable, 13 septembre 2007 (Alexander N. G. Kirschel). Noter comment ce cri est plus court et s'étend à de plus hautes fréquences. Il a été produit dans une série de quatre cris, assez espacés, deux minutes après le premier cri. Ces derniers cris venaient de l'autre côté de la piste, probablement d'un second individu. La figure a été produite avec Raven 1.4 (Cornell Laboratory of Ornithology).

The alarm-call can be described as a rising, high-frequency trill. It ranges at 7.8–9.4 kHz in frequency (Figs. 3–4) and 0.55–0.85 seconds in duration. Five calls were recorded, possibly from two different individuals. There was a gap of nearly two minutes between the first alarm-call and the following four calls, which were delivered more regularly, with pauses of 5–10 seconds between each call, and came from the other side of the trail, presumably from a different individual.

To my knowledge these are the first recordings of the alarm-call of Oberländer's Ground Thrush, and the first photographs of an entire bird (*cf.* Gottschalk & Ampeire 2008).

Acknowledgements

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References

- BirdLife International. 2011. Species factsheet: *Zoothera oberlaenderi*. www.birdlife.org (accessed 21 November 2011).
- Clement, P. & Hathway, R. 2000. *Thrushes*. London, UK: Christopher Helm.
- Collar, N. J. 2005. Family Turdidae (thrushes). In del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the Birds of the World*. Vol. 10. Barcelona: Lynx Edicions.
- Gottschalk, T. K. & Ampeire, S. 2008. A nest record of Oberländer's Ground Thrush *Zoothera oberlaenderi*. *Bull. ABC* 15: 250–252.
- Gottschalk, T. K. & Pomeroy, D. 2010. Habitat preferences and status of an elusive forest species: the Oberländer's Ground Thrush *Zoothera oberlaenderi* in Uganda. *Ostrich* 81: 139–144.
- Urban, E. K., Fry, C. H. & Keith, S. (eds.) 1997. *The Birds of Africa*. Vol. 5. London, UK: Academic Press.

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First record of Blackstart *Cercomela melanura* for Burkina Faso

Michiel van den Bergh

Première mention du Traquet à queue noire *Cercomela melanura* pour le Burkina Faso. Le 19–21 août 2011, deux Traquets à queue noire *Cercomela melanura* ont été observés sur un inselberg dans le Département de Tankougounadié, à l'est du Burkina Faso, près de la frontière avec le Niger. Le Traquet à queue noire étant généralement considéré comme un résident avec un faible potentiel de dispersion, et vu l'habitat apparemment approprié de la zone, qui est à proximité de l'aire de distribution connue de l'espèce, cette observation indique qu'il s'agit d'une extension de l'aire de distribution plutôt que d'une occurrence occasionnelle.

In the late afternoon of 19 August 2011, I heard an unfamiliar birdsong on an inselberg in remote Tankougounadié Department, eastern Burkina Faso, near the Niger border. It was produced by a drab, pale greyish-brown, slender chat-like bird with a very distinctive all-black tail, which I identified as a Blackstart *Cercomela melanura*. Familiar Chat *C. familiaris*, probably the most likely species with which Blackstart could be confused in the same area, can be eliminated by its rufous rump and tail.

On the following two days a second bird was also seen briefly. At first the two birds appeared to be paired, as they shared the same lookout, and they were not observed in agonistic behaviour (although one chased a Familiar Chat). However, shortly after seeing the two birds together, what were presumably the same two were heard in almost exactly the same spot (Collar 2005 states that only males sing). However, on this occasion, I could not be sure that both individuals sang, and if 'full' song was involved. The birds were very active, often flying to the ground to catch insects from a bush or rock. They often spread and

flicked their tails and lowered their half-folded wings. Although the birds were often difficult to locate, they did not appear to move far. All sightings were made within a 150-m radius and, despite searching, no Blackstarts were seen over the rest of the fairly large inselberg. The habitat in the vicinity of the observation was typical of the species based on the literature (Cramp 1988, Keith *et al.* 1992, Borrow & Demey 2001).

After consulting various sources (e.g., Atkinson *et al.* 2007–11) my initial thoughts were confirmed: my observations represented the first record of Blackstart for Burkina Faso.

Blackstart is an uncommon to locally (fairly) common, and patchily distributed, resident restricted to the Middle East and northern parts of sub-Saharan Africa. Israel, Oman, Somalia and (eastern) Mali form the northern, eastern, southern and western limits of its known breeding range. The species' nearest known breeding areas to Burkina Faso are in eastern Mali and western Niger, close to the Burkina Faso border (Cramp 1988, Collar 2005). Records outside its breeding range are very few, although occasional



Figures 1–2. Blackstarts / Traquets à queue noire *Cercomela melanura*, Tankougounadié Department, Burkina Faso, 20 August 2011 (Michiel van den Bergh)

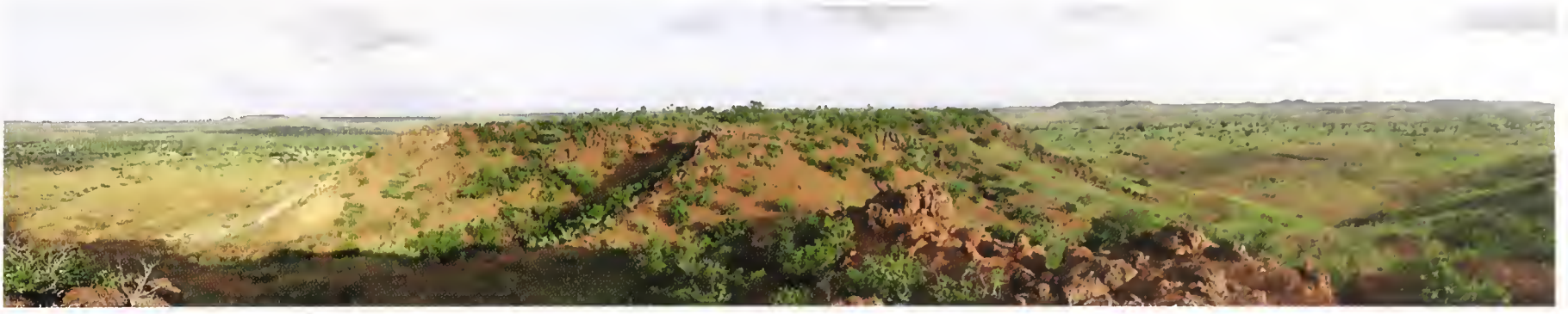


Figure 3. Location of sighting, Tankougounadié Department, Burkina Faso, 20 August 2011 (Michiel van den Bergh)
Le site de l'observation, Département de Tankougounadié, Burkina Faso, 20 août 2011 (Michiel van den Bergh)

observations in, e.g., Nigeria and The Gambia suggest some winter dispersal (Collar 2005), and the species has recently been reported in southern Turkey in autumn (Cofta *et al.* 2005). Furthermore, Keith *et al.* (1992) list vagrant records from Syria and Kuwait, and indicate that the species is possibly only a summer visitor to parts of Egypt. According to Cramp (1988) some dispersal can be expected in view of its propensity for arid habitats.

Six subspecies are generally recognised, of which the birds in Burkina Faso presumably belonged to the subspecies *C. m. ultima*, which otherwise breeds in eastern Mali and western Niger. However, *ultima* is considered to be only doubtfully distinct from *C. m. airensis* (of northern Niger east to central Sudan), although it is reportedly darker and browner (Keith *et al.* 1992, Collar 2005). Both birds in Burkina Faso had dark brown flight feathers, rather than black, as described for *ultima* by Borrow & Demey (2001), although feather wear or bleaching could have been responsible for this. Interestingly, one of the two was much paler and browner, and also had a cinnamon wash to its ear-coverts and upper breast, and some cinnamon on the nape (*cf.* Fig. 1). Keith *et al.* (1992) indicate that juveniles of all races are like adults, but browner and with a creamy breast (as was visible on this bird). However, Borrow & Demey (2004) and Keith *et al.* (1992) also suggest that juveniles have pale tips and broader pale fringes to the wing-coverts and tertials, unlike the Burkina Faso bird. Also, the potential juvenile showed active moult but had many worn feathers, while Cramp (1988) notes that in *airensis* post-juvenile moult has been noted in mid July. The bird did not show any (remnants) of yellow gape flanges. The possibility exists that the pale cinnamon coloration was due to soil discoloration, although if this was the case, it is surprising that the colour was so confined in extent.

The apparently suitable habitat, very close to the species' known breeding range, makes the presence of Blackstart in this region relatively unsurprising. Further exploration should reveal whether a breeding population is present. Collar (2005: 791) thought that 'although records in Nigeria and Gambia (outside known breeding range) [can be] interpreted as vagrancy, it is thought possible that they represent local populations at extremely low density'.

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References

- Atkinson, P., Caddick, J. & Dowsett, R. J. 2007–11. Checklist of the birds of Burkina Faso. www.africanbirdclub.org/fpdf/testv10.php.
- Borrow, N. & Demey, R. 2001. *Birds of Western Africa*. London, UK: Christopher Helm.
- Borrow, N. & Demey, R. 2004. *Field Guide to the Birds of Western Africa*. London, UK: Christopher Helm.
- Cofta, T., Lasecki, R. & Karaka, R. 2005. The first record of Blackstart *Cercomela melanura* in Turkey. *Zool. Middle East* 35: 107–108.
- Cramp, S. (ed.) 1988. *The Birds of the Western Palearctic*. Vol. 5. Oxford: Oxford University Press.
- Collar, N. J. 2005. Family Turdidae (thrushes). In del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the Birds of the World*. Vol. 10. Barcelona: Lynx Edicions.
- Keith, S., Urban, E. & Fry, C. H. (eds.) 1992. *The Birds of Africa*. Vol. 4. London, UK: Academic Press.

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First records of Red-backed Shrike *Lanius collurio* for Ghana

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Premières observations de la Pie-grièche écorcheur *Lanius collurio* au Ghana. Une Pie-grièche écorcheur *Lanius collurio* mâle a été photographiée près de Dzita, près de la côte du sud-est du Ghana, le 6 avril 2011, et un individu en plumage de premier hiver à Shai Hills le 4 décembre suivant. Il s'agit des premières données au Ghana d'un migrateur paléarctique très rarement rencontré en Afrique occidentale.

On 6 April 2011, at 16.30 hrs, a shrike was spotted by MH & AS on a roadside wire west of the coastal village of Dzita in Volta Region, Ghana (05°46'N 00°45'E). This is c.14.5 km east of Ada Foah, and south-west of the border with Togo. Initially seen 0.5 km north of the beach and 200 m from a small lagoon, it flew further inland to a small bush in a sandy area with irrigated crops. It was watched at close range for c.40 minutes. Photographs were taken using a 300-mm zoom lens (Fig. 1).

Distinctive features included the blue-grey crown extending to the nape, rufous-chestnut mantle and wings with pale fringes to the wing feathers, a grey rump, and whitish-buff underparts (in the shade) which appeared more fulvous in direct sunlight. The black tail had white over the basal half of the outer feathers. The bird was clearly an adult male Red-backed Shrike *Lanius collurio*, the first record for Ghana (Borrow & Demey 2010).

On 4 December 2011 AR photographed a bird in the Shai Hills Resource Reserve, north of

Accra (05°56'N 00°04'E) (Fig. 2). The possibility of the bird being a member of the Isabelline Shrike *L. isabellinus* complex can be eliminated due to the heavily barred flanks, warm brown mantle and long primary projection (cf. Worfolk 2000), and its identity was subsequently confirmed as a first-year Red-backed Shrike of uncertain sex (D. J. Pearson *in litt.* 2011).

Red-backed Shrike breeds over much of Eurasia and winters mainly in southern and eastern Africa (Cramp & Perrins 1993). The species tends to conduct a loop migration, with northward passage in spring following a more easterly course than southbound passage in autumn (Cramp & Perrins 1993). South of the Sahara and west of Nigeria and Niger, there are previous records only from Mauritania (one authenticated record, 22 October: Isenmann *et al.* 2010) and Côte d'Ivoire (an immature male, present on the coast November–March: Demey & Fishpool 1991). A report from Mali (Lamarque 1981) is considered unconfirmed whilst a record from The Gambia (Ericsson 1989) is not supported by a description



Figure 1. Adult male Red-backed Shrike *Lanius collurio*, near Dzita, coastal Ghana, 6 April 2011 (Mark Hulme)

Pie-grièche écorcheur *Lanius collurio* mâle adulte, près de Dzita, côte du sud-est du Ghana, 6 avril 2011 (Mark Hulme)



Figure 2. First-year Red-backed Shrike *Lanius collurio*, Shai Hills, Ghana, 4 December 2011 (Adam Riley)

Pie-grièche écorcheur *Lanius collurio* de 1re année, Shai Hills, Ghana, 4 décembre 2011 (Adam Riley)

and has not been accepted by subsequent authors (e.g., Barlow *et al.* 1997, Atkinson *et al.* 2007–11, Borrow & Demey 2011). It is striking that the intensive migration research by an international team over several years in Senegal produced no records of Red-backed Shrike (Rodwell *et al.* 1996).

Acknowledgements

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References

- Atkinson, P., Caddick, J. & Dowsett, R. J. 2007–11. Checklist of the birds of The Gambia. www.africanbirdclub.org/fpdf/testv10.php.
- Barlow, C., Wacher, T. & Disley, T. 1997. *A Field Guide to Birds of The Gambia and Senegal*. Robertsbridge: Pica Press.
- Borrow, N. & Demey, R. 2010. *Birds of Ghana*. London, UK: Christopher Helm.
- Borrow, N. & Demey, R. 2011. *Birds of Senegal and The Gambia*. London, UK: Christopher Helm.
- Cramp, S. & Perrins, C. M. (eds.) 1993. *The Birds of the Western Palearctic*. Vol. 7. Oxford: Oxford University Press.
- Demey, R. & Fishpool, L. D. C. 1991. Additions and annotations to the avifauna of Côte d'Ivoire. *Malimbus* 12: 61–86.
- Ericsson, S. 1989. Notes on birds observed in Gambia and Senegal in November 1984. *Malimbus* 11: 88–94.
- Isenmann, P., Benmergui, M., Browne, P., Ba, A. D., Diagana, S. H., Diawara, Y. & Sidaty, E. A. O. 2010. *Oiseaux de Mauritanie / Birds of Mauritania*. Paris: Société d'Études Ornithologiques de France.
- Lamarque, B. 1981. Liste commentée des oiseaux du Mali (Part 2). *Malimbus* 2: 3: 73–102.
- Rodwell, S. P., Sauvage, A., Rumsey, S. J. R. & Bräunlich, A. 1996. An annotated check-list of birds occurring at the Parc National des Oiseaux du Djoudj in Senegal, 1984–1994. *Malimbus* 18: 74–111. [Corrections 19: 42, 21: 61.]
- Worfolk, T. 2000. Identification of red-backed, isabelline and brown shrikes. *Dutch Birding* 22: 323–362.
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First records of Long-legged Pipit *Anthus pallidiventris* for Nigeria and Benin

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Premières mentions du Pipit à long bec *Anthus pallidiventris* pour le Nigeria et le Bénin. Deux Pipits à long bec *Anthus pallidiventris* ont été vus et filmés à Ibadan, dans le sud-ouest du Nigeria, le 15 novembre 2002. Un groupe de deux autres oiseaux a été photographié à Grand Popo, dans le sud-ouest du Bénin, le 8 août 2004. Ces deux observations constituent les premières mentions documentées pour le Nigeria et le Bénin et se situent respectivement à environ 600 km et 790 km de l'aire de répartition connue de l'espèce. Elles pourraient indiquer une méconnaissance de la répartition du Pipit à long bec dans cette partie de l'Afrique de l'Ouest ou bien étayer l'hypothèse d'une extension de son aire de répartition.

Nigeria

On 15 November 2002, SW was exploring the grounds of the International Institute of Tropical Agriculture on the outskirts of Ibadan, Oyo State, south-west Nigeria (07°29'43"N 03°53'55"E), when he saw a large pipit in the agricultural area beside the lake. The previous day he had noted Plain-backed Pipit *Anthus leucophrys zenkeri* in the same area, but this bird was of strikingly different appearance, more 'lanky' and with paler underparts. Being unfamiliar with racial variation in Plain-backed Pipit, a different race of this species was considered as the first possibility and some time was taken to study the bird(s) and obtain video footage using a digital camcorder through a telescope at a range of c.50 m (Fig. 1). On detailed examination of the video it was apparent that there had been two similar birds present in the same area, perhaps a pair. Throughout the original observation the birds fed methodically in short dry grass, near the rice paddies on the east side of the lake. At least four Plain-backed Pipits were seen nearby and closely studied, these being of rather variable appearance but all were apparently of the race *zenkeri* (Fig. 2).

Overall, the plumage of both of the larger birds was rather plain, with a very uniform pale brown back, without the clearly contrasting greater coverts and secondaries of the nearby Plain-backed Pipits. Also, the underparts were noticeably pale, lacking the buff flanks exhibited by the paler of the *zenkeri*, and the breast spotting was also fainter. The eyestripe was very noticeable, being prominent in front of the eye. The malar and moustachial stripes appeared quite similar to those of the Plain-backed Pipits, i.e. the former quite marked and the latter rather indistinct.

The birds in question also had a rather different structure, being apparently less stocky and more 'elongated'. Careful comparison of photographs revealed the neck to be distinctly longer and narrower, the head more angular with a flatter crown, the bill noticeably longer (though similarly bright orange-yellow on the mandible in both species, slightly darker at the tip and more brown on the maxilla) and the dark brown irides less prominent, i.e. smaller in comparison to the head. The legs also appeared distinctly longer, especially the tibia, and were slightly more yellowish on the tarsus. In the normal upright stance, the fore-belly was clearly deeper, giving the impression of a more tapering rear. Vertical wagging of the entire rear end of the bird was frequent, invariably on alighting, and even more marked than observed in the Plain-backed Pipits. The feeding action was mainly a deliberate stepping through the grass and stooping to take presumed insect prey from the ground, reminiscent of a plover taking food on the shore, with the bill normally held open. The call was easily distinguished from that of the Plain-backed Pipits, being a more 'vigorous' *tzzirp*, interspersed by a high-pitched *zip - zip - zip*, the latter reminiscent of calls or initial part of the song of Meadow Pipit *Anthus pratensis*, and suspected to be (part of) the bird's song.

An issue requiring consideration in the identification process is the apparent variability of some plumage features displayed by the local Plain-backed Pipits. Amongst four nearby birds, two exhibited rather dusky underparts with a rich buff colour across the entire belly, whilst the other two were much paler. These latter were considered at the time to be possibly of the race *gouldii*, whose range mainly encompasses



Figure 1. (left) Long-legged Pipit / Pipit à long bec *Anthus pallidiventris*, Ibadan, Nigeria, 15 November 2002 (Stephen Welch)

Figure 2. (right) Plain-backed Pipit / Pipit à dos uni *Anthus leucophrys*, Ibadan, Nigeria, 15 November 2002 (Stephen Welch)



Figures 3–5. Long-legged Pipit / Pipit à long bec *Anthus pallidiventris*, Grand Popo, Benin, 8 August 2004 (Marc Thibault)

Figure 6. Plain-backed Pipit / Pipit à dos uni *Anthus leucophrys*, Avlékété village, Benin, 11 August 2004 (Marc Thibault)

Sierra Leone, Liberia and Ivory Coast (Borrow & Demey 2001), but this was subsequently excluded, it being felt that variation in soil colour, or rainfall (specifically paler birds being more associated with the moist soils of south-west Nigeria), moult state, or individual variation within *zenkeri* were more likely explanations (N. Borrow & R. J. Dowsett *in litt.* 2011). Irrespective of their variable plumage, all of the Plain-backed Pipits were easily distinguishable structurally from the other two birds.

On returning from Nigeria, images and video of all of the birds was posted online (<http://sedgewarbler.blogspot.com/2009/07/plain-backed-pipits-and-long-legged.html>). N. Borrow provided many helpful comments on the variability of the Plain-backed Pipits and suggested that the other birds were Long-legged Pipits *Anthus pallidiventris*, with the same suggestion being received independently from I. Sinclair.

Benin

On 8 August 2004, PDR & MT were birding the outskirts of the seaside village of Grand Popo, western Benin (06°16'40"N 01°48'47"E), when they saw two large pipits. Plain-backed Pipit *A. l. zenkeri* was the only large *Anthus* the observers were expecting to encounter in this area—especially in summer—but the two birds immediately appeared noticeably larger and paler, and lacked the distinctive warm buff or cinnamon tone to the underparts of the latter species (Fig. 6). Fortunately, the birds were tame and permitted observation and digiscoping (Figs. 3–5) to 20 m over *c.*15 minutes, before they flew west and out of sight. During this time, the birds foraged in a small field of short grass as well as on a bare sandy track just a few hundred metres inland of the Grand Popo beach. Mostly, they stayed close together and were perhaps a pair.

The general impression was of two large plain *Anthus*, somewhat reminiscent of Richard's Pipit *A. richardi* in size and plumage. Underparts were very pale, mainly creamy white, with pale buff restricted to the breast-sides and flanks. Dark streaking was well marked on the breast. The head pattern included a prominent whitish supercilium, bordered below by a narrow dark eyestripe and above by a dark lateral crown-stripe. The dark and rather narrow malar stripe was well marked but the dark moustachial stripe was more diffuse. The crown and upperparts were plain greyish brown. Legs were pale yellow pinkish and noticeably long, with the tibia distinctly longer than the bill, which was long and heavy, with largely yellowish-orange mandible and dark culmen and tip. Pale outer tail feathers were also noticed, although whether they were buff or white could not be decided. The birds often adopted a very upright posture. Some calls, transcribed as a thin, high-pitched *psiiit* or *tsee-ip* were briefly heard on take-off.

Based on this description and the most recent literature (Borrow & Demey 2001), we became confident that the birds were Long-legged Pipits, although our observation was well outside the species' known range (Borrow & Demey 2001). Subsequently, we sent our photographs to R. Demey and R. J. Dowsett, who confirmed our identification.

Discussion

Long-legged Pipit is a common or locally common resident from northern Angola to Congo, Gabon and south-west Cameroon (Borrow & Demey 2001, Sinclair & Ryan 2003). In 2000 it was also reported further north on the coast opposite Bioko at Bakote (Languy *et al.* 2005) and more recently (2004) has been recorded further inland in the Korup area, both in far western Cameroon, close to the border with Nigeria (Bobo *et al.* 2005). Possible occurrence has been suggested in south-east Nigeria (Borrow & Demey 2001) and Tyler (2004) reports two unconfirmed sightings there, which remain unassessed (S. J. Tyler pers. comm.). According to Tyler (2004), Long-legged Pipit is extending its range, possibly as a result of deforestation. In 2006, a significant north-east range extension was also reported from Congo-Brazzaville, with confirmation that the species is the common savannah pipit at Lac Télé

Community Reserve (H. Rainey in *Bull. ABC* 14: 98, 2007).

Our observations appear to be the first confirmed records of Long-legged Pipit for Nigeria and Benin, and are respectively *c.* 600 km and 790 km west of its previously known range. Although vagrancy or a paucity of knowledge of its status due to a lack of ornithological coverage in these two countries cannot be excluded, our records build on the assumption of Borrow & Demey (2001) that *A. pallidirostris* is extending its range west. Observers in this part of Africa should clearly be on the lookout for the species in open habitats.

Acknowledgements

Thanks are due to Jean-Marc Sinnassamy for the initial inspiration and logistical help to visit Benin and the Grand Popo area in particular. We are also grateful to Ron Demey, Nik Borrow, Robert J. Dowsett and Phil Hall, who kindly permitted us to benefit from their expertise.

References

- Bobo, K. S., Waltert, M., Fichtler, M. & Mühlenbert, M. 2005. New bird records for the Korup Project Area, southwest Cameroon. *Malimbus* 27: 13–18.
- Borrow, N. & Demey, R. 2001. *Birds of Western Africa*. London, UK: Christopher Helm.
- Languy, M., Bobo, K. S., Njie, F. M., Njabo, K. Y., Lapios, J. M. & Demey, R. 2005. New bird records from Cameroon, *Malimbus* 27: 1–12.
- Sinclair, I. & Ryan, P. 2003. *Birds of Africa South of the Sahara*. Cape Town: Struik.
- Tyler, S. J. 2004. Family Motacillidae (pipits and wagtails). In del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the Birds of the World*. Vol. 9. Barcelona: Lynx Edicions.
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Sandwich Tern *Thalasseus sandvicensis* and Royal Tern *T. maximus* on Bioko, Equatorial Guinea

Carlo Costantini

La Sterne caugék *Thalasseus sandvicensis* et la Sterne royale *T. maximus* sur l'île de Bioko, Guinée Équatoriale. Plusieurs Sternes caugék *Thalasseus sandvicensis* et Sternes royales *T. maximus* en plumage internuptial ont été observées les 10–11 décembre 2010 à Sipopo, sur la côte du nord-est de Bioko. Il s'agit de la première observation de *T. sandvicensis* et de la deuxième de *T. maximus* pour l'île.

The avifauna of Equatorial Guinea is amongst the least known in Africa (Pérez del Val 2001). The country comprises two islands in the Gulf of Guinea, Bioko (formerly Fernando Po) and Annobón (known also as Pagalu), and a continental region (Río Muni) covering 26,000 km². Perhaps because of the concentration of endemic and restricted-range taxa on the island's mountains, our knowledge of the avifauna of Bioko is mainly focused on forest birds, with much less information available for seabirds (Wells 1968, Pérez del Val *et al.* 1994).

During a short visit to Bioko, I observed several Sandwich Terns *Thalasseus sandvicensis* and Royal Terns *T. maximus* in non-breeding plumage (Figs. 1–2) along the north-east coast at Sipopo,

near the small islet of Horacio (03°45'30"N 08°54'30"E) on 10–11 December 2010. It was difficult to count the precise number of birds, but I estimated 10–30 individuals of each species.

Sandwich Tern is a Palearctic migrant that winters on coasts from north-west Africa south to the Cape of Good Hope (Harrison 1985). Royal Tern is a large maritime tern with a principally tropical distribution and two recognised subspecies, one of which, *T. m. albididorsalis*, breeds on coasts of West Africa, at the Banc d'Arguin (Mauritania), in Senegal and The Gambia (Harrison 1985, Borrow & Demey 2008). The non-breeding range stretches from Morocco and the western Mediterranean to Angola (Harrison 1985, Hockey *et al.* 2005).



Figure 1. Adult Sandwich Tern *Thalasseus sandvicensis* in non-breeding plumage, Bioko, Equatorial Guinea, December 2010 (Carlo Costantini)

Sterne caugék *Thalasseus sandvicensis* adulte en plumage internuptial, Bioko, Guinée Équatoriale, décembre 2010 (Carlo Costantini)



Figure 2. Adult Royal Tern *Thalasseus maximus* in non-breeding plumage, Bioko, Equatorial Guinea, December 2010 (Carlo Costantini)

Sterne royale *Thalasseus maximus* adulte en plumage internuptial, Bioko, Guinée Équatoriale, décembre 2010 (Carlo Costantini)

Despite being regular and common to very common non-breeding visitors to the Gulf of Guinea coast (Grimes 1987, Elgood *et al.* 1994), and the Rio del Rey estuary in Cameroon (Thomas 1995, Green 1996), just *c.*100 km distant, this is the first record of *T. sandvicensis* for Bioko and only the second record of *T. maximus*. The first record of the latter species was by Pérez del Val *et al.* (1997) who observed up to 50 off Malabo between 20 November and 18 December 1994. Neither species is included in the January 2010 update of the African Bird Club online checklist of Bioko. *T. maximus*, however, appears in other checklists respectively as a non-breeding visitor or vagrant / occasional visitor (Pérez del Val 1996, Larison *et al.* 1999, Gulf of Guinea Conservation Group, www.ggcg.st/birds/bioko_birdsl_intro.htm, last accessed on 2 February 2011). Presence on other Gulf of Guinea islands is also irregular. There is an unconfirmed observation of four Royal Terns between São Tomé and Príncipe in March 1992, but the species has never been recorded on Annobón (Jones & Tye 2006). Sandwich Tern, on the other hand, is a regular visitor to São Tomé alone (Jones & Tye 2006).

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References

- Borrow, N. & Demey, R. 2008. *Guide des Oiseaux de l'Afrique de l'Ouest*. Paris: Delachaux & Niestlé.
- Elgood, J. H., Heigham, J. B., Moore, A. M., Nason, A. M., Sharland, R. E. & Skinner, N. J. 1994. *The Birds of Nigeria: An Annotated Check-list*. BOU Check-list No. 4. Second edn. Tring: British Ornithologists' Union.
- Green, A. A. 1996. More bird records from Rio del Rey estuary, Cameroon. *Malimbus* 18: 112–121.
- Grimes, L. G. 1987. *The Birds of Ghana: An Annotated Check-list*. BOU Check-list No. 9. London, UK: British Ornithologists' Union.
- Harrison, P. 1985. *Seabirds: An Identification Guide*. Bromley: Christopher Helm.
- Hockey, P. A. R., Dean, W. R. J. & Ryan, P. G. (eds.) 2005. *Roberts—Birds of Southern Africa*. Seventh edn. Cape Town: Trustees of the John Voelcker Bird Book Fund.
- Jones, P. & Tye, A. 2006. *The Birds of São Tomé & Príncipe with Annobón: Islands of the Gulf of Guinea. An Annotated Checklist*. BOU Checklist No. 22. Oxford: British Ornithologists' Union and British Ornithologists' Club.
- Larison, B., Smith, T. B., Girman, D., Stauffer, D., Mila, B., Drewes, R. C., Griswold, C. E., Vindum, V., Ubick, D., O'Keefe, K., Nguema, J. & Henwood, L. 1999. Biotic surveys of Bioko and Rio Muni, Equatorial Guinea. Unpubl. rep. to the Biodiversity Support Programme.
- Pérez del Val, J. 1996. *Las Aves de Bioko, Guinea Ecuatorial: Guía de Campo*. León: Edilesa.
- Pérez del Val, J. 2001. Equatorial Guinea. 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.
- Pérez del Val, J., Fa, J. E., Castroviejo, J. & Purroy, J. F. 1994. Species richness and endemism of birds in Bioko. *Biodivers. & Conserv.* 3: 868–892.
- Pérez del Val, J., Castroviejo, J. & Purroy, F. J. 1997. Species rejected from and added to the avifauna of Bioko Island (Equatorial Guinea). *Malimbus* 19: 19–31.
- Thomas, J. 1995. Birds of the Rio del Rey estuary, Cameroon. *Malimbus* 17: 7–18.
- Wells, D. R. 1968. Zonation of bird communities on Fernando Poo. *Bull. Niger. Ornithol. Soc.* 5: 71–87.
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First record of Arctic Tern *Sterna paradisaea* for Ethiopia

David Fisher^a, Merid Gabremichael^b and Phil Yates^c

Première mention de la Sterne arctique *Sterna paradisaea* pour l'Éthiopie. Une Sterne arctique *Sterna paradisaea* en plumage nuptial a été photographiée au Lac Awassa, Éthiopie, le 10 juin 2011. Ceci constitue la première donnée pour le pays. Il y a une seule observation à l'intérieur des terres, au Somaliland, mais aucune donnée acceptée n'existe pour l'intérieur de l'Afrique de l'Est.

On the morning of 10 June 2011 we were birding at the Old Fish Dock at Lake Awassa, Ethiopia (07°03'N 38°26'E), when PY spotted a distant tern flying over the lake, some hundreds of metres away. He drew the bird to the attention of DF who observed it through a telescope, whereupon it was immediately apparent that it was a *Sterna* tern in full breeding plumage. Furthermore, to DF's surprise the uniform appearance of the upper surface of the primaries (lacking a black 'wedge' as in Common Tern *S. hirundo*) suggested Arctic Tern *S. paradisaea*, unlikely as that seemed. We all watched the bird through the telescope and PY & DF obtained

record photographs. MG confirmed that Arctic Tern had never been recorded in Ethiopia before (cf. Ash & Atkins 2009), so DF hurried along the lakeshore seeking better photographs. Fortunately, the tern flew repeatedly back and forth along the shore close to a small promontory, permitting DF to obtain hundreds of photographs as well as video footage. After a while the bird settled on the lake surface where it sat quietly gradually drifting closer to shore. After c.30 minutes MG & PY joined DF for further views of the bird, which was still present when we left the site late morning.

Description (taken in the field): adult with full black cap and long outer tail feathers. Bill red



Figures 1–2. Breeding-plumaged Arctic Tern *Sterna paradisaea*, Lake Awassa, Ethiopia, 10 June 2011. Note the uniform grey upper surface to the primaries which are all of the same generation, lacking the black 'wedge' almost always present on Common Tern *S. hirundo*, the neat blackish tips to the underside of the primaries forming a narrow trailing edge to the outer half of the underwing, and the pale panel formed by the white inner webs to the primaries (David Fisher)

Sterne arctique *Sterna paradisaea* en plumage nuptial, Lac Awassa, Éthiopie, 10 juin 2011. Noter le dessus uniformément gris clair des primaires, qui sont toutes de la même génération et qui ne possèdent pas le triangle sombre et pointu plus ou moins marqué de la Sterne pierregarin *S. hirundo*, le dessous des primaires aux pointes noires nettes formant un bord étroit, et la plage pâle sur le dessous des primaires (David Fisher)

except for dusky tip to culmen. White cheeks. Grey breast and belly. Uniform appearance to upper side of primaries—no sign of Common Tern's black 'wedge'. Underside of primaries had neat black tips forming trailing edge to outer half of underwing. Inner webs of primaries white creating a pale panel over outer half of the underwing when primaries spread. Upperside of inner half of wing grey, with white tips to secondaries forming narrow white trailing edge to wing. White rump. White tail with very long outermost feathers. Outer tail feathers with narrow black outer web. Legs red. Eye dark. Outer primary on right wing damaged, with what appeared to be a broken-off tip.

Quite what an adult Arctic Tern was doing on an inland lake in Ethiopia in mid June is a mystery. However, the previous afternoon a massive storm had hit the lake with winds so strong that the gates at our hotel, which give access to the lakeshore, had been blown down. But the storm appeared to come from the west, hardly a suitable origin for an Arctic Tern—inland Africa—so this was perhaps coincidental.

There is one previous inland record of Arctic Tern for Somaliland (23 May; year unknown) (Ash & Miskell 1988) but no accepted records for inland East Africa, although I. Robertson & R. Schofield observed two Arctic Terns on

Lake Baringo, Kenya, on 7–8 July 1989, which record was rejected by the East African Rarities Committee. There are at least 12 coastal records from Somalia—mostly singles in April and May, but two small flocks in April (Ash & Miskell 1988)—and a single record for coastal Kenya, on 6 July 2002 (Bisschop 2002).

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References

- Ash, J. S. & Atkins, J. D. 2009. *Birds of Ethiopia and Eritrea*. London, UK: Christopher Helm.
- Ash, J. S. & Miskell, J. E. 1998. *Birds of Somalia*. Robertsbridge: Pica Press.
- Bisschop, J. 2002. Arctic Tern in Kenya in July 2002. *Dutch Birding* 24: 358–359.
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First record of Dwarf Bittern *Ixobrychus sturmii* for St. Helena, South Atlantic

J.C. Hillman^a and Elizabeth Clingham^b

Première mention du Blongios de Sturm *Ixobrychus sturmii* pour l'île de Sainte-Hélène, Atlantique Sud. Le premier Blongios de Sturm *Ixobrychus sturmii* pour Sainte-Hélène a été photographié en octobre 2011, et à nouveau en janvier 2012, quand il a été ramassé pratiquement moribond. Sainte-Hélène se trouve à environ 1.900 km à l'ouest de la côte africaine en Namibie, où l'espèce niche. D'autres observations sur des îles océaniques d'occasionnels de cette espèce ont notamment été faites aux îles Canaries.

On 9 October 2011, the Scipio-Constantine family of Jamestown, St. Helena, noted an unusual bird in their garden, which they photographed (Figs. 1–2) and were able to approach quite closely, whereupon it behaved 'quite aggressively'. The family contacted the Marine Section of the Agriculture and Natural Resources Department of the St. Helena government, who in turn contacted the St. Helena National Trust. We visited the garden early on 10 October, but the bird was not seen. However, on the basis of the photographs, the bird was

obviously a subadult Dwarf Bittern *Ixobrychus sturmii*.

Confirmation was sought from A. J. Prater of the Royal Society for the Protection of Birds, in the UK, and Beau Rowlands who maintains the St. Helena bird list. Both agreed with the identification and age of the bird (see also below). They also stated that this was the first report from St. Helena of the species.

The location where the bird was originally seen is at the upper end of Jamestown, the island's capital, at a property known as Estcourt Gardens



Figure 1. Dwarf Bittern *Ixobrychus sturmii* in threat display, Jamestown, St. Helena, 9 October 2011 (Jodie Scipio-Constantine)

Blongios de Sturm *Ixobrychus sturmii* en pose menaçante, Jamestown, Sainte-Hélène, 9 octobre 2011 (Jodie Scipio-Constantine)



Figure 2. Dwarf Bittern *Ixobrychus sturmii*, Jamestown, St. Helena, 9 October 2011; note that the left wing appears damaged (Jodie Scipio-Constantine)

Blongios de Sturm *Ixobrychus sturmii*, Jamestown, Sainte-Hélène, 9 octobre 2011; noter que l'aile gauche semble endommagée (Jodie Scipio-Constantine)

(15°56'23.52"W 05°42'41.01"S). The stream that flows through Jamestown, known locally as 'The Run', also passes through the property's garden and on to New Bridge. The stream is fringed by dense vegetation consisting mainly of species exotic to the island (Umbrella Plant *Cyperus alternifolius*, Guava *Psidium guajava*, Wild Tomato *Lycopersicon esculentum*, Pumpkin *Cucurbita maxima*, a palm *Livistona* sp., Seedwork *Acacia Leucaena leucocephala*, Thorn *Erythrina caffra*, Indian Lilac *Melia azedarach*, Yam *Colocasia esculenta* and Ginger *Alpinia speciosa*). It is flanked in places by a low dry-stone wall. The bird was seen on a small lawn beside the stream, but then entered the dense streamside vegetation.

The bird was seen again on the morning of 10 October but was not observed subsequently at this location. However, on 6 January 2012, a Dwarf Bittern was picked up by Mr P. Hern at New Bridge, 575 m downstream of the original location. It was taken to the government's Senior Veterinary Officer, J. Hollins, who found that the bird was extremely emaciated, and that the left wing had been broken but had healed in a twisted position. It was clear the bird would never fly again, so it was then put down.

The original observers thought that one wing appeared damaged, and in one of the photographs (Fig. 2) the left wing does appear to be held in an unnatural position. The identification as a subadult was confirmed by the fact that the maxilla was still largely yellow, compared with the usually all-dark bill of adults (Kushlan & Hancock 2005).

The species is a breeding migrant to central Namibia, reaching the coast at the Angolan border (Maclean 1993). This point is the nearest on the African coast to St. Helena, c.1,900 km distant. Migrants arrive in southern Africa from equatorial regions of the continent between October and December, remaining until March or April, when they again move north; the species is nomadic to some degree, and breeding appears to be highly correlated with rainfall (Kushlan & Hancock 2005).

Other vagrants noted on St. Helena postulated to have reached the island on south-east trade winds from a similar location on the African

coast include Cattle Egret *Bubulcus ibis*, Grey Heron *Ardea cinerea*, Allen's Gallinule *Porphyrio alleni* and Blacksmith Lapwing *Vanellus armatus* (McCulloch 2004). An adult male Dwarf Bittern was recorded on Tenerife, the Canary Islands, between August 2002 and April 2003 (Velmala *et al.* 2002), and Clarke (2006) mentions additional records from the same archipelago, on Tenerife in 1889 or 1890 and the 1970s, Lanzarote in January and October 1978, Alegranza in September 1994 (two) and Gran Canaria in January 2000.

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Grateful thanks to Ms. Jodi Scipio-Constantine and her mother Monica for bringing the bird to our attention, and to Paul Hern who found it the second time. Thanks also to Tony Prater of the RSPB and Beau Rowlands for confirming the identification. Beau Rowlands also reviewed an earlier version of the manuscript. Joe Hollins examined the bird in January 2012. Neil McCulloch reviewed the final draft of this note.

References

- Clarke, T. 2006. *Field Guide to the Birds of the Atlantic Islands*. London, UK: Christopher Helm.
- Kushlan, J. A. & Hancock, J. A. 2005. *The Herons*. Oxford: Oxford University Press.
- Maclean, G. L. 1993. *Roberts' Birds of Southern Africa*. Sixth edn. Cape Town: Trustees of the John Voelcker Bird Book Fund.
- McCulloch, N. 2004. *A Guide to the Birds of St Helena and Ascension Island*. Sandy: Royal Society for the Protection of Birds.
- Velmala, W., Clarke, T., Lindroos, R. & Nikkinen, L. 2002. A Dwarf Bittern on the Canary Islands—the fourth Western Palearctic record. *Birding World* 15: 392–393.
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First record of Purple Heron *Ardea purpurea* for St. Helena, South Atlantic

Annalea Beard

Première mention du Héron pourpré *Ardea purpurea* pour l'île de Sainte-Hélène, Atlantique Sud.

Le 25 octobre 2009 un Héron pourpré *Ardea purpurea* juvénile a été capturé dans le cours d'eau à New Bridge, Upper Jamestown, Sainte-Hélène. L'oiseau a été examiné et photographié avant d'être relâché. Il s'agit de la première donnée pour Sainte-Hélène.

On 25 October 2009 at c.08.00 hrs I was alerted by Mr R. Joshua to a strange bird that he had caught in the stream at New Bridge, Upper Jamestown (15°55'49"S 05°42'55"W). Upon examining the bird I identified it as an immature heron. As there are no resident herons on St. Helena, and the only regular visitor is Cattle Egret *Bubulcus ibis* (Rowlands *et al.* 1998, McCulloch 2004), I took a description and Mr E. Thorpe photographed the bird so that identification and ageing could be verified at a later date. Following examination the bird was released into Cambrian House garden, Jamestown, where I observed it for several minutes (Fig. 1). It was not seen again.

The bird was significantly larger than a Cattle Egret but smaller than a Grey Heron *Ardea*

cinerea, which is a rare accidental visitor to St. Helena (Rowlands *et al.* 1998). It had a chestnut-brown crown with a few slate-grey feathers on its forehead. The bill was yellowish with a grey tip, and the irides were yellow. The chin and foreneck were white. The throat and breast were pale buff streaked dark brown (Fig. 2). The upperparts were chestnut-brown and the wing-coverts had distinct buff fringes (Fig. 3). The legs and feet were grey in front and yellowish behind.

The bird was identified as an immature Purple Heron *A. purpurea*. Confirmation of the identification was obtained from B. Rowlands (pers. comm.), who also stated that this was a new record for the island. During the non-breeding season, Purple Heron is widely distributed



Figures 1–3. Immature Purple Heron *Ardea purpurea*, St. Helena, 25 October 2009 (Edward Thorpe)

Héron pourpré *Ardea purpurea* juvénile, Sainte-Hélène, 25 octobre 2009 (Edward Thorpe)

over sub-Saharan Africa with isolated records from coastal Namibia (Hockey *et al.* 2005); the subspecies *A. p. purpurea* breeds across parts of mainly southern Europe and western Asia (Kushlan & Hancock 2005). It therefore seems probable that this bird reached St. Helena on the south-east trade winds.

Acknowledgements

Thanks to Robert Joshua for catching the bird, Edward Thorpe for providing the photographs, Beau Rowlands for confirming the record and commenting on this note, and Neil McCulloch for reviewing it.

References

Hockey, P. A. R., Dean, W. R. J. & Ryan, P. G. (eds.) 2005. *Roberts—Birds of Southern Africa*. Seventh

edn. Cape Town: Trustees of the John Voelcker Bird Book Fund.

Kushlan, J. A. & Hancock, J. A. 2005. *The Herons*. Oxford: Oxford University Press.

McCulloch, N. 2004. *A Guide to the Birds of St Helena and Ascension Island*. Sandy: The Royal Society for the Protection of Birds.

Rowlands, B. W., Trueman, T., Olson, S. L., McCulloch, M. N. & Brooke, R. K. 1998. *The Birds of St Helena: An Annotated Check-list*. BOU Check-list No. 16. Tring: British Ornithologists' Union.

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Photospot:

First photographs of Aquatic Warbler *Acrocephalus paludicola* in the field from Africa and a request for observations

Volker Salewski

Premières photos du Phragmite aquatique *Acrocephalus paludicola* sur le terrain en Afrique. Le Phragmite aquatique *Acrocephalus paludicola* est le seul passériforme mondialement menacé nichant en Europe continentale. La localisation des sites de stationnement et quartiers d'hivernage en Afrique s'avère essentielle à la conservation de l'espèce mais est gênée par le manque de connaissances de cette espèce rare de la part des observateurs. L'auteur présente probablement les premières photos de l'espèce dans son habitat naturel en Afrique de l'Ouest et décrit les critères d'identification principaux, surtout par rapport au Phragmite des joncs *A. schoenobaenus*. Finalement, un appel est lancé aux observateurs pour envoyer toutes leurs données à l'Équipe de Conservation du Phragmite aquatique de BirdLife International.

Aquatic Warbler *Acrocephalus paludicola* is the only globally threatened passerine species that breeds in continental Europe. Formerly more widespread, its population decreased dramatically during the 20th century (Flade & Lachmann 2008). The species is a migrant, spending the non-breeding season in sub-Saharan Africa, but until recently no wintering areas were known. In 2007 an important non-breeding site was discovered around Djoudj National Park in northern Senegal (Salewski *et al.* 2009) and in 2011 a second



Figure 1. Aquatic Warbler *Acrocephalus paludicola*; the distinct well-defined stripe on the crown is characteristic (beware of first-year Sedge Warblers *A. schoenobaenus* showing this feature!), as is the very narrow ill-defined pale lores, Djoudj area, Senegal, January 2010 (Volker Salewski)

Phragmite aquatique *Acrocephalus paludicola* ; la nette bande médiane étroite et jaunâtre sur la calotte est caractéristique (attention aux Phragmites des joncs *A. schoenobaenus* de 1ère année présentant ce trait !), ainsi que les lores pâles très étroits et mal définis, zone du Djoudj, Sénégal, janvier 2010 (Volker Salewski)

wintering site was found in Mali (Poluda *et al.* in press). In order to implement a conservation strategy for Aquatic Warblers during the non-breeding season, the species' precise wintering areas in Africa must be identified. However, finding the species requires knowledge of its preferred habitats and identification may present a challenge to observers unfamiliar with the species. To my knowledge, there are no photographs of Aquatic Warblers in their natural habitat on the wintering grounds. In January 2010, several Aquatic Warblers were photographed in the Djoudj area. These photographs are presented here along with a discussion of identification criteria to aid searches for Aquatic Warblers in suitable habitat throughout West Africa.

A. paludicola is a small brownish-buff warbler with heavily streaked upperparts and a striped head, and is similar to the very common Sedge Warbler *A. schoenobaenus*, with which it co-occurs. The head pattern of Aquatic Warbler is characterised by a distinct buffish-white supercilium and a well-marked whitish central crown-stripe (Fig. 1). In general, Sedge Warblers lack such a distinct pale stripe on the crown, but in first-winter birds it can be quite obvious. Sedge Warblers often possess more pronounced black lores (Fig. 2) than Aquatic Warblers (Fig. 1). In addition, Aquatic Warblers are brighter overall and more yellow-toned (Fig. 3), whereas Sedge Warblers are more brownish (Fig. 2). Although Sedge Warblers possess some dark mantle streaking (Fig. 2), this character is never as developed as in Aquatic Warbler, which also has two distinct whitish-buff lines on the sides (Fig. 4). In Aquatic



Figure 2. Freshly-moulted Sedge Warbler *Acrocephalus schoenobaenus*; this bird is distinguished from Aquatic Warbler *A. paludicola* by the dark lores, the brownish and only faintly streaked mantle, the unmarked tawny-brown rump, the lack of fine streaking on the flanks and the greyish legs, Djoudj National Park, Senegal, February 2007 (Volker Salewski)

Phragmite des joncs *Acrocephalus schoenobaenus* fraîchement mué ; cet oiseau se distingue du Phragmite aquatique *A. paludicola* par les lores sombres, le manteau brunâtre et peu rayé, le croupion brun-jaunâtre uniforme, l'absence de fines rayures sur les flancs, et les pattes grisâtres, Parc National du Djoudj, Sénégal, février 2010 (Volker Salewski)

Warblers, the mantle streaking continues onto the rump (Fig. 4), whereas in Sedge Warbler the rump has a uniform warm tawny-brown tone (Fig. 2). Aquatic Warbler is finely streaked over the breast and flanks (Figs. 3, 5), unlike adult Sedge Warblers (Fig. 2). Although juvenile Sedge Warbler can also show some streaking on the breast and flanks, this is never as contrasting as on Aquatic Warbler. Finally, the legs of Aquatic Warbler are pinkish (Figs. 3, 5), whereas those of Sedge Warbler are greyish (Fig. 2).

Several Afrotropical bird species may show some of the same features as Aquatic Warbler, including the streaked appearance or distinct white supercilium and, in some species, even the whitish coronal stripe. Examples include females or eclipse males of some weavers, queleas and whydahs. However, all of these are large-billed and they lack the warbler's skulking behaviour. Some cisticolas potentially occur syntopically with Aquatic Warbler, but all of them lack the latter species' distinct head pattern. When searching for Aquatic Warbler familiarity with its



Figure 3. Aquatic Warbler *Acrocephalus paludicola*; note the warm colour, the fine streaking on the flanks, and the pinkish legs, whilst the pointed rectrices are also characteristic of this species, Djoudj area, Senegal, January 2010 (Volker Salewski)

Phragmite aquatique *Acrocephalus paludicola* ; noter la couleur chaude, les flancs finement striés et les pattes rosâtres, tandis que les rectrices pointues sont également caractéristiques de cette espèce, zone du Djoudj, Sénégal, janvier 2010 (Volker Salewski)



Figure 4. Aquatic Warbler *Acrocephalus paludicola*; although this bird is partially obscured by vegetation and the head is barely visible, the contrasting dark streaking on the mantle, the whitish-buff stripes on the 'shoulders', together with the streaks on the rump, characterise the species, Djoudj area, Senegal, January 2010 (Volker Salewski)

Phragmite aquatique *Acrocephalus paludicola* ; bien que l'oiseau soit partiellement caché par la végétation et que la tête soit à peine visible, les rayures sombres bien marquées dessus, les nettes « bretelles » chamois encadrant le manteau, en combinaison avec le croupion strié, caractérisent l'espèce, zone du Djoudj, Sénégal, janvier 2010 (Volker Salewski)

song (Chappuis 2000) will be useful as, at least in January–February, Aquatic Warblers in the Djoudj area regularly sing in the early morning (Fig. 6).

Based on observations in the Djoudj area, Aquatic Warblers exclusively occupy vast, waterlogged open grassy marshes with very few or no bushes or trees. Favoured areas are characterised by relatively high coverage of *Scirpūs littoralis* and *Sporobolus robustus*, and moderate salinity (Fig. 7). In addition to the Djoudj area, further wintering areas are expected to occur in the Senegal Valley, in the temporary lakes and flooded marshes of southern Mauritania, as well as in the Inner Niger Delta in Mali (Buchanan *et al.* 2011). Nevertheless, Aquatic Warblers can be expected at any site on migration. In Africa, the species has already been recorded in *Tamarix* bushes in coastal dunes, in papyrus stands within a hotel garden, in date palm and rice plantations, and within a mosque enclosure surrounded by dunes in the Sahara (Schäffer *et al.* 2006). Furthermore, an Aquatic Warbler mist-netted in Ghana, far to



Figure 5. Aquatic Warbler *Acrocephalus paludicola*; although the central coronal stripe is not clearly visible, the contrasting dark streaks on the mantle, the fine streaks on the flanks and the pinkish legs identify this individual, Djoudj area, Senegal, January 2010 (Volker Salewski)

Phragmite aquatique *Acrocephalus paludicola* ; bien que la bande médiane sur la calotte ne soit pas clairement visible, le dessus aux rayures sombres bien marquées, les flancs finement striés et les pattes rosâtres permettent d'identifier cet individu, zone du Djoudj, Sénégal, janvier 2010 (Volker Salewski)



Figure 6. Aquatic Warbler *Acrocephalus paludicola* singing, Djoudj area, Senegal, January 2010 (Volker Salewski)

Phragmite aquatique *Acrocephalus paludicola* chantant, zone du Djoudj, Sénégal, janvier 2010 (Volker Salewski)

the south of any other known record (Hedenström *et al.* 1990), illustrates the capacity this species has to surprise.



Figure 7. Habitat of Aquatic Warbler *Acrocephalus paludicola* during the non-breeding season, Djoudj area, Senegal, January 2010 (Volker Salewski)

Habitat du site d'hivernage du Phragmite aquatique *Acrocephalus paludicola*, zone du Djoudj, Sénégal, janvier 2010 (Volker Salewski)

To date we possess only a rudimentary knowledge of the non-breeding ecology, phenology and distribution of Aquatic Warblers in Africa. It is therefore requested that observers report any records of the species to the BirdLife International Aquatic Warbler Conservation Team (www.aquaticwarbler.net/). Anyone can help collect useful information. Observers are requested to provide the following details: date and location (GPS data if possible), together with a short habitat description (e.g. reeds adjacent to a river, *Scirpus* marsh in a floodplain, rice field, including whether there was open water and its depth), a description of behaviour (e.g. foraging, singing), and the main features used to identify the bird. Photographs will be extremely helpful even if the bird was distant, as are sound-recordings which can be made with most mobile phones in the absence of more professional equipment.

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References

- Buchanan, G. M., Lachmann, L., Tegetmeyer, C., Oppel, S., Nelson, A. & Flade, M. 2011. Identifying the potential wintering sites of the globally threatened Aquatic Warbler *Acrocephalus paludicola* using remote sensing. *Ostrich* 82: 81–85.
- Chappuis, C. 2000. *African Bird Sounds: Birds of North, West and Central Africa and Neighbouring Atlantic Islands*. 15 CDs. Paris: Société d'Études Ornithologiques de France & London, UK: British Library National Sound Archive.
- Flade, M. & Lachmann, L. 2008. *International Species Action Plan for the Aquatic Warbler *Acrocephalus paludicola**. Cambridge, UK: BirdLife International.
- Hedenström, A., Bensch, S., Hasselqvist, D. & Ottosson, U. 1990. Observations of Palaearctic migrants rare to Ghana. *Bull. Br. Ornithol. Cl.* 110: 194–197.
- Poluda, A., Flade, M., Foucher, J., Kiljan, G., Tegetmeyer, C. & Salewski, V. in press. First confirmed connectivity between breeding sites and wintering areas of the globally threatened Aquatic Warbler *Acrocephalus paludicola*. *Ring. & Migr.*
- Salewski, V., Bargain, B., Diop, I. & Flade, M. 2009. Quest for a phantom—the search for the winter quarters of the Aquatic Warbler *Acrocephalus paludicola*. *Bull. ABC* 16: 61–66.
- Schäffer, N., Walther, B. A., Gutteridge, K. & Rahbek, C. 2006. The African migration and wintering grounds of the Aquatic Warbler *Acrocephalus paludicola*. *Bird Conserv. Intern.* 16: 33–56.
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Recent Reports



These are largely unconfirmed records published for interest only; **records are mostly from late 2011 and early 2012, with a few from earlier dates.** We thank all birders who have sent in their records and urge them to submit full details to the relevant national or regional organisations. It is suggested that observations of each species be compared with relevant literature to set new data in context and that observers who are unfamiliar with the status of birds in a particular country refer to the ABC country

checklists (www.africanbirdclub.org/countries/checklists/index.html) or more recent or appropriate sources before submitting records.

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Les observations ci-après sont en majeure partie non confirmées et sont publiées uniquement dans le but d'informer. **La plupart des données sont de fin 2011 et début 2012 ; quelques-unes sont plus anciennes.** Nous remercions tous les ornithologues qui ont pris la peine de nous faire parvenir leurs

données et nous recommandons de les envoyer, dûment documentées, aux organisations nationales ou régionales concernées. Il est conseillé de vérifier le statut des espèces observées dans la littérature appropriée, afin de mettre les nouvelles données en perspective, et de consulter notamment les 'checklists' des pays africains du ABC (www.africanbirdclub.org/countries/checklists/index.html) ou des sources plus récentes ou appropriées.

Angola

A **Bokmakierie** *Telophorus zeylonus* was photographed with nesting material at Lake Arco, Namibe province, on 7 January 2012 (Fig. 1); this appears to be the first breeding record for Angola (KR).



Figure 1. Bokmakierie / Gladiateur bacbakiri *Telophorus zeylonus*, Lake Arco, Namibe province, Angola, 7 January 2012 (Katie Reese)

Azores

The following records are from December 2011–June 2012, except where indicated otherwise. A dark-morph **Trindade Petrel** *Pterodroma*

arminjoniana was photographed five nautical miles south of Quiemada, Pico, on 1 June. Long-staying **Pied-billed Grebes** *Podylimbus podiceps* remained on São Miguel, Santa Maria and Terceira during the period. The first **Red-necked Grebe** *Podiceps grisegena* for the Azores was photographed at Horta, Faial, and remained there from 21 January to at least 6 April. An adult **White-tailed Tropicbird** *Phaethon lepturus* was at Praia da Vitoria, Terceira, on 25–28 March; it might have been the same individual seen on Flores and Corvo in October 2011 (see *Bull. ABC* 19: 94). One (the same?) was seen in Velas harbour, São Jorge, on 15 April. The second **Masked Booby** *Sula dactylatra* for the Azores, an adult, was off Santa Cruz da Graciosa, Graciosa, in late August or early September 2011.

From 23 February to mid April, an **American Bittern** *Botaurus lentiginosus* was at Paul da Praia, Terceira. Three **Purple Herons** *Ardea purpurea* were on Santa Maria from 16 March, with two still there on 27th, and another at Lagoa das Furnas, São Miguel, from 17 March until 14 April. The second **White Stork** *Ciconia ciconia* for the archipelago, an adult, was at Criação

Velha, Pico, on 14 December. Three **Glossy Ibises** *Plegadis falcinellus* were still at Flamengos, Faial, on 18 February, with one remaining until 27 March; one was on Terceira on 20–21 April. The male **Wood Duck** *Aix sponsa* at Lagoa Lomba, Flores, from 5 October 2011 was still present on 20 January, while another male stayed at Paul da Praia, Terceira, from 19 January to at least 2 April. **Blue-winged Teals** *Anas discors* were observed on São Miguel (up to three, from 19 February to 2 April), Terceira (up to three, from 4 February to 1 March) and São Jorge (one on 18 January), whilst **Lesser Scaups** *Aythya affinis* were on Terceira (up to four in February–May) and São Miguel (two until at least 1 April). At Lajido, Pico, two **Northern Harriers** *Circus cyaneus hudsonicus* were seen on 5 March. Single **Red-footed Falcons** *Falco vespertinus* were on Santa Maria on 15–18 May and Corvo on 16–18 May.

A first-winter **Allen's Gallinule** *Porphyrio alleni*, picked up exhausted at Porto Judeu, Terceira, in late December was taken into care and released on 4 January; this constitutes the sixth record for the Azores. An **American Coot** *Fulica*

americana was present at Lagoa das Furnas, São Miguel, from 19 February until at least 15 April. A pair of **Killdeers** *Charadrius vociferus* remained at the airport of Santa Maria throughout the period, where the species bred and raised two young in 2010 and 2011. On Terceira, up to three **Semipalmated Plovers** *C. semipalmatus* and a single **Semipalmated Sandpiper** *Calidris pusilla* also remained throughout the period. A **Pectoral Sandpiper** *C. melanotos* was noted at Cabo da Praia, Terceira, on 7 June. At least four **Wilson's Snipes** *Gallinago g. delicata* were identified at Lagoa do Junco, Terceira, on 24 January, with one still there in late February. Single **Hudsonian Whimbrels** *Numenius (phaeopus) hudsonicus* were present on Santa Maria (until at least 15 February) and on Terceira (records throughout the period). Two **Lesser Yellowlegs** *Tringa flavipes* were on Terceira on 24–25 February, with one on Santa Maria on 12 June. A **Bonaparte's Gull** *Larus philadelphia* stayed on Terceira from late January until at least mid April, with up to 17 **Ring-billed Gulls** *L. delawarensis* also there. At the same site, a **Mediterranean Gull** *L. melanocephalus* was seen on 22 March. A pair of **Sooty Terns** *Onychoprion fuscata* bred on Ilhéu da Praia, Graciosa, in May–June, but the single chick did not survive.

At least three **European Turtle Doves** *Streptopelia turtur* were observed on Corvo on 18 May (tenth record), whilst 1–2 were on Santa Maria on three dates from 30 May to 6 June. The second **European Nightjar** *Caprimulgus europaeus* for the Azores was on Corvo on 16 May; on Ilhéu da Praia, Graciosa, a male seen on 26 May was found dead the next day, whilst a female was found dead on 12 June. Two **Alpine Swifts** *Tachymarptis melba* were observed at Anjos, Santa Maria, on 19–20 March, with another at Paul da Praia, Terceira, on 25th. At Lajes do Pico, a **Belted Kingfisher** *Megaceryle alcyon* was present from 30 December 2011 to at least 27 February. A **Hoopoe** *Upupa epops* was on Pico on 16 February. On Corvo, two **Red-**

rumped Swallows *Cecropis daurica* and one **European Golden Oriole** *Oriolus oriolus* were seen on 16–18 May. The second **Woodchat Shrike** *Lanius senator* for the islands was at Ribeira Quente, São Miguel, on 18 May; the first was on Santa Maria on 19 May 2011. A first-summer **Bobolink** *Dolichonyx oryzivorus* was photographed at Ponta do Lobaio, Santa Maria, on 1 May (per *Dutch Birding* 34: 112–123 & 178–194; *Birding World* 25: 15, 28–29, 57, 101, 146 & 200; www.azoresbs.weebly.com).

Benin

Records from the period November 2011–May 2012 include the following. In the north, a late male **Garganey** *Anas querquedula* was observed on Djougou Lake on 13 March and a male **Common Teal** *A. crecca* on Mare Fogou, in Pendjari National Park, on 14 March; the latter represents confirmation of the species for the country's list, as previous claims have been rejected (WP). **Purple Swamphen** *Porphyrio porphyrio madagascarensis*, for which there are few confirmed records, was seen regularly in March–May on three *Typha*-bordered ponds in or around Cotonou, where two large chicks with two adults on 30 March confirmed breeding (BP; Fig. 2). Two **Rock Pratincoles** *Glareola nuchalis* were incubating two eggs on an isolated rock in the Mono River



Figure 2. Purple Swamphen / Talève sultane *Porphyrio porphyrio madagascarensis*, Cotonou, Benin, 16 March 2012 (Bruno Portier)



Figure 3. Red Knot / Bécasseau maubèche *Calidris canutus* and Sanderling / Bécasseau sanderling *C. alba*, Cotonou harbour, Benin, 2 February 2012 (Bruno Portier)



Figure 4. Grey Plover / Pluvier argenté *Pluvialis squatarola* and Ruddy Turnstone / Tournepieuvre à collier *Arenaria interpres*, Cotonou harbour, Benin, 1 May 2012 (Bruno Portier)

near the Chutes d'Adjarala, on the south-west border with Togo, on 24 March; two birds were seen there again on 29 April (DC).

Cotonou harbour, visited on a weekly basis during the period, produced waders seldom reported previously, such as **Ruddy Turnstone** *Arenaria interpres* and **Red Knot** *Calidris canutus* (Fig. 3). Late records include two **Whimbrels** *Numenius phaeopus* migrating west on 18 April, a **Ruddy Turnstone** in full breeding dress on 1 May (Fig. 4), a **Wood Sandpiper** *Tringa glareola* on 5 May, four **Common Ringed Plovers** *Charadrius hiaticula* until 13 May (BP), four **Grey Plovers** *Pluvialis squatarola* until 27 May (WP) and a few late **Sanderlings** *Calidris alba*, with ten until 14 May and one still present on 27 May (WP & BP). A **Great Snipe** *Gallinago media* was photographed at Sô-Ava on 22 January (BP & JM) and two were seen at Djeregbé, c.06°25'N 02°38'E, on 1 April (BP). The second record of **Slender-billed**

Gull *Larus genei* for the country was an adult at Bouches du Roy, east of Grand-Popo, on 12 December, at exactly at the same place where one was found a year previously (PW). In Cotonou, an immature **Lesser Black-backed Gull** *L. fuscus* was reported on 13 November (WP). An aggregation of c.200 **Black Terns** *Chlidonias niger* was observed in front of the Hôtel du Lac, Cotonou, on 10 April, with numbers progressively decreasing in the following days until the 16th (BP).

At Grand-Popo, a **Great Spotted Cuckoo** *Clamator glandarius* was seen on 31 December. In Abomey-Calavi, in a small privately owned forest near Cotonou, two singing males and a female **Black-shouldered Nightjar** *Caprimulgus nigrescapularis* were observed on 24 January, with a noisy group of four **Leafloves** *Pyrrhurus scandens* also there (BP). Two **White-rumped Swifts** *Apus caffer* were seen near Dassa on 12 March and a **European Turtle Dove** *Streptopelia turtur* in Pendjari National Park on 14 March (WP). An **Abyssinian Roller** *Coracias abyssinicus* observed on 1 May in Cotonou may represent the first coastal record.

A brief visit to Niaouli Forest on 17 May produced a male **Narina's Trogon** *Apaloderma narina*, a **Blue-throated Roller** *Eurystomus gularis* (Fig. 5), several singing **Yellow-**



Figure 5. Blue-throated Roller / Rollier à gorge bleue *Eurystomus gularis*, Niaouli Forest, Benin, 17 May 2012 (Bruno Portier)



Figure 6. Anambra Waxbills / Astrilds du Niger *Estrilda poliopareia*, Sô-Ava, Benin, 22 January 2012 (Bruno Portier)



Figure 7. Zebra Waxbill / Bengali zébré *Amandava subflava*, Sô-Ava, north of Nokoué Lake, Benin, 3 June 2012 (Bruno Portier)

throated Tinkerbirds *Pogoniulus subsulphureus*, 1–2 pairs of **Black-winged Orioles** *Oriolus nigripennis*, a pair of **Forest Chestnut-winged Starlings** *Onychognathus fulgidus* and a female **Thick-billed Weaver** *Amblyospiza albifrons* (BP & WP). In the Lower Ouémé River basin, **Red-vented Malimbe** *Malimbus scutatus* was seen at Azowlissé on 23 February, and near Djérégbé on 6 May (WP).

A flock of c.50–60 **Anambra Waxbills** *Estrilda poliopareia*, including at least three individuals with dark bills presumed to be juveniles, was encountered at Sô-Ava on 22 January; this is the largest flock recorded for the species (BP & JM; Fig. 6). **Zebra Waxbill** *Amandava subflava* was noted for the first time in Cotonou, with six birds in the

western harbour area on 2 March, and was encountered more regularly at Sô-Ava, north of Nokoué Lake, in May–early June (BP; Fig. 7).

Botswana

Noteworthy reports from the period January–June 2012 are mostly from the south-east. These include 1,200 **Lesser Flamingos** *Phoeniconaias minor* seen at Bokaa Dam on 6 May; a **Lizard Buzzard** *Kaupifalco monogrammicus* at Lion Park, south of Gaborone, well outside its usual range in northern Botswana, on 3 June; 1,500 **Black-winged Pratincoles** *Glareola nordmanni* at Bokaa Dam on 6 February; a **White-fronted Bee-eater** *Merops bullockoides* at the Crocodile Pools, Ngotwane, on 11 May, with another at Kumakwane on 10 June; and a **Wahlberg's** (Sharp-billed) **Honeybird** *Prodotiscus regulus*—an elusive species in Botswana—just north of Hildavale, near Lobatse, on 24 June (CB). Two **White-fronted Plovers** *Charadrius marginatus* were at Bokaa Dam on 13 May (IW), whilst eight **Stark's Larks** *Spizocorys starki* were observed at Tswaiing Pans on 17 May (CB).

In the north-east, two **Great Snipe** *Gallinago media* were present at Moremi Game Reserve on 13 February (GR), whilst in the south-west there were 20 **Stark's Larks** at Malalaleng, near Tsabong, on 9 April, and a **Mountain Pipit** *Anthus hoeschi* and a **Sickle-winged Chat**

Cercomela sinuata at Morwamosu Pan 5 April (CB).

Cameroon

In the north, in a remote area just west of Belel, c.100 km east of Ngaoundéré and c.140 km west of the Chad border, francolins identified as **Heuglin's Francolins** *Francolinus icterorhynchus* were seen twice on 30 August 2011. The birds had a conspicuous yellow orbital ring (a feature lacking in the more common and widespread Double-spurred Francolin *F. bicalcaratus*), and the bill and legs were much yellower than in Double-spurred (which has more greenish-yellow legs). There are no previous reports from Cameroon of Heuglin's Francolin, which is known from the Central African Republic and northern DR Congo eastwards; this may be due to the lack of foreign visitors to the area concerned (MC).

In March–April 2012 the following were reported. Two **Black Storks** *Ciconia nigra* flew over Ngaoundaba on 17 April; there are few records of this Palearctic vagrant for Cameroon. A male **Savile's Bustard** *Lophotis savilei* was observed in the Waza area on 10 March; this species appears to be regular at this site, although it is rarely recorded and the first record for the country was from Waza in 1994. On 9 March, a **Golden Nightjar** *Caprimulgus eximius* was flushed at Mora; first observed in Cameroon in 2003, there have been records from the same area since, but it is not clear whether the species breeds here or is a non-breeding visitor. At least two pairs of **Red-rumped Swallows** *Cecropis daurica* of the race *kumboensis* were seen at Nyasoso on 27–31 March; this is a new site for the species. The **Ethiopian Swallows** *Hirundo aethiopica* around the school buildings at Nyasoso, first noted in 2005, were still present on 31 March. A pipit observed closely in Waza National Park (=NP) on 10 March was provisionally identified as **Grassland Pipit** *Anthus cinnamomeus*; although the (possibly only non-breeding) pipits known from this area were originally labelled as Richard's Pipits *A. richardi*, it is

now believed that they represent an undescribed taxon, presumably of Grassland Pipit—more information is needed before their identity can be ascertained. An adult and a juvenile **Plain-backed Pipit** *A. leucophrys* on the playing fields of Nyasoso school in late March appeared to be this species rather than Long-legged Pipit *A. pallidiventris*; a record of either species would appear to be new for the site. An **Isabelline Wheatear** *Oenanthe isabellina* was seen in Waza NP on 10 March; there are few records in the country. A **Great Reed Warbler** *Acrocephalus arundinaceus* was seen again in Benoué NP on 13 March; singles observed in 2010 and 2011 at this site (*Bull ABC* 17: 241 & 18: 231) seem to be the only previous records for the park. At least four **Red-winged Pytilias** *Pytilia phoenicoptera* were coming to drink in Bénoué NP on 14 March; there are few records from the park (NB).

Canary Islands

Records from December 2011–May 2012 include the following. A **Glossy Ibis** *Plegadis falcinellus* was at Punta Fuencaliente, La Palma, on 17 December. A **Black Stork** *Ciconia nigra* stayed at Maspalomas, Gran Canaria, from 3 December until at least 10 March. A **Blue-winged Teal** *Anas discors* was still at Catalina García, Fuerteventura, in early March. At Tías golf course, Lanzarote, a **Corncrake** *Crex crex* stayed on 15–18 May, an adult **Allen's Gallinule** *Porphyrio alleni* from 22 December 2011 until 9 January, and a male **Citrine Wagtail** *Motacilla citreola* on 5–6 April. A total of seven (White-spotted) **Bluethroats** *Luscinia svecica* were on Fuerteventura on 12–17 March. A **Yellow-browed Warbler** *Phylloscopus inornatus* wintered at Costa Calma, Fuerteventura, from December until at least 17 February. The first **Hume's Leaf Warbler** *P. humei* for the Canary Islands was seen on Fuerteventura on 6 April. Single **African Desert Warblers** *Sylvia deserti* were observed at El Medano, Tenerife, on 19–20 March, and Punta Mujeres, Lanzarote, on 24–25 March. A **Little Bunting**

Emberiza pusilla remained at Teguisse, Lanzarote, from 8 January until at least 8 March (per *Dutch Birding* 34: 119–124; *Birding World* 25: 16, 57, 101, 146 & 201).

Cape Verde Islands

In December 2011–April 2012 the following were reported. On Santiago, up to two **Black Herons** *Egretta ardesiaca*, present since early 2011 (Fig. 8), and an **Intermediate Egret** *E. intermedia* (Fig. 9) were still present at Barragem de Poilão in early April. At the same site, the first **Mallard** *Anas platyrhynchos* for the archipelago, a female, was seen on 29 December, whilst a **Blue-winged Teal** *A. discors* was also there on 1 March. The second **Spotted Crake** *Porzana porzana* for the Cape Verdes was photographed on Santiago on 4 March. Still on Santiago, a **Eurasian Coot** *Fulica atra* was at Barragem de Poilão on 26 December, and a first-winter **White-winged Tern** *Chlidonias leucopterus* on 29–31 December. On 1 March, a **Semipalmated Plover** *Charadrius semipalmatus* was observed at Mindelo, São Vicente, whilst a **Least Sandpiper** *Calidris minutilla* was at Curral Velho, Boavista, from 30 March to at least 8 April. A **Eurasian Woodcock** *Scolopax rusticola*, claimed from Pedra Badejo, Santiago, on 31 December



Figure 8. Black Heron / Aigrette ardoisée *Egretta ardesiaca*, Barragem do Poilão, Santiago, Cape Verdes, 26 February 2012 (David Monticelli)



Figure 9. Intermediate Egret / Aigrette intermédiaire *Egretta intermedia*, Barragem do Poilão, Santiago, Cape Verdes, 28 February 2012 (David Monticelli)

would be the first for the islands. Also on Santiago, single **Spotted Sandpipers** *Actitis macularia* were observed on 31 December and 21 March. The second **African Desert Warbler** *Sylvia deserti* for the islands was photographed on Raso on 28 February (per *Dutch Birding* 34: 116–123 & 181–188; *Birding World* 25: 16, 101 & 146).

Central African Republic

Several **Grant's Bluebills**

Spermophaga poliogenys were seen

in Dzanga-Ndoki National Park in May 2012, of which one male was photographed (Fig. 10). This is apparently only the second site in the country where the species has been recorded, the first being Ngotto Forest. Additionally, the species is known from adjacent Lobéké National Park in Cameroon and Nouabalé-Ndoki National Park in Congo-Brazzaville (LD).

Côte d'Ivoire

Rapid surveys undertaken in April 2012 of four national parks added 40 species to the species lists of these parks, despite the alarming state in which they were found to be. In Azagny National Park (=NP), a **Spur-winged Lapwing** *Vanellus spinosus* was seen; there are few coastal records. The occurrence of **Red-chested Swallows** *Hirundo lucida* confirmed their recently observed southward range expansion. More surprising was the presence of a **Piapiac** *Ptilostomus afer* in the coastal savanna; this species was hitherto known only from the north. Marahoué NP was found to have been massively encroached during the last few years and the future of the park must be considered in jeopardy. **Cabanis's Bunting** *Emberiza cabanisi*, of which a group of three was seen, was an addition to the park list. The situation of Péko NP is as



Figure 10. Male Grant's Bluebill / Sénégal à bec bleu *Spermophaga poliogenys*, Dzanga-Ndoki National Park, Central African Republic, May 2012 (Lieven Devreese)

worrying as that of Marahoué, with large areas of forest having been, and still being, destroyed and replaced by cocoa plantations. Among a few other species, **Red-rumped Swallow** *Cecropis daurica* and **Ethiopian Swallow** *Hirundo aethiopica* had not previously been recorded in the park. The destruction of forest in Mont Sangbé NP started just a year or two ago, and in the remaining parts several typical forest species were added to the park list, including **Nkulengu Rail** *Himantornis haematopus*, **White-bellied Kingfisher** *Alcedo leucogaster*, **Least Honeyguide** *Indicator exilis*, **Red-tailed Greenbul** *Criniger calurus*, **Forest Scrub Robin** *Cercotrichas leucosticta*, **Black-capped Apalis** *Apalis nigriceps*, **Sabine's Puffback** *Dryoscopus sabinii*, **Yellow-mantled Weaver** *Ploceus tricolor* and **Preuss's Weaver** *P. preussi* (RD).

Congo-Brazzaville

In April 2012, in the Chaillu massif, in the south-west (02°17'02.6"S 12°52'11.4"E), a black weaver with a pale nuchal patch and pale eyes that was foraging in the canopy, was identified as **Maxwell's Black Weaver** *Ploceus albinucha*, a species previously known only from the north of the country (JMI).

Djibouti

Re-examination of the photograph of the claimed first Greater Frigatebird *Fregata minor* for the country (see *Bull. ABC* 19: 98) revealed that it actually was a **Lesser Frigatebird** *F. ariel*, the second record for Djibouti, the first being from 1986 (per NR).

Egypt

Records from the period late December 2011–April 2012 include the following. **Three-banded Plovers** *Charadrius tricollaris* are now regularly encountered, with individuals being seen at Tut Amon, Aswan and Abu Simbel, where the species has bred in recent years. Seven of the 8–9 **African Skimmers** *Rynchops flavirostris* photographed on 28 December south of Kom Ombo, were observed again on 10 January; two were still present on

25 February. During the third week of January, a group of nine was present at Daraw, also along the Nile, between Luxor and Aswan. The most remarkable observations of the period involved **Chestnut-bellied Sandgrouse** *Pterocles exustus* near Sandafa on 18 March (four in flight) and near Bahnasa / Minya on 21 March (25 individuals, photographed: see www.khil.net/blog/?p=1393), as these probably concern the Nile Valley subspecies *floweri*, which was considered extinct—the species' last record for Egypt was on 4 March 1979. Two **African Mourning Doves** *Streptopelia decipiens* at Abu Simbel, first found on 29 December 2010, were still present on 28 April. Single **Citrine Wagtails** *Motacilla citreola* were recorded on 5 February at Aswan (photographed), and on 7 April at Shamms Alam and north of Marsa Alam; there are fewer than ten previous records. What appears to be the second **Oriental Skylark** *Alauda gulgula* for Egypt was photographed at the Mövenpick hotel, El Gouna, on 27–31 March. A **Black Scrub Robin** *Cercotrichas podobe* was seen at Berenice, on the Red Sea coast, on 19 March (per *Dutch Birding* 34: 123–124 & 181–187; *Birding World* 25: 16 & 147).

Ethiopia

Records from a visit in April 2012 include the following. An **African Crane** *Crex egregia* was flushed south of Mega on 7th; this appears to be a new locality for this rarely reported species—only three certain records are mentioned in Ash & Atkins (2009. *Birds of Ethiopia and Eritrea—An Atlas of Distribution*); there is, however, at least one other recent record, from Lake Langano, on 28 December 2010 (*Bull. ABC* 18: 233; see photograph on www.surfbirds.com). Two **Lesser Jacanas** *Microparra capensis* were seen at Lake Awassa on 10th. In the Bale Mountains, two **Abyssinian Owls** *Asio abyssinicus* were observed near Dinsho Lodge on 2nd; Ash & Atkins (2009) mention that there are records for every month except April and June. A **European**

Nightjar *Caprimulgus europaeus*, a scarce migrant in Ethiopia, was seen well in the Genale Valley on 5th. Two **Banded Parisomas** *Parisoma boehmi* were noted en route to Filtu on 6th—a new square (110d in the *Atlas*). **Pringle's Puffbacks** *Dryoscopus pringlii* were encountered near Filtu on 6th (two), along the Mega–Yabello road on 8th (two) and at km 22 towards Mega on 9th (one); there are no records for April in the *Atlas*. Four small weavers in the Genale Valley on 5th were identified as **Little Weavers** *Ploceus luteolus*, well to the east (in square 110b) of the distribution marked in the *Atlas* (J-MD & CG).

The Gambia

An adult **Spotted Crane** *Porzana porzana* in non-breeding plumage was photographed at a small pond south of the main road from Tendaba to the coast on 29 February 2012 (Figs. 11–13; HB, LB & LM);



Figures 11–13. Spotted Crane / Marouette ponctuée *Porzana porzana*, near Tendaba, The Gambia, 29 February 2012 (Lars Buckx)

this constitutes the second sighting for the country, the first being an individual at Marakissa, Western Division, on 14 January 2005 (*Bull. ABC* 12: 182).

Ghana

Records from November 2011–April 2012 include the following. Three **Cory's Shearwaters** *Calonectris diomedea* flew east off Sakumono lagoon on 9 April (NB). A **Pectoral Sandpiper** *Calidris melanotos* was observed at the lagoon on 4 and 14 February; also there, on the latter date, an **American Golden Plover** *Pluvialis dominica* was photographed (CT), whilst two were seen on 19 April (NB); these Holarctic vagrants apparently remained in the area for quite some time. At least one **Beaudouin's Snake Eagle** *Circaetus beaudouini* was seen well in the Shai Hills on 9 April; this appears to be a significant extension to the species' known range, but old records of Short-toed Snake Eagle *C. gallicus* probably reflect misidentifications or at least did not distinguish between the two taxa. Also there, a pair of **Brown Snake Eagles** *C. cinereus* was observed on the same date; they may have been the same birds recorded here in 2011. **Rosy Bee-eaters** *Merops malimbicus* were late leaving the country this year, as some were still noted on 20 April, flying over Kakum National Park (NB). A **Eurasian Wryneck** *Jynx torquilla* was seen at Pepease, near Abetifi, in the Mampongtn Range, on 22 January. Six **Grasshopper Warblers** *Locustella naevia* and a few **Common Whitethroats** *Sylvia communis* were mist-netted at Nsuatre, west of Sunyani, in November–February (RS). **Puvel's Illadopsis** *Illadopsis puveli* was encountered in farmbrush just outside Atewa Range Forest Reserve on 27 April; this is a new species for the site (NB). A **Lagden's Bushshrike** *Malaconotus lagdeni* was seen well in an overgrown valley near Aduamo, Mampongtn Range, on 4 February (RS). Two **Bronze-tailed Glossy Starlings** *Lamprotornis chalcurus* found at the Alexis Hotel on the Tema–Akosombo road, near Shai, on 19 April, represent a new

record for that area (NB). **Compact Weavers** *Pachyphantes superciliosus* were observed at Nsuatre and Pepease. A male **Togo Paradise Whydah** *Vidua togoensis* and three female-types were seen at Dedeso, on the south shore of Lake Volta, on 27 January (RS).

Guinea

In the south-east, three species new for the country were photographed at Mont Yonon, north-west of Nzérékoré, in May 2011: **Booted Eagle** *Hieraaetus pennatus* (a pale-morph adult on 5 May), **Black Spinetail** *Telacanthura melanopygia* (two on 3rd, with the following species) and **Bates's Swift** *Apus batesi* (four photographed amongst many more on 3rd). At the same site, a **European Nightjar** *Caprimulgus europaeus*, photographed on 20 January 2012, constitutes yet another addition to the country list. In the Going (or Gouin) massif, east of Kérouané, a white-headed **Ayres's Hawk Eagle** *Hieraaetus ayresii* was observed on 7 May 2011 (VL, MBC & KS).

Kenya

The following reports are from January–May 2012, with one from 2011. An exhausted adult **Masked Booby** *Sula dactylatra*, blown in by strong southerly winds, was found at Watamu on 13 May; it was taken into care, ringed and released a few days later. A **Little Grebe** *Tachybaptus ruficollis* on a flooded pit at Keekorok on 25 April is an unusual record for the Masai Mara. An **African Swallow-tailed Kite** *Chelictinia riocourii*, an infrequently reported species, was observed in Buffalo Springs Game Reserve (=GR) on 12 April. A **Beaudouin's Snake Eagle** *Circaetus beaudouini*, first seen alone at Nambale on 25 March, was with a dependent juvenile on 22 April; this is the first breeding record for Kenya. A **Western Banded Snake Eagle** *C. cinerascens* was in Ruma National Park (=NP) on 22 February. Single **African Marsh Harriers** *Circus ranivorus* were reported from Manguo Ponds, Limuru, on 4 January; Ramisi on

10 February; Iten on 18 April; and Serena Oxbows, Masai Mara, on 23 April; this species has become very scarce in Kenya over the past 20 years. An **Ovambo Sparrowhawk** *Accipiter ovampensis* was seen at Bateleur Camp, Masai Mara, on 7 February. A female **Eurasian Sparrowhawk** *A. nisus* was observed at the Kongelai Escarpment, Kapenguria, on 21 March, with one at Ngulia on 6 April; most recent records are from Ngulia on southbound migration, with even fewer during the return migration. A **Long-legged Buzzard** *Buteo rufinus* in Nairobi NP on 14 May is a late date for this rare migrant. An **Eastern Imperial Eagle** *Aquila heliaca* was in Buffalo Springs GR on 13 April. A pair of **Grey Kestrels** *Falco ardosiaceus* was feeding a nestling at Chebloch Gorge, Kerio Valley, on 1 March—a noteworthy breeding record for a species that is uncommon this far east. An **Amur Falcon** *F. amurensis* at Sioport on 26 February is a rare record for western Kenya. A late **Sooty Falcon** *F. concolor* was observed in Nairobi NP on 21 May. A **Saker Falcon** *F. cherrug* at Maungu Hill, Voi, on 12 February is the first record for more than ten years.

A **White-spotted Flufftail** *Sarothrura pulchra* responded to playback at Kerich Tea Estates on 12 February; this is significantly further south and east than the species' previously known range. A **Lesser Jacana** *Microparra capensis* was found at Dunga Point, Kisumu, on 26 March; few have been reported from Lake Victoria. Two **Rock Pratincoles** *Glareola nuchalis*, a species seldom seen away from Mumias, were observed at the Nzoia Bridge, on the Busia–Kisumu road, on 25 March. Unspecified large numbers of **Kentish Plovers** *Charadrius alexandrinus* were reported from the Turkwell Delta, Lake Turkana, in January—this area is known to regularly hold small numbers but the species is rarely reported. A late **Temminck's Stint** *Calidris temminckii* was at Lake Nakuru NP on 16 April. A **Bridled Tern** *Onychoprion anaethetus* was

roosting on a dhow at Msambweni on 10 February; this species is infrequently observed inshore. About ten **Lesser Noddies** *Anous tenuirostris* were at Kisite Island, Shimoni, on 8 February.

A moulting **Madagascar Lesser Cuckoo** *Cuculus rochii* was videotaped in Kakamega Forest on 20 April. A **Pel's Fishing Owl** *Scotopelia peli* was encountered on the Rojawero River, Meru NP, in mid March—whilst doubtless resident, there are remarkably few reports of this owl in Kenya. At least two **Scarce Swifts** *Schoutedenapus myoptilus* were over Gwasssi Hills, Homa Bay, on 21 February—a westward range extension. Some 150 **Alpine Swifts** *Tachymarptis melba* passed over Marafa, north and inland of Malindi, on 9 January, with large flocks over Lodwar in the same month; these are new sites for this swift. The record of three **Blue-breasted Bee-eaters** *Merops variegatus* at Nambale, east of Busia, on 25 March, is further north than this species' usual range. A flock of 150 **White-fronted Bee-eaters** *M. bullockoides* was feeding on emerging termites at Hell's Gate, Naivasha, on 7 April; this species has drastically declined at Naivasha in recent years. A **Blue-cheeked Bee-eater** *M. persicus* in the Omo Delta, Lake Turkana, is a new, although not unexpected, species for this site. A pair of **Abyssinian Ground Hornbills** *Bucorvus abyssinicus* at Alupe on 25 March constitutes a very uncommon southerly record. A **Yellow-billed Barbet** *Trachylaemus purpuratus* was seen in the Gwasssi Hills, Homa Bay, on 21 February; this species was not previously known from Nyanza. Single **Eurasian Wrynecks** *Jynx torquilla* were observed near Kanyarwkwat on 22 March and at Nguuni Nature Sanctuary, Mombasa, on 20 April; there are few records for Kenya and the April record is the first for the coast.

Singing **Trilling Cisticolas** *Cisticola woosnami* were recorded on the South Nandi escarpment on 18 February—a northerly range extension of c.100 km. The presence at the same site of a **Tabora** (Long-

tailed) **Cisticola** *C. angusticauda* also constitutes a range extension, as this species is known only from historical records at Muhoroni, c.40 km to the south. A pair of **Karamoja Apalises** *Apalis karamojae* photographed feeding a juvenile in Naboisho Conservancy, Masai Mara, on 29 January 2011, is the first Kenyan breeding record. An **Olive-green Camaroptera** *Camaroptera chloronota* was observed in the Gwasssi Hills on 21 February; this species was known only from the Nandi / Kakamega area and Mount Elgon. An adult male **Red-bellied Paradise Flycatcher** *Terpsiphone rufiventer* was seen attacking a Blue Monkey *Cercopithecus mitis* in Kakamega Forest on 20 April; although it has been suggested that this species has become extinct through hybridisation with African Paradise Flycatcher *T. viridis*, there was no indication of this individual being a hybrid. On the Kongelai escarpment, Kapenguria, a pair of **Western Violet-backed Sunbirds** *Anthreptes longuemarei* was noted on 19 April; this is a highly local and infrequently reported sunbird. Unspecified large numbers of **Violet-breasted Sunbirds** *Cinnyris chalomelas* were reported from the Sabaki River mouth on 4–10 April; this local species is rarely seen as far south as Malindi. A male and female **Woodchat Shrike** *Lanius senator* were at Alupe on 25 March. A report from the little-visited northern edge of Lake Turkana mentions large flocks of breeding **Northern Masked Weavers** *Ploceus taeniopterus* in the reedbeds along the Omo River in January (the last report from this site was from 1959)—this weaver is otherwise known only from Lake Baringo. A single **Yellow-bellied Waxbill** *Estrilda quartinia* in the Gwasssi Hills, Homa Bay, on 21 February, was at a new locality for this waxbill. A pair of **Black-faced Waxbills** *E. erythronotos* was at Adungosi, Busia, on 22 April; whilst there are historical records from Kisumu, there are none from near the Ugandan border. A **Brown-rumped Bunting** *Emberiza affinis* was seen at the Kongelai escarpment on 21 March; this very local species

is only irregularly reported from this site (CJ).

Liberia

A **Lesser Black-backed Gull** *Larus fuscus* was observed in Monrovia harbour on 16–17 April 2012; this species is only occasionally seen along the country's coast (RW).

Madeira

Five species that would constitute firsts for the island, if accepted, were reported in November 2011–May 2012: **Hen Harrier** *Circus cyaneus* (a female / juvenile at Caniçal on 10 November; seen again in January), **American Coot** *Fulica americana* (one photographed at Lugar de Baixo on 20 January; remained until at least 9 April), **Lesser Short-toed Lark** *Calandrella rufescens* (one claimed at Ponto do Pargo on 14 March), **Bluethroat** *Luscinia svecica* (one at Ribeira Brava on 17 March) and **Blue Rock Thrush** *Monticola solitarius* (a female photographed at Ponto do Pargo on 10 March).

Other noteworthy records from the period include the following. A **Cape Verde Shearwater** *Calonectris edwardsii* was present in the Selvagens on 2–25 April. Pelagic trips during the period 22–28 May produced a **Wilson's Storm-petrel** *Oceanites oceanicus*, a **White-faced Storm-petrel** *Pelagodroma marina* and a **Leach's Storm-petrel** *Oceanodroma leucorhoa*. Up to four **Glossy Ibises** *Plegadis falcinellus* were at Faial in January–February, with six at Machico on 1–26 May. Also at Machico, a **Peregrine Falcon** *Falco peregrinus* was seen on 25 May and a

Spotted Crake *Porzana porzana* on 9 February. A **Spotted Sandpiper** *Actitis macularius* was observed at Faial on 17 February. On 2–25 April, a **Sooty Tern** *Onychoprion fuscata* was present in the Selvagens. The second **Ring Ouzel** *Turdus torquatus* for Madeira was at Fanal on 12 March. A **Subalpine Warbler** *Sylvia cantillans* stayed at Caniçal on 1–10 May. Five **Snow Buntings** *Plectrophenax nivalis* were at Pico do Areeiro on 13 January, with one still there on 12 February (per *Dutch Birding* 34: 119–124 & 178–186; *Birding World* 25: 16, 30, 57, 101 & 200–201).

Mali

In February–March 2012, a flock of 44 **African Skimmers** *Rynchops flavirostris* was seen repeatedly on the same sandbank in the Niger River c.25 km south of Kangaba, towards the Guinea border (Fig. 14). Also there were an immature **Yellow-billed Stork** *Mycteria ibis* and a **Curlew Sandpiper** *Calidris ferrugineus* on 11 March. In early March, a **Spotted Redshank** *Tringa erythropus* was photographed at Kangaba (LSi). In the capital Bamako, the old Arboretum (103 ha within a forest reserve of 2,100 ha) was given national park status, with new paths and facilities. The park, which was officially opened in September 2010, includes a semi-circular forested canyon that lies below the terraced outcrops of the Koulouba plateau. **Koulikoro Firefinch** *Lagonosticta virata* occurs; 6–8 were seen during a visit in March (MCR).



Figure 14. African Skimmers / Bec-en-ciseaux d'Afrique *Rynchops flavirostris*, c.25 km south of Kangaba, Mali, March 2012 (Lionel Sineux)

Morocco

The following records are from January–May 2012. Six **European Storm-petrels** *Hydrobates pelagicus* were seen at Agadir marina on 6 February, with six more offshore (MB). **Great Egrets** *Egretta alba* were reported from Aoulouz on 8 February (one); Rissanion on 12 February (three); Barrage el Mansoor Eddhabi, Ouarzazate, on 13–14 February (1–3; MB); and Souss-Massa National Park on 16 March (two; DR); from May 2012 this species is no longer considered by the Moroccan Rare Birds Committee. The **Western Reef Heron** *Egretta gularis* at Essaouira, first found on 18 April 2009, was seen again in February. A **Grey Heron** *Ardea cinerea* of the Mauritanian race *monicae* was claimed from Lagune de Khnifiss, Western Sahara, on 22 April. A census in 2011 counted 511 **Northern Bald Ibises** *Geronticus eremita*, all in the Agadir area. In the south-east, a **Lesser Flamingo** *Phoeniconaias minor* was seen with 540 Greater Flamingos *Phoenicopterus (ruber) roseus* at Dayet Srji, Merzouga, on 3–4 May. More than 60 **White-headed Ducks** *Oxyura leucocephala* were counted at Sidi Bou Rhaba, Kenitra, where the first successful breeding occurred in 2009. A juvenile **Saker Falcon** *Falco cherrug* was seen in the Souss Valley near Aoulouz on 10 March. A pair of **Baillon's Crakes** *Porzana pusilla* was at Tissint on 14 March.

The second **White-rumped Sandpiper** *Calidris fuscicollis* for Morocco was photographed on 29 April at Merzouga, where it remained until at least 3 May. Other noteworthy waders included a **Broad-billed Sandpiper** *Limicola falcinellus* at Sidi Moussa, Oualidia, on 21 April, a **Terek Sandpiper** *Xenus cinereus* at Larache on 19 May, and an adult **Spotted Sandpiper** *Actitis macularius* at Fort Bou-Jerif on 26–27 April. On 20 January, a **Bonaparte's Gull** *Larus philadelphia* was photographed at Oualidia. The southernmost **Glaucous Gull** *L. hyperboreus* for the African mainland, and the 15th for Morocco, was a first-winter at Khnifiss lagoon on



Figure 15. First-winter Glaucous Gull / Goéland bourgmestre *Larus hyperboreus*, Khnifiss lagoon, Morocco, 14–15 January 2012 (Arnaud B. van den Berg)

14–15 January (Fig. 15); it was also reported there on 27 February. At the same site, ten **Great Black-backed Gulls** *L. marinus* were counted on 26–27 March.

Only three **Dunn's Larks** *Eremalauda dunni* were reported from the southern Western Sahara in January–February, including two west of Oued Jenna, with a flock of 30 **Black-crowned Sparrow Larks** *Eremopterix nigriceps* a few kilometres away, on 10 January; singles were also seen near Foug Zguid, Zagora, on 29 April, and at Merzouga, in April and on 2 May. At least one, but possibly up to eight (Western) **Pale Crag Martins** *Ptyonoprogne obsoleta presaharica* were photographed at Oued Jenna and Aousserd on 10–12 January; two were reported at Café Chtouca, Western Sahara, on 23 April—this taxon is rare in Morocco and often hard to separate from Eurasian Crag Martin *P. rupestris*. **Isabelline Wheatears** *Oenanthe isabellina* were photographed west of Tinerhir in Dadès-Draa and Tafilalt on 13–14 March (three) and near Âit-Labbès, Eastern High Atlas, on 13 March (one); in late March several more were reported. The second and third **Olive-backed Pipits** *Anthus hodgsoni* for Morocco

and Africa were observed and sound-recorded at Imouzzer, Haha, in the mountains north of Agadir, on 23 January; the first was photographed at Agadir on 8–9 November 2007. The first **Eastern Bonelli's Warbler** *Phylloscopus orientalis* for the country was claimed from Oued Massa on 11 March. The **Pied Crows** *Corvus albus* which bred in the Western Sahara in 2010 (*Bull. ABC* 17: 246) could not be found in January; apparently, the birds were last reported on 24 April 2011 (per *Dutch Birding* 34: 112–124 & 181–194; *Birding World* 25: 16, 57, 103 & 201)

Mozambique

A **European Honey Buzzard** *Pernis apivorus* was reported from Manjakaze on 10 January 2012 (*sa-rarebirdnews@googlegroups.com*, per TH).

Namibia

Records from late December 2011–June 2012 include the following. A **Black Heron** *Egretta ardesiaca* was at Otjivero Dam, c.90 km east of Windhoek, on 29 January (there are only a few records from central Namibia), whilst a **Slaty Egret** *E. vinaceigula* was reported from Etosha National Park (=NP) on 27 February. A **Woolly-necked Stork** *Ciconia episcopus* was discovered in Swakopmund, well outside its normal range, on 6 June. A **Glossy Ibis** *Plegadis falcinellus* was present at Walvis Bay Sewage Works on 21–22 January.

In early January, single **European Honey Buzzards** *Pernis apivorus* were reported 100 km north of Gobabis and from Avis Dam in Windhoek, with one also near Katima Mulilo on 16 March. An immature **Egyptian Vulture** *Neophron percnopterus* was observed at Ombika waterhole, Etosha NP, on 1 January. Also in Etosha, an **African Crake** *Crex egregia* was found at Nuamses Pan on 9 June. A juvenile **Allen's Gallinule** *Porphyrio alleni* was at Windhoek West on 26 February; this is a noteworthy record for the centre of the country.

At least three **Eurasian Oystercatchers** *Haematopus*

ostralegus were at Sandwich Harbour on 20–23 January. A **Pectoral Sandpiper** *Calidris melanotos* was near Namutoni, Etosha NP, on 24 April. Namibia's third **Buff-breasted Sandpiper** *Tryngites subruficollis*, discovered at Mile 4 Salt Works, Swakopmund, on 13 April remained there until the end of the month; the first was seen at Swakopmund in February 1984 and the second at Walvis Bay in November 1984. A single **Common Redshank** *Tringa totanus* was at Walvis Bay in late January, whilst at least three were at Mile 4 Salt Works on 22 April. A **Black-tailed Godwit** *Limosa limosa* was reported from Etosha NP. The 18th **Wilson's Phalarope** *Phalaropus tricolor* for the subregion stayed at Walvis Bay from late December until at least mid January. At the same site, no fewer than 50 **Red-necked Phalaropes** *P. lobatus* were counted on 12 January, with at least six still there on 22 April. A **Red Phalarope** *P. fulicarius* was also there on 31 December. Still in the Walvis Bay area, two **Common Black-headed Gulls** *Larus ridibundus* were present in late February, with one remaining until at least late March, and up to two **Gull-billed Terns** *Gelochelidon nilotica* from late December until at least 31 May. Also of interest was a **Lesser Crested Tern** *Thalasseus bengalensis* discovered on Halifax Island, just off Luderitz, on 3 May; there are only a handful of records for the country and this constitutes the first for southern Namibia. A **Pied Kingfisher** *Ceryle rudis* at Walvis Bay in late January was an unusual record for this part of the southern African subregion.

An **African Pitta** *Pitta angolensis* seen on Hauchabfontein farm, on the south side of the Naukluft Mountains, on 19–20 December may represent the first record for the country and the westernmost in the subregion. A **Yellow Wagtail** *Motacilla flava* was present at the Namib Rand Nature Reserve in late January. There were several reports of **Village Indigobirds** *Vidua chalybeata* from the Windhoek area in late February (sa-rarebirdnews@googlegroups.com, per TH).

Niger

Records from December 2011–May 2012 are as follows. A juvenile **Long-crested Eagle** *Lophaetus occipitalis* and a **Temminck's Stint** *Calidris teminckii*, both photographed at Tam wetland on 4 December, are the first records for the south-east (DK, BK, TK, LS, JvdB). A **Rock Pratincole** *Glareola nuchalis* was seen at Tapoa, in W International Park, on 8 December (SW); of the seven records for Niger, this is the first away from the Niger River. **European Nightjars** *Caprimulgus europaeus* were displaying and singing at Galmi in early May (DK). Up to seven **Masked Shrikes** *Lanius nubicus* were reported between 5 December and 21 February near Mainé-Soroa, where they are apparently regular 'winter' visitors (DK, BK, TK, LS, JvdB). **House Sparrow** *Passer*



Figure 16. House Sparrow / Moineau domestique *Passer domesticus*, Galmi, Niger, 5 May 2012 (Barbie Kusserow)

domesticus has made a huge westward range extension: a male was observed at Soubdou, 200 km west of the previous westernmost record at Mainé-Soroa, on 28 December (DK), and since 9 February seven records have been submitted of up to seven individuals of both sexes, in the hospital grounds at Galmi, 550 km further west still (DK, BK, TK; Fig. 16). It would be interesting to know if House Sparrows are also spreading in northern Nigeria, and which subspecies is involved. Two **House Buntings** *Emberiza striolata* at a quarry at Hamdara, 60 km east of Zinder, on 8 December, are the most southerly in Niger to date.

The gift of bird photographs mentioned in previous Recent Reports is slowly being sorted. Pictures recently uploaded to the Niger Bird Database (www.nibdab.org) include a **Denham's Bustard** *Neotis denhami* near Goudoumaria on 16 August 2010 (Fig. 17); the first record for the country of **Harlequin Quail** *Coturnix delegorguei*, caught at night on the edge of Mainé-Soroa on 6 July 2010 (DK; Fig. 18); the first and second records of **Three-banded Plover** *Charadrius tricollaris*, at a temporary wetland south-west of Mainé-Soroa on 7 October 2010 and near Koublé, south-east of Gouré, on 8 December 2011; and a **Short-eared Owl** *Asio*



Figure 17. Denham's Bustard / Outarde de Denham *Neotis denhami*, near Goudoumaria, 16 August 2010 (David Kusserow)



Figure 18. Harlequin Quail / Caille arlequin *Coturnix delegorguei*, Mainé-Soroa, Niger, 6 July 2010 (David Kusserow)

flammeus found dead near Mainé-Soroa in October 2010 (DK, BK, TK, LS, JvdB), the fourth record for the country.

Uploaded old records to the Niger Bird Database include three firsts for the country: a **Black-necked Grebe** *Podiceps nigricollis* near Arlit in March 2002 (VK & NZ); a **Red-necked Phalarope** *Phalaropus lobatus* near Niamey on 21 October 1989 (SM); and a group of 30–40 **Lesser Blue-eared Starlings** *Lamprotornis chloropterus*, including juveniles, along the Niamey–Say road on 9–22 July 1989 (SM). Other noteworthy records include a **Baillon's Crake** *Porzana pusilla* in the Tara irrigation area, near Gaya, on 5 March 2002 (AH, VK & NZ); a male and female **Lichtenstein's Sandgrouse** *Pterocles lichtensteinii* between Iférouane and Arlit on 19 March 2002 (VK & NZ); and three **Black-faced Quailfinches** *Ortygospiza atricollis* near Niamey on 12 February 1989, with another 12 there in December 1989 (second and third records; SM) (all per JB & UL).

Senegal

What would constitute the first **Red Kite** *Milvus milvus* for the country was observed from the jetty of Keur Saloum in the Sine Saloum Delta on 23 February 2012; the rusty-brown colour, as opposed to the dark brown of the Yellow-billed Kites *Milvus migrans parasiticus* in the area, and the deeply forked tail were conspicuous (MC). A **Common Crane** *Grus grus* was photographed in the company of two Black Crowned Cranes *Balearica pavonina* in Djoudj National Park on 22 January; this is the second record for Senegal (VS).

Seychelles

Reports received by Seychelles Bird Records Committee (SBRC) from the period December 2011–May 2012 include the first **Red-billed Duck** *Anas erythrorhyncha*, on Aldabra on 10 January, with the first **Namaqua Dove** *Oena capensis* also there on 11–15 December.

Also on Aldabra, 11 **Little Terns** *Sternula albifrons* on 21 April and a **Great Spotted Cuckoo** *Clamator glandarius* on 30 December–1 January were second reports for Seychelles, whilst a **White-cheeked Tern** *Sterna repressa* on Aride on 2–3 January and a **Lesser Grey Shrike** *Lanius minor* on Aldabra on 6 April (Fig. 19) were third reports. A **Black Kite** *Milvus migrans* on 12–15 February on Aldabra was the fourth report for the archipelago. A **Reed Cormorant** *Phalacrocorax africanus* on 12 February and again on 12 May were fourth and fifth reports. A **Common Moorhen** *Gallinula chloropus* on Desroches on 12 March was the first report from west of the granitic islands (where it is resident).

A six-month programme to eradicate introduced birds on Assumption produced a wealth of bird sightings from an island rarely visited by ornithologists. These included a **Richard's Pipit** *Anthus richardi*, which species had been reported previously in Seychelles but not confirmed by SBRC, during 15 January–21 February, and a **Namaqua Dove**, believed to be a different individual from that on Aldabra (see above), on 16–17 January. An **Intermediate Egret**



Figure 19. Lesser Grey Shrike / Pie-grièche à poitrine rose *Lanius minor*, Aldabra, Seychelles, 6 April 2012 (Richard Baxter)

Egretta intermedia on 6 January–29 February was the third for Seychelles, whilst a juvenile **Purple Heron** *Ardea purpurea* was the first west of the Amirantes and inner islands, where it is now an annual visitor. A **Comoro Blue Pigeon** *Alectroenas sganzini* on 18–22 March was the first recorded on Assumption for more than a century. An **African Palm Swift** *Cypsiurus parvus* on 2–5 March was the second report. A male **Blackcap** *Sylvia atricapilla* on 31 March was the fourth report and a **Wood Warbler** *Phylloscopus sibilatrix* on 3 March the fifth.

Other notable sightings from Assumption included a **Squacco Heron** *Ardeola ralloides* on 16 February (five accepted records); a **Eurasian Hobby** *Falco subbuteo* on 16 December and 2 January; an **Eleonora's Falcon** *F. eleonora* on 8 December; a **Sandwich Tern** *Thalasseus sandvicensis* on 24 October (five records); at least seven **Common Swifts** *Apus apus* during 17 December–10 February; a **European Roller** *Coracias garrulus* on 16–21 March; four **Common Sand Martins** *Riparia riparia* between 4 January and 2 March; a **Mascarene Martin** *Phedina borbonica* on 3 April (seven records); at least 12 **Common House Martins** *Delichon urbicum* between 8 February and 10 March (11 records); four **Yellow Wagtails** *Motacilla flava* between 12 January and 3 March; at least nine **Northern Wheatears** *Oenanthe oenanthe* between 15 January and 5 March; an **Isabelline Wheatear** *O. isabellina* on 26



Figure 20. Oriental Pratincole / Glaréole orientale *Glareola maldivarum*, Alphonse, Seychelles, 12 April 2012 (Richard Jeanne)

January (eight records); five **Spotted Flycatchers** *Muscicapa striata* between 12 December and 5 March; a **Red-backed Shrike** *Lanius collurio* on 11 December (six records); and a female **Eurasian Golden Oriole** *Oriolus oriolus* on 11 December, with another on 15 March. If accepted by SBRC this raises the number of vagrants recorded on Assumption from five to 25.

Also of interest were a **Great Egret** *Egretta alba* on Aldabra on 27 January and 6 May; a **Yellow-billed Kite** *Milvus aegyptius* (= *M. migrans parasitus*) on Alphonse on 18–23 January (seven accepted records); a male **Lesser Kestrel** *Falco naumanni* on Frégate on 19–22 March (six records); a **Eurasian Hobby** on Aldabra on 11 December; a **Black-winged Pratincole** *Glareola nordmanni* on Aldabra on 11 January (11 records); an adult **Oriental Pratincole** *G. maldivarum* on Alphonse on 12 April (Fig. 20; 15 records); a **Pectoral Sandpiper** *Calidris melanotos* on Alphonse on 18–20 January (five records); a first-winter **Jacobin Cuckoo** *Clamator jacobinus* on Aride on 25 December, with another on Poivre on 18 January (ten records); a **Lesser Cuckoo** *Cuculus poliocephalus* on Aldabra on 24 December; a **Common Cuckoo** *C. canorus* on Aride on 26 December and 4 January; a **Common Swift** on Alphonse on 22–23 January; two **Mascarene Martins** on Aldabra on 11 March and up to five on 6 May, with a **Common House Martin** also there on 6–7 February; a **Common Sand Martin** on Alphonse on 9 March; a **Yellow Wagtail** on Frégate on 21 March and one of the race *lutea* on Aldabra on 29 March–5 April; single **Northern Wheatears** on Aldabra (believed to be different individuals) on 21 December, 11 January, 1 March and 4 March, with one on Alphonse on 20–27 January; and a **Spotted Flycatcher** on Aldabra on 31 January (per AS).

South Africa

Records from January–June 2012 include the following. The most remarkable record for the period

is that of a female **Little Crake** *Porzana parva*, which stayed at a small wetland at Clovelly, near Cape Town, from 21 March until 2 April (Figs. 21–22); more than 600 birders went to see this first for southern Africa. There is only one previous, single-observer, report south of the equator, from Ndola, Zambia, of a male seen on three dates in March 1980.

Noteworthy species seen in the waters south of Cape Point include **Wandering Albatross** *Diomedea exulans* (singles in February, April, May and early June, with seven in mid June), **Salvin's Albatross** *Thalassarche (cauta) salvini* (singles in early and mid June), **Grey-headed Albatross** *T. chryostoma* (singles in early and mid June), **Sooty Albatross** *Phoebastria fusca* (singles in late January and mid June), **Southern Fulmar** *Fulmarus glacialisoides* (one in mid June), **Spectacled Petrel** *Procellaria (aequinoctialis) conspicillata* (singles in late January, mid May and mid June, with two in early March), **Flesh-footed Shearwater** *Puffinus carneipes* (singles on 20 February, and 18 and 26 March), **Little Shearwater** *P. assimilis* of the race *tunneyi* (one on 27 March), and **Red Phalarope** *Phalaropus fulicarius* (two on 12 February).

In Western Cape, a juvenile **Wandering Albatross** was just off Robben Island and a **Southern Fulmar** at Seal Island, in False Bay, on 16 June. In Eastern Cape, a **Wedge-tailed Shearwater** *Puffinus pacificus* was found on Bird Island in Algoa Bay, Eastern Cape, on 10 January; this is almost certainly the same individual that has returned to the island for several consecutive seasons. In the same province, a **Flesh-footed Shearwater** was reported fairly close inshore at Kenton on 7 April. In KwaZulu-Natal, a **Barau's Petrel** *Pterodroma barau* was seen near a tuna longliner c.50 km east of Durban in early May, whilst a **Cory's Shearwater** *Calonectris diomedea* and the third **Great Shearwater** *Puffinus gravis* for the province were seen on 5 June. Following severe storms in late January, some unusual seabirds were

reported from Limpopo Province, including a **European Storm-petrel** *Hydrobates pelagicus* at Shimuvini Camp, Kruger National Park (=NP), a **Red-tailed Tropicbird** *Phaethon rubricauda* at Rankin's Pass (both birds subsequently died), and single **Sooty Terns** *Onychoprion fuscata* at Letaba, Kruger NP, Hoedspruit, and near Kanniedood Dam, with another at Renosterkoppies, in the Mpumalanga section of Kruger NP.

A moulting juvenile **Western Rockhopper Penguin** *Eudyptes chrysocome* was photographed at Cape Agulhas, Western Cape, on 14 January (see www.ispot.org.za/node/151429). A **Red-tailed Tropicbird** that has returned to the St. Francis Bay area, Eastern Cape, over the last few seasons, was back again on 20–22 January. At least two **Australasian Gannets** *Morus serrator* were still lingering on Malgas Island, in Saldanha Bay, Western Cape, on 25 January; one was seen there again around 22 March. A **Greater Frigatebird** *Fregata minor* was reported from Richards Bay, KwaZulu-Natal, on 5 March.

Approximately 30 reports were received of **European Honey Buzzards** *Pernis apivorus* throughout the country until at least early April. On 22 June, one was reported from Kirstenbosch Botanical Gardens, Western Cape. In Limpopo Province, an immature **Rüppell's Vulture** *Gyps rueppellii*, seen in Thornybush Game Reserve on 7 January, and two **Palm-nut Vultures** *Gypohierax angolensis* in Kapama Game Reserve on 24 June, represent unusual records for the province. In Western Cape, an immature **Brown Snake Eagle** *Circaetus cinereus* was observed near Wellington on 10 February, with a single at Rooisand Nature Reserve on 25 February. A juvenile **Bateleur** *Terathopius ecaudatus* discovered in Sibuya Game Park, just outside Kenton-on-Sea, Eastern Cape, was still present on 1–7 January; this species has not been recorded from the province in recent times and the current record is a few hundred kilometres from the nearest known population in northern KwaZulu-Natal. A **Pallid Harrier** *Circus*



Figure 21. Little Crane / Marouette poussin *Porzana parva*, Clovelly, near Cape Town, South Africa, 24 March 2012 (Trevor Hardaker)

macrourus was observed again near Harrismith, Free State, on 3 January. Single **Western Marsh Harriers** *C. aeruginosus* were seen at Marievale, Gauteng, on 7–10 January; near Kenton-on-Sea, Eastern Cape, on 7 January (no previous records for the province); Pongola, KwaZulu-Natal, on 13 February; and from the vicinity of the Amersfoort road bridge, Mpumalanga, on 20 February.

Small groups of **Amur Falcons** *Falco amurensis* were reported from the eastern part of Western Cape, from late January until late March, with one still present in the Karatara area near Sedgfield on 7 April; largest numbers were up to 50 near Wilderness on 21 February and 92 near Knysna on 15 March. In Eastern Cape, at least five were also present near Oyster Bay in late January. The first **Sooty Falcon** *F. concolor* for Western Cape stayed at Plettenberg Bay from 2 March until 16 April; this is at least 300 km west of the previous westernmost record. Still in the same province, an immature **African Hobby** *F. cuvierii* was photographed in West Coast NP on 6 June; this appears to be the second record for the province.

A **Spotted Crane** *Porzana porzana* remained at Marievale Bird Sanctuary, Gauteng, from 19 January until 15 February. Two **Crab-**

plovers *Dromas ardeola* were present at Richards Bay, KwaZulu-Natal, for some time; one was photographed on 4 January. Other long-staying birds include a **Eurasian Oystercatcher** *Haematopus ostralegus* in West Coast NP, Western Cape, on 7 January–9 February; what was almost certainly the same individual was seen again on 15 June. **Bronze-winged Coursers** *Rhinoptilus chalcopterus* were reported from Addo NP, Eastern Cape, on 21 January (still present on 6 February); Empangeni, KwaZulu-Natal, on 10 February (with a Sooty Falcon also there); Thula Thula Private Game Reserve, KwaZulu-Natal, on 15 February; and on the Saasveld Campus in George, Western Cape, on 1–2 May (apparently only one previous record for the province). The identity of a moulting golden plover *Pluvialis* sp. that stayed at Cape Recife, near Port Elizabeth, Eastern Cape, from 9 February until 24 March, was the subject of much debate; available evidence eventually suggested it was an **American Golden Plover** *P. dominica*. On 5 January, 11 **Caspian Plovers** *Charadrius asiaticus* were present at Spitskop Dam, Northern Cape, with four **Black-winged Pratincoles** *Glareola nordmanni*. **Pectoral Sandpipers** *Calidris melanotos* were reported from Western Cape (seven at Langvlei,



Figure 22. Little Crane / Marouette poussin *Porzana parva*, Clovelly, near Cape Town, South Africa, 27 March 2012 (Adam Riley / Rockjumper Birding Tours)

near Vleesbaai, on 8–14 January; a single at Strandfontein Sewage Works from 2 January until at least 3 March), KwaZulu-Natal (one at Cezwana Pan, near Mkhuze Game Reserve, on 26 March), Mpumalanga (two at Mkhombo Dam on 1–15 January, with at least one still present on 25 March) and Limpopo (one at the MPCA Dam, Zaagkuildrift, on 21 January). A **Black-tailed Godwit** *Limosa limosa* was seen at Langvlei, near Vleesbaai, Western Cape, on 8 January. A **Hudsonian Godwit** *L. haemastica* stayed at Langvlei, near Vleesbaai, Western Cape, on 12–31 January; this represents only the seventh record for southern Africa; the first was near Port Elizabeth in March 1987. A **Common Redshank** *Tringa totanus* was at De Hoop Vlei, Western Cape, on 1 February. Single **Terek Sandpipers** *Xenus cinereus* were at De Pan, north of Carltonville, Gauteng, on 14 January; Spitskop Dam, Northern Cape, around 20 January; and near Goose Marsh, on the Bitou River, Western Cape, on 8 February; the latter was still present on 12 February with a second individual. In Western Cape, a **Wilson's Phalarope** *Phalaropus tricolor* was at Vleesbaai in early January, and a **Red-necked Phalarope** *P. lobatus* at Strandfontein Sewage Works on 30 January. A **Red Phalarope** was reported in Kgalagadi Transfrontier Park, Northern Cape, on 6 March, whilst two were near Bloemhof Dam, Free State, on 5–9 April.

In Western Cape, a **Franklin's Gull** *Larus pipixcan* was observed

at Strandfontein Sewage Works on 25 March and at Dyer Island, near Gansbaai, on 2 May. A **Hartlaub's Gull** *L. hartlaubii* was located at the mouth of the Illovo River, KwaZulu-Natal, on 13 January; in the same province, one was in Richards Bay on 1 March, joined by a second on 4 March. An immature **Lesser Black-backed Gull** *L. fuscus* was again at East London, Eastern Cape, on 30 January; a third-year remained at Leeupan, near Evander, Mpumalanga, from 24 March until at least 29 April. In KwaZulu-Natal, a **Sooty Tern** that was regularly observed at the Umfolozi River mouth from 7 October 2011, was still present in early January; an exhausted juvenile was picked up at the Tugela River mouth on 7 January and taken into care. A **Black Tern** *Chlidonias niger* was seen at Loch Athlone, Bethlehem, Free State, on 25 January; there are few inland records in the subregion. An **African Skimmer** *Rynchops flavirostris* at De Pan, north of Carltonville, Gauteng, on 14 January was the first record for South Africa in *c.*15 years.

In Limpopo Province, a pair of **Senegal Coucals** *Centropus senegalensis* was discovered breeding in the north of Kruger NP in early February; this is apparently the first confirmed breeding for the park and may also represent the first for South Africa. In late June, a **White-fronted Bee-eater** *Merops bullockoides* stayed in Plettenberg Bay, Western Cape. A **Grey Wagtail** *Motacilla cinerea* was seen near Blougat Nature Reserve, Gauteng, on 23 January, with another in Madikwe Game Reserve, North West Province, on 5 June. A **Golden Pipit** *Tmetothylacus tenellus* was discovered near Biyamithi Weir, Kruger NP, Mpumalanga, on 26 February; this represents only the 13th record for southern Africa (*sa-rarebirdnews@googlegroups.com*, per TH).

South Sudan

The following sightings were made in the Juba area in March–June 2012. **Rock Pratincole** *Glareola nuchalis*, marked as rare or vagrant in Nikolaus (1987. *Distribution Atlas of Sudan's*



Figure 23. Long-legged Buzzard / Buse féroce *Buteo rufinus*, Ngorongoro Conservation Area, Tanzania, 22 February 2012 (Adam Scott Kennedy)

Birds), was found to be common in early March. Other March records include a **Eurasian Spoonbill** *Platalea leucorodia*, an **African Cuckoo Hawk** *Avecida cuculoides*, a **Steppe Buzzard** *Buteo buteo vulpinus*, and an adult **Common Black-headed Gull** *Larus ridibundus* (few previous records in South Sudan and / or new one-degree square), as well as a **Spot-flanked Barbet** *Tricholaema lacrymosa* (possibly the first record away from the Didinga Mountains). On 29 April, more than 12 **European Honey Buzzards** *Pernis apivorus* moved north along the White Nile, with an estimated 6,000 **White-winged Terns** *Chlidonias leucopterus* passing in three hours during the afternoon. Several **Black Herons** *Egretta ardesiaca* were present in June, whilst a **Lesser Moorhen** *Gallinula angulata* was seen on 16th and an **African Crake** *Crex egregia* on 22nd; all three species



Figure 24. Slender-billed Gull / Goéland railleur *Larus genei*, Lake Eyasi, Tanzania, 20 February 2012 (Adam Scott Kennedy)

are considered rare by Nikolaus (1987) (MM).

Sudan

In January–June 2012 the following were reported. Three **Hottentot Teals** *Anas hottentota* were photographed on the Nile near Al Dabbaseen bridge (15°30'53"N 32°27'50"E) on 11 May (JD), with at least 14 behind Soba hospital, near Khartoum, on the same day (TJ); Nikolaus (1987. *Distribution Atlas of Sudan's Birds*) mentions only two records for the country. **Egyptian Plover** *Pluvianus aegyptius* was regularly seen on the Blue Nile south of Khartoum in January; the species is not marked for the area in the *Atlas* (TJ). In early January, a **Little Stint** *Calidris minuta* mist-netted at Um Shugeira Island, Khartoum, had been ringed at the same site in 2010 (CW & EF). A group of six **Slender-billed Gulls** *Larus genei* was seen at Tuti Island, Khartoum, on 24 February, with one photographed at the Khartoum International Community School stables on 25 March; Nikolaus (1987) describes the species as uncommon on the Red Sea and mentions only a single inland record, from Khartoum, in spring 1980. The presence of **Little Tern** *Sternula albifrons*, already suspected when a few were seen at Tuti Island on 30 March, was confirmed when one was photographed on the Blue Nile 70 km south of Khartoum on 28 April; none had been recorded at the time of the *Atlas*. At Sunt

Forest, near Khartoum, an immature **Great Spotted Cuckoo** *Clamator glandarius* and a first-year **Pied Wheatear** *Oenanthe pleschanka*, both uncommon in Sudan, were photographed on 3 February. In early March, three groups of **Wattled Starlings** *Creatophora cinerea* were seen south of Khartoum; Nikolaus (1987) marks them as rare except in what is now South Sudan (TJ).

Swaziland

A pair of **Double-banded Sandgrouse** *Pterocles bicinctus* was observed in arid woodland c.7 km south-west of Big Bend, in the south, on 4 April 2012; this may constitute the first record for the country (*sa-rarebirdnews@googlegroups.com*, per TH).

Tanzania

The following reports are from August 2011–March 2012. A **Long-legged Buzzard** *Buteo rufinus* was photographed in the Ngorongoro Conservation Area on 22 February (Fig. 23); there are fewer than ten certain records for Tanzania (ASK). An immature **Ayres's Hawk Eagle** *Hieraaetus ayresii* was seen c.15 km beyond Lake Manyara towards Arusha on 29 February (PR). At least five **Western Banded Snake Eagles** *Circaetus cinerascens* were observed along the Nguya River (05°13'S 30°27'E) in December–March; two performed undulating display



Figure 25. Egyptian Plover / Pluvian fluviatile *Pluvianus aegyptius*, Murchison Falls National Park, Uganda, 13 March 2012 (Adam Scott Kennedy)



Figures 26–27. Thick-billed Cuckoo / Coucou d'Audebert *Pachycoccyx audeberti*, Dura, between Kibale and Queen Elizabeth National Park, Uganda, 25 March 2012 (Adam Scott Kennedy)

flights together in March. Also there, two pairs of **Crowned Eagles** *Stephanoaetus coronatus*, each with a single juvenile, were observed at their nests, which were 3 km distant from each other, in August–March; there appear to be few records for these two raptors in western Tanzania (HK). An immature **Levant Sparrowhawk** *Accipiter brevipes* was photographed (see *tzbirdatlas.blogspot.be*) in the Ngorongoro crater on 22 November (SM). A perched **Barbary Falcon** *Falco pelegrinoides* was observed in the Seronera area of Serengeti National Park (=NP) on 21 February; there are only three records for the country to date, but the species may be more frequent than the literature suggests. A juvenile **Lesser Moorhen** *Gallinula angulata* was seen at Speke Bay on 20 February; the species is rather uncommon in the north and there is only one previous record from this site. A **Lesser Jacana** *Microparra capensis* was on Lake Longil, Arusha NP, on 18 February; there are only three previous records from the park (PR). Thirty **Black-winged**

Pratincoles *Glareola nordmanni* flew north over Speke Bay Lodge, Lake Victoria, on 26 February (ASK). No fewer than 25 **Red-necked Phalaropes** *Phalaropus lobatus* were counted at Saadani Salt Works on 30 January, with 28 at Bagamoyo on 5 February; there are only six previous records for Tanzania (NBA). Two **Slender-billed Gulls** *Larus genei* photographed at Lake Eyasi on 20 February (Fig. 24) represent the fourth record for Tanzania (ASK). A pair of **Rufous-crowned Rollers** *Coracias naevius* was displaying near Seronera Lodge, Serengeti NP, on 21–22 February; there are very few breeding-season records. **Sharpe's Starling** *Pholia sharpii* was singing, displaying and nest-building in the Ngorongoro Wildlife Lodge grounds on 25–27 February (PR).

Tunisia

Records from a visit in May 2012 include the following. An adult **Egyptian Vulture** *Neophron percnopterus* was seen in El Feija National Park (=NP) on 10 May, with an immature also there next day; according to Isenmann *et al.* (2005. *Birds of Tunisia*) the species is rare in the area. Three **Rose-ringed Parakeets** *Psittacula krameri* were



Figures 28–29. Red-necked Phalarope / Phalarope à bec étroit *Phalaropus lobatus*, Bangweulu Swamps, Zambia, 11 November 2011 (Ruurd Noordhuis)

seen flying to Belvédère park in Tunis on 23 May; a small population occurs in the parks around the Belvédère and the University of Tunis. A **Eurasian Wryneck** *Jynx torquilla* was singing in El Feija NP on 10 May; there are few breeding records for the country, but nesting was already suspected at this site. A pair of **Grey Wagtails** *Motacilla cinerea* was found nesting at Aïn Soltane, Ghardimaou; this apparently constitutes the first breeding record for Tunisia. At the same site, a late **White Wagtail** *M. a. alba* was observed on 8 May. Both **Cetti's Warbler** *Cettia cetti* and **European Reed Warbler** *Acrocephalus scirpaceus* were observed just once, on 19 May, at Oued Mellegue, north of Kef (single singing individuals of each). A late **Common Chiffchaff** *Phylloscopus collybita* was singing in El Feija NP on 9–10 May, with a singing **Iberian Chiffchaff** *P. ibericus* also there; a mist-netted female of the latter species had a well-developed brood patch. A **Eurasian Oriole** *Oriolus oriolus* was singing in Belvédère park in Tunis on 23 May (GO, J-MP & MT).

Uganda

Records from a visit in May–June 2012 include the following. Five **Bat Hawks** *Macheiramphus alcinus* together in Murchison Falls National Park (=NP) on 20 June is an unusually high number (NB). In the same park, an **Egyptian Plover** *Pluvianus aegyptius* was photographed on 12–13 March (Fig. 25); this is much further south than the only documented records for the country, from the Aswa River, on the Uganda–South Sudan border, mentioned in *The Bird Atlas of Uganda* (Carswell *et al.* 2005), although the species is listed for the park by Roussouw & Sacchi (1998. *Where to Watch Birds in Uganda*) (ASK). Also there, an adult and three subadult / second-year **Slender-billed Gulls** *Larus genei* were seen on 21 June, with a **Common Black-headed Gull** *L. ridibundus* in breeding plumage and many **Grey-headed Gulls** *L. cirrocephalus* (NB). A pair of **Thick-**

billed Cuckoos *Pachycoccyx audeberti* was photographed at Dura, between Kibale and Queen Elizabeth NP, on 25 March (Figs. 26–27); there are very few reports from Uganda (ASK). Two **Horus Swifts** *Apus horus* were observed at Kidepo Valley NP on 31 May; no previous records for the north-east are mentioned in the *Atlas*. A pair of **African Green Broadbills** *Pseudocalyptomena graueri* was displaying at Mubwindi swamp, Bwindi Impenetrable NP, at a nest in the early stages of construction, on 12 June. **Plain-backed Pipits** *Anthus leucophrys* photographed at Kidepo appeared more like the extralimital race *goodsoni* than the expected *A. l. zenkeri*. A female **Ruaha Chat** *Pentholaea (=Myrmecocichla) collaris*, recently split from White-headed Black Chat *Myrmecocichla arnotti* (see *Bull. ABC* 18: 14), was seen at Rubanda on 13 June (NB). A **Common Chiffchaff** *Phylloscopus collybita* was observed at Mgahinga Gorilla NP on 31 March; this species has rarely been recorded in Uganda (ASK). A **Red-pate Cisticola** *Cisticola ruficeps mongalla* was singing at Aloet, south of Kumi, on 18 June; this locality is much further to the south-west than previously reported. At Buhoma good views were obtained of the recently described **Willard's Sooty Boubou** *Laniarius willardi* (see *Bull. ABC* 17: 17) on 10–11 June; the most conspicuous distinguishing morphological feature of this taxon is its grey to blue-grey iris (see also p. 143). A male and two female **Fox's Weavers** *Ploceus spekeoides*, Uganda's only endemic, were observed at Lake Bisina on 18 June, whilst a female of the rarely recorded **Shelley's Crimsonwing** *Cryptospiza shelleyi* was seen in Mgahinga Gorilla NP on 14th (NB).

Zambia

A **Red-necked Phalarope** *Phalaropus lobatus* was photographed in the Bangweulu Swamps on 11 November 2011 (Figs. 28–29); this is the second record for the country, the first being from 1985 (MdB, AdW, RV, RN).

Records were collated by Ron Demey from contributions supplied by

Neil Baker (NBa), Mark Beever / Rockjumper Birding Tours (MB), Jane van den Berg (JvdB), Marc de Bont (MdB), Nik Borrow / Birdquest (NB), Chris Brewster (CB), Joost Brouwer / Niger Bird Database (JB), Han Buckx (HB), Lars Buckx (LB), Marcell Claassen (MC), Mohamed Balla Condé (MBC), David Courtin (DC), Mary Crickmore (MCR), Jean-Marie Daulne (J-MD), Ron Demey (RD), Lieven Devreese (LD), Julie Dewilde (JD), Esmat Faki (EF), David Fisher / Sunbird (DF), Christian Goblet (CG), Trevor Hardaker (TH), Abdoulaye Harouna (AH), David Hoddinott / Rockjumper Birding Tours (DHo), Colin Jackson (CJ), Tom Jenner (TJ), Hiroshi Kaneda (HK), Verena Keller (VK), Adam Scott Kennedy (ASK), Barbie Kusserow (BK), David Kusserow (DK), Tim Kusserow (TK), Vincent Létourneau (VL), Ulf Liedén / Niger Bird Database (UL), Mark Mallalieu (MM), Laibo Manneh (LM), Johannes Merz (JM), Spike Millington (SM), Jérôme Mokoko Ikonga (JKI), Stein Nilsen (SN), Ruurd Noordhuis (RN), Georges Oliosio (GO), Wouter Plomp (WP), Jean-Marc Pons (J-MP), Bruno Portier (BP), Nigel Redman (NR), Grant Reed (GR), Katie Reese (KR), Detlef Robel (DR), Peter Roberts (PR), Volker Salewski (VS), Linda Sharp (LS), Lionel Sineux (LSi), Roger Skeen (RS), Adrian Skerrett (AS), Kadiatou Soumah (KS), Moez Touihri (MT), Chris Townend (CT), Rob Vogel (RV), Soumaila Wali (SW), Ian White (IW), Richard White (RW), Peter Wiprächtiger (PW), Alle de Wit (AdW), Chris Wood (CW), Niklaus Zbinden (NZ) and from Africa—Birds & Birding, Birding World, Dutch Birding, sa-rarebirdnews@googlegroups.com, birdingsouthsudan.blogspot.com, www.birdingsudan.blogspot.com, www.azoresbs.weebly.com, www.go-south.org, and www.surfbirds.com.

Contributions for Recent Reports can be sent to Ron Demey, Walter Thijsstraat 9, B-3500 Hasselt, Belgium and (preferably) by e-mail: rondemey1@gmail.com or recent_reports@africanbirdclub.org

Reviews



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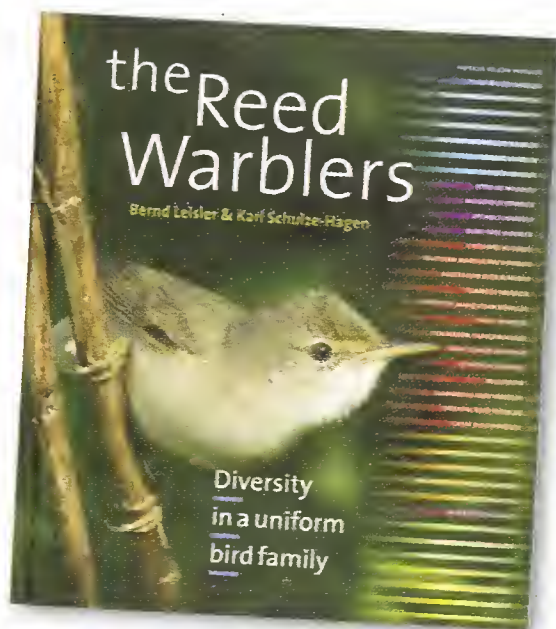


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The Reed Warblers. Diversity in a Uniform Bird Family

Bernd Leisler and Karl Schulze-Hagen (translated by Brian Hillcoat), illustrated by David Quinn, 2011. Utrecht: KNNV Publishing in association with Max Planck Institute for Ornithology. 327 pp, many photographs and maps. Hardback. ISBN 978-90-5011-3915. UK£65 (€69.95).

The reed warblers of the title refer to the recently defined family of Acrocephalidae, which comprises about 53 species in six genera, including *Acrocephalus*, *Hippolais*, *Nesillas* (Madagascar) and *Iduna* (four of the 'Olivaceous' group ex-*Hippolais*, and two of the *Chloropeta* yellow warblers of Africa). These 'plain' warblers are found on all continents except the New World, as well as many remote oceanic islands and present an extraordinary variety of life strategies and adaptations to their environment. The authors offer a remarkable synthesis and analysis of their own field work and of research by numerous others in the last 50 years, supported by a bibliography of over 1,000 titles. Fifteen chapters cover the fields of systematics, foraging and habitat use, ecomorphology, mating systems and reproduction, intra- and interspecific competition, migration, song, cuckoo parasitism, island species and conservation issues, as well as the eco-ethological convergence observed in New World marsh-dwellers.



What made reed warblers so popular with researchers (accessibility of low nests, high breeding densities) also made them very popular with cuckoos, and Eurasian species are by far the most frequent hosts of Common Cuckoo *Cuculus canorus*. The comparison of the different defence strategies of small and large reed warblers makes fascinating reading: Great Reed Warblers *Acrocephalus arundinaceus* are better able physically to remove a cuckoo's egg from the nest, whereas smaller Marsh Warblers *A. palustris* avoid the problem by simply puncturing the unwanted egg with the bill, and Eurasian Reed Warblers *A. scirpaceus* (with their weaker bill) mainly by deserting; Marsh Warblers are also much more successful than their congeners at rejecting cuckoo eggs, which must be related to their

shorter breeding seasons and reduced chances of relaying.

Mating systems vary from monogamy with life-long pair-bonding where food is scarce (in island species), to promiscuity with no male parental care in food-rich habitats (Aquatic Warbler *A. paludicola*). The long-term study of the cooperative breeding system of the Seychelles Warbler *A. sechellensis* by Jan Komdeur and collaborators is a model of scientific methodology. A combination of detailed monitoring of known colour-ringed birds, careful planning of translocation of certain individuals to unoccupied islands (which also saved the species from extinction) and sophisticated genetic technology have led to the complicated mechanisms of this system being unravelled, including the discovery that breeding females are able to control the sex of their offspring, by laying 'female' eggs when they need helping daughters!

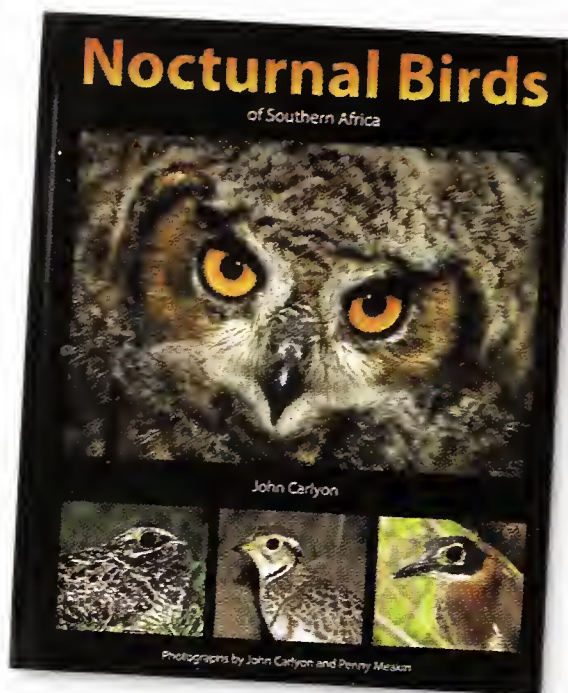
Some of the *Acrocephalus* warblers are among the world's best vocal mimics. I was interested to read that the authors interpret the extreme complexity of vocal repertoires as a side-effect of song learning rather than as an adaptation. In support, they cite a study of Black-browed Reed Warbler *A. bistrigiceps* showing that females do not at all prefer males with larger mimetic repertoires; this is the same conclusion I reached concerning the highly mimetic

songs of Marsh Warbler more than 30 years ago. They could also have mentioned the intriguing vocal play of Marsh Warblers peacefully countersinging with their neighbours during the incubation period, only when favourable weather allows them 'time off' from looking for food (*Le Gerfaut* 69: 475–502).

The chapter on conservation and population trends naturally devotes a large section to our most threatened European species, Aquatic Warbler; it also stresses the ever-increasing effect of climate change with (for instance) the spectacular loss of range of Icterine Warbler *Hippolais icterina* in Western Europe to the benefit of the expansion of range by the Melodious Warbler *H. polyglotta*. Long-distance migrants like Icterines cannot adapt to the ever-earlier peak in insect abundance and are among the climate change losers. The story of how reed warblers colonised Pacific islands (and eventually Australia!), based on genetic research by Alice Cibois and co-workers, also makes exciting reading.

I hope that these few examples are sufficient to convince everyone that this book should be read by not just warbler enthusiasts, but by all naturalists and students of behavioural and molecular ecology. The authors write with an evident love of their subjects, the text is both scholarly and a pleasure to read, and the whole is beautifully produced and illustrated. With few exceptions only English names of animal and plant species are used, and it is useful to learn (p. 327) that full names can be found in an appendix on the publishers' website.

Françoise Dowsett-Lemaire



This attractive book is the result of a 30-year fascination with nocturnal birds, and covers not only southern Africa's 12 owl and seven nightjar species, but also Bat Hawk *Macheiramphus alcinus*, night herons (two species), Dwarf Bittern *Ixobrychus sturmii*, thick-knees (two), coursers (two), and, more succinctly, a few partially nocturnal birds. It is thus the first to treat all nocturnal birds of the subregion in a single work. At first sight, one could be misled into thinking that this lavishly illustrated and beautifully produced volume of 21.5 × 26.5 cm is 'just' a coffee-table book, but, although it is not a scientific treatise either, it is far more than a merely pictorial work. In his preface, the author states that his aims were twofold: first, to illustrate as many aspects of the birds' life histories as possible with high-quality photographs and, secondly, to facilitate identification of species considered to be difficult to identify in the field, such as nightjars. In most cases he has succeeded splendidly in both aims.

An introductory chapter discusses the nocturnal and crepuscular habits of birds occurring in southern Africa and the adaptations required, as well as, more briefly, superstition and folklore associated with nightbirds, and the threats they face. Each species account includes sections on identification, biology and habits, breeding, conservation, how and where to find the species, a 'fast facts' box, and a distribution map

showing the species' global range. For (Western) Barn Owl *Tyto alba* and Spotted Eagle Owl *Bubo africanus* information is given on how to provide an attractive nest box for these species. All nightjars also have a very useful section summarising their distinguishing features. As an additional nightjar identification aid, a separate chapter presents photographs of a typical individual of all southern African species, all in the same pose, with a list of the key identification points, and colour illustrations showing the spread wing and tail patterns. All species are illustrated by photographs varying from a minimum of four (Dwarf Bittern) to a maximum of 19 (Fiery-necked Nightjar *Caprimulgus pectoralis*) or even 22 (Spotted Eagle Owl), with an average of 10–12. These include pictures of adults, young and nests, as well as habitat. Almost all were taken by the author and his companion Penny Meakin, and are generally excellent. The text, which is based on published research and the author's personal experience, is accurate and informative, yet highly readable. The distribution maps are large and clear but unfortunately rather approximate, schematic and, for regions outside southern Africa, sometimes quite inaccurate. It is a great pity that the author doesn't seem to have consulted recent regional field guides; some glaring errors could have been easily avoided. For example, Verreaux's Eagle Owl *Bubo lacteus* is much more widespread in western Africa than indicated, whilst Square-tailed Nightjar *Caprimulgus fossii* does also occur in Gabon, but not to the west of it. This is, however, the only negative point concerning this otherwise beautiful and interesting book, which is a pleasure to browse. It has been published privately by the author, whose enthusiasm for his subject is obvious throughout. It deserves to be owned by anyone interested in Africa's nightbirds.

Ron Demey

Nocturnal Birds of Southern Africa

John Carlyon, illustrated by Penny Meakin, 2011. Pietermaritzburg: privately published. 290 pp, c.370 colour photographs, 27 maps. Hardback. ISBN 978-0-620-51571-9. In southern Africa available via the author www.nocturnalbirds.co.za; elsewhere from WildSounds www.wildsounds.com/abc UK£34.99.



Measuring birds

Siegfried Eck, Jürgen Fiebig, Wolfgang Fiedler, Iris Heynen, Bernd Nicolai, Till Töpfer, Renate van den Elzen, Raffael Winkler & Friederike Woog, 2011. Wilhelmshaven: Deutsche Ornithologen-Gesellschaft. N.d. 116 pp, 25 two-colour figures. Spiral-bound softback with plastic covers. ISBN 978-3-923757-05-3. €24.90 from <http://www.media-natur.de>

For anyone needing to take or compare biometrics of birds, either from specimens or live birds, or indeed to compare the two, this is the first dedicated concise reference book available. It has simple, clear illustrations and explanations of the different ways measurements can be taken, highlighting those that are generally used as standard. As such it will be of great value to all those wanting to understand and use such measures, be they taxonomists, bird-ringers or amateur birdwatchers. This pocket-sized, sturdy (spiral-bound) weather-resistant book is very nicely produced and, despite the slightly high price tag for its size, is destined to become a standard feature of bird-ringers' and taxonomists' equipment alike. When viewing the often large number of potentially different ways to measure birds, it is hardly surprising that there is a need for such a book.

The authors clearly know their subject extremely well, and have the combined experience of working with specimens and live birds. The book is written in English and German, with the text in each language in parallel on each page.

The work is divided into two parts. The first provides general

information on measuring birds, with chapters on accuracy, reliability and comparability of measurements, differences in measuring fresh and dried specimens, numbering flight feathers and the use of skull ossification for ageing passerines, and concludes with an introduction to the necessary equipment. The second part is a field manual to actually taking measurements.

Excellent line illustrations mean that no uncertainty remains with regard to the exact measuring points. Besides recommending methods for standard measurements in ornithology, the book additionally lists for each measurement the historical differences that have existed in taking them. This helps enormously in interpreting measurements in the literature. The bringing together of methodology for measuring dead and live birds is a valuable achievement in this relatively small book, and importantly one that should go a long way to help standardise measurements taken into the future.

Chris Bowden

The Bird Species: Systematics of the Bird Species and Subspecies of the World. Bd. 1. Charadriiformes.

Norbert Bahr, 2011. Minden: Media-Natur Verlag. 192 pp. Hardback. ISBN 978-3-923757-11-4. €24.95.

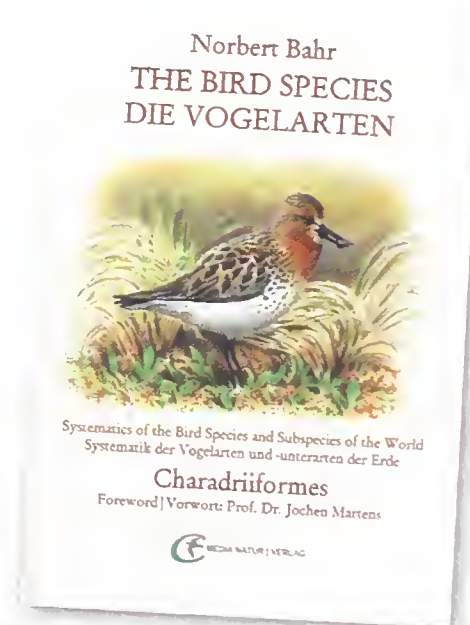
This is the first volume of a projected series intended to catalogue all of the world's avian species and subspecies. A second, covering pigeons to tropicbirds, is due in 2012. The project aims to incorporate the latest scientific discoveries and is being published in sections, the publishers say, to enable rapid updating. Updates will also be available to purchasers through www.thebirdspecies.com.

Charadriiformes covers waders, auks, skuas, terns and gulls, with buttonquails embedded between seedsnipes and Crab Plover *Dromas*

ardeola. After the briefest of lead-ins, the book begins its listing of species and subspecies. Up to half a page of text, often much less, introduces each family. For species and subspecies there are names, authorities and a summary of distribution. Footnotes lead helpfully toward published evidence and some alternative viewpoints, but confusingly each of these elements runs seamlessly into the same information in German. The paintings of Spoon-billed Sandpiper *Eurynorhynchus pygmeus* on the outside covers are the only illustrations.

This series aspires to follow the Peters checklist as the internationally recognised standard. Success seems unlikely, however, given the current rapid development of molecular science, the large amount of subjectivity inherent in taxonomy and the popularity of its competitors. Most notable among these is the IOC site www.worldbirdnames.org, which as a collaborative, web-based venture, constantly reviewed and free to all, already has a strong worldwide following. Bahr's version, presented with little explanation, can be surprising—not least his division of the IOC's *Calidris* into seven genera. It might, perhaps, represent better science but I suspect that few ornithologists will rush to adopt such an unfamiliar approach.

John Marchant



Baron Robert Stjernstedt: 1941–2012

With the death of Bob Stjernstedt in Lusaka (Zambia) on 26 May 2012, ornithology lost not just another 'African character', but one of the most knowledgeable students of African bird vocalisations. He had been ill for several years, and finally suffered a stroke.

Robert J. Stjernstedt was born in Stockholm (Sweden) on 8 April 1941, but at the age of four his mother took him to Britain. Later, he inherited a Swedish baronetcy on the death of his father. Bob was educated at Bryanston School in Dorset, where he developed a great interest in wildlife through the school's natural history society. Weekend cycling excursions to Poole Harbour and holiday sailing trips to Brittany for birds, together with local badger *Meles meles* watching, nourished his enthusiasm. In 1959 he entered University College, London, where he obtained his B.Sc. in zoology. Clive Mann, two years his junior at UCL, remembers his first meeting, with an untidy man who was clearing up the mess in the zoology laboratory caused by a yoghurt culture that he had left in his locker. They became friends, and in 1962 were members of the university's expedition to the Dahlak Islands in the Eritrean sector of the Red Sea. This adventurously involved visiting 18 islands in a small rowing boat. Their observations on the breeding Sooty Falcons *Falco concolor* and a number of seabirds were published in *Ibis* by Chris Clapham in 1964.

This first experience of Africa convinced Bob that he could live nowhere else, and in 1964 he took up his first post, in Tanzania as a tsetse control biologist. First at Arusha, then Mwanza and Nachingwea (Mtwara), Bob tried to control tsetse flies, and successfully mastered KiSwahili. Increasingly interested in bird vocalisations, recording was to be his main interest for nearly half a century, encouraged by his friend Claude Chappuis. It was at this time that I first corresponded with him, but I did not meet Bob until he moved to Zambia in October 1969. He went on to become Deputy Director of Tsetse Control Services in Lusaka, but was never your typical office 'wallah'.



Figure 1. Bob Stjernstedt in the field, 1965 (Clive Mann)

When I first encountered Bob he was living at Mbala, where his domestic situation could only be described as chaotic, a state that was to be the norm until the end. He had little need for luxuries, apart from a drink and his cigarettes (he rolled his own, and Richard Ranft comments that he would find shreds of tobacco with the tape cassettes Bob donated to the British Library of Wildlife Sounds). He had often to earn a living in ways that provided little compensation, other than being able to spend time in the bush. After leaving government service in 1981 he started a commercial fisheries operation on Lake Kariba, and ended up ferrying people, goats and fish in his battered old Land Rover. He had a spell in the Luangwa Valley working as guide for an Italian safari company, and found that conversing with clients was not too difficult if you waved your

arms around and talked of 'hippopotami' and the like. In recent years he led his own tours, 'Birding with Bob'.

Rarely at a loss to identify bird vocalisations, Bob was surprised when I told him the loud and haunting calls we heard at night while camped on the Ufipa Plateau in Tanzania were those of a small mammal, Tree Hyrax *Dendrohyrax arboreus*. Like several people with a good ear for bird calls, Bob was a keen musician, and he and Dylan Aspinwall for a time played clarinets in the Lusaka Orchestra.

There are many stories about Bob's lack of organisation and misfortunes, all of them remembered good-naturedly. There is hardly anyone who knew him in Zambia who has not seen him drive into a river, fall down a cliff, get utterly lost and arrive either very late or (just as often) quite unexpectedly. We remember vividly one such event that attracted the attention of an international assemblage of prestigious ornithologists. It was at the Pan-African Ornithological Congress held in the Seychelles in 1976, where Bob wished to record the rare and little-known Seychelles Scops Owl *Otus insularis*. When recording, he preferred to be alone, so he wandered off one evening to try to tape them. Unfortunately he did not watch his footing and fell down a serious hillside. Turning up later at the five-star hotel (recently inaugurated by the country's President), Bob in torn shorts and covered in blood was disappointed in not being able to enter for the dinner (and not just because he was not wearing a tie). Many birdwatchers in Zambia encountered security problems during the period of apartheid in South Africa and the troubles in Rhodesia, and Bob was more than once subject to the close attention of the police and military. Mike Bingham recounts one of several such incidents, when Bob and some friends were arrested by Zambian soldiers when they stopped for lunch at the roadside. Bob was as usual carrying a tape-recorder and parabolic reflector, and a set of maps of Zambia, as part of his bird atlas surveys. The authorities were so certain they had made a significant capture that they held them prisoners for 12 days, before the intervention of the British High Commission. A variety of 'Bob stories' can be found in *BirdWatch Zambia's* issue for June 2012.



Figure 2. Baron Robert Stjernstedt, Zambia, 2010 (Daniel Moyer)

Bob's few publications do little justice to his enormous experience. As co-author he helped clarify the taxonomic status of *Bradypterus* warblers and indigobirds *Vidua* spp., and found the first authentic nest and eggs of the Bar-winged Weaver *Ploceus angolensis*. But a large series of sonograms of scrub-robins *Erythropygia* spp. (made for him by my wife Françoise) got no further than decorating the walls of his living-room. Fortunately we do have his *Sounds of Zambian Wildlife* (2008), a DVD featuring MP3 recordings of 574 Zambian birds, many not available commercially elsewhere. Regrettably the DVD does not include details of recording localities and dates, but some of this information can be traced from a series of cassettes he produced in the 1970s and 1980s.

Bob was a gentleman, courteous, kind and quietly spoken (fortunately his impeccable diction can be heard in his early published cassette recordings). For many years Bob, living at Livingstone, represented Zambian ornithology. He will be greatly missed by all who enjoyed his friendship, and our sympathy goes to his daughter Laura. For help in assembling the memories on which this account is based I thank Laura, and also Pete Leonard and Clive Mann.

Robert J. Dowsett

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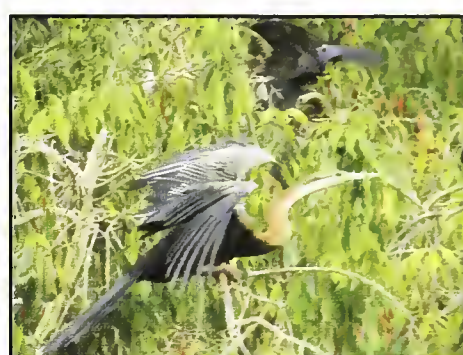
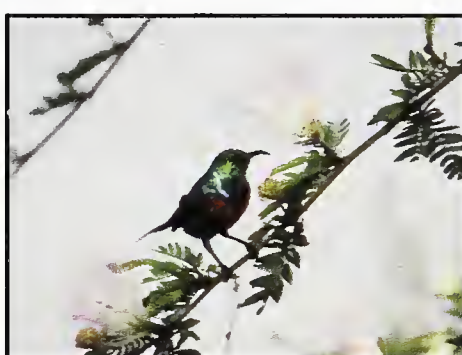
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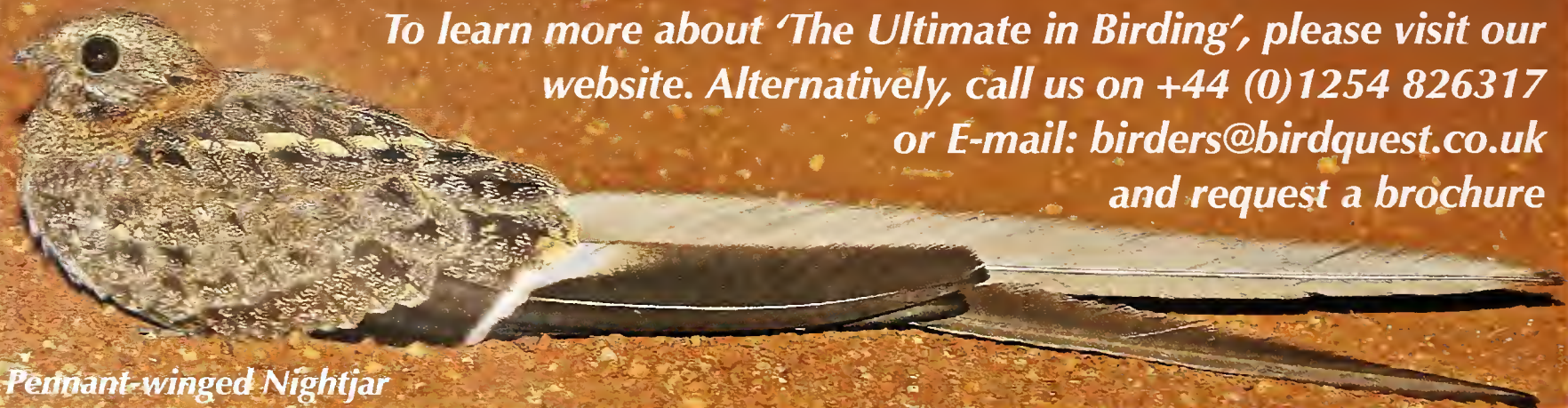
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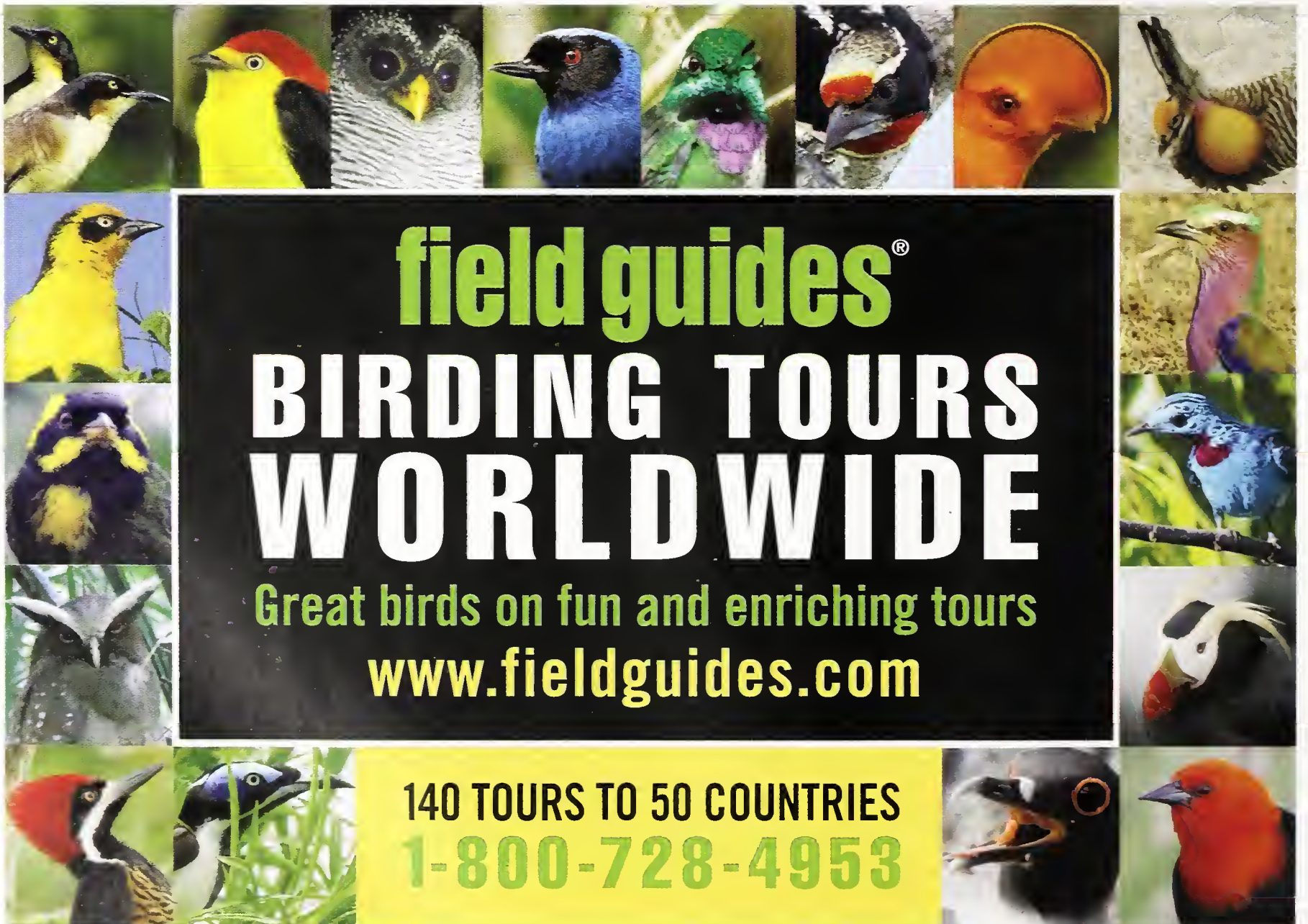


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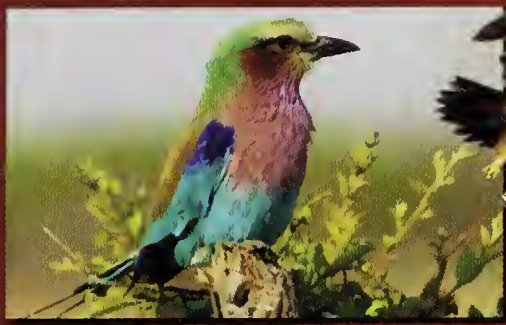


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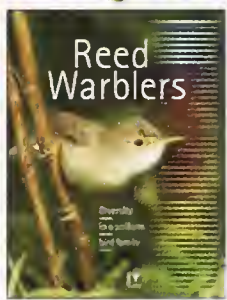


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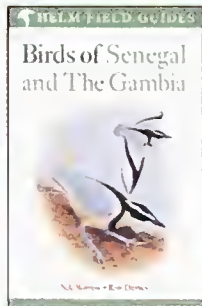


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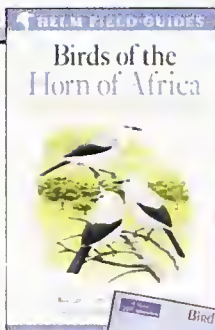
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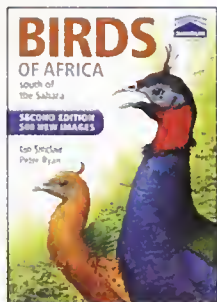
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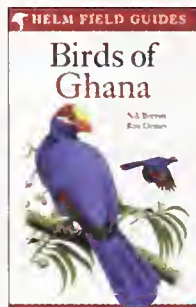
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Zambia: Rod Tether, Kutandala Camp, North Luangwa NP. E-mail: rod@kutandala.com

Zimbabwe: The Executive Officer, BirdLife Zimbabwe, PO Box RVL100, Runiville, Harare. E-mail: birds@zol.co.zw.

The ABC Representatives scheme aims to support existing members by providing a local point of contact in their region, for example, to answer queries to the Club, to solicit submissions for the bulletin, and possibly to arrange local meetings for members. Existing ABC members can contact their local Representative in the first instance with queries relating to the Club. ABC Representatives help to recruit new members in their region, for example, by distributing posters and arranging local advertising. In Africa, ABC Representatives help to identify opportunities to invest the ABC Conservation Fund and candidates for the Supported Membership scheme.

The Club aims to appoint many further ABC Representatives. If you are interested in supporting and promoting the Club in your region, have any queries, or require further information relating to the ABC Representatives scheme please do not hesitate to contact the Membership Secretary at the Club address, e-mail membership@africanbirdclub.org.

ABC is seeking Country Representatives in the following countries, principally within the Club's region: Azores, Benin, Burundi, Cameroon, Cape Verde Islands, Chad, Comoros & Mayotte, Côte d'Ivoire, Djibouti, Equatorial Guinea, Gabon, Guinea-Bissau, Guinea Conakry, Madeira, Mauritania, Mauritius, Morocco, Mozambique, Netherlands, Niger, Réunion, Rodriguez, Sierra Leone, Socotra, Somalia, St Helena, Sudan, Togo, Tristan da Cunha and USA.

to find all the answers but will try to help. The service is free to ABC members. Contact: Keith Betton, who is also custodian of ABC's journal library, at 8 Dukes Close, Folly Hill, Farnham, Surrey, GU9 0DR, UK. Tel: +44 1252 724068. E-mail: info@africanbirdclub.org.

AfricanBirding e-mail discussion list

Launched, in October 2000, by the ABC and the Pan-African Ornithological Congress, AfricanBirding or AB, as it is known, has become a useful forum for those interested in African birds. To join the discussion, which averages 1–2 messages a day, send a blank e-mail to AfricanBirding-subscribe@yahoogroups.com. You will then receive an e-mail instructing you how to join.

The Club also maintains a list of members' e-mail addresses. This list is confidential and used only for Club purposes, e.g. for informing members of upcoming events and news concerning the Club. It is not divulged to anybody outside the Club or used for commercial advertising. At present it includes addresses for about 50% of the membership. Please send any additions or amendments to the Membership Secretary: membership@africanbirdclub.org.

Supported and Affiliated Membership

The Supporting Members scheme is a key part of the Club's strategy of encouraging the spread of knowledge and understanding of birds as widely as possible throughout Africa. The scheme enables Africans who would not otherwise have the resources to join, to become members of the Club. The scheme is funded by Supporting Members who pay a minimum of UK£30 to cover their own membership and the subscription of at least one African member. The money they contribute over and above their own subscription is placed in a special fund that is used to cover the membership expenses of African members whom they may have nominated, or who have been nominated by other Club members.

Although we have suggested a minimum of UK£30 to become a Supporting Member, any contribution is welcome. All members of the Club, even if they do not feel able to become Supporting Members themselves, are invited to nominate candidates for supported memberships. Candidates should be nationals of an African country, with a genuine interest in wild birds but without the resources to become members in their own right. Africans who think they may qualify are very welcome to put their own

names forward, supported by a letter of recommendation from someone such as their employer, teacher or an officeholder in a local wildlife organisation.

The scheme now also includes clubs who wish to be affiliated with the African Bird Club in African countries where it is difficult for local individuals to become members in their own right. Clubs accepted for membership under the scheme receive up to six copies of each issue of the bulletin for circulation among their members. Instead of paying a membership fee, Clubs are asked to provide a short annual report on their activities that may be published in the bulletin. Clubs interested in becoming Affiliated Member Clubs are invited to apply to the ABC Secretary giving details of their membership, their constitution or a statement of their objectives and conditions of their membership, and their activities to date.

ABC Information Service

ABC offers a service to help members with information requests. Perhaps you are planning a trip to Africa and need local advice, or maybe you are in search of an obscure fact about an African species. The Club does not guarantee

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