

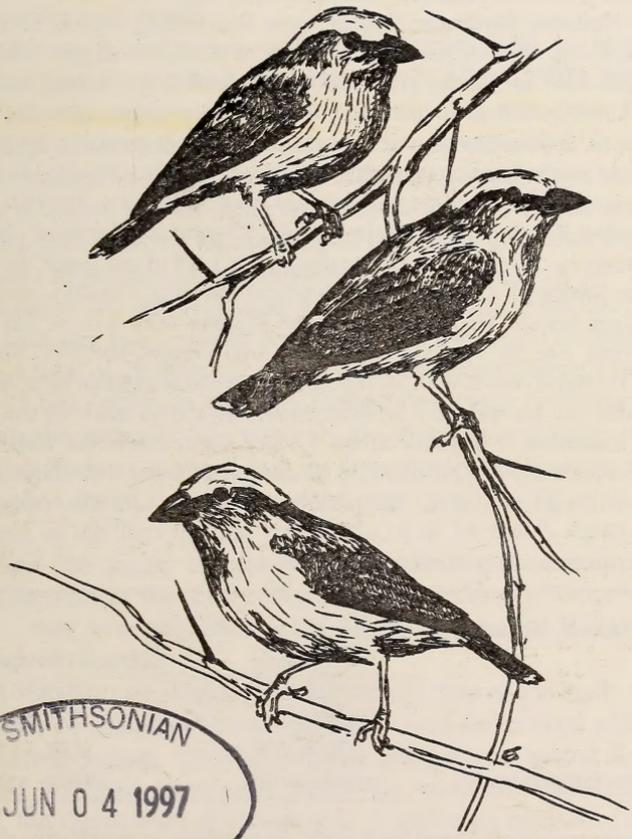
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# Kenya Birds

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A joint publication of the Department of Ornithology, National Museums of Kenya and BirdLife Kenya.

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## Editorial

Yes, it's World Birdwatch time again! Once more, on the weekend of 7–8 October 1995, BirdLife International is organising a global celebration of birds. This time the focus is on the habitats they live in, many of which are under severe threat.

In Kenya we hope that birders will use the weekend as an excuse to dust off their binoculars and field guides, get out into the field and enjoy themselves — while at the same time collecting useful data on where our birds are and what they are doing.

There's something for **everyone** in World Birdwatch '95:

- Join in the **National Birdmap**. Whether you feel birding should be a solitary activity or a social event, whether you are a beginner or an expert, all you need is **three spare hours** on Saturday or Sunday (or both), somewhere to go birding and a set of instructions from the Ornithology Department. The idea is to collect data this weekend from as many places as possible for our computerised bird distribution database. You don't have to visit an exotic location, though — **all** records will be valuable. To take part, just send off the enclosed form and we will forward the details and a checklist.

- Join the **Sunday Special Birdwalk** in Nairobi, Kisumu or Mombasa. We will be finding out how many birds we can see in one morning in each of our major towns. **Meet at 08:30 sharp on Sunday 8 October** at the National Museum, Nairobi; Sunset Hotel, Kisumu; or Bamburi Nature Trail, Mombasa. The Kisumu walk will be led by Jean Agutu, the Mombasa one by Marlene Reid and Lorna Depew. We'll do our best to provide transport for those who need it — if you have a vehicle and can help, that would be much appreciated. All are welcome for what should be a great morning out.

- Join us on **Saturday 7 October** at the Louis Leakey Memorial Hall, National Museums of Kenya for a day of bird videos, a special guest lecture with slides, and other activities. Videos will start at 11 a.m.; the guest lecture will be at 3 p.m. (speaker to be announced).

See you in October. In the meantime, good birding!

### Subscription rates, Volume 4

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Please address all correspondence to: The Editors, **Kenya Birds**, Department of Ornithology, National Museums of Kenya, P O Box 40658 Nairobi, Kenya.

Front cover illustration: Grey-capped Social Weavers *Pseudonigrita arnaudi* by Edwin Selemo. Typesetting and layout by BirdLife Kenya; printed by Omnia Printers, Nairobi.

## News from Kenya and abroad

### Department of Ornithology

#### Grassland birds prefer grass

The Department's study of two montane grassland species with restricted ranges, Sharpe's Longclaw *Macronyx sharpei* and Jackson's Widowbird *Euplectes jacksoni* (see *Kenya Birds* 3(2)), is ongoing. Fieldwork on the Kinangop Plateau, supported by the Royal Society for the Protection of Birds, has now produced some preliminary results.

Following a brief survey made on 31 October 1994, we have made four two-day field trips. During the first of these (29–30 March 1995), fifty-eight 4 ha plots were selected along a 60 km-long transect that runs from Kirima via North Kinangop town towards Njabini and back to the so-called 'fly-over'. They cover various types of montane grassland (41 plots), ranging from heavily grazed areas to less disturbed patches along small stream valleys, as well as shambas (9 plots) and woodlots (8 plots). By covering all the habitat types that are present, we hope to be able to produce a rough population estimate for the whole Kinangop Plateau by the end of the survey. During the next three trips, at the end of April, May and June, each plot was censused by three people walking in straight lines about 50 m apart. A total of 29 plots, all in grassland, produced Sharpe's Longclaw, totalling 44 to 75 individuals on each trip. Despite being very preliminary, the data reveal that this species tends to be unevenly distributed over different types of grassland: it is less frequent in short, heavily grazed grassland (present in 5 of 10 plots); more often found in short grassland with tussocks (10 of 16 plots); and most frequent in medium to long grassland (14 of 14 plots). Apart from the type of grassland, the quality of the surrounding habitat also seems to have a significant effect on whether the species is present. For Jackson's Widowbirds we have less data — they were only observed in 7 out of 58 plots, so it is too early to see any pattern.

So that we can produce a computerised map of the study area, the latitude-longitude co-ordinates of each plot have been determined with use of a Global Positioning System. This will help us interpret the spatial distribution of both species, and their movements within the study area. In parallel with the field study, the Department of Ornithology is gathering records of both species from around the country for its computerised database. Thanks to all those who have already sent their records to the Department. I would like to encourage other readers to do the same. — *Luc Lens, P O Box 40658, Nairobi.*

### Mount Ololokwe surveyed

From 15–18 June 1995, a team of biologists from the National Museums of Kenya and the Peregrine Fund visited Mount Ololokwe, an impressive isolated massif north of Isiolo, Samburu District, to undertake a preliminary survey of its plants, reptiles and birds. The site is particularly well known for its variety of breeding raptors, including Rüppell's Vultures, Verreaux's Eagle, Martial Eagle and Peregrine Falcon (all seen by the survey) — and the Taita Falcon is also reputed to breed there. Indeed, over 60 species of raptor alone have been recorded at this site. The top of the mountain is still covered by Cedar forest, despite frequent burning by local farmers for cattle grazing, and we found some interesting birds living in these woods, such as Gambaga Flycatcher, Grey-headed Batis and Stripe-breasted Seed-eater. If funding applied for from the Belgian government is forthcoming, further fieldwork, including mist-netting of birds, may take place. — *Luc Lens, P.O. Box 40658, Nairobi.*

### Anyone for cormorants?

Brooks Childress, our newest (and, by some stretch, also our oldest) student Research Associate, is under way with his study of the comparative ecology and status of the Great and Long-tailed Cormorants at Lakes Naivasha and Oloidien, a two-year project he is doing for his PhD at Leicester University.

The primary aims of his study are better to understand recent population changes and breeding patterns of these top predators and to assess their potential as indicator species for the overall health of the lake ecosystem. The Long-tailed species, for example, suffered a 64% population decline from January 1993 to January 1995 and there are currently less than 100 individuals on both lakes combined. Just as puzzling, the breeding pattern of the Great Cormorant of Lake Naivasha has been quite erratic, with fairly large breeding colonies in some years of high lake levels and very little breeding in other years.

During his initial study period Brooks has spent most of his time documenting the daily behaviour patterns of the two species, with the help of a boat and engine kindly provided by Joan Root and Elsamere Conservation Centre, respectively.

Next, he plans to study the foraging and breeding behaviour of these two species. The current scarcity of the Long-tailed Cormorant on the lake may indicate that it is breeding somewhere in the vicinity. If any of our readers is aware of Long-tailed or Great Cormorant breeding activity, past or present, in the Central or Rift Valley Provinces around Lakes Naivasha and Oloidien, Brooks would appreciate hearing from you at Box 1497, Naivasha.

### Call of the Yellowneck: A gamebird project update

A typical morning in the *Acacia* scrublands on the group ranches in Loitokitok Division, Kajiado begins with the last howl of hyaenas, angry perhaps that the approaching day has denied them an opportunity to snatch a calf from the Maasai *bomas*. The Yellow-necked Spurfowl, the most abundant gamebird here, usually shuffles around in what resembles a clumsy waltz, tries a few wing beats and, maybe a little surprised that it is still alive after all, belts out a self-congratulatory 'krooo....waak'. Which you would too, if most living forms you encounter on your daily schedule have only one idea on their minds — turning you into a meal.

Gamebirds. A term that means different things to different people: families Phasianidae and Numididae to ornithologists, but under the present law four other families are included, the Anatidae, Scolopacidae, Pteroclididae and Columbidae — 78 species in total. The difference would not matter if it did not reflect the challenge there is for developing a monitoring system for these birds, the goal of the gamebird project at the Department of Ornithology.

In the last *Kenya Birds* issue, I reported on progress made on establishing a monitoring system on Mbirikani group ranch. This is an update. The period from November to date (June) has been closed to gamebird hunting in the southern part of the country. Efforts have therefore been directed at consolidating training for the field assistants employed by the ranch and initiating a similar system for Elangata Wuas, Kilonito and Torosei group ranches in the Central Division of Kajiado.

The training has been in two main fields. First, to determine gamebird densities using line transects, point counts and the flush-and-count method. The last unfamiliar? It means just that — after a paper by Mentis and Bigalke, 1985. The field assistants have also been trained to monitor breeding condition by recording observations and timing of pairing. The reproductive organs of birds significantly increase in size when in breeding condition. The field assistants have thus been trained so that they can dissect a regular number of gamebird samples, obtained from hunters, and measuring the size of the gonads. This of course assumes the hunters will give up their birds for this purpose. A little public relations would help, and if that does not work, I explain, try another line. Just say you will only take one tiny internal organ and give back the rest.

The next phase involves expanding the same methods to five other group ranches in Loitokitok Division, in order to be able to compare them scientifically. The questions from the locals are similar everywhere — the most common one, "Don't you have anything to do, young man, following birds at early hours of the morning?". Of course I do have something to do, and that is to develop simple methods for monitoring gamebird populations and their breeding cycles. This will allow sustainable offtake limits to be set for hunting and rearing, I patiently try to

explain at the village *baraza* or to the class 8 science class at the local primary school. "Might you know the equivalent of 'sustainable' in Maa?", the interpreter whispers to me. "I am counting them!", I declare, not sounding particularly convincing, but that is not the crucial issue.

The crucial issue is that gamebird populations in the country are conserved, with benefits from the variety of ways they may be used going as far as possible to the communities that maintain them. These methods have worked well on Mbirikani, with minor modifications to be made; but they may not be applicable to all the areas where sport hunting and a relatively new use, gamebird rearing, is carried out.

Discussions have been held with the KWS on possibilities of collaboration with the Department of Ornithology, particularly in identifying the data needs for all gamebird populations. The data would be collected by trained field assistants, supervised by KWS Community Service personnel in the respective areas. A concept paper on this is currently being developed. The African Wildlife Foundation continues to support this work financially and I am extremely grateful to them.

Meanwhile, dusk on the group ranches is a bit of an anticlimax, another less triumphant 'kroo...waak' from the 'yellownecks' marks the end of a day, the beginning of another, maybe more fruitful one for the hyaenas. — *Alfred Simiyu, P O Box 40658, Nairobi.*

### **Are sandgrouse shooting seasons wrong?**

From November 1994 to April 1994 I have been collating and analysing data from hunter John Sutton's diaries. Mr John Sutton, a tour operator and conservationist, has been keeping records on the size of gonads of sandgrouse he and his clients have shot over eleven years dating back to 1970. The size of gonads in birds is a good indicator of their breeding condition. The data cover two species of sandgrouse, the Black-faced *Pterocles decoratus* and Chestnut-bellied *P. exustus*. They are limited by the fact that, obviously, they were collected only during the open shooting seasons of the time.

The proportions of birds breeding during particular periods of the year were compared for the current open and closed periods for hunting. This was done for three regions corresponding to the districts of Samburu, Kajiado and Isiolo. The effect of rainfall on the breeding seasons of these birds was also investigated.

The results showed that the two species have two peak breeding seasons in a year, January to March and July to October. These correspond to the main dry periods. However, within the periods for which there are data, there was no obvious correlation between the proportions of birds breeding during any particular month and rainfall (measured in various ways). To tell whether the

same sub-population of sandgrouse breeds twice a year, or whether there are different sub-populations breeding successively, requires a detailed study with intensive marking of different sub-populations.

The results indicate that the set shooting season for the Kajiado region, presently 1 July to 31 October, is totally mis-timed, since it coincides with a peak in sandgrouse breeding. This needs reviewing urgently. Further research to monitor the yearly variations of breeding populations is also needed. — *Peter Njoroge, P O Box 40658, Nairobi.*

### **Bee-eaters spurn researchers**

Brent Burt, a doctoral student from the University of Arizona, USA, came to Kenya in May for a short collaborative research project with the Dept. of Ornithology. He is working on the evolution of cooperative breeding in the bee-eaters, using a phylogenetic approach. Little is known about the breeding habits of around a third of the world's 24 bee-eater species, hence the need for information from the field to complete the phylogeny. Several of these little-known species — the Carmine, Little, Cinnamon-chested, Somali, Blue-headed and Madagascar — breed in Kenya.

Brent was joined for the study by Edward Waiyaki and Peter Njoroge both from Ornithology Dept., along with two undergraduate student volunteers from University of Arizona. On 20 May 95, the group left for Kakamega Forest in pursuit of the scarce and little-known Blue-headed Bee-eater. At Isecheno forest station, forest guide Titus Gutwa joined the team. The group struck lucky the next day, spotting a pair of the bee-eaters right behind the guest house. Over the course of the next few days two more pairs were sighted, but intensive searches failed to turn up more. Further efforts to search for the bee-eaters at Lukhusi, in the north-east, and in the Yala and Buyangu forest reserves (where they have been located in the past), were also unsuccessful.

Continuous observations of the Isicheno birds failed to reveal their breeding or roosting sites. The group decided to collect general behavioural data on two pairs, focusing on foraging, habitat preference and activity time budget. Preliminary analysis suggested that the birds have a preference for dead and/or leafless trees in open and edge areas. They also had a tendency to forage from the canopy edge. The most intriguing behaviour we saw was one bird feeding another one five times on wasps, each time after beating the insect soundly against a branch.

An unexpected finding was that the birds always seemed to be in pairs, rather than the larger groups that would be expected if they were cooperative breeders. However, records of more than three birds have been reported and at approximately the same time of year.

Having failed to unravel the breeding habits of the Blue-headed Bee-eater the group switched to the Cinnamon-chested Bee-eater in Nairobi. These birds were much easier to locate, but they had already bred and groups were busy feeding fledglings. Better luck next time, perhaps... — *Peter Njoroge, P O Box 40658, Nairobi.*

### **Welcome to new staff — goodbye to old**

The Department warmly welcomes Jane Wanjiku and Titus Gutwa, who have joined us as a Secretary and Curatorial Assistant, respectively. Meanwhile, Cecilia Gichuki, our Curator of Birds for over a decade and familiar to many *Kenya Birds* readers, has moved to the Museums' Wetland Programme in the Centre for Biodiversity. Fortunately Cecilia is not going far — the Wetlands Programme is housed in the same building — and we hope to be able to draw on her expertise in the future.

### **Note of thanks**

Many thanks to Joan Root for her very generous donation of Volumes I and II of *Birds of Eastern and North Eastern Africa* by Mackworth-Præd and Grant and a copy of *The Breeding Seasons of East African Birds* by Brown and Britton. These books will be a great help in our field and laboratory work.

### **Any old chairs?**

After years of extreme overcrowding, the Department finally has an extra office (at the base of the stairs in the new Natural Sciences building) that will help to reduce the congestion. Departmental Research Scientists have breathed a sigh of relief — but the drawback is that we don't have any furniture. If any of our readers have office furniture — desks, chairs, shelves or filing cabinets — that they are no longer using, please consider donating them to a good home.

## **BirdLife Kenya**

### **Bird Day '95**

On 9 June 1995, BirdLife Kenya and the Ornithology Department, National Museums of Kenya organised a day of bird events at the National Museum, Nairobi. More than 200 people of all ages turned up to take part in birdwalks, try out origami (Japanese paper-folding), watch bird videos and listen to a range of invited speakers. Lecturers included Nathan Gichuki on conservation science and action, Don Turner on the history of ornithology in Kenya, Simon Thomsett (complete with live eagle) on birds of prey, and Dave Richards on where to watch birds in Kenya. Bird sculptures, paintings and crafts were on display. The day,

intended as a celebration of Kenya's 1,076 bird species, aimed to raise public awareness of our diverse birdlife and the threats that it faces. *Many thanks to all who helped organise this event.*

### **A helping hand for heronries**

BirdLife Kenya has provided start-up funds for two projects focusing on colonial waterbird breeding sites near Lake Victoria. The first aims to create a community sanctuary for the Pink-backed Pelicans at Rakewa (*see article, this issue*). The second will set up a monitoring scheme for the Ahero-Buoye-Orongo heronries near Kisumu, with involvement of local people and students from Maseno University. These sites are extremely important for breeding waterbirds but are under increasing threat from human pressures. The work will be carried out as a collaboration between the Department of Ornithology, NMK, the Lake Victoria Wetlands Team, and Maseno School.

### **Arabuko-Sokoke trophies**

Arabuko-Sokoke Forest is among the most important sites in Kenya for bird (and biodiversity) conservation. The forest has been much in the news this year — and for all the wrong reasons. A proposal in March 1995 from the District Development Committee to degazette a substantial chunk of *Brachystegia* woodland and mixed forest met opposition from many quarters. The East Africa Natural History Society and East African Wildlife Society publicised the conservation issues involved, and took part in a delegation to the forest to talk to local leaders.

The threat of degazettement appears to have lifted — for the time being. However, many serious and potentially explosive problems remain unresolved, including issues connected with human-animal conflicts, access to water resources and land rights. These are big problems; but there is nothing to be lost by starting small. At the suggestion of the Arabuko-Sokoke Forest Management Team, a coordinating body for the management of the forest, BirdLife Kenya, the EANHS and other NGOs have donated a number of Arabuko-Sokoke trophies for schools. These will be given out at an open day for the forest to be held at Gede Forest Station on 30 September. Meanwhile the EANHS has set up a special committee to monitor Arabuko-Sokoke issues, and will be working through its Kipepeo Project to start public awareness and eco-tourism initiatives.

*Anyone interested in donating a schools trophy for the forest, please contact the Secretary, BirdLife Kenya, P O Box 44486, Nairobi.*

### **No let-up in forest degazettement**

Away from Arabuko-Sokoke, forest degazettement continues to be a worrying issue. In recent months, important tracts of indigenous forest have been excised in

South-west Mau, Kamiti, Kiambu and Kinari Forests. A recent study by IUCN shows that over the past five years the area added to the forest estate actually outweighs excisions. However, the additions have mostly been of small forests, or areas of low forest and thicket without substantial biodiversity. The excisions have mainly been of moist forests in areas of high potential for agriculture, which are among the nation's richest reservoirs of biodiversity.

Kenya's indigenous forest estate is already so small and fragmented that its continued disappearance is a serious conservation problem. The shortage of agricultural land cannot be solved in the long-term by converting our forests to farms — indeed, by disrupting environmental cycles this will make problems worse. The IUCN report identifies the existing Forests Act as a major factor behind the rampant excisions going on at the moment. In contrast to the Wildlife Conservation and Management Act, which gives Parliament the responsibility of deciding whether to degazette a National Park, the Forests Act leaves the decision in the hands of one person — the Minister for Environment and Natural Resources. Although 28 days notice must be given of the intention to degazette, there is no mechanism for objections to be registered, and in practice this is a mere formality. Kenya's forests deserve better protection than the whim of a politician.

### **Owls are a hit**

Many people who are not birdwatchers strongly dislike owls — in most traditions they are seen as at best mysterious, at worst harmful and evil creatures. So it was with mixed feelings that Jeam Agutu, BirdLife Kenya Associate Member, accepted an invitation to speak on 'Living with owls and other birds' at Maseno University. Members of the Zoology Department had been intrigued by Jeam's observations on Verreaux's Eagle Owls on the campus (*see Kenya Birds 2(2): 34, January 1994*). In the end more than 100 University staff and postgraduate students attended the seminar, and discussions continued at a reception afterwards. Completely converted to owls, the Department has asked for more lectures, and for Jeam to set up a birdwatching group for students.

### **Important Bird Areas for Africa**

The Important Bird Areas programme is now officially under way in Kenya, with support from the Royal Society for the Protection of Birds in UK. Fieldwork started in January with surveys of a number of wetlands (*see elsewhere in this issue*). At the moment, preliminary lists of IBAs are being put together.

BirdLife International's IBA programme began ten years ago in Europe. The resulting publication, *Important Bird Areas in Europe*, has had a major impact on conservation planning across the continent — many of its recommendations have

been adopted under national and European Union legislation. An IBA programme for the Middle East was completed in 1984 and is already proving to be as influential. Now it is Africa's turn. The overall result will be a detailed book giving an account of all the Globally Important Bird Areas identified on the continent. This is a huge task, given that 56 countries are involved and many cases little is known about their avifauna.

Kenya is among a group of pioneer countries for the IBA programme in Africa — others include Tanzania, Uganda and South Africa. As elsewhere, the process is being coordinated by the national partner organisation — the East Africa Natural History Society, through its sub-committee BirdLife Kenya. Much of the technical work will be undertaken by the National Museums' Department of Ornithology.

Identifying and describing Kenya's IBAs is one part of the process — in many ways the easiest. At the same time, the programme is designed to build the capacity of the EANHNS and the Department, for both bird conservation and bird research. There is no point in publishing a directory of IBAs as a purely academic exercise, so the crucial third strand is translating the findings into action. The IBA programme in fact provides a neat complement to conservation planning that is already going on, such as the National Environment Action Plan. An Advisory Council, with representatives from key government bodies, is being set up to advise BirdLife Kenya on the project, particularly on how the results can most helpful.

So what are IBAs, anyway? BirdLife's IBA Steering Committee for Africa has deliberated at length on the criteria that should be used to identify them. These have now been agreed, and there are four main categories of site. First, sites that are important for globally threatened species (such as the Sokoke Scops Owl). Second, sites that hold a suite of species with very small ranges (for example, the birds endemic to the central Kenyan highlands, such as Sharpe's Longclaw and Aberdares Cisticola). Third, sites with a representative set of species that are characteristic of a particular, distinct biome — for instance the dry bush country of north-east Kenya. Fourth, sites with particularly large concentrations of birds — flamingos at Lake Nakuru, for example.

Within each of these categories, there are set thresholds (for instance, the number of restricted-range species, or the number of congregatory birds) for the selection of Globally Important Bird Areas. The Department of Ornithology is presently working with colleagues from Uganda and Tanzania on the challenging task of setting appropriate thresholds for Regionally Important Bird Areas. These will not appear in the continental directory, but we feel it is important to pin-point them nonetheless. IBAs, GIBAs, RIBAs — the acronyms may multiply confusingly, but the point is that having well-defined, agreed and objective

criteria at the different levels makes the whole exercise much more useful, and much more credible to decision-makers.

In Kenya, the Department of Ornithology is presently reviewing the literature and putting together lists of sites using the different categories and criteria. These draft lists will be circulated for comment, and gaps in our knowledge identified. The next steps are additional, targeted field surveys, setting up an IBA database, and finally producing a book summarising the results. All going well, this should be published by March 1997. Parallel with all this, BirdLife Kenya will be working with the Advisory Council to incorporate the findings into national planning processes, and taking action on particular sites where appropriate.

Many people will be involved in the IBA process, and anyone with interesting information on particular sites, or records of rare species, can contribute by making these available. *Kenya Birds* will be publishing regular updates to keep everyone informed of progress. We look forward to everyone's help with this exciting and important project — *Leon Bennun, P O Box 40658, Nairobi.*

## Kenya Wetlands Working Group

### Waterbird counts and surveys, January–March 1995: a summary

The annual waterbird counts in January and July are organised by the Ornithology Department in collaboration with the Kenya Wetlands Working Group and the Kenya Wildlife Service. They form part of an Africa-wide waterbird census coordinated by the International Waterfowl and Wetlands Research Bureau (IWRB). These counts are presently funded by the Ramsar Convention Bureau and involve training of volunteers to monitor wetlands.

This year, the counts were expanded and surveys were made of several new sites, thanks to funding from the Royal Society for the Protection of Birds (RSPB) received through BirdLife Kenya to support the Important Bird Areas (IBA) programme (*see other articles, this issue*). One of the criteria for Globally Important Bird Areas (GIBAs) is closely based on the Ramsar convention criteria for waterbirds: a site qualifies if it regularly supports more than 20,000 waterbirds or more than 1% of a species' biogeographic population.

The early-year counts in 1995 (during the Northern winter) were quite extensive, covering more wetland sites than before. The counts stretched over a period of three months in total, from the beginning of January to the end of March. Counts and training of volunteers took place at the main Rift Valley lakes, and around wetlands in Amboseli National Park, Nairobi and Lake Victoria. Over 120 volunteer birdwatchers took part overall.

Meanwhile, a major effort was made in February to collect survey data on coastal sites — beaches, reefs, creeks, estuaries and salt works — from the border

with Tanzania north to the Sabaki River mouth. The coastal survey was again a collaborative effort, involving six Ornithology Department staff, four staff of the Kenya Marine and Fisheries Research Institute (KMFRI) and two researchers from Pavia University, Italy. Counts were made on foot along beaches and reefs, while creeks were surveyed by boat at high tide to count concentrations of roosting waders.

During March, five large dams along the upper Tana River were surveyed. Surprisingly, the waterbirds of these big man-made wetlands seem never to have been counted before. This time the institutions involved were the Department of Ornithology, Kenya Wildlife Service and the Fisheries Department. Logistical support was also provided by the Kenya Power and Lighting Company (KP&LC), the Tana and Athi River Development Authority (TARDA) and Mwea Trust. The survey was carried out by boat, involving three Ornithology Department staff and a coxswain from the Fisheries Department stationed at Masinga Dam.

Additional data were received from volunteers who undertook waterbird counts on their own, either near their areas of residence or on personal safaris. We encourage interested birders to contribute waterbird count records, ideally for the months of January or July.

Sites surveyed this year include the Rift Valley lakes: Bogoria, Nakuru, Naivasha (with Sonachi and Oloidien), Magadi and Elmentaita; wetlands around Nairobi: Dandora Sewage Works, Kayole Sewage, Manguo Floodplain, Nairobi Dam, Limuru Pond and Tigoni Dam; wetlands in Amboseli National Park: Lake Ol Tukai, Enkongo Narok Swamp and Longinye Swamp; sites around Lake Victoria: Rota, Tako River, Dunga, Kano Plains, Sondu-Miriu River mouth, Aneko, Penge and Lake Simbi; and upper Tana River dams: Masinga, Kamburu, Gitaru, Kindaruma and Kiambere. Along the Kenyan Coast, the team counted creeks at Vanga, Funzi, Tudor, Port Reitz and Mida; beach stretches around Shimoni, Msambweni, Gazi, Funzi, Mtwapa, Tiwi, Kilifi, Watamu, Malindi and the Sabaki River mouth; and the Kensalt Works. Sites counted by individual volunteers include Nicoll, Oasis and Soy dams.

### *Waterbird numbers*

The number of waterbirds counted in the entire survey total 903,311 — 787,857 of these being flamingos. Almost all the flamingos were counted on the Rift Valley lakes, the majority (about 413,000) at Lake Nakuru. Waterbird numbers on the five upper Tana dams totalled 34,080, with the lion's share on Masinga (with 27,869 birds). Other sites with waterbird numbers exceeding ten thousand include Bogoria (262,875), Elmenteita (124,403), Nakuru (413,968), Naivasha (11,549), Magadi (25,486), Amboseli (10,135 in all wetlands combined). The coastal survey covered 80% of the beach stretches from Vanga to the Sabaki River

mouth. The total number of birds counted in these sites including the creeks and the Kensalt works totaled 33,629 of 70 species. Terns made up the most numerous single group. — *Oliver Nasirwa, P O Box 40658, Nairobi.*

### **Waterbird counts at Lake Victoria**

Surveys of waterbirds in some key wetlands around Lake Victoria were organised by the Lake Victoria Wetlands Team (LVWT). The surveys were conducted on 11–12 and 25–26 February 1995, with assistance from the Ornithology Department and other volunteers (*see article above*).

The first survey covered Dunga Beach, Kano plains, Tako River and Sondu-Miriu. A team of nine counters took part. Notable observations included a male Pygmy Goose at Sondu-Miriu, and (less happily) the uncontrolled sewage flow and wastes at Dunga Beach.

The second survey involved seven counters. The area covered included Simbi, Penge, Aneko the breeding site for Pink-backed Pelican at Rakewa. Two fully fledged young of pelicans and four of Black-headed Heron were observed, and sixteen nests of sticks and twigs counted. — *Joseph Oyugi, P O Box 40658, Nairobi.*

### **Waterbird counts at the Kenya coast**

Waterbirds along the Kenya coast were surveyed from 2–25 February 1995. Six Ornithology Department staff, four staff members from Kenya Marine and Fisheries Research Institute (KMFRI) and two researchers from Pavia University, Italy were involved in the survey. The aim was to cover as much of the Kenya coastline as possible from Vanga in the south, north to the Sabaki River mouth, surveying all wetland bird species.

For practical reasons two methods were used: (1) 'beach counts' on the beaches and reefs at low tide while birds were feeding, and (2) counts of roosting birds in the creeks at high tide from a boat. It was impractical to cover the whole c. 220 km section of coast in just three weeks, but as much as possible was sampled. Despite the lack of prior reconnaissance to find access routes for certain sections of coastline, over 80% was covered.

The overall impression was of good numbers of birds along much of the coastline. Some areas, though, held fewer birds than expected, particularly the southern beaches. The total counted was 33,629 of 70 species, the bulk of which were terns.

Highlights included a flock of 200+ Crab Plovers with several hundred other waders and terns in a roost site just north of the Tanzanian border at Vanga; concentrations of Turnstone along the rocky beaches south of Kilifi; roosts of several hundred Sooty Gulls and terns just north of Watamu; and 150+ Caspian

Terns on the salt works north of Malindi at Gongoni. At the Sabaki River we recorded up to 20 wintering Broad-billed Sandpipers, a male Caspian Plover in full breeding plumage, an Arctic Skua *Stercorarius parasiticus* (only the fourth record for Kenya) and a new species for East Africa, none other than a Northern Lapwing *Vanellus vanellus*! — *Oliver Nasirwa, Colin Jackson, Luc Lens, Joseph Oyugi, Edward Waiyaki, P O Box 40658, Nairobi; Jan Seys, P O Box 81651, Mombasa.*

### **Waterbirds on the Upper Tana River dams**

Waterbirds on the five large dams on the upper Tana River (Masinga, Kiambere, Kamburu, Kindaruma and Gitaru) were surveyed from 16–27 March 1995, following an earlier reconnaissance trip. A boat, without which the survey would have been impossible, was kindly lent free of charge by the Kenya Wildlife Service, and a coxswain joined us from the Fisheries Dept. base on Kenya's largest dam, Masinga.

Numbers of birds were much higher than we had expected. Of particular interest were around 300 African Darters, a species that is seriously threatened in Kenya by gill-net fishing. Indeed we found three Darters tangled and trapped in fishing net or string that had been discarded in the dams.

Large numbers of cormorants were present on most dams including three breeding colonies. Herons were very abundant, in particular Great White Egrets and Green-backed Herons. Apart from Greenshank and Common Sandpiper, waders were only present in any numbers on Masinga Dam. The same was true of duck (both species of Whistling Ducks on Masinga). We saw very few Palearctic duck, presumably due to the late date of the survey (we recorded only six Garganey). (Unfortunately, vehicle problems had delayed the start of the survey by almost two weeks.). Other records of interest were two to three Ospreys on each of the larger dams and Pied Kingfishers in almost every corner — hundreds in all.— *Oliver Nasirwa, Colin Jackson & Patrick Gichuki, P O Box 40658, Nairobi.*

### **Lake Naivasha — Kenya's second Ramsar site**

Kenya acceded to the Ramsar Convention in 1990 and designated Lake Nakuru as its first Wetland of International Importance. Nakuru is often host to more than a million Lesser Flamingos as well as providing habitats for many other wetland birds and large mammals. Lake Nakuru is within a National Park which is famous for the diversity of its wildlife — its visitors exceed 100,000 each year. The Kenya Wildlife Service manages the Ramsar site, both because it is the organisation responsible for National Parks and because it is the custodian of the Ramsar Convention in Kenya.

Lake Naivasha is a freshwater lake in Kenya's Rift Valley, less than 50 km from Lake Nakuru. It is unique in being fresh — where other lakes on the floor of the Rift Valley become saline — and in having a great diversity of wetland plants and animals, especially waterbirds. Unlike Nakuru, it has no protected status and is surrounded by private land where most inhabitants are farmers, many of them growing flowers for export while using lake waters for irrigation. Lake Naivasha qualifies for listing as a Wetland of International Importance under most of the Ramsar criteria relating to ecosystems *and* under two of those relating to waterbirds: it regularly has more than 20,000 waterbirds (75 species have been consistently recorded) and is host to more than one percent of the world population of the Maccoa Duck. Its wetland plants are legion and include the tallest stand of papyrus for such an altitude (almost 2,000 m a.s.l.) where culms exceed five metres in height. Between (and on) the farms there are many species of large mammals associated with wetlands — including hippos and waterbuck — and the lake provides drinking water for a great variety of wildlife and livestock from its dry hinterland. It has a commercial fishery, a tourist industry, a geothermal power plant nearby and the town of Naivasha at its edge.

Naivasha has a unique grouping of its landowners who have been charged under law with the management of the riparian land associated with the lake. The Lake Naivasha Riparian Owners Association (LNROA) was formed to allow agriculture to continue and develop while simultaneously ensuring the provision of fish and other wetland products to those who needed them. In short, a process to ensure Wise Wetland Use!

The LNROA together with the Kenya Wildlife Service (KWS) and with backup from the IUCN Wetlands Programme, decided that the designation of the lake and associated wetlands as a Ramsar site would fulfil their needs while ensuring water and biodiversity for posterity. At a full meeting of the Association early in 1995, this idea was supported unanimously and the process of designation began in earnest. The site has been delineated (approximately 30,000 ha, including some adjacent sodic wetlands, a floodplain and delta as well as many farms and houses) and described and the designation has been supported by the Government of Kenya through KWS. On 10 April the site was added to the Ramsar list of Wetlands of International Importance. But the process does not end there as there is need for a management arrangement and a management plan. Both of these are being developed by a steering committee which is hosted by LNROA and includes KWS, IUCN and other key players in the utilisation and conservation of the lake. A draft management plan for sustainable utilisation has been produced and should be approved by the stakeholders and government authorities in the near future. The Ramsar site is likely to be managed by the LNROA together with appropriate government institutions and representatives of

wetland users. This will then make Naivasha the first Ramsar site in Africa to be sited within private land and to be managed by its inhabitants! — *Geoffrey Howard, P O Box 68200, Nairobi.*

*[Adapted from the IUCN Wetlands Programme newsletter, no.11, June 1995.]*

## International

### **For waterbirds, c'est Bonn**

European, African and Middle Eastern nations have reached a historic agreement on the conservation of the migratory waterbirds that they share.

Representatives from over 60 countries signed the African-Eurasian Migratory Waterbirds Agreement in Den Haag, Netherlands, on Friday 16 June.

The Agreement, created under the Bonn Convention on Migratory Species, aims to ensure that coordinated measures are taken to maintain and restore populations of birds such as storks, swans, geese and ducks. The signatories agreed to cooperate in giving legal protection to the birds, identifying and protecting the sites and habitats they use, and combating threats to them.

The treaty does allow hunting, however, except of those species at extreme risk because of factors such as low numbers, declines or habitat threats. Even a few of these high-risk birds, such as Red-crested Pochard, Greenland White-fronted Goose and Goldeneye, may be hunted for traditional reasons in parts of Europe, and Glossy Ibis, African Spoonbill and White-backed Duck in parts of Africa.

Johanna Winkelman of BirdLife International said: "This agreement is the first of its kind, and will help to protect migratory birds, from the Arctic to southern Africa. However, BirdLife is worried that the agreement allows some hunting of birds which have an unfavourable or uncertain conservation status."

Most controversially, the hunting of some species will be permitted while they are breeding. According to BirdLife International, this is a backward step. "Some birds were added to the list of huntable species with inadequate justification," said Winkelman. "Nonetheless, the agreement offers a real prospect of a brighter future for our migratory birds".

BirdLife hopes that the agreement will come into force before the end of the century. In the meantime, states can begin to implement the agreement by drawing up species action plans (one of the main provisions of the agreement) and working towards the phasing out of toxic lead shot, still widely used by hunters.

### **Spix's fixed — lone male macaw gets mate**

Conservationists who have been 'match-making' between two parrots, in an attempt to save the world's rarest bird from extinction, are delighted to find that their couple seem to have fallen for each other!

Until earlier this year, just a single Spix's Macaw – a male – remained in the wild, in forest in Brazil. The lone male was pursuing a sad, inevitably fruitless relationship with a female Green-winged Macaw, a closely related but completely separate species.

Around 30 Spix's Macaws exist in captivity. In March, after extensive research to ensure the two would be well-suited, a female was released to join the male, in the hope that they would pair-up and breed.

Although it has taken a while, the two now seem to have fallen for each other, and are almost inseparable. The rejected Green-winged Macaw generally joins the couple during the day, but leaves them in the evening, so they can spend the night alone together.

While it is still early days, the hope is that the couple will reproduce successfully in the breeding season later this year. They are currently being observed by biologists around the clock to monitor their behaviour and guard them from poachers.

The match-making is part of a programme to save Spix's Macaw, the world's rarest bird, from extinction, being run by an International Committee led by the Brazilian wildlife authorities, IBAMA. Spix's Macaw once occurred in gallery riverine forest in north-east Brazil. Loss of its forest habitat together with capture for the wild bird trade has reduced the species to a single individual in the wild. The sex of the remaining wild bird was confirmed by DNA sequencing of a feather, performed by Dr Richard Griffiths at Oxford University.

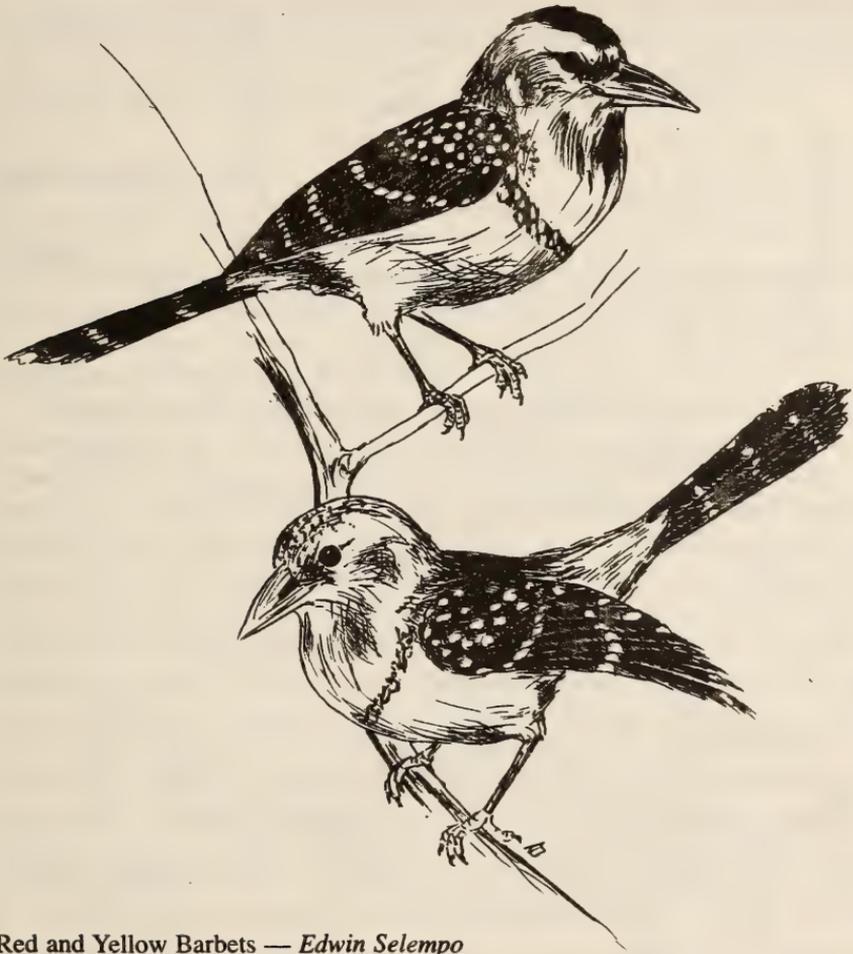
## **Birding at... Olorgesailie Prehistoric Site**

Leon Bennun

P O Box 40658, Nairobi

If you are unlucky enough to live in Nairobi, the cold months in the middle of the year can often seem particularly dreary. Day after day of grey skies, dull drizzle and dismal temperatures, enough to lower any birder's spirits. The few feathered objects that are hardy enough to be out and about can scarcely be glimpsed through the gloom.

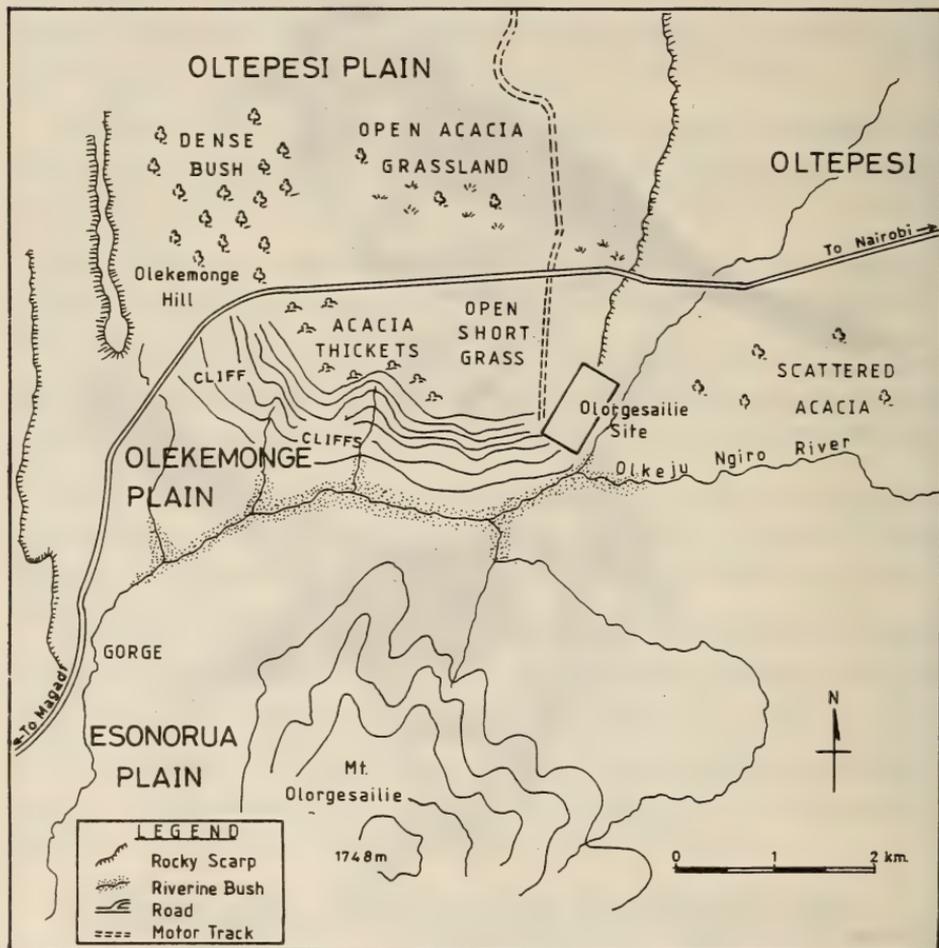
What better time to head south to warmer surroundings? Olorgesailie Prehistoric Site is only an hour and a bit away but it feels like a different world; a landscape of dust, heat, thorn and the Rift Valley's wild fractured beauty. Indisputably a change from the Arboretum on a murky July morning.



Red and Yellow Barbets — *Edwin Selemo*

### **Landscapes**

The trip to Ologesailie takes you down the shoulder of the rift, on what must be one of the finest short drives anywhere. Magadi Road rolls south through the bustling sprawl of Ongata Rongai and Kiserian before breaking out into green open country on the slopes of the Ngong Hills. Then it sweeps round the edge of the hills and the Rift Valley appears with breathtaking grandeur. Ancient volcanoes litter the landscape: Suswa off in the distance, Ol Doinyo Esakut immediately below — the road can be seen looping ever downwards across its flanks — and away to the south, the impressive eroded bulk of Mt Ologesailie itself, brooding over the valley floor.



Olorgesailie Prehistoric Site and environs — Map by Dennis Milewa

The descent is rapid and ecological zones succeed one another alarmingly fast. Dwarf *Acacia drepanolobium* shrubland gives way to taller woodland, then to dense thickets of the wait-a-bit thorn, *Acacia mellifera*. The road plunges down a last rocky ridge and suddenly flattens out on the floor of the valley. At just 1,000 m, the temperature here is perceptibly warmer. This area around the little town of Oltepesi (also known as Tinga) was originally wooded grassland. Heavy grazing and felling of trees have turned it into a dusty plain scattered with a few *Acacia tortilis*.

The road crosses the seasonal Engeju Esiteti river over a fine modern bridge (which has eliminated the often hair-raising fordings of earlier years), then climbs a little ridge to the Ologesailie turn-off on the left. The site is reached down an appallingly dusty stretch of track, but it is a distance of only 2 km.

### Walks around the site

Ologesailie protects an excavation of the Acheulian stone tool culture, perhaps half a million years old. If you happen to be a devotee of hand axes and other prehistoric artefacts, there is a great deal to see in the tidy small Museum and the site displays. As a birder, however, you are better advised to look elsewhere. If you have managed to arrive early in the day, you might start by walking down towards the seasonal Engeju Esiteti River.

A footpath leading down from the Museum skirts the main excavations, drops down the ridge and eventually circles round past the lower level exhibits and back to the main site. This is an easy and worthwhile walk, and will produce open-country species such as Fawn-coloured Lark (look for the big white supercilium) and Ashy Cisticola (listen for the loud warbling song). Rufous-crowned or Lilac-breasted Rollers are often in evidence. To reach the river itself, continue straight across country when the path turns to your left. The thick bush on the river banks can be difficult to walk through, but sit under one of the big, shady *Acacia tortilis* and look and listen for birds. Spotted-flanked Barbets, White-bellied Go-away Birds and the pretty little Emerald-spotted Wood Dove are all common here, and Green Wood Hoopoe and the beautiful White-throated Bee-eater are often seen. The wooded plain across the river is a good area to see Pale Chanting Goshawk, Blue-naped Mousebird, Heuglin's Courser, Banded Parisoma, Red-fronted Warbler and Yellow-bellied Eremomela. A little further along to the north, the rocky ridge just beyond the lower-level excavation is home to Cinnamon-breasted Rock Bunting, Slate-coloured Boubou, Red-fronted Barbet, Namaqua Dove and many others.

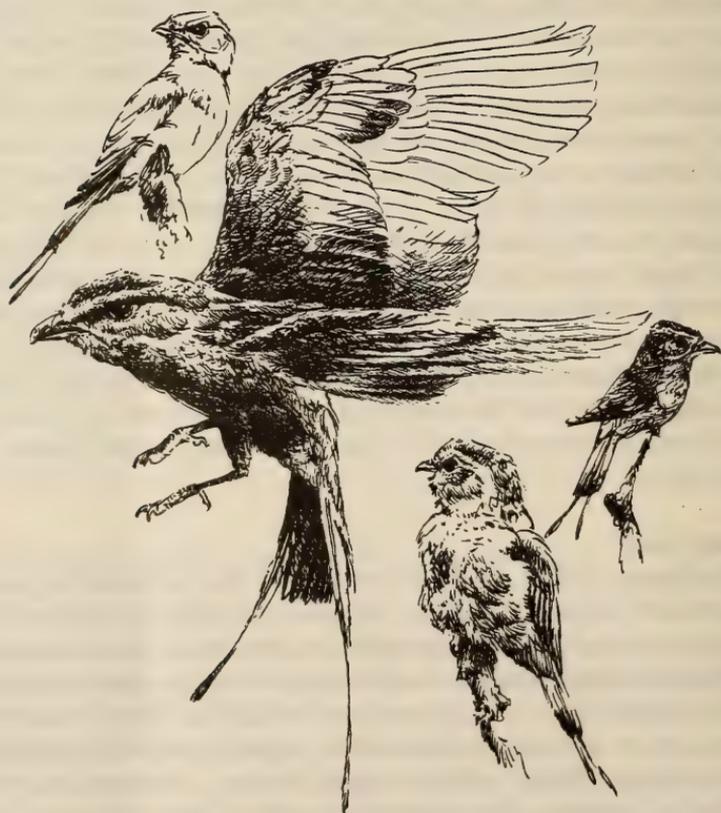
### Taking it easy

More sedentary birders, or those overcome by the heat, need not worry. Most of Ologesailie's birds can be seen at the main site itself, often without stirring from the welcome shade of one of the verandas. Bird baths outside the main Museum and the picnic banda attract a steady stream of visitors, especially in the depths of the dry season. The variety of small seed-eating birds is particularly impressive: species you are likely to see include Blue-capped Cordon-bleu, Purple Grenadier, Black-cheeked Waxbill, Green-winged Pytilia, Grosbeak and White-bellied Canaries, Cut-throat, Grey-headed Silverbill, Chestnut Sparrow and Yellow-spotted Petronia. Violet-backed, Beautiful and Scarlet-chested Sunbirds flit about, the males flashing their dazzling metallic colours in the sunlight. The Scarlet-

chedsted have often nested in the site buildings. Red-and-Yellow Barbets, looking quite unbelievably garish, hop confidently up to one's chair and wait for handouts. Grey-capped Social Weavers, tame and charming little birds, are also abundant and obvious (see the article elsewhere in this issue).

Around the picnic site look out for the Spotted Morning Thrush, stepping shyly from the surrounding thickets. It has a marvellous rich song at dawn. Keep an eye open along the fence-line for its smaller and less musical relative, the White-browed Scrub Robin. A loud, sudden click and whistle is likely to be a pair of Slate-coloured Boubous, skulking in the depths of an acacia thicket. This species has an amazing repertoire of sounds, ranging from harsh grating rasps to melodious gong-like notes.

The hot middle hours of the day are a sleepy time for both birdwatchers and birds. Mourning Doves coo lugubriously from the big trees, where White-bellied



Go-away Birds sway and doze. Evening brings the Grey-capped Social Weavers noisily back to their nests; they call and preen outside before slipping in quietly to roost as the light fades, accompanied by a brief, thrilling burst of song from the Spotted Morning Thrush. As dusk thickens, Slender-tailed Nightjars start up all around, pop-pop-popping like distant generators, perhaps accompanied by the sad, eerie whistle of a Two-banded Courser. There are no electric lights at or around Olorgesailie, and with or without a moon the nights are magical. Hyenas whoop in the distance, and lions are often around; their roars, resounding from the ridges, can seem to be right inside one's tent. In the moonlit early hours sleepers in the bandas may be awakened by an odd and particular noise: the clicking knee-joints of a big male eland, approaching to browse on the Desert Roses outside the window.

### **After the rains...**

The face of Olorgesailie changes dramatically from season to season. Once the rains begin, usually in late March or early April, the site is buzzing with life and vibrant with bird-song. The first showers set off a frenzy of nest-building among the weavers. Masked Weavers gather in big noisy colonies to build their fine-grass nests, each with a characteristic little spout at the base. The round nests of the Vitelline Masked Weavers are more scattered, in groups of three or four, and built out of broad green grass blades. In years of good rain, Cardinal Queleas build their neatly woven little nests in patches of long, dense grass. Most large trees contain a cluster of the untidy straw nests of the Grey-capped Social Weavers, used year-round but renovated each wet season.

As the breeding season progresses, the weavers' colonies attract unwelcome visitors: the Didric Cuckoo, persistent and crafty, intent on stealing an egg and substituting its own; the Boomslang, which systematically makes its murderous rounds from tree to tree; and the Gabar Goshawk and Grey Hornbill, both specialists in robbery with violence.

### **Around and about**

If you have a little more time to spend, exploring the surrounding area can be rewarding. The rocky scarps north-west of the site are home to Lanners and Kestrels. White-throated Bee-eaters are known to breed in the diatomite cliffs to the west, and in the dry season the permanent pools of water in the Olkeju Ngiro river gorge are magnets not only for livestock but for doves, sandgrouse and other birds. Less than an hour's drive to the south is Lake Magadi, with extraordinary scenery and spectacular waterbirds. For the really adventurous, Mt Olorgesailie makes an exciting climb.

### How to get there

Olorgesailie is easily accessible by private or public means; a four-wheel drive vehicle is not necessary.

If you are driving: from the city centre take the Langata Road past the KWS headquarters, then turn left on Magadi Road at the corner of the National Park. Alternatively, take Ngong Road as far as Ngong Town, then turn left and you will join the Magadi Road at Kiserian. If you are continuing to Magadi, remember that fuel is not always available there.

The Akamba Bus Company runs a twice-daily service from Nairobi to Magadi, and back. If you leave the bus at the Olorgesailie turn-off it is an easy walk to the site.

### Where to stay

There are four thatched bandas at the site, providing comfortable but basic accommodation. Beds and mattresses are provided; you need to bring your own bedding and food. Charges are presently KSh 400/= per night, per banda; book through the Director's office, National Museums of Kenya. Paraffin lamps can be rented for a small extra fee. There is also a pleasant campsite, with fireplace, under a group of big *Acacia tortilia* trees.

Water is often available but to be on the safe side bring your own, at least enough for drinking — the supply cannot be guaranteed.

EANHS members are admitted to the site free, on production of a valid membership card; others will need to pay an entrance fee. This applies even if you are not visiting the excavations.

## Records and Notes

Records compiled by Joseph Oyugi

This section exists for the rapid publication of interesting observations, and contributions are welcomed. If you are sending in records for *Kenya Birds*, please consider the following guidelines. For **breeding records**, send in cases of **confirmed** breeding, i.e. birds incubating eggs or feeding nestlings/fledglings. Records for confirmed breeding are useful for ALL species, even the most common ones; records of nest-building, courtship etc. are only needed for rare species or ones where there are few breeding records. Please try to fill in a **nest-record card** at the same time. Much more detail can be recorded on a card, and if your record can be added to the card collection and our computer database then it is of permanent value. Cards can be obtained free of charge from the EANHS Nest Record Scheme Organiser (see back page). A report listing records submitted to the scheme is published every second year in the Annual Bird Report of *Scopus*.

For other records of **Afrotropical/oceanic** and **Palearctic** birds, please send in any sightings and notes that you think are of interest. The Editors will select records for publication according to the space available. For **all** records, including breeding records, please be precise as possible about **dates** and **locations**. If you have sightings from places not easily found on the map, please take the trouble to give the latitude and longitude of the site to as much precision as you can (preferably the nearest second of arc or better). This will allow us to use these records in the Ornithology Department's computerised database.

Supporting details are always welcome for unusual records and will improve the chances of publication. Records of certain species are requested for inclusion in the *Scopus* Annual Bird Report (the third issue of *Scopus* each year). These should be sent to Don Turner (P O Box 48019, Nairobi), who can also supply information on which records are required. For particularly unusual sightings supporting details (i.e. field notes, photographs etc.) will be needed for scrutiny by the OS-c Rarities Committee.

### *Key to records*

New atlas square records are indicated in square brackets. Codes are: **pres**, present (first record); **post pres**, present (first post-1970 record); **prob**, probably breeding; **conf**, confirmed breeding; **post conf**, confirmed breeding (first since 1970); for example, [**pres, conf 25B**] indicates that the species is present and confirmed as breeding in square 25B.

Where scientific names are not stated here (and elsewhere in *Kenya Birds*) the English names follow Britton (ed.) 1980, *Birds of East Africa*.

## Breeding records

**Little Grebe:** One juv, Kayole sewage pond 4/1/95 KN. **Pink-backed Pelican:** Two fully fledged young sitting in a nest, Rakewa, Oyugis 26/2/95 CO, JOO, JO1, WO1 & PO; more than one hundred nests, some adults feeding young in nest and others incubating, Rakewa, Oyugis 9/7/95 JOO. **Greater Cormorant:** Many fully grown juvs and nestlings being fed by adults, off Lake Naivasha Hotel Jetty, Lake Naivasha 18/1/92 ON, JH, FN, WO & AD; (**conf 49A**): Two young fed by adult, Soy Village, Eldoret 10/3/95 BC. **Darter (conf 63D):** Several nests and young, Upper Tana 8/3/95 CJ & ON. **Black-headed Heron (conf 60D):** Two fully fledged young sitting in nests and one standing on a branch, Rakewa, Oyugis 26/2/95 CO, JOO, JO1, WO1 & PO; (**conf 62D**): Seventeen individuals sitting in nests, Murungaru, North Kinangop 29/3/95 JOO, LL, MM & CJ; (**conf 61A**): Adult feeding frog to half-grown young, Chagaik Dam, Kericho 1/2/94 AJB. **Cattle Egret:** 212 birds in nests, Murungaru, North Kinangop 29/3/95 LL, JOO, MM & CJ. **Abdim's Stork:** One fledgling in a nest, Maseno 24/2-1/4/93 JA. **Hadada:** Adult feeding nestling, Impala Sanctuary, Kisumu 20/4/95 MM. **White-faced Whistling Duck:** Pairs with 20, 10 and 5 ducklings, single bird with 10 ducklings, Dandora sewage treatment ponds 4/1/95 WMBw; pair with two ducklings diving, dam, Nairobi National Park 8/3/95 DB. **Egyptian Goose:** Six goslings, Dandora sewage treatment pond 4/1/95 KN et al.; adult with ten goslings, Lake Oloiden, Naivasha 28/1/95 JOO & BC; adult with ten goslings, Yacht Club, Lake Naivasha 29/1/95 JOO; adult

with seven goslings, Lake Oloiden 28/6/95 CB. **Yellow-billed Duck:** An adult with about twelve ducklings, off New Fisheries Jetty, Lake Naivasha 29/1/95 FN, JW & EM; four ducklings, Loldia farm, Naivasha 22/2/95 JW. **African White-backed Vulture:** Young in the nest, two adults sitting by, Athi River, Hopcraft Ranch 15/2/95 PN. **Great Sparrowhawk:** Two fledglings in a nest, Kiambere Road, Nairobi 6/11–29/12/94 FN; juv begging from adult, Nairobi, Arboretum 21/5/95 CJ. **Tawny Eagle:** Adult sitting in nest, Nairobi National Park 5/7/95 WMBw. **Verreaux's Eagle:** One young, Soysambu Ranch 16/3/95 ES & WO. **Long-crested Eagle (post prob 63C):** A pair mating, Wajee Camp, Mihuti 24/6/95 DM; adult incubating, L. Nakuru National Park 23/2/95 JW. **Fish Eagle:** Adult incubating, Ndere Island, Kisumu 24/4/95 MM; juv with two adults, Shimoni 15/2/95 JS & JW1. **Crested Francolin (conf 75D):** Three adults with one chick, Kajiado 5/5/95 NS. **Helmeted Guineafowl:** Five chicks and three adults, Kajiado 16/4/95 NS; five chicks with two adults, Oltepesi, Kajiado 15/6/95 AS. **Kenya Crested Guineafowl:** Five chicks on the road, Arabuko-Sokoke Forest 20/5/95 LD; seven chicks with three adults, Arabuko-Sokoke Forest 29/5/95; six chicks with five adults, Arabuko-Sokoke Forest 20/5/95 LD. **Crowned Crane:** A pair with two half-grown young, Chelimo Estate, Kericho 15/12/94 AJB et al.; a pair with two very small chicks, Nairobi National Park 13/2/95 KLW; one young, half adult size, near the adults, Loresho Ridge, Nairobi 19/4/95 FN; one young feeding with two adults, Nairobi National Park 11/2–8/3/95 DB. **Purple Gallinule:** One fully-fledged young on floating leaf, and another with adult returning to nest, Splash, Nairobi 31/1/95 DR. **Red-knobbed Coot:** Five young swimming with two adults, Soy, Eldoret 14/5/95 DB. **Kori Bustard:** Two eggs in a nest, Singiraini, Magadi 8/3/95 NS. **Kittlitz's Sandplover:** One young probably 3–5 days out of nest, Lake Nakuru 17/7/94 CJ; two downy young, Soysambu Ranch 30/3/95 KN. **Blacksmith Plover:** Incubating four eggs, Lake Nakuru 17/7/94 CJ. **Crowned Plover:** Two juvs, Soysambu Ranch 16/3/95 KN; two juvs feeding, Loldia farm, Naivasha 4/3/95 JW; incubating two eggs, Loldia farm, Naivasha 23/2/95 JW. **Black-winged Plover (post conf 62D):** Adult incubating three eggs, South Kinangop 27/6/95 CJ. **Wattled Plover (conf 74C):** Adult incubating (photographed), Musiara Road, Masai Mara 25/12/88 ND & LD (*see article, this issue*). **Spur-winged Plover:** Downy young sitting in a depression on the ground, Dandora sewage ponds, Nairobi 4/1/95 ON. **Senegal Plover:** Adult with juv, Shimba Hills 29/5/95 LL & JS. **Spotted Thicknee:** Incubating two eggs, Nairobi National Park 16/3/95 FN. **Speckled Pigeon:** Incubating, Lake Nakuru National Park 23/2/95 JW. **Red-eyed Dove:** Nest with two eggs, preyed on by Gabar Goshawk, Naivasha 29/31/1/95 CR. **Ring-necked Dove:** Two fledglings leaving nest, Sinya Omelok, Kajiado 15/6/95 AS & CB. **Laughing Dove:** Incubating two eggs, later two young in nest, Loldia Farm, Naivasha 11/2–1/3/95 JW; nest with two eggs, Naivasha 3–5/2/95 CR. **Levaillant's Cuckoo (conf 62C):** Laid in nest of Olive Thrush; juv successfully fledged, South Lake Road, Naivasha, early 9/94–8/10/94 AV. **Black Cuckoo:** Juv being fed by Tropical Boubou, Naivasha 21/1–26/2/95 CR. **Didric Cuckoo:** Juv being fed by Black-headed Weaver, Voi Safari Lodge 14/5/95 JS. **Barn Owl:** Two owlets begging after dusk, Lamu Museum roof, late March and early April 1995 MJ. **Spotted Eagle Owl:** One juv with two adults, Hell's Gate National Park 22/2/95 MV. **Verreaux's Eagle Owl:** Two juvs,

Loldia Farm, Naivasha 5/3/95 JW. **Sokoke Scops Owl**: Two immature birds with two adults, Arabuko-Sokoce Forest 29/1/95, DN & JS. **Montane Nightjar (conf 62A)**: Adult female incubating, later both adults feeding young at night, Soysambu 26/3 & 19/4/95 KN & JMN. **Dusky Nightjar**: Nest with two chicks, Soysambu, Elmenteita 6/5/95 MACC. **Speckled Mousebird**: Nest with two chicks, both fledged, Naivasha 21/2/95 CR; one juv, National Museums of Kenya, Nairobi 21/6/95 CJ; three juvs fed by adults, Loldia Farm, Naivasha 10/5/95 JW. **Blue-naped Mousebird**: Two juvs, Loldia Farm, Naivasha 24/2/95 JW. **Malachite Kingfisher**: Adult carrying food near nest, Elsamere, Naivasha 29/6/95 CB. **Cinnamon-chested Bee-eater**: Two juvs, Lake Nakuru National Park 1/3/95 JW. **Green Wood Hoopoe**: One juv, Loldia farm, Naivasha 1/3/95 JW; one juv fed by adults, Naivasha 2 & 5/3/95 CR. **Grey Hornbill**: One juv, Loldia Farm, Naivasha 22/2/95 JW; adult carrying food near nest, Loldia farm, Naivasha 24/2/95 JW. **Ground Hornbill**: Hole nest in large branching tree, Kwanza, Kitale 8/6/95 MACC. **Red-fronted Barbet**: Nest hole in trunk of large tree, Laikipia 21/5/95 SS. **White-headed Barbet (conf 48D)**: Hole nest in a Nandi Flame tree, later two white eggs found broken after the tree was cut down, Maseno 20/12/92–3/1/93 JA. **Eastern Honeyguide**: One juv near pair of Montane White-eyes, Wasaa Conservation Centre, Nairobi 24/5/95 FN. **Uganda Spotted Woodpecker (pres, prob 61A)**: Male and female visiting nesting hole regularly, hissing noises within the hole, Chagaik estate 1/1/95 AJB *et al.* **Fischer's Sparrow Lark (post conf 75D)**: Two nestlings, Kajiado 27/4/95 NS. **Striped Swallow**: Hail stones tore the bottom out of the nest, three eggs shattered on the windowsill and roof below, Chagaik Estate, Kericho 14/5/94 AJB; adult entering nest, Highridge, Nairobi 20/5/95 CB. **Angola Swallow (post conf 62D)**: Adult feeding two juvs, South Kinangop 28/6/95 CJ. **Wire-tailed Swallow (post conf 63C)**: Adult carrying food near nest, Mukurweini, Muhuti 2/7/95 DM. **African Rock Martin**: Nest with three eggs, Langata, Nairobi 9/3/95 DB. **Sand Martin**: Two juvs, Loldia Farm, Naivasha 26/2/95 JW. **Black-headed Oriole**: Building nest, Loldia farm, Naivasha 1–5/6/95 JW. **Red-throated Tit (conf 75D)**: Three juvs, Olelepos 25/6/95 CJ. **Arrow-marked Babbler**: Two juvs, Soysambu Ranch 15/6/95 KN. **Placid Greenbul**: One juv wing-shivering, Arboretum, Nairobi 5/4/95 FN. **Common Bulbul**: One fledgling fed by adult, Kiambere road, Nairobi Hill 15/12/94 FN; one young, Soysambu Ranch 30/4/95 KN; one young, Loldia Farm, Naivasha 5/3/95 JW. **Rüppell's Robin Chat**: Adult feeding juv, later juv feeding alone, Kiambere Road, Nairobi Hill 3/12/94 FN. **White-starred Forest Robin**: Juv feeding independently, Nairobi, Arboretum 21/5/95 CJ. **Northern Olive Thrush**: One juv, Kiambere Road, Nairobi Hill late 12/94 FN. **Lesser Swamp Warbler**: Nest with five chicks, Elsamere, Naivasha 28/6/95 CB. **Black-collared Apalis**: Juv fed by adult, Langata Bird Sanctuary, Nairobi 4/6/95 WMBw. **White-eyed Slaty Flycatcher**: One juv, Soysambu Ranch 18/4/95 KN; one juv, Wanje Camp, Mihuti 8/5/95 DM. **Dusky Flycatcher**: Two eggs in a nest in a potted plant, Kiambere Road, Nairobi Hill 1/6/94 FN & JH; two eggs in a nest in a potted plant, later two fledglings fed by parents, Kiambere Road, Nairobi Hill Oct–Nov 1994 FN & AH. **Chin-spot Batis**: Male carrying moth to female sitting in nest, Langata, Nairobi 25/1/95 WMBw. **Paradise Flycatcher**: Juv near Ikuywa stream, Kakamega Forest 6/1/94 CJ; three nestlings ringed and later observed being fed by adult out of the nest, National

Museum ground, Nairobi 20–25/95 CJ. **Plain-backed Pipit**: Nest with three young, later fledged, Kima Hill, Machakos 18–19 & 26/5/94 CJ. **Richard's Pipit**: Adult incubating, North Kinangop 27/6/95 CJ. **Sharpe's Longclaw**: Incubating two eggs, North Kinangop 27/6/95 CJ; adult carrying food, Njabini, South Kinangop 28/6/95 CJ. **African Pied Wagtail**: Nest with two chicks, Loldia farm, Naivasha 15/7/95 JW; three juvs fed by adult, Sailing Club, Nairobi Dam 28/12/94 FN; adult carrying insect into nest, Elsamere Conservation Centre, Naivasha 29/1/95 BK. **Mountain Wagtail (conf 61A)**: Pair feeding four juvs with insects, Chagaik Estate, Kericho 18/1/94 AJB. **Black-backed Puffback**: Juv begging, Nairobi Arboretum 5/4/95 WMBw; one juv, Kiambere Road, Nairobi 12/3/95 FN. **Tropical Boubou**: Nest with two eggs, later one nestling, Naivasha 30/3–20/4/95 CR. **Grey-headed Bush Shrike**: Juvs fed by parents, Naivasha 29/1/95 CR. **Fiscal**: Two recently fledged juvs, Loresho Ridge, Nairobi 19/4/95 WMBw; adult brooding, Eldoret 2/4/95 MM; juv begging from adult, Arboretum, Nairobi 21/6/95 WMBw. **Grey-backed Fiscal**: Two juvs, Loldia Farm, Naivasha 1/3/95 JW. **Red-winged Starling**: Nest with one chick, Naivasha 12–29/3/95 CR. **Superb Starling**: Juv fed by adult, Naivasha 4/2/95 CR; Nest with two young, later fledged, Soysambu Ranch 20/3–15/4/95 KN. **Bronze Sunbird**: Nest with one egg, chick later fledged, Maseno 21/11/92 JA; juv fed by male, Loresho Ridge, Nairobi 19/4/95 WMBw. **Mariqua Sunbird**: Nest with two chicks, Siaya 22/12/92 JA. **Variable Sunbird**: Incubating one egg, Elangata Wuas, Kajiado 16/3/95 AS. **Montane White-eye**: Adults built nest, laid eggs, later deserted, National Museums, Nairobi 11–25/1/95 CJ; juvs being fed, Gatamaiyu Forest 23/4/95 FN. **Grosbeak Weaver**: Two juvs, Splash, Nairobi 31/1/95 DR. **Red-headed Weaver**: Adult visiting nest regularly, hissing calls from the nest, Lake Bogoria Game Reserve 8/1/95 JOO et al.; adult male nest-building, Soysambu Ranch 18/3/95 KN. **Baglafaecht Weaver**: Juv fed by adult male, Wajee Camp, Muhuti 23/5/95 DM; female feeding juvs, Wajee Camp, Mihuti 18/2/95 DM; nest with two chicks, Njabini, N. Kinangop 17/5/95 SMK. **Holub's Golden Weaver**: One juv fed by adult, Ridgeway Estate, Nairobi 7/12/94 FN. **Rufous Sparrow**: One juv leaving nest, Elangata Wuas 1/5/95 NS; nest with two chicks, Soysambu Ranch 27/5/95 KN; one juv, Loldia Farm, Naivasha 7/3/95 JW. **Speckled-fronted Weaver**: Adult carrying food near nest, Elangata Wuas, Kajiado 16/3/95 JSK. **Bronze Mannikin**: Five juvs in a flock of adults, Arboretum, Nairobi 21/6/95 WMBw; juvs fed by adult, Carnivore, Nairobi 5/7/95 WMBw. **Streaky Seed-eater**: One juv fed by adult, Upper Hill, Nairobi 1/5/95 FN.

### Other records: Afrotropical species

**White Pelican (pres 100B)**: Ziواني Camp, Tsavo West 10–13/6/94 NW. **Darter (pres 101A)**: Bura Dam, Taita Hills 24–26/9/92 NW. **Grey Heron (pres 100B)**: Ziواني Camp, Tsavo West 10–13/6/94 NW. **Squacco Heron (pres 100B)**: Ziواني Camp, Tsavo West 11/9/94 NW. **Hamerkop (pres 88D)**: Bonham's Camp, Chyulu Hills 31/7–3/8/92 NW. **Yellow-billed Stork (pres 100B)**: Ziواني Camp, Tsavo West 10–13/6/94 NW. **Woolly-necked Stork (100B)**: Ziواني Camp, Tsavo West 18–21/10/94 NW. **Saddle-billed Stork (pres 100B)**: Ziواني camp, Tsavo West 18–21/10/94 NW. **Sacred Ibis (pres 100B)**: Ziواني Camp, Tsavo West 11/9/94 NW. **African Spoonbill (pres 100B)**:

Ziwani Camp, Tsavo West 11/9/94 NW. **Sacred Ibis (pres 100B)**: Ziwani Camp, Tsavo West 11/9/94 NW. **Lesser Flamingo (pres 75D)**: Forty flying high over, Elangata Wuas 15/6/95 CB. **Egyptian Goose (pres 100B)**: Ziwani Camp, Tsavo West 10–13/6/94 NW. **Southern Pochard (pres 101A)**: Bura Dam, Taita Hills 24–26/9/92 NW. **African Pygmy Goose**: A female swimming off New Fisheries Jetty, Lake Naivasha 29/1/95 JOO, BC & RD; one, Sondu-Miriu River mouth 12/2/95 WO, ON, JO, CA, PO, FN, DB, DO, NO & JA. **Spur-winged Goose (pres 100B)**: Ziwani Camp, Tsavo West 11/9/94 NW. **White-backed Duck (pres 101A)**: Bura Dam, Taita Hills 24–26/5/9/92 NW. **Hooded Vulture (pres 103A)**: Sabaki River 28/1/95 JS. **African Marsh Harrier (pres 61A)**: AHP, Kericho 18–21/11/93 NW. **Harrier Hawk (pres 75D)**: Three individuals, Elangata Wuas 15/6/95 CB. **Bateleur (pres 28D)**: Ndovu 1987 FA. **African Hawk Eagle (pres 75D)**: One or two daily, Elangata Wuas 7–17/6/95 CB. **Pale Chanting Goshawk (pres 28D)**: Ndovu 1987 FA. **Little Sparrowhawk**: Main car park, National Museums of Kenya, 10/6/95 LAB & OM. **Martial Eagle (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW. **Pygmy Falcon (pres 28D)**: Ndovu 13/2/88 FA. **Yellow-necked Spurfowl (pres 28D)**: Ndovu 13/2/88 FA. **Vulturine Guineafowl (post pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW. **Button Quail (pres 100B)**: Ziwani Camp, Tsavo West 10–13/6/94 NW. **Crowned Crane (post pres 100B)**: Ziwani Camp, Tsavo West 10–13/6/94 NW. **Lesser Moorhen (pres 89D)**: Foraging in small pool, Tsavo East National Park 4/6/95 LL. **Black Crake (pres 100B)**: Ziwani Camp, Tsavo West 10–13/6/94 NW. **African Finfoot (pres 62B)**: Wooded stream, Prettejohns', Mweiga 10–11/10/94 NW. **Hartlaub's Bustard (pres 75D)**: Common, Elangata Wuas 7–17/6/95 CB. **Black-bellied Bustard (pres 102D)**: One female, Kilifi 31/8/–9/9/93 NW; (pres 100B): Ziwani Camp, Tsavo West NW, TD, MS. **Jacana (pres 100B)**: Ziwani Camp, Tsavo West 10–13/6/94 NW. **Kittlitz's Sandplover (pres 75D)**: At a dam, Elangata Wuas 7–17/6/95 CB. **Blacksmith Plover (pres 51D)**: Lewa Downs, 24/1/92 NW; (pres 100B): Ziwani Camp, Tsavo West 10–13/6/94 NW. **Crowned Plover (pres 28D)**: Ndovu 1987 FA. **Black-winged Stilt (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Water Thicknee (pres 100B)**: Ziwani Camp, Tsavo West 11/9/94 NW. **Temminck's Courser (pres 89C)**: Tsavo West 16–18/4/92 NW. **Heuglin's Courser (post pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Chestnut-bellied Sandgrouse (pres 28D)**: Ndovu 13/2/88 FA. **Mourning Dove (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS; (pres 28D): Ndovu 13/2/88 FA. **Hartlaub's Turaco (post pres 50D)**: Segara, Nanyuki 6–7/2/93 NW. **Red-chested Cuckoo (pres 102D)**: Seen and heard, Kilifi 8–16/4/93 NW. **Barn Owl (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Pearl-spotted Owlet (pres 75D)**: Regularly seen or heard, Elangata Wuas 7–17/6/95 CB. **Donaldson-Smith's Nightjar (post pres 100B)**: Ziwani Camp, Tsavo West NW, TD, MS. **Dusky Nightjar (pres 75D)**: Regular at night, Elangata Wuas 7–17/6/95 CB. **Pied Kingfisher (pres 75D)**: Dam, Elangata Wuas 13/6/95 CB. **Half-collared Kingfisher (pres 89D)**: Kanderi Swamp, Tsavo National Park 4/6/95 LL (*record to be submitted to EANHS OS-c Rarities Committee*), **Chestnut-bellied Kingfisher (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Somali Bee-eater (pres 28D)**: Ndovu 1987 FA. **White-headed Wood Hoopoe (pres 62C)**: Two adults,

Lake Sonachi, Naivasha 6/94 AV. **Scimitarbill (pres 51B)**: Foraging in trees, Shaba National Park 22–23/1/92, 27–30/4/93 NW. **Green Wood Hoopoe (pres 100B)**: Ziwani Camp, Tsavo West 11/9/94 NW. **Trumpeter Hornbill (pres 101A)**: Taita Hills 24–26/9/92 NW. **Yellow-billed Hornbill (pres 75D)**: Elangata Wuas 27/5/95 CB. **Spotted-flanked Barbet (pres 50D)**: Segara, Nanyuki 6–7/2/93 NW. **d'Arnauds Barbet (pres 74C)**: Cottars Camp, Mara 1–3/4/93 NW. **Red and Yellow Barbet (post pres 100B)**: Ziwani camp, Tsavo West 10–13/6/94 NW. **Rufous-naped Lark (pres 88D)**: Bonham's camp, Chyulu Hills 31/7–3/8/92 NW. **Fawn-coloured Lark (pres 101A)**: Taita Hills 24–26/9/92 NW. **Flappet Lark (pres 75D)**: Common, Elangata Wuas 7–17/6/95 CB. **Wire-tailed Swallow (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS; (**pres 75D**): Elangata Wuas 28/5/95 CB. **Mosque Swallow (pres 75D)**: Elangata Wuas 7–17/6/95 CB. **Pied Crow (pres 88D)**: Bonham's Camp, Chyulu Hills 31/7–3/8/92 NW. **Brown-necked Raven (pres 28D)**: Ndovu 1987 FA. **Grey Tit (pres 51C)**: Lewa Downs 12–27/10/92 NW. **African Penduline Tit (pres 61B)**: Elburgon, 9–11/1/92 NW; (**pres 89C**): Tsavo West 15–18/4/92 NW. **Black-lored Babbler (pres 51D)**: Lewa Downs 24/1/92 NW; (**pres 74C**): Cottars Camp, Mara 1–3/4/93 NW; (**pres 75D**): Elangata Wuas 27/5/95 CB. **Hinde's Babbler (post pres 77A)**: Four, Nzambani, Kitui 29/11/95 DM. **White-browed Robin Chat (post pres 101B)**: Russel's Camp, Tsavo East 2–5/1/92 NW. **Capped Wheatear (post pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **African Reed Warbler (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Grey Wren Warbler (pres 51C)**: Lewa Downs 12–27/10/92 NW; (**pres 74C**): Sekanani Camp, Mara 2–4/12/92 NW. **Winding Cisticola (pres 74C)**: Sekanani Camp, Mara 2–4/12/92 NW; (**pres 100B**): Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Croaking Cisticola (post pres 75D)**: Elangata Wuas 26/5/95 CB. **Northern Crombec (pres 88D)**: Bonham's Camp, Chyulu Hills 31/7–3/8/92 NW; (**pres 101A**): Taita Hills 24–26/9/92 NW. **Grey Flycatcher (pres 62B)**: Oserian Farm, Ngobit 8/2/93 NW. **Little Tawny Pipit**: Northern Mara River, Masai Mara Game Reserve 6/11/94 TP. **Rosy-breasted Longclaw (pres 51C)**: Lomarik Farm, Timau 6/5/95 RC. **Yellow-throated Longclaw (pres 52C)**: Leopard Rock, Meru National Park 21/1/92 NW. **Grey-headed Bush Shrike (post pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Somali Fiscal (pres 28D)**: Ndovu 13/2/88 FA. **Grey-crested Helmet Shrike (pres 62B)**: Seven individuals feeding in low bushes, Prettejohns', Mweiga 10–11/10/94 NW. **Yellow-billed Oxpecker (pres 51C)**: Many occasions, Lewa Downs 12–27/10/92 NW. **Wattled Starling (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD, MS. **Red-winged Starling (pres 74C)**: Cottars Camp, Mara 1–3/4/93 NW. **White-crowned Starling (pres 28D)**: Ndovu 13/2/88 FA. **Eastern Violet-backed Sunbird (post pres 100B)**: Ziwani Camp, Tsavo West 10–13/6/94 NW. **Red-chested Sunbird (pres 61A)**: A male, AHP, Kericho 18–21/11/93 NW. **Hunter's Sunbird (pres 51C)**: Many occasions, Lewa Downs 12–27/10/92 NW. **Scarlet-tufted Malachite Sunbird (post pres 62A)**: Male adult, Gilgil 29/10/94 SG. **Beautiful Sunbird (pres 100B)**: Ziwani Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Variable Sunbird (pres 28D)**: Ndovu 1987 FA. **Fan-tailed Widowbird (pres 88C)**: Ol Tukai Lake, Amboseli N. Park 22/1/95 FN. **Fire-fronted Bishop (pres 51B)**: Samburu 27–30/4/93 NW. **Spectacled**

**Weaver (pres 75D):** Elangata Wuas 17/6/95 CB. **White-headed Buffalo Weaver (pres 28D):** Ndovu 13/2/88 FA. **Chestnut Sparrow (pres 100B):** Ziواني Camp, Tsavo West 10–13/6/94 NW. **Yellow-spotted Petronia (post pres 62C):** Eserian Farm, Ngobit 21–23/1/94 NW. **Abyssinian Crimson-wing (pres 62A):** Two adults, Gilgil 12/3/95 SG. **Yellow-bellied Waxbill (pres 74C):** Sekanani Camp, Mara 2–4/12/92 NW. **Crimson-rumped Waxbill (pres 61B):** Elburgon 9–11/1/92 NW. **African Firefinch (pres 75D):** Elangata Wuas 7–17/6/95 CB. **Quailfinch (pres 51C):** Timau 6/5/95 RC. **Black and White Mannikin (pres 75D):** Elangata Wuas 7–17/6/95 CB. **African Citril (pres 74C):** Cottars Camp, Mara 1–3/4/93 NW.

### Other records: Palaearctic species

**White Stork:** 800+ flying over, Enkongo Narok Swamp, Amboseli National Park 22/1/95 LL, JW1, AS, FN, NK, JO, AO, AOa, KN & VL; 210+, Menengai plains, Nakuru 7/1/95 JOO, ON & FN; (**post pres 76C**): 300+, West Ulu 2/2/95 FN; 150+, Athi Plains 2/2/95 LL, CJ, JOO, MF & LB; one, Naivasha 19/3/95 LL; one, Nairobi 17/3/95 LL; twelve, Tigoni 29/1/95 LL. **Black Stork:** One overhead, National Museums of Kenya, Nairobi 20/12/95 LL; three overhead, Lake Bogoria 7/1/95 LL; three soaring, Amboseli National Park 1/3/95 LL; Ziواني Camp, Tsavo West 18–21/10/94 NW. **Pallid Harrier (post pres 100B):** Ziواني Camp, Tsavo West 18–21/10/94 NW. **Long-legged Buzzard:** One overhead, Oldonyo Sabuk 2/4/95 LL. **Booted Eagle:** One overhead, Nairobi N. Park 25/3/95 LL. **Osprey (pres 101B):** Russel's Camp, Tsavo East 2–5/1/92 NW. **Northern Lapwing *Vanellus vanellus* (pres 103A):** One at Sabaki River mouth 8/2/95 CJ, GM, JS, JOO, KD, LB, LL & PB (*the first record for East Africa; details to be submitted to EANHS OS-c Rarities Committee*). **Caspian Plover:** One in breeding plumage, Sabaki River mouth 6/2/95 CJ, GM, JOO, LL & PB; five in breeding plumage, Tiwi River mouth 10/2/95 CJ, GM, JOO, LB, LL & PB. **Wood Sandpiper (pres 100B):** Ziواني Camp, Tsavo West 18–21/10/94 NW, TD, MS. **Common Snipe (pres 100B):** Ziواني Camp, Tsavo West 18–21/10/94 NW, TD & MS. **Great Snipe:** One flushed, Lake Elmenteita 14/1/95 LL. **Temminck's Stint:** One foraging, Lake Nakuru 15/1/95 LL. **Arctic Skua:** One at Sabaki River mouth 8/2/95 CJ, GM, JS, JOO, KD, LB, LL & PB; Wasini Island, 23/11/85 CR. **White-winged Black Tern (pres 63D):** Upper Tana 7/3/95 CJ & ON. **Eurasian Bee-eater:** Arroket Estate, Sotik 5/4/95 IF & PF. **Isabelline Wheatear:** One female, North Aberdares 26/2/95 PLP & YMC; (**pres 28D**): Ndovu 13/2/88 FA. **Great Reed Warbler (pres 63D):** Upper Tana 7/3/95 CJ & ON. **Reed Warbler:** One ringed at the Nairobi Museum 31/1/95 NbiRG. **Blackcap (pres 74C):** Sekanani Camp, Mara 2–4/12/92 NW. **Red-throated Pipit:** Two in garden, Tigoni 31/12/95 LL. **Grey Wagtail (pres 62D):** One adult, Northern Mathioya River 26/12/94 PLP & YMC. **Yellow Wagtail:** Arroket Estate, Sotik 31/3/95 IF & PF. **Red-tailed Shrike:** One in garden, Tigoni 31/12/95 LL.

### Contributors

AD, Ann Davies; AH, Amrik Heyer; AJB, Kimbo Beakbane; AO, Alice Oluoch; AOa, Anne Oakenfall; AS, Alfred Simiyu; AV, Anne Vaughan; BC, Brooks Childress; BK, Benard Kibara; CA, Cecil Agutu; CB, Colin Beale; CJ, Colin Jackson; CO, Caleb

Oguai; CR, Charles Rugara; DB, Dorothea Brass; DI, Dorothea Irvine; DM, David Mutinda; DM, David Mutinda; DN, David Ngala; DO, Duncan Otieno; DR, Dee Raymer; EM, Evans Mukala; ES, Edwin Selembo; FA, Fiona Alexander; FK, Fidel Kyalo; GI, Geoffrey Irvine; GM, Gladys Moragua; HG, Hilary Garland; IF, Ian Francombe; JA, Jeam Agutu; JA, Jeam Agutu; JH, Jasdev Heyer; JMN, James Makau Nzioka; JO, Jennifer Oduori; JO1, Joab Omondi; JOO, Joseph Oyugi; JS, Jan Seys; JSK, Joseph S. Katitia; JW1, James Wachira; JW, James Wainaina; KD, Kun Devos; KLW, Keith L. Wood; KN, Kuria Ndung'u; LAB, Leon Bennun; LB, Luca Biddau; LD, Linda Davidson; LD, Lorna Depew; LL, Luc Lens; MAAC, M.A.A. Coverdale; MJ, Martin Johnson; MM, Muchai Muchane; MS, M. Seth-Smith; MV, Munir Virani; NbiRG, Nairobi Ringing Group; ND, Neil Davidson; NS, Nixon Sailepu; NK, Njeri Kimani; NO, Naphtali Otieno; NW, Neil Willsher; OM, Ogeto Mwebi; ON, Oliver Nasirwa; PB, Priscilla Boera; PF, Pamela Francombe; PLP, Peter Le Pelley; PN, Peter Njoroge; PO, Paul Onyango; RC, Rose Caldwell; RD, Roger Diamond; SG, Sue Gould; SMK, Stephen Mwihi Kiragu; SS, Sue Silvester; TD, T. Detrie; TP, Tony Potterton; VL, Veerle Lens; WMBw, Wednesday Morning Birdwalk; WO, Willis Okech; WO1, Wilson Omullo; YMC, Yvonne Malcolm-Coe.

### **Heron and ibis 'tread on each others' toes'**

On the 20th February 1995 at Enkongo Lake, Amboseli, I observed through field glasses: a Black Heron and a Glossy Ibis fishing next to each other in shallow water. Now and then, when getting too close, they would both rear up and take defensive action. From under its spreading wings, the Black Heron would poke its head out and stab its beak at the ibis. They soon resumed feeding, no doubt taking advantage of the other disturbing fish and invertebrates.— *Frans Hartmann, P O Box 30181, Nairobi*

### **Ulugulu Violet-backed Sunbirds *Anthreptes neglectus* at Sable Valley Wildlife Sanctuary, Shimba Hills**

The Sable Valley Wildlife Sanctuary lies in an area of woodland/grassland mosaic, interspersed with indigenous forest stands, lying within 200 m of the dense riverine forest belt of the Mkurumuji valley on the south-eastern boundary of the Shimba Hills National Reserve.

At 06:30 on 27 September 1994 I was on the open upper viewing platform of my house, which is just next to a dense forest patch. A pair of sunbirds appeared in a *Crossopteryx febrifuga*, a medium-sized woodland tree about 20 m away. After a moment or two they flew into an *Azelia quanzensis*, a substantial forest tree no further from the house. I had excellent views in 10 x 40 Leitz binoculars. My field notes read as follows:

“Male — forehead, upper mantle, tail: iridescent blue with a violet tinge: head, neck and wings seemingly black: black continues under chin and throat, but no metallic noted there. On wing shoulder an obvious cobalt blue/green flash or squarish panel. Beneath greyish white. Female as per books, but I did not see yellow.” This relates to the fact that the female was identical to the male in wearing metallic blue above, only lacking the black chin/throat. I did not see any eye-stripe.

I am familiar with the Eastern Violet-backed Sunbird, *Anthreptes orientalis*, and with its much drabber female, which I commonly came across on my foot safaris in northern Kenya.

On this occasion the birds gave a thin, sibilant sunbird-like warble, but I could not say this amounted to a “loud persistent squeak” as described by Mackworth-Praed and Grant (*Birds of Eastern and North-eastern Africa*, 2nd edn, 1960).

The birds perched on both trees on the topmost twigs, and were thus very prominent for several minutes, in good early sunlight.

I have not found the species again despite energetic searching, particularly down in the forest, and assume they must have been passing from one favoured area to another. — *Fiona Alexander, P O Box 890, Ukunda*

[*Editors' note:* This scarce species of coastal forests has recently been recorded in Mkongani Forest (Shimba Hills), the Tana River forests and Buda Forest Reserve. Further records are requested. See recent issues of *Kenya Birds*.]

## Active anting in Collared Sunbirds

On 13 October 1994 I was able to observe three Collared Sunbirds indulge in that aspect of feather maintenance termed anting. In the past I have only witnessed this in members of the thrush family and, on one occasion, a Hoopoe. My available literature does not mention anting in the Nectariniidae.

The scene of the activity was a small shrub *Heeria reticulata* which stands 3 m from the forest edge, and 8 m. from my observation point on the open upper viewing platform of my house (see ‘Uluguru Violet-backed Sunbirds’, above).

I observed the sunbirds through Leitz Trinovid 10 x 40 binoculars, although I was so close that magnification was merely a luxury!

From 07:10 until 07:25 I watched a pair of Collared Sunbirds, which then were joined by a second female. Their unusually ‘busy’ activity drew my particular attention, and I then noted that the stems of the *Heeria* were literally crawling with hundreds of small black ants. The following comments from my field notebook may be of interest: “An incredible flurry of activity as they both frenziedly pick tiny ants off the stems and shove them under their ‘armpits’, shivering out their wings. They seem almost in ecstasy. After about ten minutes of

this they fly up into the nearby shrubbery, knock the dewdrops off the leaves onto their wings and mantle, then billing away at the ants, they ruffle and shake the moisture through their plumage. Then off on a joyous chase through the bushes. A second female goes through the same act after them."

On 26 October 1994 a single female again anted in the same shrub at 07:00. My notes: "Again she darts among the dew-laden foliage to create a shower-bath afterwards."

This is the first occasion I have witnessed 'active anting', my other sightings relating to 'passive anting' when the bird lay on the ground among the ants.

At risk of being charged with anthropomorphism, I would say that the sunbirds appeared to derive an almost ecstatic enjoyment from the activity. —  
*Fiona Alexander, P O Box 890, Ukunda*

### Is the Sokoke Scops Owl in the Shimba Hills?

Sable Valley Wildlife Sanctuary lies immediately adjacent to the Shimba Hills National Reserve, at its south-eastern extremity. The substrate of the region is variously described as Magarini sands, Mazeras sandstone, or Shimba grit, and it appears that these slightly differing soil types are fairly randomly distributed throughout the area. The altitude of the Sanctuary is generally about 240 m above sea level. Among the area's indigenous forest trees are *Cynometra webberri*, *Manilkara sansibarensis*, *M. sulcata*, and *Brachystegia spiciformis*.

Apart from the slightly higher altitude, the habitat thus has many common features with that inhabited by the Sokoke Scops Owl *Otus ireneae* in Arabuko-Sokoke forest.

Since taking up residence here in November 1992, I have monitored the owl calls hopefully. To begin with, I was inspired with some excitement, as were the team from the Ornithology Department of the Museums in nearby Maluganji Forest (*Kenya Birds*. 1(2): 26). For some months I was convinced that I had Sokoke Scops Owls commonly around the house. The only descriptions I could obtain of its call were the invariable, "It sounds like the Golden-rumped Tinkerbird".

However, at last I found a detailed and exact description of the various calls of the Barred Owlet *Glaucidium capense* in the splendid volume *The Owls of Southern Africa* (by A. Kemp & S. Calburn), and it became evident that these are what I had been hearing.

Having now become extremely familiar with the differing calls of the Barred Owlet at all seasons, I heard a quite different call during the night of 11 October 1994. My note reads: "'Plonk, plonk, plonk' x 6 or 8 times, monotonously, on and on. Even when Barred Owlet is doing a single-note theme, each note consists of a

'fruitier', more musical tone than this. The description 'similar to Golden-rumped Tinkerbird' fits".

There were none of the purring, trilling, mellow attributes of the Barred Owllet's calls.

I have not heard a similar call since, and I therefore make no attempt to establish this as a record, but describe it merely to add further fuel to the possibility that the Sokoke Scops Owl may well be present in the Shimba Hills area. — *Fiona Alexander, P O Box 890, Ukunda.*

## Great White Pelicans in the Shimba Hills

On 16 October 1994 I beheld in 10 x 40 binoculars a flock of ten Great White Pelicans sitting in the top of a large forest tree, half-way up the eastern slope of the hills opposite my house.

My observation point was on the open upper view in platform of my house (see 'Uluguru Violet-backed Sunbirds', above). Beyond the valley basin of forest, the hills slope upwards fairly steeply, dissected here and there by densely forested stream gorges.

At 07:00, I was scanning the opposite slope for sable when I noted what initially appeared to be giant white blossoms covering the crown of an isolated indigenous tree approximately half-way up the green grassed slope, about 2 km from me. After some minutes' scrutiny, various individuals stretched their wings and altered position slightly, and it then became obvious that they were pelicans. I was at first loath to believe my eyes, as I could not conceive of these huge aquatic birds in a less likely situation, but pelicans they indubitably were.

For two hours I kept my glasses firmly glued to them, and at 09:00 they all arose and took to the air, when the obvious black primaries marked them as Great Whites. They spiralled slowly in a thermal, drifting in a northerly direction on the south-easterly breeze. After about 10 min, when they had gained sufficient altitude, they struck off north-westerly across the summit of the range in a ragged V-shape and were lost to sight.

Great White Pelicans do not seem to have been recorded from this region (atlas square 114A), and I have no knowledge of any large body of water containing fish in this neighbourhood where they have been sighted. The nearby coastline likewise boasts no record as far as I am aware. The track they were flying, if they maintained it, could have taken them to Aruba Dam, 125 kms away. From which direction they came I do not know, but it is unlikely they would come from say, Lake Jipe, in order to fly to Aruba, which would be a relatively short flight in a straight line. It is more likely that they arrived from some point south, in Tanzania or beyond. — *Fiona Alexander, Box 890, Ukunda.*

## Shoebill *Balaeniceps rex* at Amboseli National Park, Kenya

On the 13 December 1994 I made a short day trip to Amboseli National Park with Brian Finch, Leonard Maina and Karinga Kariuki.

There had been an abundance of rain in Kenya over the last month and Amboseli had shared in this. As our time was short, we concentrated on the now abundant wet areas. These included a freshwater spring, Maji ya Kioko or Lake Conch — a well-known birding spot — and the Sinet Canal which flows south-east from it.

On the Kitirua Circuit Track bordering the Sinet Canal, at 11:15, we saw a Shoebill *Balaeniceps rex*, almost certainly the same bird that had earlier provided Kenya's first official sighting in the Masai Mara, at Musiara Springs.

Where the bird was standing the canal had around 5–8 cm depth of water, and grass around 15 cm high. The sun was behind us and we watched the bird for about 40 minutes, after approaching carefully to a distance of about 150 m. The bird stood, apparently resting, and gave no sign of concern. During our watch it shook itself and fluffed its feathers twice, and appeared to be extremely healthy. Towards the end of our watch, the bird lifted itself up and flew a distance of about 5 m; we did not see any sign of missing feathers. The bird was of a strong deep grey, identical to an adult bird that I had earlier seen near Murchison Falls in Uganda. However, there was a very slight brown wash on the secondary coverts. The bill was modeled grey and pink with pink predominating, and the legs were pale.

The bird I saw in Uganda was easily visible in grass about 25 cm tall in a swampy area by the Nile. The Amboseli bird was in somewhat similar habitat, but there were no large stands of papyrus nearby. Behind the spring and to the East were some higher stands of swamp grass.

It would be interesting to compare this sighting with the others which have been recently recorded. It is also to be hoped that observations will continue on this bird as long as it stays in Amboseli, since this is such an easily accessible area in a well-visited park. — *Jorie Butler Kent, Box 59749, Nairobi.*

### Shoebill Safari

Stories of the sudden appearance of the Shoebill in Kenya prompted us to travel to Amboseli and become fully fledged 'twitchers'. We had heard that a single bird had been seen in the swamps by the Ol Tukai bandas, and can confirm its presence there on the weekends of 18/19 and 25/26 February. On the first occasion our party was somewhat sceptical as the swamps were of reeds and grass and afforded nothing of the cover of their supposed preferred habitat, papyrus. At the end of the

track, however, a quick scan with binoculars was sufficient to single it out: its size and unusual blue-grey colouring made it distinctive and it was later easily relocated with the naked eye, even when at some distance.

Initially 100 m away, the bird showed no shyness and not only flew to within half that distance but also placed itself conveniently in front of a group of grazing elephants. At this range its primaries exhibited a glossy sheen and its extraordinary bill showed a hint of pink. On several occasions it spread its wings flat out on the ground as if drying them, and was also alert to movements in the water, once catching a brownish-black fish larger than its own head; the tail fin remained outside its bill and after a few moments it appeared to give up and deposit its catch back in the water.

We had by this time settled down comfortably and were visited by several tourist vehicles, their occupants assuming we were admiring the elephants. We heard no comment regarding this curious bird which seemed to remain unnoticed by all. Indeed its presence was not known at the gate, nor at the bandas nor at any of the lodges we visited. Which prompts me to ask what monitoring of this amazing bird is being done in its present extralimital location? Is the Museum relying on individual reports such as this one to keep informed? [*Yes. — Editors.*] And do these sightings now lend more credence to previous 'records' in Shombole and Thika, as quoted in the Bird Atlas of Kenya?

The second of our sightings, incidently, was a week after the first and the bird was within 200 metres of its first location and was still easily visible. It occurred to us on both occasions that we were enjoying a most peaceful bit of twitching — and for no ordinary LBJ! Were we in Europe there would doubtless have been a gaggle of twitchers all armed to the gills with optical accessories and roped off accordingly. Shoebill T-shirts would be on sale nearby and a new Shoebill-flavoured ice-cream would have been introduced at the local café. Yes, Kenya really is a magical place for birdwatching! — *Neil and Linda Davidson, Wendy Rutter, Mike Webb, P O Box 24722, Nairobi.*

### **Wattled Plover breeding in Masai Mara**

We were surprised to note in the Atlas that the Wattled Plover has no breeding record in Kenya. We have a photograph taken on Christmas Day 1988 [*copy deposited in the Ornithology Department — Editors.*] that shows this species on its nest on the main Governors Camp road, just 500 m from the Musiara Gate of the Masai Mara Game Reserve. Indeed, the wardens had protected the bird from passing vehicles by placing three sticks around her. We were surprised that such a record in such a prominent place had gone unreported, and were amused to note a similar observation on the front cover of *Swara*, January 1995. Needless to say,

Jonathan Scott's picture was somewhat better than ours, bearing out the hint in his article that one should attempt to get at eye-level with the subject. — *Neil and Linda Davidson, P O Box 24722, Nairobi.*

[Have any other readers seen this species breeding, in the Mara or elsewhere? — *Editors.*]

### **Violet-backed repels Black-bellied Sunbird**

On the mid-morning of 26 March 1995 we sat on the bed rocks of the seasonal Olkeju Ngiro River, near Ologesailie Prehistoric site, watching a pair of Black-faced Sandgrouse. Our attention was distracted by the loud squabbling of two sunbirds in a nearby bush parasitised by a blooming *Loranthus* plant.

A male Eastern Violet-backed Sunbird was chasing a male of the Smaller Black-bellied Sunbird from the bush. After that the Violet-backed returned to feed from the red flowers. As he fed, he fanned out his tail and flicked his wings simultaneously in rapid succession. He then perched on a small branch to groom himself.

The Smaller Black-bellied Sunbird, this time accompanied by a female, returned to feed in the same bush. No sooner had they begun than the Violet-backed lashed out at them so vigorously that they scrambled for safety. The Violet-backed then fed for a short time and resumed its grooming. The Smaller Black-bellied Sunbirds made several more attempts to feed on the flowers but were repelled by the Eastern Violet-backed each time. When we left two hours later to pursue other birdlife, the bird was still defending its bush.— *Onesmas Kahindi and Joyce Kageci, P O Box 74901, Nairobi.*

### **Possible breeding record for Black-throated Wattle-eye at Galu Beach**

On 22 November 1994 a pair of adult Black-throated Wattle-eyes visited our birdbath at Galu (Bird Atlas of Kenya QSD 114B). They were accompanied by an immature male, the plumage of which was closely observed in good light. This was as described by Mackworth-Praed and Grant, (*Birds of Eastern and North-eastern Africa*, Vol 2, pp. 210-211): brownish grey above, rather than glossy black, with a conspicuous but small eye wattle.

Although this species is seen only infrequently at our birdbath, we assume they are resident in the adjacent strip of coastal forest. It seems likely that the presence of an immature bird in company with an adult pair suggests breeding in QSD 114B.— *Ken and Betty Bock, P O Box 641, Ukunda.*

## Immature Silvery-cheeked Hornbills at Galu Beach

On 20 February 1995 three Silvery-cheeked Hornbills were seen in the large fig tree near our house at Galu Beach (immediately south of Diani). One was an adult female; two were immatures, evidenced by their size (about half to three-quarters that of the adult) and by their small bills (one without a casque, the other with the mere beginnings of one). The plumage of the immatures was rather tatty, especially their tails, the general impression being that they were not long out of their nest. All three indulged in mutual preening. This is our first record of such very young birds in five years of birdwatching at Diani and Galu.

This species is present here (and vocally so) throughout the year, though the size of flocks fluctuates greatly. There is a tendency for small flocks of two or three birds between May and October, while large aggregations of up to 19 birds (not always associated with fruiting trees) occur during the hot, dry season.— *Ken and Betty Bock, P O Box 641, Ukunda.*

[Remarkably, there still are scarcely any satisfactory breeding records of this species in Kenya — *Editors.*]

## Half-collared Kingfisher *Alcedo semitorquata* at Kanderi Swamp, Tsavo East National Park

On 4 June 1995, at around 11:50 h, I was scanning some mudflats and shallow pools adjacent to the Voi River on the Kanderi Swamp Circuit, Tsavo East National Park. I saw a 'blue' kingfisher perched on a small bush hanging over the river, about 150 m away. I immediately noted a striking resemblance to the Common Kingfisher *Alcedo atthis*, a species with which I am familiar since it is a common breeding bird in Belgium. The bird in question was very similar in jizz to *Alcedo atthis*, and was definitely much larger than the Malachite Kingfisher *Alcedo cristata*, a species which I have often observed while birdwatching throughout Kenya and South Africa and which I have handled during ringing work at the National Museums of Kenya. Looking more closely, the most obvious features were the large black bill, whitish neck patch and buffy underparts. After observing the bird for about one minute through my binoculars, it shifted position and showed its blue breast-patch. I then took my telescope, fixed it to the open roof of my Landrover and observed the bird for another five minutes in bright sunshine, after which it flew off and did not turn up again. The telescope observations confirmed that this was indeed the Half-collared Kingfisher *Alcedo semitorquata*. The overall impression was of a relatively large 'blue' kingfisher



Woodland Kingfisher — *Bryan Hanlon*

with heavy black bill, distinguished from *Alcedo cristata* by its much larger size, lack of turquoise crest, lighter back and buffy (not reddish) underparts. I could not see the colour of the legs.

I returned to the same spot about two hours later, but could not relocate the bird. — *Luc Lens, P O Box 40658, Nairobi.*

[This is a scarce species in Kenya, with a scattering of records from the area around Mt Kilimanjaro. This is the first record for atlas square 89D — *Editors.*]

## Bird survey of Malu Farm

On 8 and 9 July 1995, a team of twelve people — most of them bird enthusiasts from various institutions, such as the National Museums of Kenya — visited Malu Farm in the Rift Valley near Naivasha. The short visit aimed to list birds, mammals and plants which can be seen at the site, which includes a stretch of attractive riverine forest along the Malewa River. The survey was carried out by invitation from the managers, who want to convert the place to a private camp that will attract ecotourists and trout fishers. A total of 117 bird species was recorded, most of them in the riverine forest and adjacent scrubland. Among many others, noteworthy species included Crowned Eagle, White-headed Wood Hoopoe and Fine-banded Woodpecker. As this site also appears to have potential for migrant birds from Europe and Asia, a second visit is planned for January, in the middle of the northern winter.

Malu Farm, situated halfway between Lake Naivasha and the Kinangop Plateau, is ideal for those wanting a quiet break, or can be a comfortable base for those wishing to explore nearby sites, such as Lake Naivasha and the Aberdares National Park. The site will be open to visitors in the very near future. — *Luc Lens, P O Box 40658, Nairobi.*

## Rakewa: Breeding site for Pink-backed Pelicans

On 25 February, 14 and 16 April 1995, survey visits were made to the nesting site of the Pink-backed Pelicans at Rakewa near Oyugis township, Homa Bay District. In the February team were Dickson Ogwai, Joab Omondi, Joseph Oyugi, Paul Onyango and Wilson Omullo; Oyugi, Omondi and Omullo returned in April.

Pink-backed Pelicans occur seasonally on almost any water body where fish are readily caught, including coastal creeks and estuaries. The breeding colonies are sometimes near their aquatic feeding grounds, but more often unaccountably far away, frequently shared with storks, ibises and herons. They often breed in populated areas close to man, in towns and villages, and can tolerate a good deal of human disturbance.

Known breeding colonies are widely scattered in East Africa, mainly in Uganda and Kenya, and most consist of less than 100 pairs. Not all sites are in regular use. However, the Rakewa site has been used by up to 250 pairs for over 200 years, and is protected by the area's Luo people.

The pelicans prefer to nest on tall trees (such as boobabs, large *Ficus* species, *Bombax* and *Chlorophora*). In western Kenya and Uganda they start nesting between August and November, with a peak in the late rains of August to October. The young fledge by the dry season in January to February.

The birds often resort to their traditional site annually, perhaps for centuries. Their continual re-occupation of the same site may eventually kill the nesting trees and force them to move, but they seldom shift far.

During our first visit we made brief observations. On one fig tree were two fully-fledged young pelicans and two juvenile Black-headed Herons, sitting in nests of twigs and sticks. Another pair of juvenile herons flew from the ground and perched on a branch. We counted sixteen stick nests altogether.

During the second visit, twenty-seven adult pelicans and three Black-headed Herons were observed on an evening roost. We also conducted an interview, focusing on people whose land borders the breeding site. Five land owners were interviewed. The survey revealed that in recent years, there has been increasing human pressure on the site, causing habitat degradation. The valley bottom has been reclaimed for sugar cane and bananas, whereas the smallholdings surrounding the site have extended closer to the nesting trees, or even below them. This has resulted in many trees losing their branches or being cut down altogether. Part of the community claims that the birds' droppings destroy their crops, and the birds are therefore chased off the trees, or the branches cut down to control their numbers.

It is evident that humans continue to interfere with the large trees used by the birds for nesting and roosting. When we visited the site there were seven fig trees remaining, of which just three were large, mature trees. If this trend continues, the remaining few trees might all be destroyed, and the pelicans would then be forced to abandon the site. There is an urgent need to stop the destruction and plant more trees to replace the ones already cut down. This will involve a community-based conservation and awareness programme. — *Joseph Oyugi, P O Box 40658, Nairobi.*

### **Request for cormorant breeding information**

I am currently studying the comparative ecology and breeding biology of the Great and Long-tailed Cormorants at Lake Naivasha. Any information you may have regarding past or present breeding activity by either of these species in the vicinity of Lake Naivasha would be greatly appreciated. I am particularly interested in knowing when breeding occurred (month and year), where (including a brief description of the breeding site), approximately how many nests were noticed and whether there were any other species breeding at the same time in the same location. Please send any information to me at **P O Box 1497, Naivasha**. All letters will be acknowledged. Many thanks. *Brooks Childress.*

## Letter to the Editors

Dear Sirs,

My wife and I have returned to Kenya after 20 years in Britain, Tanzania and (most recently) Rwanda.

We have welcomed the opportunity to renew our association with friends and colleagues in Kenya and to witness the many exciting and promising developments in wildlife research.

Your publication *Kenya Birds* is most welcome and the range of topics covered makes it very readable. However, I am surprised to note that few articles provide any supporting references or suggested further reading. As a result it is not easy to locate the original source of observation or to pursue a subject further. Thus, for example, Simon Thomsetts excellent article on quelea control (Vol 3 No. 1) contains many interesting data but it is tantalising not to know where to go for more information. Could the authors be encouraged to give references or a 'recommended reading' list where appropriate?

In a similar vein, it occurs to me that some of your contributors and readers may be unaware of work carried out in the past, especially where this was published in relatively inaccessible or specialist journals. For example, a number of papers on the care of raptor casualties, on pesticides and on deaths in flamingos on Lake Nakuru appeared in veterinary and allied publications in the 1970s. I can provide details to any reader who is interested.

Perhaps a comprehensive bibliography of publications on Kenyan avifauna is required, which could be produced periodically, in parts, in *Kenya Birds*. This would not only provide a useful record of past contributions to the subject but also serve as an easily accessible resource for current workers, whether well established in the country or carrying out short-term projects.

Yours faithfully,

John Cooper

*Current address:* Durrell Institute of Conservation and Ecology, University of Kent at Canterbury, Kent CT2 7NX, UK.

[*Editors' note:* Our policy so far has been to keep things simple and avoid lengthy citations. What do readers think? Maybe a list of further reading? A similar bibliography to the one that Prof. Cooper suggests is published as a supplement to the *Bulletin of the African Bird Club*, 2(1), March 1995 — this deals with all papers and notes on African birds in 1994.]

## The Augur Buzzard project

The Augur Buzzard Project (ABP) is a two-year study focusing on the ecology of the Augur Buzzard in two main nesting habitat types (cliffs and trees) within the Lake Naivasha area. The project is funded by the Peregrine Fund Inc. (USA), the Aga Khan Foundation (Switzerland) and Earthwatch (USA). Collaborating institutions include the National Museums of Kenya, University of Leicester (UK) and the Elsamere Conservation Centre (Kenya). The ABP aims to understand more about the species' distribution, abundance and ecological requirements (primarily with respect to habitat) so that an ideal Augur Buzzard habitat model can be constructed. This model will then be used in other parts of the country to predict whether habitat is responsible for lower Augur Buzzard populations.

### Why Augur Buzzards?

The Augur Buzzard is one of East Africa's most frequently seen birds of prey. It is common in the East African highlands where it inhabits open moorland country, mountains, forest glades, inland cliffs, cultivation and baobab country. In Kenya it ranges from the shores of Lake Victoria, across the eastern Rift Valley into the Tsavo plains and south into Tanzania. The bird is rarely found along the coast.

Despite the fact that it is widespread and conspicuous, very little is known about the biology and ecology of the Augur Buzzard. The late Leslie Brown described the Augur Buzzard as one of his favourite birds and had hoped to make a fuller study of it. The bird has been unjustly neglected, perhaps because it seemed abundant at the time.

The Augur Buzzard has often been described as widespread and locally abundant. It has also been portrayed as a species that is well adapted to cultivated land and dense human habitation. A typical example is the super-abundant Augur Buzzard population which occurs around Lake Naivasha, a region where intensive horticulture is practised.

While the Augur Buzzard is today still relatively conspicuous and abundant, its numbers are depressed compared to the recent past. Between 1968 and 1972, road transects conducted along the Nairobi-Naivasha road by G. Cunningham-van Someren yielded Augur Buzzard numbers which were well into double figures. Present (1993-1994) road counts conducted along the same road have yielded only two or three individuals. In the years between 1965 and 1967, Leslie Brown found marked differences in the numbers of Augur Buzzards between areas of plains/thornbush (one Augur Buzzard every 13 miles) and areas of cultivated/inhabited lands (one Augur Buzzard every 23 miles). These findings need to be re-evaluated to determine the birds' present status in different parts of the country.

In some areas today, e.g. the central highlands, only around one Augur Buzzard remains for every 24 present in the recent past; in other areas, such as Lukenya and Athi River, the ratio is 1:3. The Eagle Hill area in Embu has over the years also shown a marked decline in the number of Augur Buzzards. Leslie Brown attributed this decline to human population pressure.

According to Sorley and Anderson, who conducted a recent study on raptor diversity in areas of different land-use in south-central Kenya, three main factors affect raptor density and diversity as a result of changes in land-use. These are:

- (1) Overgrazing by domestic livestock alters the original vegetative cover. This potentially affects the abundance and distribution of prey;
- (2) Cultivation replaces the original vegetation completely and may involve the use of chemicals that are toxic to raptors and their prey;
- (3) Human hunting pressure reduces prey populations.

The impact of habitat alteration on raptors varies according to their ecological requirements. My study focuses on Augur Buzzards for the following reasons:

- (1) Although they are locally abundant, very little is known about the behaviour and ecology of the Kenyan population. The species has only ever been studied in the Matopos Hills, in Zimbabwe. There the focus was on the bird's breeding biology, its interspecific relationships and population density.
- (2) Their numbers are declining in areas of intensive land-use.
- (3) They are highly conspicuous raptors that can be censused easily. They are also aesthetically beautiful and charismatic, representing our natural world, and have always been associated with farmers — hence the name 'farmer's bird';
- (4) Individuals can easily be told apart.

### **How can you help?**

You can help the study by making some simple observations about Augur Buzzards and their habitat. If you know of any Augur Buzzard nest(s) around the country, please let me know by filling out and returning the simple questionnaire enclosed in this issue.

Also let me know if you think the number of Augur Buzzards in your home area has changed over the years. It is worth recollecting that birds of prey comprise about 10% of all bird species, but include nearly 20% of all the threatened ones. Do your bit for conservation — help us to help the Augur Buzzard! — *Munir Virani, Augur Buzzard Project, Elsamere Conservation Centre, P O Box 1497, Naivasha. Tel. (0311) 21055.*

## The social life of the Social Weaver

Leon Bennun

P O Box 40658, Nairobi

*Note: This is a version of an article that first appeared in Kenya Past and Present, vol. 24, 1992. The Editors thank the Kenya Museum Society for permission to reproduce it.*

The National Museums' Olorgesailie Prehistoric Site, which protects an excavation of fossils and Acheulian artefacts (*see article, this issue*), lies some 70 km south of Nairobi. Not a great distance, but it could as well be another world. The road from the capital plunges over the edge of the Rift Valley and descends the flank of Ol Doinyo Esakut by a series of steep steps, before levelling out on the valley floor near the village of Oltepesi. The country here is hot and harsh. Every tree and bush seems hostile, studded with spines that lash and tear. During the brief rainy seasons the thorns are concealed by a deceptively delicate flush of greenery, and the air is heavy with the buzz of insects. More typically the branches are spiky and bare, a stinging wind whips dust from the ground, and the only sound is the remote tinkling of bells, from goats and cattle moving indistinctly through a haze of heat.

There is a sense of timelessness at Olorgesailie. This is especially marked in the evening when the sun finally dips behind the escarpments to the West, the baked landscape is bathed in molten light, and it is not difficult to picture a group of *Homo erectus* winding their way up from the shore of the ancient lake, evidenced now only by a serried series of diatomaceous cliffs. The site is at its best at this time of day. Unfortunately most visitors arrive in the blazing middle hours, when only an unusually intense interest in stone tools can save the circular tour of the excavations from being something of an ordeal. But even the most heat-dazed tourist, collapsed on the verandah of one of the site's thatched huts, is likely to be struck by the tame little birds, pinkish-grey with a pale cap, that hop up inquisitively right to one's feet, and by the bulky bundles of dried grass adorning all the larger trees. These are the Grey-capped Social Weavers and their nests.

### A thatched residence

Grey-capped Social Weavers (*Pseudonigrita arnaudi*), are small birds (an individual weighs around 20 g) in the family Ploceidae — the sparrows, weaver-birds and allies. Like their relations the sparrow-weavers, they do not really weave their nests but thatch them out of dry grass. The result is a strong, bulky,

rather untidy structure constructed near the end of a thorny acacia twig. Each nest has two entrances facing downwards. This is presumably a protective device; if an unwelcome visitor arrives through one hole, the bird can make a rapid exit through the other. But this architecture is less than ideal during the breeding season, for there is nowhere for the eggs to sit without rolling out of one of the holes. The birds solve this problem by sealing one hole with a plug of dry grass, creating a secure rounded chamber.

The nests rely on inaccessibility rather than inconspicuousness for protection. However, they are not proof against birds such as the Gabar Goshawk or Grey Hornbill, which will spike a hole in the wall or rip the roof off to reach the eggs or helpless chicks. Large snakes such as the Boomslang also make heavy inroads.

Of the trees around Ologesailie, Social Weavers nest for preference in the big, flat-topped *Acacia tortilis*. Nests are also often found in large specimens of *Acacia mellifera*, one of the 'wait-a-bit thorn' species and, with its evil little recurved spines, a nightmare for the field ornithologist. On the lava ridge in front of the site, the birds build on top of the high, whip-like emergent branches of *Acacia senegal*. This must offer them a good deal of protection, but one feels for the sitting birds when the branches are lashed wildly back and forth in the short but violent gusts that herald the onset of a rainstorm.

I studied Grey-capped Social weavers at Ologesailie from March 1985 to August 1987. They interested me because I wanted to understand their social way of life. In particular, I was investigating a behaviour known as communal, or cooperative, breeding.

### Surrogate parents

Communal breeding is not quite as licentious as it sounds. The term refers to a social system where more than two birds cooperate in rearing young: thus some birds, called 'helpers', assist in caring for offspring that are not their own. There is a wide variety of communal breeding systems, and it is dangerous to generalise, but helpers are most often non-breeding birds that seem to be waiting for a chance to reproduce. The behaviour is known to occur in more than 200 bird species, mainly in the tropics, and has generated considerable interest among biologists. This is because it presents an evolutionary paradox. According to the theory of natural selection, animals should behave so as to maximise their own reproductive success. Why then should an individual invest time and energy in someone else's children.

### Hidden benefits

If we assume that the behaviour has evolved through natural selection, then the paradox must be resolved by showing that helping is in fact adaptive. There are

two broad ways in which this could be so. First, the helpers may be gaining some hidden, 'direct' benefit, which will in fact increase their own reproductive success over their lifetime. For instance, the young birds they assist to rear may assist them in turn when the helpers begin breeding. Or the helper may be hoping to take over a neighbouring territory by force, using the young birds as extra muscle-power. Feeding chicks could give helpers valuable experience which will improve their own performance later on; they might be hoping to mate with one of the breeders the following season; or, despite appearances, some of the young birds in the nest could actually be their own offspring. In all these cases, the behaviour directly benefits the helper itself.

Alternatively, helpers may be propagating their own genes in an 'indirect' fashion. This idea is sometimes called 'kin selection'; the point is that an individual's genes occur not only in its own offspring, but also in the offspring of its relatives. In genetic terms, a brother or sister is worth as much as a son or a daughter, since each on average shares half one's genes. Thus, under certain circumstances, selection could favour individuals that aid their relatives rather than rearing their own young. The circumstances under which this should occur are given by 'Hamilton's rule'. Simply put, this states that helping will be favoured when the benefit, weighted by the appropriate degree of relatedness, is greater than the cost.

The significance of kin selection in explaining helping behaviour has been hotly debated. If kin selection is important, then helpers should assist close relatives in preference to more distant ones, and their action should increase the reproductive success of the birds they help. It has been difficult to prove conclusively that these requirements are met. The majority of communal breeders live in all-purpose territories that are defended by a family group. In these cases, the helpers are offspring from previous breeding seasons that have stayed at home. These helpers do indeed assist close relatives, but only, one could argue, because there is nobody else around.

Most studies have found that the breeders' reproductive success does indeed increase with the number of helpers present. However, this effect could be caused by many other factors that are related to group size, such as territory quality or the age and experience of the breeders, and the relationships are almost impossible to disentangle. Even experiments to remove the helpers and see what happens are not conclusive. If breeding success drops, this could simply be because the group is socially disrupted, not because the breeders are no longer receiving help.

These problems are much less severe in colonial species. Because no territories are defended, helpers could potentially assist any of a large number of other birds. Furthermore, many of the confounding factors associated with territoriality are absent, so reproductive success can be more directly related to

what the helpers do. Unfortunately, only a very few species of communally breeding bird nest in colonies. The Grey-capped Social Weaver is one of them, and this is why I was interested in looking at its social system in detail. I wanted to find out whether kin selection had been important in the evolution of communal breeding in this species.

### **Fools rush in...**

As a naive graduate student, I did not realise just how much I was taking on. In common with most bird species in tropical Africa, there was very little known about the ecology of Social Weavers, beyond the fact that they were reported to have helpers at the nest. Before I could say anything sensible about the evolutionary aspects, it would be necessary to fill in enormous blank areas about such basic features as dispersal, movements, mortality, sex ratios, social structure, clutch size, egg characteristics, breeding success, nest predators, provisioning behaviour, chick growth and seasonality — just to name a few. Neither were the birds and the climate particularly predictable. The most crucial data were on reproductive success, which could obviously only be collected during the breeding season. Supposedly this was twice a year, during the long and the short rains. However, things were not so simple in practice. Either the rains failed; or the birds refused to breed; or they began to breed at completely the wrong time while I was away analysing data. In fact, by the end of the study I came to the unconventional conclusion, supported by statistical tests, that the main factor influencing the onset of breeding was the absence of the researcher. Eventually I managed to obtain data on breeding during three long rainy seasons.

My study methods were straightforward and required a minimum of equipment, the most expensive item being in aluminium ladder. The aim was to build up a population of birds that could be identified individually by the combination of coloured bands on their legs. Since the plastic colour-bands had an annoying tendency to fall off through the combined effect of intense sunshine and abuse by the birds, each individual was also banded with a numbered aluminium ring that provided a permanent identity, so long as it could be captured again. Birds were caught mainly with the aid of a baited drop-trap, a wooden square covered with netting that could be lowered suddenly on top of a group of feeding birds.

### **Once caught, twice shy**

This worked well at first, but the Social Weavers were anything but stupid and quickly learned that the trap plus my presence meant danger. This necessitated more and more elaborate subterfuges as the study progressed. We also carried out a lot of trapping with mist-nets away from the site to try and detect the birds'

movements. I monitored the state of growth or decay of nests on the site, and made intensive behavioural observations of building, roosting, incubation and provisioning. These essentially involved sitting for long hours under an acacia tree with a pair of binoculars and a notebook.

During the breeding season, I kept track of the contents of each accessible nest on the site. This was hard work, since many of the nests were very high. With the ladder, a table and a tall pole for pulling down the branch I could reach most of them, but removing the fragile eggs or young, while teetering high on a wobbly ladder in the less than tender embrace of a tangle of acacia branches, was often a nerve-wracking experience. The fact that one never knew whether some other less amenable creature had temporarily taken up residence in the nest also added to the excitement. I managed to avoid fingering any snakes, but the day that a bushy-tailed dormouse leaped out onto my head, and I fell off the ladder, will certainly live in my memory.

### **Babies need nappies**

Removing the nest contents posed other problems, too. It was impossible to reach a hand in through the open entrance, so the eggs or chicks had to be taken out from the other side, which meant pulling out the grass plug. This did the plug no good whatsoever, and after one or two removals is usually all but disintegrated. To bolster the seal I devised the idea of a 'nest nappy', a small, square piece of white cloth that would tie on under the plug and keep it comfortably in place. This method worked very well; the birds quickly became used to it, and it seemed to have no effect on their breeding success. It did, however, produce no end of mystification for visitors, who were often overheard asking the site staff how the birds managed to build such odd-looking nests.

During nest checks I measured the young to assess their growth, and also photographed each clutch of eggs. Social Weaver eggs vary greatly in colour and pattern, but each female lays a consistent type. Through this means I could demonstrate that no more than one female ever laid in a nest: in other words, the helpers were not additional breeding females.

Sexing the birds proved an enormous problem. Male and female Grey-capped Social Weavers look identical and behave very similarly, though there did seem to be some subtle differences in, for instance, the level of aggression or frequency of display. I was able to confirm some of these intuitions from tracking egg patterns, in cases where birds had changed mates. Unfortunately, though, there was no alternative at the end of the study but to sacrifice a few birds. Each of these also gave me information on the sexes of others. Reassuringly, these data confirmed my intuitions based on behaviour.

Social Weavers turned out to live in family groups. Each group had a cluster of nests in a tree or set of trees; the family generally cooperated to build and maintain nests, and roosted together in the evenings. One tree might contain several families of various sizes, from simple pairs to large extended clans. The birds foraged widely in flocks and did not defend territories. However, they did chase away unfamiliar Social Weavers that ventured near their nests. For reasons that I do not yet understand, trees were quite often suddenly abandoned completely, the different groups often moving together to a new site some distance away. The number of apparently suitable, unoccupied trees, and trees with abandoned nests, suggested there was no shortage at all of good quality nest sites. Sometimes family members would split off and move away to distant trees, but they still maintained a connection with their relatives and were often seen visiting them (and sometimes helping). Generally, the birds' society seemed bound together by a network of kinship and familiarity at many different levels.

### **Flighty females**

Adult Social Weavers had a high survival rate, of around 81% per year, but only about 20% of young birds still remained on the site a year later — the rest had died or dispersed. From tracking these disappearances, it appeared that females left home shortly before the start of their first breeding season, while yearling males remained behind. Practically all of these young males became helpers, along with a few second-year and older birds, but they worked only at the nests of relatives. If there were a choice among relatives, they chose to assist parents rather than a brother. Between a quarter and a third of all breeding pairs had help.

Interestingly, more than half of these yearlings bred at the same time as they helped, a most unusual phenomenon. They continued feeding at their parents' nest while building and then incubating at their own, but stopped helping once their own chicks hatched. Most of these young males were paired with young females from outside the study site, who appeared after the breeding season had begun. In the adult population there were slightly more males than females (a ratio of 11:10), and each year some yearling males failed to find mates.

What effect did the helpers have? In analysing the data, I compared the reproductive success of pairs that did or did not have helpers. I also included two other factors in the analysis: the age of the breeders (yearling or older) and their residence status (whether they were residents of the site, or had migrated in since the last breeding season). I used these factors because I suspected they affected reproductive success, and because older, resident birds were much more likely to have helpers than were younger birds or immigrants.

The results showed that in each year helped pairs produced more young than unhelped pairs. This was the case even when the effects of age and residence were

accounted for. Pairs where the female was an immigrant did less well than others, and the reason for this seemed to be that they started breeding later in the season and hence had less chance to replace a clutch if anything went wrong.

Pairs with helpers were more successful for a variety of reasons. In one year they laid larger clutches, and in all years their eggs and young survived better. Helped pairs were more likely to raise at least one chick than unhelped pairs. At successful nests that were not attacked by predators, helped pairs produced more fledglings than unhelped pairs in two out of three years.

Overall, helped pairs did between 35% and 355% better than unhelped ones over the three years. The worse the season in terms of weather conditions and overall breeding success, the more dramatic the effect of help (although with only three years to go by, one cannot say too much about such trends). I could not detect any effect of helpers on the survival of the parents or the young birds after they had left the nest; however, helped pairs were more likely to nest again once they had already raised a brood successfully — probably because the helpers took over the demanding job of caring for the fledglings.

This 'help effect' could have occurred because the helped birds were simply better parents anyway; in other words, because they always produced more young than others, and hence were more likely to have helpers. However, detailed analysis showed that this was not the case. Yet another potential problem had to be examined, too. Helpers usually assisted both parents. Suppose that when birds changed mates, their reproductive success dropped as a result. The 'help effect' could be an incidental result of this, since the new pair would also be less likely to have help. The analysis showed, though, that mate change alone had no effect on nesting success, so this difficulty could be discounted.

### **Extra rations**

From the analysis of overall breeding success it looked as though helpers assisted both in repelling predators and in preventing starvation. I looked more closely at the results from feeding watches, to see if helpers actually increased the amount of food supplied to the chicks. This was tricky, since the food supply turned out to depend heavily on the number and age of the chicks. Also, the size of the food items, not just how often they were fed, had to be taken into account. After correcting for all these factors, it turned out that helpers did significantly increase the amount of food that the chicks received. Helpers did not help all the time, but were more likely to appear in the later part of the nesting cycle when the chicks' demands were greatest.

Young birds grow slowly at first, then faster, then slow down again. The presence of helpers meant nestlings went from 10% to 90% of their maximum weight quicker than other chicks. The difference was between half a day and one

day. Growing faster could increase the chance of escaping nest predators late in the nestling stage. Large chicks will jump from the nest when attacked, rather than cowering inside like their smaller siblings, and this behaviour has definite survival value.

So the overall results showed quite clearly that helpers did help, and also how this help might work. Clearly the helpers were gaining big 'indirect' benefits through the extra production of closely-related young. On the other-hand, the direct benefits they received were, at best, small. So kin selection appears to have been important in the evolution of communal breeding in Social Weavers.

### **Family solidarity**

Helpers appeared to be behaving in accordance with Hamilton's rule to maximise the indirect benefits they obtained, and minimise the cost. For instance, birds only helped when they were closely related to the recipients (otherwise their indirect fitness benefits would have been negligible). Of their relatives, they preferentially helped the most closely related. They helped most when their efforts would have the most impact, i.e. when nestlings most needed extra food. Breeding birds, for whom helping is presumably more costly, helped less often than non-breeders. In fact, only yearling breeders regularly helped: and they stopped helping as soon as their chicks hatched and needed their full attention. Older birds usually start breeding earlier than yearlings, and this may be one reason that parents rarely help their sons — their breeding attempts are already well advanced by the time their sons' young hatch.

This cost-benefit approach highlights some features of Grey-capped Social Weaver biology that seem to be important for the communal breeding system - and perhaps explain why communal breeding is so rare in related colonial species. These features include stable family groups, male philopatry (young males staying with the colony), high adult survival, a biased sex-ratio and an asynchrony of breeding between yearlings and older birds. Stable family groups arise because the species is monogamous (one male mating with one female) and relatively sedentary, and young males stay at home. This means that related birds can recognise each other and give each other preferential assistance: in other words, practise nepotism. This would be impossible in other species, such as many *Ploceus* weavers, where immature birds form into large wandering flocks and may never see their parents, or their birth-place, again. In many of these other species polygamy (one male mating with many females) also makes the formation of kin-groups difficult. Why Social Weavers should be monogamous and sedentary is not known, but it probably has a lot to do with their very generalist diet — which enables them to live permanently in one fairly small area — and their year-round use of a big, bulky nest that is built by both members of the pair.

High adult survival increases the chance that close kin will be around next year to receive assistance. Female dispersal — the reverse coin of male philopatry — probably increases the proportion of young females that die. In turn this causes a shortage of mates for young males, and hence a pool of non-breeders who are available to help. Because of its timing, female dispersal also causes yearling males to start breeding later than their parents. This lag gives them an opportunity to help for a while at relatively little cost to themselves. (The causes of female dispersal and male philopatry, which are usual in birds, are still a controversial matter; in Social Weavers the system may possibly have arisen to avoid inbreeding).

The social life of the Social Weaver has turned out to be surprisingly complicated and the story is far from complete. With a human history stretching back half a million years, let us hope that Ologesailie and its Social Weavers will still be in good shape for the next student of their behaviour — indeed, for the next half-million years.

### **The Leslie Brown Memorial Grant**

In memory of one of the most inspired and productive raptor biologists of recent decades, the Raptor Research Foundation announces the availability of this grant, for up to \$1,000, to provide financial assistance to promote research and/or the dissemination of information on birds of prey.

Applicants must send a resumé, specific study objectives, an account of how funds will be spent, and a statement indicating how the proposed work would relate to other work by the applicant and to other sources of funds.

Proposals concerning African raptors receive priority, all else being equal. Complete applications must be received by 15 September 1995. Send to: Dr Jeff Lincer, Chairperson, Raptor Research Foundation, c/o Sweetwater Environmental Biologists, Inc., 3838 Camino del Rio North, Suite 270, San Diego, California 92108, USA. Fax: 000 1 619 624 2301.

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## Events and Announcements

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**Wednesday Morning Bird Walks** led by Fleur Ng'weno and Damaris Rotich continue weekly. Meet at 8:45 am at the National Museums entrance for a walk in the Nairobi area. These walks are for EANHS members: non-members are welcome but requested to join the Society (see below).

**World Birdwatch '95.** Saturday 7 and Sunday 8 October 1995. Birdwalks, events and national bird mapping — see Editorial and enclosures in this issue.

**East Africa Natural History Society.** The Society offers lectures, excursions and publications with a strong bird focus. The EANHS also organises ringing and nest record schemes in Eastern Africa. For membership details: tel. 749957, or write to the Hon. Secretary, EANHS, P O Box 44486 Nairobi. The office at the National Museums of Kenya is open each weekday (closed Wednesday morning).

**For sale in the EANHS office:** new **BirdLife T-shirts** in a stunning design featuring the Society's emblem, a Long-crested Eagle; **Kakamega Forest: the Official Guide** (newly published); also bird notelets, books and postcards.

**Scopus**, the lively regional journal of ornithology, is published three times a year by the EANHS Ornithological Sub-committee. Contact Don Turner, P.O. Box 48019, Nairobi, Kenya (tel. Nairobi 48133). Annual subscription KSh 600 (KSh 650 up-country); write for overseas rates. Records are welcomed from the East African Bird Report which forms the third issue of *Scopus* each year.

**African Bird Club.** To join this society, which produces an excellent colour Bulletin and aims to 'provide a worldwide focus for African ornithology', write to: African Bird Club, c/o BirdLife International, Wellbrook Court, Girton Rd., Cambridge CB3 0NA, UK. Membership presently costs UK £12 per year.

**Ninth Pan-African Ornithological Congress**, 1–8 December 1996, Accra, Ghana. For further information write to the Congress Chairman, Yaa Ntiama-Baidu, Ghana Wildlife Society, P O Box 13252, Accra, Ghana.

**EANHS Nest Record Card Scheme.** For information and cards, contact the Nest Record Scheme Organiser, Joseph Oyugi, at the Department of Ornithology, National Museums of Kenya (address below).

**Bird crafts for sale.** On Bird Day, 10 June, the Mikono Centre displayed a wide range of attractive crafts for sale, all inspired by birds and made by refugees living in the Nairobi area. These and many other handicrafts can be viewed at the Mikono Centre at the corner of Kilimani Road and Menelik Rd., Nairobi (off Ngong Rd. near Adams Arcade). Tel. 566133, ext. 5.

**Contacts:** For *Kenya Birds*, write to the Department of Ornithology, National Museums of Kenya, P O Box 40658, Nairobi, or telephone 742131/61, extension 243. For BirdLife Kenya, telephone Nairobi 749957; fax 741049.



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**Martial Eagle — Martin Woodcock**