

# Checklist of the birds of Kipini Conservancy, Lamu and Tana River districts, coastal Kenya

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## Summary

During a holiday in Kenya we were invited to visit the Kipini Conservancy, just north of the Tana River. We encountered a number of birds of interest in this little-known area, particularly noteworthy being Black-and-white Flycatcher *Bias musicus*, the first sighting on the Kenya coast for many years. Range extensions included two species previously unrecorded north of Sokoke Forest: Green Tinkerbird *Pogoniulus simplex* and Pallid Honeyguide *Indicator meliphilus*. Among breeding records was the first of African Crake *Crex egregia* from the Kenyan coast. Species of conservation concern present at Kipini included resident Southern Banded Snake Eagle *Circaetus fasciolatus* and Malindi Pipit *Anthus melindae* (the latter numerous), and migrant Madagascar Pond Heron *Ardeola idae*. Many pairs of the regionally threatened Saddle-billed Stork *Ephippiorhynchus senegalensis* were among waterbirds present in the area.

## Introduction

Kipini Conservancy, created in 2006, covered approximately 250 km<sup>2</sup>, between the Tana River delta and the villages of Witu and Mpeketoni (Fig. 1). During a holiday visit to Kenya we were invited to Kipini by Richard Hartley, who was then running the Conservancy. We spent 64 days in the reserve, between 11 October and 26 December 2006. Heavy rainfall experienced from November onwards somewhat restricted exploration of the area. We present here details of the birds we saw in an area whose avifauna has been insufficiently studied. Except for comparison we have not detailed the observations made by visitors to the Tana River delta area, outside the Kipini Conservancy limits.

In 2006 the south-western boundary of the Conservancy stopped 1–2 km east of Kipini town (thus did not reach the river), and the north-western and north-eastern boundaries abutted onto Witu Forest Reserve and the southern bank of Lake Kenyatta respectively. On the seafront it was bordered by c. 20 km of pristine sand beaches.

## The area visited

The main habitats were live dunes, coastal thickets, seasonally flooded grassland and pans in large depressions (“ziwas”), wooded grassland, thicket-clump savanna and semi-evergreen rain forest. A large part of Kipini Conservancy included the “Nairobi Ranch”. This consisted of a small herd of cattle (about 130 head) mixing with Burchell’s Zebras *Equus burchelli* and other wild mammals. The vegetation of the future Kipini Conservancy was the subject of some investigations, mainly by Ann Robertson and Quentin Luke in November 1988. Results were published in a report on the vegetation of coastal forests of Kenya (Robertson & Luke 1993). The authors referred to the area under “Ras Tenewi National Coastal Zone”.

Overall we spent more time in the coastal zone (Sandamuke, Baharini, Ziwa Lamuu) than in the north-west (one visit to the forests of Witu Extension and Luimshi, 30 October–3 November). The one important site we did not visit was the large forest gallery at Kangawati. Witu Forest (then outside the Conservancy) was not visited.

The short rains were considerable in 2006. Occasional showers in October (some heavy), a downpour on 5 November and on later dates in that month, led to increased flooding of pans. More rain still fell in December, daily around the middle of the month. By mid-December there was very extensive flooding of *ziwa* grassland in the south; whereas the north-eastern section (Baharini) was getting drier.

### **Habitat types with their dominant bird species**

Eight main habitat categories can be recognized in the Conservancy, progressing from the coast to the interior. Tree nomenclature follows Beentje (1994).

#### *Sand beaches*

The seafront of the reserve was about 20 km long, the Ras Shaka point being on the southern boundary. Most of this consisted of pristine sand beaches and small portions of coral cliffs (at Ras Shaka and Seven Sisters). But the beaches were largely covered at high tide and, as a result, did not harbour large populations of waders.

#### *Live dune thickets*

Live dunes are raised above the level of the beach by several metres and form a band several dozen metres in width (often c. 50–60 m), rising and then descending towards the plain inland. The wall of sand facing the beach has been receding slowly with the rise in sea level and trees have been falling off the edge.

Live dunes were covered with dense thickets, 2–3 m high. These were often impenetrable, although in places they were interrupted by patches of bare sand, especially on the steeper slopes. Some of the shrubs present have spines. The most characteristic and frequent woody plants in the area of K4 (Fig. 1) were *Cordia somaliensis*, *Haplocoelum inoploeum*, *Salvadora persica* (a variant with round leaves, *cyclophylla*), *Syderoxylon inerme*, *Tarenna trichantha* and *Uvaria denhardtiana* (semi-scandent).

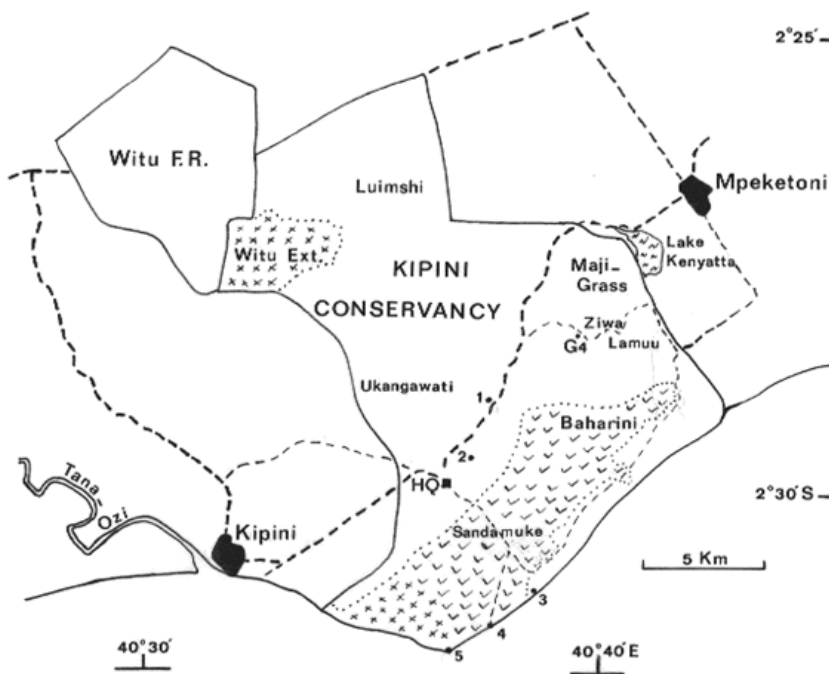
Bird-wise, this habitat was rather species-poor, but one sunbird (Variable Sunbird: for scientific names, see systematic list) was found nowhere else in the area, and two bush shrikes (Brown-headed Tchagra, Slate-coloured Boubou) were more common here than inland. Zanzibar Greenbul, Northern Brownbul, Scaly Babbler and Grey and Collared Sunbirds were also very common.

#### *Coastal thickets*

This was a very extensive formation of the reserve, covering then at least 40 km<sup>2</sup> (from the southern boundary road near Ras Shaka, north-east to Buffalo camp in Baharini). They formed a massive block 4 to 5 km wide in the southern section, narrower in the north-east. This block came close to the seafront in the south, but elsewhere was separated from the dunes by a large *ziwa* at least 1 km wide (Fig. 1). The south-western corner (as shown on the map, Fig. 1) was in the process of being destroyed by illegal settlers.

The height of the canopy was usually 5–6 m, and there was a scattering of taller trees emerging to 10–12 m, rarely more (15 m). Nearer the coast, the height of the can-

opy decreased slightly to 3–4 m. The two main emergents were doum palms *Hyphaene compressa* and baobabs *Adansonia digitata*; other emergents were *Terminalia spinosa*, *Lonchocarpus bussei* and more rarely *Tamarindus indica*. The *Terminalia* and *Lonchocarpus* could also be part of the canopy. The most numerous canopy species were by far *Lecaniodiscus fraxinifolius* and *Carpodiptera africana*. *Lecaniodiscus* was more common in dense thicket whereas *Carpodiptera* is more light-demanding, thus more frequent in slight gaps and generally on edges. Locally in the thickets there were depressions of black soil that became water-logged in the rains; they have a completely different vegetation, being dominated by one tree, *Spirostachys venenifera*, c. 10–12 m tall.



**Figure 1.** Map of Kipini Conservancy. Dashed lines are roads or tracks. Crosses indicate main areas of deforestation by illegal settlers; v = coastal thicket. 1 = base camp; 2 = new camp; 3 = K4 (southern end of coastal *ziwaa*); 4 = Seven Sisters; 5 = Ras Shaka; G4 = cattle post; HQ = headquarters.

These thickets had a bird-life which was fairly rich. They held important populations of Crested Guineafowl, and other characteristic species included African Goshawk, Tambourine and Emerald-spotted Wood Doves, Thick-billed Cuckoo, Yellowbill, Wood Owl, Narina Trogon, Common Scimitarbill, Mangrove Kingfisher, Red-fronted Tinkerbird, Mombasa Woodpecker, Zanzibar Greenbul, Northern Brownbul, Yellow-bellied Greenbul, Eastern Nicator, Red-tailed Ant Thrush, Red-capped Robin Chat (in season), Bearded Scrub Robin, Grey-backed Camaroptera, Black-headed Batis, Little Yellow Flycatcher, African Paradise Flycatcher (in season), Scaly Babbler, Collared and Olive Sunbirds, Black-backed Puffback, Tropical Boubou, Retz's Helmetshrike, Black-bellied Starling and Dark-backed Weaver.

*Thicket-clump savanna and wooded grassland*

Inland of coastal thickets, the dominant vegetation was a mosaic of grassy depressions (*ziwas*) surrounded by clumps of thicket or forest on ridges, and a more open type of wooded grassland on level, dry ground. It is likely that some of the grassland on dry ground is fire-derived, as there were many signs of fire-damaged trees, or relict burnt stumps and in places the grassland was colonized by saplings of *Hyphaene* palms almost to the exclusion of anything else. Grasses belong to many genera, including *Panicum*, *Hyparrhenia* and *Digitaria*. In the more open types of wooded grassland, the grass *Dactyloctenium geminatum* became dominant among low saplings of *Hyphaene* spp. The small Rubiaceae *Agathisanthemum bojeri* (40–80 cm tall) was locally dominant in the drier sections of open grassland (with *Dactyloctenium* grasses), being especially conspicuous between Baharini and Maji-Grass. Many forbs of Leguminosae occurred (*Indigofera*, *Sesbania*, *Cassia*), especially the gregarious *Cassia mimosoides*.

The doum palm *Hyphaene compressa* was the most widespread tall tree, reaching 20–25 m. It grew in isolation in dry grassland, as well as an emergent above forest clumps. This graceful, much-branched palm is or was perhaps the most characteristic tree of Kipini. The other *Hyphaene* present, the thick-stemmed *H. coriacea* was more local, on wetter ground on the upper rim of *ziwas*. Other important tall trees in dry grassland and forest clumps were baobab and *Trichilia emetica* (latter evergreen). The most widespread small trees in wooded grassland were *Antidesma venosum*, *Catunaregam* (*Xeromphis*) *nilotica*, *Dalbergia melanoxylon*, *Flacourtia indica*, *Harrisonia abyssinica* and *Strychnos madagascariensis*.

The avifauna of wooded grassland was characterized by Red-necked Spurfowl, Ring-necked Dove and other doves, Striped Kingfisher, rollers, Flappet Lark, Yellow-throated Longclaw, Common Bulbul, species of *Cisticola* warblers (Coastal and Siffling), Tawny-flanked Prinia, Pale Flycatcher, Black-crowned Tchagra, Common Drongo and a couple of canaries. Large birds of extensive grassland such as bustards seem to be missing completely. The most characteristic birds of thicket or forest clumps around base camp included Lizard Buzzard and Little Sparrowhawk, Thick-billed and Levillant's Cuckoos, White-browed Coucal and Yellowbills, Speckled Mousebird, Violet Wood-hoopoe, Common Scimitarbill, Mombasa and Green-backed Woodpeckers, Trumpeter and Crowned Hornbills, Northern Brownbul and Scaly Babbler (often together), Yellow-bellied Greenbul and Zanzibar Greenbul, Red-capped Robin Chat, Bearded Scrub Robin, Collared and Amethyst Sunbirds, Black-backed Puffback, Retz's Helmetshrike, Black-bellied Starling and Dark-backed Weaver. In the larger clumps, forest species such as Fischer's Turaco, Eastern Nicator, Red-tailed Ant Thrush and Little Yellow Flycatcher may occur.

*Acacia zanzibarica woodland*

In the north-east of the reserve, on dry sand, patches of a special type of *Acacia* woodland occurred. The most extensive stands were between Kenyatta camp and Ziwa Lamuu, but did not cover more than a few hectares. This woodland was 8–10 m tall and was dominated by the whistling thorn *Acacia zanzibarica*. Other characteristic trees were *Acacia nilotica*, *Dichrostachys cinerea*, *Dobera loranthifolia* and baobabs. These patches intermingle with small thickets, under tall *Hyphaene coriacea*, *H. compressa* and *Tamarindus indica*, with *Combretum constrictum*, *Dalbergia melanoxylon*, *Garcinia livingstonei*, *Thespesia danis*, etc.

This was the only true woodland in the reserve, but it was not extensive enough

to have a typical woodland avifauna, which is lacking. This was the only place where we found Spotted Flycatcher (a Palearctic migrant); Black-headed Batis (otherwise only in coastal thicket) was present, and the Northern Crombec was more common in this habitat than in wooded grassland.

*“Ziwas” or seasonally flooded grasslands*

These varied in size from anything to several square kilometres. They were scattered almost throughout the reserve, from just behind the dunes (area referred to as “coastal *ziwa*” below) to the Luimshi area in the north. The *ziwas* in the north-east sector were drier, being on sand, while those in the north were much wetter. They differ from “*dambos*”, another type of seasonally flooded grassland (White 1983), by the nature of the soil (sand as opposed to peat) and the structure of the grassland, which is much less compact. Indeed, there are often bare patches of sand or mud among the grassland.

The outer rims and drier sections of *ziwas* are dominated by the grass *Dactyloctenium geminatum* (often with *Digitaria milanjana*) and patches of the subshrub *Cassia mimosoides* (often 1–1.5 m tall). At slightly lower levels where a few centimetres of water can stand, *Hibiscus cannabinus* is very common. The central depression can hold water for many months, and pans of this nature are usually covered in Nile Cabbage (*Pistia stratiotes*); water lilies *Nymphaea* occur in the deeper ponds, next to open water. In November–December flood levels slowly increased and vast areas of flooded grassland started to form. A key grass species in the big coastal *ziwa* was *Echinochloa haploclada*, as well as a small sedge (*Eleocharis*), both covering many hectares in a vivid green swathe. Tall *Cyperus* spp. and other sedges also occur. The palm *Hyphaene coriacea* was often found at the ecotone, on the edge of a *ziwa* or a pan, as well as small clumps of *Lawsonia inermis* (conspicuous at the southern end of the coastal *ziwa*). The edge of the pan at Maji-Grass was ringed with a strip of Ambatch (*Aeschynomene cristata*), c. 2 m tall.

The bird life was very characteristic: Hadada Ibis, Woolly-necked and Saddle-billed Storks were very widespread, and the wet grasslands were important refugia for large numbers of Spur-winged Geese, with smaller ones of Egyptian Geese. Few other ducks occurred, African Spoonbills, herons and egrets were mostly visitors from the Tana delta. African Crakes were common before the heavy floods. African Jacanas invaded the pans in November to breed, while the floods pushed out the Spur-winged Plovers to the drier, sandy *ziwas*. Small mud pans in the coastal *ziwa* attracted moderate numbers of Palearctic waders. At the peak of flooding in December, large numbers of Lesser Moorhens appeared, and other crakes might be expected to occur. Yellow-throated Longclaws and Coastal Cisticolas bred in moderately wet *ziwas*, whereas the numerous Malindi Pipits preferred the dry sections. The floods forced them to concentrate in dry areas, often in large flocks. Zanzibar Red Bishops bred in moderate numbers in the wettest *ziwas*, which were also invaded by Lesser Swamp Warblers near the coast.

*Permanent wetland (Lake Kenyatta)*

On the northern boundary of the reserve, this permanent lake collects water from an extensive catchment area. It was nearly 3 km long, and the greatest width was c. 1 km. Its margins had a ring of tall aquatic vegetation, more developed on the northern side (near Mpeketoni village) than the south-western side. Reedbeds of *Typha* bulrushes occurred, but a tall rufous sedge *Cyperus* sp. was more widespread.

In 2006 the lake was the only wetland where a few Pink-backed Pelicans still occurred. Small muddy beaches were suitable for Egyptian Geese and a few waders. The passerine avifauna appeared rather impoverished, but it was the only site where we observed the Eastern Golden Weaver.

*Semi-evergreen (or semi-deciduous) rain forest*

The most extensive area of forest was in the continuation of Witu Forest and probably covered at least 15 km<sup>2</sup>. Other important forest patches occurred in broad galleries in the area of Luimshi in the north and Kangawati in the centre. By the end of October when we visited, most of the Witu Extension had been cleared by settlers. We explored a fragment of forest a few hectares in extent.

This forest had a closed canopy c. 25–30 m tall, with emergents reaching 40 m in height. The main emergent was *Milicia excelsa*, and it was still very common in other, more damaged fragments; others were *Diospyros mespiliformis*, *Parkia filicoidea* and *Sterculia appendiculata*. Common canopy trees were *Diospyros abyssinica*, *Erythrophleum suaveolens*, *Hyphaene compressa* and *Trichilia emetica*. At Luimshi some patches were also being cleared by illegal settlers. Here *Hyphaene compressa* and *Trichilia emetica* were dominant; strangling *Ficus scassellatii* was also found.

Much closer to the coast, some tall forest occurred very locally within the Sandamuke thickets, on old dunes. To the east of “new camp” the forest was quite tall (20–22 m), and a gallery c. 1 km long winded in a south-westerly direction until a small hill where the canopy decreased to 15–18 m; from this point, the forest merged gradually into thicket, with decreasing height and a change of composition. *Carpodiptera* and *Cassipourea euryoides* were dominant in the canopy on the hill. In the first kilometre or so of tall forest, *Combretum schumannii* (20–25 m tall) occurred in clumps of 3–4 trees. The woody flora here was a mixture of forest and thicket elements, with *Trichilia emetica* as a dominant canopy species.

The avifauna in Witu Extension and Luimshi resembled that of forest clumps to the south, but was more species-rich. Five bird species were not found anywhere else in the reserve: Green Wood-hoopoe (Witu Extension only, not even in Luimshi), Fischer’s Greenbul, Black-headed Apalis, Blue-mantled Crested Flycatcher and Square-tailed Drongo. It is possible some of these would have been found in Kangawati forest, unfortunately not visited. A forest raptor, the Southern Banded Snake Eagle, reached the coastal thickets in very small numbers but must have occurred in higher densities in the optimal habitat of Witu Extension and Luimshi. It took us weeks to locate one displaying bird in Sandamuke whereas we found it easily in both Witu Extension and Luimshi on our short visit. The Yellow-rumped Tinkerbird was very common in Witu, whereas to the south we found some territorial birds only in the old dune forest near new camp; our other records at base camp and in coastal thickets were only of wanderers.

### **Annotated list of bird species recorded in the Kipini area**

All species were observed by us, except for some reported in the literature or by other observers (indicated by \*). Some additional extralimital, or doubtful reports are placed in square brackets. Nomenclature and sequence follows EANHS (2009), except for a few factual corrections.

#### **Crested Guineafowl *Guttera pucherani***

Common in coastal thickets (Sandamuke-Baharini) as well as in Witu Extension. Up

to 12 seen in former, and once two birds were feeding amid a group of baboons *Papio* sp.

**Crested Francolin *Francolinus sephaena***

Common in thicket clumps and edge of coastal thickets. Calls much after rain. Two small chicks 11 December would be from eggs laid in November.

**Red-necked Spurfowl *Francolinus afer***

Numerous throughout; often sings high up in tall *Hyphaene compressa*. Enters coastal forest or thicket. Two tiny chicks 18 November and three small chicks 5 December, would be from eggs laid October and November respectively. Had bred earlier, as several broods with large juveniles seen in October.

**Harlequin Quail *Coturnix delegorguei***

Intra-African migrant, with one in Baharini grassland, 16 November.

**White-faced Whistling Duck *Dendrocygna viduata***

First noted 22 October (new camp) with increasing flooding. Small flocks on the move often visited pan at base camp, where chased by Egyptian Geese. More frequent November–December, up to 20 or more in coastal *ziwa* after full November flood.

**Spur-winged Goose *Plectropterus gambensis***

Common, especially short-grass *ziwas* near G4, and coastal *ziwa* (dozens at each place). Some pairs clearly breeding late November–December, very wary (e.g. one sitting and male guarding, pan near Kenyatta camp).

**Knob-billed Duck *Sarkidiornis melanotos***

One male on passage 12 October. A few present coastal *ziwa* from 5 November and likely breeding there, but difficult to see and very discreet.

**Egyptian Goose *Alopochen aegyptiaca***

Common edge of pans with some dry mud. Numerous at Lake Kenyatta in November–December (over 100 at far end). Had to leave some *ziwas* after flooding increased in December (as at base camp). Some goslings in coastal *ziwa* 5 November.

**African Pygmy Goose *Nettapus auritus***

Local: a few pairs in *ziwas* with extensive flooded grassland and patches of water lilies. At least two pairs Luimshi pan (2 November). Present in coastal *ziwa* from at least 1 December, several pairs on 12 December. One or two pairs edges of Lake Kenyatta November.

**Red-billed Teal *Anas erythrorhyncha***

Occasional visitor? One pair in one of the Baharini pans on 11 December.

**\*Garganey *Anas querquedula***

Palaeartic migrant, a specimen was collected at Kipini on 14 March (Stager 1973).

**Little Grebe *Tachybaptus ruficollis***

One in a pool in front of new camp, 9 November for about a week.

**\*Greater Flamingo *Phoenicopterus roseus***

R. Hartley reported small numbers (up to 15) flying south at dusk along beach, when camping at Seven Sisters, July and September.

**Woolly-necked Stork *Ciconia episcopus***

Common, often up to 4–6 birds in a loose group – in any *ziwa*, favouring short flooded grassland. Not apparently territorial (come and go at base camp, can be absent on some days), and no sign of breeding. A reported sighting of “several hundred soaring above the Tana River” in the Ishaqbini Conservancy (Njoroge *et al.* 2008) seems astonishing.

**Saddle-billed Stork *Ephippiorhynchus senegalensis***

Common and very widespread, always in pairs – strongly territorial, unlike previous species. The absence of immatures suggests no breeding took place in recent years. Pair at base camp growing more excited with increasing rain in December. Likely to breed in years of heavy floods.

**Marabou Stork *Leptoptilos crumeniferus***

Only a visitor from outside, scavenging with vultures: one flying towards G4 on 15 November (see Vultures below).

**Sacred Ibis *Threskiornis aethiopicus***

Some large flocks flying over in October (e.g. over 100 on 19 October), to the south-west at dusk. Small groups feeding locally (*ziwa* of new camp, Luimshi), last seen 12 November.

**Hadada Ibis *Bostrychia hagedash***

Very common throughout, all *ziwas*. Often 3–5 together, up to 20 or so in local concentrations.

**[Glossy Ibis *Plegadis falcinellus***

A roost estimated to number 10000 at the Tana River delta, 30 March 2009, and 2000 reported at Kipini, April 2011 (*Bulletin of the African Bird Club*, 2009, 16: 232; 2011, 18: 234).]

**African Spoonbill *Platalea alba***

A few visiting pans late October–early November: first on 27 October, several localities November, including 5 in coastal *ziwa* 11 November, 6 at base camp 13 November, last date of the season.

**\*Little Bittern *Ixobrychus minutus***

Collected at Witu 12 May, and identified as the Palaearctic nominate race by R.B. Sharpe (Jackson 1898: 141).

**Dwarf Bittern *Ixobrychus sturmi***

One by pool on the road near G4, 26 December. Intra-African migrant arriving with heavy rains.

**Striated Heron *Butorides striata***

One edge of flooded *Spirostachys* forest bordering *ziwa* (K4) on 25 November.



**Squacco Heron *Ardeola ralloides***

Widespread in pans in October, up to 6 at base camp, more at Luimshi (on 1–2 November, including some with blue bill of breeding plumage). Then numbers dropped steadily, only 1 at Luimshi on 13 November, 2 at Maji-Grass on 15, last one there on 16. None seen for c. a month, one at Maji-Grass 13 December.

**Madagascar Pond Heron *Ardeola idae***

Malagasy migrant (Globally Endangered), with wintering ending in October: at least 2 present on pan at base camp 21 October (next to Squacco Heron), 1 on 22 October.

**Cattle Egret *Bubulcus ibis***

In fluctuating numbers, feeding in semi-flooded grassland or with African Buffaloes *Syncerus caffer*. In October flocks of dozens at dusk flying west, few feeding locally. More feeding in wet *ziwas* in early November, still leaving at dusk for roosts to the west. None late November–early December, suddenly back in mid-December: 1st on 16 December (Baharini pan), then dozens in various areas from the 17th, and up to 400 (in two flocks) flying at dusk on 18 December.

**Black-headed Heron *Ardea melanocephala***

Particularly common in short grassland of *ziwas*, Ziwa Lamuu and Maji-Grass (up to 12 in a loose flock); the odd one elsewhere.

**Goliath Heron *Ardea goliath***

Widespread, in pairs or singles (adults/immatures) in flooded grassland: Ziwa Lamuu, base camp, Luimshi etc. Often visited for a day or two then moved on.

**Great White Egret *Ardea alba***

Less common than last, but following the same pattern. A few in October, only one in November (18th).

**Yellowbilled Egret *Egretta intermedia***

Widespread, with a few feeding in various pans in October–November, up to 10 or more at new camp 12 November, leaving at 18:00 to fly west to roost. Almost absent in the next five weeks, except one (in breeding dress) on 24 November (base camp). Back in numbers on 25 December (40 + 9 flying east at 06:30).

**\*Black Heron *Egretta ardesiaca***

A vagrant, one seen by R. Hartley in a pan near headquarters in July or August 2006.

**\*Western Reef Heron *Egretta gularis***

There is a specimen from Witu (Jackson 1898).

**\*Greater Frigatebird *Fregata minor***

There is a specimen from Kipini, dated 31 August (Britton 1980).

**Hamerkop *Scopus umbretta***

Very common, throughout: pans, pools on road. Old nest in a *Trichilia emetica* at new camp.

**Pink-backed Pelican *Pelecanus rufescens***

A few at Lake Kenyatta October–November, maximum 4.

**Reed Cormorant *Phalacrocorax africanus***

A few in October–early November, flying over base camp (e.g. 3 on 19 October), at least 6 at Luimshi pan 1–2 November, a few at Lake Kenyatta on 12 November.

**\*African Darter *Anhinga rufa***

Occasionally present Lake Kenyatta, as reported by Ben Wachoa.

**Common Kestrel *Falco tinnunculus***

One over Ziwa Lamuu, flying north, 16 December.

**Red-necked Falcon *Falco chicquera***

One pair flying into *Hyphaene* palm near G4, 5 November.

**[Amur Falcon *Falco amurensis***

An estimated 10000 of this Palaearctic migrant were at the Tana River delta, 7 April 2011 (*Bulletin of the African Bird Club*, 2011, 18: 234).]

**Sooty Falcon *Falco concolor***

Palaearctic migrant: one flying south 28 October.

**Eurasian Hobby *Falco subbuteo***

Palaearctic migrant: one flying south 5 November.

**Lanner Falcon *Falco biarmicus***

One flying over base camp, 3 December.

**Osprey *Pandion haliaetus***

Palaearctic migrant probably wintering at Lake Kenyatta: one fishing and eating on a dead palm, 15 December.

**African Cuckoo Hawk *Aviceda cuculoides***

Apparently a local migrant (perhaps from inland in Kenya, Zimmerman *et al.* 1996), with several seen in October, in open savanna with thicket clumps. Last on 24 October.

**European Honey Buzzard *Pernis apivorus***

Palaearctic migrant, uncommon: singles on 1 November, 5 December and 13 December (the last at least suggestive of local wintering in coastal thicket).

**African Black-shouldered Kite *Elanus caeruleus***

Rare: one over Ziwa Lamuu 1 December. Habitat very suitable, but perhaps too poor in rodents.

**Black (Yellow-billed) Kite *Milvus migrans parasitus***

Rare: one over Baharini thicket 9 December is the only record. Also rare outside the area, as only one seen at Mpeketoni (29 November) and none Witu-Garsen area!

**African Fish Eagle *Haliaeetus vocifer***

Common visitor to pans, also scavenging in grassland. Usually as singles, but vocal pairs at Luimshi and at Lake Kenyatta, where likely breeds.

**White-backed Vulture *Gyps africanus***

Considered Globally Endangered. Up to 13 at Maji-Grass on 15–16 November, with full crops (carion not located). Some were flying in that direction on 14 November (over base camp). Four circling over Ziwa Lamuu on 13 December. Evidently a visitor from outside.

**White-headed Vulture *Trigonoceps occipitalis***

This Globally Vulnerable species is probably a scarce resident. A pair over Ziwa Lamuu November–December. On 6 December one came to base camp and landed at far end: it left with a full crop (a female Topi and her young watched it land and fled).

**Black-chested Snake Eagle *Circaetus pectoralis***

One near Luimshi November. Seen regularly (adult and immature) in drier section of coastal *ziwa* in December. Also hunting over Ziwa Lamuu and Maji-Grass.

**Brown Snake Eagle *Circaetus cinereus***

Throughout, singles or pairs; e.g. pair holding territory around base camp.

**Southern Banded Snake Eagle *Circaetus fasciolatus***

Throughout, more tied to forest than Brown Snake Eagle. Calls high in the air as well as perched. Any forest (Witu Extension, Luimshi, bigger forest clumps near base camp), and also in coastal thickets (Sandamuke) where appears rare.

**Bateleur *Terathopius ecaudatus***

Very widespread, often in pairs. One subadult seen but no immatures (poor breeding performance?).

**Western Marsh Harrier *Circus aeruginosus***

Palearctic migrant. First seen (immature male) on 12 November at Lake Kenyatta. Winters in small numbers as adult male/immature male seen occasionally over coastal *ziwa* late November–December.

**Pallid Harrier *Circus macrourus* or Montagu's Harrier *Circus pygargus***

Palearctic migrant: immature male (white rump, grey in wings) seen briefly over big *ziwa* before Mpeketoni on 23 November. Dived into stream gully. On the coast Pallid is reported more often (Zimmerman *et al.* 1996).

**African Harrier Hawk *Polyboroides typus***

Common and widespread, adults and immatures. Systematically chased by drongos and rollers. On 14 December immature in moult, with tail growing (grey with black bars, as in adult), but body plumage still brown; it was chased by a Common Drongo.

**African Goshawk *Accipiter tachiro***

Common in coastal thickets (up to three heard simultaneously at Sandamuke) and large clumps of forest. In song October–December.

**Little Sparrowhawk *Accipiter minullus***

Widespread, thicket or forest clumps, also hunting in the open. One chasing a Malindi Pipit in acrobatic flight over the grassland was probably successful (disappeared in the grass for some time).

**Great Sparrowhawk *Accipiter melanoleucus***

Widespread: six observations of adult or immature. Although not mapped on the coast north of the Galana River by Zimmerman *et al.* (1996), the species has been reported further north at Kiunga (Britton 1980) and into southern Somalia (Ash & Miskell 1998).

**Lizard Buzzard *Kaupifalco monogrammicus***

Commonest small raptor, especially in thicket-clump savanna. Very vocal. Hunts from tall palm or forest edges (insects, frogs etc.).

**Lesser Spotted Eagle *Aquila pomarina***

Palearctic migrant, with a few on southward passage: three on 5 November, two on 16 November and one on 13 December.

**? Greater Spotted Eagle *Aquila clanga***

Palearctic migrant (Globally Vulnerable): two large, dark brown eagles with a short tail, circling and drifting south on 18 December. Almost certainly this species, but identification remains contentious (and some hybridize with Lesser Spotted Eagle in Europe).

**Wahlberg's Eagle *Aquila wahlbergi***

A few pairs present October–December, including one at base camp. Latter chased other raptors on occasions (African Hawk Eagle, Brown Snake Eagle), especially October–early November, suggestive of breeding.

**African Hawk Eagle *Aquila spilogaster***

Thinly but widely distributed, from base camp to coastal *ziwa* and G4.

**Ayres's Hawk Eagle *Aquila ayresii***

Seen three times over the thickets at Baharini (November–December).

**Martial Eagle *Polemaetus bellicosus***

Singles (adult and immature) seen a few times over Ziwa Lamuu; also one west of Luimshi. Not mapped on the coast as far north as the Galana River by Zimmerman *et al.* (1996), but localities in our area were plotted by Lewis & Pomeroy (1989) and there are numerous records from Somalia.

**Long-crested Eagle *Lophaetus occipitalis***

Occasionally seen in two places: near headquarters and on the northern boundary road. Also at Mpeketoni.

**Crowned Eagle *Stephanoaetus coronatus***

Widespread, at least two pairs between base camp and the coast at Baharini. Immature also seen near the coast.

**\*Hartlaub's Bustard *Lissotis hartlaubii***

Past records from Kipini and Lamu (Fischer in Jackson & Sclater 1938).

**African Crake *Crex egregia***

Intra-African migrant, common October–November in any rank grass, often crossing roads, from Luimshi to the coast. One adult with two tiny chicks on 16 November, would have laid end October; first breeding record for the coast (Zimmerman *et al.* 2001). Fewer in December, last one on the 13th.

**Corncrake *Crex crex***

Palearctic migrant, with one flushed on 10 November. Backhurst *et al.* (1973) had no coastal records and the only plot in Lewis & Pomeroy (1989) is well south of 3°S, but there is a record from the coast of southern Somalia (Ash & Miskell 1998).

**Black Crake *Amauornis flavirostra***

Only recorded at the permanent wetland of Lake Kenyatta, where apparently very uncommon.

**Lesser Moorhen *Gallinula angulata***

Intra-African migrant, with sudden invasion of flooded grassland at base camp, 25–26 December. Scores arrived at night, calling everywhere. This happened about a week after the full flood. We did not have the time to check how widespread this phenomenon was.

**Common Buttonquail *Turnix sylvaticus***

Regularly flushed from grassland near G4 and towards the coast (Baharini) in dense grass c. 30–40 cm tall (pure or with scattered shrubs/palms); also on the road to Ras Shaka. Not mapped on the coast as far north as the Galana River by Zimmerman *et al.* (1996), but localities in our area were plotted by Lewis & Pomeroy (1989) and there are numerous records from Somalia.

**Water Thick-knee *Burhinus vermiculatus***

Rare: one by pan (K4) on 11 November; one on sand, coastal *ziwa* (K4) on 12 December.

**Spotted Thick-knee *Burhinus capensis***

One pair regularly encountered on dry sand edge of coastal *ziwa* (K4), October–December.

**Crab-plover *Dromas ardeola***

African or possibly Palearctic visitor, with two on 10 November (north) and two on 5 December (Ras Shaka). Partial to beach with some low coral rocks.

**Black-winged Stilt *Himantopus himantopus***

Several pairs and immatures came in with the flood of 5 November in the coastal *ziwa* and pans. Still present on 18 November, but had left by the end of the month when the water was too deep.

**Long-toed Plover *Vanellus crassirostris***

Single pairs in some of the wetter *ziwas*, at edge of Nile Cabbage and in flooded grass-

land: Luimshi, Ziwa Lamuu and Maji-Grass. A total of 225 were counted at the Tana River delta, 5-6 February 2008 (*Bulletin of the African Bird Club*, 2008, 15: 270).

**Spur-winged Plover *Vanellus spinosus***

Very widespread at pans, on sand and muddy edges, or short grass generally. Pushed out of some *ziwas* by the floods of November or December. Concentrations of 20–30 at Maji-Grass in November, fewer in December.

**Black-headed Plover *Vanellus tectus***

The occasional pair in dry sand and very short grass in drier section of coastal *ziwa*, sheltering under trees (*Dobera*) in the hot hours.

**Senegal Plover *Vanellus lugubris***

One (or a pair) heard flying near Maji-Grass 15 November. A pair edge of flooded *ziwa* (K4) 25 December. Species subject to movements.

**Pacific Golden Plover *Pluvialis fulva***

Palaeartic migrant: seven birds on mud, just inland of the dunes (K4), 10 November. Three flocks totalling 182 birds were reported from the Tana River delta, 5–6 February 2008 (*Bulletin of the African Bird Club*, 2008, 15: 270).

**Grey Plover *Pluvialis squatarola***

Palaeartic migrant: a few on beach, October–December.

**Common Ringed Plover *Charadrius hiaticula***

Palaeartic migrant: common, in small numbers, at pans and beaches (October–December).

**Kittlitz's Plover *Charadrius pecuarius***

Several pairs and immatures on dry mud edge of coastal pans and Maji-Grass. Up to a dozen locally.

**Three-banded Plover *Charadrius tricollaris***

Only one record, of one by a coastal pan, 11 November.

**White-fronted Plover *Charadrius marginatus***

Uncommon and local: some pairs on beach (November–December), also one at coastal pan 11 November.

**Lesser Sand Plover *Charadrius mongolus***

Palaeartic migrant: a few on beach and coastal pans, November–December.

**Greater Sand Plover *Charadrius leschenaultii***

Palaeartic migrant: a few on beach, November–December.

**[Caspian Plover *Charadrius asiaticus***

Palaeartic migrant. No fewer than 2347 were counted at the Tana River delta on 15 February 2010 (*Bulletin of the African Bird Club*, 2010, 17: 244).]

**African Jacana *Actophilornis africanus***

Occasional visitor to the small pan at base camp in October, but a pair arrived on 8

November after increased flooding (5 November). At first chased by Spur-winged Plover, but came back and settled on 9 November. Built nest on Nile Cabbage, and mated from 14th. Male brooded the clutch from 17th, until 12 December (26 days). During this time, the clutch was threatened by numerous intruders, including a Marsh Mongoose *Atilax paludinosus* (who did not see it), Monitor Lizard *Varanus niloticus* (who probably took one egg), the local male Hippo *Hippopotamus amphibius* (who usually walked outside that particular area), Goliath Heron, herds of up to 500 Buffaloes. However, at least three chicks hatched successfully, usually hiding in grass, and coming in the open on Nile Cabbage only when their father visited them. Throughout that time, the female (who does not incubate) often appeared near the nest in case of danger (Buffaloes, herons, etc.), and helped the male chase the Monitor Lizard. The male also covered the chicks during rain (e.g. 25 December). By mid-December the male built another nest in the middle of the pan, and mating was seen on 24–26 December.

The species invaded all pans of suitable size in Kipini after the flood of 5 November. Some are probably resident at permanent wetlands such as Lake Kenyatta and (near-permanent) Luimshi pan.

**\*African Snipe *Gallinago nigripennis***

Seen at Witu by Britton (1980).

**Great Snipe *Gallinago media***

Palearctic migrant, with one flushed from rank grass (Baharini) on 4 December.

**Common Snipe *Gallinago gallinago***

Palearctic migrant: a few wintering in muddy patches with grass. Widespread but especially common at Maji-Grass. First noted 15 November.

**[Black-tailed Godwit *Limosa limosa***

Palearctic migrant, reported at the Tana River delta, August 2010 (*Bulletin of the African Bird Club*, 2011, 18: 99).]

**Whimbrel *Numenius phaeopus***

Palearctic migrant: few on beach, November–December.

**Eurasian Curlew *Numenius arquata***

Palearctic migrant: singles on beach, November–December.

**Marsh Sandpiper *Tringa stagnatilis***

Palearctic migrant: fairly common in shallow water of several coastal pans, from 11 November.

**Common Greenshank *Tringa nebularia***

Palearctic migrant. At several pans, especially common in flooded grassland of coastal *ziwa*, from 5 November (day of first big flood).

**Green Sandpiper *Tringa ochropus***

Palearctic migrant: more local, at pans, edge of flooded grassland, from 22 October. More in November, still noted mid-December.

**Wood Sandpiper *Tringa glareola***

Palaeartic migrant: the most widespread wader, at any pan and shallow flooded grassland, from 4 October–26 December (wintering).

**Terek Sandpiper *Xenus cinereus***

Palaeartic migrant: several on the beach November–December (over 25 near Ras Shaka 5 December).

**Common Sandpiper *Actitis hypoleucos***

Palaeartic migrant: especially common at Maji-Grass, edge of Nile Cabbage, with over 20 (November–December). Otherwise a few on the beach (October–December), edges of Lake Kenyatta.

**Ruddy Turnstone *Arenaria interpres***

Palaeartic migrant: a few on the beach and low coral rock, November–December.

**Sanderling *Calidris alba***

Palaeartic migrant: widespread on the beach, October–December.

**Little Stint *Calidris minuta***

Palaeartic migrant: small numbers on muddy edge of coastal pans 13–17 December, max. 15.

**Temminck's Stint *Calidris temminckii***

Palaeartic migrant: one wintering at Maji-Grass, seen nearly all visits from 4–25 December; also one in coastal pan, 16 December.

**Curlew Sandpiper *Calidris ferruginea***

Palaeartic migrant: one with Little Stints at coastal pan, 17 December.

**Broad-billed Sandpiper *Limicola falcinellus***

Palaeartic migrant: one on sandy beach, 10 November.

**Ruff *Philomachus pugnax***

Palaeartic migrant: small numbers winter in short flooded grassland almost throughout, from coast to Lake Kenyatta and inland (Maji-Grass to new camp etc.). From 9 November.

**Bronze-winged Courser *Rhinoptilus chalcopterus***

Intra-African migrant: one on the main road, 15 December.

**Collared Pratincole *Glareola pratincola***

A pair with independent immature on dry mud edge of Maji-Grass, November–December. Probably a local breeder; Valle (2005) reported the first evidence of breeding on the Kenya coast, at the Sabaki River mouth.

**[Madagascar Pratincole *Glareola ocularis***

Globally Vulnerable. Some 3000 were at the Tana River delta in August 2010, and 2000 on 10 April 2011 (*Bulletin of the African Bird Club*, 2011, 18: 99, 234).]



**Sooty Gull *Larus hemprichii***

Occasionally seen along shore from the dunes; dozens resting at Ras Shaka on 5 December.

**Lesser Black-backed Gull *Larus fuscus***

Palaeartic migrant (form *heuglini*): six adults and one immature flying south at Seven Sisters on 20 October (high tide).

**Gull-billed Tern *Gelochelidon nilotica***

Palaeartic migrant: common in October–early November, feeding on crabs in free water of the larger pans (Lake Kenyatta, Luimshi, Ziwa Lamuu, Maji-Grass, coastal *ziwa*). Numbers suddenly decreasing in November, with last seen on 16.

**Lesser Crested Tern *Sterna bengalensis***

Possibly seen over sea in November (from dunes). Hundreds resting on beach near Ras Shaka, 5 December. Some immatures still begging from adults.

**[Sandwich Tern *Sterna sandvicensis***

Palaeartic migrant, one at the Tana River delta, 6 February 2008 (*Bulletin of the African Bird Club*, 2008, 15: 270).]

**Roseate Tern *Sterna dougallii***

One on beach seen at close range, near Ras Shaka, 5 December.

**Common Tern *Sterna hirundo***

Palaeartic migrant: at least seven on the beach, 5 December.

**Saunders's Tern *Sternula saundersi***

Over 100 resting on beach, Ras Shaka, 5 December.

**Whiskered Tern *Chlidonias hybrida***

At least two, with many White-winged Terns, over Luimshi pan, 2 November.

**White-winged Black Tern *Chlidonias leucopterus***

Palaeartic migrant: over 100, in groups of 20–30, hawking insects over flooded grassland and pans at Luimshi, 1–2 November.

**\*Lesser Noddy *Anous tenuirostris***

At least 50 were seen off Kipini, 27 October (Britton 1980).

**Red-eyed Dove *Streptopelia semitorquata***

Common and throughout, in savanna with thickets and forest patches, canopy of coastal thicket.

**Ring-necked Dove *Streptopelia capicola***

Common, throughout savanna.

**Emerald-spotted Wood Dove *Turtur chalcospilos***

Common and throughout, including the interior of extensive coastal thickets. Nest-building observed 25 November.

**Tambourine Dove *Turtur tympanistria***

Common, throughout any thicket and forest type.

**Namaqua Dove *Oena capensis***

A wanderer, near northern boundary road, 16 November.

**African Green Pigeon *Treron calvus***

Widespread but uncommon: usually in pairs, rarely more than three together.

**African Orange-bellied Parrot *Poicephalus rufiventris***

Only one record: three flew across Lake Kenyatta from Mpeketoni, 23 October. The scarcity of parrots could be explained by the lack of fruit of baobabs in October–December, although *Terminalia spinosa* came into seed in November.

**Fischer's Turaco *Tauraco fischeri***

This Globally Near-Threatened species is widespread, with well-spaced territories in large clumps of forest (only one heard from base camp), but numerous in Witu Extension. Apparently absent from coastal thickets.

**White-bellied Go-away-bird *Corythaixoides leucogaster***

Vagrant: one pair wandering through savanna (baobabs, palms) on 28 October.

**\*Jacobin Cuckoo *Clamator jacobinus***

There are specimens from Kipini (*pica*, 5 August: Fischer & Reichenow 1879 – this is the race breeding in East Africa), Kau and Kosi (*pica*, December, January: Percival collection) and Lamu (*serratus*, 2 October: Fischer & Reichenow 1878 – this is a non-breeding migrant from southern Africa).

**Levaillant's Cuckoo *Oxylophus levaillantii***

Black form only, seen frequently (up to three in a day) in October, when seemed to be moving around. In November–December more often located by song, from 8 November, increasing in volume and frequency (base camp) until late November. Called more sporadically in December, sometimes at dusk or at night. Widespread, from the northern boundary to headquarters, in small thickets.

**Thick-billed Cuckoo *Pachycoccyx audeberti***

The most numerous cuckoo, very vocal from October to mid–November. Fewer songs later (28 November) but pair displaying 19 December and again very noisy on the 26th. From Witu Extension to coastal thickets.

**Common Cuckoo *Cuculus canorus***

Palearctic migrant: a female hepatic phase, 16 October.

**\*African Cuckoo *Cuculus gularis***

A specimen was collected at Witu, 21 May (Jackson 1898).

**Lesser Cuckoo *Cuculus poliocephalus***

Palearctic migrant: one on 24 November, of the grey phase, well seen (small and slender).

**Klaas's Cuckoo *Chrysococcyx klaas***

Rare: two encountered on the move, one at Luimshi (singing 1 November, not the next two days), and one singing at base camp 8 November.

**Diederik Cuckoo *Chrysococcyx caprius***

First song heard at headquarters on 12 December, and one singing at G4 on 26 December. Probably related to greater breeding activity of Golden Palm Weavers with increasing rains.

**Yellowbill *Ceuthmochares aereus***

Very widespread, from coastal thickets (fairly common) to forest patches at Luimshi, and in thicket/forest clumps throughout. Vocal October–December, a frequent member of bird parties, no doubt resident.

**Black Coucal *Centropus grillii***

Curiously very local, as found only at Luimshi pan in rank, moist grass (perhaps because the habitat there is almost permanent?). Breeds there, seen 30 October–2 November carrying food to nest or hidden young (eggs would have been laid September).

**White-browed Coucal *Centropus superciliosus***

Common and throughout: savanna, small thickets, edge of swamps and of coastal thickets. Nest-building mid-December.

**\*Barn Owl *Tyto alba***

A specimen was collected at Witu by Jackson (1898, under the name *Strix flammea*). Zimmerman *et al.* (1996) did not map the species north of the Malindi area.

**Spotted Eagle Owl *Bubo africanus***

Only one record: one flushed by road on 11 November on the northern boundary (short grass *ziwa*). Habitat in the Conservancy is largely unsuitable for this species.

**Verreaux's Eagle Owl *Bubo lacteus***

Several records, including edge of thickets at Ziwa Lamuu, dry forest at base camp (singing on the opposite side, wandering occasionally into our camp) and new camp.

**[Pel's Fishing Owl *Scotopelia peli***

Known from the Tana River delta (*Bulletin of the African Bird Club*, 2009, 16: 232; 2011, 18: 99), see also Campbell (1977).]

**African Wood Owl *Strix woodfordii***

Common and throughout, any thicket and forest.

**African Barred Owlet *Glaucidium capense***

One calling in forest clumps near base camp on 23 November did not stay.

**\*Donaldson Smith's Nightjar *Caprimulgus donaldsoni***

Two were collected at Kipini 14–15 March (Stager 1973). Also reported from Hewani (Andrews *et al.* 1975). There is no suitable habitat within the Conservancy.

**[Fiery-necked Nightjar *Caprimulgus pectoralis***

Reported from the Hewani area (Andrews *et al.* 1975), without details, while Njoroge *et al.* (2008) listed “Donaldson-Smith’s Nightjar *Caprimulgus pectoralis*” (*sic*) from Ishaqbini area. In the extreme north known from Boni (Britton 1980), where two collected in February (Stager 1973) and heard in August (Britton & Britton 1973), but it remains unrecorded from Somalia (Ash & Miskell 1998).]

**\*Plain Nightjar *Caprimulgus inornatus***

Several were collected in the Kipini-Witu area, 13–14 March (Stager 1973).

**Slender-tailed Nightjar *Caprimulgus clarus***

Common in short grassland with sandy patches in sections of the coastal *ziwa* and at Ziwa Lamuu, many singing there in December. Also marginally present in short grass at headquarters, where seen September (Gus Ankerheilm pers. comm.), and December, singing on 4 December.

**[Gabon Nightjar *Caprimulgus fossii***

Specimens have been claimed from Witu (1 October, Fischer & Reichenow 1878) and Lamu (Jackson & Sclater 1938), and listed without comment from Ishaqbini (Njoroge *et al.* 2008). However, they may well have been misidentified, and Zimmerman *et al.* (1996) map the species north to Malindi only. Interestingly, there is a recent claim of one photographed on its nest on Manda Island (*Bulletin of the African Bird Club*, 2012, 19: 101).]

**\*Böhm’s Spinetail *Neafrapus boehmi***

Seen at Witu, August 1970 (Britton & Britton 1970), although Britton (1980) gave coastal records north only to Sokoke, where it is resident (Lewis & Pomeroy 1989). Also found at Witu 26 April 2010 (*Bulletin of the African Bird Club*, 2010, 17: 244). Doubt has been thrown by Brown & Britton (1980: 68) on a breeding record in an underground chamber in Sokoke in late January, though why they doubt it is not explained – the nest site is quite normal (Brooke 1966), although nesting in a baobab was also probable there in December (Short & Horne 1985). The one record from Somalia is of an August specimen in the extreme south (Ash & Miskell 1998). There is probably some dispersal in the non-breeding season, as in Zambia (Dowsett *et al.* 2008).

**Mottled Spinetail *Telacanthura ussheri***

Uncommon: one seen regularly around a patch of forest near base camp. One in a group of swifts and swallows over coastal thickets (Sandamuke) 25 December. The genus is spelled correctly here, not *Telecanthura* as in EANHS (2009).

**African Palm Swift *Cypsiurus parvus***

Common, throughout, feeding pulli at nest (*Hyphaene*) 25 December (eggs probably laid November).

**Common Swift *Apus apus***

Palearctic migrant: some flying south in November, on few a dates.

**Forbes-Watson’s Swift *Apus berliozi***

This highly local species breeds in caves off the coast of Somalia and migrates to the

Kenya coast from October–February (Zimmerman *et al.* 1996, 2001). First few seen on 1 November (Luimshi), and thereafter at least once a week, usually a few drifting south, or feeding in rain clouds. Probably wintering in 2006 as still seen regularly in December, including on 25 December with other swifts and swallows. Calls reminiscent of African Black Swift *A. barbatus*. Flies more slowly than either *A. barbatus* or *A. apus*, more leisurely, showing big white chin.

**Little Swift *Apus affinis***

In Mpeketoni town and occasionally wandering into the Conservancy, e.g. near Lake Kenyatta (24 October). Two at headquarters on 24 October.

**Speckled Mousebird *Colius striatus***

Widespread and common, thicket-clump and wooded savanna. One November clutch.

**Narina Trogon *Apaloderma narina***

Common in coastal thickets as well as in tall forest (Witu Extension, Luimshi, old dune forest at Sandamuke). Much singing in October until early December.

**Rufous-crowned Roller *Coracias naevius***

A few, singles or pairs, in open savanna with few trees (doums etc.) at Ziwa Lamuu and drier sections of coastal *ziwa*. October–December, possibly resident.

**Lilac-breasted Roller *Coracias caudatus***

Common and widespread in savanna; strongly territorial. In November many territories with just the male posted while the female was brooding in a tree hole (usually in *Hyphaene*). Some completed breeding by October (family with fully-grown juveniles). One feeding a fledgling 16 December (clutch laid September or October). Probably at least one September clutch, one October and two November.

**\*Eurasian Roller *Coracias garrulus***

Palaeartic migrant, collected in the Kipini area 13 March (Stager 1973). There are also records from Garsen (Britton 1980) and Massabubu (1 November: Fischer & Reichenow 1879).

**Broad-billed Roller *Eurystomus glaucurus***

Several seen October, especially hunting at dusk, but silent. Noisy and territorial from 1 November, fighting neighbours over holes. Some females sitting in early November. Still very noisy by end of December. At least three laying in November.

**Grey-headed Kingfisher *Halcyon leucocephala***

Very common, noisy, throughout savanna country. Occupied nest hole (incubating) on 23 October.

**Striped Kingfisher *Halcyon chelicuti***

The most numerous kingfisher, throughout savanna.

**Mangrove Kingfisher *Halcyon senegaloides***

Very common (and noisy) in coastal thickets in October, singing in duets at dawn

and dusk. Heard two singing to each other in forest clumps opposite base camp (October, early November); seen at new camp. Heard at forest edges in Witu Extension and Luimshi. Not singing in second half of November nor December and then easily overlooked (none seen December).

**\*African Pygmy Kingfisher *Ceyx pictus***

The migratory subspecies *natalensis* from southern Africa was reported at Witu (Britton 1980). It occurs as a non-breeding visitor on the Kenyan coast, north to Malindi, April to August (Britton & Britton 1974). The Percival collection includes four specimens from the Tana River, from Momba Sassa north to Kidore, dated between 11 January and 22 February, which suggests they may breed this far north.

**Malachite Kingfisher *Alcedo cristata***

Widespread at small pools, flooded pans in several *ziwas*, even at road-side (thus one roosting in *Indigofera* edge of the main road). Pair displaying at K4 *ziwa* 25 November.

**Pied Kingfisher *Ceryle rudis***

Uncommon wanderer: one at base camp on 12 October; one shores of Lake Kenyatta 12 November.

**Little Bee-eater *Merops pusillus***

In pairs and family groups, dense grassland in open palm savanna or edges of *ziwas*. Widespread but somewhat local.

**White-throated Bee-eater *Merops albicollis***

Intra-African migrant: common wintering species, throughout. Hunts low down, from shrubs, and roosts in baobabs or other large trees in groups of 20–25.

**Blue-cheeked Bee-eater *Merops persicus***

Palaeartic migrant, on southward passage. First noted on 4 November (several), becoming very common mid-to late November (dozens daily, feeding over *ziwas*). Last (several) on 6 December, but there are specimens from Momba Sassa and Massa dated 9 January and 30 June (N. Rice *in litt.*), while more than 100 were near Witu on 26 April 2010 (*Bulletin of the African Bird Club*, 2010, 17: 244).

**Eurasian Bee-eater *Merops apiaster***

Palaeartic migrant, apparently marginal: groups flying south on 9–21 October (numerous on 21); also on 18 November (over beach).

**Northern Carmine Bee-eater *Merops nubicus***

Common “wintering” species, scattered around *ziwas*, taking position on the back of mammals (Warthogs *Phacochoerus africanus* are special favourites, and also Zebras, Buffalo, Topis *Damaliscus korrigum*) to feed on disturbed insects. Defend their “mammal territory” against congeners. Also hunt from shrubs. Normally breeds in sand cliffs on the Tana when water levels are low.

**Green Wood-hoopoe *Phoeniculus purpureus***

Confined to tall, closed-canopy forest in Witu Extension.

**Violet Wood-hoopoe *Phoeniculus damarensis***

Very common and widespread, savanna and forest clumps, also in coastal thickets. Spends most of its time feeding in bark crevices and among leaf bases of *Hyphaene compressa*, also occasionally in other trees (e.g. *Trichilia emetica*).

**Common Scimitarbill *Rhinopomastus cyanomelas***

Common and widespread, forest clumps, coastal thickets, groves of *Acacia zanzibarica*.

**Crowned Hornbill *Tockus alboterminatus***

In pairs or family groups, widespread in coastal thickets, forest clumps, or more continuous forest (Luimshi, Witu Extension).

**Trumpeter Hornbill *Bycanistes bucinator***

In small numbers but very widespread, thicket-clump savanna and forest. Seen feeding on fruits of *Diospyros abyssinica* (Witu Extension), *Manilkara sansibarensis*, *Flacourtia indica*, *Ekebergia capensis* (October), and figs. Male feeding young or female at nest 31 October in a big *Parkia* (Witu Extension).

**\*Southern Ground Hornbill *Bucorvus leadbeateri***

This Globally Vulnerable species was reported from Witu (Britton 1980), but now likely extinct.

**[Green Barbet *Stactolaema olivacea***

Reported in coastal Kenya north to the Tana River (Britton 1980, Mackworth-Praed & Grant 1957). Although these authors gave no source, this is clearly based on van Someren (1932: 279): "I have found the species to be very plentiful in certain localities, from the type locality Rabai to the Tana River at its mouth and south to the Usambara Mts". No details of the Tana report appear to have been published. Never recorded in the Tana Primate Reserve, and in our opinion there is no suitable forest for this species in the Witu-Kipini area, as it is largely dependent on an abundance of rain forest fig trees. It is unlikely to occur north of Marafa (Kilifi) Ganda forest (north of Vanga.)]

**Green Tinkerbird *Pogoniulus simplex***

More local and spaced-out than Yellow-rumped, in broken-up tall forest. One singing in Witu Extension (against 5–6 Yellow-rumped in the patch visited), one near Kangawati, one at Luimshi, and one in a patch of forest opposite base camp. Two seen crossing the road near base camp once (RJD). The song is somewhat more metallic than that of Yellow-rumped and consists of more notes (15–20), delivered in a faster trill. Hitherto not known north of Sokoke Forest (Britton 1980) and absent from Somalia (Ash & Miskell 1998).

**Yellow-rumped Tinkerbird *Pogoniulus bilineatus***

Common in forest in Witu Extension, elsewhere confined to some patches of tall forest (such as old dune forest at Sandamuke). Some wanderers: one singing in coastal thicket 30 November where never heard before nor after, one stopping in base camp to sing a few phrases in a *Trichilia* on 3 December. Usual song of this coastal form is quite unlike that of other populations of the species. Its song is much closer to that of Green Tinkerbird, consisting of trills of 8–12 notes (with an introductory note). Comes readily to tape playback of its own song, but also to that of Green Tinkerbird from

Malawi! Some birds seen closely had a greenish wash below, and we suspect this coastal population may have hybridized with Green Tinkerbirds, which would also explain their unusual song. The one specimen from the region (collected by Fenwick at Momba Sassa, February 1927) is attributed to the race *fischeri*, and has not been reported previously. These are extensions of the known distribution northwards from Arabuko-Sokoke (Zimmerman *et al.* 1996). In addition, D.A. Turner (pers. comm.) heard a trill of one or other tinkerbird at Kiunga on 23 September 1990 in thick coastal thicket.

**Red-fronted Tinkerbird** *Pogoniulus pusillus*

Common throughout, in savanna, coastal thickets and forest.

**Black-collared Barbet** *Lybius torquatus*

Widespread in thicket clumps and patches of broken forest; not in extensive coastal thickets. Noisy throughout October–December.

**Brown-breasted Barbet** *Lybius melanopterus*

Widespread in thicket clumps, patches of broken forest, edge of forest at Luimshi and Witu Extension. Very noisy in October–early November, more quiet later (common call is a “kraa-kraa-kraa-kraa”). Eats a variety of small fruit.

**Pallid Honeyguide** *Indicator meliphilus*

Seen on three occasions, twice an individual within 1–2 km of base camp (flying into tall trees). On 30 November a song-post was located in the crown of a large baobab in coastal thicket (road to Seven Sisters after forking right). The song is a series of 12–15 notes delivered at the rate of 14/11 s, or 15/11 or 12 s, “tjuwi-it, tjuwi-it, t....”. It sounds very similar to that of its close relative, the Guineo-Congolian Willcock’s Honeyguide *I. willcocksii*. It was singing actively at 08:30–09:00, occasionally changing its position in the tree, and flycatching between songs. At 09:00, the bird was visited by a congener, presumably a female (sitting in a hunched position): he stopped singing, flitted around her, and followed her when she left the tree. Hitherto not known north of Sokoke Forest (Britton 1980) and absent from Somalia (Ash & Miskell 1998).

**Lesser Honeyguide** *Indicator minor*

One or two seen October (one heard Mpeketoni November). Not seen later, when barbets (its normal hosts) rather inactive.

**Scaly-throated Honeyguide** *Indicator variegatus*

Two different song-posts at either side of base camp (October–December), also locally in Sandamuke (old dune forest).

**Greater Honeyguide** *Indicator indicator*

Widespread, savanna and forest clumps. A few singing October–early November, only one brief song in December, but some “guiding” calls (base camp, Kenyatta camp).

**Nubian Woodpecker** *Campethera nubica*

Widespread in open palm savanna, thicket-clump savanna (*Xeromphis*, *Dalbergia*, *Dichrostachys*), edges of dry thicket, and groves of *Acacia zanzibarica*. Bigger territories than other woodpeckers.



**Mombasa Woodpecker *Campethera mombassica***

Common in any form of thicket and forest: from Witu Extension to coastal thickets (and the only woodpecker in the latter). Feeds low down, usually hidden, as well as higher up (canopy trees, tall palms). Distinctive rolled calls “weerr, weerr, weerr, weerr, wur”, quite unlike the single nasal note of its closest relative, the Golden-tailed Woodpecker *C. abingoni*. The transcription in Zimmerman *et al.* (1996) “keoank-yaaaank-yaaaank...” appears rather inappropriate.

**Green-backed Woodpecker *Campethera cailliautii***

Common in forest clumps, broken forest and closed tall-canopy forest: from Witu Extension, Luimshi to base camp. Not in extensive coastal thickets. Feeds overall higher than Mombasa Woodpecker, often on doum palms.

**Cardinal Woodpecker *Dendropicus fuscescens***

Somewhat patchily distributed, in thicket-clump savanna, frequently feeding on doum palms. Also in *Acacia zanzibarica* (G4).

**Black-and-white Flycatcher *Bias musicus***

Vagrant? Only one sighting, of a male associated with a large bird party at base camp, 13 October (RJD). Was completely silent. Never seen or heard anywhere else, although suitable habitat certainly exists: forest clumps with emergent *Hyphaene* appear very similar in structure to other dry forests occupied by the species (e.g. *Sterculia* forest in Lengwe N.P., Malawi: Dowsett-Lemaire & Dowsett 2006). There are historical records from the Kenya coast from a few localities north to Takaungu (Zimmerman *et al.* 1996). Already by the 1980s it was said to have been unrecorded for more than 50 years (Britton & Zimmerman 1979). Yet there have been many reports in recent years from coastal forests further south, in Tanzania (e.g. Jensen *et al.* 2005). The Meru population in central Kenya too has also been shown to be extant (Pearson & Turner 1998). Whether any more than just the odd bird remains in coastal Kenya remains to be elucidated, with more extensive surveys of the Kipini Conservancy needed.

**[Forest Batis *Batis mixta***

Reported “... to the lower Tana River” (van Someren 1932), probably a misidentification.]

**[Pale Batis *Batis soror***

Reported from the lower Tana River and Lamu (Britton 1980), the former apparently based on the statement by van Someren (1932: 297) “... to the Tana River.” Considered unconfirmed by Zimmerman *et al.* (1996).]

**Black-headed Batis *Batis minor***

Widespread in the canopy and emergents of coastal thickets, also in *Acacia zanzibarica* woodland and small thickets near Ziwa Lamuu. Voice distinctive, a rising “tuee”, then “tuuwee” (modulated), followed by a succession of “tuee tuee tuee tuee” slow and deliberate, 2 notes/s. Thus rather different from the voice of the form *erlangeri* (cf. Chappuis 2000).

**\*Black-throated Wattle-eye *Platysteira peltata***

Reported from Witu (Zimmerman *et al.* 1996), as well as Lamu on the coast (Jackson & Sclater 1938) and the Tana River (e.g. Hewani: Andrews *et al.* 1975).

**Retz's Helmetshrike *Prionops retzii***

Very common in coastal thickets (canopy, emergents), all forest types and thicket-clump savanna with tall palms, baobabs etc. Spends much time feeding among leaves, inflorescence and bark of tall *Hyphaene compressa*. Several groups had immatures, some still begging.

**[Chestnut-fronted Helmetshrike *Prionops scopifrons***

Apart from old records from Lamu and Malindi (van Someren 1932, Jackson & Sclater 1938), unreported on the coast between Boni, on the Somali/Kenya border (Ash & Miskell 1998, Stager 1973) and Sokoke (Britton & Zimmerman 1979). Listed from the Lower Tana forests (Important Bird Area #23: Bennun & Njoroge 1999), and mapped for that area (Lewis & Pomeroy 1989), but with no details. Range on coast shown as continuous in Zimmerman *et al.* (1996), but the Kipini gap seems to be real.]

**Grey-headed Bushshrike *Malaconotus blanchoti***

Large, scattered territories occupied in tall palm country with small thickets below (e.g. western border of Lake Kenyatta), ecotone of coastal thicket and grassland, and forest clumps in grassland (e.g. Luimshi).

**Sulphur-breasted Bushshrike *Chlorophoneus sulfureopectus***

Locally in thicket-clump savanna with some thorn trees (e.g. *Dichrostachys*, *Xeromphis*), at edges of coastal thickets and in *Acacia zanzibarica* stands with thickets.

**[Gorgeous Bushshrike *Chlorophoneus viridis***

There are old specimen records from Lamu (collected by Clarke) and the "Lower Tana" (van Someren) in Jackson & Sclater (1938). The former was mentioned by Clarke (1913) when he named the race *nigricauda*, but it is not clear if there was indeed a specimen from that locus (and Clarke made it clear that many specimens were obtained along the coast by a native collector, in his absence, thus mislabelling remains a possibility). There is no specimen from Boni (Stager 1973). We are unaware of any records in the past 25 years or more north of Sokoke (Britton & Zimmerman 1979). It is not clear what the justification is for its inclusion on the Tana River Delta list (Important Bird Area #22, in Bennun & Njoroge 1999), but possibly there has been confusion with the voice of Slate-coloured Boubou.]

**Brown-crowned Tchagra *Tchagra australis***

One of the few species found in the short, impenetrable thickets on live dunes. Also at thicket edges (ecotone between coastal thicket and palm savanna) in coastal area. Not found beyond 2–3 km of the coast.

**\*Three-streaked Tchagra *Tchagra jamesi***

There are specimens from Witu (Jackson 1898), Lamu and Manda (van Someren 1922). There is no suitable habitat within the Conservancy.

**Black-crowned Tchagra *Tchagra senegalus***

Very common throughout savanna habitats, thicket clumps, *Acacia* woodland.

**Black-backed Puffback *Dryoscopus cubla***

Very common, throughout, all forest and thicket types and palm savanna. A fledgling October would be from an egg laid August.

**Slate-coloured Boubou *Laniarius funebris***

In drier types of thicket, including on live dunes where common. Also in thickets on coral, such as on the northern boundary road and very locally at the edge of thicket near the coastal *ziwa*. Has a variety of song motifs, often disyllabic “kotiok, kotiok”, or “kou-ik, kou-ik” etc. The latter is fairly similar to the dialect of Gorgeous Bushshrike at Arabuko-Sokoke (“ouik, kou-ik kou-ik”), so much so that tape playback experiments with our Sokoke tape were carried out in several sections of dune thicket: only Slate-coloured Boubous were confirmed to occur there, one in particular coming to the tape of Gorgeous Bush-shrike and reacting very strongly, in full view on a bush.

**Tropical Boubou *Laniarius aethiopicus***

Widespread, in the interior of coastal thickets and large clumps elsewhere. Very difficult to see, but the few birds seen were black-and-white, although a black boubou is known from the coastal region, and the type of *nigerrimus* was collected at Kipini by Fischer in 1878 (Reichenow 1879). It has been suggested that the black birds represent a separate species, but their taxonomic status requires further investigation, as explained by Turner *et al.* (2011).

**Black Cuckooshrike *Campephaga flava***

Intra-African migrant, widespread in October (forest patches, coastal thickets, Witu Extension); decreasing in November with last ones (one female, a male in song) on 15th.

**[Northern White-crowned Shrike *Eurocephalus rueppelli***

Slater (1930: 601) reported it south along the coast to about Witu, but evidence for Witu is unknown. It appears to be known only inland of this area, e.g. Hewani (Andrews *et al.* 1975).]

**Red-backed Shrike *Lanius collurio***

Palearctic migrant, with heavy passage in November. First male seen on 29 October; mostly males passing in the first two weeks of November, with females and immatures becoming more common in second half of the month. Evidently a few winter in wooded savanna, including some adult and immature males seen at fixed posts until our departure in late December.

**Isabelline Shrike *Lanius isabellinus***

Palearctic migrant, much less common than congener: a few identified last week of November, 1–2 probably wintering as one male seen in *Dobera* trees in sandy coastal *ziwa* on 26 December.

**Long-tailed Fiscal *Lanius cabanisi***

Very local resident: a pair and two immatures in very open grassland (with few *Hyphaene compressa*) on northern boundary; one pair in palm savanna on the edge of Luimshi pan.

**African Golden Oriole *Oriolus auratus***

Status unclear, some singing and passing through forest and thicket clumps in October. One sang briefly in a baobab on 14 December.

**Black-headed Oriole *Oriolus larvatus***

Fairly widespread in thicket-clump savanna and in forest (including Witu Extension, Luimshi). Often on the move in October–December, not strongly territorial.

**Square-tailed Drongo *Dicrurus ludwigii***

Very common in mid-storey of tall-canopy forest in Witu Extension; also present (more locally) at Luimshi in sections of closed-canopy forest. Absent from tall forest on old dunes (Sandamuke). The coastal population in Kenya is very isolated, being confined to the Tana drainage (Zimmerman *et al.* 2001). The whole-scale destruction of Witu Extension is therefore very worrying.

**Common Drongo *Dicrurus adsimilis***

Very common throughout palm savanna, thicket clumps, *Acacia zanzibarica* woodland, coastal thickets (emergents especially) and wooded grassland. In open savanna flycatches from low bushes or drops to the ground. At Luimshi and Witu present in broken canopy and emerging palms, next to (above) Square-tailed Drongo.

**Blue-mantled Crested Flycatcher *Trochocercus cyanomelas***

Very common in low dense understorey of forest at Witu Extension. Smaller numbers in tongues of forest at Luimshi. Curiously absent from coastal thickets and even taller forest on old dunes (Sandamuke). Another species seriously threatened by forest destruction near Witu.

**Little Yellow Flycatcher *Erythrocercus holochlorus***

Common in forest, whether continuous (Witu Extension) or broken into large clumps (Luimshi, old dunes, one patch near base camp), as well as in coastal thickets. Very vocal in October–November, much less so in December.

**African Paradise Flycatcher *Terpsiphone viridis***

Intra-African migrant, common in October, defending territories in coastal thickets and forest clumps near base camp. Disappeared before the end of the month (last recorded 21 October).

**Pied Crow *Corvus albus***

Occasional visitor to headquarters, cattle post, and a pair once flying near the beach.

**Sand Martin *Riparia riparia***

Palaeartic migrant: a few wintering (savanna, *ziwas*), with Barn Swallows. First noted on 23 October.

**Barn Swallow *Hirundo rustica***

Palaeartic migrant, wintering commonly throughout the area, often resting on shrubs edge of *ziwas*.

**\*Ethiopian Swallow *Hirundo aethiopica***

Collected at Kipini in March (Stager 1973) and reported at Lamu (Britton 1980).

**Common House Martin *Delichon urbicum***

Palaeartic migrant: one on 13 December. A possible one in November. Often flies too high to be noticed.

**Lesser Striped Swallow *Cecropis abyssinica***

Occasionally a dozen around the buildings at headquarters.

**Mosque Swallow *Cecropis senegalensis***

In isolated pairs, rather uncommon.

**[Singing Bush Lark *Mirafra cantillans***

Claimed "... to the mouth of the Tana River" (van Someren 1932: 336), but this is far from the known range of the species (Zimmerman *et al.* 1996).]

**[Red-winged Lark *Mirafra hypermetra***

Reported from the lower Tana (Britton 1980). No source is given but it is clearly based on van Someren (1932: 335): "I have.... birds from.... the coast at Kipini and Mongeya." That this species should occur on the coast is surprising, and this is missing from the map in Zimmerman *et al.* 1996.]

**Flappet Lark *Mirafra rufocinnamomea***

Numerous in rank grassland, edge of *ziwas* and open palm savanna. Singing and alarm-calling throughout; frequently flushed by car on roads. Several birds feeding young November–December; at least four clutches would have been laid October and November.

**Chestnut-backed Sparrow Lark *Eremopterix leucotis***

A rare visitor: an immature male with Malindi Pipits in short grass and sand in the drier section of coastal *ziwa*, 17 December.

**[Tana River Cisticola *Cisticola restrictus***

This is a taxon of uncertain validity, with a very limited distribution, from north to south: Sangole, Ijara, Mnazini, Garsen, Karawa (Britton 1980, Traylor 1967a). It is probably a hybrid between Rattling Cisticola *C. chiniana* and Ashy Cisticola *C. cinereolus*. Both of these species occur in dry vegetation, including thornbush, inland, and there is no suitable habitat for them in Kipini Conservancy. For instance, they both occur on the southern bank of the Tana, in Retief's camp, where found by D.A. Turner (pers. comm.) in December 1992.)]

**Coastal Cisticola *Cisticola haematocephalus***

Very common throughout *ziwas* and any open wooded grassland (grass with *Hibiscus*, *Indigofera* and *Cassia* forbs), with or without standing water. Also in sedges in flooded sections, including Lake Kenyatta. Single clutches laid September, October, November and December (all based on adults feeding at nest). Although treated as a distinct species in EANHS (2009), our field and museum experience convinces us it is best treated as a race of Winding Cisticola *Cisticola galactotes*.

**Siffling Cisticola *Cisticola brachypterus***

Very common throughout, in wooded grassland (palm savanna).

**Zitting Cisticola *Cisticola juncidis***

Locally common in very large and relatively dry *ziwas* near the northern boundary, including part of coastal *ziwa* (Baharini) and open palm savanna with medium-long grass and *Agathisanthemum* herbs.

**[Desert Cisticola *Cisticola aridulus***

Recorded (under the name *C. lavandulae*, sic) from the Lower Tana River, without details (van Someren 1922), and not mapped from anywhere near this area by Zimmerman *et al.* (1996).]

**Tawny-flanked Prinia *Prinia subflava***

Very common in any grassland of *ziwa* and open palm savanna, or thicket edges. Avoids the wetter sections of *ziwas*, present in shallow flooded sections (with *Hibiscus*). One clutch each laid September and October. Some pairs had bred earlier and remained inactive (independent juveniles still with parents).

**[Yellow-breasted Apalis *Apalis flavida***

Apparently absent from the forests of the Tana Primate Reserve *sensu stricto*, being noted only in drier *acacia/commiphora* or *Dobera* bush (Andrews *et al.* 1975). The ecological preferences of this thicket species vary geographically, but if confined to thornbush in the Tana, then the reason for its absence from Kipini is rather obvious.]

**[White-winged Apalis *Apalis chariessa***

This Globally Vulnerable species was known on the Lower Tana at Mitole (the type was collected in 1878: Fischer & Reichenow 1879) and 23 miles north of Garsen, thus perhaps in the Primate Reserve (where collected in 1961: Traylor 1967b). There are no other reports from the Tana River. The recurrence and severity of droughts in the region probably mean that the future of this species was hanging by a thread. Its survival on the Tana was probably in jeopardy even if the existing forests had been well preserved. From what we know of its ecology in Malawi, where another race is or was locally common (Dowsett-Lemaire & Dowsett 2006), the species is at home in rain forest dominated by Mimosaceae, spending much of its time feeding in the feathery foliage of canopy trees (*Albizia*, *Newtonia*). Some Mimosaceae with suitable architecture were present in the Tana riparian forests but are missing completely from the type of semi-evergreen forests found near Witu. We do not think therefore that there was much chance of finding this species in the Witu Extension *sensu lato*.]

**Black-headed Apalis *Apalis melanocephala***

Very common in closed-canopy forest in Witu Extension, much more scattered in forest strips at Luimshi. Absent from apparently suitable tall forest on old dunes (Sandamuke). Should be largely exterminated from the Conservancy with the complete destruction of Witu Extension.

**Grey-backed Camaroptera *Camaroptera brachyura***

Widespread in small and large thickets. Very common in the understorey of coastal thickets and tall forest (Witu etc.). A big fledgling in October would have been from an August clutch.

**Common Bulbul *Pycnonotus barbatus***

Widespread in savanna habitats, edge of thickets and canopy of forest patches. A very young fledgling 13 December was from a clutch laid November.

**Zanzibar Greenbul *Andropadus importunus***

Very common (and noisy) in thicket clumps, palm savanna with shrubs, coastal thickets (including on live dunes) and forest edges.

**Yellow-bellied Greenbul *Chlorocichla flaviventris***

Common in tall forest, whether continuous (Witu Extension) or in patches. Also in coastal thickets, especially around *Spirostachys* pools, where trees taller. Very few calling in October (none in coastal thickets), but singing actively November–December.

**Terrestrial Brownbul *Phyllastrephus terrestris***

Very local, found in small numbers in coastal thickets (road to Seven Sisters) in October.

**Northern Brownbul *Phyllastrephus strepitans***

Very common in thicket-clump savanna, moving from clump to clump in small groups. Common in coastal thickets 5–6 m tall and in shorter thickets (2–3 m) on dunes. Also at forest edges but does not enter tall forest.

**Fischer's Greenbul *Phyllastrephus fischeri***

Confined to understorey of closed, tall-canopy forest. Very common in Witu Extension, smaller numbers at Luimshi. Very local in old dune forest (Sandamuke): found only under the canopy of *Combretum schumannii* in a tongue of forest c. 1 km long.

**[Tiny Greenbul *Phyllastrephus debilis***

There is supposedly a specimen from the Tana River mouth (van Someren 1932, Jackson & Sclater 1938), and Jensen *et al.* (2005) repeat that it is “widespread in coastal Kenya from Tana River south”. It has not been found in the Tana Primate Reserve and is unknown in Somalia, the most northerly records otherwise being Ganda forest, Kilifi district (Jackson & Sclater 1938) and Sokoke (Britton & Zimmerman (1979).]

**Eastern Nicator *Nicator gularis***

Widespread and common in coastal thickets and large clumps of forest, as well as in Witu Extension.

**[Little Rush Warbler *Bradypterus baboecala***

There is a specimen from the Delta area at Tschara (Fischer & Reichenow 1879), and one was collected on the Tana upstream near Hewani (Andrews *et al.* 1975). The absence of this marsh-loving warbler from the edge of Lake Kenyatta is not easily explained. The tall flooded grassland of the coastal *ziwa* also looks suitable, but the seasonal character of much of the marshland vegetation may on the whole exclude this warbler.]

**[Moustached Grass Warbler *Melocichla mentalis***

Collected at Oda (N. Rice *in litt.*)]

**Lesser Swamp Warbler *Acrocephalus gracilirostris***

A few pairs in bulrushes and sedges edge of Lake Kenyatta (November). Invaded coastal *ziwa* (K4) as flood increased and vegetation developed: first heard on 1 December, becoming common in mid-December, in sedges but also taller stands of aquatic grasses. Much singing, alarm-calling, chasing of neighbours gave the impression breeding had started.

**Eurasian Reed Warbler *Acrocephalus scirpaceus***

Palaeartic migrant: one heard (subsong) in tall sedges, edge of Lake Kenyatta, 12 November.

**[Olive-tree Warbler *Hippolais olivetorum***

Palaeartic migrant. There are specimens from Oda and Ngao, 2 and 3 January (N. Rice *in litt.*); the former is catalogued as from Oda Boda, but the date shows it must have been from Oda.]

**Northern Crombec *Sylvietta brachyura***

Common in stands of *Acacia zanzibarica* near Ziwa Lamuu, with smaller numbers in wooded palm savanna elsewhere, often in *Xeromphis-Dalbergia-Dichrostachys*.

**Rufous Chatterer *Turdoides rubiginosa***

Rare, only two sightings: one well seen at headquarters, coming out of low secondary bush (*Hoslundia opposita*, palm saplings) to perch on a fence; one crossing the road 2–3 km north of base camp.

**Scaly Babbler *Turdoides squamulata***

Common in thicket-clump savanna, moving in small groups from one clump to the next. Also in the understorey of coastal thickets (including live dunes). Does not penetrate forest. Often in mixed parties with Northern Brownbul, which has similar ecological requirements.

**\*Abyssinian White-eye *Zosterops abyssinicus***

The race *flavilateralis* is reported from Witu, as well as Lamu and Manda (van Someren 1922). Specimens from Kipini and Tschara were attributed to the race *tenellus* (Fischer & Reichenow 1879), now considered a synonym of nominate African Yellow White-eye *Z. senegalensis*. Although Moreau (1957: 411–12) seems not to have taken these specimens into account, they must certainly also be *Z. abyssinicus*.

**Rüppell's Starling *Lamprotornis purpuropterus***

More of a savanna bird than last, especially in tall palm savanna with only small thickets. Also any wooded savanna with short grass or bare ground where feeds a lot. Eggs were laid in October in a nest observed from building to nestlings.

**Black-bellied Starling *Lamprotornis corruscus***

Very widespread and quite common, in all forest and thicket types, as well as open palm savanna, wherever can find fruit. Seen killing a large gecko in a *Hyphaene*. Fledglings in October would have been from eggs laid August.

**\*Magpie Starling *Speculipastor bicolor***

Three specimens of this erratic species were collected at Kipini, 11 July (Fischer & Reichenow 1879).

**Red-billed Oxpecker *Buphagus erythrorhynchus***

Common, in dozens when attending large herds of Buffalo. Also on Warthog and Zebra. Often tries Waterbuck *Kobus ellipsiprymnus* who shake them off. Never on Topis. One of a pair seen taking hair from a young zebra for nest-building, 25 December.



**Red-tailed Ant Thrush *Neocossyphus rufus***

Very common in forest understorey in Witu Extension, smaller numbers in any tall forest and also in coastal thickets. May move between clumps of *Trichilia/Hyphaena* forest, flying across roads or open savanna.

**\*Spotted Ground Thrush *Zoothera guttata***

Globally Endangered. Fischer collected two specimens at Kipini, 25 and 28 July (Fischer & Reichenow 1878, who give the date of the first, in error, as 28 May). The coastal non-breeding range is also known to extend to Lamu, where collected by Allen Turner (Jackson & Sclater 1938), but a recent review of the status of this endangered species (Ndang'ang'a *et al.* 2008) did not provide any further information from this area.

**\*African Bare-eyed Thrush *Turdus tephronotus***

Specimens were collected at Witu (Jackson 1898), and it is also reported from Kipini (J.M. Hildebrandt in Jackson & Sclater 1938), although it is not clear that Hildebrandt travelled that far north. Known from Lamu and Manda (Fischer & Reichenow 1878, van Someren 1922).

**[East Coast Akalat *Sheppardia gunningi***

Known in forests along the Lower Tana from near Hewani (Andrews *et al.* 1975) and further north at Makeri (Keith 1968): these two localities correspond to "Garsen to Wenje" (Zimmerman *et al.* 1996). Although there are no recent records north of Sokoke (Nemeth & Bennun 2000), the Tana River patches have not been explored during the past few years.]

**Common Nightingale *Luscinia megarhynchos***

Palearctic migrant: scarce wintering species, with one singing in thicket clump on 1 December, and another singing (clearly immature, motifs not fully formed) on 9 December.

**White-browed Robin Chat *Cossypha heuglini***

Very common in thicket clumps, also at edges of coastal thicket and in small gaps with broken canopy. Does not enter forest.

**Red-capped Robin Chat *Cossypha natalensis***

Very common in October, throughout any forest (continuous or in clumps) and coastal thickets (including large clumps). Numbers decreasing in November until last one heard calling ("see-saw") on 29th. However, there are specimens in the Percival collection between 7 January and 21 February, from Punewani and Mwina. Hitherto the race *intensa* was believed present only late April to November (Zimmerman *et al.* 1996).

Much singing in October and early November: all birds were heard imitating Emerald Cuckoo (not present on the coast), as well as Black Cuckoo (ditto), and at least two different individuals imitated Barred Long-tailed Cuckoo *Cercococcyx montanus*. This suggests the origin of these robins could be the highlands of Kenya, or further south in the region of the Zambezi valley. Other imitations were of local birds like Crowned Eagle, Levaillant's Cuckoo, Thick-billed Cuckoo, White-throated Bee-eater,

Sulphur-breasted Bushshrike, African Golden Oriole, and interestingly they reproduced calls of Eurasian Bee-eaters when they were passing over (October).

**[Collared Palm Thrush *Cichladusa arquata* and Spotted Palm Thrush *Cichladusa guttata***

The former is known from Hewani on the Tana and Lamu on the coast (Andrews *et al.* 1975, Jackson & Sclater 1938), the latter from Lamu and Kau in the Tana delta (Fischer & Reichenow 1879, van Someren 1922).]

**Bearded Scrub Robin *Cercotrichas quadrivirgata***

Very common in large thickets and forest, the interior of extensive coastal thickets as well as large clumps. Need bigger patches of thicket than White-browed Robin Chat. Very common also in Witu Extension, Luimshi etc., in tall-canopy forest. Vocally very active in October–December, and much alarm-calling (suggesting breeding). A few vocal imitations, including of Thick-billed Cuckoo.

**[White-browed Scrub Robin *Cercotrichas leucophrys***

Reported "... to the mouth of the Tana River" (van Someren 1932: 376), and known at Hewani (Andrews *et al.* 1975)]

**\*Isabelline Wheatear *Oenanthe isabellina***

Palaeartic migrant, collected at Kipini, 15 December (Fischer & Reichenow 1879).

**Northern Wheatear *Oenanthe oenanthe***

Palaeartic migrant: one on sand near Mpeketoni, 23 October.

**[Southern Black Flycatcher *Melaenornis pammelaina***

Known from the Lower Tana in the Hewani area (Andrews *et al.* 1975), and on the coast collected in Boni (Stager 1973).]

**Pale Flycatcher *Bradornis pallidus***

Common in thicket-clump savanna, and adjacent wooded grassland; also in *Acacia zanzibarica* woodland. Large fledglings in October would have been from an August clutch.

**Spotted Flycatcher *Muscicapa striata***

Palaeartic migrant: very local, 1–2 found only in *Acacia zanzibarica* woodland late November–December.

**Ashy Flycatcher *Muscicapa caerulecens***

Fairly common in canopy/emergents of coastal thickets, and large clumps of broken-canopy forest anywhere. Also in canopy of tall forest in Witu Extension.

**Lead-coloured Flycatcher *Myioparus plumbeus***

Small numbers in thicket-clump savanna, patches of broken-canopy forest.

**[Plain-backed Sunbird *Anthreptes reichenowi***

An "Eastern forest" endemic, with its northern limit of distribution in the riparian forests of the Lower Tana, where a pair was seen near Hewani (Andrews *et al.* 1975:

19). It is not known from Witu F.R., but could conceivably be found in the moister forests of Witu Extension or Kangawati. The only vocalization on commercial tape is the song, which is not of territorial value. A tape of its aggressive call (to which it reacts strongly) was therefore obtained at Arabuko-Sokoke Forest in November. We did not have the opportunity of exploring the big forest gallery at Kangawati to look for this sunbird.]

**[Uluguru Violet-backed Sunbird *Anthreptes neglectus***

Known from the Lower Tana forests at Kitere (Butynski 1994) and Makeri (Keith 1968), but on the coast there is no record north of the Shimba Hills and Diani (Zimmerman *et al.* 1996), more than 200 km to the south.]

**Collared Sunbird *Anthodiaeta collaris***

The most numerous sunbird in coastal thickets or any forest. Also in thicket-clump savanna and *Acacia zanzibarica* woodland. Observations suggested four clutches laid October (one C/2), two clutches November (one C/1). The genus for this sunbird has to be as above, and not *Hedydipna*, as in EANHS (2009), see Mann & Cheke (2006).

**Olive Sunbird *Cyanomitra olivacea***

Common in coastal thickets and forest (Witu Extension, any patch of tall forest), and in well developed thicket clumps.

**Mouse-coloured Sunbird *Cyanomitra veroxii***

Completely overlooked in October, when silent. Found commonly from 10 November–December in a coastal strip only c. 2 km wide. Very common in dune thickets, on the edge of coastal thickets inside of the dunes and extending a short way inland in wooded grassland and palm savanna in the Baharini area. Does not reach headquarters nor base camp area.

**Amethyst Sunbird *Chalcomitra amethystina***

The most widespread and common savanna sunbird, feeding on flowers of *Trichilia*, *Erythrina* and *Combretum constrictum*. Takes *Hyphaene* palm wine from taps! Does not enter forest but feeds at edges or in open canopy of clumps.

**Violet-breasted Sunbird *Cinnyris chalcomelas***

Very marginal in the area: a female well seen in savanna near base camp on 28 October, possible pair/male flying through the area on other occasions; also a female (well seen) and possible male on 12 December, feeding on tiny flowers of *Hyphaene compressa*. Clearly more at home in drier thornbush around Garsen: several males in full song there, before and after the Garsen/Malindi turn-off, in *Acacia* spp., *Dichrostachys*, *Prosopis*, 19–26 December. The area was then very wet. There are female specimens attributed to Black-bellied Sunbird *Nectarinia nectarinioides* (Momba Sasa), which ought to be re-examined, in view of the difficulties in identifying females of some sunbirds.

**Variable Sunbird *Cinnyris venustus***

White-bellied form (*albiventris*) confined to low dense thickets on live dunes, where very common.

**Grey-headed Sparrow *Passer griseus***

Marginal: around small cotton farm on the northern boundary road. One or two calling in *Acacia zanzibarica* woodland near Ziwa Lamuu.

**[Yellow-spotted Petronia *Petronia pyrgita***

Collected by Fenwick at Kulesa (N. Rice *in litt.*.)]

**Grosbeak Weaver *Amblyospiza albifrons***

A flock (20+) at Lake Kenyatta on 23 October, one bird on 5 December. Three nests there in *Typha*, not occupied. A few birds around Luimshi pan November.

**Spectacled Weaver *Ploceus ocularis***

Heard once in a forest clump near Luimshi pan.

**Black-necked Weaver *Ploceus nigricollis***

Very local: a few pairs in *Acacia zanzibarica* woodland at Ziwa Lamuu, and thickets (with *Acacia*, *Dobera*) near Kenyatta camp. Also seen once at the edge of coastal thicket near K4. Several nests (unoccupied) in *Acacia*.

**Eastern Golden Weaver *Ploceus subaureus***

Found only on the edge of Lake Kenyatta, in tall *Cyperus* sedges, 12 November: at least two males and two females.

**Golden Palm Weaver *Ploceus bojeri***

The most widespread weaver in the area. Not conspicuous at all in October, but many sightings in November–December with increasing breeding activities. Occupied nests in ambatch (*Aeschynomene cristata*) over water on the edge of Maji-Grass, in herbaceous *Aeschynomene* in flooded cultivation and grass near Luimshi, in neem (*Azadirachta indica*) and in a *Prosopis juliflora* at headquarters, *Hyphaene coriacea* over water in coastal *ziwa*, and in a *Bridelia micrantha* in old cultivation. Nests in isolation or in small colonies. Takes many insects. One October clutch (feeding at nest 11 November); many (20+) laying November and December. There are female specimens attributed to Lesser Masked Weaver *Ploceus intermedius* (Ngao) which ought to be re-examined, in view of the difficulties in identifying female weavers.

**Village Weaver *Ploceus cucullatus***

Some small non-breeding flocks in October–early November; not seen late November–December. An old nesting colony in a baobab near base camp remained unattended.

**Dark-backed Weaver *Ploceus bicolor***

Very common in all forest and thicket types, but also in thicket-clump savanna, sometimes flying long distances to reach the next clump or tall *Hyphaene*. In pairs. Laid once in October, twice in November.

**\*Red-headed Weaver *Anaplectes rubriceps***

The race *jubaensis* is reported from Kipini by van Someren (1932: 319), and from Kiwayo north to Kiunga (Zimmerman *et al.* 1996). The name *Anaplectes melanotis*, used by EANHS (2009), is invalid, see Oschadleus (2009).

**Red-billed Quelea** *Quelea quelea*

A small flock of c. 20–30 near Kenyatta camp, moving up to Ziwa Lamuu. In grassland, with Pin-tailed Whydahs, October–December.

**\*Fire-fronted Bishop** *Euplectes diadematus*

Collected at Witu in June (Jackson 1898), and there are historical reports from Lamu (Jackson & Sclater 1938, Britton 1980).

**Zanzibar Red Bishop** *Euplectes nigroventris*

Widespread, in small numbers in flooded grassland and sedges in various *ziwas*, and borders of Lake Kenyatta. Already a few in breeding dress in October, increasing numbers in November–December, but still several in only partial dress in coastal *ziwa* by the end of December. It seems the enormous expanses of flooded grassland on the coast should have a lot more bishops than this.

**\*Black-winged Red Bishop** *Euplectes hordeaceus*

Known from Witu (Jackson 1898), Anasa and Lamu (van Someren 1932).

**Fan-tailed Widowbird** *Euplectes axillaris*

Does not seem to breed anywhere in the area. One male (in full breeding dress) flying over road on 28 October. One or two (non-breeding) at Luimshi pan in November. Surprisingly absent from Lake Kenyatta.

**Common Waxbill** *Estrilda astrild*

Rare in October–early November, when never more than six together. Numbers increasing late November and especially December, feeding on *Panicum* etc. Flocks of up to 12–15 December, some birds in song.

**Red-cheeked Cordon-bleu** *Uraeginthus bengalus*

Widespread, in small numbers, in thicket-clump savanna and *Acacia zanzibarica* woodland.

**Peters's Twinspot** *Hypargos niveoguttatus*

One record, of one singing in forest clump, north of base camp (October).

**[Green-winged Pytilia** *Pytilia melba*

No records and must be rare, but should occur in view of the presence of *Vidua paradisaea* in coastal thickets. Lamu is the type-locality of the race *kirki*, named on the basis of a single undated specimen obtained by Kirk (Jackson & Sclater 1938).]

**Red-billed Firefinch** *Lagonosticta senegala*

Curiously very rare. Small group present in neglected cotton field on northern boundary. One pair (male in moult November) seen at thicket edges near coastal *ziwa* (K4) in November–December.

**Jameson's Firefinch** *Lagonosticta rhodopareia*

Also very rare: one edge of road just north of base camp, and a pair near Kangawati (October). In thicket-clump savanna.

**\*Orange-breasted Waxbill *Amandava subflava***

A specimen was collected at Witu 12 May 1891 (Jackson 1898), on a day when Jackson also got Little Bittern and Grosbeak Weaver.

**[Grey-headed Silverbill *Odontospiza griseicapilla***

Collected at Momba Sasa by Fenwick (N. Rice *in litt.*)

**Bronze Mannikin *Spermestes cucullata***

Uncommon, in pairs or small groups, savanna. Nest-building mid-October.

**Black-and-White Mannikin *Spermestes bicolor***

More common than last, in thicket-clump savanna and also in forest clumps. Nest-building 24 November.

**Parasitic Weaver *Anomalospiza imberbis***

One female was present in a small area of grassland and bushes just north of base camp 12–19 October. Lurking around two pairs of Tawny-flanked Prinias, at least one of which was nest-building. Zimmerman *et al.* (1996) wrote that reports from the Lower Tana floodplain require confirmation. This is perhaps based on plots in Lewis & Pomeroy (1989); we cannot trace the origin of these, and there is no relevant record anywhere in *Scopus*.

**Pin-tailed Whydah *Vidua macroura***

Surprisingly large numbers at Ziwa Lamuu and Maji-Grass, up to 100 together and other groups, some with Red-billed Queleas. Also in other areas with short grass, such as headquarters. Males in breeding dress October–December.

**Eastern Paradise Whydah *Vidua paradisaea***

Very local: two males in breeding dress at the ecotone between coastal thicket and grassland on 12 October, presumably at the end of the breeding season. None seen on subsequent visits, except one bird in non-breeding dress in a *Lawsonia* (K4) on 25 December.

**Village Indigobird *Vidua chalybeata***

Two (in non-breeding dress) at edge of coastal thickets (K4), exactly where Red-billed Firefinch was located, on 25 December.

**Yellow Wagtail *Motacilla flava***

Palearctic migrant: first noted on 5 November. Winters in good numbers in the big *ziwas* (Ziwa Lamuu, Maji-Grass) feeding around Zebras, Buffaloes and cattle. Up to 120 going to roost on 13 December; often 20–30 together with game. Few elsewhere, pans with Nile Cabbage. The main race is *lutea*, also a few *flava*.

**African Pied Wagtail *Motacilla aguimp***

Usually a couple of immatures at cattle post. Occasionally visits headquarters.

**Golden Pipit *Tmetothylacus tenellus***

Rare visitor: one female with Malindi Pipits on 11 December, in drier section of coastal *ziwa* (sand and short grass).

**Yellow-throated Longclaw *Macronyx croceus***

Very common, throughout grassland of open palm savanna and *ziwas*. In *ziwas* breeds in fairly tall grass above the flood-line. Nest-building and adults feeding young gives one clutch each laid October, November and December.

**Grassland Pipit *Anthus cinnamomeus***

Very local: one singing on coral beach at Seven Sisters (12 October). One or two pairs muddy shores of coastal pans, often singing November–December.

**Malindi Pipit *Anthus melindae***

Very common, with probably thousands inside the Conservancy. Occupies the short grassland and bare patches (mud or sand) of any *ziwa*. Quite a few singing in October in several places, but pushed out of some *ziwas* by flooding, e.g. over 40 at base camp in October, but few in November and none after December flooding. By December only a few in song in the drier sections of the coastal *ziwa*, where flocks of dozens locally. Sings perched on a bush or in a circular flight, a double “bizeerr”, repeated every second. Common flight call a “pslee”, or “psleeu”.

**Reichenow’s Seedeater *Crithagra reichenowi***

A few in October, in open palm savanna. Increasing numbers late November–December, in coastal thickets and all areas of thicket-clump savanna in central reserve, with much singing.

**Yellow-fronted Canary *Crithagra mozambica***

Rather common in October, thicket and forest clumps, palm savanna. Numbers decreasing late November–December, contrary to congener.

**Discussion***Biomes*

The avifauna at Kipini is largely “Eastern” from a biogeographical point of view. The lack of Somalia-Masai *Acacia-Commiphora* bush means that this biome is very poorly represented. The Conservancy constitutes an important refugium for a few species, including storks and Malindi Pipits. The forests are probably too dry (meaning the rainfall this far north is too irregular) to have the full range of forest species found in the south of the country or in the riparian forests in the Tana River Primate Reserve.

Species confined to the Eastern region of endemism *sensu* Dowsett-Lemaire & Dowsett (1998, 2006) include Southern Banded Snake Eagle, Fischer’s Turaco, Mangrove Kingfisher, Green Tinkerbird, Brown-breasted Barbet, Mombasa Woodpecker, Malindi Pipit, Zanzibar Greenbul (near-endemic), Fischer’s Greenbul, Eastern Nicator (near-endemic), Bearded Scrub Robin (near-endemic), Black-headed Apalis, Little Yellow Flycatcher, Blue-mantled Crested Flycatcher (near-endemic), Mouse-coloured Sunbird, Violet-breasted Sunbird, Black-bellied Starling (near-endemic), Zanzibar Red Bishop. Most of them are forest-associated species; only a few belong to grassland habitats (Malindi Pipit, Zanzibar Red Bishop). Violet-breasted Sunbird is very closely related to the Pemba Sunbird *N. pembae*. Fishpool & Evans (2001) also include in this biome Scaly Babbler, although this babbler extends somewhat into the Somalia-Masai region.

The second biome represented (Somalia-Masai) is very marginal, with African

Orange-bellied Parrot (status in Kipini uncertain), White-bellied Go-away-bird (a migrant), Forbes-Watson's Swift (a migrant), Long-tailed Fiscal (rare), Rufous Chatterer (rare), Golden Palm Weaver. Many more Somalia-Masai species appear a short way inland in the Garsen area, in thornbush.

*Species of conservation concern*

Three of the species listed above have been classified by BirdLife International (2012) as "Globally Endangered" (<http://www.birdlife.org/datazone/country/kenya>. Checked 8 November 2012): Madagascar Pond Heron, White-backed Vulture and Spotted Ground Thrush. Five more are treated as "Globally Vulnerable": White-headed Vulture, Greater Spotted Eagle, Madagascar Pratincole, Southern Ground Hornbill and White-winged Apalis.

Among others belonging to the Globally Threatened category of "Near-threatened" should be mentioned Southern Banded Snake Eagle and Malindi Pipit. Numbers of the Snake Eagle are certainly affected by the destruction of the Witu Extension forests, although it is widespread elsewhere in other forest and thicket types; it appears rare in coastal thickets. The Malindi Pipit occurs in a limited section of the coast between Ngomeni and Karawa (Britton 1980), as well as in the Tana River delta where it is said to be "less numerous" (Zimmerman *et al.* 1996). Its habitat around Karawa and in the delta has shrunk or deteriorated with increasing human pressure. Its occurrence in Kipini Conservancy had never been documented: Kipini appears to be, in fact, the centre of distribution of this coastal endemic. Local concentrations of several dozen may occur and total numbers in the Conservancy must be in the order of thousands.

Many pairs of Saddle-billed Stork occur in the local *ziwas*; we also found it common in the pans along the road between Witu and Garsen. This species is very uncommon elsewhere in Kenya and is treated as a Regionally Threatened species by Bennun & Njoroge (1999). There was, however, no sign of recent breeding activities and the recurrent droughts the region is suffering from are cause for concern.

On a regional level, one should also consider Black-and-white Flycatcher to be of conservation concern. Unfortunately, the status of the species at Kipini remains mysterious.

The isolated coastal population of Square-tailed Drongo is suffering throughout its small Kenyan range: about 80% of the riparian forests in the Tana River Primate Reserve are thought to have disappeared through deforestation (Butynski 1994, Wiczowski & Mbora 2000, R. Hartley pers. comm.) and Witu F.R. suffers from much illegal logging.

*Previous ornithological knowledge*

Ornithologically this section of the northern coast of Kenya has remained virtually unexplored. There exist a few old collections from Witu and Kipini, e.g. Gustav Fischer passed through twice in the 1870s (Fischer & Reichenow 1878, 1879) and Frederick Jackson (1898) stayed in May-June and November 1891. The Arthur Blayney Percival collection contains a total of 68 specimens from the region (Witu, Kipini, Kao, Ngao) (see Bowen 1932); a second part of that paper with a detailed list was not published (N. Gilmore & E. Mathias *in litt.*), but a complete list of the Percival collection in the Academy of Natural Sciences at Philadelphia has generously been made available by N. Rice (*in litt.*). Examination of the ANSP collection shows that it was Norman



Percival Fenwick who in late 1919–early 1920 collected extensively along the lower Tana. In the next half century there was just the one visit to Witu incompletely documented (Britton & Britton 1970). To the south, the Tana River Delta has been visited briefly on occasion (e.g. Archer 1986; recent reports in *Bulletin of the African Bird Club*) and further inland the Primate Reserve received some attention (Andrews *et al.* 1975, Butynski 1994). There was a student expedition from Oxford University to the dry forests of Dodori and Boni to the north in 1961. Unfortunately, apart from a small paper on waders (Fogden 1963), results were never published, but an unpublished list of specimens collected in Boni for the Los Angeles County Museum in 1973 is available (Stager 1973). Njoroge *et al.* (2008) have provided a list of species reported from the Ishaqbini Community Conservancy in Ijara District, adjacent to the Primate Reserve.

### Gazetteer

Anasa	2°31'S, 40°18'E
Bodhei	1°51'S, 40°43'E
Boni	1°40'S, 41°15'E
Bura	1°05'S, 39°56'E
Diani	4°18'S, 39°35'E
Formosa (Ungama) Bay	2°40'S, 40°20'E
Ganda forest, Kilifi dist.	3°13'S, 40°04'E
Garsen	2°16'S, 40°07'E
Gedi	3°18'S, 40°01'E
Hewani	2°15'S, 40°10'E
Ijara	1°36'S, 40°31'E
Karawa	2°38'S, 40°12'E
Kau	2°29'S, 40°26'E
Kidore, Tana R.	0°45'S, 39°45'E
Kilifi	3°38'S, 39°51'E
Kipini	2°32'S, 40°31'E
Kitere	1°57'S, 40°09'E
Kiunga	1°45'S, 41°29'E
Kosi, Tana R.	not traced
Kulesa, lower Tana	2°11'S, 40°01'E
Kwaihu (Kiweyu)	1°59'S, 41°18'E
Lamu	2°17'S, 40°55'E
Makeri	1°52'S, 40°07'E
Malindi	3°13'S, 40°07'E
Manda Is.	2°17'S, 40°57'E
Manda Mtoto	2°14'S, 40°59'E
Massa (Masabubu) Tana R.	1°12'S, 40°00'E
Mitole	2°08'S, 40°11'E
Mnazini	2°00'S, 40°09'E
Mombasa	4°03'S, 39°40'E
Momba Sasa, Tana R.	2°23'S, 40°32'E
Mongeya (Sokoke-Mongeya)	c. 3°20'S, 39°50'E
Mrima Hill	4°29'S, 39°16'E
Mundane range, Kiunga	1°48'S, 41°25'E

Muniumi	2°00'S, 40°12'E
Mwina, Tana R.	2°03'S, 40°04'E
Ngao	2°24'S, 40°12'E
Oda, lower Tana	2°28'S, 40°12'E
Oda Boda, Tana river	0°25'S, 39°35'E
Ozi (Ossi) River mouth	2°32'S, 40°31'E
Punewani (Shunewayaya), Tana R.	2°23'S, 40°12'E
Sabaki	3°09'S, 40°08'E
Sangole	1°30'S, 40°36'E
Shakababo Lake	2°25'S, 40°11'E
Sherekiko (Sheriko)	2°39'S, 40°16'E
Shimba Hills	4°13'S, 39°25'E
Sokoke Forest	3°20'S, 39°50'E
Tana River mouth	2°32'S, 40°31'E
Tschara	2°33'S, 40°20'E
Wema	2°13'S, 40°11'E
Wenje, Tana R.	1°47'S, 40°06'E
Witu	2°22'S, 40°30'E

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