

Raptor Road Survey of northern Kenya

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Summary

Given the rapid development of northern Kenya and the number of large-scale infrastructure projects that are planned for this region, we undertook a two-week road survey to document raptors in this little-studied region. A team of four observers recorded all raptors seen during road transects over 2356 km in the areas of eastern Lake Turkana, Illeret, Huri Hills, Forolle, Moyale, Marsabit and Laisamis. Given how little is known about the biodiversity in this region we also recorded observations of large mammals, reptiles and non-raptorial birds. Our surveys were conducted immediately after one of the heaviest rainy periods in this region in recent memory. We recorded 770 raptors for an average of 33 raptors/100 km. We recorded 31 species, which included two Palaearctic migrants, Black Kite (*Milvus migrans*) and Montagu's Harrier, despite our survey falling outside of the typical migratory period. The most abundant raptors were Rüppell's Vultures followed by Eastern Pale Chanting Goshawk, Hooded Vulture and Yellow-billed Kite (*M. migrans parasitus*). Two species expected to be seen, but that were not recorded were White-headed Vulture and Secretarybird. In general, vultures were seen throughout the region. The most important areas for raptors were Marsabit National Park, followed by the area from Huri Hills to Forolle and the area south of Marsabit Town reaching to Ololokwe. There was a surprising dearth of large mammals, particularly in Sibiloi and Marsabit National parks, which likely has implications for raptor populations. Sibiloi National Park was nearly devoid of all wildlife including raptors, particularly the southern half, and livestock was seen throughout the park. Based on similar surveys done annually elsewhere in Kenya, this region in the far north remains very important for raptors, particularly vultures.

Introduction

Across the arid landscapes of northern Kenya, birds of prey, or raptors, are the most ubiquitous group of predators and scavengers. Both charismatic and intrinsically valuable, raptors also deliver broad benefits to ecosystems as well as to economies from the benefits of tourism. Raptors control prey populations and facilitate carcass decomposition, as well as act as indicators of areas of high biodiversity because they are sensitive to human disturbance that may impact many different species across whole communities.

Kenya has 67 species of both diurnal and nocturnal raptors; the vast northern region harbors species that do not occur elsewhere in the country and it is Kenya's last stronghold for rare and threatened species such as White-headed and Egyptian vultures. Currently 19% of raptor species found in northern Kenya are threatened or near threatened according to the IUCN Red List. For example, pan-African populations of eight species of vultures have plummeted by an average of 62% over the past 30 years, while iconic raptors such as Bateleur, Secretarybird, and Martial Eagle can rarely be seen outside of Kenya's protected areas. Kenya's once vast natural landscapes have become overpopulated by humans and their livestock, or have been converted for farming, thus eliminating the prey base and nesting sites for raptors.

Although northern Kenya remains the most undeveloped area of the country, there has been a recent rush to exploit the region's natural resources (e.g. wind power and oil) and to use the area as a transport corridor for oil pipelines between northern Kenya and neighbouring countries. Of particular relevance to birds is the development of two high voltage power lines, each of which will bisect this vast region and pose a significant threat in the form of collisions and electrocutions to large avian species, including raptors, bustards, cranes, storks and pelicans. The largest wind farm in sub-Saharan Africa is currently under construction just south of Lake Turkana, which may impact both local and migrant populations of birds and bats. A large dam under construction in southern Ethiopia along the only inlet supplying water to Lake Turkana is severely threatening the regions' communities, livelihoods and the wildlife that all depend on this vitally important water resource.

Already, northern Kenya is suffering from unprecedented levels of habitat degradation and loss of biodiversity. As a result of burgeoning human and livestock populations, the grasslands in this region are severely overgrazed, woodlands have been heavily exploited for charcoal production, and conflict between wildlife and local residents has greatly increased. The result is rangelands with impoverished biodiversity that are less resilient to climatic changes and provide fewer ecosystem services, and where attitudes toward wildlife have become increasingly intolerant.

Given that northern Kenya has never been systematically surveyed for raptors and that there are numerous large-scale development projects ongoing and planned for this region, we undertook a two-week raptor road survey in order to gather baseline data on numbers and

diversity of raptors, as well as opportunistically surveying large mammals and other biodiversity of this little-studied region.

Methods

Our team consisted of six people and two vehicles. Team members and their roles were as follows:

Lead vehicle:

Martin Odino- surveyor

Darcy Ogada- surveyor

Peter Wairasho- surveyor and data recorder

Ben Mugambi- driver and surveyor

Trailing vehicle:

George Karumbo- driver

Safo Ogom- security

Our team of surveyors has worked together counting raptors on annual 5-day surveys since 2013.

The team counted all raptors seen while the vehicle was moving. The vehicle often stopped to ensure correct identification of raptors, including taking photographs for all species whose identification was not immediately obvious. Immediately obvious species were typically Augur Buzzard, Pale Chanting Goshawk, Black-shouldered Kite, and Long-crested Eagle. Occasionally, raptors seen while the vehicle was stopped were also included if it was believed that these individuals would have been observed if the vehicle was moving, otherwise they were recorded as incidental species and geo-referenced for purposes of distribution mapping only.

We stopped and counted vultures (using a spotting scope) at one accessible breeding cliff. We also recorded all opportunistic sightings of raptors seen outside of counting times, these included raptors seen at our campsites and especially owls, which were heard, but rarely seen at night. All the above-mentioned sightings were recorded for purposes of distribution mapping, but were not included in our analyses for this report, except where mentioned.

We divided our route into 29 sections based either on transects that we had delineated on previous surveys (from Thika to Ololokwe) or where there were logical ending points, such as where roads came to a junction or ended at a park gate. Each section averaged 74 km. The aim was not to repeat sections, but due to the limited road network this was unavoidable for some sections. Four sections totaling 370 km were repeated twice. For purposes of this report, all raptors observed on repeated sections are included.

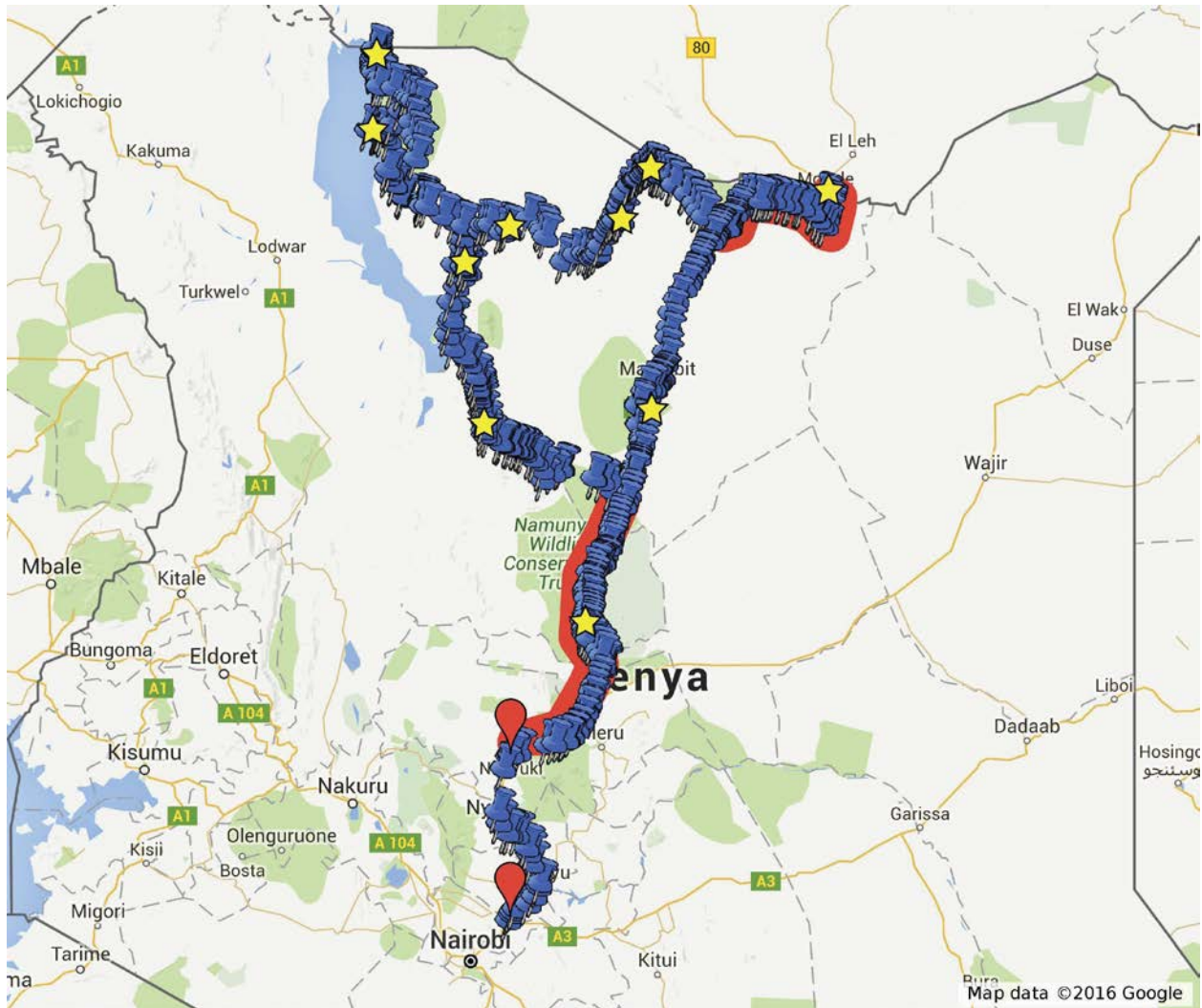


Figure 1. Map of the survey route. The lower red marker indicates Thika where the survey began and the red marker above it indicates Nanyuki where the survey ended. The survey was undertaken in a clockwise direction. The area highlighted in red indicates sections that were counted twice. Yellow stars indicate locations where we spent the night.

Vehicles traveled between 50–80 km/hr on major highways (i.e. tarmacked roads) and more slowly on murram and unimproved roads where the condition of the road dictated driving speeds. The main highway to Moyale is now completely tarmacked apart from a small section around Marsabit. Tarmac roads accounted for 49% of all roads, with murram and unimproved roads accounting for 51% of all roads.

We camped at park campgrounds, private campsites, and one night we camped outside the Anti-Stock Theft camp in Gaas. The only places where we did not camp were in Huri Hills and Forolle where we stayed in a guest house and in Illeret where we were kindly hosted at Turkana Basin Institute.

All raptor records will be submitted to the African Raptor Databank, <http://www.habitatinfo.com/african-raptor-databank/>. For most of the route, we also opportunistically logged all bird sightings via the app for the Kenya Bird Map Project <http://kenyabirdmap.adu.org.za/>. We also recorded the locations of large mammals as their numbers were surprisingly few. Records of reptiles will be submitted to the Kenya Reptile Atlas <http://www.kenyareptileatlas.com/>.

Results

We began our survey at Thika (-1.02, 37.07) on 2 May 2016 and completed it in Nanyuki (0.02, 37.09) on 15 May (Fig. 1). We surveyed a total of 87 hrs and 59 mins over 14 days, which included one full day off (for the drivers), and two half days, one for vehicle repairs and the final day ended at noon. On average, we began our surveys at 0920 and ended at 1735. We aimed to begin surveys by 0800, but we were often delayed by side trips to obtain fuel, minor vehicle repairs, or the time required to return to the point where we closed the previous evening.

The surveys were conducted immediately after one of the heaviest rainy periods in recent memory. Only brief light rains were encountered on the first day, after which no further rain was encountered. We were unable to traverse the Chalbi desert due to the recent rains that left the area flooded for at least one month, according to the locals.

We recorded 770 individual raptors over 2356 km for an average of 33 individuals/100 km. The highest number of raptors/km was found in Marsabit National Park, followed by the area from Huri Hills to Forolle, and the area south of Marsabit Town reaching Ololokwe. The poorest areas in terms of raptor abundance was around Lake Turkana, particularly Loyangalani and the southern half of Sibiloi National Park. It is worth noting that the southern half of Sibiloi National Park was the second worst section of all the 29 sections we surveyed. In general the area around the eastern side of Lake Turkana was the poorest for raptors, while the area from Forolle-Moyale-Marsabit-Ololokwe was better for raptors, particularly vultures.

We recorded a total of 31 raptor species, which included two Palearctic migrants, Black Kite (*Milvus migrans*) and Montagu's Harrier (Table 1). Rüppell's Vultures were the most abundant species, followed by Eastern Pale Chanting Goshawk, Hooded Vulture and Yellow-billed Kite (Table 1). Also abundant were Tawny Eagle, Greater Kestrel (presumably race *fieldi*) and Pygmy Falcon (Table 1). Twenty-eight raptors could not be positively identified to species, and eight vultures could only be identified as *Gyps* spp. Six species, including five species of owl, were considered incidentals as they were recorded at campsites, breeding cliffs, or outside of our official counting periods (Table 2).

Table 1. Number of each raptor species recorded. Not included are raptors which were unable to be identified to species, i.e. those recorded as unidentified and *Gyps* spp.

Species	Number	Species	Number
Pygmy Falcon	29	Lappet-faced Vulture	15
Common Kestrel	2	Black-chested Snake Eagle	7
Greater Kestrel	34	Bateleur	27
Fox Kestrel	1	Montagu's Harrier	1
Red-necked Falcon	4	African Harrier Hawk	3
Lanner Falcon	4	Eastern Chanting Goshawk	96
Peregrine Falcon	6	Gabar Goshawk	3
African Black-shouldered Kite	9	Shikra	1
African Swallow-tailed Kite	17	Grasshopper Buzzard	9
Black Kite	2	Augur Buzzard	23
Yellow-billed Kite	55	Tawny Eagle	47
African Fish Eagle	3	Verreaux's Eagle	3
Egyptian Vulture	11	African Hawk Eagle	1
Hooded Vulture	73	Martial Eagle	7
White-backed Vulture	20	Long-crested Eagle	2
Rüppell's Vulture	219	TOTAL	734

Table 2. Number of incidental species recorded at campsites, breeding cliffs, or outside of official counting periods.

Species	Number	Species	Number
Greater Kestrel	1	Gabar Goshawk	3
African Black-shouldered Kite	2	Augur Buzzard	3
African Swallow-tailed Kite	1	Tawny Eagle	2
Yellow-billed Kite	1	Verreaux's Eagle	3
African Fish Eagle	1	Barn Owl	2
Hooded Vulture	2	African Scops Owl	1
Rüppell's Vulture	101	Spotted Eagle Owl	1
Bateleur	1	African Wood Owl	1
African Harrier Hawk	1	Pearl-spotted Owlet	2
Eastern Chanting Goshawk	4	TOTAL	133

There was a dearth of large mammals throughout the region. Although we had not originally planned to record mammal numbers, because there were so few, especially in Sibilo National

Park, we decided to record their numbers (Appendix 2). We recorded 12 reptiles and 1 amphibian consisting of at least eight species (Appendix 3), and a total of 252 bird species (Appendix 4).

Discussion

Our surveys were conducted during the non-migratory season and are therefore not directly comparable to our previous raptor counts in Kenya that have all been done during the migratory period. Based on five years of raptor surveys in the Laikipia/Samburu region, an average of 12% of raptors recorded were Palaearctic migrants. If we had conducted our surveys during the migratory period, we might assume the number of raptors recorded would have been 12% greater. We therefore estimate that there would be 36 raptors/100 km in northern Kenya during the migratory period. Our five-year average for the Laikipia/Samburu region is 32 raptors/100 km, and 31 raptors/100 km for the Amboseli/Tsavo region. So despite the dearth of large mammals in northern Kenya, the area remains important for raptors.

Vultures

Vultures constituted 45% of all our raptor sightings. Rüppell's Vultures were the most abundant and they were most often seen in the regions where large nesting cliffs remain active (e.g. Mega escarpment in southern Ethiopia and at Ololokwe in the Samburu region). Although some of their nesting cliffs within the region are now extinct, and others have been reduced to seemingly very small numbers, this species remains the most abundant vulture species in the region and it was recorded at all the livestock carcasses we encountered (n=4) (note: we did not encounter any wildlife carcasses). Small numbers of Hooded Vultures were recorded in many of the towns we surveyed. In general their distribution throughout the region was widespread, but largely confined to towns and villages. Egyptian Vultures were seen in small numbers in seasonally dry and remote areas. We expected to see more Egyptian Vultures, particularly if we had been able to traverse the Chalbi desert, which is reported to be an important habitat for them. Lappet-faced vultures were seen on only three occasions. We did not record any on the border of the Chalbi desert, so it may be unlikely that we would have recorded more had we been able to pass through the interior of this desert. Lappets were seen around Forolle on a camel carcass, one was seen flying over the Dida Galgalu desert, and the rest were seen at a camel carcass south of Marsabit. White-backed Vultures were seen in small numbers and they were greatly outnumbered by Rüppell's. We expected to see more White-backed Vultures in the area given that they can breed throughout the region where there are suitable tall trees. We did record one active White-backed Vulture nest that had a young downy-feathered chick. The nest was within 50m of the tarmac road heading to Laisamis and there was abundant livestock herding activity directly around the nest tree, which indicates the relative tolerance of human activities by this species. The biggest surprise in terms of vultures was the complete absence of any White-headed Vultures in an area where they were believed to be doing as well as possible for this uncommon species. On a trip through the Laisamis area in June 2015, we recorded two individuals at a road-side carcass. That we did not record a single individual over

2300 km of what was formerly good habitat for this species is very worrying. Their numbers in Kenya must be exceedingly low and it would be surprising if even 20-30 pairs remain in the entire country. This species together with Bearded Vulture is on the brink of extinction in Kenya.

Apart from vultures, it must also be noted that Secretarybird was conspicuous by its absence. While it is less common in the dry, arid north than further south, it came as a surprise that we did not record even a single individual while traversing large areas of savanna habitat in the regions of Samburu and South Horr.

Eagles, including Bateleurs

Tawny Eagles were seen in decent numbers throughout the area we surveyed. They were absent from Sibiloi National Park, as were nearly every other raptor apart from 12 Swallow-tailed Kites, 2 Pygmy Falcons, 1 Black-chested Snake Eagle, 1 Eastern Chanting Goshawk, and 1 Greater Kestrel. There were only 19 raptors/100 km inside the park, which is without a doubt the lowest number for any park we've surveyed in Kenya.

Surprisingly, we only saw one African Hawk Eagle, though we typically encounter this bird either in protected areas or conservancies, and as already mentioned, Sibiloi NP was in a poor state. We recorded only three Verreaux's Eagles, but road surveys probably poorly capture the overall status of this bird. We were rarely in appropriate habitat for fish eagles, and although we did see one on the southern shore of Lake Turkana, the human pressure on the limited resources around the lake probably severely limit their populations. Martial Eagles were seen sporadically throughout the region. Black-chested Snake Eagles were seen in surprisingly low numbers—only seven individuals were seen. Based on their distribution in Kenya, we expected to see Brown Snake Eagles, but none were observed. Bateleurs were fairly common throughout the region. Not surprisingly, Wahlberg's Eagles had seemingly already moved out of the region as is typical for this species during May-early July.

Falcons

As is typical for this group, we encountered small numbers of most species. The exception was Greater Kestrels, which was one of the most abundant raptors seen during the survey. It was typically one of the few raptors we encountered in rocky, inhospitable areas in the Turkana region. Peregrines were most often observed around towns (Isiolo, Marsabit, Turbi) and sometimes near vulture cliffs. Lanner Falcons were few, we recorded only four. Pygmy Falcons were seen throughout the area with the highest numbers occurring in the regions of Ololokwe to Laisamis and along the road just outside of Moyale. This is a species that is easily missed when vehicles travel above 60 km/hr. Two Common Kestrels, presumably the resident race *rufescens*, were seen on power lines in the hilly region just north of Marsabit town. A handful of Red-necked Falcons and one Fox Kestrel were seen.

Buzzards and kites

Augur Buzzards and Black-shouldered Kites were seen in the highlands, including in Huri Hills. Although we might have expected to see more Black-shouldered Kites given the recent rains and the propensity of this species to closely follow the rains, perhaps in a few more weeks' time they will move into the area. We happily and somewhat unexpectedly encountered nine Grasshopper Buzzards. Swallow-tailed Kites were seen mostly around Turkana, a mix of individuals and small flocks were observed.

Owls

We were careful to record vocalisations of any owls heard during the night. Unfortunately, there was a dearth of owls recorded. Only two Pearl-Spotted Owlets and one African Scops Owl were heard, except at Marsabit National Park where we also recorded Wood, Spotted Eagle and Barn owls. Overall, the numbers of owls recorded was very low.

Conclusions

Northern Kenya remains little studied for two main reasons, insecurity and the expense of traveling in the region. We were fortunate not to have any security incidents throughout our trip. We did prepare by traveling with a home guard from South Horr until Laikipia. Tension between neighbouring communities appeared to be an issue in the northern Lake Turkana region. Moyale town was under a 6pm curfew (see Appendix 1) and the only other area with reported security problems due to banditry was the newly tarmacked road between Marsabit and Archer's Post. In part due to insecurity, the region is expensive for traveling. Well-maintained 4x4 vehicles are a must and using long-chassis 4x4 vehicles is ill-advised due to having to climb in and out of steep gullies (dry riverbeds). Therefore, to carry four people, camping gear, food and drinking water it was necessary to have two vehicles, which adds to expenses.

Despite the ongoing loss of biodiversity and associated habitats in Kenya, the northern region remains an important area for raptors, particularly vultures. Large-scale development in this region will negatively impact these populations further. This survey provided critical information on key habitats and populations of raptors that will serve as a baseline for future monitoring as well as for proposed development projects in this region. It has also allowed for a better understanding of the local conditions, roads, security situation, community livelihoods, and other issues that are necessary for planning future work in this region. Finally, surveys such as these are a very important tool for raising awareness about conservation threats in this remote region where there is currently very limited knowledge amongst conservation stakeholders about the state of the environment and threats to habitats and wildlife populations.

Acknowledgments

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Appendix 1. Overview of habitats

1. Ololokwe



Aerial view of Ololokwe. Photo courtesy of M. Harvev Barcroft Media.

Ololokwe, also known as Ol Donyo Sabache, is a massive rock outcrop that sits alongside of the main highway running to the Ethiopian border. The rock and a large area of habitat to the west are part of Namanyak Conservancy and managed by Northern Rangelands Trust. The area has long been known as a raptor stronghold (S. Thomsett pers. comm). During this survey 92 Rüppell's Vultures, 4 Verreaux's Eagles and 1 Augur Buzzard were counted at the cliff.

2. Laisamis-Ngurunit-South Horr



This was the only region where we experienced water on the roads, despite all the recent heavy rains and flooding. However, the road (through Illaut, not Ngurunit) is in very good condition due to the ongoing transport of wind turbines to southern Lake Turkana. It is the only area where we saw African Hawk Eagle. The landscape is stunning as the area traverses the northern Ndoto Mountains.

3. South Horr-Loyangalani-Sibiloi NP southern gate

Despite the recent rains, this area was the most bereft of raptors of all the areas we surveyed. At least 40 of the 365 wind turbines have already been erected at the huge wind farm just south of the lake. Around the area of the wind farm, we saw 3 Red-necked Falcons and a single Greater Spotted Cuckoo. The most numerous raptor was Greater Kestrel. There were a handful of Grant's gazelles observed just south of the park and one golden jackal.



Lake Turkana south of Loyangalani.



Rocky landscape south of Sibilo NP.

4. Sibilo National Park

Words cannot describe the disappointment of this park. From a wildlife perspective there is virtually nothing left, especially in the southern half of the park, despite the fact that the area was overflowing with grass and other vegetation. There is however plenty of livestock in the park. We asked numerous people about the lack of wildlife and the common refrain was that the wildlife had been poached from the area, including the park. The conflicts between communities in this region may have also exacerbated the problem according to the locals. We drove 105 km inside the park and saw only 5 Grant's gazelle, 4 dik diks and 3 golden jackal, although scrub hares were numerous. In the 1960s the area of the Turkana shoreline north from Alia Bay used to hold 2,300 topi, 1,300 oryx, 1,500 Peter's (Grant's) gazelles according to one aerial survey conducted by the Game Department. Common zebras numbered approximately 2,500 and Grevy's zebra numbered around 500. Giraffe, lion, cheetah, and both striped and spotted hyena were also recorded (I. Parker, pers. comm.). Aerial surveys during the 60s-70s indicate that ungulates numbered more than 8,000 (I. Parker, pers. comm.). The current state of this park is disastrous and the issue must be raised with those in charge of its protection. The state of the infrastructure at Koobi Fora was similarly wanting. We did observe 6 African Skimmers along the shore at Koobi Fora and sandgrouse (Lichtenstein's and Chestnut-fronted) were seen in huge numbers throughout the park.



5. Illeret



In terms of raptors this area held mainly Yellow-billed Kites. Northern Carmine Bee-eaters were common, Magpie Starlings and a single Abyssinian Roller were also seen. The Dassini are the main community in this region and there is clearly a lot of tension between them and their neighbours (e.g. Turkana and Gabbra).

6. North Horr-northern boundary of Chalbi desert

We saw our first and only Fox Kestrel along the road to North Horr, which is best characterized as a sandy oasis. We were unable to drive through the Chalbi Desert, but instead drove along its border. This where we sighted our first White-crowned Starlings, a lifer for everyone on the team. Lone Egyptian Vultures were seen sporadically.



Rocky landscape north of North Horr.



Northern edge of Chalbi desert.

7. Kalacha to Huri Hills



Kalacha was hot with a beautiful oasis on the edge of this small town. As we climbed into the Huri Hills the landscape became very green and the grass was knee-high. The area was spectacularly beautiful and human density was low. Donkeys and camels were the main livestock.

8. Huri Hills

The elevation reaches 1500m and the surrounding lowlands are deserts. It is a little-visited area and probably holds some surprises. Augur Buzzards and Black-shouldered Kites were common species here, which was reminiscent of being back in the Mt Kenya region. Thick mist covered the hills in the mornings and the area was quite cold, reminding one of Limuru. We took a day off here and spent 2 hrs in the morning walking in the community sacred forest where we didn't encounter any people or livestock. We struggled to identify a cisticola that was calling. We recorded Black-billed Wood Hoopoes, Greater Spotted Cuckoo, Rosy-patched Bush Shrike, and Yellow-bellied Eremomela. On an evening drive a Rüppell's Vulture flew so close to the ground I originally thought it must be a Kori Bustard. It turns out we had stopped along their flyway back to their roosts on the Mega Escarpment in southern Ethiopia.



Grass in Huri Hills.



Sacred forest Huri Hills.

9. Huri Hills-Forolle

This section was one of the most rewarding of the entire trip. We found Kori Bustards with rusty-red necks, instead of grey, and a blue Diederik's Cuckoo. We also photographed a number of lizards basking on rocks along the roadside. There were two groups of Grant's gazelles in the Forolle Sacred Conservancy. On the outskirts of Forolle town there were two separate carcasses that had attracted a lot of vultures, Egyptian, Lappet-faced and Rüppell's. The cliff at Forolle town had perhaps 20-30 roosting Rüppell's Vultures.



View towards Forolle from Huri Hills
with Mega escarpment in background.



Forolle Mountain.

10. Forolle-Turbi-Moyale

This area was very birdy. As we were leaving Forolle we met a ranger from a new conservancy, Ele Dintu, that was 22km from Forolle in the direction of Turbi. He was very keen for us to visit and to spend the night, although they do not have any camping facilities yet. His name and contact is Abdu Ba 0724-884883. The conservancy had more wildlife than we had seen elsewhere in the area. We saw impala, gerenuk, Grant's gazelle and dik dik, but we were told there was also lion and cheetah. It is definitely someplace worth returning to, but only in the dry season as the road between the conservancy and Turbi was mostly black cotton that would have been impassable had it been raining. The large cliff at Turbi had Egyptian and Rüppell's vultures, and a pair of peregrines were spotted nearby. One of the more common species seen along the roadside was Grasshopper Buzzard, which was a bit surprising to see in mid-May. The forests alongside the highway from Sololo to Moyale looked quite intact and inviting. However, the amount of charcoal being produced and sold along the roadside said otherwise. Every small shopping centre was selling sacks of charcoal and surely this is a negative consequence of the newly tarmacked road. There are likely very interesting birds to be found in this area, and intervention to reduce charcoal production is needed immediately before charcoal production becomes the major source of livelihoods in this region. Birding on the outskirts of Moyale town was similarly amazing. Passing through well-developed residential areas, common birds were Greater Blue-eared Starlings and Von der Decken's and Red-billed hornbills. A Jacobin Cuckoo was also spotted in town. We spent the night at the KWS campsite and found the campsite alive with birds including Barred Long-tailed Cuckoo, Pearl-spotted Owlet, Gabar Goshawk and Hoopoe. Spotted hyenas could be heard calling throughout the night.



Vulture cliff at Sololo.



Forest on way to Moyale.

We also found that the majority of Moyale town lies on the Ethiopian side of the border. The Kenyan side being much smaller. Nonetheless the Kenyan side was busy and bustling, much in contrast to what was expected. It was also dirty and full of flies. At present the security situation in town is not good and there was a strict 6pm curfew when every business in town closed. Locals warned of cross-border raids.

Perhaps because of the previous state of the road, there are no gas cannisters (i.e. cooking gas) sold in Moyale town. Many women were seen selling bundles of wood in the market, which reinforces the threat to forests in this region. A conservation NGO should partner with local businesses to introduce cooking gas to Moyale residents.



Forest canopy on way to Moyale.



Charcoal along road to Moyale.

11. Turbi-Dida Galgalu desert-Marsabit



The Dida Galgalu desert produced good numbers of raptors. Lappet-faced and Rüppell's vultures, Greater Kestrels, Bateleurs, Black-chested Snake Eagle and Peregrine Falcons. Non-raptors included Chestnut-headed Sparrow Larks, Collared Pratincoles and a Greater Spotted Cuckoo.

12. Marsabit National Park

The park was great for birds, but very poor for mammals. The evening we arrived at the park campsite five people involved in an elephant poaching incident in a nearby conservancy were being arrested. In the news the next day the Governor of Marsabit County declared that there were maybe 20 elephants left in the entire county, which if true, is very sad as it is a huge county! Bundles of illegally acquired firewood that had been confiscated by KWS spoke volumes of the pressure on this small



park. Despite seeing only a handful of bushbuck inside the park, and interestingly not a single monkey, the birding was great. We saw Augur Buzzards and lots of Hooded Vultures, but no special highland raptors. A few of the non-raptors seen were Waller's Starling, Doherty's, Grey-headed and Black-fronted bushshrikes, and Boran Cisticola. At night we heard Barn Owl, Wood Owl and Spotted Eagle Owl. We also recorded Pearl-spotted Owlet.

Appendix 2. Estimate of the number of large mammals recorded. The total number recorded was 109, not including two troops of baboons.

Species	Number	Area observed
Black-backed jackal	1	As roadkill between Ololokwe and Laisamis
Bushbuck	5	Marsabit NP
Desert warthog	2	Near Moyale
Elephant	3	Ololokwe
Common genet	2	KWS campsite at Moyale
Gerenuk	16	Many locations throughout region
Golden jackal	4	Sibiloi NP and just south of the park
Grant's gazelle	56	Many locations on route between Lake Turkana and Turbi
Gunther's dik dik	7	Sibiloi NP, Huri Hills, Ele Dintu Conservancy
Impala	5	Ele Dintu Conservancy
Lesser kudu	1	Forest around Moyale
Olive baboon	2 troops	Near Sololo and Marsabit NP campsite
Spotted hyena	4	Heard calling at night at Forolle and Moyale
Striped hyena	3	At our campsite in Gaas
TOTAL	109	

Appendix 3. List of reptiles and amphibians recorded. Identification courtesy of S. Spawls and P. Malonza.

Common name	Scientific name	Number	Location	Comments
Unknown snake		1	southern Lake Turkana region, near wind power project	being eaten by a Pale Chanting Goshawk, unable to photograph it
Kenya red-headed rock agama	<i>Agama lionotus</i>	1	near the shore of Lake Turkana	
Terrapin		1	a few kms south of southern entrance to Sibiloi NP	running across the road, unable to photograph it
Rufous beaked snake		1	Sibiloi NP, north of Koobi For a	
Rüppell's agama	<i>Agama rueppelli</i>	3	Forolle conservancy	all gravid
Kenya red-headed rock agama	<i>Agama lionotus</i>	1	Forolle conservancy	
Kenya red-headed rock agama	<i>Agama lionotus</i>	1	Qalqalch Gandiile Sacred Site, on way to Forolle	
Kenya red-headed rock agama	<i>Agama lionotus</i>	2	on way to Forolle	male and female. Female with unusual markings.
Red-spotted beaked snake	<i>Rhamphiophis rubropunctatus</i>	1	on highway north of Turbi	
Slender chameleon	<i>Chamaeleo gracilis</i>	1	Forolle	
Short-necked skink	<i>Trachylepis brevicollis</i>	1	between Forolle and Turbi	
Bell's hinged tortoise	<i>Kinixys belliana</i>	1	in KWS campsite at Moyale	
Garman's toad	<i>Amietophrynus garmani</i>	1	in KWS campsite at Marsabit	

Appendix 4. List of 252 bird species recorded with additional comments on their occurrence.

Common name	Scientific name	Comments
Common Ostrich	<i>Struthio camelus</i>	race <i>molybdophanes</i> , 3 recorded from Lake Turkana to North Horr
Helmeted Guineafowl	<i>Numida meleagris</i>	race <i>meleagris</i> seen in Huri Hills
Vulturine Guineafowl	<i>Acryllium vulturinum</i>	
Crested Francolin	<i>Francolinus sephaena</i>	
Yellow-necked Spurfowl	<i>Francolinus leucoscepus</i>	common
Common Quail	<i>Coturnix coturnix</i>	in tall grass Huri Hills
Harlequin Quail	<i>Coturnix delegorguei</i>	in tall grass Huri Hills
White-faced Whistling Duck	<i>Dendrocygna viduata</i>	1 at Lake Turkana at Koobi Fora
Egyptian Goose	<i>Alopochen aegyptiaca</i>	
Yellow-billed Duck	<i>Anas undulata</i>	seen at Lake Paradise
Red-billed Teal	<i>Anas erythrorhyncha</i>	seen at Lake Paradise
Little Grebe	<i>Tachybaptus ruficollis</i>	seen at Lake Paradise
Yellow-billed Stork	<i>Mycteria ibis</i>	
African Open-billed Stork	<i>Anastomus lamelligerus</i>	near Illeret
Abdim's Stork	<i>Ciconia abdimii</i>	near Illeret
White Stork	<i>Ciconia ciconia</i>	
Marabou Stork	<i>Leptoptilos crumeniferus</i>	
Sacred Ibis	<i>Threskiornis aethiopicus</i>	
Hadada Ibis	<i>Bostrychia hagedash</i>	
Glossy Ibis	<i>Plegadis falcinellus</i>	2 seen, Lake Turkana at Koobi Fora and oasis near Kalacha
African Spoonbill	<i>Platalea alba</i>	Lake Turkana
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	1 at Lake Turkana at Koobi Fora
Squacco Heron	<i>Ardeola ralloides</i>	2 seen, at oasis near Kalacha and at Lake Paradise
Cattle Egret	<i>Bubulcus ibis</i>	
Grey Heron	<i>Ardea cinerea</i>	
Black-headed Heron	<i>Ardea melanocephala</i>	
Goliath Heron	<i>Ardea goliath</i>	1 Lake Turkana at Koobi Fora
Purple Heron	<i>Ardea purpurea</i>	1 Lake Turkana at Koobi Fora

Yellow-billed Egret	<i>Egretta intermedia</i>	Lake Turkana
Little Egret	<i>Egretta garzetta</i>	
Hamerkop	<i>Scopus umbretta</i>	
Pink-backed Pelican	<i>Pelecanus rufescens</i>	Lake Turkana at Koobi Fora
Reed Cormorant	<i>Phalacrocorax africanus</i>	
Great Cormorant	<i>Phalacrocorax carbo</i>	Lake Turkana
Pygmy Falcon	<i>Polihierax semitorquatus</i>	
Common Kestrel	<i>Falco tinnunculus</i>	race <i>rufescens</i> just north of Marsabit town on power poles
Greater Kestrel	<i>Falco rupicoloides</i>	very common, all race <i>fieldi</i> ?
Fox Kestrel	<i>Falco alopex</i>	1 near Darate
Red-necked Falcon	<i>Falco chicquera</i>	
Lanner Falcon	<i>Falco biarmicus</i>	
Peregrine Falcon	<i>Falco peregrinus</i>	
African Black-shouldered Kite	<i>Elanus caeruleus</i>	
African Swallow-tailed Kite	<i>Chelictinia riocourii</i>	
Black Kite	<i>Milvus migrans</i>	
Yellow-billed Kite	<i>Milvus migrans parasitus</i>	
African Fish Eagle	<i>Haliaeetus vocifer</i>	1 at Lake Turkana and 2 at Marsabit NP
Egyptian Vulture	<i>Neophron percnopterus</i>	
Hooded Vulture	<i>Necrosyrtes monachus</i>	
White-backed Vulture	<i>Gyps africanus</i>	
Rueppell's Vulture	<i>Gyps rueppellii</i>	common
Lappet-faced Vulture	<i>Torgos tracheliotus</i>	
Black-chested Snake Eagle	<i>Circaetus pectoralis</i>	
Bateleur	<i>Terathopius ecaudatus</i>	widespread
Montagu's Harrier	<i>Circus pygargus</i>	1 near North Horr over grasslands
African Harrier Hawk	<i>Polyboroides typus</i>	
Eastern Chanting Goshawk	<i>Melierax poliopterus</i>	very common
Gabar Goshawk	<i>Micronisus (Melierax) gabar</i>	
Shikra	<i>Accipiter badius</i>	1 near Ele Dintu Conservancy
Grasshopper Buzzard	<i>Butastur rufipennis</i>	Seen only along road from Turbi to Moyale

Augur Buzzard	<i>Buteo augur</i>	
Tawny Eagle	<i>Aquila rapax</i>	widespread
Verreaux's Eagle	<i>Aquila verreauxii</i>	
African Hawk Eagle	<i>Aquila spilogaster</i>	1 between Laisamis and Ngurunit
Martial Eagle	<i>Polemaetus bellicosus</i>	
Long-crested Eagle	<i>Lophaetus occipitalis</i>	seen south of Isiolo
Kori Bustard	<i>Ardeotis kori</i>	individuals in Huri Hills were rufous instead of grey
Heuglin's Bustard	<i>Neotis heuglinii</i>	at least 6 individuals seen east of Lake Turkana and near North Horr
White-bellied Bustard	<i>Eupodotis senegalensis</i>	
Buff-crested Bustard	<i>Lophotis gindiana</i>	common
Red-knobbed Coot	<i>Fulica cristata</i>	Lake Paradise
Senegal Thick-knee	<i>Burhinus senegalensis</i>	
Spotted Thick-knee	<i>Burhinus capensis</i>	
Black-winged Stilt	<i>Himantopus himantopus</i>	
Pied Avocet	<i>Recurvirostra avosetta</i>	
Spur-winged Plover	<i>Vanellus spinosus</i>	
Crowned Plover	<i>Vanellus coronatus</i>	
Kittlitz's Plover	<i>Charadrius pecuarius</i>	
Three-banded Plover	<i>Charadrius tricollaris</i>	
Wood Sandpiper	<i>Tringa glareola</i>	
Curlew Sandpiper	<i>Calidris ferruginea</i>	1 in Sibilo NP
Ruff	<i>Philomachus pugnax</i>	near Illeret
Somali Courser	<i>Cursorius somalensis</i>	common
Collared Pratincole	<i>Glareola pratincola</i>	common
Lesser Black-backed Gull	<i>Larus fuscus</i>	Lake Turkana
Grey-headed Gull	<i>Chroicocephalus cirrocephalus</i>	Lake Turkana
Whiskered Tern	<i>Chlidonias hybrida</i>	near Illeret
African Skimmer	<i>Rynchops flavirostris</i>	Lake Turkana at Koobi Fora
Chestnut-bellied Sandgrouse	<i>Pterocles exustus</i>	very common
Lichtenstein's Sandgrouse	<i>Pterocles lichtensteinii</i>	
Speckled Pigeon	<i>Columba guinea</i>	common

Lemon Dove	<i>Aplopelia larvata</i>	1 heard Marsabit NP
African Mourning Dove	<i>Streptopelia decipiens</i>	common
Red-eyed Dove	<i>Streptopelia semitorquata</i>	
Ring-necked Dove	<i>Streptopelia capicola</i>	very common
Laughing Dove	<i>Streptopelia senegalensis</i>	
Tambourine Dove	<i>Turtur tympanistria</i>	
Namaqua Dove	<i>Oena capensis</i>	very common
African Orange-bellied Parrot	<i>Poicephalus rufiventris</i>	1 near Moyale
White-bellied Go-away-bird	<i>Corythaixoides leucogaster</i>	
Jacobin Cuckoo	<i>Clamator jacobinus</i>	1 southern Lake Turkana, 1 northern Sibiloi NP, 1 Moyale town
Great Spotted Cuckoo	<i>Clamator glandarius</i>	a handful seen throughout
Red-chested Cuckoo	<i>Cuculus solitarius</i>	
Barred Long-tailed Cuckoo	<i>Cercococcyx montanus</i>	1 heard and then confirmed in KWS campsite Moyale
Klaas's Cuckoo	<i>Chrysococcyx klaas</i>	
African Emerald Cuckoo	<i>Chrysococcyx cupreus</i>	1 Marsabit NP
Diederik Cuckoo	<i>Chrysococcyx caprius</i>	individual seen near Huri Hills was blue, not green
White-browed Coucal	<i>Centropus superciliosus</i>	
Barn Owl	<i>Tyto alba</i>	KWS campsite Marsabit, seen hunting bats
African Scops Owl	<i>Otus senegalensis</i>	1 heard at campsite in Gaas
Spotted Eagle Owl	<i>Bubo cinerascens</i>	1 heard at KWS campsite Marsabit, possibly race <i>cinerascens</i>
African Wood Owl	<i>Strix woodfordii</i>	heard at KWS campsite Marsabit
Pearl-spotted Owlet	<i>Glaucidium perlatum</i>	heard at KWS campsites in Moyale and Marsabit
Slender-tailed Nightjar	<i>Caprimulgus clarus</i>	2 heard and 2 seen from Lake Turkana to North Horr
Scarce Swift	<i>Schoutedenapus myoptilus</i>	2 seen near Forolle
Little Swift	<i>Apus affinis</i>	
White-rumped Swift	<i>Apus caffer</i>	
Speckled Mousebird	<i>Colius striatus</i>	1 seen in Huri Hills in natural habitat, where it is unexpected
White-headed Mousebird	<i>Colius leucocephalus</i>	
Blue-naped Mousebird	<i>Urocolius macrourus</i>	
Rufous-crowned Roller	<i>Coracias naevius</i>	2 seen, in Huri Hills and south of Marsabit
Lilac-breasted Roller	<i>Coracias caudatus</i>	most were race <i>lorti</i>

Abyssinian Roller	<i>Coracias abyssinicus</i>	1 seen north of Illeret
Little Bee-eater	<i>Merops pusillus</i>	
Somali Bee-eater	<i>Merops revoilii</i>	
White-throated Bee-eater	<i>Merops albicollis</i>	common
Northern Carmine Bee-eater	<i>Merops nubicus</i>	common around Illeret
Hoopoe	<i>Upupa epops</i>	
Black-billed Wood-hoopoe	<i>Phoeniculus somaliensis</i>	1 flew across road in Huri Hills
Abyssinian Scimitarbill	<i>Rhinopomastus minor</i>	
African Grey Hornbill	<i>Tockus nasutus</i>	
Red-billed Hornbill	<i>Tockus erythrorhynchus</i>	
Eastern Yellow-billed Hornbill	<i>Tockus flavirostris</i>	common
Von der Decken's Hornbill	<i>Tockus deckeni</i>	
Yellow-rumped Tinkerbird	<i>Pogoniulus bilineatus</i>	1 seen KWS campsite Marsabit
Red-fronted Tinkerbird	<i>Pogoniulus pusillus</i>	
Spot-flanked Barbet	<i>Tricholaema lacrymosa</i>	
Black-throated Barbet	<i>Tricholaema melanocephala</i>	
White-headed Barbet	<i>Lybius leucocephalus</i>	
Red-and-yellow Barbet	<i>Trachyphonus erythrocephalus</i>	
D'Arnaud's Barbet	<i>Trachyphonus darnaudii</i>	
Nubian Woodpecker	<i>Campethera nubica</i>	
Cardinal Woodpecker	<i>Dendropicos fuscescens</i>	
Bearded Woodpecker	<i>Dendropicos namaquus</i>	1 at South Horr
Pygmy Batis	<i>Batis perkeo</i>	1 seen on way to South Horr
Grey-headed Bush-Shrike	<i>Malaconotus blanchoti</i>	1 seen Marsabit NP
Black-fronted Bushshrike	<i>Chlorophoneus nigrifrons</i>	1 seen Marsabit NP
Sulphur-breasted Bushshrike	<i>Chlorophoneus sulfureopectus</i>	
Doherty's Bushshrike	<i>Chlorophoneus dohertyi</i>	1 seen Marsabit NP
Rosy-patched Bushshrike	<i>Rhodophoneus cruentus</i>	
Black-backed Puffback	<i>Dryoscopus cubla</i>	1 heard Marsabit NP
Slate-coloured Boubou	<i>Laniarius funebris</i>	
Tropical Boubou	<i>Laniarius aethopicus</i>	

Brubru	<i>Nilaus afer</i>	1 seen near South Horr
Northern White-crowned Shrike	<i>Eurocephalus rueppelli</i>	
Somali Fiscal	<i>Lanius somalicus</i>	very common
Common Fiscal	<i>Lanius collaris</i>	
Black-headed Oriole	<i>Oriolus larvatus</i>	1 heard KWS campsite Marsabit
Common Drongo	<i>Dicrurus adsimilis</i>	
African Paradise Flycatcher	<i>Terpsiphone viridis</i>	
Pied Crow	<i>Corvus albus</i>	
Dwarf Raven	<i>Corvus edithae</i>	very common
Fan-tailed Raven	<i>Corvus rhipidurus</i>	
White-bellied Tit	<i>Parus albiventris</i>	
Ethiopian Swallow	<i>Hirundo aethiopica</i>	
Rock Martin	<i>Ptyonoprogne fuligula</i>	
Lesser Striped Swallow	<i>Cecropis abyssinica</i>	
Red-rumped Swallow	<i>Cecropis daurica</i>	1 southern Lake Turkana
Singing Bush Lark	<i>Mirafr cantillans</i>	
Rufous-naped Lark	<i>Mirafr africana</i>	2 records both from Huri Hills
Pink-breasted Lark	<i>Mirafr poecilosterna</i>	handful seen around Lake Turkana and Forolle
Masked Lark	<i>Spizocorys personata yavelloensis</i>	a few records between Huri Hills and Forolle
Crested Lark	<i>Galerida cristata</i>	common
Thekla Lark	<i>Galerida theklae</i>	
Chestnut-backed Sparrow Lark	<i>Eremopterix leucotis</i>	3 recorded between Huri Hills and Forolle
Chestnut-headed Sparrow Lark	<i>Eremopterix signatus</i>	very common
Fischer's Sparrow Lark	<i>Eremopterix leucopareia</i>	
Boran Cisticola	<i>Cisticola bodessa</i>	1 seen Marsabit NP
Ashy Cisticola	<i>Cisticola cinereolus</i>	
?Wailing Cisticola	<i>Cisticola lais</i>	individuals resembling this species seen only in Huri Hills, call was not easily recognizable
Zitting Cisticola	<i>Cisticola juncidis</i>	
Desert Cisticola	<i>Cisticola aridulus</i>	a few seen in Sibiloi NP and Huri Hills
Wing-snapping Cisticola	<i>Cisticola ayresii</i>	1 at Huri Hills

Pale Prinia	<i>Prinia somalica</i>	
Yellow-breasted Apalis	<i>Apalis flavida</i>	1 at Ololokwe
Black-headed Apalis	<i>Apalis melanocephala</i>	1 in Marsabit NP
Grey Apalis	<i>Apalis cinerea</i>	1 in Marsabit NP
Red-fronted Warbler	<i>Urorhipis rufifrons</i>	1 at Illeret
Grey-backed Camaroptera	<i>Camaroptera brachyura</i>	
Grey Wren-Warbler	<i>Calamonastes simplex</i>	
Common Bulbul	<i>Pycnonotus barbatus</i>	
Dodson's Bulbul	<i>Pycnonotus barbatus dodsoni</i>	common
Willow Warbler	<i>Phylloscopus trochilus</i>	1 between North Horr and Sibilo NP
Yellow-bellied Eremomela	<i>Eremomela icteropygialis</i>	1 in Huri Hills
Yellow-vented Eremomela	<i>Eremomela flavicrissalis</i>	2 seen near Lake Turkana and 1 at Forolle
Rufous Chatterer	<i>Turdoides rubiginosa</i>	
Yellow White-eye	<i>Zosterops poliogastrus</i>	1 at Marsabit NP
Wattled Starling	<i>Creatophora cinerea</i>	
Greater Blue-eared Starling	<i>Lamprotornis chalybaeus</i>	common in Moyale town
Golden-breasted Starling	<i>Lamprotornis regius</i>	
Superb Starling	<i>Lamprotornis superbus</i>	common
White-crowned Starling	<i>Spreo albicapillus</i>	common but sporadic
Magpie Starling	<i>Speculipastor bicolor</i>	seen a dozen times, mostly around Lake Turkana
Red-winged Starling	<i>Onychognathus morio</i>	1 South Horr
Waller's Starling	<i>Onychognathus walleri</i>	seen at Marsabit NP
Bristle-crowned Starling	<i>Onychognathus salvadorii</i>	
Red-billed Oxpecker	<i>Buphagus erythrorhynchus</i>	1 southern Lake Turkana, 1 at Illeret
Olive Thrush	<i>Turdus olivaceus</i>	1 at KWS campsite Marsabit
Rueppell's Robin Chat	<i>Cossypha semirufa</i>	Marsabit NP
Spotted Palm Thrush	<i>Cichladusa guttata</i>	
White-browed Scrub Robin	<i>Cercotrichas leucophrys</i>	
Brown-tailed Rock Chat	<i>Cercomela scotocerca</i>	2 seen both near Lake Turkana
Northern Black Flycatcher	<i>Melaenornis edolioides</i>	1 at Illeret
African Dusky Flycatcher	<i>Muscicapa adusta</i>	Marsabit NP

Eastern Violet-backed Sunbird	<i>Anthreptes orientalis</i>	
Collared Sunbird	<i>Hedydipna collaris</i>	1 at Moyale
Golden-winged Sunbird	<i>Drepanorhynchus reichenowi</i>	1 south of Marsabit
Marico Sunbird	<i>Cinnyris mariquensis</i>	1 at KWS campsite Marsabit
Black-bellied Sunbird	<i>Cinnyris nectarinioides</i>	pair at Ololokwe
Variable Sunbird	<i>Cinnyris venustus</i>	all race <i>albiventris</i>
White-browed Sparrow Weaver	<i>Plocepasser mahali</i>	
Donaldson Smith's Sparrow Weaver	<i>Plocepasser donaldsoni</i>	
Grey-capped Social Weaver	<i>Pseudonigrita arnaudi</i>	at Forolle
House Sparrow	<i>Passer domesticus</i>	widespread in human environments in region
Somali Sparrow	<i>Passer castanopterus</i>	seen at a handful of sites mostly around Lake Turkana
Grey-headed Sparrow	<i>Passer griseus</i>	race uncertain
Chestnut Sparrow	<i>Passer eminibey</i>	
Yellow-spotted Petronia	<i>Petronia pyrgita</i>	
White-billed Buffalo Weaver	<i>Bubalornis albirostris</i>	2 records around Illeret
Red-billed Buffalo Weaver	<i>Bubalornis niger</i>	3 records from Huri Hills to Forolle
White-headed Buffalo Weaver	<i>Dinemellia dinemelli</i>	very common
Baglafecht Weaver	<i>Ploceus baglafecht</i>	Marsabit town
Lesser Masked Weaver	<i>Ploceus intermedius</i>	
Vitelline Masked Weaver	<i>Ploceus vitellinus</i>	
Village Weaver	<i>Ploceus cucullatus</i>	
Red-headed Weaver	<i>Anaplectes melanotis</i>	1 male nest building at Ololokwe
Red-billed Quelea	<i>Quelea quelea</i>	
Yellow-crowned Bishop	<i>Euplectes afer</i>	1 record north of Illeret
Fire-fronted Bishop	<i>Euplectes diadematus</i>	at least 5 males seen between Huri Hills and Forolle
Yellow Bishop	<i>Euplectes capensis</i>	1 north of Nanyuki
Green-winged Pytilia	<i>Pytilia melba</i>	
Cut-throat Finch	<i>Amadina fasciata</i>	1 record between Huri Hills and Forolle
Grey-headed Silverbill	<i>Odontospiza griseicapilla</i>	
Pin-tailed Whydah	<i>Vidua macroura</i>	
Eastern Paradise Whydah	<i>Vidua paradisaea</i>	

Straw-tailed Whydah	<i>Vidua fischeri</i>	
Golden Pipit	<i>Tmetothylacus tenellus</i>	1 between Huri Hills and Forolle
Long-billed Pipit	<i>Anthus similis</i>	
Plain-backed Pipit	<i>Anthus leucophrys</i>	1 Huri Hills
Northern Grosbeak Canary	<i>Crithagra donaldsoni</i>	
White-bellied Canary	<i>Crithagra dorsostriata</i>	
Cinnamon-breasted Bunting	<i>Emberiza tahapisi</i>	
Somali Bunting	<i>Emberiza poliopleura</i>	