

# The Kavirondo Escarpment: a previously unrecognized site of high conservation value in Western Kenya

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## Summary

In western Kenya, extant woodland habitats and their representative bird species are increasingly scarce outside of protected areas. With the assistance of satellite imagery we located several minimally impacted ecosystems on the Kavirondo Escarpment (0°1.7' S, 34°56.5' E), which we then visited to examine the vegetation communities and investigate the avifauna. Despite only a limited effort there, we report several new atlas square occurrences, presence of the local and poorly known Rock Cisticola *Cisticola emini* and a significant range extension for the Stone Partridge *Ptilopachus petrosus*. Our short visits indicate high avian species richness is associated with the escarpment and we suggest comprehensive biodiversity surveys here are warranted.

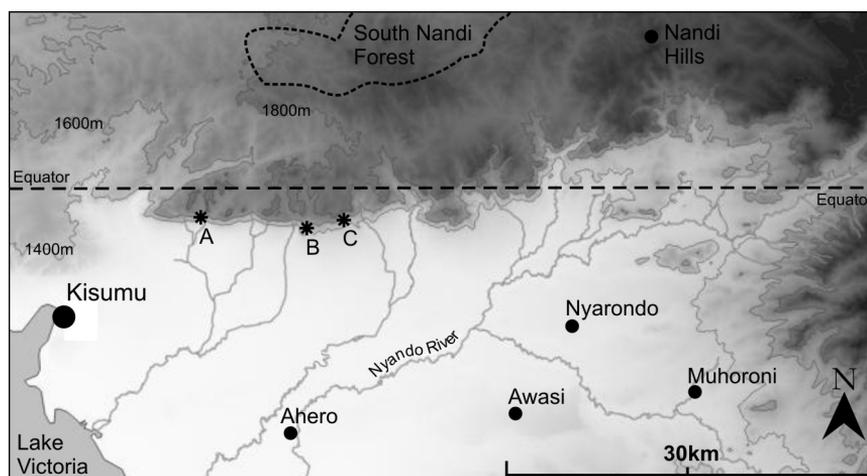
## Introduction

The Kavirondo Escarpment in central-west Kenya is a significant geologic and topographic feature. It straddles the equator, extending over 45 km from east to west, and comprises the northern fault line escarpment of the Kavirondo Rift Valley (Baker *et al.* 1972). Immediately to the south lie the lowlands of the Lake Victoria Basin and Nyando River Valley, and to the north, the high plateau of the western Kenya highlands (Fig. 1). The escarpment slopes range in elevation from 1200–1700 m at the western end to 1500–2000 m in the east, where it gradually merges with the Nandi Hills. Numerous permanent and seasonal drainages on the escarpment greatly increase the extent of land surface and variation in slope gradients, as well as the richness of vegetation communities. These include humid gallery forest in drainages, open woodland on slopes, and areas of low dense bush at lower elevations. Some prominent tree genera represented on the central and eastern areas of the escarpment include *Acacia*, *Terminalia*, *Erythrina* and *Combretum*, while small shrubs, large boulders and scree slopes characterise much of the terrain towards the western end.

The Kavirondo Escarpment is situated close to popular and historic birding locations in the Nyando Valley such as Ahero, Awasi and Nyarondo, and to the South Nandi Forest in the Nandi Hills. Despite this, very little appears to be known of its avifauna although the western end, sometimes known as the Maragoli Escarpment, was noted as a site for Ring-necked Francolin by Frederick Jackson over 100 years ago (Zimmerman *et al.* 1996).

To assess the escarpment's birding potential we visited three different locations in a total of four short visits (2–4 hours each); 20 Jan 2011, 18 Feb 2012 (twice) and 19 Feb 2012. Although the escarpment extends across three atlas squares (60B, 61A and 49C; Lewis & Pomeroy 1989), all the locations we visited are situated in atlas square 60B, at elevations between 1350–1650 m. Below, we provide notes on: a) species observed of interest, and b) species for which the observation represents a new atlas square

occurrence, or new post-1970 occurrence as mapped by Lewis & Pomeroy (1989). All further comments on species distributions are based on Lewis & Pomeroy (1989) unless noted otherwise.



**Figure 1.** Map showing the Kavirondo Escarpment dividing the highlands of Western Kenya and the lowlands of the Kavirondo Rift Valley and Winam Gulf, Lake Victoria. Asterisks indicate the three sites visited: A) 18 Feb 2012 (1 hour of observations), B) 20 Jan 2011 and 18 Feb 2012 (4 hours combined), C) 19 Feb 2012 (4 hours). Darker shading represents higher elevations and contours shown are for 1400 m, 1600 m and 1800 m.

## Species Accounts

### [Stone Partridge *Ptilopachus petrosus*]

On the evening of 18 Feb 2012 while attempting to record the calls of African Firefinch *Lagonosticta rubricata*, we inadvertently recorded the calls of a gallinaceous-sounding bird near the western end of the escarpment. Reviewing our audio files subsequently, we and other colleagues have thought that these short background calls are possibly those of Stone Partridge. The habitat on the escarpment appears suitable for this species, and this record, probably of resident birds, would represent a noteworthy range extension and the furthest south to date, being 150 km from the nearest known population on the Kongelai Escarpment (Zimmerman *et al.* 1996). Bearing in mind this species' secretive nature during much of the year, it may well have been overlooked elsewhere [nearby] and targeted searches may reveal its presence in similar rocky habitat in the Maseno, Adungosi and Malaba areas (B. Finch, pers. comm.).

### Western Banded Snake Eagle *Circaetus cinarescens*

Two adults were seen well and a third was heard calling in mature woodland at two different locations. This is a scarce and local species in Kenya (Zimmerman *et al.* 1996), which may be declining at this site as woodland habitat is cleared for charcoal production.

### Martial Eagle *Polemaetus bellicosus*

A single independent juvenile of this globally Near-Threatened species (Birdlife

International 2013) was seen well soaring westwards along the upper reaches of the escarpment. There are no previous records from this atlas square although there are several probable breeding records from nearby areas.

**African Black Swift *Apus barbatus***

Five birds were seen well, whilst foraging together at 1500m prior to a heavy, late afternoon thunderstorm. They were identified by their similarity to Common Swift *A. apus* but with a blacker appearance and a white throat contrasting strongly with a dark forehead. This is a local species of highland areas in western Kenya (Zimmerman *et al.* 1996) but is unrecorded from this atlas square.

**Cinnamon-chested Bee-eater *Merops oreobates***

Several pairs were seen in open woodland at mid-elevations on the escarpment. This species, restricted to the East Africa Highlands Biome (Bennun & Njoroge 1999), is known in this atlas square from pre-1970 records only, though it may well be resident here.

**Northern Puffback *Dryoscopus gambensis***

Two individuals were seen at two sites in bushy woodland. There is no record from this atlas square although it may be fairly common here and merely overlooked. It is typically found to the north of the equator (Zimmerman *et al.* 1996), though we have seen it south of here in the nearby Nyando Valley, as well as at Kericho.

**Red-shouldered Cuckooshrike *Campephaga phoenicea***

On 18 Feb 2012 we observed and recorded a single female in open woodland at 1450m where it called for an extended period of time from the top of a mostly leafless tree. While time constraints prevented us from studying the bird closely so as to visually distinguish it from the Black Cuckooshrike *C. flava*, our recordings closely match online recordings of this species but not those of Black Cuckooshrike. This is a very infrequently reported species in Kenya, where it is known from the far west only. There are pre-1970 records from this atlas square, though it is known more recently from nearby Kakamega (Pearson & Turner 1998) and Kaimosi (C. Mann, pers. comm.).

**Rock Martin *Ptyonoprogne fuligula***

This widespread species is probably fairly common on the escarpment, with small numbers observed in two locations. Although generally not resident across most of the Lake Victoria Basin, the absence of previous records from this atlas square is probably a reflection of low observer effort in suitable habitat.

**Singing Cisticola *Cisticola cantans***

A pair was audio-recorded duetting from thicket and forest edge at 1500m. There are no previous records from this atlas square, although the species is common in nearby highland areas.

**Whistling Cisticola *Cisticola lateralis***

Family groups were observed and tape-recorded in two different locations in open woodland and ravine thicket. In Kenya, this is a local and uncommon species found in the far west only, where it reaches the eastern edge of its continental range. It has been reported at nearby Kakamega (Pearson & Turner 1998) and although previously

unrecorded in this atlas square, it is probably resident at this site where there is suitable habitat.

#### **Rock Cisticola *Cisticola aberrans***

A single individual was seen briefly but well at 1450 m, firstly on a boulder and then in a small shrub. Our field notes at the time describe the bird as follows: an unstreaked and clean looking, prinia-like cisticola, uniform sandy-buff below and darker brown above; crown a contrasting rufous; tail quite long and cocked. Although we did not note the pale supercilium described in field guides, it seems possible that we could have missed this feature during our brief views. In Kenya, this is a very poorly known species of boulder slopes and rocky hills, previously known west of the Rift Valley only from the Oloololo Escarpment in the northwest Maasai Mara (Zimmerman *et al.* 1996). The subspecies there, *C. a. emini*, may well be the same as that which we report here, although our experience with the species is insufficient to make that determination.

#### **Little Greenbul *Andropadus virens***

Known in this atlas square from pre-1970 records only, this vocal species appeared to be common and was heard singing from several ravines with good tree cover and a thick understorey.

#### **Yellow-bellied Hyliota *Hyliota flavigaster***

A pair was seen well and photographed in open woodland at 1400 m on 20 Jan 2011. This is a very scarce and local species in Kenya, only occurring west of the Rift valley and with most records falling in the June–August period (Lewis & Pomeroy 1989). It is previously unrecorded from this atlas square, although there are old records from nearby areas of Fort Ternan and Kericho (Zimmerman *et al.* 1996), 45 km and 50 km to the south-east respectively.

#### **Green-capped Eremomela *Eremomela scotops***

A pair of the subspecies *E.s. citriniceps* was seen well and photographed in open, grassed woodland at 1400 m, where they foraged primarily in small acacia trees. This is a scarce and local species in Kenya, the nearest known site also situated in atlas square 60B, at Kendu Bay, from where there are pre-1970 records only. The Kavirondo Escarpment represents a 50 km north-easterly extension of range and only the second known area where it overlaps with its largely allopatric sister species, the Green-backed Eremomela *E. canescens*, which is known from the Muhoroni area in the adjacent Nyando Valley (Zimmerman *et al.* 1996).

#### **Grey-winged Robin *Sheppardia polioptera***

A single individual was seen well along the margins of dense understorey and gallery forest in a spring-fed drainage. There are no previous records from this atlas square although it is locally common in the nearby Nandi Hills.

#### **Familiar Chat *Cercomela familiaris***

A single individual was seen briefly but well, in fairly dense and humid bush at 1350 m. We ruled out the possibility of a female Common Redstart *Phoenicurus phoenicurus*, by its larger size and greyer colouration. This species is local and infrequently reported in Kenya, being more numerous in the north, in rocky, bushed habitat similar to that

on the Kavirondo Escarpment. It is previously unrecorded from this atlas square, although there are both pre- and post-1970 records from several nearby areas.

#### **Little Rock Thrush *Monticola rufocinereus***

Two counter-singing males and a pair were seen at two different locations, both at 1500m. This local and uncommon species, restricted to the East African Highlands Biome (Bennun & Njoroge 1999), is previously unrecorded from this atlas square although it may be resident here in small numbers.

#### **Olive-bellied Sunbird *Cinnyris chloropygius***

Previously unrecorded from this atlas square, although known to occur at nearby Kisumu and Koru (pers. obs.), a single male was seen well in dense thicket and ravine woodland at 1350m. This is a locally common species in far Western Kenya, occurring here at the very eastern edge of its continental range (Zimmerman *et al.* 1996).

#### **Long-billed Pipit *Anthus similis***

A single bird was seen well in bushed grassland on steep rocky ground at 1450m. Though previously unrecorded in this atlas square, it is known to be a widespread species at low densities and possibly overlooked (Lewis & Pomeroy 1989).

### **Discussion**

Biogeographically, the Kavirondo Escarpment exhibits similarities with other escarpment avifaunas in Western Kenya and in particular the Ooloolo Escarpment in the north-west Maasai Mara 130km to the south. Species of note shared between the latter site and the Kavirondo Escarpment include Rock Cisticola, Yellow-bellied Hyliota, Green-capped Eremomela, Familiar Chat and Long-billed Pipit. The presence of such local and infrequently recorded species here is a testament to the integrity of the indigenous vegetation communities that remain, although these are certainly exposed to considerable anthropogenic pressure.

The human population both below and above the slopes is high, and while the rocky terrain is largely unsuitable for farming, a number of other activities appear to be causing a gradual denuding and degradation of vegetation cover. In particular, the production of charcoal is highly destructive, with tree felling preceded by annual/semi-annual dry season burning and livestock grazing. Populations of woodland birds in particular are likely at risk from this disturbance. However, while woodland habitat remains, we can recommend this site as a very productive birding location worthy of further study and surveys, in particular to establish the continued presence of Ring-necked Francolin.

### **Acknowledgements**

We would like to thank D. Turner, B. Finch, C. Mann, R. Dowsett and F. Dowsett-Lemaire for assistance with identification queries. Bird vocalization websites Xenocanto, Avocet and the Macaulay Library were of great use for checking our audio recordings, and D. Turner and P. Bradley provided useful feedback on this note.

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*Scopus* 33: 64-69, January 2014

Received 3 June 2013