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A range extension for Shelley's Sparrow *Passer shelleyi* in south-west Kenya, with comments on local sympatry with Kenya Rufous Sparrow *P. rufocinctus*

by James Bradley, Nathan Hentze & David Guarnieri

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SUMMARY.—Aside from mainly anecdotal sight reports, Shelley's Sparrow *Passer shelleyi* has been unrecorded in Kenya for 100 years since a specimen collected in 1917. Here we describe a newly discovered population south of the equator and report brief field observations of its occurrence alongside Kenya Rufous Sparrow *Passer rufocinctus*, with which it was formerly treated as conspecific. This is the first known location where the two species occur sympatrically, potentially enabling future behavioural and ecological studies between these closely related taxa.

The Rufous Sparrow superspecies has been subject to various taxonomic treatments. In East Africa, Shelley's Sparrow *Passer shelleyi* (also known as Shelley's Rufous or White Nile Sparrow) has been considered conspecific with Kenya Rufous Sparrow *P. rufocinctus* (Zimmerman *et al.* 1996, EANHS 2009), and more widely in Africa with Great Sparrow *P. motitensis*, Kordofan Sparrow *P. cordofanicus*, Socotra Sparrow *P. insularis* and Cape Verde Sparrow *P. iagoensis* (Summers-Smith 1988, Dickinson 2003). With two notable exceptions (Dickinson & Christidis 2014, Turner & Pearson 2015), most authorities now accept these forms as being specifically distinct on the basis of their allopatric ranges, consistent morphological differences and absence of hybrids in any populations (Fry & Keith 2004, del Hoyo & Collar 2016, Clements *et al.* 2017, Gill & Donsker 2018).

In Kenya, Shelley's Sparrow is considered rare and poorly known. It was collected in 1917 in the northern Kerio Valley (Lewis & Pomeroy 1989; D. A. Turner pers. comm.), but has otherwise been reported on only a few occasions from the Kongelai / Kunyao area, and not since the 1980s (Zimmerman *et al.* 1996, Fry & Keith 2004; D. A. Turner pers. comm.). Both of these locations are on the south-east periphery of the species' acknowledged range, in central Uganda, southern South Sudan, southern Ethiopia and northern Somalia (Fry & Keith 2004, Summers-Smith 2018). Kenya Rufous Sparrow, in contrast, is a widespread and common resident in the central Kenya highlands, with regular post-breeding wandering to lower elevations of western Kenya (Lewis & Pomeroy 1989, Zimmerman *et al.* 1996). In north-west Kenya, the ranges of the two species approach each other sufficiently closely (c.10–20 km in the Kongelai / Mt. Elgon area) that they have been considered parapatric (Summers-Smith 1988), although they have not been reported to overlap.

It was therefore surprising to discover a population of Shelley's Sparrow in south-west Kenya in March and November 2017, more than 250 km south of its reported distribution, and in an area where Kenya Rufous Sparrow also occurs. Here we document our observations of Shelley's and Kenya Rufous Sparrows in the Ruma National Park area, and briefly discuss the current taxonomic treatment of the two forms in the context of this apparent sympatry.

Field observations

Shelley's Sparrow.— A male was first observed by NH & JB drinking from a rain puddle at the Nyatoto Gate of Ruma National Park (00°37'05", 34°17.5'E), Homa Bay County, on 27 March 2017. Given that Kenya Rufous Sparrow had been observed nearby (but outside the park) earlier in the day, and attention was focused on other species visiting the puddle, it was given only a cursory glance. It was identified retrospectively as a Shelley's Sparrow from photographs (Fig. 1). This is the first record of the species south of the equator.

On a follow-up visit to Ruma National Park in late November 2017, JB & DG observed up to 50 Shelley's Sparrows inside the park, permitting additional photographs and close study of both sexes (Fig. 2), as well as nests (Fig. 3). Most individuals formed part of four conspecific flocks of 6–15 males and females that were found along roadsides in areas of short (<30 cm) but dense grassland on black clay soils, from where they would collectively flush into Desert Dates *Balanites aegyptiaca* or Ant-gall Acacias *Acacia drepanolobium*, which were thinly scattered across the grassland. A smaller number were observed in pairs, separated by 200 m or more, nestbuilding in areas with taller (<60 cm) grass cover where *Acacia* also grew more densely. Four complete or near-complete nests were studied closely, all being placed centrally c.2–3 m above ground level in 3–5 m-tall *Acacia* trees. They were constructed of long dry grass stems and comprised scruffy-looking pineapple-sized balls among the dense thorns, with a well-protected entrance hole at the side. Females were observed taking grass to two of the nests while males perched nearby and uttered a toneless *chirp* contact call (e.g., <https://www.xeno-canto.org/395955>) which we found to be indistinguishable from calls of Kenya Rufous Sparrow. At two other nests, only males were seen, suggesting the females may have been inside the structures. Given the small area we



Figure 1. Male Shelley's Sparrow *Passer shelleyi*, Nyatoto Gate, Ruma National Park, Kenya, 27 March 2017 (Nathan Hentze)



Figure 2. Male (left) and female (right) Shelley's Sparrows *Passer shelleyi* near a nest, Ruma National Park, Kenya, 27 November 2017 (James Bradley and David Guarnieri)



Figure 3. Typical Shelley's Sparrow *Passer shelleyi* nest in an *Acacia drepanolobium*, in moderately treed grasslands on black clay soils, Ruma National Park, Kenya, 27 November 2017 (James Bradley)

visited, and extensive habitat available, it is possible that many more pairs were initiating breeding throughout the park.

All males observed, both in March and November 2017, were readily separable from Kenya Rufous Sparrow on the basis of the dark eye, and black post-ocular eyeline that bordered a crescent of cinnamon feathers at the posterior edge of the ear-coverts. Also noticeable in all males were the white cheeks, lightly washed grey in some individuals but always brighter than in Kenya Rufous Sparrow. The supraloral area was also bold and white, much more so than is usually true of Kenya Rufous Sparrow. Similarly the underparts, while washed pale grey on the breast and flanks, were otherwise whitish and brighter than typical of Kenya Rufous Sparrow. Females were very similar to female

Kenya Rufous Sparrow but for a dark eye. None of the males showed any variation in the pattern of white-black-cinnamon on the face that might suggest hybrids with Kenya Rufous Sparrow. Further examination has revealed no differences compared to images of Shelley's Sparrows from north-west Uganda east through southern Ethiopia (where red soils may afford the underparts a rusty tinge).

Kenya Rufous Sparrow.—Previous records of 'Rufous Sparrow' in this region, whether correctly or not, have been attributed to Kenya Rufous Sparrow without further details, and its status and ecology locally is not well known. In October 2014 JB observed a pair of Kenya Rufous Sparrows on the road outside the north-west boundary of Ruma National Park, on the outskirts of a series of homesteads on a low hill, with a rocky and sparse ground cover, and a moderate cover of mixed semi-deciduous trees but few *Acacia*. In March 2017, JB & NH observed a single male c.1 km outside Nyatoto Gate, also near a homestead. The habitat comprised sparse ground cover and scattered medium-sized *Balanites aegyptiaca* and small *Acacia drepanolobium* between some fallow farm fields. Both males were seen well and were typical pale-eyed individuals, lacking the black crescent bordering the ear-coverts of Shelley's Sparrow. Both locations outside the park where the species was observed were subject to high levels of disturbance, both by human presence and grazing livestock, and were further characterised by a comparatively low abundance of *Acacia* and very limited grass cover.

Discussion

The presence of Shelley's Sparrows in south-west Kenya represents a significant southward range extension, and possibly the only currently known population in the country. Perhaps more significantly, Ruma National Park may also be the only area where both this species and Kenya Rufous Sparrow occur sympatrically. Although Kenya Rufous Sparrow has not yet been reported to breed, our observations suggest that, where they occur together, the two species are segregated by habitat preferences. While both occupy savanna grasslands with *Acacia drepanolobium* elsewhere in their respective ranges (Fry & Keith 2004), it is Shelley's Sparrow that uses this habitat around Ruma National Park while Kenya Rufous Sparrow appears to occupy only disturbed habitats in the vicinity of human habitation. This is also consistent with Summers-Smith (2018) who reported that Shelley's Sparrow shuns habitation while Kenya Rufous Sparrow occurs in the vicinity of humans in many areas.

Combined with an apparent absence of hybrids, our observations of different habitat use support the most widely accepted current treatment of these two taxa as species. Elsewhere, there is no clinal variation in plumage where the two come into close contact and they are reported to show the greatest differences between any two of the species in the Rufous Sparrow complex (Summers-Smith 1988). Additional observations should aim to confirm whether Shelley's Sparrow is a year-round resident or only a migrant breeder to Ruma National Park, and if Kenya Rufous Sparrow breeds locally or merely visits the area in the non-breeding season. As the first documented evidence of their sympatry, further investigation at this locality into behavioural interactions and differences in ecology and vocalisations would be of value.

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