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Coqui Francolin *Campocolinus coqui*
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ERRATUM

In *Honeyguide* **68**(1), p.22, paragraph 3, of "Vumba": Yellow-fronted Tinkerbird should be Yellow-rumped Tinkerbird

GUIDELINES FOR CONTRIBUTORS

Honeyguide is an ornithological journal that accepts scientific papers and articles, short notes and observations, as well as contributions of a more general interest. Its primary emphasis is on the birds of Zimbabwe but scientific contributions from other parts of Africa, and general interest contributions from anywhere else will also be accepted. Wherever possible, articles should be submitted electronically, preferably in MS-Word using the language option 'English (Zimbabwe)' or any other variant of British English.

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Should Stuhlmann's Francolin be added to the Zimbabwean list?

Kit Hustler & Brian Marshall

Introduction

Ornithologists have long been interested in geographical variation within bird species, and used the concept of the subspecies to define such variation. Countless subspecies have been described over the years, but many have been rejected and synonymised. More recently, however, the application of molecular biology and genetic techniques has had a major impact on avian taxonomy and many new genera and species have arisen, mostly split from existing ones, with many subspecies being elevated to full species.

One species recently subjected to this treatment is the Coqui Francolin *Campocolinus coqui* and readers might be surprised to discover that we apparently have a new francolin species in Zimbabwe. This species, which is said to occur across the whole country, except for Matabeleland, is called Stuhlmann's Francolin *Campocolinus stuhlmanni*. This came about through a wide-ranging review of the taxonomy, phylogeny, and distribution of the 'true' francolins by Mandiwana-Neudani *et al*. (2019). These authors recognised 31 species with 14 subspecies now being regarded as full species. This paper should stand as a definitive account of these birds, but it has been severely criticised (Hunter *et al*. 2021; Hustler 2021) and many more problems keep arising as time goes on.

These problems are particularly evident in their treatment of the Coqui Francolin, with five subspecies having been removed from synonymy and treated as new species. This francolin is the most widely distributed African species (Little 2016) and a large number of subspecies have been described (Table 1). These were reduced to just four by the time the *Handbook of Birds of the World* was published (McGowan 1994).

The most widespread subspecies is the nominate *C. c. coqui*, which ranges from South Africa, north through Angola to western Democratic Republic of Congo (DRC) and Gabon, then across through the southern DRC, Zambia, Zimbabwe, Tanzania, southern Kenya, and Uganda. It has a variably barred breast and abdomen in males, and grey wings.

Two of the three northern subspecies have an unbarred abdomen and one of them, *hubbardi*, has grey wings like *coqui*; it occurs in a restricted area roughly between Lake Victoria and the eastern Rift Valley. The West African subspecies, *spinetorum* also has an unbarred abdomen but rufous wings, and occurs as relict populations in northern Nigeria, Mali, and Mauritania. The remaining subspecies *maharao* is like nominate *coqui* and is barred below but also has rufous wings; it occurs in a limited area of northern Kenya and Ethiopia. These three subspecies, plus two that had been consigned to synonymy, were elevated to full species by Mandiwana-Neudani *et al*. (2019).

The subspecies *stuhlmanni* was described by Reichenow (1889) but later synonymised with *coqui* by Ogilvie-Grant (1893) and Reichenow (1900-1901). This suggests that these authors were not confident of its validity, and this synonymy was accepted by Peters (1935) and Hall (1963).

So, was it correctly elevated to a full species and should we add it to the Zimbabwean list?

Table 1. Coqui Francolin subspecies recognised by various authors; names in bold font are those elevated to full species by Mandiwana-Neudani *et al*. (2019)

Peters (1934)	**Hall (1963)**	**McGowan (1994)**	**Little (2016)**	**Mandiwana-Neudani *et al*. (2019)**
coqui	*coqui*	*coqui*	*coqui*	*coqui*
hubbardi	*hubbardi*	*hubbardi*	*hubbardi*	***hubbardi***
maharao	*maharao*	*maharao*	*maharao*	***maharao***
spinetorum	*spinetorum*	*spinetorum*	*spinetorum*	***spinetorum***
vernayi	*vernayi*			*vernayi*
ruahdae	*ruahdae*			*ruahdae*
buckleyi	*kasaicus*			*kasaicus*
campbelli	*thikae*			***thikae***
angolensis	*angolensis*			***stuhlmanni***
schlegelii	*hoeschianus*			
lynesi				

The first authoritative Zimbabwean checklist (Smithers *et al*. 1957) restricted all Coqui Francolins to the nominate subspecies (*coqui*). Later, Irwin (1981) reported that two subspecies occurred in Zimbabwe, *coqui* in most of the country and *vernayi* in northern Matabeleland. However, according to a distribution map in Mandiwana-Neudani *et al*. (2019) *stuhlmanni* would occur throughout the country, except for birds from Matabeleland which remain Coqui Francolins but of the subspecies *coqui*, while *vernayi* has been pushed west into Botswana and would no longer occur in Zimbabwe. Exactly how they came to this conclusion is unclear because they examined too few specimens from limited geographical areas to permit such a determination.

Data sources

A taxonomic investigation nowadays is usually expected to list the material that was examined, indicating where specimens were collected, their sex, whether they were adult or immature, and any other pertinent information. Ideally, the collection localities would be mapped to give an indication of their geographical coverage, perhaps with an indication of the range of any subspecies. An example of such a map can be found in a

paper splitting the Fiscal Shrike *Lanius collaris* into two species (Fuchs *et al*. 2011). This is significant because two of the authors of that paper were also authors of Mandiwana-Neudani *et al*. (2019).

The morphological data were based on 'up to ten specimens of each putative taxon' implying that they sometimes examined fewer, but this was later changed to 'more than 10 specimens' (Mandiwana-Neudani *et al.* 2021) after criticisms from Hunter *et al*. (2021), so the exact numbers for each taxon remain uncertain. Because Coqui Francolins are sexually dimorphic it is likely that fewer than ten of each sex would have been examined. This was confirmed by Crowe *et al*. (2022) who revealed that only two male specimens of *stuhlmanni*, both from Malawi, were examined. They also examined two female specimens, but females were not included in their species descriptions.

It is unclear why such a small number were investigated because this francolin must be well represented in the large collections in major southern African museums, notably those in Durban, Pretoria and Bulawayo. These hold material from Botswana, Namibia, Zambia and Mozambique, as well as South Africa and Zimbabwe, and this material would have enabled a thorough investigation of at least the three putative southern African subspecies (*coqui*, *vernayi*, *stuhlmanni*).

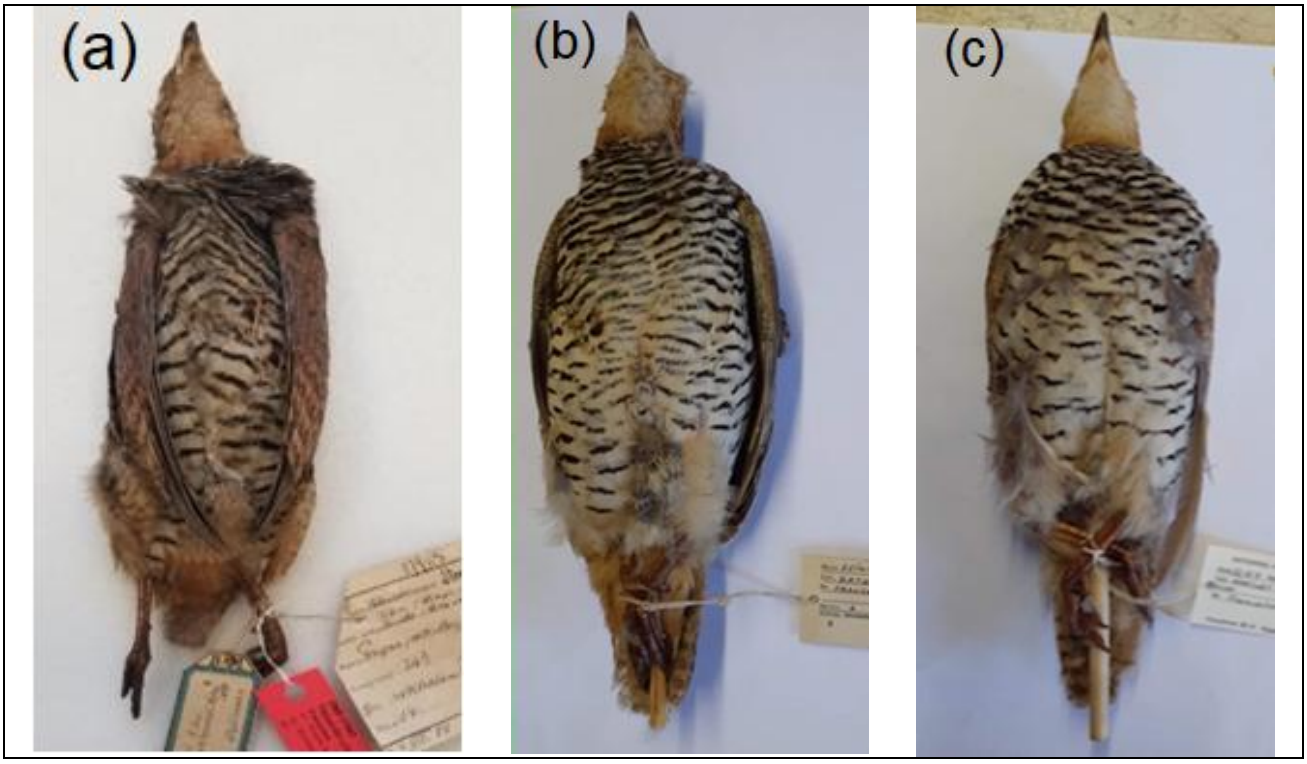

Figure 1. Specimens of male Coqui Francolins; (a) the type specimen of *C.c. stuhlmanni* collected in 1888 by Frans Stuhlmann in north-eastern Tanzania (ZMB 27983), photo Museum für Naturkunde, Berlin; (b) a specimen from Malawi, collected by Benson in 1952, labelled as *stuhlmanni*, and (c) a *coqui* specimen from Zimbabwe, both photos Natural History Museum of Zimbabwe, Bulawayo. This illustrates the variation of barring in these birds, and the heavy barring on the abdomen of *stuhlmanni*.

How can we identify Stuhlmann's Francolin?

It would be almost impossible to identify Stuhlmann's Francolin in the field because there are no distinctive features that separate it from other subspecies. In spite of this, Mandiwana-Neudani *et al*. (2019) wrote that *stuhlmanni* 'resembles *coqui* except that the extent of barring on the abdomen is much reduced, but not virtually absent as in *hubbardi*'. However, when the type specimen is compared with others this reduction is not apparent and the opposite seems to apply (Figure 1). The type specimen appears to be more heavily barred on the breast and abdomen than either the specimen labelled *stuhlmanni* from Malawi or the one labelled *coqui* from Zimbabwe.

The extent and intensity of the barring varies in most forms of this species (Irwin 1981). For instance, Roberts (1935) commented that barring in *vernayi* from Botswana more closely resembled *stuhlmanni* from Mozambique than it did other Coqui subspecies. This was unwittingly confirmed by Little (2021, p. 59) who published four photographs said to be of *stuhlmanni*, none of which showed any reduction in abdominal barring. One of the photographs was taken at Ngamo, in Hwange National Park, NW Zimbabwe, and thus outside the range of *stuhlmanni*, at least according to the map in Mandiwana-Neudani *et al*. (2019). This particular bird was therefore most likely to be *vernayi* (see Irwin 1981) and is certainly not *stuhlmanni*.

Mackworth-Praed (1922) examined 67 specimens of the subspecies *coqui* and reported that he could not separate South African specimens from those of Malawi, Kenya or Tanzania. Hall (1963) wrote 'In the populations of central and southern Africa there is considerable individual and local variation in size and colour so that consistent geographical variation is hard to determine. I do not believe that it is practical to distinguish from nominate *coqui* the small coastal birds of Kenya since equally small birds are found in Natal, or to distinguish the populations of Natal, Zululand and southern Mozambique, which are on the whole less rufous, for individuals can be matched with others elsewhere.'

As an indication of how confusing these birds can be, Mandiwana-Neudani (2013, p. 196) listed three specimens collected at Luluabourg (now Kananga) in the DRC. Each of

these had been assigned to a separate subspecies, i.e., *lynesi* (BM 1953 54 52), *kasaicus* (BM 1953 54 49) and *angolensis* (TM 25325). It is highly unlikely that three different subspecies (or species) would occur at the same locality and it suggests that each collector interpreted these subspecies differently.

Figure 2. Male Coqui Francolins: (a), subspecies *hubbardi*, showing its unbarred abdomen, Ngorogoro Crater, Tanzania; photo Marianne Cyr; (b) the paratype of *stuhlmanni* (ZMB 27301) collected by Richard Böhm in 1880; photo Museum für Naturkunde, Berlin

Of interest to southern African readers is the comment that barring on the abdomen is 'much reduced' since all southern forms have a barred abdomen. This gives them a very different appearance from the northern forms with unbarred abdomens (Figure 2a). The claimed reduction in barring of *stuhlmanni* is not evident in either the type (Figure 1) or paratype specimens (Figure 2b).

How was Stuhlmann's Francolin raised to full species?

1. Vocalisations

Mandiwana-Neudani *et al*. (2014) attempted to separate francolin species on the characteristics of their vocalisation but that paper listed only one Coqui call, from 'South Africa' (no precise locality). Coqui Francolins have two distinctly different calls, the repetitive, two-note whistling '*kee-kwit*' (or '*ko-kwee*') and the tinny '*kraank-krank-rank-rank-rank*' falling in pitch and volume, and speeding up at the end (Maclean 1984). It is not clear which of these calls were investigated but the analysis in their paper suggests that it was only the harsh repetitive call; they did not explain why the other one was excluded. There were no differences between the vocalisation scores for each putative subspecies in their later paper so they were of no value in separating subspecies.

2. Morphological characters

Many subspecies can be recognised by consistent plumage or size differences but others are more difficult. In some cases, however, apparent plumage differences may be rather subjective or inconsistent, and open to interpretation. This is especially true in rather variable species such as the Coqui Francolin. As already noted, Mackworth-Praed (1922) and Hall (1963) were unable to distinguish consistent geographical variation in the southern populations of *coqui*. Mandiwana-Neudani *et al*. (2019) attempted to overcome these difficulties by recognising 20 morphological characters that were given a score according to the presence, absence or intensity of each (their Table 6).

This analysis was not particularly successful, perhaps because there were too many divergent species involved. This 'one-size-fits-all' approach resulted in some rather imprecise characterisations that were sometimes open to different interpretations. This was particularly true for the sexually dimorphic Coqui Francolin since it did not distinguish between males and females, immature birds, or juveniles. In any case, it should probably have been restricted to subspecies only since francolins and spurfowl are all readily distinguishable at the species level, with descriptions and illustrations being widely available in bird books and field guides.

Figure 3. A meticulous painting of Coqui Francolins by Claude Finch-Davies, showing the differences between adult males (right) and females (left). Based on South African specimens, from Horsbrugh (1912).

There was some confusion as far as the putative Coqui Francolin taxa are concerned. For example, character 8 ranked the extent of breast patterning, presumably only in males because females have a plain or lightly-patterned breast (Figure 3). This character was scored 0 = unbarred and 1 = barred. Astonishingly, the subspecies *coqui* was given a score of zero, i.e., the males had an unbarred breast, while *stuhlmanni* was given a score of 1, meaning that it had a barred breast. This, of course, is nonsense because all male *coquis* have a barred breast. A possible explanation for this is that this character was applied to females, suggesting confusion between male and female specimens.

The main problem with this morphological approach is that the authors seem not to have read the original description of *stuhlmanni* (Reichenow 1889) or examined the type specimen, which is surely essential in any taxonomic revision. Like many descriptions from that era, it is very brief and based on a single type specimen. Reichenow separated it from *coqui* on the basis of its more rufous and unbarred under tail-coverts, but Mandiwana-Neudani *et al*. (2019) failed to mention this in their morphological summary. In separating *stuhlmanni* from *coqui*, they simply say that 'barring on the abdomen is much reduced', but this may be less significant than it seems because for morphological character 9 (belly patterning) both *coqui* and *stuhlmanni* scored 2 = barred.

3. Molecular characters

Most people with an interest in birds, whether professional ornithologists or amateurs, can understand descriptions of plumages, the colour of beaks and feet, measurements of size, and so on. The same cannot be said of molecular investigations where the results are largely incomprehensible to anyone without specialised training and must necessarily be taken at face value. Consequently, it is difficult to comment on the validity of the conclusions in Mandiwana-Neudani *et al*. (2019) but there are, nevertheless, some concerns that should have been addressed in this paper.

In their Methods section, they stated that they obtained DNA sequence data from seven different sources, i.e., four mitochondrial DNA sequences, and three nuclear DNA markers. This sounds like a very thorough investigation but, in fact, they only presented one of them, the cytochrome *b* (CYTB) sequence and then from only one specimen of each taxon. These are listed in Genbank (an international register of gene sequences) under the reference numbers AM236895 (*coqui*) and FR694152 (*stuhlmanni*). However, it seems that for AM236895 they used base pairs 1-789 while for FR694152 they used base pairs 1-1143, but with 157 base pairs (688-869) missing. Since only the first 687 base pairs were compared directly, it is difficult to see how this was sufficient to elevate *stuhlmanni* to a full species. It is of interest that the gene sequence of *stuhlmanni* (FR694152) is stored as *coqui* on Genbank so the initial identification made by Mandiwana-Neudani *et al*. (2019) also suggests some uncertainty about this specimen.

The divergence of CYTB sequences shown in Table 7 of Mandiwana-Neudani *et al*. (2019) raises some questions that were not addressed in that paper. The legend to this table states that the data are 'Percentage unweighted, uncorrected, overall, "P" molecular sequence divergence of mitochondrial cytochrome *b* (CYTB).' The obvious questions are (a) why are these data unweighted and uncorrected, and (b) how would they change had they been weighted or corrected? In the absence of any explanation, it is difficult to avoid the conclusion that some further analysis should have been carried out.

Mandiwana-Neudani *et al*. (2019) then asserted that putative species could be regarded as distinct if there was little evidence of interbreeding and the CYTB sequences differed by more than 1.5%. However, Hall (1963), Benson *et al*. (1971) and Irwin (1981) suggest that there has been interbreeding between Coqui Francolin taxa across much of its geographical range. Therefore, the assumption that there was little interbreeding among these taxa by Mandiwana-Neudani *et al*. (2019) is unproven and remains to be tested.

The notion that species can be separated when CYTB differs by >1.5% is of concern because in most fields of biology a difference as slight as this would not be considered significant. This conclusion was attributed to Swofford (2002), a computer programme which could not be accessed, but there was no mention of it in Swofford & Sullivan (2009). The only sources supporting this contention cited in Mandiwana-Neudani *et al*. (2019) were those written by themselves (Crowe 1978; Bloomer & Crowe 1998; Crowe *et al*. 2006) and one of their students (van Alphen-Stahl 2005).

Bradley & Baker (2001) examined rodent species and concluded that CYTB genetic distance values <2% suggested intraspecific variation, values between 2 and 11% suggested a high probability of conspecific populations, while values >11% were likely to be distinct species. Similarly, a study of a widespread rat species in China found that the percentage of CYTB variation (20.48%) among populations was smaller than the percentage of variation among 8 groups (78.02%), and the percentage of variation among populations within groups was 1.50% (Liu *et al*. 2021). These findings indicate that large variations in CYTB can occur within a single species.

Finally, this hypothesis was undermined by two contradictory findings in Mandiwana-Neudani (2013, her Table 5.6) but omitted from Mandiwana-Neudani *et al*. (2019). Firstly, two specimens collected from the same locality (Luluabourg) within 6 months of each other were found to have an intra-specific CYTB divergence of 8%, which, according to Mandiwana-Neudani *et al*. (2019), would make them separate species. The notion that two separate Coqui Francolin species (or even subspecies) would be collected at the same locality within a few months of each other is highly improbable.

Secondly, a specimen from Zambia, which they would have assigned to *stuhlmanni*, was genetically identical to a specimen of the nominate subspecies (*coqui*) from South Africa. This again points to the considerable variability within a single species and suggests that a CYTB variance of >1.5 % is not a reliable method for separating species.

Conclusion

The work reported by Mandiwana-Neudani *et al*. (2019) does not meet the standard that would be expected in a modern taxonomic revision. They did not examine the holotype of *stuhlmanni* and overlooked the original type description, and their morphological description is as brief as the original description by Reichenow (1889). Crucially, they missed what he saw as the critical distinction between *stuhlmanni* and *coqui*.

It is difficult to see why they included vocalisation in their analysis, because they seem to have used calls from only one South African specimen. Finally, the unproven assumption of no interbreeding between adjacent sub-species and a molecular analysis based on too few samples and with too many unexplained uncertainties is not convincing.

It is prudent therefore to stick with the *status quo* and retain *coqui* as a monophyletic subspecies following McGowan (1994) and Little (2016). There is no reason to add Stuhlmann's Francolin to the Zimbabwean list, at least until more accurate

and accountable data related to these taxonomic problems become available.

Regrettably, this francolin has already been added to various books and field guides, such as Sinclair *et al*. (2020), Little (2021) and Cillié *et al*. (2022). None of these authors have considered the criticisms of this revision (Hunter *et al*. 2021; Hustler 2021) and this is likely to cause considerable confusion in years to come.

Acknowledgments

We are grateful to the Curators of Ornithology at the Museum für Naturkunde, Berlin, and the Natural History Museum of Zimbabwe, Bulawayo, for providing photographs of Coqui Francolin specimens, and to Marianne Cyr for permission to use her photograph of *hubbardi*.

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Notes on the African Green Pigeon, with Particular Reference to Food Sources, and its Seasonal Availability

Ant Fynn

Introduction

These notes have their origins in my farming days in the district of Trelawney, a farming area some 100 km northwest of Harare, Zimbabwe. Although well-developed for agriculture, and tobacco in particular, the district still retained reasonable tracts of indigenous *Brachystegia* (miombo) woodland with a healthy variety of tree species.

Being the local "bird man" I was often brought injured birds to rehabilitate, and many of these were African Green Pigeons *Treron calvus*. Found in good numbers throughout the district, unfortunately they quite often flew into farm homestead security fences and injured themselves.

As a result of having these injured birds to rehabilitate, I began an intensive study of the diet of the wild population and, over some nine years, kept daily records of food sources and their availability at different times of the year. This was prompted by the knowledge that, in captivity, African Green Pigeon can easily lose the colour of both their soft parts and their plumage if fed on standard fruit-eater diets such as banana, pawpaw and similar fruits. One of South Africa's earliest aviculturists, Herbert Hambly Parker (1961), noted that "after three years or so in captivity they lose their beautiful green plumage and become almost dove grey." It often takes a lot less than three years.

Most reference books make general statements on the diet of these pigeons, almost always focusing on figs (*Ficus* sp.) as the most important food source, but then listing other recorded food items. Even more detailed works make almost no reference to the importance of the seasonal availability of various foods. For example, Rowan (1983) states that wild figs are perhaps the most important food, but lists 10 other types of fruit that are also eaten. Urban, Fry & Keith (1986) simply state "figs" and then follow the list given by Rowan. Ginn *et al*. (1989) listed "fruit, particularly wild figs" and then "although it feeds mainly on berries and fruits, it often occurs in areas where there appear to be few trees producing a fruit crop."

This paper discusses food sources in the Trelawney area, when it is available, and what else sustains the African Green Pigeon at times when little fruit is available. There is much local movement to and from food trees, and the birds must have an encyclopaedic knowledge of these trees, often arriving within a day or two of the first fruits being ripe. With a well-treed garden including three different fig species, we had a semi-resident flock of some 20 Green Pigeons that returned to roost in the garden for much of the year. This also made it easier to monitor their movements.

Food Sources: Figs

Note that no single fig species fruits throughout the year, and there are several different species of fig involved.

Common Wild Fig *Ficus burkei*

These small-fruited figs are difficult to identify and there appears to be much hybridisation between them, and even the authorities have kept re-classifying them. Coates Palgrave (1983) treated them all as *F. natalensis*, but Van Wyk and Van Wyk (1997) classify all in Zimbabwe as *F. thonningii*.

The trees are large and, in favourable seasons, become covered with a profusion of fruit that lasts for a maximum of 3 weeks. *Ficus burkei* is more numerous than the other species of fig and hence extremely important to the Green Pigeon. It will often fruit twice in one year, but there are times when they fruit, or fail to fruit, for no apparent reason.

Although they are pollinated by their fig wasps, trees of this species are sometimes found right next to each other where one is covered in fruit and the other has none at all. Temperature, rainfall, and soil moisture depletion levels can play an important part as well. Leaves are dropped briefly at the end of August and early September, followed by the new leaves, and then the first season fruits in late October or early November, peaking in December. Individual trees hold fruit for up to three weeks and there is an extended fruiting period until a lesser peak occurs in April and early May. On some trees, and in some seasons, there is a second crop at this time. Any fruit on the trees from June to October will often be hard, green and immature, and only eaten at times of extreme shortages.

Interestingly, trees ripen first on the east-facing side, which catches the early morning sun, and the other side of the same tree may only start ripening at least a week later.

Broom-cluster or Cape Fig *Ficus sur*

This large-fruited fig is also a very valuable food source, but trees were not as numerous as *F. burkei*. Large pieces of the fig fruit are twisted off by the Green Pigeons and, being soft, are easily consumed, skin and all. Peak months for this fig are late September/early October, and February, but they can be found fruiting in most months of the year except July. Fruiting lasts 2-3 weeks, and is often in such profusion that much of the fruit falls to the ground and rots.

These trees generally fruit twice a year, normally about three months apart; in very favourable seasons they may even fruit three times in a year. Any fruiting during the winter months of May to July, and even early August, normally fails as the fruit remains hard and green and do not mature properly. As with *F. burkei*, the side which faces the morning sun is the first to ripen.

Sycamore Fig *Ficus sycamorus*

Not as numerous as *F. burkei* or *F. sur*, these large-fruited figs are very valuable because they fill a gap at what may be a crucial time. Until it is fully ripe, the fruit may be hard and difficult for Green Pigeons to open and tear pieces off. At this stage Dark-capped Bulbuls *Pycnonotus tricolor*, barbets, and African Yellow White-eyes *Zosterops senegalensis* play an important role as they can peck at the fruit with their sharp beaks, allowing the Green Pigeons to feed off it later.

The trees fruit twice a year with peaks in late May/early June, and again in late September through to mid-November. Fruit may be on the tree for up to a month, and the extended fruiting time, coupled with the time of year, means that *F. sycamorus* fills an important gap when there may be a shortage of other food sources. If the rainy season starts early, the fruit may develop a black fungus while still on the tree and becomes inedible.

There is also some hybridisation between *F. sycamorus* and *F. sur*, and these trees may be more variable in their fruiting times. They are not numerous.

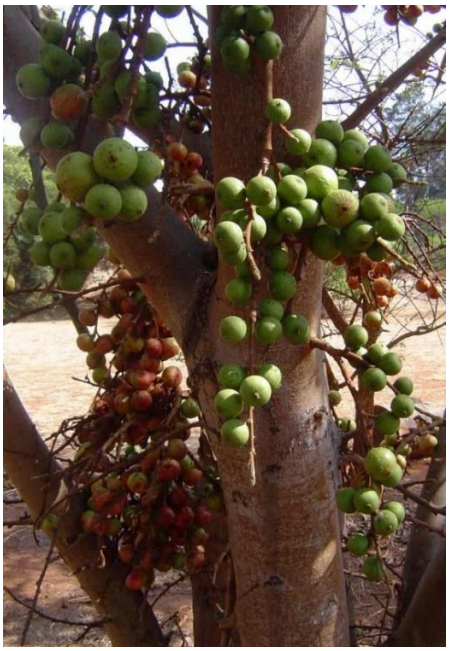

Figure 1. The fruits of *Ficus sur*., a valuable food resource. Photo from Flora of Zimbabwe (www.zimbabweflora.co.zw).

Red-leaved Fig *Ficus ingens*

Not a numerous species but it fruits profusely at an important time of year. These large, beautiful trees are conspicuous when covered in their new red leaves which then turn dark green. They have medium grape-sized fruit that can be eaten whole by Green Pigeons, becoming soft and deep purple in colour the riper it is.

Figure 2. The fruits of *Ficus ingens*. Photo from Flora of Zimbabwe (www.zimbabweflora.co.zw).

Fruiting lasts for about three weeks and the fruit is very popular, especially coming at a time when other figs may not be fruiting. There is a peak in March/April with a smaller, less vigorous crop in September/October after the flush of new leaves. It seldom fruits in the winter months May to August, and if so, the fruit may not mature. From November to February, it is also unusual to find a fruiting tree, although this may rarely occur in some seasons.

The figs are the food of choice for Green Pigeons but there are often extended periods when none can be found. Further, in extremely wet seasons with prolonged periods of rain, all fig fruits are susceptible to disease, making them inedible and causing hardship. In all these periods of non-availability, other food sources assume an enormous importance and, in the big picture, are at least as life-sustaining as figs themselves. In addition, even when figs are abundant, there are many other food sources which are also utilized.

Food Sources: Other fruits

Mobola Plum *Parinari curatellifolia*

Beautiful, large trees found in the wetter areas. The fruit is a large, yellowish drupe with tough skin covering the edible part, and a large nut inside. Hence only the ripest fruit is eaten, pecked at from the sides or even from underneath. The skin may also be eaten. In hard times when food is short, I have even seen Green Pigeons on the ground eating from the fruits that have fallen because these are often the ripest and softest of all. This is a very valuable tree owing to its extended fruiting season. In years when there have been good late rains, fruit may be ready as early as the beginning of June but, in most years, the first fruits are ready late June to early July. There is then an extended availability until the end of October/early November, with the peak being September and October.

Water Berry *Syzygium guineense*

This tree occurs extensively in the wetter areas and along stream banks. When ripe, the fruit is deep purple to black in colour, and is only eaten when ripe, at which stage the pulp can be pecked off. The fruit only ripens properly after the first rains have fallen and so it becomes a valuable food source from November onwards. The fruiting period is a long one, some 6-8 weeks, with peaks in December and January. Almost all are finished by early February.

Blue bush *Diospyros lycioides*

This is a smallish but widely distributed bush that is often found growing on termite mounds. It fruits in profusion in March and April, and although not one of the first-choice foods, it is often taken, especially if other fruits are short.

Governor's Plum *Flacourtia indica*

A small bush also favoured by a many other fruit-eating species. This can be an extremely valuable species as it fruits in winter when other food sources are scarce. The first fruits are ready at the end of the rains, in late March, with a peak in April and May, and all are finished by the end of June.

Pink Diospyros *Diospyros kirkii*

Small to medium-sized trees that are widely distributed but not very numerous. The sweet fruit is much favoured by all fruit-eaters and ripe fruits are pecked open by Green Pigeons. Even green fruits are opened by Dark-capped Bulbuls and then the Green Pigeons eat the pulp inside. The trees fruit anytime from late June to October, i.e., during the main winter months when other food may be short.

Knobbly Bridelia *Bridelia cathartica*

A small, easily overlooked bush that fruits from April to July, and even into August in some years. It can be important due to the time of year it fruits.

Common Wild Currant *Searsia pyroides*

A shrub or small tree not commonly found, although it appears to be spreading. The fruits are not very fleshy, are small and thus eaten in numbers, but are good in times of shortages. They fruit from mid-September to the end of November.

Snowberry *Flueggea virosa*

A shrub or small bush that is fairly common and often found on termite mounds. The small, sweet white berries are very popular, with fruiting from mid-December to late February. Individual bushes can fruit for up to a month.

Live-long *Lannea discolor*

Small trees that fruit during the rains, December to February. The small, dark fruit is eaten whole, but they are not favoured overall and other fruits are eaten in preference if available.

Mahobohobo *Uapaca kirkiana*

Reasonably plentiful on the edges of wetter areas, but does not appear to be favoured by Green Pigeons, despite its very sweet pulp. As with some other fruits with a thick skin, it often needs other birds such as Dark-capped Bulbuls to first peck at it and open it up. With the main fruiting time being at a time of relative shortage, it is surprising that *Uapaca* is not more favoured, but the tough skin and very astringent taste of the skin may well be the reason for this.

Mistletoes: Loranthaceae and *Viscum*

These parasitic plants are commonly found in many of the trees surveyed. As an indication of the great variety of foods eaten by Green Pigeons, I have often recorded them eating the red berries of Loranthaceae, up to as many as 20 at a time. Species in this family appear to fruit at least twice a year, with peaks in September/October, and again in March/April. I have further recorded them eating the yellow flowers of the parasite *Viscum*, eating whole crops-full of the flowers late in the evening.

Mulberry *Morus alba*

The exotic mulberry, frequently grown in gardens, is much favoured by bird species such as starlings and bulbuls. Once they had acquired a taste for mulberries in the garden, the tree became more and more popular with our semi-resident flock of Green Pigeons, with them often going to it as early as 05.30 a.m. before flying off to other feeding grounds. Fruiting occurs from early September to late November.

Lance-leaved Waxberry *Morella serrata*

This plant is included not on the basis of it being found at Trelawney, but because of earlier observations made at Concession, 100 km north of Harare. It is a smallish tree found on stream banks and has small, black berries which are dry but very waxy. Other than figs, at the time I considered this to be the favourite food of Green Pigeons and many other fruit-eating birds, and well worth preserving. It was a consistent fruiter in April and May.

This concludes the discussion of the different fruits eaten by Green Pigeons and highlights the importance of the availability of food sources, other than figs, at many times of the year. However, the most surprising and fascinating finding was the amount of green matter eaten, and where it comes from.

Food sources other than fruit

Msasa leaves *Brachystegia spiciformis*

Once I had established that Green Pigeons were definitely eating Msasa leaves, and those of other trees, it was apparent that this is a vital part of their diet.

The Msasa is a tall, beautiful tree, well distributed in Miombo woodland. It, and related trees, have a spring flush of colour that makes them amongst the most beautiful woodlands in the world. In contrast to many other trees, these colourful leaves are the new leaves, and not the old leaves dropping. Johnson and Choinski (1993) write "The young foliage is not the green of most spring foliage, however, but a broad array of colours from salmon pink to dark wine red – the result of a massive synthesis of anthocyanins in the newly formed leaves. The amounts of leaf anthocyanin and chlorophyll vary from tree to tree. Anthocyanins can act as a sort of sunscreen for the new thin leaves and may also have insect repellent properties." These new leaves are softer and thinner than the older leaves, and are eaten with a great deal of enthusiasm by Green Pigeons.

These new red leaves will gradually change colour to a soft light green and then a darker green, over a period of at least a month, and often more. As the colour changes to dark green, the leaves harden somewhat. This new leaf emergence may start as early as mid-July, with red leaves – the 'spring flush' – peaking in August and early September. The young, soft green leaves are still available well into October.

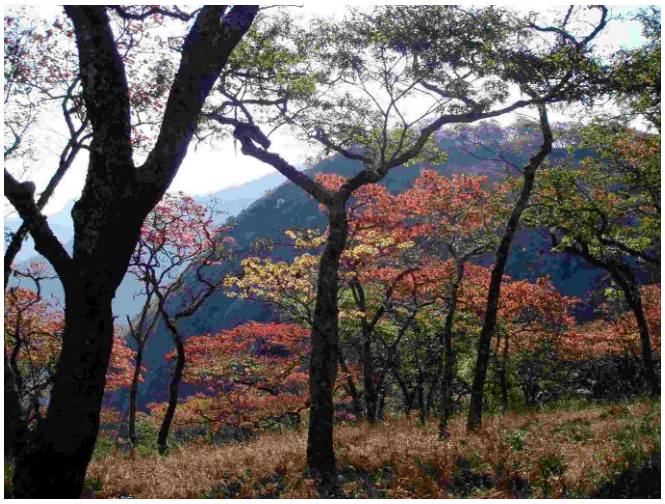

Figure 2. The spring flush of Msasa trees, a favourite food of Green Pigeons. Photo from Flora of Zimbabwe (www.zimbabweflora.co.zw)

Green Pigeons would fly in to our garden to roost, go immediately to the many Msasa trees with new leaves, and proceed to twist and pull off the new leaves, both the reds and any newly green. Some trees had the look of a caterpillar infestation. The pigeons would continue eating until as late as 1745, only 30 minutes before it becomes dark, and then go to roost.

Of major importance here is that this takes place at the end of winter, a time when the birds almost always have great

difficulty in finding enough fruit, and prior to the main breeding season. For example, on 14 August 1998, there was no fruit of any sort on nine *Ficus sur*, three *Ficus sycamorus* and over 15 *Ficus burkei*. The only available food was the very first, unripe, fruit of *Parinari curatellifolia*, and the new leaves of Msasa.

This is an on-going process because, after the spring flush, new green leaves can still be found on Msasa for some months afterwards and even Green Pigeon chicks are fed on these leaves. On 20 September 1999, a chick was blown out of a nest in strong winds, and died. Its crop was full of fresh Msasa leaves, some few fruits, and bits of fruit from *F. burkei* and *F. sycamorus*, and fresh leaf buds.

Other vegetable foods

I have no doubt that 'green' food is a permanent part of the diet of the Green Pigeon, and the only variable is which leaves they prefer and when they can be found. I have also recorded them eating new leaves of the Munondo *Julbernardia globiflora*, a tree closely related to the Msasa. They also eat new leaf buds of the Mufuti *Brachystegia boehmii*, and I am sure there are many other trees favoured.

Green Pigeons were also seen eating the flowers of *J. globiflora*, as well as the leaf buds of *F. burkei*. The fig leaves become thick and hard and so would definitely only be edible in the bud stages.

Grit – and drinking

For quite some time I was confused by Green Pigeons gathering daily near the river at about 1700 hours. They would sit together at the top of some dead trees, catching the last rays of the sun, doing nothing special. They appeared not to drink but after watching them for some days, I observed them go down to the water's edge and begin to eat clay, or grit. It is well known that birds eat stones (gastroliths) or grit to assist with the mechanical breakdown of food in the gizzard and most species known to do this eat 'hard' food such as seeds, nuts, insects or other animals (Downs *et al*. 2019). In contrast, birds that eat clay tend to be species that eat fruit, which may be low in sodium and it is a mechanism for adjusting their sodium metabolism. It may also protect the birds from toxic secondary compounds by lining the digestive tract or adsorbing these compounds. Geophagy has been noted in the frugivorous African Olive (Rameron) Pigeon *Columba arquatrix* (Downs 2006) so it can be assumed that Green Pigeons do it for the same reasons.

They would often, but not always drink. As they are sometimes found in areas where there may be no available water, I guessed that with their fruit diet it was not always essential for them to drink every day. They would then fly back to the dead tree, socialise, and make a bit of noise, and then fly off to their roost.

Movements

Our semi-resident flock of 10 – 20 birds in our garden made it possible to draw some conclusions about their movements, as they returned to roost in the garden most evenings. Unless disturbed, and they will fly out at night if disturbed, they roost on exactly the same branches every evening. Pairs roost together with single unattached birds close by, in the same area of the tree. They roost reasonably high up, in the outer branches, and amongst the foliage.

At various times during the year, the resident birds would not return to roost for a few weeks, and they must surely have been further away at a distant food source.

These absences never lasted more than 3-4 weeks. The most obvious occurred in mid-June, a time of food shortage, but a second absence sometimes occurred in late December/early January. This was a time when there were sometimes no figs, but *Syzygium* was widely available. This may have been a post-breeding dispersal but as they are flocking birds, I should think that most youngsters remain with the flock.

Other outside flocks would also temporarily join the resident flock, and roost in the garden, indicating movement of outside flocks into our area as well. These 'visitor' flocks are tolerated by the territorial resident birds, although they do not roost together.

Discussion

The African Green Pigeon in the Trelawney area, but presumably elsewhere as well, clearly need a wide variety of food sources other than just the obvious one of figs. They could almost certainly not survive over the long-term without this variety. In addition to the need for a variety of fruit, green food in the form of leaves and buds is also consumed and fills a gap. Without these, despite an abundance of *Ficus* spp., they may well not thrive in what appears to be suitable habitat. If we saved only *Ficus* spp., and let other species be destroyed, Green Pigeons would probably not survive.

Can we now answer the question "why do Green Pigeons lose their colour in captivity?" I would suggest that the wonderful fresh greens of their plumage, and the brightness of their soft parts, is a result of the 'green' part of their diet. Wild birds are at their beautiful best in September/October and onwards. This may be as a result of moult and new feathers, but it is more likely that it is a result of their feeding so much on the spring flush of leaves, their diet filled with anthocyanins and chlorophyll. Even some of the chicks we raised, blown out of nests, were pale in colour until we started adding the fresh red and green Msasa leaves to their diet.

I would also suggest that some of the variation in the African Green Pigeon may be no more than a reflection of their local diet, as different habitats would provide different types of green food, and the birds' plumage would reflect this. Michael Stuart Irwin wrote to me "… this certainly poses a question. …some of the forms are very marked indeed, but nobody so far as I am aware has suggested that food would be an influence on colour and geographical variation". I leave it to someone else to pursue this line.

In conclusion, the preservation of indigenous woodland, with as much variety as possible, is essential to the preservation of the African Green Pigeon. Variety is the glue that holds the whole year together, for without it there would be famine periods that the birds would be unlikely to survive.

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African Green Pigeon © Roger MacDonald

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Raptor Road Counts along the Southern Shore of Lake Malawi

John Wilson

Introduction

In the mid-1970's I was a Fisheries Officer based at Senga Bay, on the shores of Lake Malawi near Salima, and my work involved visiting the Mangochi Fisheries Office, 130 km to the south, and the Nkhotakota District to the north. I also made regular visits to the boatyard at Kachelenje, 8 km south of Senga Bay, and Kachulu fish landing site, 20 km to the north. On all these journeys I was driven in a Land Rover and thus free to scan the surrounding areas for raptors. I made a later journey in 1994-96, and again in the early 2020s.

Results and Discussion

The raptors that I recorded were mostly large, conspicuous and easily identified species, such as the African Fish Eagle, Bateleur, and the Snake Eagles. It was not always possible to record smaller species found in the interior of forest or woodland, especially accipiters such as the Shikra and African Goshawk, which were common and widespread. The species recorded were typical of lower altitudes, and so Augur Buzzards *Buteo augur* were rarely recorded. From 1994 to 1996 I again visited the southern lakeshore of Lake Malawi and recorded the raptors I saw along the road.

In 1975-77 a total of 32 identified species, plus a number of brown eagles (possibly Tawny *Aquila rapax* or Steppe *A. nipalensis* Eagles) and some unidentifiable falcons (Table 1). The most numerous species was the Fish Eagle, followed by the Bateleur, Yellow-billed Kite and Brown Snake Eagle. A total of 1,335 birds were counted with an average density of 14.75 birds per 100 kilometres. Twenty year later, in 1993-96, the situation had changed dramatically with only 15 individuals of eight species being recorded. Their density had fallen by 95% to only 0.81 birds per 100 kilometres, revealing a catastrophic decline in the number of large raptors in Malawi. During the first twenty years of the 21st century deforestation gained pace and even most of the Forest Reserves were totally destroyed. Raptor sightings became so rare, and then only in the close proximity to National Parks and Wildlife Reserves, that I no longer took the trouble to record anything.

Table 1. Raptor road counts from the roads along the southern shore of Lake Malawi, 1975-77 and 1993-96.

	1975-77		1993-96	
Species	No.	No./100 km	No.	No./100 km
Black-shouldered Kite *Elanus caeruleus*	30	0.33	1	0.05
Yellow-billed Kite *Milvus aegyptius*	189	2.09	5	0.27
African Fish Eagle *Haliaeetus vocifer*	313	3.46	1	0.05
Palm-nut Vulture *Gypohierax angolensis*	15	0.17		
Hooded Vulture *Necrosyrtes monachus*	1	0.01		
White-headed Vulture *Trigonoceps occipitalis*	1	0.01		
Black-chested Snake Eagle *Circaetus pectoralis*	45	0.49	1	0.05
Brown Snake Eagle *Circaetus cinereus*	126	1.39	3	0.16
Western Banded Snake Eagle *Circaetus cinerascens*	10	0.11		
Bateleur *Terathopius ecaudatus*	244	2.70	1	0.05
African Marsh Harrier *Circus ranivorus*	11	0.12		
Lizard Buzzard *Kaupifalco monogrammicus*	19	0.21		
Dark Chanting Goshawk *Melierax metabates*	8	0.09		
Gabar Goshawk *Micronisus gabar*	6	0.07		
African Goshawk *Accipiter tachiro*	4	0.04		
Shikra *Accipiter badius*	14	0.15		
Augur Buzzard *Buteo augur*	2	0.02		
Common Buzzard *Buteo buteo*	48	0.53		
African Harrier-hawk *Polyboroides typus*	27	0.29		
African Hawk-eagle *Aquila spilogaster*	43	0.47		
Unidentified Brown Eagles	63	0.70		
Wahlberg's Eagle *Hieraaetus wahlbergi*			2	0.05
Ayres's Hawk-eagle *Hieraaetus ayresii*	2	0.02		
Booted Eagle *Hieraaetus pennatus*	1	0.01		
Martial Eagle *Polemaetus bellicosus*	4	0.04		
Long-crested Eagle *Lophaetus occipitalis*	3	0.03	2	0.05
Osprey *Pandion haliaetus*	2	0.02		
Lesser Kestrel *Falco naumanni*	19	0.21		
Red-necked Falcon *Falco chicquera*	3	0.30		
Dickinson's Kestrel *Falco dickinsoni*	63	0.70		
Amur Falcon *Falco amurensis*	6	0.07		
Lanner Falcon *Falco biarmicus*	5	0.06		
Peregrine Falcon *Falco peregrinus*	2	0.02		
Unidentified Falcons	6	0.07		
TOTAL	1,335	14.75	15	0.81

This decline was clearly linked to the growth of the human population. In 1975 the population of Malawi was 5.38 million, by 1994 it had almost doubled to 9.7 million, and by 2020 it had doubled again to 19.13 million. Most of these people (85%) are rural subsistence farmers, and with the impoverishment of the soil, a considerable area of woodland was cleared for cultivation. More recently almost all the remaining woodland and even the 88 forest reserves and plantations in Malawi, a total area of 918,450 ha. has been destroyed, primarily to supply charcoal to the urban population which depends on it for fuel.

Since the 1980s Malawi has lost 3.2 million hectares of trees, equivalent to 34% of the land area of the country, and with the loss of the trees, the raptors have also largely disappeared. Fortunately, the four National Parks and four Wildlife Reserves, which occupy about 11% of Malawi's area, are well protected and provide a refuge for wildlife, including birds. Of particular note is the return of vultures in some numbers to these protected areas following the reintroduction of predators, mainly lions and cheetah, but also Wild Dogs.

It is of some interest to compare raptor densities in Malawi in 1975-76 with those in Uganda and Kenya in 1966-67 (Table 2). The East African counts were much higher than the Malawian ones, mostly because of the large numbers of Yellow-billed Kites, especially in Kenya. This may reflect seasonal factors since these kites are intra-African migrants, and if they are excluded then the raptor counts in Malawi and the agricultural areas of Kenya and Uganda were very similar.

It should be noted that the data in Table 2 reflect the situation as it was 55 years ago in East Africa and 46 years ago in Malawi. As in Malawi, both Kenya and Uganda have experienced rapid population growth; the combined population of the two countries rose from 24.3 million in 1975 to 102.1 million in 2021 (World Data info: https://www.worlddata.info/). Travelling around Uganda in 2006-2010, for instance, the only large raptors seen regularly in unprotected areas were Yellow-billed Kites and Long-crested Eagles (B. E. Marshall, pers. comm.). The latter seem to be tolerated by the local people – perhaps because they don't take chickens – and they were frequently seen around human habitation in rural areas.

Table 2. A comparison of road counts (no./100 km) carried out along the southern shore of Lake Malawi (1975-76) and those carried out by Brown (1970) in cultivated and inhabited areas of Kenya and Uganda in 1966 and 1967, and in National Parks in Uganda in 1967.

	Malawi	Kenya and Uganda	Uganda (NP)
African Fish Eagle	0.33	0.32	3.61
Bateleur	2.70	1.45	1.99
Wahlberg's Eagle		1.45	
Brown Snake Eagle	1.39	0.16	0.60
Other Snake Eagles	0.60	0.16	1.50
African Hawk-eagle			0.20
Long-crested Eagle		1.59	0.60
Black-shouldered Kite	0.33	0.80	0.16
Yellow-billed Kite	2.09	33.90	7.08
Tawny Eagle	0.70	0.32	0.96
Common Buzzard		0.48	0.40
Total	7.44	40.63	17.10
Total (excluding Y-B Kite)	5.35	6.73	10.02

However, the average number of raptors was considerably higher in the Ugandan national parks, emphasising the importance of these areas, and this has been demonstrated elsewhere. For example, Dean (1975) recorded average raptor densities (no per 100 km) of 6.31 in Angola, 6.78 in Namibia, and 4.03 in the northern Cape, compared to 25.57 in the Kalahari Gemsbok National Park. He also noted that the raptor biomass in the protected area was dominated by large birds (>1 kg) while it was dominated by small ones (<1 kg) in unprotected areas. Similarly, more recent counts in Kenya have also demonstrated the importance of protected areas with raptor numbers generally being greater in protected areas (Table 3). An exception to this was a marked decline in vulture numbers, which was explained by a 59% decline in the biomass of wild herbivores over the same period.

Human activities have had a serious global impact on raptors, with 50% of species now with decreasing populations with Old World vultures experiencing the most rapid decline (McClure *et al*. 2018; Cruz *et al*. 2021). Risk assessments by the International Union for Conservation of Nature (IUCN) suggest that 37% of raptor species were considered at risk of extinction (i.e., critically endangered, endangered, or vulnerable categories), including 18% of diurnal and 19% of nocturnal species. Indonesia, Tanzania, Sudan, and Kenya had the largest number of threatened species. Of the species classified as threatened, 54% of diurnal and 47% of nocturnal species had decreasing populations, and only 14 and 3%, respectively, had increasing populations (Cruz *et al*. 2021).

Table 3. The average density of raptors (no./100 km) in protected and unprotected areas of Kenya (from Ogada *et al*. 2022).

	Protected		Unprotected	
	1970s	2000s	1970s	2000s
Vultures	55.5	28.9	27.5	7.3
Large raptors	20.8	18.7	10.6	3.4
Medium/small raptors	11.8	13.6	51.7	15.8
Falcons	2.2	2.8	4.0	0.7
Palaearctic migrants	10.3	22.4	33.3	1.8
Total	100.6	86.4	127.1	29.0

The situation in Africa is likely to be the same as in many other areas, and raptor declines and the importance of protected areas have been described in West Africa (Thiollay 2006, 2007) and Uganda (Pomeroy *et al*. 2019). Similar declines have also been noted in Botswana, where 11 out of 29 species had declined by >50% and three species by 37-50% (Garbett *et al*. 2018). This study found that the Bateleur declined more slowly inside protected areas, while Brown Snake Eagles were stable inside protected areas but showed large increases outside them. An exception to these declining trends was reported from the Western Cape Province of South Africa where raptors increased over a thirty-year period (Herremans & Herremans-Tonnoeyr 2001). Notable increases included the Steppe Buzzard *Buteo b. vulpinus*, Black-shouldered Kite and Yellow-billed Kite, all of which can adapt to human-modified environments. The globally threatened Lesser Kestrel *Falco naumanni* was recorded 2-5 times more frequently now than 35 years ago, possibly because of preferential migration into the wheat-growing belt.

In conclusion, it is likely that raptors are declining in most parts of Africa, but their decline in Malawi may be more severe than in other countries. This is without doubt a consequence of the dramatic increase in its human population and its environmental impacts. The national parks in Malawi are relatively small but they are crucially important in maintaining populations of at least some raptors, and their continued protection should be given a high priority.

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SHORT COMMUNICATIONS

Natural Rodent Control by Barn Owls in the Face of Local Superstition

Rodents are amongst the top three agricultural pests, impacting economies and livelihoods and their control is an integral part of agriculture. Control of rodents is influenced by the intensity of the problem, the available budget, the effectiveness of the control methods and access. Subsistence farmers in Africa are vulnerable to rodent pests because of limited access to control methods and a high dependence on farming. The most readily available control method is chemical control, but this may result in secondary poisoning of wildlife. There is therefore a need to encourage the use of inexpensive but eco-friendly methods for rodent control.

Barn Owls *Tyto alba* have been valued in some parts of the world because of their effectiveness at reducing rodent populations as rodents make up over 90% of their diet. However, the myths and beliefs of African people that owls are witches' birds may hinder their use within the continent. Barn Owl persecution coupled with land use and land cover change may influence the distribution of these birds and thus diminish the value for rodent control.

Barn Owls were studied in the south-eastern part of the Kavango-Zambezi Transfrontier Conservation Area, which included the Hwange National Park, Sikumi Forest Area, and the adjacent Communal area in Ward 15 of Hwange District. The possibility of using Barn Owls in rodent control was examined by investigating (1) the effect of land use and land cover change on Barn Owl distribution; (2) the knowledge and attitudes the community has towards rodents; (3) the attitudes and perceptions of the community towards owls; (4) the feasibility of using Barn Owl nest boxes to establish populations in areas with different land usage, and (5) diet of Barn Owls in the areas with differing land usage in Hwange District. The attributes of the owls found in the boxes were compared with those of Barn Owls from other parts of Africa.

The satellite data from two ten-year time series, i.e., 1998-2007 (Fast-Track Land Reform Programme) and 2008-2017 (post-Fast-Track Land Reform Programme) were used to determine land usage. Owl sightings were obtained from the Global Biodiversity Information Facility (GBIF) database (gbif.org 2020). Owl species were classified according to their diets and plotted on land use maps to determine the influence of land use on their distribution. A predictive model was used to determine the actual distribution of the species. Socio-demographic variables were used to assess the attitudes of the community towards rodents and their perceptions of owls.

Barn Owl boxes were deployed in different land use types including protected and communal areas to assess the feasibility of using them in rodent control in African communities. The acceptance of Barn Owls as a rodent control method was assessed by evaluating their success and acceptance by the community. The birds occupying the boxes were caught, measured and ringed. Their sizes were compared with data from birds caught and measured in other parts of Africa, obtained from literature. Pellets were collected from boxes in the two land use types and used to determine the diet. Sherman traps were set in the fields to catch rodents and the diversity of rodents in the traps and the owl pellets was compared. The ages of rodents making up the diet were also investigated, as was the effect of season and land use on Barn Owl diet.

The area of land under vegetation cover decreased while there was an increase in degraded and built-up land. More Barn Owls were sighted on degraded land in Matabeleland and Mashonaland. The majority of the birds sighted had a primary diet of rodents or invertebrates, and a secondary diet of other mammals or birds. A predictive model showed that most Barn Owls are found in Bulawayo, Harare, Karoi and Mvurwi. Factors influencing the distribution of Barn Owls include isothermality (i.e., the oscillation of the day to night temperatures relative to the seasons), precipitation and temperature.

Most people in the study area acknowledged that rodents were a problem and more females than males wanted them eradicated, although educated people (secondary or tertiary level) were against their eradication. Their attitudes towards rodents were not influenced by gender, age or the distance of their home from the nearest protected area, but their village of origin did influence their attitudes.

Forty-one percent of the respondents said they would not use owls for rodent control; most of these were females and their reason was the fear of being labelled a witch. Males agreed that owls were good for rodent control and ecosystem balance, and respondents living closer to a protected area embraced the use of owls. The level of education did not influence attitudes towards owls but the attitudes of teenagers mirrored those of their mothers and other adult females in the family.

There was 47.6% occupancy of deployed owl boxes. In the communal area some boxes were damaged by natural agents and direct persecution, while those in the protected area were damaged by natural agents only. The occupation rate of boxes was not influenced by land use.

The same rodent diversity was recorded in both owl pellets and Sherman traps, suggesting that the owls were not selective in their choice of rodents. The sizes of Barn Owls in Hwange were the same as those of birds from other parts of southern Africa. The probability of finding commensals in the diet of owls was higher in the breeding season. There were more adult commensals in the diet of owls in the protected area as well as in the owls' breeding season, although rainfall did not influence the age of the rodents caught. Human settlements in protected areas allow for the proliferation of commensal rodents in the protected areas. Adult commensals persist in these sites in the non-breeding season.

Being rodent generalists, taking out a higher proportion of the most numerous species in an area, Barn Owls can be used to control commensal rodent species when their populations are high. The results of this study suggest that they can be used for rodent control in communal areas although there is a need for increased education and awareness before the introduction of the concept. There is also a need for increasing the involvement of rural communities in monitoring wildlife in their areas so as to fully understand their distribution in the country. The tagging of owls to understand the sizes of their home ranges would increase our understanding of owls as rodent control agents.

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Introduction of the Chukar Partridge in Zimbabwe

Carl Vernon's last contribution to *Honeyguide* (2018) was a request for information about the introduction of the Chukar Partridge *Alectoris chukar* into Zimbabwe. After he died, Richard Dean took over his papers and eventually wrote a paper on the introductions of this species in Zimbabwe and South Africa (Vernon & Dean 2022). The conclusions of this paper, as far as Zimbabwe is concerned, are summarised here. Winterbottom (1966, p 61) suggested that 'keen bird shooters were trying to establish the Chukar Partridge and Bobwhite Quail *Colinus virginianus* in Rhodesia and Natal', but there is no indication of the source of these data, or any discussion in the literature about releasing the birds or their benefit to the local wing-shooters.

Petheram (1974) reported that attempts were made to establish 'English pheasants' *Phasianus colchicus* and Chukars on the Rhodes Inyanga Estate but they were all killed by leopards. The exact date of this attempt is unknown but it was possibly before 1913 and there is no mention of it in Priest (1933), which suggests that this episode was long forgotten. The reasons for making such introductions were to provide more excitement to the 'shooting man' than the native species could offer (Nigel Thornycroft, cited in Vernon 1972a).

There were, however, several attempts to introduce this species into Zimbabwe in the 1970s. They were made at Imire Farm at Hwedza, as well as Marondera and Mvurwi, where 110 birds were released in 1969, a further 115 in 1970, and a planned release of 200-300 birds in 1971 (Gavin Langham, cited in Vernon 1972b). The birds released at Imire were from a breeding/rearing operation using eggs from India that was established on Section D of the Forrester Estates near Mvurwi (Hugh Thornycroft, pers. comm. to Richard Dean, January 2022). This operation was successful and resulted in a good laying and hatch rate through the incubators, providing birds to be released elsewhere (Hugh Thornycroft).

These releases were covert operations that took place without fanfare: '…after two years we have got Chukor out in the wild and they appear to be holding their own…. Today, January 13, 1971, 12 day-old Chukor chicks were seen with two parent birds' (Langham, cited in Vernon 1972b). The birds made for some good shooting, but 'they never really got going' (Hugh Thornycroft).

There were other introductions of Chukar Partridges to Zimbabwe, not all publicised. In the *Rhodesian Farmer*, 23 June 1972, there is a photograph of a Chukar Partridge taken at the Larvon Bird Garden, near Harare, but whether this was an aviary bird is not stated. Also mentioned, without details or any further information, is that 'for the last two years Chukor and Bobwhite have been released for shooting' (Langham, cited in Vernon 1972).

The population of Chukar Partridges released in the Hwedza area in Zimbabwe survived for at least three years, but showed little sign of adapting to local conditions and their breeding success was noticeably poor (Nigel Thornycroft, cited in Vernon 1972a). According to Richard Thornycroft (pers. comm., January 2022), there were several predator species, including snakes, taking Chukar Partridge eggs on the farm. In about 1970, the late Norman Travers released Chukar Partridges on his farm Imire at Hwedza. In October 2018, his son, John Travers, said 'About 30 years ago, he and his father brought about 20–30 Chukor to Imire in the hope of improving the game-bird shooting. They did not last a year, and within four to six months the local predators had killed the lot' (pers. comm. to Carl Vernon).

Now, fifty years later, there is no evidence to suggest that any of these introductions were successful over the long term. There was never really a good case for the introduction of non-native gamebirds in Zimbabwe and it is fortunate that none have survived.

My thanks to Alan Lee, editor of the *Ostrich*, for permission to quote parts of the late Richard Dean's paper.

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A Vociferous Klaas's Cuckoo

I awoke soon after dawn, just before 06h00, on 10 September 2022 to the far-away sounds of a calling Klaas's Cuckoo *Chrysococcyx klaas*. But in fact, the cuckoo had been calling continuously since when I first heard it on 2 August, in late winter. It has a two-note call, described as "*may-chee*" (Rowan 1983), usually issued three times in a bout, and in several bouts at a time, as in the cuckoo I was listening to. As a mnemonic to remembering its identity, I regard the two-note call (A-B), but really three notes, as the reversal (B-A) of a wolf-whistle, used by men from building sites, etc. and aimed at pretty young women passing by.

Be that as it may, this particular bird (if it was indeed the same individual throughout) was monotonous and persistent in its calling. Said to be 'only … the male, who calls (Rowan 1983), he was calling for weeks presumably for a female. And presumably too, she was not around. Had he arrived early on migration, and earlier than any female? Or had he over-wintered, as stated could be the case (Irwin 1981, Rowan 1983); calling in July has in fact been noted in Zimbabwe by Petzer (1999) and Sheehan (1999). Either way, his calling is surely too early to catch breeding by host species; in Zimbabwe, egg-laying by the Klaas's Cuckoo is very much in the period of October to December (Irwin 1981), when its main hosts (warblers and sunbirds) start breeding in earnest from September.

Again, surely it would be sensible for the male to start calling for a female when he notices breeding activity by likely hosts? Of course, if the environment is warming up, then perhaps the hosts breed earlier after winter due to the earlier emergence of insects. Altogether something of an enigma!

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Homing Wire-tailed Swallows

Wire-tailed Swallows *Hirundo smithii* are strongly associated with inland waters, whether large open expanses or small streams and pans (Hockey *et al*. 2005. *Roberts' birds of southern Africa*, VIIth ed., p. 751).

They nest on man-made structures on or near water, and are well known for their habit of nesting and roosting on boats. Pairs probably remain together for life and have strong nest-site fidelity.

We had an interesting insight into this aspect of their nature when staying at Msuna Island at the top end of Lake Kariba (1826 B2) in June 2022. Early on the morning of the 19th we headed downstream on one of the camp's pontoons, accompanied as usual by one of Msuna's many Wire-tailed pairs. At Little Kariba (1726 D4) we left the main river and turned into the floodplain. The swallows were still with us but before long they disappeared.

While slowly moving around this waterbody searching the reedbeds and shore for waterfowl, we came upon an open area where about 26 Brown-throated Martins *Riparia paludicola*, a few Rock Martins *Ptyonoprogne fuligula* and an estimated 24 Wire-tailed Swallows hawked insects over the water. We assumed our Msuna pair had joined them, and after watching this feeding frenzy for several minutes we moved back to the river and headed downstream into Devil's Gorge. Our Wire-tailed pair was no longer with us, preferring it seems to remain with the others.

On our return, well over an hour later, we went slowly past Little Kariba without entering the floodplain. Before long two Wire-tailed Swallows appeared, ducking and diving as normal around the boat. They remained with us all the way back to Msuna. So, after socialising for an hour or two, it therefore seems certain the same pair of swallows re-joined 'their' boat fully aware it would return home to its mooring at Msuna.

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Wire-tailed Swallow. Photo © Colin Baker

Two Melanistic Southern Grey-headed Sparrows at Victoria Falls

At about 7.10 on the morning of 20 March, 2022, I was birding near a marshy seep (at S17.926, E25.846) through which the vehicle track that leads to the Lookout Café, Victoria Falls (1725 D4), passes. From about 30 m away, I saw two dark birds land on bare, stony soil and was able to approach to within about 15 m. The two birds appeared to be feeding on the ground and had their backs to me. They both had dull black plumage, parts of which lightened a little to dark grey. Their bills were also dark in colour. A male Steel-blue Widowfinch *Vidua chalybeata* was feeding close by, thus giving a good indication of the larger size of the two unidentified birds. It was readily apparent that these birds were not any of the dark-plumaged species normally encountered in the area. As I watched them, their smooth rounded heads, slightly stocky build and their size relative to the widowfinch made me think they were melanistic Grey-headed Sparrows. I also noticed they walked, rather than hopped, which further confirmed this identity.

But which of the two species of Grey-headed Sparrow were they? Both the Northern *Passer griseus* and Southern *P. diffusus* species are common at Victoria Falls and can occur in close proximity to one another. This sighting lasted a minute or so before they flew off together, but two features led me to believe they were melanistic Southern Grey-headed Sparrows. While their build was somewhat stocky, they did not appear as heavy and robust as the Northern. Similarly, their bills were not as pronounced and heavy.

There are at least two relatively recent records of melanistic examples of this species in Zimbabwe. A pair was photographed by Rob Kelly in Harare in March 2016 (Baker, 2016. *Honeyguide* **62**: 154) and the Animal (formerly Avian) Demography Unit of the University of Cape Town holds a photograph of one taken in QDS 1731 C1 (Domboshawa) by Nick Hart in February 2012. I am indebted to Dave Dalziel for bringing the latter record to my attention.

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Editor's note:

Could these two birds have been siblings? It seems unlikely that two melanistic individuals from different clutches would meet up and form a pair.

Melanistic House Sparrows *P. domesticus* have been reported from Harare (Rushforth, 1992. *Honeyguide* **38**: 190; Irwin, 1997. *Honeyguide* **43**: 112) while Mundy (1998, *Honeyguide* **44**: 32-33) collected a melanistic specimen in Bulawayo. Goodwin (1999, *Honeyguide* **45**: 27) reported three 'black' House Sparrows at Hwange Colliery; all were juveniles and he suggested that they were unable to clean coal dust from their plumage, since none of the adults were blackened.

First record of Thick-billed Weaver from the Lower Zambezi Valley

The Thick-billed Weaver *Amblyospiza albifrons* was first recorded in Kariba in December 2017 (Riddell, 2022. *Honeyguide* **68**: 1-3) and it was suggested that it could spread downstream into the Lower Zambezi Valley.

Wouter van Spijker has since recorded them on a SABAP2 card in QDS 1528D2, dated 22/12/21. The pentad in which this record was made straddles the Zambezi River some 8 km downstream of Chirundu but he did not specify if the record is from Zambia or Zimbabwe. From my own experience there are extensive swathes of *Typha* sp. on the river in this area on both sides of the river and in the channels of Kanyemba's Island. Suitable habitat exists both upstream and downstream but atlas coverage is low.

This appears to be the beginning of colonisation of the lower Zambezi and more records are likely from areas of human habitation and also the Mana Pools National Park if the bird establishes itself in the region.

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Paint it Black!

We spent a most enjoyable Christmas 2012 break at Alan Elliott's Roseburn Ranch on the west side of Bulawayo. The lodges are marvellously built into the top of a small kopje, and allow a good view of the surrounding very flat land. On coming down from the kopje one afternoon to do some bird watching, there in and around the boulders and tall trees were individuals of no less than five black species, all passerines, namely Boulder Chat, with white patches/edges; Southern Black Flycatcher, all black; Fork-tailed Drongo, with paler wings; Black Cuckooshrike, with a bright yellow flash on the wings and orange gape, and Southern Black Tit with white flashes on the wings.

This was quite a sight although, admittedly, only one is wholly black, the others being almost all-black. I think of black birds as being very noticeable, though that does probably depend more on behaviour than on appearance. After all, in the army we were taught that camouflage depends on you being black/dark/in the shade, and *stationary*. So, of the five species above, the drongo is much more conspicuous than the flycatcher, which is quiet and inconspicuous. Among the species of birds in Zimbabwe there are about the same number of black passerines (18) as black non-passerines (21), listed in Table 1.

Table 1. Black species among the birds of Zimbabwe (excluding those already mentioned).

Non-Passerines	Passerines
Crested Guineafowl *Guttera pucherani*	Square-tailed Drongo *Dicrurus ludwigii*
African Black Duck *Anas sparsa*	Fork-tailed Drongo *Dicrurus adsimilis*
Southern Ground-hornbill *Bucorvus leadbeateri*	Cape Crow *Corvus capensis*
Jacobin Cuckoo (melanistic) *Clamator jacobinus*	White-necked Raven *Corvus albicollis*
Black Cuckoo *Cuculus clamosus*	Black Cuckooshrike *Campephaga flava*
African Black Swift *Apus barbatus* (+ five others?)	Southern Black Tit *Melaniparus niger*
Black Crake *Zapornia flavirostra*	Black Saw-wing *Psalidoprocne holomeaena*
Red-knobbed Coot *Fulica cristata*	Black Flycatcher *Melaenornis pammelaina*
Bat Hawk *Macheiramphus alcinus*	Boulder Chat *Pinarornis plumosus*
Black Sparrowhawk (melanistic) *Accipiter melanoleucus*	Bronzy Sunbird *Nectarinia kilimensis*
Ovambo Sparrowhawk (melanistic) *Accipiter ovampensis*	Amethyst Sunbird *Chalcomitra amethystina*
Gabar Goshawk (melanistic) *Micronisus gabar*	Copper Sunbird *Cinnyris cuprea*
Verreaux's Eagle *Aquila verreauxii*	Red-billed Buffalo-weaver *Bubalornis niger*
Reed Cormorant *Microcarbo africanus*	Red-collared Widowbird *Euplectes ardens*
Black Heron *Egretta ardesiaca*	Widowfinches *Vidua*, 4 species
African Openbill *Anastomus lamelligerus*	

I must say, the small numbers surprised me. Several of them of course have the word 'black' in their names, such as the Black Heron or Black Flycatcher, but most do not. A few of the non-passerines, such as the Jacobin Cuckoo, Black Sparrowhawk, Ovambo Sparrowhawk and Gabar Goshawk, include individuals which are 'melanistic', that is an all-black specimen in a species that is not all-black or even black at all. Why is there such polymorphism? Melanistic Gabars are thought to comprise 15% of the population (Irwin 1981), but what benefit do they get? Among the five passerines that I saw on Roseburn Ranch only the Fork-tailed Drongo is assertive and aggressive, to the point of attacking raptors. The other four species are decidedly not assertive, and tend to be rather secretive (except for the voices of Southern Black Tit and Boulder Chat). Even among the non-passerines as listed in Table 1, a black colour is not to be thought of as forceful to the point of assertive/aggressive, except for the Square-tailed Drongo, and perhaps the Verreaux's Eagle (and the Ground-hornbill?) as the only exceptions.

Crows are black/dark brown as a Family trait, the same with most swifts, the only two such Families so coloured within Zimbabwe, though several of their species have white patches. Are crows forthright rather than aggressive as such, though the Pied Crow is a great harasser of raptors? So, the conclusion must be that black is just one of many possible colours for a bird. Sure, the Bat Hawk and Black Heron are black seemingly for camouflage, but why should the African Openbill be camouflaged against snails?

Among passerines, male Widowfinches (aka Indigobirds) *Vidua* spp. are black except for tarsi and bills, also as a Family trait, but only in the breeding season, going into an eclipse female-like plumage outside of the wet season. The other parasitic species in this family (Viduidae) have all-black tails (except the Cuckoo Finch), as do also breeding males Widowbirds *Euplectes* spp. in the Family Ploceidae.

My conclusion therefore is that black plumage in a species of bird, even a Family, is simply an 'accident' of evolution, with a minimum of functionality, except for tails (protecting them against wear).

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FIELD OBSERVATIONS

December 2021 to May 2022

C.T. Baker

The wet season was slow to start with many areas recording below average rainfall up to the end of December. Alate eruptions were sparse and migrant Warbler species were in poor numbers around Victoria Falls (DT) and Lake Kariba (SE). Heavy rain occurred countrywide on the night of 7 January and continued into the following week. Towards the end of the month tropical storm Ana swept across the country from the Mozambique Channel bringing heavy rain and high winds. Eastern areas were hardest hit, while Harare rain gauges overflowed on the night of 29 January. Overall, it was a patchy season. By the middle of March, for example, Stapleford north of Harare had recorded 488 mm for the season whereas Westgate just a short distance away had logged 867 mm. Kwekwe received no rain after 2 February until the night of 16 March when a deluge of 135mm fell. Odzi had a dry season with only 348mm by 17 March.

Reports involving range expansion continue to be plentiful, with extensive and surprising movement recorded in some cases. One bird whose map continues to grow is the Collared Flycatcher *Ficedula albicollis*. Now considered common in many parts of the northern half of the country, Irwin, 1981. *The Birds of Zimbabwe*, page 321 noted this Palearctic migrant had been recorded only about 11 times. It remained scarce for several years and was eventually removed from the Rarities list in about 1993. A record from the Burma Valley in this period (see below) is the furthest south it has yet been recorded in this country.

Where mention is made in the text to the Atlas it refers to Harrison *et al*. 1997. *The atlas of southern African birds* and not to the current SABAP2 exercise. Records submitted by Ian Riddell from input to SABAP2 are identified with the observers' initials. Reports have also been obtained from BLZ's WhatsApp sites and other social media.

The symbol † denotes a Quarter Degree Square in which the relevant species was not recorded in the Atlas nor subsequently in *Honeyguide*.

Rarities

An immature **Palm-nut Vulture** *Gypohierax angolensis* spent three days at Tambahata Pan, Gonarezhou (2132 A4), in mid-March. It scavenged on a Soft-shelled Turtle *Cycloderma frenatum* on the first day and ate grasshoppers thereafter (CS). Hockey *et al*. 2005. *Roberts' birds of southern Africa*, VIIth ed., p. 484, mention crabs as a food item but not turtles.

A **Sooty Falcon** *Falco concolor* photographed in flight in wet conditions on the upper Pungwe grasslands (1832 B4†) on 26 December was at no great altitude as cloud cover was very low (GD). An **Eleonora's Falcon** *F. eleonorae* was at Katiyo Estate, Honde Valley (1833 A3), on 8 March with possibly two seen the following day (BL). A **Red-necked Falcon** *F. ruficollis* was photographed on Fothergill (1628 D1†) on 1 May (BL). There are only two other Lake Kariba records, both from this island, in February and August 1986. Previously unreported was one hunting near palms southwest of Changa Camp near Spurwing (1628 D1) in April 2018 (DD). The close proximity of these records might indicate that a small discrete population exists on that part of the lake.

Another record of importance on Fothergill Island (1628 D1†) was a **Common Whimbrel** *Numenius phaeopus* on 20 February (BL) and two on the northern shore on 18 March (RMacD).

Two **Lesser Cuckoos** *Cuculus poliocephalus*, one of which was hepatic, were at Aberfoyle Tea Estates, Honde Valley (1832 B4), on 9 and 11 March (BL, PZ). A **Barred Long-tailed Cuckoo** *Cercococcyx montanus* at Masoka, near the Mkanga-Angwa confluence, Zambezi Valley (1630 A1), on 18 and 19 January (MZ) follows a December 2016 record from this camp.

The atrocious weather on the upper Pungwe grasslands (1832 B4†) on 26 December brought in five **White-throated Bee-eaters** *Merops albicollis*. A photograph of one captured its silhouette showing long central tail streamers (GD). In this country **Chirping Cisticolas** *Cisticola pipiens* are known only from the Zambezi between Kazungula and the Katombora rapids. They have not been reported for many years so records from Kazungula (1725 C4) in December and January (YS) are of interest.

A **Grey Wagtail** *Motacilla cinerea* was seen in the Mtarazi Falls area of Nyanga (1832 B4†), on 23 April (AD).

Waterbirds and allied species

A female **Common Ostrich** *Struthio camelus* appeared on Chingoma Farm, Guruve (1630 D4†), on 17 September (RF per MA). This could well be the furthest north they have been recorded but whether truly wild or a farm escapee is not certain.

It was a sparse period for pelicans with only a single **Great White Pelican** *Pelecanus onocrotalus* at Victoria Falls sewage ponds (1725 D4) on 25 March (CB) and a lone **Pink-backed Pelican** *P. rufescens* at Rukuru Camp downstream of Chirundu (1528 D4) on 8 April (BMu).

Black Herons *Egretta ardesiaca* found in unusual areas were at Umguza Irrigation Scheme north of Bulawayo (1928 D3†) on 27 January (JV), Mazuri Ranch, Kwekwe (1830 C4†), on 19 April (UL) and in southeast Hwange NP (1927 A1†) in May (MBe). A flock of **Cattle Egrets** *Bubulcus ibis* foraging on a rubbish dump in Harare on 21 January included a partially melanistic individual with a dark bill, black head, neck and chest (DK).

A juvenile **Black-crowned Night-heron** *Nycticorax nycticorax* on Redhill Farm, about 10 km north of Banket (1730 A4†), on 1 December was DSm's first record for the farm. Up to 30 headed south over Highlands, Harare (1731 C3), each evening for a few days in mid-February (DT). **White-backed Night-herons** *Gorsachius leuconotus* are uncommon on Lake Kariba although one on the Nyamasango River, Musango (1628 C4), on 18 May (SE) was in an area where noted previously.

Little Bitterns *Ixobrychus minutus* were reported only from Harare with one or two on Marlborough vlei (1730 D4) between 5 and 24 January (RC) and singles at Lake Chivero Bird Sanctuary (1730 D4) on 23 January (*The Babbler*) and Borrowdale Brooke (1731 C1) on 3 March (RMacD). Eighteen **Dwarf Bittern** *I. sturmii* records were received and only those from new or under-reported areas are mentioned here. Individuals were at Mavuradonha Wilderness (1631 A3) between 18-20 December (RC); Mazuri Ranch, Kwekwe (1830 C4†), on 21 December (PZ) where not recorded in the entire

1830 full degree square in the Atlas; at Umguza Irrigation Scheme (1928 D3†) in January and April (JV); at a small seasonal pan near Ngweshla Camp (1927 A1†) on 3 February (CBr); on Redhill Farm, Banket (1730 A4) (DSm), and at Ganda Lodge, Hwange NP (1826 D2), where seen daily between 6-12 April (PD). The last one reported was at Chirundu (1628 B2) on 19 April (TN).

The earliest **White Stork** *Ciconia ciconia* flock to be reported numbered about 50 at Umguza Irrigation Scheme on 11 December following good rain the previous day. Substantial uncounted numbers of feeding birds were widespread across these farmlands on 21 February (JV). Elsewhere the highest counts comprised up to 135 on Kent Estate, near Norton (1830 B1), on 2 and 3 February (GT, AvL) and over 100 there on 26 February (TC) and 19 March (PvL); 150 were at Embakwe Dam, Mangwe South (2027 D4†) on 8 February (CJ) and 80 or more were on Mukuvisi Woodlands vlei, Harare (1731 C3), on 9 February (CD). Numbers fell away markedly during March and the last straggler noted was on Fothergill on 1 May (BL).

A **Black Stork** *C. nigra* was just south of Gweru (1929 D1†) on 13 December (UL), ten were at the Gulugi River, Gonarezhou (2131 B2), on 30 March (EvdW) and three were near Kennedy 1 Pan (1827 C3†) on 19 April (JBb), an area of Hwange NP where they are normally uncommon. 120 **Abdim's Storks** *C. abdimii* at Widgeon Pan, Felixburg (1930 B4), on 7 December (J-MB) was the largest flock reported.

A nice gathering of 12 **African Spoonbills** *Platalea alba* was on Kennedy vlei (1827 C3) on 24 January (SA). The **Greater Flamingo** *Phoenicopterus roseus* mentioned in the last period at Mazvikadei Dam, Banket (1730 A4), in November was still present on 29 December (BM). Two were over Musango on 27 December (SE) and another was on Mteri Dam, Chiredzi (2131 B3), on 14 February (GD).

A **Fulvous Duck** *Dendrocygna bicolor* was at Marlborough Ponds, Harare, on 4 January (RC) and seven were there on 13 February (BL). A pair of **African Pygmy Geese** *Nettapus auritus* on Longueville Farm dam, Gwanda (2028 D4), on 18 February was SN's first record from there. Over 200 **Comb Ducks** *Sarkidiornis melanotos*, the vast majority of which were males, were on Roseburn Ranch dam, Bulawayo-Kezi road (2028 C2), on 19 February (SN). Individual **American Wood Ducks** *Aix sponsa* found in January at Borrowdale Brooke (BL) and Mazowe (1730 D2) (DA) had no doubt escaped from a private collection.

Raptors

A possible **Cape Vulture** *Gyps coprotheres* flew over Bulawayo (2028 B1) on 5 December (TF), one appeared again at Jabulani Safaris, Shangani (1929 C4), on 22 January (LT) and three, with many **White-backed Vultures** *G. africanus*, were on a donkey roadkill about 70 km along the Bulawayo-Victoria Falls road (1928 C2†) at the end of February (DT). In the Save Valley Conservancy one was with about 100 **White-backed** on an elephant carcass on Sango Ranch (2032 A1†) on 20 May with an additional two arriving the following day, along with two **Lappet-faced Vultures** *Torgos tracheliotos* (JM-B).

About 50 **White-backed Vultures** were on a cow carcass between Selous and Ngezi, south of the Mupfure River (1830 A4†) on 10 December (SW) and two flew due east over Mutare (1932 B1) on 19 February, a rare sight these days where once they were common (GD). 16 **Lappet-faced Vultures** were at Jabulani Safaris vulture restaurant, Shangani, on 12 May (LT) and eight were on Kent Estate on 26 May (GT).

Figure 1. The two Cape Vultures spotted on Sango Ranch in May 2022. Photo © Jean-Michel Blake.

There were many reports from across the country of **Yellow-billed Kites** *Milvus aegyptius* in ones and twos but 16 in one tree ten kilometres along the Makuti-Kariba road (1629 A3) on 9 March (CN) was the only flock reported. Most had departed by the end of March and individuals at Chirundu on 10 April (TN) and about 100 km along the Bulawayo-Victoria Falls Road (1928 A4) on 17 April (PDe) were the last ones seen.

Single **Black-shouldered Kites** *Elanus caeruleus* in less usual areas were on Shangani Ranch (1929 C2) in mid-April (LMcD) and Rhino Safari Camp, Matusadona (1628 C4) on 15 May (PTe). An **African Cuckoo Hawk** *Aviceda cuculoides* family of three was at Mukuvisi Woodlands on 2 January (RD) but only one was seen on 6 March (IR). In the Mutare area a pair of **Bat Hawks** *Macheiramphus alcinus* over the residential suburbs on 19 February was GD's first garden record for several years and one was over Seldomseen, Vumba (1932 B2), on 26 April (KW).

There has been an extraordinary increase in the occurrence of **European Honey Buzzards** *Pernis apivorus* in the past few years. 17 records were submitted in this period, with the following sightings occurring in new areas. An all-brown form was at Gosho Park, Marondera (1831 B1†), on 20 February (AD) and two called and interacted there early in March (BL). One was at Sebakwe Recreational Park, near Kwekwe (1930 A1†), between 11-14 March (RC). In the Save Valley Conservancy, one perched within two metres of the Senuko office building (2031 D2†) on 7 and 8 March (CS) and two called at Sango (2032 A1 or A2†) on 8 April (BC).

The only **Booted Eagle** *Hieraaetus pennatus* reported was seen over Masoka village (1630 A1) on 20 January (TD). An **Ayres's Hawk-eagle** *H. ayresii* was seen at Seldomseen (1932 B2†) twice in December (KW, BMb), one flew over the main road just outside Esigodini (2028 B4†) on 20 February (SWm) and a young female was seen daily at Ganda Lodge (1826 D2†) between 6-12 April (PD). A **Long-crested Eagle** *Lophaetus occipitalis* from the sparse population in the Bulawayo area was on Umguza Irrigation Scheme (1928 D3) on 4 March (JV).

An adult **Martial Eagle** *Polemaetus bellicosus* flying eastwards over Stonechat Lane, Borrowdale (1731 C1), on 15 February (MH) was the third Harare record since January 2020. A pair was over the Shurugwe area near Unki Mine (1930 C1)

on 2 March (SW) and one was near Kwekwe in the Sebakwe Poort 1829 D3† square on about 20 May (RC). An **African Crowned Eagle** *Stephanoaetus coronatus* was at Gosho Park on 20 February (GS) and two were at the Melsetter junction, Mutare-Birchenough Bridge road (1932 B3), on 23 May (J-MB); scarce records from both localities.

A juvenile **Western Banded Snake-eagle** *Circaetus cinerascens* was in the Matetsi Lodge area (1725 C4) on 17 December (CB) followed by singles at Masoka on 18 January (TD) and 10 April (MZ), Chirundu on 19 March (TN), Katiyo Estate on 6 April (MS) and Zambezi NP, Victoria Falls, on 9 May (DS).

African Goshawks *Accipiter tachiro* seemed to have disappeared from the Newlands area of Harare (1731 C3), once having been common, so a displaying bird on 5 January was nice to see (IR). Single **Dark Chanting Goshawks** *Melierax metabates* were on Shangani Ranch (1929 C2) in mid-April (LMcD) and in Sebakwe Recreational Park (1930 A1) on 31 May (RC).

Individual **Western Marsh Harriers** *Circus aeruginosus* were on Marlborough vlei on 10 February (JMk) and at Komani Farm, north of Harare (1730 D2), on 19 March (IR). An **African Marsh Harrier** *C. ranivorus* was at Fothergill on 7 February (DSm) and three were at Widgeon Pan on 2 April (*The Babbler*). A **Montagu's Harrier** *C. pygargus* was on Chamabonda vlei, Victoria Falls NP (1725 D3), on 6 December (CBr), and single **Pallid Harriers** *C. macrourus* were on the upper Pungwe grasslands (1832 B4) on 21 December (CC), at Bemba Farm, Marondera (1831 B1), on 5 January (AD) and at Stapleford Farm, Mount Hampden (1730 D2), on 16 January (JWh).

Just a few of the 22 **Osprey** *Pandion haliaetus* records that involved nearly 30 birds are included here. One was at Pasi Dam, Kadoma (1830 A3), on 1 January (*The Babbler*) and three, possibly four, seemed to be calling incessantly on Mteri Dam, Chiredzi (2131 B3), on 14 February (GD). Singles were on Kent Estate on 27 February (*The Babbler*) and at Ganda Pan, Hwange NP (1826 D2†), between 6-12 April (PD). Not surprisingly most records came from Lake Kariba where, on 21 May at Musango (1628 C4), the last individual of the season was noted (SE).

A **Peregrine Falcon** *Falco peregrinus* was seen from the hill section of Henderson Research Station, Mazowe (1730 D2), on 31 January (*The Babbler*) and another, possibly a juvenile, flew at speed a metre above ground at Rhino Safari Camp on 27 April, flushing birds as it went (PTe). A noisy pair of **Lanner Falcons** *F. biarmicus* flew over a Newlands garden on 31 May (IR). **Eurasian Hobby** *F. subbuteo* arrival dates up to 29 November were given in the previous report to which an arrival on 4 December at Mutare (GD) can be added. Sightings in Harare were obtained up to 6 March (IR) with no reports thereafter. It would be unusual if all had left the country by that date.

A female **Red-footed Falcon** *F. vespertinus* was photographed on Chamabonda vlei on 17 February (GC). It has been many years since they were last recorded in the Victoria Falls area. The first report of **Amur Falcons** *F. amurensis* amassing in numbers was a large flock feeding on termite alates at Ruwa (1731 C4) on 3 December (NB). For most of the afternoon of 16 December hundreds in loose flocks flew west over Eastlea, Harare (1731 C3) (DS). An estimated 2000 roosted at Chegutu (1830 A1) early in January (DK) and heavy rain in Bulawayo on 3 January brought in flocks over Khumalo (2028 B1), the observer's first sighting over that suburb (TF).

Rock Kestrels *F. rupicolus* are rarely found in the Midlands but were recorded near Kwekwe (1829 D3†) in May (RC). Two **Lesser Kestrels** *F. naumanni* were on Chamabonda vlei on 6 December (CBr) and another two were on Komani Estate on 10 February (IR). One followed by a pair of **Dickinson's Kestrels** *F. dickinsoni* were in Zambezi NP on 6 February (CB, JB). Records of one west of Chegutu (1829 B2†) on 17 March and one hawking insects behind a grader on Sable Park Farm (1830 A1†) on 18 May (DK) extend this kestrel's range southward in the Chegutu area.

Figure 2. The female Red-footed Falcon reported from Chamabonda Vlei, February 2022. Photo © Graham Cochrane.

Gamebirds, Rails and Cranes

A **Shelley's Francolin** *Scleroptila shelleyi* was heard in Zambezi NP (1725 D4) on 30 December (JB). A small relict population occurs in the Victoria Falls area (Irwin, 1981. *The Birds of Zimbabwe*, page 94) but is seldom reported. Similarly, there is a small, fragmented **Red-necked Spurfowl** *Pternistis afer* population in Lomagundi and a record from Mazvikadei (1730 A2†) in January (BM) extends its range slightly. An **African Rail** *Rallus caerulescens* near Lion's Den (1729 B4†) in January (JMk) pushes its Lomagundi range westwards. They persist in the flooded areas of Monavale vlei, being heard on 3 March and 17 April (IR).

Corn Crakes *Crex crex* were prominent on the Monavale wetland with one to three reported from 21 December to 3 March (PZ, BL, IR). One was on Redhill Farm, Banket, on 2 and 30 January and two on 8 March (DSm) when one was also reported from Umguza (JV). The last one noted was northeast of Chinhoyi (1730 A4) on about 10 March (JMk). **African Crakes** *Crecopsis egregia* arrived early in December, the first being seen on the 2nd on Monavale vlei (JM) and on the 5th at Umguza (JV). A day later they appeared at Redhill Farm (DSm) and at Musango where one was in the Camp swimming pool (SE)! A remarkable record was a **Striped Crake** *Aenigmatolimnas marginalis* that appeared in the Devil's Gorge Conservancy (1726 D4†) during December (CC). Only a few records from the Zambezi Valley have been obtained previously. Individuals were at the more likely venue of Monavale vlei on 11 January (JM) and 25 March (JM, IR) and

the remains of another, that fell prey to a **Marsh Owl** *Asio capensis*, was found on 13 April (DW).

Red-chested Flufftails *Sarothrura rufa* were heard on 10 February at Monavale where burst water pipes created an ideal flooded habitat (IR). No less than four **Buff-spotted Flufftails** *S. elegans* were noted around Harare this summer. In addition to the November Monavale record in the previous report, individuals were heard in the Ballantyne Park area (1731 C3) on 5 January (MR), near St John's School, Greystone Park (1731 C3), on 13 February (GB) and on a few nights in Chisipite in the third week of February (AD). On 5 January about seven **Streaky-breasted Flufftails** *S. boehmi* were on Monavale vlei, this count increasing to 13 on 16 January (IR). After last season's unprecedented influx into the west of the country at Umguza, at least four arrived on 12 January (JV). Following the first record from the Banket area (1730 A4) last year, they were recorded south of Chinhoyi (1730 A3†) in January (JMk). A seldom-reported **Striped Flufftail** *S. affinis* was seen three times as it flew from thick grass cover on the upper Pungwe grasslands early on the morning of 16 January (CC).

Single **Allen's Gallinules** *Porphyrio alleni* were in flooded vegetation on the shoreline of Saratoga Dam near Ewanrigg (1731 C2) on 26 December (GP), at Redhill Farm, Banket (1730 A4†), on 8 and 14 January (DSm) and at Lake Chivero Sanctuary on 23 January (*The Babbler*). At Marlborough Ponds in January individuals were seen on the 12th (J-MB) and 24th (RC), and then on the 29th two males, a female and a juvenile were identified (CSy).

Three **Lesser Moorhens** *Gallinula angulata* were in close proximity to one another at roadside pools on Chamabonda vlei (1725 D3) on 27 December (GC). In January singles were at Marlborough Ponds on the 4th (RC) and 12th (J-MB), at Redhill Farm (1730 A4†), on the 14th (DSm) and the Lake Chivero Sanctuary on the 23rd (*The Babbler*). An adult and a youngster were at Ngamo Pan, Hwange NP (1927 A2†), on 5 January (KvL) and two were on Umguza Irrigation Scheme farms (1928 D3†) on 13 January (JV). Following tropical storm Ana at the end of January, one was found in a Vainona, Harare (1731 C3) garden where it remained near the pool until early March at least (DS). One was at Greystone Preserve, Harare (1731 C1), on 12 February (*The Babbler*) and 9 March (CB), and the last one reported was at Chirundu on 17 April (TN).

A **Kori Bustard** *Ardeotis kori* was on Shangani Ranch (1929 C2) in mid-April (LMcD). A male **Denham's Bustard** *Neotis denhami* on Westwood vlei, Matetsi (1725 C4†), on 18 December was further west in the Victoria Falls area than usual (CB). A female was on Fothergill Island causeway on 23 January (DC) where small numbers are known to pass through at that time of year. Singles were on Chamabonda vlei on 3 February (CBr) and 19 March (DS) and at Mbiza Pan, Hwange NP (1827 C3), on 17 April (JBb).

Waders, Gulls and Terns

Around Victoria Falls a female **Greater Painted-snipe** *Rostratula benghalensis* was unusual at the sewage ponds on 16 December, a male was at a pan on Matetsi River Lodge concession (1725 C4) on 19 December and a pair was at a flooded gravel pit near the Masuwe Helipad on 3 February (CB). A pair was at Kennedy siding, Hwange NP (1827 C3), on 31 December (SA) and one was at Marlborough Ponds on 4 January (RC). A male **Chestnut-banded Plover** *Charadrius pallidus* was at Ngamo Pan, Hwange NP (1927 A2†), on 8 January (TR).

Figure 3. The leucistic African Wattled Lapwing seen at Banket, May 2022. Photo © Doug Smith.

A **Senegal Lapwing** *Vanellus lugubris* at Mandebele Pan, Farm 41, near Dete (1826 D2†), remained for most of the day on 21 December but was not seen subsequently (SA per J-MB). There are a couple of Hwange NP records from the 1970s and the species was classified as a vagrant there by (Hustler, 1986. *Honeyguide* **32**: 68-87). A leucistic **African Wattled Lapwing** *V. senegallus* was photographed at Banket on 8 May (DSm). Three **Long-toed Lapwing** *V. crassirostris* pairs were on Starvation Island, Lake Kariba (1628 C4), on 31 December (SE). Five, including a juvenile, were at Lake Manyame (1730 D3) on 28 January (DB-J), followed by three on 26 February (BL) and another on the same lake at Mbiti Lodge on 15 May (RD). A pair was at the Victoria Falls sewage ponds on 25 March (GC).

A **Ruddy Turnstone** *Arenaria interpres* was on Fothergill Island on 15 and 16 January (DS) but more exceptional are records of three there between 24 April and 2 May (AJ, BL, DC). Up to now this Palearctic migrant has been recorded only on southward migration. Tree noted their extreme dates of occurrence were 6 August and 24 January (1999. *Honeyguide* **45**:121) and I cannot find any subsequent records outside those dates. This April-May record is therefore their first occurrence while on northward passage through Zimbabwe. A **Sanderling** *Calidris alba* at the Runde River crossing upstream of Chilojo (2131 B4†) early in December (EvdW) is an exceptional Gonarezhou record.

Two **African Snipe** *Gallinago nigripennis* were at Widgeon Pan on 7 December (J-MB) and more than six were on Komani Farm on 10 February, most in the boggy area below the defunct windmill (IR). One of the long-billed race *angolensis* that occurs in the extreme northwest was at Timot's Pan, Chamabonda vlei (1725 D3), on 2 December (CB). Two **Bronze-winged Coursers** *Rhinoptilus chalcopterus* were on Redhill Farm on 19 May (DSm) when one was on the upper Vumba (1932 B2†) where rarely reported (KW). They are known to pass through Mutare in April and May (GD).

For the fourth consecutive year pre-migratory **Collared Pratincoles** *Glareola pratincola* gathered in their thousands at Musango in April and May (SE) and hundreds were on riverside grassland at Mana Pools at dusk on 26 May (JS). South-bound **Black-winged Pratincoles** *G. nordmanni* at Hwange NP pans were two at Shapi (1826 D3), on 8 December (SWm) and one at

Ngamo on 22 January (CJ). One interacted and perched on rocks alongside **Rock Pratincoles** *G. nuchalis* just above the Victoria Falls on 14 December (GC).

A **Grey-headed Gull** *Chroicocephalus cirrocephalus* on Mteri Dam, Chiredzi (2131 B3†) on 30 December (BT) has brought to light a previous record of five there in February 2021 (NM). This gull was unknown in the entire south-eastern quarter of the country until a few years ago. Ten or more wanderers were also on Driefontein Dam, Gutu (1930 B3†), with another one or two nearby at Widgeon Pan (1930 B4†) in March (AK). This area is far south of previous records in the central part of the country.

A **Caspian Tern** *Hydroprogne caspia* was at Fothergill on 30 April (BL) and the only **Whiskered Tern** *Chlidonias hybrida* reported was at Nyamandhlovu Pan, Hwange NP (1826 D4), on 5 December (UL).

Other non-Passerines

An isolated population of **Yellow-throated Sandgrouse** *Pterocles gutturalis* has been recorded only in QDS 2129 D4 in the Bubye Valley Conservancy previously, so flocks to the north in the adjacent 2129 D2† square on 20 April (GE per SE) denote an expansion of range by good numbers of birds.

Speckled Pigeons *Columba guinea* are colonising new areas in all directions. Three were seen daily at Ganda Lodge, Hwange NP (1826 D2†), from 8-14 November (PD), one at Kanyemba (1530 C2†) on 1 January (TC) is a scarce middle Zambezi record and they were found near Kwekwe (1829 D3†) in May (RC). One or two **African Mourning Doves** *Streptopelia decipiens* have been winter visitors to Phole Phole Farm, Umguza (1928 D3), for the past four years, but one there on 27 February (AR) was the first summer record.

Four **Grey-headed Parrots** *Poicephalus fuscicollis* were sunning themselves on Stapleford Farm, Mount Hampden, after rain on 15 December (JWh). A few days later two flew through Kuimba Shiri, Lake Chivero (1730 D4) (TC) and three were seen nearby over Kent Estate (GT). A flock of 20 was in the Tamarind Lodge area of Chirundu (1628 B2) on 18 May (MH). **Meyer's Parrots** *P. meyeri* were only sparsely noted in Newlands, Harare, between 17 December and 19 April (IR).

At the Angwa River on the northern border (1530 C4†) a **Common Cuckoo** *Cuculus canorus* was well out of range early in December (JMk). Hepatic variants were on the Main Camp-Makwa Pan road (1826 D4) on 2 December (UL), on the Pungwe catchment grasslands near Nyazengu Falls (1832 B4) on 5 December (CC), in the Mukadzapela area of Matusadona NP (1628 D3†) on 5 January (J-MB) and at the Mukuvisi Woodlands four days later (RD). The first **Black Cuckoo** *C. clamosus* noted this season at Umguza Farms was as late as 12 January. They are normally common there so erratic rainfall probably caused their poor showing (JV).

A **Great Spotted Cuckoo** *Clamator glandarius* was seen on Redhill Farm, Banket (1730 A4†), on 16 January (DSm). The only **Thick-billed Cuckoo** *Pachycoccyx audeberti* record came from Masoka on 18 January (TD) where they are regularly found. An **African Emerald Cuckoo** *Chrysococcyx cupreus* on the Vumba on 14 May (KW) may have decided to remain for the winter.

A **Black Coucal** *Centropus grillii* at Katiyo (1833 A3†) on 3 December (MS) was apparently the second record from that estate. This is only the third record from along the eastern border. One surprisingly appeared in the Nyamandhlovu Pan area of Hwange NP (1826 D4†) on 29 January (BS). They are known to breed in the Robins Camp area but this appears to be the first record from the Main Camp end of the park. Good rainfall had brought on excellent grass cover but that only partially explains its occurrence so far east of known range. The date coincides with tropical storm Ana but its effect in the west was minimal.

In Newlands **African Wood-owls** *Strix woodfordii* were noted once in January and May and four times in each of the intervening months, and a **Southern White-faced Scops-owl** *Ptilopsis granti* was heard on 11 May (IR). **Mottled Swifts** *Tachymarptis aequatorialis* have a fragmented distribution pattern west of 32°E in the southern third of the country and some at the Runde River crossing upstream of Chilojo (2131 B4†) at the end of December (JMk) were in a new square. In more familiar territory on the Vumba, about eight flew around Leopard Rock peak (1932 B2) on 8 February (IR), and nearby at Seldomseen a **Scarce Swift** *Schoutedenapus myoptilus* accompanied a flock of **Common House-martins** *Delichon urbicum* on 30 January (KW).

A **Narina Trogon** *Apaloderma narina* was at Rukuru Camp, downstream of Chirundu (1528 D4†), on 13 December (BMu). This QDS is in Zambian territory apart from the extreme southeast corner in which this camp is situated. Movement of what can only be a small number of birds onto the central watershed can occur during the summer, as with singles found at Mukuvisi Woodlands on 12 January (J-MB) and Stapleford Farm, Mount Hampden (1730 D2†), the following day (JWh). One in Fuller Forest near Victoria Falls (1825 B2) on 7 February (BN) seems to be the first record from there since 1986.

Figure 4. The Blue-cheeked Bee-eater, photographed at Matetsi, February 2022. Photo © Colin Baker.

Lilac-breasted Rollers *Coracias caudatus* may be attempting a comeback in Harare. Following the March 2020 Newlands vlei record reported previously, one was on Chisipite vlei on 14 March and 14 April (IR). Three **Broad-billed Rollers** *Eurystomus glaucurus* flew over Chisipite on 16 December (BL). This migrant is probably less scarce in Harare than the few published records would suggest.

A flock of *c.*15 **Silvery-cheeked Hornbills** *Bycanistes brevis* was at Seldomseen on 8 February (IR) and nearby in Mutare numbers built up to 22 around a residential property by 27 April. Attracted by Syringa Berry trees *Melia azedarach* in

neighbouring gardens, this flock was the largest seen there for several years (GD). A May **Southern Red-billed Hornbill** *Tockus rufirostris* record from near Kwekwe extends its range slightly into the 1829 D3† Sebakwe Poort square (RC). On 25 March an **Acacia Pied Barbet** *Tricholaema leucomelas* was on Chikurubi vlei, Harare (1731 C3) (BL) where some were found for the first time in March 2021. As very few trees are now left on the vlei their sojourn there may be short-lived.

Brown-backed Honeybirds *Prodotiscus regulus* were reported only from Harare at Newlands on 3 December (IR) and Mukuvisi Woodlands during March and April (RD, IR). A **Green-backed Honeybird** *P. zambesiae* was at Gosho Park, Marondera, on 14 March (JMk). In Harare singles were recorded monthly at the Mukuvisi Woodlands from January to May (J-MB, IR, RD), Chisipite on 6 April (BL) and Christon Bank (1731 C1) and Haka Park on 16 May (IR).

Passerines

A December **African Pitta** *Pitta angolensis* record came from a new area downstream of Chirundu (1528 B4†) (WvS). **Dusky Larks** *Pinarocorys nigricans* making an early departure were widespread in Hwange NP in the first week of February (DA), while six moved through Musango on the more likely date of 18 May (SE).

Thousands of **Barn Swallows** *Hirundo rustica* were moving north in the Kennedy area of Hwange NP on 29 March (JV). Three **Mosque Swallows** *Cecropis senegalensis* on Redhill Farm on 14 January (DSm) would be from the small, but long-established, Chinhoyi-Banket population. On 14 February a large flock of 40 wheeled around Mteri Dam (2131 B3†) (GD) and some at Lupane (1827 D4†) on 6 March (TAr) is an exceptional record, being far removed from the Hwange NP and Zambezi populations.

Four **Cape Crows** *Corvus capensis* just west of Seke road and the Airport (1731 C3) on 18 February are worth noting as this crow has disappeared from central Harare (IR). Two were at the 42 km peg Harare-Marondera road (1831 A2) on 28 March (DD). A **White-necked Raven** *C. albicollis* strayed over Borrowdale Brooke on 22 May (BL).

A single **Cinnamon-breasted Tit** *Melaniparus pallidiventris* at Gosho Park on 16 January (DA per J-MB) was only the third record from there since 2018.

The **Terrestrial Brownbul** *Phyllastrephus terrestris* reported from a Newlands garden in the last period was recorded on most days in December but disappeared after 3 January (IR). **Yellow-bellied Greenbuls** *Chlorocichla flaviventris* seen close to Harare were at Gwebi Dam on Arden Estate, Nyabira (1730 D2), on 24 April and at Ewanrigg (1731 C2) on the 27th (IR). **Eastern Nicators** *Nicator gularis* in the Burma Valley in both the 1932 B1† and B2† squares in December (GSk) had possibly moved north from the southeast lowveld and two at Mteri Dam (2131 B3†) on 14 February (GD) were slightly south of known range. A **Miombo Rock-thrush** *Monticola angolensis* was in the Burma Valley (1932 B2) on 10 May (PM) where seldom reported.

A **Familiar Chat** *Oenanthe familiaris* was on a house under construction at the top of Newlands vlei on 25 December and 11 January, and a wanderer from there or from the nearby Race Course was on a Gun Hill property (1731 C3) on 17 April (IR). **Red-capped Robin-chats** *Cossypha natalensis* recorded a couple of times in May at Sango, Save Valley Conservancy (2032 A1†) (J-MB) extend their territory onto the western side of the Save River. **Thrush Nightingales** *Luscinia luscinia* were in good numbers at Banket from mid-January (DSm) but were scarce in the northwest this season despite good rainfall (DT). One was heard on 29 January in the National Botanic Gardens, Harare (1731 C3) (JW), where recorded a few times previously.

Garden Warblers *Sylvia borin* were under-reported with the first of the season noted on 16 December in Harare (BL) followed by just one other record from Zambezi NP (1725 D3†) early in February (YS). A **Common Whitethroat** *S. communis* on the upper Pungwe grasslands (1832 B4†) on 26 December (GD) was a scarce Eastern Highlands record. One was in the Lion's Den area (1729 B4) in mid-January (JMk) and good numbers were found at Komani on 14 March (BL).

An **Icterine Warbler** *Hippolais icterina* was near the Runde River crossing upstream of Chilojo (2131 B4†) at the end of December (JMk). In the same month one in the Elephant Point area of Matusadona NP (J-MB) provided a scarce Lake Kariba record; a **Marsh Warbler** *Acrocephalus palustris* in the same area (1628 C4†) in December (J-MB) marked a significant westward extension of range along the Lake Kariba shoreline. The north-bound **Marsh Warbler** that usually arrives in a Newlands garden for a few days late in the season was resident this year from 7 January to 13 February and from 25 to 29 March. A **Broad-tailed Warbler** *Schoenicola brevirostris* on Monavale vlei on 3 December was believed to have remained there for a few weeks this season (IR).

A **Bar-throated Apalis** *Apalis thoracica* at Musango (1628 C4†) on 15 March (SE) had ventured way out of range to become the first Lake Kariba record, possibly having come from the Zambian population. A record from near Kwekwe (1829 D3†) in May (RC) represents a slight expansion of range. **Yellow-breasted Apalises** *A. flavida* at the Gwebi Dam wall on 24 April (IR) were part of the small population that fringes on Harare's northern boundary.

Pale-crowned Cisticolas *Cisticola cinnamomeus* were reported from Widgeon Pan on 7 December, Komani Microlight Club (1730 D2) on 12 January (J-MB) and from the soaked Monavale vlei on 16 January (*The Babbler*). **Tinkling Cisticolas** *C. rufilatus* were at Ganda Pan (1826 D2†) between 8 and 14 November (PD). This cisticola is sparse and spasmodic in Hwange NP, possibly moving in from Botswana during dry periods.

A **Collared Flycatcher** *Ficedula albicollis* was seen twice towards the end of December in the Burma Valley (1932 B2†) (BM), a female was at Redhill Farm, Banket, on 7 January (DSm), and at Gosho Park two were seen on 20 February (AD) and one on the 26th (BL). One was noted at Christon Bank on 12 January, as was a **Grey Tit-flycatcher** *Myioparus plumbeus* (J-MB). The Atlas map has few Quarter Degree Squares in which **Chin-spot Batis** *Batis molitor* was not recorded. One of them, the Sebakwe Poort 1829 D3† square near Kwekwe, was visited in May when this species was found (RC). A **Pale Batis** *B. soror* was in miombo woodland above Aberfoyle in mid-May (CC). The Mukuvisi Woodlands **Black-throated Wattle-eyes** *Platysteira peltata* were seen with fledglings on 11 December (RD) and one remained in a Mandara garden for at least two weeks in March and April (JBa).

An important record of the north-western **Cape Wagtail** *Motacilla capensis* race *simplicissima* was pair with two fledged juveniles at a swamp on the Lookout Café road on 3 March (DT). Only adults have been reported in the recent spate of Victoria Falls records, as with one on a marshy seep in the rain forest area on 6 January and a pair at the sewage ponds on 25 March (GC). **Striped Pipits** *Anthus lineiventris* are virtually unknown west of 30°E in the central part of the country so a significant record from near Kwekwe in the Sebakwe Poort 1829 D3† square was obtained in May (RC).

A **Common Fiscal** *Lanius collaris* at Blair Park on 8 December is considered to be resident there (*The Babbler*) and one was on the edge of Newlands vlei on 17 April (IR). A **Crimson-breasted Shrike** *Laniarius atrococcineus* was on Shangani Ranch (1929 C2†) in mid-April (LMcD), a QDS in which they were probably overlooked during the Atlas years.

Common Mynas *Acridotheres tristis* were at the Angwa River along the northern border (1530 C4†) early in December (JMk) when they were also found on the eastern border in the Inyangani square (1832 B4†) square (GSk, NF). In the same month they were recorded southwest of Lupane near Regina Mundi (1927 B3†) (JBo). One was seen on Monavale vlei for the first time on 10 February (IR). **Greater Blue-eared Starlings** *Lamprotornis chalybaeus* were unusual in the Burma Valley (1932 B2†) on 10 May (PM).

A **Bronzy Sunbird** *Nectarinia kilimensis* at Aberfoyle (1832 B4†) on 25 January (MS) was at lower altitude than normal, probably a result of tropical storm Ana. Apparently, one was seen there in 2016, also at the time of a major storm (CC). A scarce **Copper Sunbird** *Cinnyris cupreus* record from the middle Zambezi Valley was obtained a short distance downstream of Chirundu (1528 B4†) in December (WvS). Ewanrigg is one of the best sites around Harare for **Western Violet-backed Sunbirds** *Anthreptes longuemarei* and about five were seen there on 27 April (IR). **Thick-billed Weavers** *Amblyospiza albifrons* are exceptionally scarce in the Zambezi Valley below Kariba so significant records came from downstream of Chirundu (1528 B4†) in December (WvS) and near the Rukomechi Research Station turn-off (1629 A2†) on 7 February where a female was seen (DB).

Another Zambezi Valley wanderer was a **Cuckoo Finch** *Anomalospiza imberbis* in an *Indigofera* thicket at Musango (1628 C4†) on 19 May (SE). There are no records from downstream of Victoria Falls and the Zambian population, like ours, does not occur close to Lake Kariba. This individual was mobbed and harassed by **Tawny-flanked Prinias** *Prinia subflava* and **Rattling Cisticolas** *Cisticola chiniana*, both of which are listed as hosts (Hockey *et al*. 2005. *Roberts' birds of southern Africa*, VIIth ed., p. 1081). The **Cuckoo Finch** normally stops laying in March so this bird was not 'prospecting.' Does this aggressive behaviour then indicate this was not the first one to visit this area of Lake Kariba, or were they simply objecting to an unwelcome stranger?

Orange-winged Pytilias *Pytilia afra* are scarce in the 1932 B2 square but were found in the Burma Valley on 5 April (PM) and at Seldomseen on the 9th (KW), while a pair in a Marondera North garden (1831 B1†) on 30 April (AD) was well out of range. A pair of **Red-throated Twinspots** *Hypargos niveoguttatus* near Livingstone's statue in the Victoria Falls rain forest on 13 December (GC) follows a July 2019 record from there, the first since 1985. While these occurrences probably involved Zambian birds, there is every possibility they could settle on our side of the river. A pair was nesting in the Bally Vaughan Game Park (1731 C2) garden early in April (GP). At Victoria Falls **Brown Firefinches** *Lagonosticta nitidula* were in the rain forest on 12 December and on Zambezi Drive on 9 January (GC) and 21 May (CB).

Swee Waxbill *Coccopygia melanotis* records from the Nyanga area have centred around Juliasdale (1832 B3) and remain scarce. A March record from Rukotso, north of Troutbeck (1832 B2†) (JMk) was some distance away and marked a significant altitudinal leap upwards. A nice flock of 35 **African Quailfinches** *Ortygospiza fuscocrissa* was at Widgeon Pan on 7 December (J-MB) and two were on Monavale vlei on 24 December (IR). Some were south of Headlands (1832 A3†) in the **South African Cliff-swallow** *Hirundo spilodera* nest site area in March (AD).

Magpie Mannikins *Lonchura fringilloides* were seen at Henderson Research Station by BLZ Mashonaland Youth Club members on 31 January, two were at Kent Estate on 27 February (*The Babbler*), three on Monavale vlei on 25 March (JM, IR) and another at Ewanrigg on 27 April. A **Long-tailed Paradise-whydah** *Vidua paradisaea* on Aboyne Drive, Newlands, on 21 January, was most unusual for Harare and probably just passing through (IR). **Lemon-breasted Canary** *Crithagra citrinipectus* were seen in the Chilo area of Gonarezhou (2132 A2), in mid-April (DS).

Arrivals

Swallow-tailed Bee-eater 8 April Harare (KD), 15 April Gonarezhou (DS), 20 April Gosho Park (BL), 5 May Victoria Falls (CB); **Red-capped Lark** *Calandrella cinerea* 16 May Komani (IR); **Capped Wheatear** *Oenanthe pileata* 10 May Hwange NP (JP); **Great Reed-warbler** *Acrocephalus arundinaceus* 30 December Monavale vlei (BL), 1 January Umguza (JV); **Tree Pipit** *Anthus trivialis* 7 December Haka Park (PZ), 18 December Seldomseen (BM); **Purple-banded Sunbird** *Cinnyris bifasciatus* 5 May Borrowdale Park (IR).

Departures

Abdim's Stork: 22 March Victoria Falls (JB), 21 April Harare (CB), 1 May Fothergill (15) (BL); **Wahlberg's Eagle** *Hieraaetus wahlbergi* 10 March near Gweru (1929 B4) (TFe), 13 March near Mbalabala (2029 A2) (TF), 14 March Musango (SE), 1 April Driefontein (RC); **Amur Falcon** 29 March Hwange NP (JV), 12 April Chirundu (TN); **African Crake** 7 April Umguza (JV), 10 April Harare (LW), 12 April Chirundu (TN); **Rock Pratincole** 6 February Zambezi NP (CB); **Common Cuckoo** 9 March Katiyo (BL); **Red-chested Cuckoo** *Cuculus solitarius* 31 March Nyanga (CC); **Levaillant's Cuckoo** *Clamator levaillantii* 2 April Bulawayo (TF), 4 April Harare (BMcK), 18 April Dete vlei (1826 D2) (JV), 19 April Chirundu (EB), 3 May Victoria Falls (CB); **Jacobin Cuckoo** *C. jacobinus* 10 April Gonarezhou (EvdW), 12 April Chirundu (TN), 24 April (two) Nyabira (IR); **African Emerald Cuckoo** 20 March Victoria Falls (CB), 4 April Vumba (KW), 10 April Masoka (MZ), 11 April Chirundu (TN), 1 May Chinhoyi (JMk); **Diderick Cuckoo** *Chrysococcyx caprius* 8 April (a juvenile) Umguza (JV), 27 April Ewanrigg (IR); **Black Coucal** 25 March Harare (JM), 26 April Gwebi area (JWh), 17 May Dolilo vlei, Hwange NP (1826 C1) (immature) (SWm).

Woodland Kingfisher *Halcyon senegalensis* 21 March West Nicholson (TF), 8 April Bubye Valley Conservancy (MBr), 15 April Gonarezhou (DS), 1 May Chirundu (TN); **Grey-headed Kingfisher** *H. leucocephala* 1 May Chirundu (TN); **European Bee-eater** 21 March West Nicholson (TF), 23 March Gonarezhou (CS) and Odzi (MBr), 2 April Kent Estate (GT) and Musango (SE), 20 April Umguza (AR), 23 April Harare (DWi), 24 April Victoria Falls (CB), 26 April Caterpillar Pan, Hwange NP (1826 D4) (JV); **European Roller** *Coracias garrulus* 14 March Musango (SE), 20 March Harare (KD), 29 March Hwange NP (JV), 28 April Mount Hampden (two, very late) (JWh); **Barn Swallow** 1 April Driefontein (RC), 7 April Marondera North (AD), 10 April Gonarezhou (EvdW), 2nd week April Hwange NP (PD), 14 May Victoria Falls (CB) and Umguza (JV); **Red-breasted Swallow** *Cecropis semirufa* 26 March Victoria Falls (CB), 2nd week April Hwange NP (PD); **Common House-martin** 29 March Hwange NP (JV), 7 April Umguza (JV), 14 May Victoria Falls (CB).

Eurasian Golden Oriole *Oriolus oriolus* 9 March Katiyo (BL); **African Golden Oriole** *O. auratus* 23 March Victoria Falls (JB), 2nd week April Hwange NP (PD); **Icterine Warbler** 3 April Harare (IR); **Willow Warbler** *Phylloscopus trochilus* 2 April Umguza (JV), 24 April Nyabira (IR); **African Paradise-flycatcher** *Terpsiphone viridis* 17 April Chirundu (TN), 23 April Bulawayo (*The Babbler*), 26 April Victoria Falls (JBk), 28 April Aberfoyle (JW), 7 May Matusadona NP (PTe), 8 May Robins Camp, Hwange NP (1825 D2) (DS), 10 May Banket (DSm), 12 May Harare (DS), 15 May Lake Manyame (RD), 19 May Musango (SE); **Lesser Grey Shrike** *Lanius minor* 28 March Headlands (AMacD), 29 March Hwange NP (JV), 31 March Stapleford (JWh), 7 April Umguza (JV), 10 April Norton (RC), 11 April Chirundu (TN), 14 April Harare (JM), 15 April Gonarezhou (DS); **Red-backed Shrike** *L. collurio* 29 March Hwange NP (JV), 30 March Banket (DSm), 31 March Nyanga (CC), 2 April Penhalonga (PM), 7 April Umguza (JV), 8 April Bubye Valley Conservancy (MBr), 10 April Norton (RC), 11 April Musango (SE) and Chirundu (TN), 14 April Harare (JM), 15 April Gonarezhou (DS); **Violet-backed Starling** *Cinnyricinclus leucogaster* 11 April Chirundu (TN).

Observers

Derek Adams (DA), Steve Alexander (SA), Tessa Arkwright (TAr) Matt Austen (MA), Elspeth Baillie (EB), Colin Baker (CB), Jonathan Baker (JBk), Julia Baker (JB), James Ball (JBa), Nolan Barber (NB), Martin Benadie (MBe), Jean-Michel Blake (J-MB), Jenna Booth (JBo), John Brebner (JBb), Gary Brent (GB), Mark Brewer (MBr), Charles Brightman (CBr), Dylan Browne (DB), Derick Bruk-Jackson (BD-J), Ronnie Chirimuta (RC), Dave Christiansen (DC), Bryce Clemence (BC), Graham Cochrane (GC), Tracey Couto (TC), Chris Cragg (CC), Asher Dare (AD), David Dalziel (DD), Paula Dell (PDe), Caroline Dennison (CD), Richard Dennison (RD), Tichaona Dick (TD), Peta Ditchburn (PD), Ken Dixon (KD), Gary Douglas (GD), Graham Edwards (GE), Steve Edwards (SE), Terry Fenn (TF), Tom Ferreira (TFe), Rob Fletcher (RF), Nicholas Fordyce (NF), Jen Francis (JeF), Mark Hadingham (MH), Courtney Johnson (CJ), Adam Jones (AJ), Abigail Karimanzira (AK), Doug Kew (DK), Karl van Laeren (KvL), Barry Launder (BL), Alex van Leenhoff (AvL), Pam van Leenhoff (PvL), Ursula Lowe (UL), Jim Mackie (JMk), Ali MacDonald (AMacD), Luke McDonald (LMcD), Roger MacDonald (RMacD), Bruce McKinlay (BMcK), Peter Magosvongwe (PM), Norman Mellett (NM), Bev Morgan (BM), Blake Muil (BMu), Buluwesi Murambiwa (BMb), Jimmy Muropa (JM), Bhekizulu Ncube (BN), Tadious Ndadziira (TN), Carl Nicholson (CN), Sean Nicolle (SN), Julia Pierini (JP), Gordon Putterill (GP), Tshana Ranchod (TR), Ali Randell (AR), Ian Riddell (IR), Mike Rooney (MR), Yakov Sabag (YS), Morgan Saineti (MS), Claire Sirley (CSy), Garret Skead (GSk), Doug Smith (DSm), Wouter van Spijker (WvS), Brent Stapelkamp (BS), John Stevens (JS), Clive Stockil (CS), Glenn Stockil (GS), Debbie Swales (DS), Luke Terblanche (LT), Peter Tetlow (PTe), Bradley Thornton (BT), Gilly Thornycroft (GT), Darryl Tiran (DT), James Varden (JV), Dorothy Wakeling (DW), Elsabe van der Westhuizen (EvdW), Johnny Whitfield (JWh), Debbie Wiggins (DWi), Spike Williamson (SWm), Luke Wilson (LW), Jan Wood (JW), Ken Worsley (KW), Sue Worsley (SW), MacKenzie Zirota (MZ), Piet Zwanikken (PZ). *The Babbler* - Newsletter of BirdLife Zimbabwe.

Colin Baker, *Victoria Falls*. ✉ pratincole306@hotmail.com

OBITUARY

Hilery Desmond Jackson, 1935-2022

Des Jackson, as he was known to his friends and colleagues, was born in Balfour, South Africa. After matriculating he obtained a B.Sc. in Mining Engineering and worked for some time for the Coronation Collieries in Witbank, mainly as a surveyor and draughtsman. During that time, he also obtained a private pilot's licence.

He married his lifelong companion Joy Stopforth on 23rd November 1957, and they would have celebrated their 65th wedding anniversary in November 2022. In 1957 the couple moved to Southern Rhodesia (now Zimbabwe) where Des found employment as a planning officer with the Grain Marketing Board in 1959. He stayed with it until he joined National Museums as Keeper, later Curator, of Zoology, in Mutare in 1970, a position he held for eight years.

Des went on many field expeditions in Zimbabwe and a number of other Southern African countries. I recall a 10-day hiking trip with him, John Shaw and Fritz Huchzermeyer, a vet, in the Chimanimani mountains, which led us to Gossamer Falls in Mozambique, and a trip by canoe down the Save River from Birchenough Bridge to the Save/Runde junction, again in the company of John. Those were unforgettable days spent in the wilderness. Bodily comforts were given little consideration, communication with the outside world, none.

At this time, Des began to study the Caprimulgidae, the Afro-tropical Nightjars. He introduced progressive new ideas and concepts to museum administration and development and formed the Umtali Museums Scientific and Cultural Association, generally known as UMSCA.

In 1978, having been made Executive Director of National Museums and Monuments, Des and his family moved to Harare. He enrolled at the University of Natal for an M.Sc. degree in Zoology which was duly awarded in 1984. He also negotiated the return of the soapstone Zimbabwe Bird sculptures from Cape Town to their rightful place in Zimbabwe by offering a large collection of butterflies from the Bulawayo Museum in return, a deal which did not meet with the approval of some members of the Museum staff. Shortly after Zimbabwe became independent in early 1980, he stepped down from his position and became Regional Director (Western), based in Bulawayo at the Natural History Museum.

With their family now grown up, Des and Joy decided to move to Auckland, New Zealand, in 1990, where he found the time to devote himself to writing up the mass of accumulated data he had collected over decades, mainly on nightjars. He published over 100 scientific papers in *Honeyguide*, *Ostrich*, *Ibis* and other journals. The year 2005 saw them move from Auckland, where he was heard to remark that it had rained during 176 days in the last year they were there, to Toowoomba in Queensland, Australia. There the couple spent happy years, travelling the country, watching birds and photographing them, as well as other wildlife and flowers.

Two years ago, he wrote his last short article for *Honeyguide* (Volume **64**) entitled "Why on Earth study Nightjars?"

Des became a Life Member of the ROS (later OAZ and now BLZ) and he was a keen and active bird ringer with an "A" class permit. He wrote a Ringing Manual for the ROS which was also acclaimed in South Africa. One of his major ringing exercises focussed on the Southern Carmine Bee-eater colony on the Umfuli River near Beatrice where he and a few other ROS enthusiasts ringed well over 1000 of these colourful but smelly birds. We also ringed many pairs of White-throated Swallows nesting in pipe culverts under the Beatrice road, and discovered that the same pair of these inter-African migrants returned every year to the same culvert.

Of course, Des ringed many nightjars over the years in support of his field studies. I well remember the once-a-week nightly forays along the back roads of the Warren Hills area near Harare in search of nightjars sitting on the gravel surface. Their eyes were reflected in the headlights of the car, after which they were approached on foot, dazzled with a strong torch, caught in an adapted butterfly net, ringed, measured, weighed and inspected for signs of moult before being released. The whole procedure took but a few minutes. Once a police patrol in a Landrover saw us driving along slowly. They stopped and asked what on earth we were doing at this place at this time of the night. I do not think they were quite convinced by our explanations!

The creation of a bird observatory on the north bank of Lake McIlwaine (now Lake Chivero) was the brainchild of Des Jackson, who envisaged the establishment of a research centre and ROS HQ there at a later stage. After protracted negotiations with National Parks, the site was moved from Miller's Creek to its present location and the bird sanctuary was proclaimed and has provided enjoyable birdwatching to thousands of people ever since.

He also organised a lottery in 1968 to raise funds for the observatory with a first prize of £500 ($1000), a lot of money in those days. A notable winner of a £5 ($10) prize was Sir Humphrey Gibbs, the Governor of Rhodesia, who was more or less imprisoned in Government House because of his refusal to accept Ian Smith's Unilateral Declaration of Independence.

Des Jackson passed away peacefully in his home on 29 August 2022, after leading a long, productive, interesting and varied life, during which he achieved much. His family, all his friends and those BLZ members who knew him will remember him.

Rolf Chenaux-Repond

Appendix:
Some of Des Jackson's major publications

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A Short Stay in Sudan

Some years ago, I was contracted to carry out a review of some aspects of the inland fisheries of Sudan, and I spent four weeks in that country. This proved to be a fascinating experience and I was able to see a number of aquatic species that do not occur in southern Africa, such as freshwater oysters and pufferfish. The oysters are probably too small to be eaten, but they were dredged up and their shells crushed for chicken feed. The pufferfish are toxic, like the marine species that are a great delicacy (*fugu*) in Japan, where they can only be cooked by specially trained chefs. But in the Khartoum fish market, they were just gutted and skinned. I was later shown a place where an old man had once lived but he was no longer around, having eaten one pufferfish too many. I also saw three of the five tigerfish species and some huge Nile perch, but I was especially pleased to encounter bichirs. These are primitive bony fishes with thick non-overlapping scales and had long been on my piscine wish-list.

I couldn't help being struck by the extraordinary productivity of both the White and Blue Niles – the Zambezi is an aquatic desert by comparison. Although both rivers are intensively fished, I was astonished by the quantity of freshwater fish available in the Khartoum fish market, and also in smaller towns. Fortunately, this productivity was also reflected in the birdlife and although I wasn't able to do any serious birding, I was still able to see some interesting species, including many migrants as I was there in the northern winter.

On arriving in Khartoum, I was put up in a small hotel some distance from the city centre, run by Greeks (there is a small Greek community in Sudan dating from when both Sudan and Greece were part of the Ottoman Empire). Although there are some large trees along the river frontage there weren't many around the hotel and the few birds that I saw there were Laughing and Mourning Doves, Blue-naped Mousebirds and Common Bulbuls. I can't recall House Sparrows but they must have been present since they are native to the Nile valley.

My first trip out of Khartoum was a short one to the headquarters of the Fisheries Department. This was surrounded by fish ponds, in one of which I saw a small party of Eurasian Spoonbills (I later saw African Spoonbills further south). After that I was taken to the Jebel Auliya dam, on the White Nile, a short distance to the south. This dam has a maximum depth of 12 m, but it raises the level of the river for about 500 km upstream and, as the country is very flat, this has resulted in extensive marshy areas along the shoreline, some of which support rice-growing. It was here that I saw my first Palaearctic migrant, the Masked Shrike, and for the first time encountered the many rather confusing wheatears. In the end, I decided that I had seen Northern, Desert, Pied and – possibly – Cyprus and Eastern Black-eared Wheatears.

My next stop was a fisheries station at Kosti, some 300 km south of Khartoum. On the way, we drove through the vast Gezira irrigation scheme, which seemed rather inefficient because there were wet areas on both sides of the road. The only birds I spotted from the car were harriers in considerable numbers, but they were mostly unidentifiable "ring-tails" apart from one male Montagu's Harrier. I also saw a young boy on the roadside offering a Green-winged Teal (Common Teal) for sale.

At Kosti there were quite large flocks of White-faced Ducks, as well as smaller ones of Garganey and Eurasian Wigeons. I also saw Black-tailed Godwits and Gull-billed Terns, while Long-toed Lapwings were common. Spectacular species included the Black Scrub Robin (larger than other species and all black with white tips to the tail) and the Sudan Golden Sparrow, the males of which are bright yellow with a reddish-brown back. The only sunbird I saw was a brownish bird with elongated tail-feathers that could only have been a non-breeding or juvenile male Beautiful Sunbird, and although the wrong time of year for weavers, I was able to identify Northern Masked Weavers.

By chance, I met a group of students from Juba University who were on a fisheries field trip. We went on a boat trip on the river and they were amazed to see someone looking at birds – something they had never seen before. As we travelled downstream, I spotted some larger than usual trees and thought this would be the place for Fish Eagles, if there were any around. As we reached the trees, there they were – a pair, possibly the northernmost Fish Eagles in Africa!

That evening I joined the students for supper and we sat outside in a courtyard on a bright moonlit night. Their house was next door to a Coptic Christian church with two towers, one of which had Barn Owls living in it. One of them treated us to a wonderful display in flight, screeching and fluttering its wings, and I was glad the students had seen it; hopefully they realised that birds were just as interesting as fish.

Other birds at Kosti included Palaearctic migrants, the most abundant being Yellow Wagtails (my Sudanese colleague told me they took them as a sign that winter had arrived), but also Common Redstarts and Common Whitethroats, and of course the confusing wheatears. Driving through the drier country away from the river we encountered quite large flocks of Chestnut-bellied Sandgrouse and Namaqua Doves. I also spotted two large black birds on a *jebel* (a bare rocky hill) that were too far away for me to identify – they might have been Brown-necked Ravens as nothing else seemed to fit.

From Kosti, we travelled overland through semi-desert to the Sennar dam on the Blue Nile, which provides water for the Gezira irrigation scheme. The numerous baobab trees that occurred along the river banks had, rather surprisingly, been pollarded and their severely pruned branches looked very odd. It was here that I saw a Senegal Thick-knee, the northern equivalent of a Water Thick-knee, on a sandbank below the dam.

We spent the night in a house that once belonged to the colonial water department and birds that I spotted in the rather dry garden included Red-billed Firefinches, Red-cheeked Cordonbleus and the White-rumped Seedeater. A party of White-faced Babblers [Cretzschmar's Babbler] made their presence felt, while a distinctive duet revealed a pair of Black-headed, Gonoleks. The next day, as we left, I caught a glimpse of what I thought was a Yellow-breasted Barbet, a terrestrial relative of the Crested Barbet; I wished I could have got out of the car for a better look.

Our final destination was the Roseires dam, also on the Blue Nile, and near the Ethiopian border. Going south we moved from semi-desert into sparse woodland, regrettably much cut about for charcoal. Nevertheless, there were many migrant

shrikes in evidence, and I was able to spot Woodchat Shrike and Great Grey Shrikes.

Roseires is not the largest Sudanese dam but its wall was being raised and lengthened – it's now 25 km long – so it's mostly very shallow and a good place for ducks. During the night huge flocks of White-faced Ducks could be heard flying overhead and there must have been an enormous population of them on the dam (I also heard large numbers during the night at Sennar and Kosti). The place we stayed in had no real garden, but I wandered across to a nearby plantation of trees, where I saw a number of Rose-ringed Parakeets, a species with two populations. The African population occurs in the savannah extending from Senegal to the Sudan, while the other population is found on the Indian subcontinent. Feral birds are now well-established in many European cities (I have seen them in London and Brussels) and it is now established at a number of sites in South Africa. How long before it reaches Zimbabwe?

We went to the Ad-Damazin fish market, in the large town at Roseires and if flycatchers really did eat flies, this would have been a very happy place for them! On the plus side, however, there were many Northern Carmine Bee-eaters and Abyssinian Rollers (similar to Lilac-breasted Rollers but with a blue breast) in the town. I also saw some Ethiopian Swallows, which look much like White-throated Swallows but have a buffy throat and a narrow, incomplete breast band.

That was basically the end of my birding because I also had to go to meetings, read papers and other documents, and of course write a report before I left. Still, I was very fortunate in seeing so many new species but there were some disappointments. I had read David Ewbank's account of his visit to Sudan (1984, *Honeyguide* **30**: 138-142) where he saw both Egyptian and Rüppell's Vultures, which I had hoped to see. However, I didn't see vultures of any sort even though dead donkeys were quite frequent along the roads. I was told that they had all been poisoned by insecticides used on the irrigation schemes.

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