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HONEYGUIDE

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African Green Pigeon *Treron calvus*
An occasional garden bird (see pp. 15-26)
Photo: © Ian C. Riddell

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Grey Crowned Cranes and Kori Bustard in the Driefontein area (see pp. 12-14)

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Honeyguide **68**(1): 1-3 (2022)

On the further spread of the Thick-billed Weaver in Zimbabwe

I.C. Riddell

In the 1950s the Thick-billed Weaver *Amblyospiza albifrons* was known in Zimbabwe only from the eastern highlands, with specimen records from Vumba, Mt. Selinda and the Haroni-Lusitu junction (Smithers *et al*. 1957). It was expected to occur in the north-western corner, along the Zambezi above Victoria Falls, as it had been collected on the Chobe River. Twenty-five years later, Irwin (1981) noted that it was still mostly found in the eastern highlands, but also in the Save valley, where it bred on Humani Ranch, extending south to the Runde River, and also occurred along the Zambezi River above the Victoria Falls. Since then, it has spread westwards on the Mashonaland plateau, arriving to breed in the Mukuvisi Woodlands, Harare, in October 1989 and Glen Lorne, Harare, in January 1990 (Shaw 1990). Its establishment in the Greater Harare area and Manyame lakes is discussed in detail by Irwin (2010). Since that time, it has spread further in the country and this paper updates its distribution with the most recent records, most from the Southern African Bird Atlas Project 2.

The northern watershed

About five birds were seen at Double Ro Ranch (1730D2) northwest of Harare in July 2008 (pers. obs.), where they bred in *Typha* bulrushes, and they continued spreading in that direction. They appeared at Mazvikadei (pentad 1710_3020; 1730A2) in April 2014, where they now breed in *Typha* in the crocodile ponds, and in the Chinhoyi area (1720_3010 & 1725_3000; 1730A3, R. Bain) in January/February 2014. The January record was an adult female on Chinhoyi golf course, where there is a small dam and bulrushes on a nearby stream, suitable breeding habitat, and a few days later a male was seen on sunflowers *c*.1 km away. Later in February, an adult male was on Pamene Estate, Chinhoyi, in a tree adjacent to marshland and a small river.

Earlier, in September 2012, birds were seen in the western access valley to Hwedza Mountain (1840_3135; 1831D1); there could be further colonisation along the southern edge of the plateau towards the west, although there are no records owing to the lack of birdwatchers. In March 2015 it was recorded east of the Great Dyke, 15km south of Mutorashanga (1715_3040; 1730B3, J. Ball), and in May 2017 it had reached the Lion's Den area (1715_2955; 1729B4, R. Bain). To the north of Harare, it appeared on the dam below Lion's Head hill on the Shamva road in November 2017 (1730_3130; 1731D1, C. Baker), on the Umwindsi River that feeds into the Mazowe further north at Umfurudzi. There is much suitable habitat along the Mazowe between Harare and Shamva and the lack of records along this stretch, below Christon Bank where it occurs, owes more to the lack of atlassing than a possible lack of birds.

Irwin (2010) wrote that there are few, if any, reports from south of the line formed by Lakes Chivero and Manyame, but this had changed by December 2014 when Parrock (2015a) noted two pairs nest-building in reedbeds on the Mashumavale River, Kadoma golf course, which was later flooded in April 2015 (Parrock 2015b). In June 2017 it was recorded just east of Chegutu (1805_3015; 1830A1, F. Couto). Stone *et al*. (2019) reported on the weaver at Bushbuck Pan, Muraga Wilderness (Charama), just east of Eiffel Flats, in September 2018, and 10 were at Charama Dam in August (1830A1, 2018 national waterbird counts).

The Zimbabwe Bird Atlas data (unpublished) shows a northern record in QDS 1631D3 but no significant northward expansion data has accumulated since.

Kariba

In December 2018, Dave and Paula Dell (Baker 2019) saw Thick-billed Weavers breeding in *Typha* at Kariba Bream Farm (*c*.493m a.s.l.) near Nyamunga Township (Figure 1). According to Keith Nicholson of the Bream Farm, a pair arrived in December 2017 and a year later at least 5 pairs were resident. It is likely, then, that other populations could exist in the 140km between the Lion's Den area and Kariba in suitable habitat, perhaps also in other areas of Kariba's eastern basin.

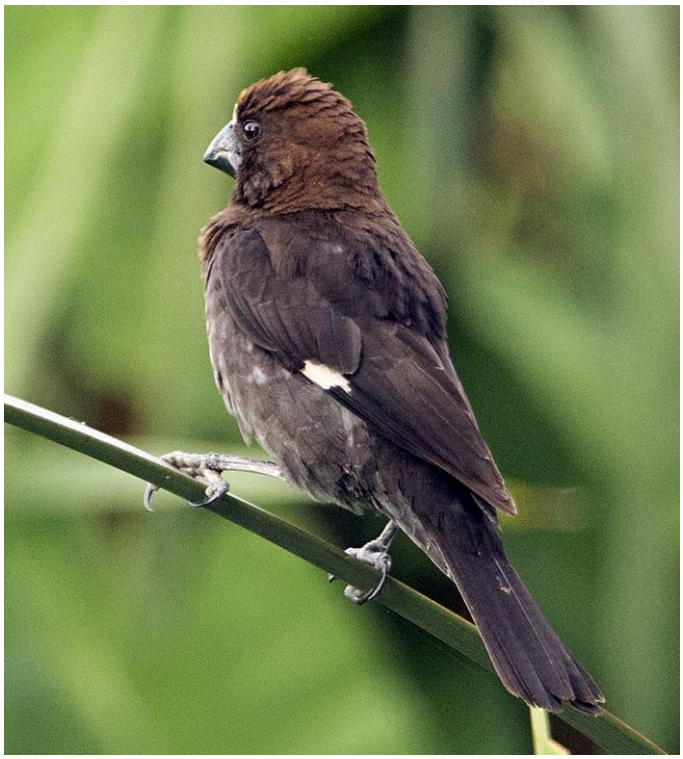

Figure 1. A Thick-billed Weaver photographed at the Kariba Bream Farm. Photo © Paula Dell

Southeast Lowveld to Bulawayo

Irwin (2010) had records from as far south as Mahenya Safari Lodge at the Save-Runde confluence in Gonarezhou but without other records from the southeast lowveld. In November 2012, de Beer (2013) reports finding the weaver at Malilangwe (2131B2) and a male was seen over Chipinda Pools Tented Camp, Gonarezhou, (2131B4) on 14 December 2013 (Baker, 2014). Uncorroborated records from Lake Mutirikwe (2015_3055; 2030B4, 2015_3100; 2031A3) at the end of June 2017 (SABAP2) were subsequently supported by photographs from 2015_3100 in July 2020.

The first report from Bulawayo (2010_2835; 2028C1, J. Roerig) is dated 2 January 2013, and this was followed by the discovery of them nesting in *Typha* at Hillside Dams in

November 2013 (Lewis *et al*. 2014). I did record a male in Selbourne Park some 2.5 km north of Hillside dams on 5 January 2015, but it is probably under recorded in Bulawayo because of the low level of atlassing. The contributions map of aggregated data from the Internet Bird Club and My Birding (anonymous) on HBW Alive shows a plotted record (accuracy unknown) from the Rangemore area to the southwest of the city and one would expect to find it in the *Typha* beds of the Khami Sewage Works to the west of the city and the Umguza River to the north.

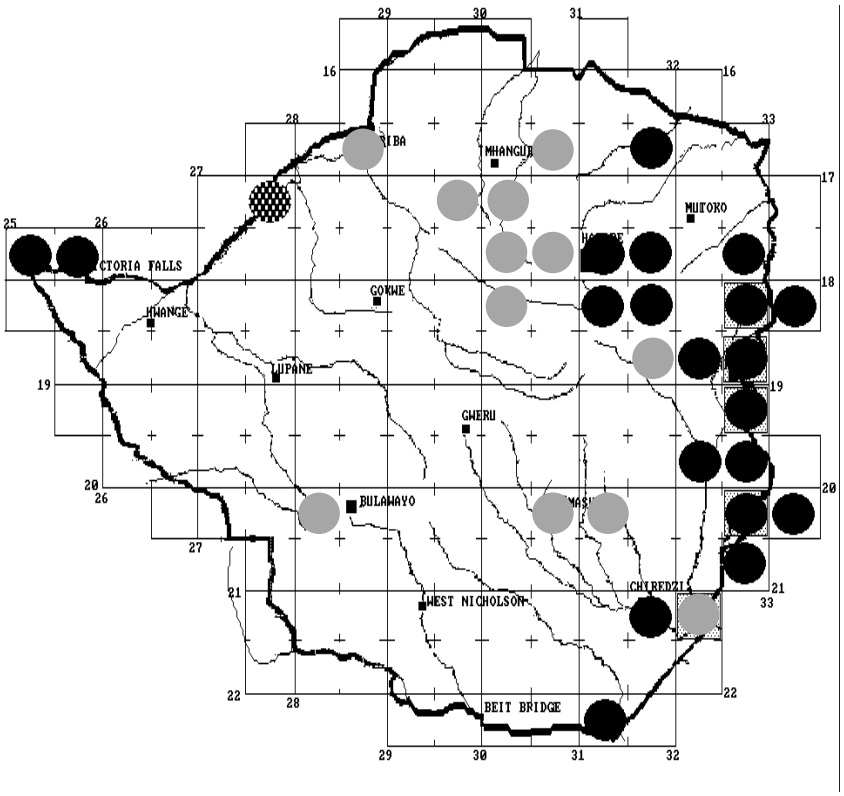

Figure 2. The present distribution of the Thick-billed Weaver in Zimbabwe based on half-degree squares. The solid black circles represent its distribution in 1987-1992, based on the SABAP 1 (Harrison *et al*. 1997) with the hatched circle in the Zambezi valley being a Zambian record. The grey circles reflect the post-SABAP 1 records discussed in this paper.

These records make it possible to revise the distribution map of this species in Zimbabwe (Figure 2). This clearly shows that since 2010 this species has continued to spread north-westwards on the Mashonaland plateau, with birds having arrived in Kariba some time in 2018. It could spread further in the Kariba area in suitable *Typha* and *Phragmites* habitat, particularly around human settlements. Extensive suitable habitat exists downstream of Kariba gorge, where it may be expected to spread next although there no records, at least from the Zimbabwean side.

There are a few more records from the southeast lowveld with birds being found on the northwest boundary of Gonarezhou National Park. It appears that this species may have spread from the Save Valley or the eastern highlands to Lake Mutirikwe and reached Bulawayo in 2013. In areas outside Harare understanding the distribution of the Thick-billed Weaver is hampered by the low level of atlassing and few published records and its status and movements under recorded.

Some taxonomic considerations

It has long been recognised that there are two populations of the Thick-billed Weaver in Zimbabwe. Birds from the eastern highlands were referred to the subspecies *A. a. woltersi* while those from the upper Zambezi were *A. a. maxima* (Smithers *et al*. 1957: Irwin 1981). There is some disagreement about the status of these subspecies (e.g. *woltersi* is sometimes synonymized with *albifrons*) but the important point is that they can be distinguished in the field. In the eastern form (*woltersi*) the male has a chestnut-coloured head and neck, while the western form (*maxima*) does not and is a larger and much blacker bird; these differences are well illustrated in Chittenden *et al*. (2012).

This makes it possible to determine the origin of the birds that are responsible for this species' range extension in Zimbabwe. All the records suggest that they originated from the eastern population and none have come from the western group. The only possible query concerns the Kariba birds, which could have come from the population in southern Zambia. These are generally treated as the subspecies *A. a. montana* (Dowsett *et al*. 2008); they are larger and darker than the eastern Zimbabwean birds and resemble the upper Zambezi form. The record from the Zambezi Valley at Sinamalima (HDS 1827B) on the north shore of Lake Kariba, Zambia, *c*.150km upstream of the Bream Farm, is *montana* (Dowsett *et al*. 2008). It must have originated from the population in southern Zambia, but the birds at the Kariba Bream Farm clearly resemble *woltersi* (Figure 1) and therefore would have come from the eastern population spreading along the north-western plateau. The distribution map in Dowsett *et al*. shows a closer record in the escarpment area some 100km to the northwest of Kariba. In Zambia it is resident and believed to be fairly sedentary, with no more than local movements, though it is thought to have spread since the 1970s in response to new farm dams.

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Thick-billed Weavers in Harare.
Photos © I.C. Riddell

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Status and Distribution of Lilian's Lovebird in Mana Pools National Park, Zimbabwe

Abigail Karimanzira

Abstract

The status and distribution of Lilian's Lovebird *Agapornis lilianae* in the Mana Pools National Park was determined using point transects carried out in dry and wet seasons. The birds were observed in four major vegetation types; mopane woodlands, *Faidherbia* and acacia woodlands, riverine thickets, and grass cover under trees. Lovebird numbers were significantly ($P<0.05$) higher in *faidherbia* than any other vegetation in dry season. Their distribution is greatly influenced by the availability of water and the premature drying of seasonal water sources within mopane woodlands, and the death of large mopane trees poses a serious threat to lovebirds in the national park. Immediate action to curb these threats is recommended in order to sustain the lovebird habitat.

Introduction

Bird populations are globally threatened, with endangered species beginning to become extinct, while formerly common and widespread species are in sharp decline (BirdLife International, 2018). The Parrots and cockatoos, with about 350 species in 74 genera (Homberger 2006), include some of the world's most threatened species with a high extinction risk (Synder *et al.* 2000). Although the attractiveness of parrots has made them desirable pets for many centuries, in general they have been little studied in the wild (Forshaw, 1989). Snyder *et al*. (2000) and BirdLife International estimated that 28% to 29% of these species are threatened (Berkunsky *et al*., 2017). A combination of habitat loss and their capture for the pet trade are the key threats to their populations (Snyder *et al*. 2000, Perrin 2012, Mzumara, 2014). Lovebirds (*Agapornis* spp.) are endemic to Africa (8 species) and Madagascar (one species): the eight species are discontinuously distributed in the non-forested areas of sub-Saharan Africa (Sinclair & Ryan 2003; Perrin 2012). Six of the nine lovebird species (*A. pullarius*, *A. taranta*, *A. personatus*, *A. roseicollis*, *A. canus* and *A. swindernianus*), are in the Least Concern threat category, while two (*A. fischeri* and *A. lilianae*) are Near Threatened and one (*A. nigrigenis*) is Vulnerable (BirdLife International 2022).

Lilian's Lovebird *A. lilianae* is a small parrot with a restricted range in the lower Zambezi River basin in Zimbabwe, Zambia, Mozambique and Malawi (Mzumara *et al*. 2019). They are cavity dwellers strongly associated with mopane (*Colophospermum mopane*) woodlands (Mzumara *et al*. 2019). In Zimbabwe, it is now mostly restricted to the middle Zambezi below the escarpment downstream of Lake Kariba, having lost much suitable habitat when the lake was created (Irwin 1981), although it still occurs at some localities along the lakeshore (Donnelly & Donnelly 1983; Tree 1997). This species is still widespread in the Parks and Wild Life estate below and was frequently encountered, sometimes in large flocks, around Chirundu (Maasdorp & Cotton 2019) and along the river further downstream (Dawson 2021). In the Mana Pools National Park, it occurs along the Zambezi River and further inland to the foot of the escarpment, for example at Chitake Springs (Truscott 2014). It was recorded east of the Chewore Hills (Tree 1997) and was said to be "common" in the Dande Communal Land in 1970-71 (Howells 1985). It was also reported north of the Dande along the southern shore of Lake Cahora Bassa in Mozambique, where trapping and nest destruction was widespread with the birds being sold to travellers in the Tete area (Chiweshe 2003). The trapping of live birds for trade, and habitat destruction, are the major threats faced by them (Perrin 2012) and this is why, with their moderately small population, they are classed as Near Threatened by IUCN (BirdLife International 2022). The conditions in many Important Bird and Biodiversity Areas in Zimbabwe's protected areas, including the Middle Zambezi valley in which Lilian's Lovebirds occur, are deteriorating with a high threat status owing to invasive species, ecosystem modification, agricultural expansion and over exploitation (Mukwashi and Matsvimbo, 2008). Climate change is another major threat and it is projected that climate change will alter ecosystems, and plant and animal diversity will fall sharply, with a highest decline in the western regions of Zimbabwe (MEWC 2014). Ecological studies that can inform conservation actions are greatly needed and Lilian's Lovebird has been studied in Malawi (Mzumara 2010, Mzumara *et al*. 2014, Mzumara *et al*. 2019) but there is lack of information on its present status in Zimbabwe.

This study evaluated the status, distribution and habitat viability of Lilian's Lovebirds in the Mana Pools National Park. Knowledge of a species' distribution at a fine scale is essential for local conservation efforts and provides valued inputs into global-scale conservation assessments (Ferrier *et al*. 2004).

Study Area

The 2196 km^2 Mana Pools National Park is located in a semi-arid region in northern Zimbabwe, with its northern border being the Zambezi River, which marks the boundary with Zambia. It is bordered on the east by the Sapi and Chewore Safari Areas, to the west by the Hurungwe Safari Area, with the Mukwichi Communal Land to the south. The mean annual rainfall and temperature are 708 mm and 25ºC respectively, and the rainy season is from November to March. The southern section is characterised by colluvial deposits from the Zambezi escarpment, while alluvial deposits are restricted to larger rivers, notably the Rukomechi and Sapi, and especially along the Zambezi River, forming the Mana Pools floodplain. Major vegetation communities include riparian vegetation dominated by *Faidherbia albida* (apple-ring acacia) woodlands, while further inland the vegetation is dominated by dry deciduous *Commiphora-Combretum* thickets, and *Colophospermum mopane* woodland.

Methods

Field surveys were carried out in November 2020 and in May 2021. To ensure even coverage, the park was divided into

5-minute quarter degree squares (pentads) measuring 9.2 km x 9.2 km with an area of 83.6 km^2 (Larsen *et al.* 2009). BirdLasser, an application used by the Southern African Bird Atlassing Project, was used to identify pentad boundaries and to collect GPS coordinates (Underhill *et al.* 2017). Existing tracks and pathways were used as transects in all pentads.
Drive transects were carried out at a speed of approximately 20 km hr^{-1} and the point count method (Buckland *et al.* 2001) was used for the census. Whenever Lilian's lovebirds were seen or heard the vehicle was stopped and flock size, activity and habitat was recorded within a 100-metre radius. A total of 35 points within 12 pentads were surveyed.

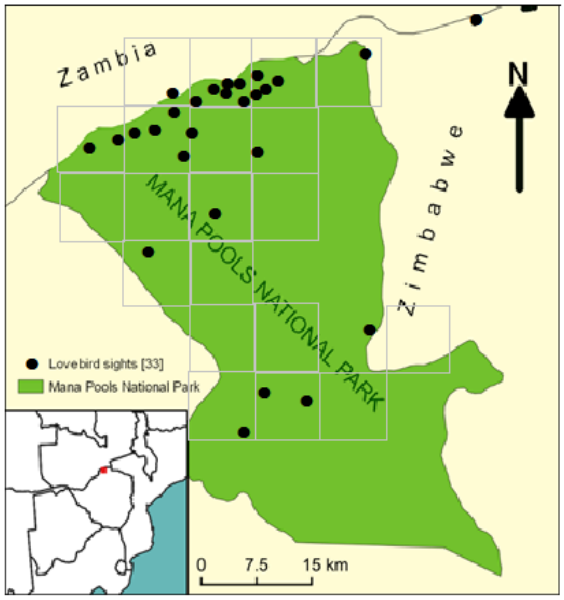

Figure 1: Sightings of Lilian's Lovebirds in Mana Pools National Park. The grey squares indicate the pentads that were sampled.

Results

Most sightings of Lilian's Lovebirds were made along the Mana Pools floodplain or close to the Zambezi River, which provides major foraging sites in grasses under tree cover, and in the *Faidherbia* trees (Figure 1). Most sightings were made in the five pentads along the Zambezi River, and there were also a few records from the river downstream of the park (Figure 1). There were only eight records more than 10 km from the river, with the three southernmost records being along the foot of the escarpment around the Chitake Springs area where water was available. The lovebird census estimated that there was a total population of 1491 birds in the Mana Pools National Park, but this is almost certainly an underestimate since 30% of the park was inaccessible and could not be covered.

Table 1: Sightings of Lilian's Lovebirds in the four major vegetation types in Mana Pools National Park.

Vegetation Type	Dry season	Wet season	Mean
Faidherbia & acacia	455	504	479.5
Mopane	248	407	327.5
Grass cover	129	351	240.0
Riverine thickets	71	189	130.0
Total	903	1451	1177.0

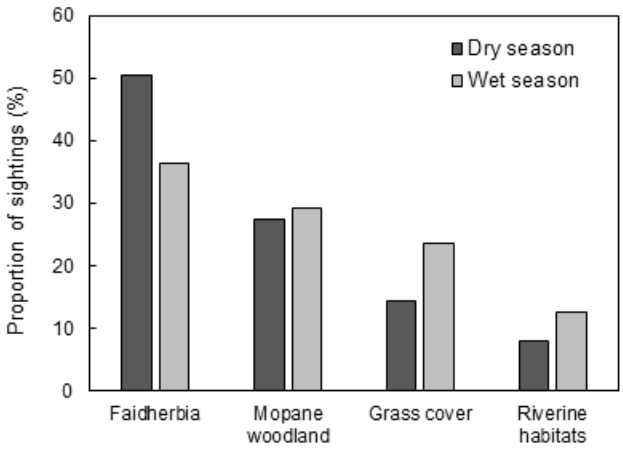

Figure 2. The relative abundance (% of sightings) of Lilian's Lovebird in the principal habitats of the Mana Pools National Park in the wet and dry seasons.

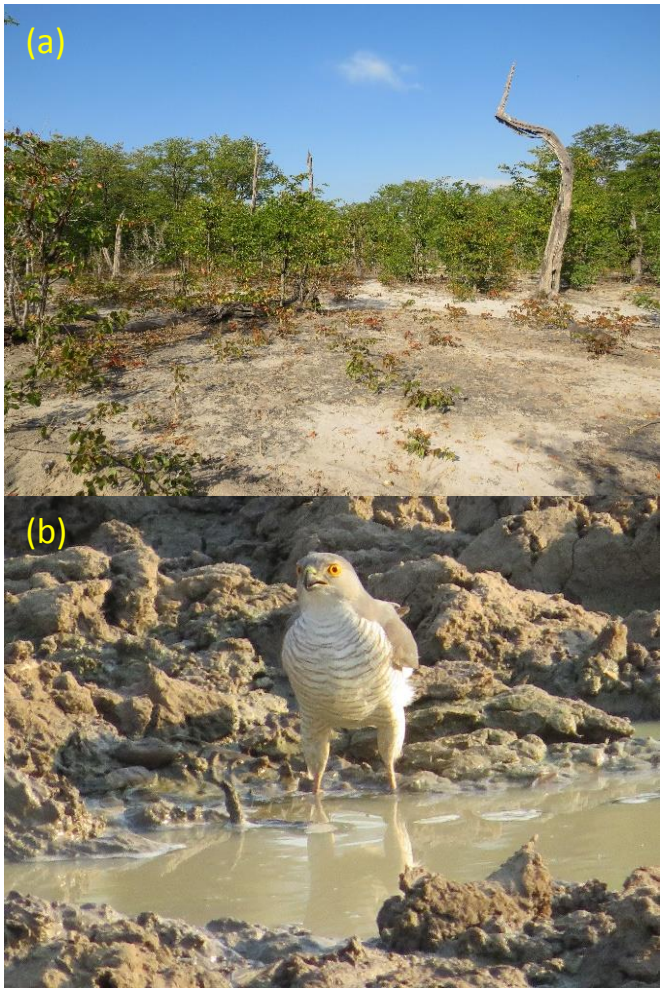

Figure 3. (a) Mopane shrubs dominating the area and (b) a dry pan with a little water fed from a borehole at Machaba safari camp (right).

Lovebird numbers were significantly higher ($p < 0.05$) in *Faidherbia* and acacia than in any other vegetation type in the park (Table 1). The second most important habitat, mopane woodlands, which includes mixed *Combretum*, as well as immature trees and shrub-lands, were avoided by the lovebirds as none were seen in them. Lovebirds were seen flying from mopane to the floodplain every morning from 0500 to 0800 hrs., which suggests extensive movements between the different habitats.

Lovebirds were recorded both in dry and wet seasons but with different proportions in the main habitats (Figure 2). In the dry season, 78% of the sightings were made in *Faidherbia* and mopane woodland, but in the wet season this proportion fell to 66% with a corresponding increase of sightings in grass and riverine habitats. This probably reflects increased food availability, in the form of fruits and seeds, during the rains.

Discussion

Although lovebirds are protected in the Mana Pools National Park and the neighbouring Safari Areas, they still face a number of threats. One of the most serious perhaps is the loss of the large "cathedral" mopane trees, which provide roosting and nesting sites for the lovebirds, but which seem to be dying and falling over. This also increases the competition with other hole-nesting birds and small mammals, some of which may be able to exclude or eject lovebirds. It is unclear why this is happening, but it may reflect changes in soil chemistry, diseases, or climate change. Browsing by large herbivores, notably elephants, is also affecting mopane by reducing them to shrubs that are unfavourable for lovebirds, and other species (Figure 3a).

The Kariba dam has had a significant impact on the Mana Pools floodplain by reducing both the intensity and timing of the annual floods, which may have led to desiccation and changes in the vegetation on the floodplain (Attwell 1970, Guy 1981, Dunham 1989). Climate change is also a threat since prolonged periods of drought will cause the seasonal pans and pools in the mopane woodlands to dry up prematurely (Figure 3b), forcing more lovebirds to concentrate along the Zambezi River. This was confirmed by Kupika *et al*. (2017) who stated that Chitake Spring in the south of the park at the foot of the escarpment was reported to be drying up after successive droughts.

If the maximum estimate of 1491 lovebirds in the park is correct, then it suggests a population density of only 0.7 birds km^{-2} in the park as a whole. By comparison, Mzumara (2010) estimated a total of 2000 individuals in the 548 km^2 Liwonde National Park in Malawi, giving a density of 3.6 km^{-2}. While this suggests a small lovebird population in Mana Pools, it should be noted that most of the birds were on the floodplain and, assuming the five pentads had a total area of 418 km^2, this gives a density of 3.7 birds km^{-2}, similar to Liwonde Park.

Figure 4. Lovebirds feeding on grass.

Although Lilian's Lovebirds are strongly associated with Mopane woodland (Irwin 1981; Mzumara *et al*., 2019), most sightings were in the *Faidherbia* trees on the floodplain. This suggest that mopane may be a key resource for nesting and roosting whilst the birds forage in other areas, which may explain the observation that birds flew from the mopane woodlands to the floodplain every morning. This was also the case in Liwonde National Park in Malawi (Mzumara *et al*. 2014) and food availability is a key factor determining the movements and distribution of this species. The availability of water also determines the distribution and movements of this lovebird (Mzumara 2011), as it does for Black-cheeked Lovebirds (*A. nigrigenis* in Zambia (Warburton & Perrin. 2005).

The seasonal habitat utilisation of lovebirds in Mana Pools is quite clear. Although high numbers were recorded in *Faidherbia* throughout the year, the birds are more widespread in the wet season owing to the presence of water and food in mopane woodlands. There is a greater density of grass in areas with larger mopane trees and their seeds form part of the lovebird's diet during their breeding season (Mzumara *et al*. 2019). A seasonal movement of the Red-headed lovebird *A. pullarius* was reported from a single locality in Nigeria (Egwumah *et al*. 2014) with numbers being highest in the late rainy season. There might be seasonal movements of lovebirds from other areas outside the park, with high numbers being recorded in the wet season, when the birds are breeding. The park might be their key breeding area as the lovebirds tend to hang around their breeding site (Mzumara *et al*. 2016). In Malawi, Mzumara (2011) found that lovebirds concentrated more in mopane woodlands during the wet season, which was not the case in Mana Pools (Figure 2). Instead, the birds moved away from *Faidherbia* in the wet season, presumably because more food was available in other habitats.

Further investigations are needed to understand the status of Lilian's Lovebirds in Mana Pools National Park. While the vegetation is capable of sustaining large populations the dying of large mopane trees for roosting and nesting is worrying and conservation efforts should target these trees. Detailed vegetation surveys, further investigations on lovebird habitat preferences and associations, and monitoring are required, with investigations into their seasonal movements to determine their home ranges. The distribution of lovebirds and their interactions with humans in their entire range within Zimbabwe would help to fully understand their conservation requirements and should include a trans-boundary component, involving conservation agencies in Zimbabwe, Zambia and Mozambique.

Acknowledgements

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Honeyguide **68**(1): 8-11 (2022)

International Wetland Census, Zimbabwe – January 2022

Ian Riddell

As Zimbabwe's contribution to the International Waterbird Census, a total of 35 sites were counted (Appendix A) and this report is based on returns received by mid-April. The preferred counting day was in the middle of January but our counts included February. The status of the water at some sites in shown in the appendix with seven sites being over-flooded. Despite the predictions of an above-average wet season, rainfall was patchy, some areas being flooded whilst others were below average. The only Ramsar sites covered were Monavale Vlei and the Lake Chivero Bird Sanctuary.

Participants are encouraged to count any sudden and significant influx that occurs at any time of the year. Coverage of our wetland sites relies on the voluntary services of our members and their often-limited resources so grateful thanks are due to the 45 participants, plus more who were simply listed as BLZ members. Special thanks are due to those individuals who undertook extensive coverage in Hwange and other sites.

Results

A total 5 118 birds of 151 species were recorded, including four unidentified waders. Vultures are also included in this report. The results from counts made at more than one site are listed below; the values at the end of each represent the number of birds and the number of sites at which they were recorded, i.e., (8/2) means that 8 birds were counted at 2 sites. Species that were reported at only one site are listed in Table 1.

Numididae

Helmeted Guineafowl *Numida meleagris*: 2 at Monavale vlei and 6 at Kent Estate dams (8/2).

Phasianidae

Swainson's Spurfowl *Pternistis swainsonii*: 2 each at Highacres Dam and Monavale Vlei (2/2).

Anatidae

White-faced Duck *Dendrocygna viduata*: ranged from 1-35 (average = 8.2), then 128 from Mazvikadei Dam and 136 from Chinga Pan, Sango Ranch (427/22).

Egyptian Goose *Alopochen aegyptiaca*: ranged from 1-21 birds (average = 7.6, 15 sites), with higher counts of 36 at Chipinda Pools and 76 at Mandavu Dam (226/17).

Spur-winged Goose *Plectropterus gambensis*: found in small numbers of 1-6 at 4 sites, then 16 at Chinga Pan and Kent Estate and 18 at Chipinda Pools (59/7).

Comb Duck *Sarkidiornis melanotus*: from 1-8 at 15 sites (average = 3.5) (52/15).

African Pygmy Goose *Nettapus auritus*: 2 each at Chinga Pan, Mpopoma Dam and Sandy Spruit Dam, and 4 at Shumba pumped pan (10/4).

Red-billed Teal *Anas erythrorhyncha*: 1-8 birds (average = 3.4) plus 17 at Shumba pumped pan and 25 at David Whitehead Ponds (76/12).

Podicipedidae

Little Grebe *Tachybaptus ruficollis*: counts were low with 2-5 at 5 sites, then 11 each at Dwarf Goose Pan and Shumba pumped pan, Hwange (36/7).

Apodidae

African Palm Swift *Cypsiurus parvus*: 2 at Kent Estate dams and 5 at Monavale Vlei (7/2).

Little Swift *Tachybaptus affinis*: 2 at Monavale Vlei and 50 at David Whitehead Ponds (52/2).

Cuculidae

Senegal Coucal *Centropus senegalensis*: 1-3 (average = 1.6) at 5 sites (8/5).

Black Coucal *Centropus grillii*: 1-4 at Mazvikadei Dam, Monavale Vlei and Kent Estate dams (7/3).

Diderick Cuckoo *Chrysococcyx caprius*: 1 at David Whitehead Ponds and 2 at Monavale Vlei (3/2).

Rallidae

African Crake *Crecopsis egregia*: 1 each at 8 Camp Hwange and David Whitehead Ponds (2/2).

Black Crake *Zapornia flavirostra*: from 1-8 (average = 2.9) at 11 sites (32/11).

African Purple Swamphen *Porphyrio madagascariensis*: 1 each at Biri Dam Fishing Site and Lake Chivero Bird Sanctuary (2/2).

Common Moorhen *Gallinula chloropus*: ranged from 1-9 (average = 4) at 12 sites, then 11 at Biri Dam and 13 at Chinga Pan, Sango Ranch (75/14).

Lesser Moorhen *Paragallinula angulata*: 1 each at Biri Dam and Lake Chivero Bird Sanctuary and 5 at Camp Hwange (7/3).

Red-knobbed Coot *Fulica cristata*: 1-3 at 5 sites (8/5).

Gruidae

Grey Crowned Crane *Balearica regulorum*: 1 at School Dam, Shangani Ranch and 31 at Camp Hwange (32/2).

Ciconiidae

Marabou Stork *Leptoptilos crumenifer*: 6 and 7 in Hwange, 13 at Kent Estate dams and 36 at Victoria Falls Sewage Ponds (64/4).

Yellow-billed Stork *Mycteria ibis*: 1-9 at 4 sites, then 14 at Mandavu Dam (26/5).

African Openbill *Anastomus lamelligerus*: 3-6 at 4 sites, then 18 at Camp Hwange and 58 at Chinga Pan, Sango Ranch (45/6).

Abdim's Stork *Ciconia abdimii*: very low numbers of 1-6 at 3 sites (9/3).

Woolly-necked Stork *Ciconia episcopus*: 2 and 3 at Camp Hwange and Shumba pumped pan, respectively (5/2).

Saddle-billed Stork *Ephippiorhynchus senegalensis*: 1-2 at 4 sites Chinga Pan, Chipinda Pools, Camp Hwange and Nantwich Camp & Dam (6/4).

Threskiornithidae

African Spoonbill *Platalea alba*: 2-9 (average = 4.3) at 3 sites (13/3).

African Sacred Ibis *Threskiornis aethiopicus*: low numbers ranged from 3-11 (average = 7.6) at 5 sites (38/5).

Hadeda Ibis *Bostrychia hagedash*: 6 each at Chinga and Suni pans, Sango Ranch (12/2).

Glossy Ibis *Plegadis falcinellus*: 1 and 8 at Biri Dam and Kadoma Textiles Dye Ponds, 12 at Shumba pumped pan and 20 at Lake Chivero Bird Sanctuary (41/4).

Ardeidae

Little Bittern *Ixobrychus minutus*: 1 each at Hippo Pools camp and Lake Chivero Bird Sanctuary (2/2).

Dwarf Bittern *Ixobrychus sturmii*: 1 each at Ballantyne Park South and Hippo Pools camp (2/2).

Green-backed Heron *Butorides striata*: from 1-4 birds at 8 sites (17/8).

Squacco Heron *Ardeola ralloides*: 1-6 (average = 2.4) at 8 sites, followed by 11 at Mazvikadei Dam and *c*.40 at Lake Chivero Bird Sanctuary (70/10).

Cattle Egret *Bubulcus ibis*: 1-22 (average = 5.9) at 9 sites, followed by 35 at Kent Estate dams, 65 at Victoria Falls Sewage Ponds and 297 at Mazvikadei Dam (456/12).

Grey Heron *Ardea cinerea*: from 1-15 (average = 4.3) at 13 sites (56/13).

Black-headed Heron *Ardea melanocephala*: 1-6 (average = 2) from 9 sites (20/9).

Purple Heron *Ardea purpurea*: 1-6 at 5 sites, the high of 6 from Lake Chivero Bird Sanctuary (12/5).

Great Egret *Ardea alba*: 1-10 (average = 3.1) at 10 sites, then 62 at Chinga Pan, Sango Ranch (93/11).

Yellow-billed Egret *Ardea intermedia*: 1-8 (average = 3) at 9 sites, then 23 at Chinga Pan, Sango Ranch (50/10).

Black Heron *Egretta ardesiaca*: 1 at Lake Chivero Bird Sanctuary and 19 at Mazvikadei Dam (20/2).

Little Egret *Egretta intermedia*: from 1-17 (average = 6.3) at 7 sites, followed by 46 at Lake Chivero Bird Sanctuary (90/8).

Scopidae

Hamerkop *Scopus umbretta*: ranged from 1-5 at 10 sites (22/10).

Phalacrocoracidae

Reed Cormorant *Microcarbo africanus*: 10 sites had a range of 1-23 birds (average = 5.8), with high counts of 126 from Mazvikadei Dam and *c*.300 from Lake Chivero Bird Sanctuary (484/12).

White-breasted Cormorant *Phalacrocorax lucidus*: low numbers of 1-13 (average = 3.6) at 8 sites, then *c*.200 at Lake Chivero Bird Sanctuary (230/9).

Anhingidae

African Darter *Anhinga rufa*: 1-4 at 7 sites, then 10 at Chinga Pan (25/8).

Burhinidae

Water Thick-knee *Burhinus vermiculatus*: 2-9 from 5 sites, the 9 from Masuma Pan/Dam, Hwange (23/5).

Recurvirostridae

Black-winged Stilt *Himantopus himantopus*: low numbers of 2-8 from 7 sites, the 8 at Nantwich Camp & Dam (26/7).

Charadriidae

Kittlitz's Plover *Charadrius pecuarius*: only 2 each at Camp Hwange and David Whitehead Ponds (4/2).

Three-banded Plover *Charadrius tricollaris*: 1-4 from 9 sites (19/9).

Blacksmith Lapwing *Vanellus armatus*: 1-25 (average = 8.4) from 18 sites (152/18).

White-crowned Lapwing *Vanellus albiceps*: 1 and 2 were at Chinga and Suni pans in the Save Valley, 2 at Camp Hwange (5/3).

African Wattled Lapwing *Vanellus senegallus*: 2 each at Hippo Pools camp and Monavale Vlei, with 12 at Kent Estate dams and 30 at Mazvikadei Dam (46/4).

Jacanidae

African Jacana *Actophilornis africanus*: widespread with numbers ranging from 1-35 (average = 7.4) at 22 sites, with 127 at Mazvikadei Dam (290/23).

Scolopacidae

Ruff *Philomachus pugnax*: only 11 at Camp Hwange and 53 at Kadoma Textiles Dye Ponds (64/2).

Common Sandpiper *Actitis hypoleucos*: low numbers with 1-4 (average = 2.3) at 4 sites and 7 at Nantwich Camp and Dam (16/5).

Common Greenshank *Tringa nebularia*: only 1-5 at 3 sites (9/3).

Wood Sandpiper *Tringa glareola*: 1-11 (average = 4.3) at 9 sites, plus 20 at Kadoma Textiles Dye Ponds (59/10).

Glareolidae

Three-banded Courser *Rhinoptilus cinctus*: 3 at Masuma Pan/Dam and 5 at Camp Hwange (8/3).

Collared Pratincole *Glareola pratincola*: 1-4 at 3 sites (6/3).

Black-winged Pratincole *Glareola nordmanni*: 2 at Suri Suri Dam, Chakari, is an interesting record (2/1).

Laridae

Grey-headed Gull *Chroicocephalus cirrocephalus*: only 2 at Mazvikadei Dam but *c*.100 at Lake Chivero Bird Sanctuary (102/2).

Whiskered Tern *Chlidonias hybrida*: 3-7 at 4 Hwange sites (19/4).

Accipitridae

Black-shouldered Kite *Elanus caeruleus*: singles at Kent Estate dams, Mazvikadei Dam and Suri Suri Dam (3/3).

Long-crested Eagle *Lophaetus occipitalis*: 1 at Monavale Vlei and 2 at Mazvikadei Dam (3/2).

Lizard Buzzard *Kaupifalco monogrammicus*: 1 each at Kent Estate dams and Suri Suri Dam (2/2).

African Fish Eagle *Haliaeetus vocifer*: Ones and twos at 10 sites, then 8 each from Lake Chivero Bird Sanctuary and Mazvikadei Dam (34/12).

Yellow-billed Kite *Milvus aegyptius*: 2 each from Highacres Dam and Victoria Falls Sewage Ponds, then 12 at Camp Hwange (16/3).

Meropidae

White-fronted Bee-eater *Merops bullockoides*: 6, 8 and 9 at 3 sites (23/3).

Southern Carmine Bee-eater *Merops nubicoides*: 6 at Nantwich Camp & Dam and 60 at Camp Hwange (66/2).

European Bee-eater *Merops apiaster*: sparse this season with 3 at Chinga Pan, 20 at Monavale Vlei and 23 at Suni Pan (46/3).

Little Bee-eater *Merops pusillus*: 2-3 at 4 sites (9/4).

Alcedinidae

Malachite Kingfisher *Corythornis cristata*: only 1 at Hippo Pools and 39 at Mazvikadei Dam (40/2).

Giant Kingfisher *Megaceryle maxima*: 1-2 at 4 sites and 6 at Mazvikadei Dam (12/5).

Pied Kingfisher *Ceryle rudis*: 1-6 birds (average = 2.4) from 13 sites and 23 at Mazvikadei Dam (54/14).

Brown-hooded Kingfisher *Halcyon albiventris*: singles at Biri Dam Fishing Site and Pongo Dam, Shangani Ranch (2/2).

Woodland Kingfisher *Halcyon senegalensis*: 7 each at Chinga Pan and Suni Pan, Sango Ranch (14/2).

Alaudidae

Rufous-naped Lark *Mirafra africana*: 1 each at Kent Estate dams and Suri Suri Dam, Chakari (2/2).

Cisticolidae

Red-faced Cisticola *Cisticola erythrops*: 1-4 at 3 sites (7/3).

Rattling Cisticola *Cisticola chiniana*: singles at 3 sites and 8 on Monavale Vlei (11/4).

Croaking Cisticola *Cisticola natalensis*: singles at 2 sites and 4 on Monavale Vlei (6/3).

Zitting Cisticola *Cisticola juncidis*: 2-4 at 6 sites (14/6).

Tawny-flanked Prinia *Prinia subflava*: 1-2 at 5 sites (7/5).

Acrocephalidae

Dark-capped Yellow Warbler *Iduna natalensis*: 1-2 at 3 sites (4/3).

African Reed Warbler *Acrocephalus baeticatus*: 2 at Ballantyne Park South and 5 at Monavale Vlei (7/2).

Lesser Swamp Warbler *Acrocephalus gracilirostris*: 2 at Lake Chivero Bird Sanctuary and 4 at Monavale Vlei (6/2).

Great Reed Warbler *Acrocephalus arundinaceus*: 1-2 at 3 sites (4/3).

Locustellidae

Little Rush Warbler *Bradypterus baboecala*: 1 at Mazvikadei Dam and 2 at Monavale Vlei.

Muscicapidae

African Stonechat *Saxicola torquata*: 1 each at Lake Chivero Bird Sanctuary and Monavale Vlei (2/2).

Ploceidae

Red-billed Quelea *Quelea quelea*: 2 on Monavale Vlei with *c*.20 & *c*.100 at Pongo Dam and Nantwich Camp and Dam (122/3).

Note: Counting *Euplectes* spp. is difficult because breeding males are conspicuous but the females are not, and so their numbers are almost certainly underestimated.

Southern Red Bishop *Euplectes orix*: counts from 3-52, the highest being from Monavale Vlei (141/7).

Red-collared Widowbird *Euplectes ardens*: surprisingly, only from Kent Estate dams and Monavale Vlei with counts of 7 and 41 (48/2).

Yellow Bishop *Euplectes capensis*: 1-20 from only 3 sites (27/3).

Yellow-mantled Widowbird *Euplectes macrourus*: only 2 from Kent Estate dams and 20 from Monavale Vlei (22/2).

White-winged Widowbird *Euplectes albonotatus*: more widely distributed with 4-20 (Av. 9.2) from 5 sites (46/5).

Southern Masked Weaver *Ploceus velatus*: 1-4 from 3 sites and 18 at Monavale Vlei (26/4).

Estrildidae

Common Waxbill *Estrilda astrild*: 1-3 from 2 sites and *c*.20 from Monavale Vlei (24/3).

Orange-breasted Waxbill *Amandava subflava*: 9 at Kent Estate dams and 10 at Monavale Vlei (19/2).

Bronze Mannikin *Spermestes cucullata*: 10 at Kent Estate dams and 12 at Monavale Vlei (22/2).

Viduidae

Pin-tailed Whydah *Vidua macroura*: 1-3 from 5 sites (8/5).

Motacillidae

Yellow-throated Longclaw *Macronyx croceus*: 1-6 from 5 sites (14/5).

African Pied Wagtail *Motacilla aguimp*: 1-3 at 4 sites plus 16 at Mazvikadei Dam (25/5).

Table 1. Species recorded at only one site in the summer season of 2022.

Species	Count	Site
Harlequin Quail *Coturnix delegorguei*	2	Kent Estate dams
Natal Spurfowl *Pternistis natalensis*	5	Kent Estate dams
Shelley's Francolin *Scleroptila shelleyi*	2	Kent Estate dams
White-backed Duck *Thalassornis leuconotus*	43	Sandy Spruit Dam
Hottentot Teal *Spatula hottentota*	4	Camp Hwange
Lesser Flamingo *Phoeniconaias minor*	1	David Whitehead Ponds
White-rumped Swift *Apus caffer*	2	Kent Estate dams
Klaas's Cuckoo *Chrysococcyx klaas*	1	Kent Estate dams
African Finfoot *Podica senegalensis*	2	Hippo Pools camp
Streaky-breasted Flufftail *Sarothrura boehmi*	13	Monavale Vlei
Corn Crake *Crex crex*	1	Camp Hwange
Baillon's Crake *Zapornia pusilla*	1	Biri Dam
Allen's Gallinule *Porphyrio alleni*	2	Chivero Bird Sanctuary
White-backed Night-heron *Gorsachius leuconotus*	4	Hippo Pools camp
Black-crowned Night-heron *Nycticorax nycticorax*	3	Nantwich Camp & Dam
Goliath Heron *Ardea goliath*	2	Chinga Pan
unidentified waders	4	Suni Pan
Crowned Lapwing *Vanellus coronatus*	1	Biri Dam
Greater Painted Snipe *Rostratula benghalensis*	4	Camp Hwange
Marsh Sandpiper *Tringa stagnatilis*	2	Camp Hwange
Temminck's Courser *Cursorius temminckii*	2	Camp Hwange
Black-winged Pratincole *Glareola nordmanni*	2	Suri Suri Dam
White-winged Tern *Chlidonias leucoptera*	7	Nantwich Camp & Dam
Marsh Owl *Otus capensis*	2	Kent Estate dams
Verreaux's Eagle-owl *Bubo lacteus*	1	Suni Pan
Osprey *Pandion haliaetus*	2	Mazvikadei Dam
White-backed Vulture *Gyps africanus*	5	Kent Estate dams
Martial Eagle *Polemaetus bellicosus*	1	Kent Estate dams
Swallow-tailed Bee-eater *Merops hirundineus*	1	Suri Suri Dam
Half-collared Kingfisher *Alcedo semitorquaua*	2	Hippo Pools camp
Grey-headed Kingfisher *Halcyon leucocephala*	1	Mbonisa weir
Amur Falcon *Falco amurensis*	3	Kent Estate dams
Red-capped Lark *Calandrella cinerea*	1	Kent Estate dams
Flappet Lark *Mirafra rufocinnamomea*	2	Kent Estate dams
Levaillant's Cisticola *Cisticola tinniens*	2	Monavale Vlei
Pale-crowned Cisticola *Cisticola cinnamomeus*	2	Monavale Vlei

Species	Count	Site
Marsh Warbler *Acrocephalus palustris*	1	Monavale vlei
Grey-rumped Swallow *Pseudhirundo griseopygia*	5	Monavale Vlei
Greater Striped Swallow *Cecropis cucullata*	1	Monavale vlei
Wire-tailed Swallow *Hirundo smithii*	2	Monavale vlei
Barn Swallow *Hirundo rustica*	70	David Whitehead Ponds
Yellow-crowned Bishop *Euplectes afer*	10	Reedbuck Vlei
Spectacled Weaver *Ploceus ocularis*	2	Monavale vlei
Village Weaver *Ploceus cuculatus*	3	Ballantyne Park South
Long-tailed Paradise Whydah *Vidua paradisea*	2	Nantwich Camp & Dam
Shaft-tailed Whydah *Vidua regia*	2	School Dam
Rosy-throated Longclaw *Macronyx ameliae*	2	Kent Estate dams
Black-throated Canary *Crithagra atrogularis*	2	Monavale Vlei
Brimstone Canary *Crithagra sulphurata*	1	Monavale vlei

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Appendix A

Sites covered in summer 2022 showing Month (1 = January, 2 = February). The symbol * indicates the site was over-flooded, while the symbol ** indicates a dry site. Ramsar sites are highlighted in bold font.

Name	District	Months	Name	District	Months
Ballantyne Park South (2 counts)	Harare	1	Mandavu Dam	Hwange	1
Bernard Mizeki Dam*	Marondera	1	Masuma Pan and Dam	Hwange	1
Biri Dam*	Makonde	2	Mazvikadei Dam	Zvimba	1
Biri Dam Fishing Site*	Makonde	2	Mbonisa Weir, Falcon College	Esigodini	2
Camp Hwange	Hwange	1	**Monavale Vlei**	Harare	1
Chinga Pan	Bikita	2	Mpopoma Dam	Matobo	2
Chipinda Pools*	Chiredzi	1	Nantwich Camp and Dam	Hwange	2
Chitampa Dam	Matopos	2	Pongo Dam	Insiza	2
David Whitehead Ponds	Chegutu	1	Reedbuck Vlei*	Hwange	1
Devon Dam	Kadoma	1	Sandy Spruit Dam	Matobo	2
Dwarf Goose Pan	Hwange	1	School Dam	Insiza	2
Highacres Dam	Esigodini	2	Shumba Pans*	Hwange	1
Hippo Pools	Shamva	2	Shumba pumped pan*	Hwange	1
Kadoma Textiles Dye Ponds	Kadoma	1	Suni Pan**	Bikita	2
Kent Estate dams	Norton	1	Suri Suri Dam	Chegutu	1
Lake Chivero Bird Sanctuary	**Zvimba**	1	Victoria Falls Sewage Ponds	Hwange	1
Lily Dam	Insiza	2	Whitewaters Dam	Matobo	2
Maleme Dam	Matobo	2			

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Crane Conservation in Driefontein

Togarasei Fakarayi

Introduction

The Driefontein Grasslands, covering an area of more than twenty thousand hectares, are located between Chivhu, Mvuma and Felixburg, extending over three districts (Chikomba, Chirumanzu and Gutu) and parts of three provinces, Masvingo, Midlands and Mashonaland East in central Zimbabwe (Figure 1). The area is characterised by open wetland grasslands and patches of miombo woodlands, which separate the grasslands, while the presence of marshes, lakes and Kalahari sands, make it a unique habitat.

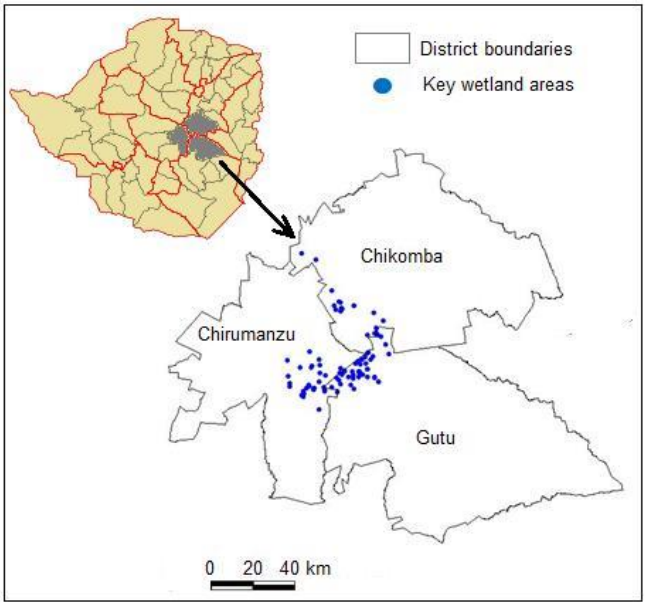

Figure 1. Location of the Driefontein Grasslands in three districts of Zimbabwe.

In July 2018, a total of 84 Wattled Cranes (77 adults and 7 juveniles) and 115 Grey Crowned Cranes (107 adults and 8 juveniles) were recorded. Large flocks included 22 Crowned Cranes sighted near Shashe irrigation, and 18 Wattled Cranes on Markdale. Other species of interest recorded were six Secretarybirds, five Kori Bustards, two Saddle-billed Storks and a Black-bellied Bustard.

Driefontein is home to about 85% of the total Zimbabwean population of the globally vulnerable Wattled Crane *Grus carunculata* and the endangered Grey Crowned Crane *Balearica regulorum*. It also provides an ideal breeding and feeding ground for the Secretarybird *Sagittarius serpentarius*, Saddle-billed Stork *Ephippiorhynchus senegalensis*, African Marsh Harrier *Circus ranivorus*, and several duck species. Other noteworthy species that depend on this habitat include the Black-bellied Bustard *Lissotis melanogaster* and the Kori Bustard *Ardeotis kori*, the Black-chested Snake Eagle *Circaetus pectoralis*, and the African Fish Eagle *Haliaeetus vocifer*. The area is also a Ramsar site, a wetland site of both national and international importance designated under the Ramsar Convention, an inter-governmental environmental treaty (to which Zimbabwe is a signatory). In 2010 a Conservation Action Plan was developed for Wattled and Grey Crowned Cranes in Zimbabwe, focusing on the Driefontein Grasslands to ensure the protection of the species against threats such as fires, human and domestic animal encroachment causing habitat loss, and the changing climate. An Environmental Management Plan for Driefontein Grasslands (2017-2022) developed in 2016 also outlined conservation needs for the globally threatened bird species, their habitats and human needs.

Crane numbers at Driefontein

BirdLife Zimbabwe conducted ground surveys of cranes from 2018 to March 2022, in collaboration with the government departments responsible for environment and wildlife, and the local communities, to determine the population and distribution of cranes across this landscape. Local capacity in survey techniques built among the participants was successful. The joint surveys brought great opportunity for learning and knowledge sharing among the stakeholders and communities.

Table 1. The numbers of Wattled and Grey Crowned Cranes at Driefontein, 2000 to 2020. The symbol * denotes an aerial survey, all others were ground surveys. Data for 2000 to 2010 are from Chirara (2011), other data are from this study.

	Wattled		Crowned
Survey	**Adults**	**Juveniles**	
Oct 2000	113	10	104
Apr 2002	37		
Aug 2002	100		86
Aug-Sep 2003	55		12
Sep-Oct 2004	126	12	142
Nov 2005*	44		45
Nov 2005	78	9	224
Sep 2006	67		98
Nov 2006	68	4	88
Jun 2007	66	4	88
Sep 2007	39	5	110
Jul 2008	24	3	91
Nov 2008	41	5	89
Apr 2009	29	5	114
Nov 2009	32	3	63
Jun 2010	36	1	76
Jul 2018	77	7	116
Aug 2019	54		125
Jan 2020	52		62
Jul 2020	41		89
Mar 2021	49		142
Feb 2022	55		86

In August 2019 key wetlands in the Driefontein Grasslands were mapped to provide a baseline for wetland monitoring and a total of 54 Wattled and 125 Crowned Cranes were recorded. These comprised of 8 breeding pairs of Wattled Cranes, 1 juvenile, 2 chicks, and flocks of 9, 10, and 15. The Grey Crowned Cranes comprised of 6 pairs and flocks of 50, 37, 13 and 12. Another survey in January 2020 recorded 52 Wattled

and 62 Crowned Cranes, while a further ground survey in July 2020 recorded 41 Wattled Cranes, including 10 breeding pairs, and 89 Crowned Cranes. Another ground survey conducted in Driefontein Grasslands in March 2021 recorded a total of 142 Grey Crowned Cranes and 49 Wattled Cranes. A total of 11 pairs (5 Wattled Cranes and 6 Grey Crowned Cranes) across the key wetland sites in Driefontein had successful breeding in 2021. A recent survey conducted in February 2022 recorded a total of 86 Grey Crowned Crane and 55 Wattled Cranes. There was poor visibility during this survey due to high grass cover.

The key question, of course, is whether or not the crane population is decreasing, and some historical data (Table 1) can assist in answering this question. Crane numbers varied widely and these data were plotted against time to see if there were any trends (Figure 2).

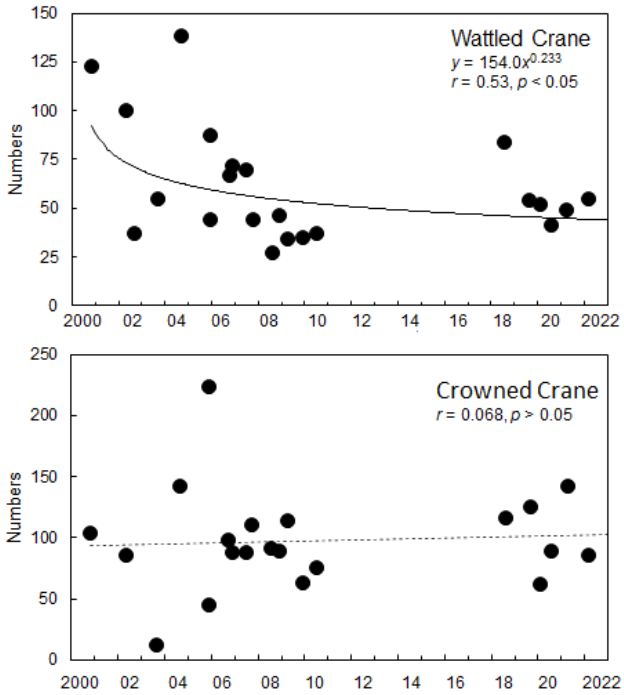

Figure 2. Trends in the numbers of Wattled and Grey Crowned Cranes in the Driefontein grasslands, 2000 to 2020.

The best-fit trend for the Wattled Crane was a power curve $y = 154.0x^{0.23}$ which was statistically significant ($p < 0.05$). This suggests a rather rapid decrease up to about 2005, probably associated with the land use changes that occurred during this period. After that the decline was much slower and the population may now be reasonably stable. No trend was apparent for the Crowned Crane, however, and although its numbers vary, the population seems to be relatively stable.

Livelihoods and biodiversity conservation

Community livelihoods are directly linked to biodiversity conservation because poverty resulting from poor livelihoods exerts pressure on biodiversity. In Driefontein the wetlands are under pressure because of poor agricultural activities in the area as subsistence farmers attempt to improve their livelihoods. When people have limited options they make use of the available natural resources, but overdependence on natural resources contributes significantly to biodiversity loss. Biodiversity conservation in rural communities cannot be fully achieved without addressing human needs, and biodiversity conservation requires the full involvement of communities.

Community involvement

The role of local communities in the conservation of habitats and species is now recognised and environmental organisations increasingly adopt community-centred approaches to conservation. This contrasts with older 'top-down' management where government edicts dictate what should be done without taking local needs into account. This has led to the concept of co-management, where government bodies, non-governmental agencies, and communities work together to achieve common goals. Most development partners acknowledge the fact that adopting people-centred approaches to conservation can only be achieved if local communities' knowledge, practices, beliefs, preferences and suggestions are integrated into conservation project plans. This applies to the conservation projects implemented around Important Bird Areas (IBAs) and in human-dominated landscapes that contain habitats for threatened species.

The importance of involving the local communities at Driefontein in crane conservation has long been recognised by BLZ (Chirara 2004). Local villagers have been instructed in Important Bird Area monitoring, thus enabling them to contribute to the collection of data and they actively participated in the joint ground surveys of cranes organised by BLZ. After the surveys they continued to monitor sites and species contributed data to the IBA monitoring programme. Fakarayi *et al*. (2012) identified changes in land use and the anthropogenic threats to wetlands in the Driefontein Grasslands, and involving local communities in their conservation is therefore critical in managing human pressure on these wetlands. Local communities working closely with the responsible environmental department can play a key role on fire management, crucially important because cranes breed on the ground and their chicks are unable to fly for lengthy periods after hatching; Wattled Crane chicks fledge at 100-150 days after hatching, the longest period for any crane species (Wikipedia, citing Johnsgard 1983). Both Wattled and Crowned Cranes nest in wetlands, and their chicks remain hidden in the long grass of wetlands until they are old enough to follow their parents. Consequently, wetland degradation is also a major threat because it reduces the habitat available to them.

During their years of involvement in Driefontein Grasslands, BirdLife Zimbabwe has identified a need to balance wetland biodiversity conservation and human livelihood improvement. This approach to conservation could work well in areas where cranes and communities coexist, and in 2018, BLZ carried out a pilot project to connect livelihoods with biodiversity conservation in Driefontein by supporting income-generating activities in the form of bee- and poultry-keeping in four villages. The project model aimed to reduce their poverty while strengthening their engagement in crane and wetland conservation.

One way to better understand the human dimensions in conservation is to assess the perceptions of local communities around areas of conservation importance. These included the values communities attach to natural resources, their understanding of the nature of species and habitats and drivers of environmental changes, how much they appreciate their roles in both the degradation and protection of resources, their opinions on how they can co-exist with threatened species, and level of attachment to specific species and landscape features.

A social survey conducted in Driefontein Grasslands in June 2018 determined local perceptions of cranes, as well as the spatial and temporal interaction patterns between people and the birds. The survey revealed that communities in

Driefontein were able to distinguish between the two crane species and liked them (Table 2); they also recognised that there is an overlap in habitat usage by cranes and people. Understanding such perceptions is a key step in identifying community priorities, practices, knowledge and beliefs that could aid conservation while, at the same time identifying misconceptions and a lack of knowledge that could be contributing to a decline in biodiversity.

Table 2. Some attitudes of local people towards cranes in the Driefontein wetlands (values are percentages).

	Wattled	Crowned	Both
Known to local people	2	9	89
Liked most by local people	25	28	47

A project focusing on Community livelihoods and support for securing wetland biodiversity began in June 2019, and lasted for three years. It was overseen by BLZ in partnership with the Environmental Management Agency, Chikukwa Ecological Land Use Community Trust, Zimbabwe AIDS Prevention Project, Regai Dzive Shiri Trust, Gutu Rural District Council and BirdLife International. It demonstrated that alternative sources of income could reduce the pressure of human activities on the wetlands, thus conserving this important ecosystem and its biodiversity. Three income-generating activities, namely bee-keeping, poultry and pig production, have been established at Chinyaure, Shashe, Markdale and Daviot villages, located in areas crucially important for crane breeding.

This project built local capacity in wetland conservation among the villagers, developing their skills and knowledge of fire and wetland management in Driefontein. Four fire fighting teams were established and are taking a lead in the control and prevention of fires. In June 2020, fireguards exceeding 33km in length were established protected sensitive breeding and foraging habitats. The local communities were actively involved in wetland restoration, gaining experience in sustainable wetland management. Fifteen sensitive wetland sites, covering a total area of 55 hectares in Chinyaure, Daviot, Shashe and Markdale were protected between July 2020 and March 2022. This was achieved through the erection of fences around the core areas (seeps) of sensitive wetlands, protecting them from damage by livestock (Figure 3). This improved the state of the wetland seeps, which are the main sources of water to the wetlands. At least five of the restored sites were recolonised by breeding pairs of cranes.

The communities in the four target villages lead in the development of local by-laws for the future protection of sensitive Driefontein wetlands. These regulate human activities around seeps and sensitive parts of the wetlands, and provide guidance on the control of resources within and around the seeps.

Figure 3. A restored wetland in the Driefontein area. Note the differences in grass cover on either side of the fence. Photo © Togarasei Fakarayi.

To ensure project sustainability, a steering committee made up of key stakeholders, including Site Support Group members from the four villages was established, while technical personnel and local authorities from BLZ, the Environmental Management Agency, local authorities, agriculture and technical extension services will help guide the process forward into the future. The project forms part of BLZ's Local Empowerment and Engagement Programme, so BLZ will also continue to provide technical support. A project management handbook was developed to provide guidelines for both the biodiversity and the livelihood components of the project. Lessons learnt from these interventions can be replicated to other wetland areas in Zimbabwe and beyond.

Acknowledgments

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Garden Bird Survey 1999-2000. Part 4: Other Areas

I.C. Riddell & B.E. Marshall

Introduction

This is the final part of the report on the national garden bird survey that was carried out in 1999-2000. The first parts dealt with gardens in Harare, Bulawayo and Marondera (Riddell 2021; Riddell & Marshall 2021a, 2021b).

It presents the results of surveys from other regions, some being from smaller urban centres and others from rural areas. There are of course various reports about individual bird species, and even checklists from some of them, such as Kariba (Donnelly & Donnelly 1983), Gweru (Harwin 1967) and the Vumba (Harwin *et al*. 1994) but these tend to cover large areas and give little detail on the relative abundance of bird species. These reports are the first to attempt a more detailed account of garden birds in these otherwise poorly documented sites.

As with other garden surveys, there are some problems that should be taken into account. Identification can be a problem, but this is most likely to occur with species that are occasional visitors or vagrants; the relatively small number of regular garden species are generally easy to identify. Individual gardens can differ widely and while this may not be a serious issue when a large number are surveyed, it is more serious when only a few are available. This was the case in many of the smaller centres where only one or two gardens were involved, but we hope that the results will add to knowledge of our birds, and perhaps more importantly, enable us to determine the impact of our rapidly changing world on our bird populations.

Harare Rural

Three observers contributed 29 cards from Christon Bank over 13 months (January 1999-January 2000) and two rural Harare gardens (Harare South and Tynwald) with 42 cards included in this dataset. These areas differed to some extent since Christon Bank is on the edge of the granite to the north of Harare, and is well-wooded and hilly, while the other two sites are in more open country with less dense woodland and some areas of open grassland.

Species composition

A total of 190 species were recorded on 71 cards, and 4,008 bird records were accumulated with an average of 54.2 species per card. If the four gardens with 10 or more months are considered, the average rises to 58.2 species per card.

The species composition was generally similar to that of the urban Harare gardens, although the rankings of some species differed (Table 1). They also included a few species more typically found in the surrounding miombo woodlands, such as the Lizard Buzzard, Emerald-spotted Wood Dove, Striped Kingfisher, African Golden Oriole, Black Cuckooshrike, African Grey Hornbill, Grey-headed and Orange-breasted Bush-shrikes, and Scarlet-chested Sunbird.

The Variable Sunbird and Purple-crested Turaco, both common garden birds in Harare, were also recorded, although with a much lower ranking. The Pied Crow was ranked at no. 7, which suggests that the influence of the Harare urban area, or littering, has extended into these rural sites since this crow is generally less numerous in rural areas.

Seasonal variation

There were 167 species recorded in summer (November-February) and 143 in winter (May-August), with monthly means of 59.0 (n=5) and 48.7 (n=5) for summer and winter respectively.

The Paradise Flycatcher, which was not recorded in winter, joined the Bronze Mannikin, Dark-capped Bulbul, Diderick Cuckoo and White-browed Robin-chat in first place in summer. Crested Barbet was also more frequent in summer, as were the sunbirds.

Table 1. A comparison of the 50 most frequent garden species in Harare, Harare rural, and other centres in Mashonaland, 1999-2000. The values are the rankings of each species, with 1 being the most frequently recorded and 50 the least; some species have the same ranking. Harare data are from Riddell (2021).

	Harare	Harare Rural	Mashonaland
Cattle Egret *Bubulcus ibis*	13	41	21
Black-headed Heron *Ardea melanocephala*	41		
Grey Heron *Ardea cinerea*	46		
Hamerkop *Scopus umbretta*	37	28	48
Abdim's Stork *Ciconia abdimii*	43		
Lizard Buzzard *Kaupifalco monogrammicus*		44	
Gabar Goshawk *Micronisus gabar*	39		
Black-shouldered Kite *Elanus caeruleus*		24	
Swainson's Spurfowl *Pternistis swainsonii*			48
Helmeted Guineafowl *Numida meleagris*			47
Laughing Dove *Spilopelia senegalensis*	1	2	9
Red-eyed Dove *Streptopelia semitorquata*	12	5	11
Cape Turtle Dove *Streptopelia capicola*	40	19	1

	Harare	Harare Rural	Mashonaland
Emerald-spotted Wood Dove *Turtur chalcospilos*		39	17
Namaqua Dove *Oena capensis*			31
African Green Pigeon *Treron calvus*			36
Diderick Cuckoo *Chrysococcyx caprius*		41	
Purple-crested Turaco *Gallirex porphyriolophus*	5	47	11
Grey Go-away-bird *Crinifer concolor*	35	41	16
Barn Owl *Tyto alba*	47	28	
Fiery-necked Nightjar *Caprimulgus pectoralis*	44	39	36
African Palm Swift *Cypsiurus parvus*	22	35	50
Speckled Mousebird *Colius striatus*	26		
Red-faced Mousebird *Urocolius indicus*	21		40
European Bee-eater *Merops apiaster*	30	32	
Brown-hooded Kingfisher *Halcyon albiventris*		48	23
Striped Kingfisher *Halcyon chelicuti*		34	34
African Hoopoe *Upupa africana*	34		40
Green Wood-hoopoe *Phoeniculus purpureus*	23	10	19
African Grey Hornbill *Lophoceros nasutus*		10	20
Black-collared Barbet *Lybius torquatus*	24	12	8
Crested Barbet *Trachyphonus vaillantii*	4	15	6
Yellow-fronted Tinkerbird *Pogoniulus chrysoconus*	50	24	38
Cardinal Woodpecker *Dendropicos fuscescens*	42	18	
Fork-tailed Drongo *Dicrurus adsimilis*	19	8	9
Black-headed Oriole *Oriolus larvatus*		26	32
African Golden Oriole *Oriolus auratus*		46	
Black Cuckooshrike *Campephaga flava*		49	
Pied Crow *Corvus albus*	2	7	50
Arrow-marked Babbler *Turdoides jardineii*	7	9	13
Dark-capped Bulbul *Pycnonotus tricolor*	3	2	4
Kurrichane Thrush *Turdus libonyana*	9	28	5
Groundscraper Thrush *Turdus litsitsurupa*			28
White-browed Robin-chat *Cossypha heuglini*	8	2	2
Bar-throated Apalis *Apalis thoracica*	17	21	
Tawny-flanked Prinia *Prinia subflava*		12	38
Southern Black Flycatcher *Melaenornis pammelaina*			22
African Paradise Flycatcher *Terpsiphone viridis*	32	34	24
Chin-spot Batis *Batis molitor*			29
Southern Fiscal *Lanius collaris*	14		
Tropical Boubou *Laniarius major*	27	14	7
Southern Puffback *Dryoscopus cubla*	17	19	18
Grey-headed Bush-shrike *Malaconotus blanchoti*		31	
Orange-breasted Bush-shrike *Chlorophoneus sulfureopectus*		44	
Brubru *Nilaus afer*			34
Greater Blue-eared Starling *Lamprotornis chalybaeus*	48		
Cape Glossy Starling *Lamprotornis nitens*			45
Red-winged Starling *Onychognathus morio*		50	
White-bellied Sunbird *Cinnyris talatala*	36	15	24
Variable Sunbird *Cinnyris venustus*	10	32	
Eastern Miombo Sunbird *Cinnyris manoensis*	25	5	33
Amethyst Sunbird *Chalcomitra amethystina*	45		
Scarlet-chested Sunbird *Chalcomitra senegalensis*		36	15
African Yellow White-eye *Zosterops senegalensis*	31	23	40
House Sparrow *Passer domesticus*	29		45
Southern Grey-headed Sparrow *Passer diffusus*	15		30
Southern Masked Weaver *Ploceus velatus*	11	35	40
Village Weaver *Ploceus cucullatus*			26
Golden Weaver *Ploceus xanthops*	19	50	
Spectacled Weaver *Ploceus ocularis*	28	26	27
Southern Red Bishop *Euplectes orix*	49		
Bronze Mannikin *Spermestes cucullatus*	5	1	
Common Waxbill *Estrilda astrild*			40
Red-billed Firefinch *Lagonosticta senegala*	16	17	14
Blue Waxbill *Uraeginthus angolensis*	33	21	3
Streaky-headed Seedeater *Crithagra gularis*	38		

Mashonaland Rural

This part of the garden survey considers records from rural areas in Mashonaland, namely Karoi, Mhangura, Raffingora, Mutorashanga, Chinhoyi, Banket, Bindura, Mazowe, Enterprise, Ruwa, and Bromley. As with the Harare data, there was a significant correlation between the number of species recorded and the number of months that recording was done, although with wide variability (Figure 1). This variability must reflect differences between gardens, as well as the effort, experience and skill of the observers.

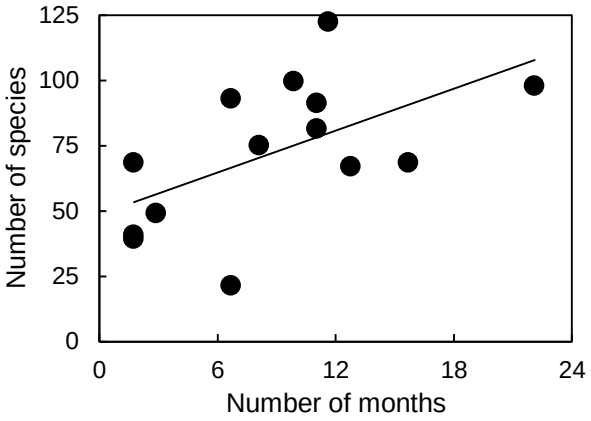

Figure 1. The relationship between number of months with records and the total number of species recorded in each of the Mashonaland gardens; the relationship is significant ($r = 0.566$, $p < 0.05$).

The sixteen observers in these locations reported a total of 219 species on 133 cards, giving an average of 41.6 species per card, but 30 species were only recorded once and 15 twice. The largest number of species (122) was recorded in a single garden in Raffingora counted over 12 observer months, while the lowest (21) was from a Karoi garden over 7 observer months. However, a Ruwa garden with two observer months of records had 70 species while one in Mazowe, also with two observer months, had 43 species. The average number from all gardens was 72.9 species.

Species composition

There were some distinct differences between the relatively rural Mashonaland gardens and those in Harare. Among the top 50 species, 16 were recorded only in Harare and 17 only in Mashonaland (Table 1). Some species that were ranked highly in Harare gardens were much less abundant in the rural ones. For example, the top-ranked species in Harare, the Laughing Dove, was replaced in that position by the Cape Turtle Dove in the rural gardens. Similarly, the Pied Crow, number 2 in Harare, was ranked at 50 in the rural gardens. The relative abundance of two closely-related sunbirds was of interest, with the Amethyst Sunbird, ranked 45 in Harare, being ranked at 88 in the rural gardens while the Scarlet-chested Sunbird (ranked 15) was the most frequent sunbird in the rural gardens. The Variable Sunbird (ranked 10 in Harare) was scarce in the Mashonaland Gardens (ranked at 86) while the frequency of the White-bellied Sunbird was similar in both, being ranked 36 in Harare and 25 in Mashonaland. An interesting indication of sunbird numbers in rural Mashonaland is provided by Tree (2004). He ringed 2355 sunbirds over eight years on Chirawanoo Farm, Darwendale, and found that the commonest species was the White-bellied (45.0%), followed by the Scarlet-chested (23.8%), Eastern Miombo (14.5%) and Amethyst Sunbirds (6.6%). Four other species made up the remaining 10.1% but no Variable Sunbirds were ringed. This confirms the view that gardens have played a major part in the spread of this sunbird as noted in the earlier Harare and Marondera surveys (Riddell 2021; Riddell & Marshall 2021).

Another interesting account of garden sunbirds comes from Jonsson (1982) who lived in the semi-rural Harare suburb of Umwinsidale. In 1974, White-bellied Sunbirds were the dominant species, with Amethyst Sunbirds appearing occasionally, and she once recorded a Variable Sunbird. By 1978, the White-bellieds had almost disappeared, having been replaced by Eastern Miombo Sunbirds, whose numbers increased up to 1981. In 1982, these were replaced by Scarlet-chested Sunbirds, a few White-bellieds reappeared, and a pair of Variables took up residence. Amethyst Sunbirds were also spotted more frequently and she also recorded Purple-banded and Copper Sunbirds. The records from both Tree and Jonsson suggest that sunbird populations are likely to vary over time and further observations would be very useful.

The Speckled Mousebird (ranked 26) is another species that has benefitted from gardens, but the Red-faced Mousebird may also have adapted to them since it was ranked only at No. 42 in the Mashonaland gardens, but at No. 21 in Harare (Table 1). Another interesting difference concerned the two glossy starling species, with the Greater Blue-eared (ranked 48) being dominant in Harare, and the Cape Glossy (ranked 46) being dominant in the rural Mashonaland gardens. Assuming that these birds were identified correctly, this suggests that they have very different habitat requirements.

Like the Harare rural gardens, those in Mashonaland included some of the woodland species also found in the Harare rural gardens, as well as some additional species such as Swainson's Spurfowl, Helmeted Guineafowl, Namaqua Dove and Green Pigeon. The Pied Crow decreased to 50th rank, as might be expected in rural conditions.

Seasonal variation

A total of 193 species were recorded in summer (November-February) compared to 154 in winter (May-August). Species recorded only in summer included the African Pied Wagtail *Motacilla aguimp*, Ashy Flycatcher *Muscicapa caerulescens*, Black-throated Canary *Crithagra atrogularis*, Broad-billed Roller *Eurystomus glaucurus*, Copper Sunbird *Cinnyris cupreus*, Cut-throat Finch *Amadina fasciata*, Freckled Nightjar *Caprimulgus tristigma*, Long-tailed Paradise-whydah *Vidua paradisea*, Malachite Kingfisher *Corythornis cristata*, Orange-winged Pytilia *Pytilia afra*, Pale Flycatcher *Melaenornis pallidus*, Pin-tailed Whydah *Vidua macroura*, Southern Red Bishop *Euplectes orix* and Trumpeter Hornbill *Bycanistes bucinator*. Species recorded in winter only included the Capped Wheatear *Oenanthe pileata*, Greater Honeyguide *Indicator indicator*, Grey-rumped Swallow *Pseudhirundo griseopygia*, Pearl-spotted Owlet *Glaucidium perlatum*, Rufous-cheeked Nightjar *Caprimulgus rufigena*, Swallow-tailed Bee-eater *Merops hirundineus* and Western Violet-backed Sunbird *Anthreptes longuemarei*.

Of the species common to both summer and winter lists, the Paradise Flycatcher was relatively more common in summer (2.2 *vs* 0.2%), as was the Violet-backed Starling *Cinnyricinclus leucogaster* (1.0 *vs* 0.1%). More common in winter were White-bellied Sunbird (1.7 *vs* 0.9%), Green Wood-hoopoe (1.9 *vs* 1.3%), Fork-tailed Drongo (2.4 *vs* 1.8%), Brubru (1.3 *vs* 0.8%) and Fiery-necked Nightjar (1.1 *vs* 0.6%).

Masvingo

Species composition

Two observers submitted 38 cards from urban Masvingo. One garden had records for 20 months with 56 species and the second for 18 months with 35 species. A total of 65 species were recorded (Table 2) from 689 records, with an average of 18.1 species per card. The species composition was similar to that of other urban gardens, but there were some differences that may reflect a rather drier climate (annual rainfall = 615 mm compared to 840 mm for Harare). This may explain the more frequent occurrence of the Blue Waxbill, House Sparrow, Cape Turtle Dove and Cape Glossy Starling, and the absence of the Purple-crested Turaco. Other records of interest include the Magpie Shrike and Miombo Blue-eared Starling, which suggests a mixture of acacia and miombo in these gardens. Another interesting record is the Speckled Mousebird, now a major garden bird in Harare; there is an isolated population of this species around Great Zimbabwe (Irwin 1981) and it is unclear if this mousebird is a vagrant from there, or if it is becoming a garden bird in Masvingo.

Table 2. The 65 species recorded in the two Masvingo gardens; the values in brackets are their ranking; note that several species may have the same rank.

Dark-capped Bulbul (1)	Greater Blue-eared Starling (20)
White-browed Robin-chat (1)	African Yellow White-eye (21)
Blue Waxbill (2)	Red-eyed Dove (21)
House Sparrow (3)	Eastern Miombo Sunbird (21)
Pied Crow (3)	African Golden Oriole (21)
Laughing Dove (4)	Jameson's Firefinch *Lagonosticta rhodoparea* (22)
Crested Barbet (5)	Tawny-flanked Prinia (22)
Cape Turtle Dove (6)	Kurrichane Thrush (22)
Fork-tailed Drongo (7)	Southern Fiscal (23)
Grey Go-away-bird (8)	Little Sparrowhawk *Accipiter minullus* (23)
Cape Glossy Starling (8)	Black Cuckoo *Cuculus clamosus* (23)
Bronze Mannikin (9)	European Bee-eater (23)
African Hoopoe (9)	Red-billed Firefinch (23)
Crowned Lapwing *Vanellus coronatus* (9)	Fiery-necked Nightjar (23)
Groundscraper Thrush (10)	Village Weaver (23)
Common Waxbill (10)	Abdim's Stork (23)
Black-headed Heron (11)	Brubru (23)
Tropical Boubou (12)	Miombo Blue-eared Starling *Lamprotornis elisabeth* (23)
Arrow-marked Babbler (12)	African Pygmy Kingfisher *Ispidina picta* (23)
Southern Puffback (12)	African Palm Swift (24)
Lilac-breasted Roller *Coracias caudatus* (13)	Southern Masked Weaver (24)
Black-collared Barbet (13)	Cattle Egret (24)
Bar-throated Apalis (13)	Yellow-throated Petronia *Gymnoris superciliaris* (24)
Red-winged Starling (14)	Yellow-fronted Tinkerbird (24)
Black-headed Oriole (15)	Red-chested Cuckoo *Cuculus solitarius* (24)
African Paradise Flycatcher (1.5)	Streaky-headed Seedeater (24)
Magpie Shrike *Urolestes melanoleucus* (16)	Violet-backed Starling (24)
Woodland Kingfisher *Halcyon senegalensis* (16)	African Grey Hornbill (24)
Cape Crow C*orvus capensis* (17)	Yellow-billed Kite (24)
White-bellied Sunbird (18)	Speckled Mousebird (24)
Scarlet-chested Sunbird (19)	Spectacled Weaver (24)
Grey Heron (20)	Diderick Cuckoo (24)
Southern Grey-headed Sparrow (20)	

Seasonal variation

A total of 51 species were recorded in summer (November-February) and 45 in winter (May-August), with a mean of 18.1 and 16.5 species per garden in summer and winter respectively. The difference reflects the presence of summer migrants. The Crested Barbet (6.2 *vs* 3.7%), Common Waxbill (3.4 *vs* 2.3%) and Groundscraper Thrush (3.4 *vs* 1.4%) were recorded more frequently in summer, while the Laughing Dove (5.5 *vs* 4.0%), African Hoopoe (3.7 *vs* 2.8%), Crowned Lapwing (3.7 *vs* 2.3%, Lilac-breasted Roller (2.7 *vs* 0.6%) and Black-headed Oriole (2.7 *vs* 0.6%) more frequent in winter. The Palm Swift, Paradise Flycatcher, and Red-billed Firefinch were not seen in winter, and the Kurrichane Thrush was not seen in summer.

Mutare

Species composition

There was only one observer in Mutare with 21 months of records, during which 69 species were recorded (Table 3) from 680 records with an average of 32.4 species per card. The species composition was similar in many respects to gardens elsewhere, although with a number of typical eastern highlands species being included. These include the Crowned and Silvery-cheeked Hornbills, Burchell's Coucal, Tambourine Dove, Collared Sunbird, Emerald Cuckoo, Gorgeous Bush-shrike and Red-backed Mannikin. Notable absences included the Laughing and Cape Turtle Doves, as well as the Grey Go-away-bird. One garden is, of course, a small sample and some species that might have been expected to occur were not recorded.

Table 3. The 69 species recorded in the single Mutare gardens, with their ranking shown in brackets; note that some species have the same rank.

Dark-capped Bulbul (1)	Streaky-headed Seedeater (10)
White-browed Robin-chat (1)	Blue Waxbill (11)
Pied Crow (1)	Cardinal Woodpecker (11)
Tropical Boubou (1)	Red-chested Cuckoo (12)
Southern Puffback (1)	African Paradise Flycatcher (12)
Red-eyed Dove (1)	Collared Sunbird *Hedydipna collaris* (12)
Common Fiscal (1)	African Golden Oriole (13)
Speckled Mousebird (1)	Klaas's Cuckoo *Chrysococcyx klaas* (13)
Black-collared Barbet (2)	African Emerald Cuckoo *Chrysococcyx cupreus* (13)
Village Weaver (2)	Diderick Cuckoo (14)
Spectacled Weaver (2)	Lesser Honeyguide *Indicator minor* (14)
Whyte's Barbet Stactolaema whytii (2)	Thick-billed Weaver *Amblyospiza albifrons* (14)
Purple-crested Turaco (2)	Green-winged Pytilia *Pytilia melba* (15)
Golden Weaver (2)	Southern Black Tit *Melaniparus niger* (15)
Amethyst Sunbird (3)	African Harrier-hawk *Polyboroides typus* (15)
Crested Barbet (3)	Grey Heron (16)
Variable Sunbird (3)	Hamerkop (16)
Spotted Eagle-owl *Bubo africanus* (3)	Golden-tailed Woodpecker (16)
Kurrichane Thrush (5)	Tambourine Dove *Turtur tympanistria* (16)
Crowned Hornbill Lophoceros alboterminatus (5)	Gorgeous Bush-shrike *Telophorus viridis* (16)
Bronze Mannikin (6)	European Bee-eater (17)
Black-headed Oriole (6)	Black Widowfinch *Vidua funereal* (17)
African Hoopoe (7)	White-bellied Sunbird (18)
Southern Grey-headed Sparrow (7)	Green Wood-hoopoe (18)
Eastern Miombo Sunbird (7)	Southern Black Flycatcher (18)
African Palm Swift (8)	Black Cuckooshrike (18)
Yellow-fronted Canary *Crithagra mozambica* (8)	African Green Pigeon (18)
Silvery-cheeked Hornbill *Bycanistes brevis* (8)	Red-backed Mannikin *Spermestes bicolor* (18)
Fiery-necked Nightjar (8)	Augur Buzzard *Buteo augur* (18)
African Yellow White-eye (8)	Eastern Saw-wing Psalidoprocne orientalis (18)
Burchell's Coucal Centropus burchelli (8)	Scaly-throated Honeyguide (18)
Bar-throated Apalis (9)	

Seasonal variation

A total of 54 species were recorded in summer (November-February) and 49 in winter (May-August), possibly reflecting the absence of some migrant species. The Paradise-flycatcher was recorded only in summer, and birds that were relatively more frequent in summer included Palm Swift (3.2 *vs* 1.3%), Black-headed Oriole (3.2 *vs* 2.2%), Yellow-fronted Canary (3.23 *vs* 1.8%) and Blue Waxbill (2.5 *vs* 0.4%). More frequent in winter were the Spotted Eagle-owl (3.6 *vs* 1.9%), Kurrichane Thrush (3.1 *vs* 2.5%), Fiery-necked Nightjar (3.1 *vs* 0.6%) and African Hoopoe (2.2 *vs* 0.6%).

Midlands

The term 'Midlands' loosely comprises rural sites in the Kadoma, Chivhu, Chatsworth, Gweru, Lalapanzi, Masvingo and Mashava areas. There were 10 observers who submitted records from January 1999 to November 2000.

Number of species

A total of 221 species were recorded on 114 cards, with 38 species being recorded only once and 20 only twice. There were 4,805 individual bird records giving an average of 42.1 species per card. The maximum number of species recorded in a garden (Chatsworth) was 133 over 16 observer months (January 1999 – April 2000) and the minimum was 34 species (Kadoma) over one observer month (June 1999). As before, there was a significant ($p < 0.05$) relation between the number of months of recording and the number of species (Figure 2) with 79 being the average number recorded across all gardens.

The species composition was similar to the Mashonaland Gardens, but the most frequent species were the Blue Waxbill, Dark-capped Bulbul and Cape Turtle Dove (Table 4).

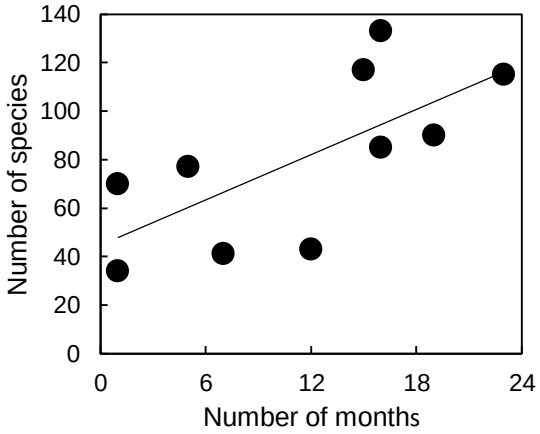

Figure 2. The relationship between number of months with records and the total number of species recorded in each of the "Midlands" gardens; the relationship is significant ($r = 0.691$, $p < 0.05$).

However, the rankings of some species indicated that some not typically considered to be garden birds were more important. There were some differences in the rankings with Grey Hornbill, Grey Go-away-bird and Greater Blue-eared Starling being more highly-ranked, while the White-browed Robin-chat, Laughing Dove and Bronze Mannikin were ranked much lower. This may reflect both the rather drier conditions of these gardens compared to those in Harare and Mashonaland.

Seasonal variation

In all, 186 species were recorded in summer (November-February) and 153 in winter (May-August).

Species recorded only in summer included the Ashy Flycatcher, Black-headed Heron, Broad-billed Roller, Flappet Lark *Mirafra rufocinnammomea*, Little Swift, Purple Widowfinch, Purple-crested Turaco, Square-tailed Nightjar *Caprimulgus fossii*, Steel-blue Widowfinch, Violet-backed Starling and White-rumped Swift. Species seen only in winter included the Black Stork and Brown-crowned Tchagra.

Paradise Flycatchers were more frequent in summer (1.7 *vs* 0.2%) while species more frequent in winter were the Groundscraper Thrush (2.0 *vs* 0.7%), Laughing Dove (1.9 *vs* 1.1%), White-crested Helmet-shrike (1.3 *vs* 0.6%), Bronze Mannikin (1.4 *vs* 0.8%), Yellow-bellied Greenbul (1.0 *vs* 0.4%), Fork-tailed Drongo (2.3 *vs* 1.7%), Grey-headed Bush-shrike (1.2 *vs* 0.7%), Grey-backed Camaroptera (1.0 *vs* 0.4%), Yellow-fronted Canary (1.4 vs 0.9%), African Yellow White-eye (1.3 *vs* 0.8%) and Namaqua Dove (1.0 *vs* 0.5%).

Esigodini

Species composition

Records were submitted from four gardens in this Matabeleland location, over a period of 24 months. A total of 190 species were recorded on 63 cards; there were 3,920 individual bird records with an average of 62.2 species per card, and 25 species were only recorded once and 18 twice. The maximum number of species recorded in a garden was 160 over 24 observer months and the minimum 86 species over six observer months.

The species composition was similar to that of the Bulawayo gardens (Table 5). It should be noted that the records of Whyte's Barbet and the Cape Wagtail have been omitted from the Bulawayo survey because of their possible misidentification. The presence of the Grey Heron and Hamerkop suggest the presence of a nearby water feature, while three francolins and the guineafowl point to these gardens being much more rural than those in Bulawayo. This conclusion is further supported by the low ranking of the Pied Crow and the absence of House Sparrows.

Two notable absences were the Scaly-feathered Finch and the Bronze Mannikin, both of which were highly-ranked in Bulawayo. It is unclear why these two species should not be present at Esigodini but it may reflect differences in the surrounding vegetation and the gardens themselves.

Seasonal variation

A total of 171 species were recorded in summer (November-February) and 132 in winter (May-August). Paradise Flycatchers were recorded in both summer and winter. Species recorded only in summer included the Brimstone Canary, Brubru, Flappet Lark, Horus Swift *Apus horus*, Lesser Striped Swallow, Purple Widowfinch, Red-billed Buffalo-weaver *Bubalornis niger*, Rufous-naped Lark, Shelley's Francolin *Scleroptila shelleyi* and Violet-backed Starling. Species seen only in winter included Ashy Tit *Melaniparus cinerascens*, Blacksmith Lapwing *Vanellus armatus*, Cape Crow, Lesser Honeyguide, Marico Flycatcher *Melaenornis mariquensis*, Miombo Blue-eared Starling, Southern Red-billed Hornbill, Red-headed Weaver and Tawny Eagle *Aquila rapax*.

Species found more frequently in summer included the Paradise Flycatcher (1.5 *vs* 0.1%), Rattling Cisticola (1.4 *vs* 0.2%), Cattle Egret (0.7 *vs* 0.1%) and Long-tailed Paradise-whydah (0.9 *vs* 0.3%). Those more common in winter included the Red-winged Starling (1.5 *vs* 0.8%), Yellow White-eye (1.4 *vs* 0.7%), Brown-crowned Tchagra *Tchagra australis* (1.1 *vs* 0.6%), Pied Crow (1.2 *vs* 0.7%), Southern Grey-headed Sparrow (1.7 *vs* 1.2%), Golden-breasted Bunting (0.6 *vs* 0.2%), White-browed Scrub Robin *Cercotrichas leucophrys* (0.8 *vs* 0.3%) and Long-billed Crombec (0.9 *vs* 0.4%).

Table 5. The top 50 species recorded at Esigodini and their rankings compared with the top 50 at Bulawayo; note that many species have the same ranking. Bulawayo data are from Riddell & Marshall (2021).

	Esigodini	Bulawayo
Grey Heron	19	
Cattle Egret	33	
Hamerkop	26	
Little Sparrowhawk		31
Natal Spurfowl	8	
Swainson's Spurfowl	14	
Crested Francolin *Dendroperdix sephaena*	18	
Helmeted Guineafowl	17	
Crowned Lapwing		17
Laughing Dove	1	1
Red-eyed Dove	4	21
Cape Turtle Dove	19	22
Emerald-spotted Wood Dove	6	
African Green Pigeon	19	
Meyer's Parrot	18	
Grey Go-away-bird	1	2

	Esigodini	Bulawayo
Senegal Coucal		17
Barn Owl	17	24
Spotted Eagle-owl		33
Fiery-necked Nightjar	20	
African Palm Swift		24
Red-faced Mousebird	16	13
Brown-hooded Kingfisher	1	33
Lilac-breasted Roller	14	22
African Hoopoe	12	8
Green Wood-hoopoe		15
Common Scimitarbill		34
Southern Red-billed Hornbill *Tockus rufirostris*	22	
Black-collared Barbet	4	33
Crested Barbet	3	11
Yellow-fronted Tinkerbird	11	
Bearded Woodpecker	13	
Barn Swallow		31
Fork-tailed Drongo	2	
Black-headed Oriole	2	24
Pied Crow	22	4
Cape Crow	32	
Southern Black Tit	17	
Arrow-marked Babbler	1	32
Dark-capped Bulbul	1	7
Yellow-bellied Greenbul	4	
Kurrichane Thrush	1	
Groundscraper Thrush	12	26
White-browed Robin-chat	1	9
Tawny-flanked Prinia	5	34
African Paradise Flycatcher		31
Chin-spot Batis	21	
Southern Fiscal		14
Magpie Shrike	13	
Tropical Boubou	3	12
Southern Puffback	10	
Greater Blue-eared Starling	19	
Red-winged Starling	18	23
White-bellied Sunbird	15	20
Scarlet-chested Sunbird	20	
Eastern Miombo Sunbird	22	31
African Yellow White-eye	20	20
Southern Grey-headed Sparrow	9	31
House Sparrow		3
Yellow-throated Petronia		34
White-browed Sparrow-weaver	20	
Scaly-feathered Finch *Sporopipes squamifrons*		10
Village Weaver	20	
Southern Masked Weaver		31
Lesser Masked Weaver		34
Cut-throat Finch		18
Bronze Mannikin		5
Jameson's Firefinch	11	16
Green-winged Pytilia	22	
Common Waxbill	34	
Blue Waxbill	7	6
Pin-tailed Whydah		34
Long-tailed Paradise-whydah		24
Streaky-headed Seedeater	19	

Eastern Highlands

This area is very diverse and with only six gardens being represented, all differing in altitude, aspect and rainfall, it is difficult to obtain a general picture of the garden birds. Consequently, the results are presented separately with comments on the most significant records. A total of 237 species were recorded from 2,716 individual records on 81 cards, with an average of 33.5 species per card. The lowest number of species recorded was 40 in one of the Burma Valley gardens over four observer months and the highest was 115 species in the Vumba over 19 observer months. There was a total of 81 observer months between six gardens (average 13.5 months).

Brondesbury Park

Brondesbury Park is in the rain-shadow of the highlands at 1500 m a.s.l. Its annual rainfall is probably closer to that of Rusape (780 mm) rather than Nyanga (1238 mm) and the natural vegetation is predominantly dwarf msasa (*Brachystegia spiciformis*) while the influence of the large granite outcrops in the vicinity is reflected in the composition of the bird species. There was only one observer who submitted records for 23 months, with an average of 42.3 birds per card (465 observer records). A total of 101 species was recorded.

The most frequently recorded species were the Dark-capped Bulbul, Kurrichane Thrush, Chin-spot Batis, Eastern Miombo Sunbird, Black-headed Oriole, Yellow-fronted Canary, White-necked Raven *Corvus albicollis*, Black-collared Barbet, Streaky-headed Seedeater, Familiar Chat *Oenanthe familiaris* and African Stonechat *Saxicola torquata*. The Red-winged Starling, Cape Turtle Dove, Amethyst Sunbird, Southern Puffback, African Yellow White-eye, Black-crowned Tchagra *Tchagra senegala*, Whyte's Barbet and Cape Bunting *Emberiza capensis* were in 2nd place. The Common Waxbill, Bar-throated Apalis, Fiery-necked Nightjar, Yellow-fronted Tinkerbird and Fork-tailed Drongo were in 3rd place followed by the Variable Sunbird in 4th.

A notable absence was the White-browed Robin-chat, while the Blue Waxbill ranked low in tied 11th (i.e., the least frequent) with only 1 record, along with the Red-eyed Dove and Speckled Mousebird. However, this garden was described as newly established and surrounded by miombo woodland, which is reflected in the species composition.

In all, 78 species were recorded in summer (November-February) and 39 in winter (May-August). The African Paradise Flycatcher, Black-shouldered Kite, Brubru, Emerald-spotted Wood Dove, Rufous-cheeked Nightjar, African Golden Oriole, White-breasted Cuckooshrike *Ceblepyris pectoralis*, Striped Pipit *Anthus lineiventris*, Tawny-flanked Prinia, Violet-backed Starling, White-crested Helmet-shrike *Prionops plumatus*, Wailing Cisticola *Cisticola lais* and Cinnamon-breasted Bunting were recorded only in summer. The Miombo Tit *Melaniparus griseiventris*, Familiar Chat and Cape Bunting were recorded only in winter, while 33 species were reported in both seasons.

Comparing seasonal differences is difficult owing to the small sample size but species more frequent in summer included Brown-hooded Kingfisher, Cape Turtle Dove and Common Waxbill (all 2.0 *vs* 1.6%). Those more frequent in winter included Miombo Rock-thrush *Monticola angolensis* (3.1 *vs* 0.5%), Pale Flycatcher (3.1 *vs* 1.0%), Variable Sunbird (3.1 *vs* 1.5%), Red-winged Starling (3.1 *vs* 1.5%), and Groundscraper Thrush (3.1 *vs* 1.5%).

Vumba

The single Vumba garden was located at *c*.1600 m on the moist and forested east-facing slopes, where the annual rainfall is around 1700 mm. The observer submitted records for 19 months, with an average of 41.2 birds per card (782 observer records) and a total of 115 species was recorded. These reflected the forested nature of the area, with some open grassland, and included many Eastern Highlands "specials" not reported elsewhere.

The Dark-capped Bulbul and Red-winged Starling were the most frequent species, followed by Southern Puffback and Cape Robin-chat *Cossypha caffra* (2nd), African Stonechat, Bar-throated Apalis and Variable Sunbird (3rd), White-necked Raven, Cape Batis *Batis capensis*, Olive Bush-shrike *Chlorophoneus olivaceus*, Stripe-cheeked Greenbul *Arizelocichla milanjensis* and Rock Martin *Ptyonoprogne fuligula* (4th), Kurrichane Thrush, Eastern Miombo Sunbird, Long-crested Eagle *Lophaetus occipitalis*, Crowned Eagle *Stephanoaetus coronatus*, Cape Grassbird *Sphenoeacus afer*, Red-necked Spurfowl *Pternistis afer* and Yellow-streaked Greenbul *Phyllastrephus flavostriatus* (5th), Tropical Boubou and Livingstone's Turaco *Tauraco livingstonii* (6th). The Augur Buzzard *Buteo augur*, Bronze Mannikin, Tambourine Dove and Cape Canary *Serinus canicollis* were at 7th, with the Red-capped Robin-chat *Cossypha natalensis* and Black-fronted Bush-shrike *Chlorophoneus nigrifrons* were at 13th, the White-starred Robin *Pogonocichla stellata* and five other species at 14th with the White-browed Robin-chat and four other species at 15th.

In all, 70 species were recorded over five observer months in summer (November-February) and 93 over seven observer months in winter (May-August). Species reported only in summer included the African Black Swift *Apus barbatus*, African Emerald Cuckoo, African Firefinch *Lagonosticta rubricata*, Buff-spotted Flufftail *Sarothrura elegans*, Eastern Bronze-naped Pigeon *Columba delegorguei*, Olive Thrush *Turdus olivaceus*, Orange Ground Thrush *Geokichla gurneyi*, Pin-tailed Whydah, Red-capped Robin-chat, White-starred Robin and Yellow-rumped Tinkerbird.

Those recorded only in winter included the African Olive Pigeon *Columba arquatrix*, African Palm Swift, Amethyst Sunbird, Arrow-marked Babbler, Ashy Flycatcher, Bronze Sunbird *Nectarinia kilimensis*, Collared Sunbird, Common Fiscal, Crested Barbet, Gurney's Sugarbird *Promerops gurneyi*, Laughing Dove, Malachite Sunbird *Nectarinia famosa*, Pied Crow, Purple-crested Turaco, Red-billed Firefinch, Scarlet-chested Sunbird, Southern Grey-headed Sparrow, Spectacled Weaver, White-bellied Sunbird and White-tailed Crested Flycatcher *Elminia albonotata*.

Although there was a difference in the seasonal coverage, species that were more frequent in summer included the African Dusky Flycatcher *Muscicapa adusta*, Dark-capped Yellow Warbler *Iduna natalensis* and Roberts's Warbler *Oreophilais robertsi* (all 2.1 *vs* 0.5%), whilst those more frequent in winter included Bronze Mannikin (3.2 *vs* 1.1%), Yellow-fronted Canary (2.7 *vs* 1.1%) and Brimstone Canary *Crithagra sulphurata* (2.2 *vs* 0.5%).

Burma Valley

The altitude of the two Burma Valley gardens is a little uncertain but they were probably around 900 m, and the natural vegetation is miombo woodland, montane grassland, forest and forest edge. Two observers submitted records, one for 4 months (January-April 1999) with an average of 23.8 birds per

card (40 species from 95 observer records) and one for 12 months (January 1999-January 2000) with an average of 25.6 species per card (66 species from 307 observer records). A total of 87 species were recorded from 402 bird records, but there were fewer Eastern Highlands "specials" than at the Vumba, probably because of the lower altitude.

The Dark-capped Bulbul, Speckled Mousebird and Brown-hooded Kingfisher were the most frequent species followed by Purple-crested Turaco and Scarlet-chested Sunbird in 2nd place, Bronze Mannikin (3rd), Red-winged Starling, Fork-tailed Drongo and Helmeted Guineafowl (4th), Kurrichane Thrush, White-browed Robin-chat, Red-eyed Dove and Little Sparrowhawk (5th), Spectacled Weaver, Trumpeter Hornbill (6th); the records of Amur Falcon *Falco amurensis* (also at 6th) were winter records and probably misidentifications. The Amethyst Sunbird, African Paradise Flycatcher, Cattle Egret and Blue Waxbill were at 7th and the Dark-backed Weaver *Ploceus bicolor* was at 8th.

A total of 78 species was recorded in summer (November-February; 7 observer months) and 40 in winter (May-August; 4 observer months in 1999 only). Those recorded only in summer included African Green Pigeon, African Palm Swift, African Paradise Flycatcher, African Pygmy Kingfisher, Ashy Flycatcher, Barn Owl, Black-throated Wattle-eye *Platysteira peltata*, Bronzy Sunbird, Cape Turtle Dove, Emerald-spotted Wood Dove, Grey Heron, House Sparrow, Eastern Miombo Sunbird, Pied Crow, Violet-backed Starling and Yellow-bellied Greenbul *Chlorocichla flaviventris.* Those only found in winter included the Grey Waxbill *Glaucestrilda perreini*, Crowned Hornbill and Malachite Kingfisher.

Chipinge

Two observers at Chipinge submitted records, one for 15 months (January 1999-August 2000) with an average of 47.1 birds per card (122 species from 706 observer records) and one for 20 months (January 1999-December 2000) with an average of 18 species per card (48 species from 361 observer records). A total of 135 species was recorded from 1,067 bird records. Like the Burma Valley gardens, there were relatively few Eastern Highlands "specials" and the bird populations were mostly similar to other miombo areas.

The Dark-capped Bulbul and White-browed Robin-chat were the most frequent species followed by Variable Sunbird (2nd), Southern Fiscal (3rd), Kurrichane Thrush (4th), Speckled Mousebird and Chin-spot Batis (5th), Brown-hooded Kingfisher (6th), Helmeted Guineafowl (7th), Bronze Mannikin (8th), Burchell's Coucal (9th), African Green Pigeon and Red-billed Firefinch (10th), Red-winged Starling and African Paradise Flycatcher (11th), Common Waxbill, Eastern Miombo Sunbird and Cape Turtle Dove (12th) and Red-eyed Dove, Amethyst Sunbird, Crowned Hornbill, Long-crested Eagle, Golden Weaver, Southern Masked Weaver and Olive Sunbird (13th). The Laughing Dove was not recorded and Livingstone's Turaco, which replaced the Purple-crested Turaco, was in 20th place with other species.

There were 107 species recorded in summer (November-February; 13 out of 16 observer months) and 100 in winter (May-August; 11 out of 16 observer months). Those found only in summer included African Black Duck *Anas sparsa*, African Paradise Flycatcher, Buff-spotted Flufftail, Green-winged Pytilia, Red-billed Quelea *Quelea quelea* and Thick-billed Weaver. Species found only in winter included African Emerald Cuckoo, African Golden Oriole, Black-crowned Tchagra, Silvery-cheeked Hornbill and Yellow-fronted Canary. The presence of African Emerald Cuckoo only in winter may be a misidentification.

Species more frequent in winter included Helmeted Guineafowl (3.2 *vs* 1.9%), Chin-spot Batis (3.5 *vs* 2.2%), Brubru (1.2 *vs* 0.3%), Lesser Striped Swallow *Cecropis abyssinica* (1.2 *vs* 0.3%) and Cape Turtle Dove (2.3 *vs* 1.6%). Those more frequent in winter included the African Green Pigeon (2.8 *vs* 1.2%), Eastern Miombo Sunbird and Crowned Hornbill (2.2% *vs* 1.2%).

Chiredzi

Two observers submitted records, one for 23 months with an average of 62.6 birds per card (1,439 observer records) and one for January 1999 only with 95 species, and the total of 148 species was recorded from 1,534 bird records. The gardens here were the lowest (485 m) and possibly the driest (585 mm) of those involved in this survey. Species particular to this area were the Bearded Scrub-robin *Cercotrichas quadrivirgata*, Burchell's Coucal, Common Ostrich *Struthio camelus* (not a garden bird), Crowned Hornbill, Meves's Starling *Lamprotornis mevesi* and White-crowned Lapwing *Vanellus albiceps.*

The most frequent species were the Southern Yellow-billed Hornbill *Tockus leucomelas* (recorded in 24 months), Dark-capped Bulbul, Grey Go-away-bird, White-browed Robin-chat, Laughing Dove, Cape Turtle Dove, Emerald-spotted Wood Dove, Brown-hooded Kingfisher, Fork-tailed Drongo, Black-headed Oriole, Tropical Boubou, Crested Barbet, Black-collared Barbet, Yellow-bellied Greenbul, Blue Waxbill, Southern Grey-headed Sparrow, Southern Puffback, African Hoopoe, White-bellied Sunbird, Chin-spot Batis, African Grey Hornbill, Orange-breasted Bush-shrike, Hamerkop and Red-billed Firefinch – all recorded in 23 observer months. Another 39 species were only recorded in one observer month and 11 in two observer months.

There were 143 species recorded in summer (November-February) and 82 in winter (May-August). Species record only in summer included the African Paradise Flycatcher, Ashy Flycatcher, Crowned Lapwing, Purple-crested Turaco, Swallow-tailed Bee-eater, Trumpeter Hornbill, Racquet-tailed Roller *Coracias spatulatus*, Long-tailed Paradise-whydah, Steel-blue Widowfinch *Vidua chalybeata* (single records), Golden-breasted Bunting *Emberiza flaviventris* and Little Bee-eater *Merops pusillus* (2 records), Little Swift *Apus affinis* (3 records), Golden-tailed Woodpecker (4 records), Southern Black Tit (5 records), Red-headed Weaver *Anaplectes rubriceps* (6 records), Violet-backed Starling (7 records). The Striped Kingfisher was only recorded in winter, while 81 species were common to both lists.

Species recorded more frequently in summer included Village Weaver (1.3 *vs* 0.3%), Greater Honeyguide (1.7 *vs* 0.8%), African Yellow White-eye (1.1 *vs* 0.3%), African Green Pigeon (1.5 *vs* 0.8%), African Palm Swift (1.5 *vs* 0.8%), Red-faced Mousebird (0.9 *vs* 0.3%), Variable Sunbird (0.9 *vs* 0.3%) and Meyer's Parrot *Poicephalus meyeri* (1.1 *vs* 0.5%). Those more frequent in winter included Common Waxbill (1.8 *vs* 0.9%), Pearl-spotted Owlet (1.0 *vs* 0.2%), White-crested Helmet-shrike (1.5 *vs* 0.9%) and Grey-headed Bush-shrike (1.8 *vs* 1.3%).

Kariba

Two observers submitted records from the Kariba area, one was 'urban' and probably located on the Kariba Heights while the other, located at Chawara, was considered to be 'rural'. The single urban observer submitted 4 months of records from June – September 1999 with an average of 26.2 species per card, giving a total of 46 species from 105 bird records. The 21 most common species were the Dark-capped Bulbul, Red-eyed Dove, Laughing Dove, Fork-tailed Drongo, Tropical Boubou, Bronze Mannikin, White-bellied Sunbird, White-crested Helmet-shrike, Crowned Hornbill and Meyer's Parrot (all sharing 1st place), with the Purple-crested Turaco, Blue Waxbill, Southern Puffback, Grey-headed Bush-shrike, Black-collared Barbet, Cape Turtle Dove, Village Weaver, Southern Grey-headed Sparrow, African Palm Swift, Helmeted Guineafowl and Yellow-bellied Greenbul in 2nd place.

One of the authors (BM), then employed by National Parks, lived in Kariba for seven years and recorded a number of unusual garden birds that only occurred in the miombo woodland on the hills, and not lower down or in the mopane along the lakeshore. They included the European Honey-buzzard *Pernis apivorus*, Barred Owlet *Glaucidium capense*, Narina Trogon *Apaloderma narina*, African Pitta *Pitta angolensis* Livingstone's Flycatcher *Erythrocercus livingstonei*, and Eastern Nicator *Nicator gularis*.

Another unusual garden species was reported to BM by an irate woman who wanted to know what National Parks were going to do about 'those eagles.' It turned out that she had seen her cat narrowly escape being caught by a Crowned Eagle in her front garden.

The single observer from Chawara provided 11 months of records between January 1999 and January 2000, with an average of 25.3 species per card, with a total of 77 species being recorded from 278 bird records. This locality was located in mopane woodland close to the lakeshore which influenced the species that occurred in this garden. The 20 most common species were the Fork-tailed Drongo, Blue Waxbill, Green Wood-hoopoe, Egyptian Goose *Alopochen aegyptiaca*, Pearl-spotted Owlet and Meves's Starling in 1st place, Lilac-breasted Roller, Cattle Egret and White-browed Sparrow-weaver *Plocepasser mahali* (2nd); Dark-capped Bulbul, Helmeted Guineafowl, Emerald-spotted Wood Dove, Hamerkop and White-browed Coucal *Centropus superciliosus* (3rd), Southern Puffback, Fish Eagle *Haliaeetus vocifer* and White-faced Duck *Dendrocygna viduata* (4th); Grey Hornbill and Grey-backed Camaroptera (5th), and Rattling Cisticola 6th).

Bindura

A single observer in the town submitted 9 months of records in 1999 with an average of only 26.4 species per card. Altogether, 50 species were recorded from 238 bird records. The 20 most common species were Laughing Dove, Dark-capped Bulbul, Purple-crested Turaco, White-browed Robin-chat, Arrow-marked Babbler, Red-eyed Dove, Blue Waxbill and Spotted Eagle-owl (all in 1st place), with the Pied Crow, Crested Barbet, Kurrichane Thrush, Black-backed Puffback, Fork-tailed Drongo, Tropical Boubou and Little Sparrowhawk (2nd); Bronze Mannikin, Grey-headed Bush-shrike, Grey Heron and Cape Glossy Starling (3rd) and Red-winged Starling (4th). The species composition was therefore very similar to the Harare gardens (Riddell 2021). There were only two summer months with records (27 species) and four winter months (42 species) and seasonal differences were not examined.

Kadoma

A single observer in this town submitted records over 11 months in 2009, with an average of 13.1 birds per card and 29 species were from 144 bird records. The 21 most common species were Dark-capped Bulbul, Red-eyed Dove and Green Wood-hoopoe (1st place), Pied Crow (2nd), Fork-tailed Drongo, Grey Go-away-bird and Tropical Boubou (3rd), Laughing Dove, African Paradise-flycatcher and Barn Owl (4th), Shikra *Accipiter badius* and White-browed Robin-chat (5th), Blue Waxbill and African Hoopoe (6th), Grey-headed Bush-shrike (7th), Kurrichane Thrush and Red-chested Cuckoo (8th), and White-crested Helmet-shrike, Wattled Starling *Creatophora cinereus*, Purple-crested Turaco and House Sparrow (9th). There were 22 species recorded in summer and winter (3 months) with 16 species being common to both lists.

Discussion

We have not attempted to count the total number of species that were observed during these surveys, but it must amount to several hundreds, representing a significant proportion of the Zimbabwean total. The majority, however, are likely to relatively scarce species, occasional visitors to gardens or vagrants. The number of 'true' garden species, i.e., those that live and breed in gardens seems to be relatively small. There is likely also to be some geographical variation, with different species being recorded in relation to climatic variations and their impact on the natural vegetation. An attempt to assess such differences was made by comparing how many of the 50 most frequent species on each of ten lists were shared by each other list (Table 6). These are arranged vertically in accordance with their approximate rainfall from Eastern Highlands, assumed to have the highest rainfall, to Bulawayo and Esigodini, with the lowest.

As might be expected, the driest localities tended to have fewer species in common with the wetter ones but this is not consistent. The average number of species per list is 28.0 and most values are fairly close to this average. The number of common species in Bulawayo gardens, however, does seem to follow a rainfall gradient, having very few species in common with the Eastern Highlands and Mutare, and rather more with Mashonaland, Masvingo and Esigodini. This trend was apparent, but less obvious with the Esigodini gardens, and the highest value recorded was 40 species common to both Esigodini and Midlands.

Table 6. A comparison of the number of species common to ten different localities. The values are based on the 50 top-ranked species at each. It should be noted that the Eastern Highlands value is based on a composite of the four localities for which data are available, and the results might have been different if they had been plotted separately.

	Bulawayo	Esigodini	Midlands	Masvingo	Mashonaland	Harare Rural	Harare	Marondera	Mutare
E. Highlands	15	20	23	22	24	25	24	24	26
Mutare	18	19	23	23	22	26	29	26	
Marondera	25	29	33	31	30	30	31		
Harare	28	28	29	31	33	33			
Harare Rural	25	28	30	29	35				
Mashonaland	32	37	38	32					
Masvingo	32	31	34						
Midlands	30	40							
Esigodini	28								

The 50 top-ranked species at all ten localities added up to a grand total of 138 species, not all of which occurred at every one of them. From this, it may be possible to determine which are the most successful and widely-distributed garden bird species, noting the ones that occurred at five or more localities (i.e. 50% of gardens). In all, six species were reported to be present at all ten of them, followed by eleven at nine, five at eight, and eight each at seven, six and five (Table 7), which adds up to 46 species or one-third of the total. These might be considered the most successful garden birds, at least on the central plateau. Garden birds in the Zambezi valley or the lowveld might differ more but there are few data from these areas.

The absence of some species, that would be expected to occur at all sites can be explained either by the fact that few gardens were involved, or else they were present but not ranked in the top fifty. The Red-eyed Dove, for example, was absent from the Mutare garden, although it probably occurred elsewhere in the city, but the Crested Barbet was not recorded at all on the Eastern Highlands list, while the Fiery-necked Nightjar was not on the Bulawayo list. The Black-collared Barbet was ranked at 65 on the Eastern highlands list, possibly because it might be absent from forested localities.

The Pied Crow is interesting since it is essentially a city rather than a garden bird and is generally rather low-ranked in rural gardens. But how many records are of passing birds rather than those actually using gardens? They may visit gardens if food such as dog bowls or insecure dustbins are available, and of course they visit schools to pick up discarded food at break times and are generally ubiquitous. There were 520 Pied Crow records from Harare, 8 were breeding, 15 were heard, 92 were overhead and the remaining 405 seen, but how many actually utilised gardens?

The Little Swift is another example of this problem. It, too, is not really a garden bird in Harare but one that utilises tall buildings in the CBD and the industrial sites where it breeds. With 99 records it was seen 22 times and overhead 77 times but effectively all were no doubt overhead in the 14 gardens that recorded it. Other examples that appear on most lists but cannot really be considered to be garden birds include the European Bee-eater and the Grey Heron and Black-headed Heron (even though both nest in eucalyptus trees in some gardens at Blair Park, Harare). Another interesting species, the Cattle Egret, appears in the top 50 on six of the ten lists; it may often have been seen flying overhead but there is evidence that it is becoming a true garden bird, usually with solitary birds feeding in gardens (Irwin 2003). Another interesting species is the Hamerkop, which appeared on seven of the ten lists. It visits gardens with water features, such as fish ponds or swimming pools that may provide it with fish or frogs to feed on.

Irwin (pers. comm.) commented that "we are not trying to add birds to a garden listing just to tick something off, but to monitor changes over time in an anthropogenic system which is evolving over time and where a 'Mature Garden Situation' has in fact become a habitat in its own right and of increasing conservation value." There is no doubt that the Harare 'forest' should be recognised as a distinct and important habitat, especially as much of the surrounding miombo woodlands have been severely deleted or totally removed. The same must also apply to gardens in other centres although these will be much smaller in extent.

Where do these common garden birds come from? Some generalists, such as the Dark-capped Bulbul, are widespread in almost any non-forest habitat and it has undoubtedly benefited from gardens. Other species, with a slightly more restricted distribution, have also adapted to gardens. An example is the Laughing Dove, which was not recorded in two woodland habitats near Lake Mutirikwe (Vernon 1985) but was described as 'frequent in riparian woodland' in the Sengwa Wildlife Research Area (Jacobsen 1979) and 'common but associated with cultivation and [human] habitation' in the Dande Communal Land (Howells 1983). This suggests that it was pre-adapted to gardens and the only lists where it was absent were Mutare and the Eastern Highlands and, oddly, it was not in the 50 top-ranked species at Marondera (Riddell & Marshall 2021).

Some species that normally inhabit riparian forest and thickets, such as the White-browed Robin-chat and Tropical Boubou have adapted to gardens and some of them, such as the Purple-crested Turaco in Harare populations, are likely to be more numerous in gardens than in their relatively restricted (and possibly decreasing) remaining natural habitats. This indicates the conservation value of gardens.

Table 7. The species that occurred in five or more (≥ 50%) of the ten garden lists covered in this survey.

No. of lists	No. of Species	Species
10	7	Pied Crow, Dark-capped Bulbul, White-browed Robin-chat, Tropical Boubou, Eastern Miombo Sunbird, African Paradise Flycatcher, African Yellow White-eye.
9	10	Red-eyed Dove, Black-collared Barbet, Crested Barbet, Fiery-necked Nightjar, Black-headed Oriole, Kurrichane Thrush, Tawny-flanked Prinia, Southern Puffback, Blue Waxbill, Bronze Mannikin.
8	5	Cape Turtle Dove, Grey Go-away-bird, Arrow-marked Babbler, Fork-tailed Drongo, Southern Grey-headed Sparrow.
7	8	Hamerkop, Laughing Dove, African Hoopoe, Brown-hooded Kingfisher, African Palm Swift, Yellow-fronted Tinkerbird, Red-winged Starling, Southern Masked Weaver,
6	8	Cattle Egret, Purple-crested Turaco, Groundscraper Thrush, Bar-throated Apalis, White-bellied Sunbird, Scarlet-chested Sunbird, Village Weaver, Streaky-headed Seedeater,
5	8	Emerald-spotted Wood Dove, Red-faced Mousebird, Green Wood-hoopoe, Variable Sunbird, Chin-spot Batis, Southern Fiscal, Spectacled Weaver, Jameson's Firefinch

Some species have not adapted to gardens, most notably the insectivorous 'miombo specials', perhaps because the insects on which they feed may not have adapted to exotic trees that dominate most gardens. Some frugivorous birds, such as the Crested and Black-collared Barbets, have adapted successfully but a notable exception is the Green Pigeon. Harwin (1998) commented on its apparent disappearance from Harare gardens and suggested that they could not feed on cultivated figs, although it is more likely that figs of any kind were too scarce and exotic trees did not provide suitable food for them. However, mulberries are common in Harare gardens and these pigeons fed on their fruit on a Harare South farm (Kileff 2000), so other factors may explain their absence from gardens. Rockingham-Gill (1999) suggested that physical hazards, notably fences, could have contributed to their decline. Whether or not this is the case, it does point to the fact that gardens may present hazards to birds that they might not encounter in natural habitats.

In conclusion, there is still much to be learned about the birds that utilise gardens. For instance, how many are just visitors and how many actually breed in them. Are the breeding seasons of garden birds the same as those in their natural habitats? Is food in gardens more plentiful and regular than areas outside, and does this affect the survival of chicks? Are predators, especially cats, more numerous in gardens and how do they affect bird numbers?

Gardens are not, of course, stable environments and tend to change over time. On the one hand, trees grow larger and bushes and shrubs thicker, and on the other hand trees are cut down and not always replaced, while shrubs are trimmed or changed. We should encourage gardeners to be 'bird-friendly' by encouraging them to refrain from automatically removing dead or dying trees that are very important for hole-nesters, particularly in the face of peri-urban deforestation. Feeding points, bird baths and nesting boxes and controlling cats will all help to keep birds in the garden.

Acknowledgement

Michael Irwin made useful comments on this and earlier papers on the Garden Bird Survey.

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SHORT COMMUNICATIONS

Interaction between a Family of Cheetahs and Vultures

In the mid-morning of 24 November 2021, we were game viewing around the Ngweshla pans in Hwange National Park. At first, we were attracted by numbers of vultures circling and alighting into a tall dead tree. Then we noticed a mother Cheetah *Acinonyx jubatus* approaching a carcass, and three half-sized cubs playing together nearby. We identified the carcass as a male Impala *Aepyceros melampus*, but because we were some distance from it, we could not ascertain how much had been eaten. The mother fed for some minutes and then called to the cubs, which came to the carcass and also fed on it. Soon the cubs retreated to the shade, as did the mother, and immediately some vultures landed and approached the carcass. But all three cubs ran back to the carcass and chased off the birds.

This to-and-fro from the cubs happened three times, without any vulture managing to get to the carcass (Figure 1). Then the mother returned to the carcass, chasing off some brave vultures (09h57) and fed, but five minutes later she retired to the shade. In swarmed the birds again but two cubs chased them away. This effort seemed rather half-hearted, and about 15 vultures then got to the carcass. One cub tried to chase them but soon wandered off, and many vultures immediately covered the carcass – we estimated about 40 White-backed Vultures *Gyps africanus*, and counted three Lappet-faced *Torgos tracheliotos* and four Hooded Vultures *Necrosyrtes monachus*, with three Marabou Storks *Leptoptilos crumenifer* on the fringes. Five Yellow-billed Kites *Milvus aegyptius* flew around and two Black-backed Jackals *Canis mesomelas* were nearby but did not approach the throng. By now the Cheetahs moved away altogether (about 10h05), leaving the remains to disposal by the vultures.

Of course, the whole incident/interaction fascinated us, and we were intrigued those three Cheetah cubs could keep about 50 large birds at bay. This is in contrast to one of George Schaller's observations when he noted that a "phalanx of vultures" caused a (lone?) Cheetah to vacate its kill, and he has the photo to back it up (Schaller, 1973, *Serengeti a kingdom of predators*, Collins, London, pp. 49 and 50/51). Our observations are also in contrast with an incident at Londolozi in the early 2000s, wherein a "horde" of vultures at an Impala carcass eventually caused the mother Cheetah and one cub to abandon their kill (*Ecological Journal* 2003, **5**: 103).

We thank Peter Mundy who helped us compile this note.

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Figure 1: One of the Cheetah cubs keeps some vultures away from their carcass. Photo: © Emily Mundy.

Vultures: A Poem

Vultures are invaluable
As one of the quickest reliable
To clean up a carcass with great skill,
Animals which have died or the remains of a kill.
By other predators after they have had enough
For their bills are sharp and very tough
To clean every morsel off the bones,
One species, the Bearded, even takes the large ones
And drops them from a great height
On to a flat rock accurately to splinter them as
calcium is part of their diet.
To look at vultures, they are not beautiful,
Some have long necks devoid of feathers, but very useful
For getting right inside the carcass like that of
an elephant
Which the feathered ones cannot.
At the feeding site, there is a definite pecking order
Viciously attacking one another,
The largest and the strongest are winners overall
But they fortunately cannot eat it all
And soon retire to the outer circle and rest
Partly to digest,
Being too heavy for immediate flight,
Where they are among the greatest of aerial masters
A magnificent sight
Only flapping their wings for a long take off or
a rather clumsy landing
Relying on thermals to keep them soaring
Cleverly flying at great heights, long distances, with speed
Long, broad wings widespread – an enthralling sight indeed!
Their keen eyesight too, is magical
They can spot a killing or a dead animal
From the height of more than a thousand metres
They truly are amazing creatures!
But unfortunately, their numbers are declining
Due to man's use of poisons, electrocution, the
reduced numbers of game and poor breeding,
The Egyptian, that hurled rocks at ostrich eggs to break them
Are seen less and less often.
Nesting and roosting sites are due to their location
On precipitous ledges or flat-topped thorn trees in our situation,
Sparse platforms of sticks, lined with grass, hair and skin,
Used every year in succession
These birds that used to be so numerous
Are now mainly confined to Game Parks
Prospects of which could be serious!

Thora Hartley (communicated by Peter Mundy)

Do Birds Have Fun? Some Crow Examples

I recently saw a YouTube clip of a bird, unidentified but evidently a crow of some kind, playing on a see-saw. It was clear that the bird had worked out how the see-saw functioned and it was running from one end to the other to make it tip up and down. This brought to mind two instances, some years ago, when I saw crows doing things that seemed to have no purpose other than enjoyment.

The first was when I lived in Kariba. We were at an afternoon wedding reception being held outdoors at the Kariba Yacht Club, located in the bay between the Lake View Inn and Andora Harbour. At that time a pair of Fish Eagles *Haliaeetus vocifer* had a nest on the conical hill that forms the lakeside edge of the harbour. While we were sitting at the reception, we spotted three Pied Crows *Corvus albus*, possibly from the Zambian side of the river, flying over Camp Hill towards the Fish Eagle's nest. They proceeded to dive-bomb and torment the eagles for about ten minutes or so and then they flew home. This provided a great deal of entertainment for the wedding guests as well as for the three crows. It was quite obvious that they had deliberately decided to harass the eagles – was it because they were bored? It is possible, of course, that they were two adults teaching a juvenile how to give eagles a hard time, but we have no way of knowing this.

The second was at the Mtarazi Falls, Nyanga. There was obviously quite a strong wind blowing up the Honde valley and causing a major updraft when it hit the cliffs at Mtarazi. A pair of White-necked Ravens *Corvus albicollis* seemed to be taking advantage of this updraft. They started quite high up and some distance inland from the falls, gliding down at a steep angle, with their wings half-closed and their legs hanging down, until just above the lip of the falls they hit the updraft. This shot them up at tremendous speed to a considerable height, whereupon they glided back to their starting point and repeated the procedure. While it is risky to attribute human emotions to animals, it certainly looked as if they were enjoying the experience.

For anyone interested, the YouTube clip can be accessed on: https://www.youtube.com/shorts/P_bytzi9JSE.

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Field Observations

June to November 2021

C.T. Baker

Isolated storms occurred in October, one of which registered from 25 to 65 mm in various Harare suburbs and 50 mm at Kadoma on the night of 17th. Widespread rainfall had not properly set in however by the end of November.

Lake Chivero is not in the best of condition these days with pollution and illegal fish-netting besetting this body of water. Even so, it is worth highlighting some of the high waterbird counts at the Bird Sanctuary on 24 October. There were estimates of 20 **Grey Herons** *Ardea cinerea*, 100 **Great Egrets** *A. alba*, 200 **Little Egrets** *Egretta garzetta* including a grey, partially melanistic bird, 1000 **White-faced Ducks** *Dendrocygna viduata* and an astounding 800 **Grey-headed Gulls** *Chroicocephalus cirrocephalus* (IR). The next highest Lake Chivero count of this gull was probably the 427 noted in July 1995, the report being accompanied by the comment, 'The atlas maps show very few occurrences of this bird between the Mashonaland highveld and the southern Transvaal so it may be that our birds are part of the Zambian population' (Tree, 1996. *Honeyguide* **42**: 47). That seems the most likely source although a flock of this size would be exceptional even on Lake Kariba.

Extensive coverage by Adam Riley (ARy) in the Kanyemba area (1530 C1 and C2) during November resulted in several out-of-range species being recorded. On the face of it, movement downstream by many of these birds is the most likely explanation. But this is a remote and under-reported area so some species may simply have been overlooked previously. These records are therefore included with no speculative comment regarding their apparent status in this part of the Zambezi Valley.

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

A brown-plumaged juvenile **Palm-nut Vulture** *Gypohierax angolensis* appeared at a Shangani vulture restaurant (1929 C4†) on 23 July (LT). This locality is far removed from the Honde Valley population but to quote Irwin (1981, page 75), 'There are many records from South Africa, outside its breeding range, largely of immature birds in brown plumage when it appears to disperse very widely.' Another out-of-range juvenile was over the Vumba Botanic Gardens (1932 B2†) on 25 August (SH). Since 2015 there has been an increase in records from the Save-Runde confluence area, Gonarezhou (2132 A4), the latest of which were an adult at the confluence itself on 20 September (JMk) and unclassified single birds nearby at Muchaniwa Pan on 6 October (TM) and Tambahata Pan four days later (JWh).

Following recent Honde Valley records of a **Red-necked Falcon** *Falco ruficollis* at Katiyo Estate (1833 A3), the first indication of breeding taking place was a pair calling at a nest in a *Borassus* Palm on 12 September. Their calls were answered, presumably by a fledged juvenile, although it was not seen (MS). In Mana Pools NP, singles were near Kanga Camp (1529 C4) on 16 September (CM) and at Kavinga Safari Camp (1629 A2†) on 1 November (LMcD). Further downstream in the second week of November this falcon was reported from near Kanyemba (1530 C2†) (ARy). One was at Timot's Pan, Chamabonda vlei (1725 D3†), on 8 November (CW).

On 4 September a **Spur-winged Lapwing** *Vanellus spinosus* was at Lake Chivero (1730 D4) where seen previously (J-MB), with two there on 26 November (BL). In October single **Common Whimbrels** *Numenius phaeopus* were on the Save River (2132 B4†) on the 9th (GD, CC) and at ARDA, Mushumbi Pools (1630 B1†), on the 29th (DKn).

Following the February 2021 records of a **Ross's Turaco** *Musophaga rossae* at Victoria Falls, one was photographed at Old Drift Lodge, Zambezi NP (1725 D4), on 21 November (DM). A flock of **Burchell's Starlings** *Lamprotornis australis* was at Imbabala Zambezi Safari Lodge (1725 C4) on 29 July (SC) and one was downstream at Matetsi Unit 7 (1725 D3†) on 6 October (JV).

Waterbirds and allied species

Various observers reported up to 12 **Great White Pelicans** *Pelecanus onocrotalus* at Muchaniwa Pan between 19 June and 6 October, and two there in mid-November were joined by eight **Pink-backed Pelicans** *P. rufescens* (CS). 50 or more **Great Whites** were at Ngweshla Pan, Hwange NP (1927 A1), on 16 June (SH) and at Kent Estate, near Selous (1830 B1), from one to seven were present from 11 July to 5 October (GT, J-MB). 13 pelicans, assumed to be **Great Whites**, flew towards Mozambique over Aberfoyle (1832 B4†) on 28 August (LW).

Fifty or more **White-breasted Cormorants** *Phalacrocorax lucidus* were on Lower Ncema Dam, Esigodini (2028 B4), on 21 October where no more than ten are usually present (UL). Of concern is a report of just four **African Darters** *Anhinga rufa* being seen during a five-day trip on Lake Kariba's eastern basin (1628 D2) in June (DS). At Msuna (1826 B2) from 18-20 November, **Darters** outnumbered **Reed Cormorants** *Microcarbo africanus* by two to one but numbers were low. Netting by Zambian fishermen, in our waters as well as theirs, is out of control (CB).

Similarly, **Goliath Herons** *Ardea goliath* are no longer seen on Lake Chivero because of the proliferation of fishing nets (TC); one nearby on Kent Estate on 28 October was GT's first record from there. **Black-headed Herons** *A. melanocephala* around Mushumbi Pools (1630 B1†) in late November (GS) were north of known range in that part of the Valley. A **Little Egret** at Makwa Pan (1827 C3†) on 17 October was slightly

east of its Hwange NP range (CB). Groups of five **Black Herons** *Egretta ardesiaca* were at Bumi West (1628 C4), where known to over-winter, on 2 August (SE) and at Lake Manyame (1730 D3) on 18 August (BL, J-MB). One near Croton Campsite, Mana Pools (1529 C2), on 8 November (MH) was the first returning bird noted. A **Slaty Egret** *E. vinaceigula* appeared on Kent Estate's top dam (1730 D3) on 11 July (GT).

A **Rufous-bellied Heron** *Ardeola rufiventris* was in the Biri Dam, Chinhoyi (1730 A3†), area on 11 August (JMk). **White-backed Night-herons** *Gorsachius leuconotus* seen in areas where not reported since the Atlas years were two adults and one juvenile at Imbabala (1725 C4) on 29 July (SC) and four in Mucheni Gorge, Chizarira NP (1727 D2), on 28 November (JBw). The resident Hippo Pools (1731 B2) birds were sitting on eggs in mid-November (TN).

Single **Little Bitterns** *Ixobrychus minutus* were at Lake Manyame on 18 August (BL, J-MB) and at Chewore, Mana Pools (1529 D2), in mid-September (DSm). **Dwarf Bitterns** *I. sturmii* arrived in the second week of November with singles on the 12th and 13th at Muuyu Camp, Kanyemba (1530 C2†) (ARy per JP), Monavale vlei, Harare (1731 C3), on the 12th and 23rd (JM) and Kavinga on the 13th (LMcD).

Wintering **White Storks** *Ciconia ciconia* comprised six at Umguza Irrigation Scheme (1928 D3) on 13 July (JV) and 1 August (AR), four at Kanyemba (1530 C2†) on 30 July (JP), three over Fothergill on 4 September (DC) and one at Kavinga on the 9th (LMcD). Five **Black Storks** *C. nigra* were at Kanyemba on 1 August (JP) and one was on Kent Estate (1830 B1†) on 6 November (GT). The largest **Abdim's Stork** *C. abdimii* flock was a mere 200 at Kavinga on 1 November (LMcD). Some were west of Kanyemba (1530 C2†) on 10 November (ARy). **Woolly-necked Storks** *C. episcopus* in unusual areas were at Lion Pan, Gonarezhou (2131 D1†), on 20-21 October (DS) and south and east of Masoka (1630 A1† and A2†) at the end of November (GS, NF).

Groups of 70 and 64 **African Openbills** *Anastomus lamelligerus* were at Suri Suri Dam, between Chegutu and Chakari (1829 A2), on 27 July and 4 September respectively (*The Babbler*) and 200 or more were at Tembo Camp, Sapi Safari Area (1529 D1), on 4 November (SCh). Eight **Saddle-billed Storks** *Ephippiorhynchus senegalensis* were at Kent Estate on 10 August (GT) and one was at Lake Chivero Sanctuary on 24 October (IR). 66 **Marabou Storks** *Leptoptilos crumenifer* at Kent Estate on 3 August increased to about 100 on 31 August (GT), this assemblage possibly boosted from the 46 a few days previously on Sable Farm, Chegutu (1830 A1), where normally only about a dozen occur (DK).

In June, groups of three over-wintering **Yellow-billed Storks** *Mycteria ibis* were at Kent Estate on the 17th (GT), Rhino Safari Camp, Matusadona (1628 C4), on the 20th (PTe), Charara, Kariba (1628 D2), a day later (DS) and on Mandara vlei, Harare (1731 C3), on 16 July (JBa); 27 were at Kadoma Textiles Dye Ponds (1829 B4) on 28 August (*The Babbler*) and 67 at Manjinji Pan, Malapati Communal Area (2231 A2), on 19 September (NC) were part of a large gathering of waterfowl there. 32 **Glossy Ibises** *Plegadis falcinellus* flew over the river at Rifa Camp, Chirundu (1628 B2), on 31 October (IR) and **Hadeda Ibises** *Bostrychia hagedash* were located in the Kanyemba area (1530 C2†) in November (ARy).

On Lake Kariba 13 **Greater Flamingos** *Phoenicopterus roseus* were on the Matusadona shoreline (1628 C4) on 26 June and a juvenile was near the Fothergill Island causeway (1628 D1) for about a week in the first half of July (DP). 11 flew over Mteri Dam, Chiredzi (2131 B3†), on 29 August (RMacD) and one was at Mazvikadei Dam, Banket (1730 A4†), on 1 November (BM). Long-standing residents there recall a 1990s record, the details of which are long forgotten.

A flock of 132 **White-faced Ducks** was at Claw Dam, Kadoma (1829 B4), on 4 August (*The Babbler*) and 112 were part of the large gathering at Manjinji Pan on 19 September (NC). A **Fulvous Duck** *Dendrocygna bicolor* was at Msuna (1826 B2†) on 6 June and a small flock was a kilometre downstream at the Mulola River confluence (1726 D4†) on 19 November (CB). Hundreds of **Egyptian Geese** *Alopochen aegyptiaca* were at Kazuma Pan NP (1825 B3) on 31 August (BN). A **Cape Teal** *Anas capensis* was at Mbiza Pan, Hwange NP (1827 C3), on 27 September (SH) and **Hottentot Teal** *Spatula hottentota* were well out of range at Biri Dam (1730 A3†) in August (JMk). About a thousand **Red-billed Teal** *A. erythrorhyncha* were on Kent Estate on 9 August (PvL).

Two male and three female **Southern Pochards** *Netta erythrophthalma* on the Zimbabwe bank of the Zambezi at the Mulola River confluence (1726 D4†) on 19 November were well out of range. Whether they had moved along the Zambezi from either direction or from Zambia down the Mulola is unknown. Similarly, the provenance of a pair of **African Pygmy Geese** *Nettapus auritus* at Little Kariba, downstream of Msuna (1726 D4†), on the same date is also uncertain (CB). A nice flock of 26 was on the lily-covered Mandalay Dam, Kadoma (1829 B4), on 10 July (*The Babbler*).

Counted among the Manjinji Pan waterfowl on 19 September were 49 **Comb Ducks** *Sarkidiornis melanotos*, while the 381 **Spur-winged Geese** *Plectropterus gambensis* there (NC) was one of the largest flocks ever recorded in this country.

Raptors

A **Secretarybird** *Sagittarius serpentarius* was on Lanark Farm, Harare South (1830 B2), on 10 July (NC). **Hooded Vultures** *Necrosyrtes monachus* often visit the Pamushana Lodge refuse heap, Malilangwe (2131 B2), and 23 in July was the highest number recorded there (GD). Single **Cape Vultures** *Gyps coprotheres* were seen at Jabulani Safaris, Shangani (1929 C4), on 4 August, 21 August (a juvenile), 11 October and 2 November (LT). One was at a buffalo carcass on Chamabonda vlei (1725 D4), on 7 September (RP).

Following the introduction of cheetahs onto Imire Game Park near Marondera (1831 B3), **White-backed Vultures** *G. africanus* are seen frequently and a pair of **Tawny Eagles** *Aquila rapax* has taken to scavenging from old carcasses (ST). In August on Kent Estate over 200 **White-backed Vultures** were on carcasses on the 10th (GT) and *c*.300 on the 24th (J-MB); **Lappet-faced Vultures** *Torgos tracheliotos* were also present with ten and four respectively. Elsewhere, a **Lappet-faced** wandered over Chisipite, Harare (1731 C3†), on 12 July (BL) and three nests at Cawston Block Wildlife Ranch (1928 C2) were active during August (SN). None were seen at a Rifa vulture watch on 31 October but a pair of **White-headed Vultures** *Trigonoceps occipitalis* with an immature were present (IR).

A **Yellow-billed Kite** *Milvus aegyptius* at Robins Camp, Hwange NP (1825 D2), on 10 July (BN) was over three weeks ahead of the next one reported. By 20-21 September they were widespread in Hwange NP being recorded at 57 sites during the WEZ Game Count (PD). The only indication of breeding taking place was one carrying a stick at Victoria Falls (1725 D4) on 15 August (DS).

An **African Cuckoo Hawk** *Aviceda cuculoides* at Stonehills, Marula (2028 C1), in August was the first one for 25 years or more (RPk); others were on the north-eastern side of Lake Mutirikwe (2031 A1†) in September (JMk), at Chilo Sand Forest, Gonarezhou (2132 A2†), on 11 October (JWh) and at Kanyemba (1530 C2†) on 9 November (ARy). A pair on Redhill Farm, north of Banket (1730 A4), used the same nest site in November as the previous year (DSm). A **Bat Hawk** *Macheiramphus alcinus* was at Kanyemba (1530 C2†), between 9-13 November (ARy per JP).

In the northwest **European Honey Buzzards** *Pernis apivorus* were at Matetsi (1725 D3) on 9 October (JV), in the gorge below the Victoria Falls on 14 October (BMa) and nearby at Ilala Lodge on 7 November (CW). An immature was at Kavinga on 17 October (DB, RMacD) and one was on the Chegutu-Chakari road (1830 A1) on 30 November (DK).

A **Lesser Spotted Eagle** *Clanga pomarina* was slightly out of range at Mzarabani (1631 A3†) at the end of October (JM). An early pair of **Wahlberg's Eagles** *Hieraaetus wahlbergi* was already at a nest at Lomagundi College, Chinhoyi (1730 A3), on 8 August (JMk). A **Booted Eagle** *H. pennatus* was near Mutondongwe Hill on the Zambezi escarpment (1630 A4†) at the end of November (MB). An **Ayres's Hawk-eagle** *H. ayresii* at Mukuvisi Woodlands, Harare (1731 C3), on 6 June was the first record from there (RD). There are no Atlas records in the 1830 full degree square so three at Chinyika Ranch, east of Kwekwe (1830 C3†), on 8-9 June (*The Babbler*) is a significant sighting.

Long-crested Eagles *Lophaetus occipitalis* are infrequent visitors to Victoria Falls so one on an island overlooking Devil's Cataract on 4 July was unusual, especially at that particular site (CB). An immature **Martial Eagle** *Polemaetus bellicosus* was 10 km past Nyazura (1832 C3†) on the Mutare road on 21 June (SW) and single adults were south of Rifa on 31 October and at the Camp on 1 November (IR). A juvenile **Crowned Eagle** *Stephanoaetus coronatus* appeared in Victoria Falls suburbia on 20 September. The last known nest site there was in the gorges below the Falls about 15 years ago (DT).

Single **Southern Banded Snake Eagles** *Circaetus fasciolatus* were at Aberfoyle Tea Estates (1832 B4) on 20 August (BL) and Gayiseni Campsite, Gonarezhou (2132 A4), on 8 September (GD). The only **Western Banded Snake Eagle** *C. cinerascens* reported from a new area was near Lion's Den (1729 B4†) on 16 August (JMk). A good indication of the health of the Hwange NP **Bateleur** *Terathopius ecaudatus* population was obtained during the 20-21 September WEZ Game Count with records being posted at 35 sites (PD). No adults were seen at Rifa between 30 October and 1 November but juveniles were at the Camp on the 30th and 31st, at Chirundu on the 31st and on the escarpment near Marongora (1629 A1) on 1 November (IR).

For the fourth year in the last five an extremely early **Steppe Buzzard** *Buteo buteo* arrival date was recorded, this being 9 August at Kavinga (DB). A **Black Sparrowhawk** *Accipiter melanoleucus* east of Tashinga in Matusadona NP (1628 D3†) on 4 June (JM-B) was a scarce record from that area of Lake Kariba. An adult was seen at Newlands on 13 June and a juvenile on 9 July (IR), while a young bird on a Mukuvisi Woodlands nest on 29 August raised the possibility of double brooding this season (RD).

Single **African Marsh Harriers** *Circus ranivorus* were at Lake Manyame on 18 August (BL, J-MB) and near the old Snake Park, Tynwald (1730 D4), on 20 October (RC). A **Montagu's Harrier** *C. pygargus* was west of Chinhoyi in the Alaska Mine area (1730 A3†) on 26 November (JMk).

Wintering **Ospreys** *Pandion haliaetus* were at Redhill Farm on 23 June (DSm), Mazvikadei Dam on 26 June (BL) and 2 August (BM), near Chundu Island, Zambezi NP (1725 D3), on 4 August wearing an indistinct red ring, possibly 8G0 (GC), elsewhere in the park on 16 August (BMa) and at Changa Camp near Spurwing Island (1628 D1) on the 22nd (DSm). There were many summer records and only those from unusual areas are included. One was in the Rhodes Estate area of Nyanga NP (1832 B3) in October (BA). There are no Atlas records from Nyanga and only a few subsequently from 1993 onwards. Singles were at Kavinga (1629 A2†) on 16 October (LMcD) and on the Umguza River (1928 D3†) on 26 October (JV).

A pair of **Peregrine Falcons** *Falco peregrinus* at Little Kariba (1726 D4†) on 4 June (CB) were no doubt residents of Devil's Gorge a short distance downstream. One hunting on the Umguza River (1928 D3†) on 6 June was severely impeded by **Pied Crows** *Corvus albus* (JV), and pairs flew over Newlands on 23 June and 15 July (IR). A **Taita Falcon** *F. fasciinucha* was over Katiyo Estate (1833 A3†) on 20 August (BL) and one hunted swifts in Mucheni Gorge, Chizarira (1727 D2), on 25 November (JBw). Five **Lesser Kestrels** *F. naumanni* headed south over Umguza (1928 D3†) on 19 November (JV). Single **Dickinson's Kestrels** *F. dickinsoni* were at Kavinga on 12 June (DSm) and at Rifa at the end of October (IR).

Gamebirds, Rails and Cranes

A **Blue Quail** *Excalfactoria adansonii* at Katiyo (1833 A3†) on 22 November (MS, BL) follows 2016 and 2017 records from the nearby Pungwe Plain. The 60 or more **Crested Guineafowl** *Guttera pucherani* on Chamabonda vlei on 9 June (BdL) was an exceptional number, as were eight **Kurrichane Buttonquail** *Turnix sylvaticus* at Haka Park, Harare (1731 C3), on 21 July (BL); one at Mukuvisi Woodlands on 15 August is probably the first record from there (RD).

The first **Corn Crake** *Crex crex* of the season was in a lucerne field at Umguza at the end of November (JV) when a **Baillon's Crake** *Porzana pusilla* was seen at Victoria Falls (1725 D4†) (WvS). A **Red-chested Flufftail** *Sarothrura rufa* in the Lion's Den area (1729 B4†) on 25 August (JMk) was west of known range. A **Buff-spotted Flufftail** *S. elegans* calling on Monavale Hill on 29 November (DW) replicates a December 2014 record from there. A scarce **Striped Flufftail** *S. affinis* record from the Vumba (1932 B2†) was obtained in November (MB).

Three juvenile **Allen's Gallinules** *Porphyrio alleni* were together at Little Kariba (1726 D4†) on 4 June (CB, JB). In the Midlands, two **Kori Bustards** *Ardeotis kori* were on Chinyika Ranch (1830 C3†) on 8-9 June (*The Babbler*) when one was also seen on Mazuri Ranch (1830 C4) (UL).

Waders, Gulls and Terns

Jacanas included in the large Manjinji Pan gathering on 19 September were 193 **African** *Actophilornis africanus* and four **Lesser** *Microparra capensis* (NC). **Greater Painted Snipe** *Rostratula benghalensis* in unusual areas were four on Redhill Farm, Banket (1730 A4†), on 16 October (DSm), seven near Managani Picnic Site, Gonarezhou (2131 C4), on 18 October (DS), a female at Timot's Pan, Chamabonda vlei (1725 D3†), on 23 October (CB) and one at Tembo Camp (1529 D1) on 4 November (SCh).

Common Ringed Plovers *Charadrius hiaticula* over-winter at Bumi West (1628 C4) occasionally and five or six

were seen on 2 August (SE). Two at Rhino Safari Camp on 24 September (J-MB) were probably the first returning birds, and in October small numbers were at Marlborough Ponds, Harare (1730 D4) (DKk), Zambezi NP (1725 D3†) (YS, WvS) and on the Mwenezi River upstream of Malapati (2231 A2) (DS). A **White-fronted Plover** *C. marginatus* was on the Chipinda Pools causeway, Gonarezhou (2131 B4), on 23 October (CSy).

In QDS 2132 A4, three **Senegal Lapwing** *Vanellus lugubris* pairs were at Muchaniwa Pan on 10 June (DL) and one was at the Save-Runde confluence on 20 September (JMk). Three **Long-toed Lapwings** *V. crassirostris* at Marlborough Ponds (1730 D4) on 25 June (BL) is almost certainly the first record from within Harare. The following day, two were at Lake Manyame (DSm) where four pairs and up to four chicks were seen on 14 and 18 August (BL, J-MB), thus signifying the first breeding record away from the Zambezi. Six were at Imbabala on 29 July (SC) and a pair was on Starvation Island on 9 October (SE).

A **Green Sandpiper** *Tringa ochropus* was near Mucheni Spring, Matusadona (1628 C4), on 24 November (J-MB). If the **Wood Sandpiper** *T. glareola* at Kent Estate on 11 July (GT) was a genuine arrival, it would be one of the earliest yet recorded. A **Marsh Sandpiper** *T. stagnatilis* was seen in Zambezi NP (1725 D3†) at the beginning of October (YS, WvS). A wintering **Common Greenshank** *T. nebularia* was at Changa Camp near Spurwing (1628 D1) on 22 June (DS).

Single **Sanderlings** *Calidris alba* were near Chewore (1529 D2†) on 12 September (KBt), at Matetsi Unit 7 (1725 D3†) on 9 October (JV) and south of Chikwenya Island (1529 D1†) on 16 November (KB). A **Ruff** *Philomachus pugnax* was still in breeding plumage at Starvation Island, Lake Kariba (1628 C4), on 31 December (SE). A significant record is an **African Snipe** *Gallinago nigripennis* calling on the evening of 20 October at Swimuwini, Gonarezhou (2131 C4†) (DS). This appears to be the first record from the extreme southeast. One at Tembo Camp, Sapi Safari Area (1529 D1†), on 4 November (SCh) was a scarce middle Zambezi record. **Pied Avocets** *Recurvirostra avosetta* in new areas were one at Marlborough Ponds on 25 June (BL) and 1 October (DKk), some well out of range north of Macheke (1831 B2†) in July (CMa) and two on Redhill Farm (1730 A4†) on 9 November (DSm).

Three **Temminck's Coursers** *Cursorius temminckii* were on Deka airstrip, Hwange-Binga road (1826 B1†), on 3 June (CB) and a **Bronze-winged Courser** *Rhinoptilus chalcopterus* was at Kavinga (1629 A2) on 7 November (LMcD). The Musango-Bumi West shoreline is known to attract huge migratory flocks of **Collared Pratincoles** *Glareola pratincola* and such was the case on 12 June and 2 August (SE). Two were at Victoria Falls sewage ponds on 4 November (CB) and about six were over the nearby high-density suburb later the same day (GC). Three **Black-winged Pratincoles** *G. nordmanni* on southward migration were at Pan 1 Chamabonda vlei (1725 D4) on 9 November (CB).

A group of 14 **Grey-headed Gulls** at Bally Vaughan (1731 C2) on 27 June (GP) were new to the game park and eight were on the Zambezi opposite Tsowa Island (1725 D3) on 1 August (CB). 24 on an Umguza Irrigation Scheme storage dam on 18 October were the first seen there for many years (AR). A juvenile at Chipinda Pools in October (DMacD) follows recent records of vagrants to the southeast. Six at Smallbridge Dam, Sheba Estates (1832 D3), on 1 November had increased from one a week previously and had possibly moved from the rapidly evaporating Lake Urema in Mozambique. They were accompanied by one **Whiskered Tern** *Chlidonias hybrida* (GD).

The first **African Skimmers** *Rynchops flavirostris* returning to the Zambezi were noted on 29 June in Zambezi NP (VS). Only one was seen at Rifa between 30 October and 1 November (IR), and three sub-adults were unusual at Msuna (1826 B2†) on 19 November (CB). 12 were at Chipinda Pools causeway on 1 August (GT) with nine there on 21 October (DS), and 15 were at Chamaluvati Camp (2132 A4) on 27-28 September (NM).

Other non-Passerines

Rock Doves *Columba livia* were found near Mushumbi Pools (1630 B1†) and Rusape (1832 C1†) in November (GS). Two **African Mourning Doves** *Streptopelia decipiens* were at Phole Phole Farm, Umguza (1928 D3), on 19 July and 1 August (AR) where they are now regular winter visitors. Some were at their usual site downstream of Chirundu (1628 B2) on 31 October (IR). **Tambourine Doves** *Turtur tympanistria* are very scarce at Lake Kariba so of significance is a record from the Charara area (1628 D2†) in September (JBu). This dove was in the Kanyemba area (1530 C2†) in November where **African Green Pigeons** *Treron calvus* were also seen (ARy). Flocks of these pigeons comprised at least 60 at Ewanrigg Botanic Gardens (1731 C2) on 29 July (BL) and about 35 on Msuna Island on 19 November (CB).

Seven **Grey-headed Parrots** *Poicephalus fuscicollis* flew over Redhill Farm on 9 November (DSm). In Gonarezhou NP **Brown-headed Parrots** *P. cryptoxanthus* were reported from Bosman's Camp (2231 A2) and Lion Pan (2131 D1) in October (DS). A flock of about 40 **Meyer's Parrots** *P. meyeri* in Zambezi NP on 13 October was the largest number seen at Victoria Falls for at least 16 years. Border closures may have curtailed the export of such birds for the cage bird market (DT).

Many **Lilian's Lovebirds** *Agapornis lilianae* were along the Zambezi between Chirundu and Chikwenya in the week beginning 20 September with a couple of flocks numbering over 100 (DSw), and while not accurately counted at Rifa at the end of October there must have been over 200 in the area (IR). Following the two **Rose-ringed Parakeets** *Psittacula krameri* reported at Borrowdale Brooke in the last period several observers saw one in Harare's northern suburbs in July.

A **Red-chested Cuckoo** *Cuculus solitarius* was at the Deka River, eight kilometres along the Hwange-Binga road (1826 A4†), on 18 November (CB). At Kent Estate a young **Jacobin Cuckoo** *Clamator jacobinus* was fed by **Terrestrial Brownbuls** *Phyllastrephus terrestris* on the late date of 10 June (PvL). A **Thick-billed Cuckoo** *Pachycoccyx audeberti* near Mtarazi Falls, Nyanga (1832 B4†), on 9 and 31 July (CC) was not only far out of range but exceptional at that altitude. Individuals were recorded at Hippo Pools three times in October (TN) and at Kavinga (1629 A2†) on 23 November (LMcD).

Klaas's Cuckoos *Chrysococcyx klaas* from the South African population were at Bemba Farm, Marondera (1831 B1), on 29 June (AD), Victoria Falls on 25 June and downstream at Sizinda Camp (1826 A1) on 27 July (GC), Hippo Pools on 8 August (TN), Mukuvisi Woodlands on the 17th (SW) and Kanyemba on the 23rd (JWh). An over-wintering **Diderick Cuckoo** *C. caprius* at Chipinda Pools on 7 August (AH) was unusual, the last winter record in the extreme southeast occurring in August 1995 (Tree, 1996. *Honeyguide* **42**: 178). **Diderick** and **Green Malkoha** *Ceuthmochares australis* records came from the Kanyemba area (1530 C2†) in November (ARy), the **Malkoha** being especially significant given its on-going occupation of the Zambezi Valley.

Malkohas were also found at Chirinda Forest (2032 B3†) on 25 July and 9 October (TMu per JP).

A pair of **African Wood Owls** *Strix woodfordii* was at Rifa (1628 B2†) on 31 October (IR). **African Barred Owlets** *Glaucidium capense* continue to make their presence known around Harare with one heard on the night of 11 June in a garden in Hatfield (1731 C3) where recorded previously (PT). Two adult and one juvenile **Pel's Fishing Owls** *Scotopelia peli* were on the Mwenezi River, Malapati (2131 C4), on 2 June (PTe) and one was at Kanyemba (1530 C2) on 30 July (JP).

Arriving **Common Swifts** *Apus apus* were at Victoria Falls on 25 October (DT) with hundreds nearby on Chamabonda vlei the following day (CBr). Some were on Dete vlei on 4 November following rain the previous night (JV) and hundreds were at Kavinga on 23 November (LMcD). **Little Swifts** *A. affinis* were in the Kanyemba area (1530 C2†) in November (ARy). At least one **Alpine Swift** *Tachymarptis melba* was with a huge flock of **Southern Carmine Bee-eaters** *Merops nubicoides* over Dete vlei (1826 D2†) on 4 November (JV) and records also came from the Mushumbi Pools area (1630 B1†) in the last week of November (GS, MB).

Nine **Mottled Spinetails** *Telacanthura ussheri* of the Tambahata Pan (2132 A4) breeding colony were seen on 8 September (GD). Two or three **Böhm's Spinetails** *Neafrapus boehmi* at Hippo Pools (1731 B2†) towards the end of June (JW) were far removed from the Zambezi Valley population having perhaps moved upstream on the Mazowe from Mozambique. Nine were at Kapirinengu, Chewore (1529 D2), on 8 August (DS).

Speckled Mousebirds *Colius striatus* were in the Concession/Amandas area (1730 B4†) in November (MB), a part of the country they presumably occupied several years ago on their advance through Mashonaland. A **Narina Trogon** *Apaloderma narina* was on the east range of the Manyame Hills, Makonde (1730 A1†), on 7 September (JMk).

Malachite *Corythornis cristata* and **Woodland Kingfishers** *Halcyon senegalensis* were recorded in the Kanyemba area (1530 C2†) in November (ARy). An **African Pygmy Kingfisher** *Ispidina picta* at Aberfoyle in the week ending 18 September (MS) was an early arrival with the next noted on 14 October at Mount Pleasant, Harare (1730 D4) (DS). An estimated 1000 **Southern Carmine Bee-eaters** were at the Kavinga colony on 28 September (LMcD) although the Chipandaure cliffs at Rifa were unoccupied this season. Spasmodic absences from established colonies can occur in some years (IR).

Three **Racquet-tailed Rollers** *Coracias spatulatus* were on Chinyika Ranch (1830 C3†), on 8-9 June (*The Babbler*) and one in woodland on the Kennedy Loop (1827 C3†) on 16 October was south of its Hwange NP range (CB). A **Broad-billed Roller** *Eurystomus glaucurus* was at Lion Pan, Gonarezhou (2131 D1†), on 20-21 October (DS). No less than 80 **Green Wood-hoopoes** *Phoeniculus purpureus* moved onto a large Hatfield property on 3 July (PT).

A **Trumpeter Hornbill** *Bycanistes bucinator* was at Bally Vaughan on 19 September where some occasionally spend the winter and stay until the rains (GP). An exceptional flock of about 60, immediately followed by smaller groups numbering another 25, flew from the Victoria Falls Hotel area into the rain forest early on 23 September (CB). Some in a *Khaya anthotheca* tree at Lion's Den (1730 A3) on 29 October (IR) were on the edge of their range. What appears to be the first Zambezi Valley **Southern Yellow-billed Hornbill** *Tockus leucomelas* record from along the river itself came from the Mana Pools Lodges area (1529 C2†) in November (TAn). Previous records from the valley floor indicate encroachment from the escarpment edges.

Following the first **Acacia Pied Barbet** *Tricholaema leucomelas* sighting on Chikurubi vlei, Harare (1731 C3), in March, one was seen there on 13 August (BL, PZ). A **Lesser Honeyguide** *Indicator minor* was at Msuna (1826 B2†) on 19 November, as was a **Green-backed Honeybird** *Prodotiscus zambesiae* on 4 June (CB). **Brown-backed** *P. regulus* and **Green-backed Honeybirds** were in woodland near Arcturus Mine (1731 C4) on 26 August (PZ) and both were conspicuous at Mukuvisi Woodlands throughout the period (various observers). A **Brown-backed** was in the Victoria Falls rain forest on 8 August (CB) where an **Olive Woodpecker** *Dendropicos griseocephalus* was seen on 11 July (GC). **Green-backed Woodpeckers** *Campethera cailliautii* are rarely reported from the Vumba so a pair at Seldomseen (1932 B2) on 16 October (FW) is of note.

Passerines

African Broadbills *Smithornis capensis* in less usual places were at Chimanimani (1932 D4†) on 8 October (TMu per JP), in the Mzarabani area (1631 A3†) at the end of October (RC, JM) and on the Mukwadzi River about three kilometres upstream of Mazvikadei (1730 A2†) on 1 November (BL). The first **African Pittas** *Pitta angolensis* of the season were near Masoka Camp (1630 A1) on 20 November (MZ) and south of Mana Pools Campsite (1529 C2) a day or two later (TAn). One was at Kavinga (1629 A2) on 23 and 24 November (DB, LMcD) where recorded in four of the last five seasons, and three pairs arrived at Mkanga Camp (1630 A1) around the same time (BC). There are three previous records from the Hippo Pools area and on 24 November one was recorded within the Camp itself.

The only **Dusky Lark** *Pinarocorys nigricans* reported was at Lion Pan, Gonarezhou (2131 D1†), on 20-21 October (DS). **Red-capped Larks** *Calandrella cinerea* are scarce Zambezi Valley birds but were at Mongwe Camp, downstream of Chirundu (1528 D4†), on 15 August (LMcD).

Wintering **Barn Swallows** *Hirundo rustica* in the Victoria Falls area were one and five at the sewage ponds on 11 and 22 June respectively (CB) and two on the Masuwe River on 21 July (BMa). A BLZ expedition to Nyanga on 19-20 July went in search of wintering **Blue Swallows** *H. atrocaerulea* in the wider Troutbeck area (1832 B2). None were found around the Connemara Lakes but a lengthy exploration of the Gairezi River area produced two together, followed by one other (*The Babbler*). This appears to be the first confirmed mid-winter record.

Common House Martins *Delichon urbicum* in new areas were at Bosman's Camp (2231 A2†) on 17 October (DS) and near Masoka (1630 A1†) at the end of November (GS, NF). **Sand Martins** *Riparia riparia* were around Kanyemba (1530 C2†) in November (ARy). Close to Harare, **Brown-throated Martins** *Riparia paludicola* were at Mvurachena Dam on 29 August (IR). They seldom venture onto the Eastern Highlands but were in the Rhodes area of Nyanga NP (1832 B3) in October (BA). Four **Eastern Saw-wings** *Psalidoprocne orientalis* just downstream of Chirundu on 31 October (IR) provided a scarce valley record for this area.

Wintering **Black Cuckooshrikes** *Campephaga flava* in under-reported areas were at Msuna on 5 June (JB) and in Chirinda Forest on 23 July (TMu per JP). A **Eurasian Golden Oriole** *Oriolus oriolus* at Mandara on 29 August (JBa) was extremely early but followed a 7 September record from there the previous year. A few **African Golden Orioles** *O. auratus*

were still widespread from 1-8 June with singles at Victoria Falls (JB), Hove Dairy Farm, Kadoma (1829 B4) (*The Babbler*), near St Ignatius College, Chishawasha (1731 C4) (DS), Stapleford Farm, Mount Hampden (1730 D2) (JWh) and Wingate, Harare (1731 C1) (PZ). Some at Sizinda on 27 July (GC) and Mukuvisi Woodlands on the 29th (KD) were either over-winterers or very early returning migrants.

A **Cape Crow** *Corvus capensis* at Bikita (2031 B1†) on 28 June (BM) was south of known range. A June **Miombo Tit** *Melaniparus griseiventris* record from west of Alaska Mine (1729 B4†) (SABAP2) represents a range extension from the Chinhoyi area. The **Grey Penduline-tit** *Anthoscopus caroli* is scarce at Mana Pools but some were in the Campsite area (1529 C2) in October (RM-S). Two nesting attempts by **Spotted Creepers** *Salpornis salvadori* at Mukuvisi Woodlands in November failed, probably from too much human (birdwatchers) interference (IR). **Southern Pied Babblers** *Turdoides bicolor* at Bosman's Camp (2231 A2†) on 17 October (DS) were east of their range along the southeast border.

A **Terrestrial Brownbul** *Phyllastrephus terrestris* was a surprising newcomer to a Newlands garden on 5 November where it stayed until month end at least. **Sombre Greenbuls** *Andropadus importunus* were in their usual territory downstream of Chirundu (1628 B2) on 31 October and a **Yellow-bellied Greenbul** *Chlorocichla flaviventris* was recorded again at Lake Chivero on 24 October (IR). **Eastern Nicator** *Nicator gularis* sightings in Makonde in the 1729 A3† and 1729 B4 squares during November (JMk) suggest this population is now well established. In the same area a **Miombo Rock-thrush** *Monticola angolensis* in QDS 1729 A4† on 4 November (JMk) represents a slight extension of range.

Twice in November **Familiar Chats** *Oenanthe familiaris* were found at the Borrowdale Race Course and have perhaps settled there (IR). A **Mocking Cliff-chat** *Thamnolaea cinnamomeiventris* on Mazuri Ranch (1830 C4†) on 19 September (UL) was slightly out of range. A **White-throated Robin-chat** *Cossypha humeralis* near Mzarabani (1631 A3†) in October (JM) denotes movement northwards, but whether on the escarpment or on the valley floor is not clear. They seem less frequent at Mukuvisi Woodlands these days and one on 25 November was the only sighting (IR). Hippo Pools records of **Collared Palm-thrush** *Cichladusa arquata* in July and **Red-capped Robin-chat** *C. natalensis* in June (TN) would indicate both species are settled there now. The latter bird was also noted in the Kanyemba area (1530 C2†) in November as were **Willow Warblers** *Phylloscopus trochilus* (ARy).

A **Bar-throated Apalis** *Apalis thoracica* record from west of Alaska Mine (1729 B4†) in the first week of June (SABAP2) pushes its Makonde range westwards. First recorded at the Mukuvisi Woodlands in 2015, **Yellow-breasted Apalises** *A. flavida* remain scarce although one was seen there on 7 July (RD, PZ). **Burnt-necked Eremomelas** *Eremomela usticollis* are little known in the Zambezi Valley so some at Chewore (1529 D2†) in mid-September (DSm) add an isolated dot to their distribution map.

On 22 June three separate **African Dusky Flycatcher** *Muscicapa adusta* sightings were made on the Vumba where normally absent during the winter (KW). One at Hippo Pools on 8 August (TN) follows the first record from there in 2017. A pair of **Grey Tit-flycatchers** *Myioparus plumbeus* was nesting at Seldomseen on 9 November (KW) and at least four different sightings were obtained around Kanyemba (1530 C2†) from 9-11 November when **Black-throated Wattle-eyes** *Platysteira peltata* were also reported (ARy). **Wattle-eyes** in Matusadona NP (1628 C4†) in September and October (J-MB) were probably wanderers from the adjoining 1628 D3 square.

Blue-mantled Crested Flycatcher *Trochocercus cyanomelas* records from the Mahenya area (2132 A4) in September (JMk) and October (DSj) are of great interest as they were well south of their normal range but follow isolated 1995 and 1998 records from there. **African Paradise Flycatchers** *Terpsiphone viridis* noted in June were at Msuna on the 5th (CB), Chipinda Pools a day later (GT), Eastlea, Harare (1731 C3) on the 7th (RC) and Rifa on the 11th (EB). Individuals were at Phole Phole Farm on 13 and 19 July (AR) and Hippo Pools on 24 July (TN). Several, including males in breeding dress, were at Malilangwe (2131 B2) and on the Chiredzi River in mid-July (GD) and a pair was at Gulugi Camp, near Chipinda (2131 B4), at month end (GT). One remained at Musango throughout the winter and on 10 August others appeared (SE).

An estimate of the population density of **Mountain Wagtails** *Motacilla clara* in Mucheni River Gorge, Chizarira (1727 D2), noted five different pairs during a 5km walk on 28 November (JBw). Following the August 2021 records of **Cape Wagtails** *M. capensis* at Victoria Falls, two were in Zambezi NP on 10 October (JB, CB). Similarly, **Yellow Wagtails** *M. flava* are not at all common in QDS 1725 D3, west of Victoria Falls, but were found in Zambezi NP in October (WvS) and on Chamabonda vlei, on 28 November (CBr).

A **Striped Pipit** *Anthus lineiventris* on Mazuri Ranch (1830 C4†) on 16 August was north of known range and a **Rosy-throated Longclaw** *Macronyx ameliae* there on 7 November (UL) registers extensive movement south-westwards from the Norton area. These longclaws were also out of range southwest of Lion's Den (1729 B4†) on 25 August (JMk) and more exceptionally at Chirundu (1628 B2†) in November (DKk). This longclaw was not included in Maasdorp & Cotton (2019. *Honeyguide* **65**: 3), neither is it a bird of the entire middle Zambezi downstream of Kariba dam wall.

A brown and buff-plumaged immature **Lesser Grey Shrike** *Lanius minor* was at Msuna Island on 18 November; young birds are seldom found south of the Zambezi (CB). **Southern Fiscals** *L. collaris* have disappeared from much of Harare although singles were on Newlands vlei on 7 June and 6 August (IR). **Crimson-breasted Shrikes** *Laniarius atrococcineus* are uncommon at Victoria Falls so a pair on Zambezi Drive on 26 July (GC) is a nice record. A **Gorgeous Bush-shrike** *Telophorus viridis* heard at Manjinji Pan (2231 A2) on 18 October (DS) was at the South African population's northern-most limit and far removed from our Eastern Highlands birds.

Retz's Helmet-shrikes *Prionops retzii* and **Violet-backed Starlings** *Cinnyricinclus leucogaster* were found around Kanyemba (1530 C2†) in November (ARy). **Common Mynas** *Acridotheres tristis* have been resident at Victoria Falls Airport for several years and the first one was noted in the town itself (1725 D4†) on 9 September (DT). In October they were at the Lion's Den toll gate (1730 A3) and further north at the new localities of Karoi (1629 D3†) (IR) and Chirundu (1628 C2†) (DKk). Some were near Masoka (1630 A1†) (GS, MB) and Mushumbi Pools (1630 B1†) (MM) at the end of November, and on the eastern border they were near Mahenya (2132 A4†) in September (JMk) and at Nyanga village (1832 B1†) in October (RC).

Yellow-billed Oxpeckers *Buphagus africanus* were west of Rukomechi (1629 A2†) in October (RM-S); middle Zambezi Valley records are scarce indeed. A **Red-billed Oxpecker** *B.*

erythrorynchus at Imire Game Park on 6 July (JT) indicates this population has persisted since first recorded in November 2019.

Nest building by **Village Weavers** *Ploceus cucullatus* was at an advanced stage at Mukuvisi Woodlands as early as the end of June (RD). **Lesser Masked Weavers** *P. intermedius* were in the Biri Dam area (1730 A3) in August and near Alaska Mine in the adjoining 1729 B4† square in November (JMk). According to several sources, swarms of **Red-billed Queleas** *Quelea quelea* put over 5000 hectares of wheat under threat in the Midlands at the end of August.

A pair of **Orange-winged Pytilias** *Pytilia afra* was at Rhino Safari Camp on 1 August (PTe). Around Harare **Red-throated Twinspots** *Hypargos niveoguttatus* were at Bally Vaughan on 19 September (GP), Mukuvisi Woodlands on 31 October (RD) and Greystone Park Preserve (1731 C1) on 13 November (IR). Six **Brown Firefinches** *Lagonosticta nitidula* were found in the Victoria Falls rain forest on 17 October (GC).

A claimed **Violet-eared Waxbill** *Granatina granatina* at the Mukuvisi Woodlands on 6 June could be the first seen there for about 25 years (RD), although this record is considered doubtful (IR). An unexpected party of six **Orange-breasted Waxbills** *Amandava subflavas* was found on the top of a dry, rubbish-laden mine dump on the eastern edge of Msasa, Harare (1731 C3), on 8 August (IR). **Red-backed Mannikins** *Spermestes nigriceps* at Marondera North (1831 B1†) in October (AD) were further south in Mashonaland than expected and a **Magpie Mannikin** *S. fringilloides* was at Ewanrigg on 13 June (*The Babbler*). In July **Golden-breasted Bunting** *Emberiza flaviventris* was another species noted at the Mukuvisi Woodlands for the first time for several years (RD).

Arrivals

White Stork 10 November Kavinga (LMcD), 11 November Umguza (AR), 25 November near Lion's Den (JWh), 30 November Harare (DS); **Abdim's Stork** 27 September Kavinga (LMcD), 1 October Harare (TC), 29 October Umguza (AR), Bromley (GT), 30 October Banket (DSm), 1 November Dete vlei (TA), 5 November Mutare (JR), 6 November Odzi (MBr); **Yellow-billed Kite** 10 July Robins Camp (BN), 3 August Chitake Spring (1629 A2) (JV), 5 August near Banket (DA), 7 August Bumi Hills (LMcD), 8 August Victoria Falls (DT), Chewore (DS), 10 August Mazvikadei (DKk), 11 August Colleen Bawn (CBu), 13 August Harare (BL), 15 August Ngezi Mine (SW), 27 August Mbembezi (1928 D4) (SW), 5 September Mazuri Ranch (UL), 17 September Umguza (AR); **Lesser Spotted Eagle** 19 October Banket (DSm), 21 October Rukuru Camp (1528 D4) (GT), 23 October Umguza (AR), Nyabira (JBw); **Wahlberg's Eagle** 8 August Chinhoyi (JMk), 17 August Harare (J-MB), 20 August Shangani (LT), 21 August Chamabonda vlei (CB), 14 September Umguza (JV); **Steppe Buzzard** 9 August Kavinga (DB), 8 October Matetsi (JV), 11 October Nyanga (BM), 14 October Victoria Falls (CBr), 29 October Nyabira (JWh); **Eurasian Hobby** *Falco subbuteo* 23 October Chamabonda vlei (CB), 2 November Banket (DSm), 29 November Beatrice (RW); **Amur Falcon** *F. amurensis* 23 November Kanga Camp (CM), 24 November The Hide, Hwange NP (SH), 28 November Umguza (JV).

Common Sandpiper *Actitis hypoleucos* 2 August Bumi Hills (SE), 8 August Victoria Falls (CB), 16 August Mazvikadei (RMacD); **Wood Sandpiper** 24 July Harare (RC), 28 July Malilangwe (GD), 29 July Victoria Falls (GC), 1 August Musango (SE); **Marsh Sandpiper** 14 September Matusadona (DP), 16-18 September Mana Pools NP (J-MB); **Common Greenshank** 28 July Malilangwe (GD), 1 August Musango (SE), 4 August Claw Dam (*The Babbler*), 8 August Victoria Falls (CB); **Little Stint** *Calidris minuta* 22 August Harare (BL, AD); **Ruff** 2 August Bumi Hills (SE), 14 August Lake Manyame (BL).

Common Cuckoo *Cuculus canorus* 13 October near Mtarazi Falls (CC), 23 November Matusadona NP (1628 C4†) (J-MB); **African Cuckoo** *C. gularis* 14 September Harare (J-MB), 25 September Camp Hwange (SWm), 11 October Chilo Sand Forest (JWh); **Red-chested Cuckoo** 14 September Nyanga (BL), 17 September Honde Valley (MS), 2 October Harare (KvL), 9 October Kent Estate (GT), 10 October Umguza (AR), 17 October Gonarezhou (DS), 18 October Victoria Falls (DT), 22 October Banket (DSm); **Black Cuckoo** *C. clamosus* 6 October Marondera South (SC), 22 October Banket (DSm), 23 October Nyabira (JBw), 30 October Rifa (IR), 11 November Masoka (MZ), 19 November Kennedy 1 (PDe), 22 November Victoria Falls (DT), 24 November Umguza (AR); **Great Spotted Cuckoo** *Clamator glandarius* 5 October Victoria Falls (DT), 20 October Harare (JM), 24 October Kavinga (LMcD); **Levaillant's Cuckoo** *C. levaillantii* 3 October Harare (ME), 16 October Rusape (SC), 24 October Victoria Falls (DT), Vundu Camp (NH), 25 October Masoka (MZ); **Jacobin Cuckoo** 23 October Umguza (AR), 7 November Kavinga (LMcD), Gonarezhou (EvdW), 27 November Musango (SE); **African Emerald Cuckoo** *Chrysococcyx cupreus* 14 September Vumba (PM), 25 September Juliasdale (PTe), 31 October Hippo Pools (TN), 4 November Victoria Falls (CB), 11 November Masoka (MZ); **Klaas's Cuckoo** 4 September Hippo Pools (TN), Victoria Falls (DT), 5 September Harare (J-MB), 8 September Bulawayo (PD), Umguza (JV), 16 September Chinhoyi (JMk), 26 September Marondera (ES), 28 September Goromonzi (PTe), Mazvikadei (BM), Kavinga (LMcD); **Diderick Cuckoo** 26 September Harare (BL), 6 October Marondera South (SC), 31 October Umguza (JV), 6 November Banket (DSm), 8 November Victoria Falls (JB), 13 November Spurwing Island (DP); **Black Coucal** *Centropus grillii* 31 October Darwendale (BL), 5 November Lion's Den (JMk), 12 November Harare (JM).

Pennant-winged Nightjar *Macrodipteryx vexillarius* 23 September Shangani (LT), 5 October Kent Estate (GT), 17 October Kavinga (LMcD); **Woodland Kingfisher** 7 November Chipinge (2032 B3) (DS), 9 November Harare (CR), 15 November Nkupe Camp, Mana Pools (BMcK), 19 November Chirundu (EB), 23 November Senuko (CS), Chiredzi (MD), Chipinda Pools (EvdW), Matusadona (J-MB), 24 November Umguza (AR), 26 November Victoria Falls (CB); **Grey-headed Kingfisher** *Halcyon leucocephala* 6 September Spurwing Island (DP), 24 September Harare (KF), 11 October Chirinda Forest (TMu per JP), 28 October Hippo Pools (TN), 2 November Vumba (KW); **European Bee-eater** *Merops apiaster* 8 September Marondera (ES), 15 September Bulawayo (TF), 17 September near C Camp (1628 B2) (KF), Harare (JBa), 24 September Banket (DSm), Dete vlei (JV), 25 September Chinhoyi (JMk), Victoria Falls (DT, JB), 28 September Musango (SE), 4 October Mazuri Ranch (UL), 5 October Kavinga (DB); **Southern Carmine Bee-eater** 6 August Mcheni Camp, Rukomechi (1529 C4) (DL), 15 August Mongwe Camp (LMcD), 24 August Matusadona (PTe), 25 August Chirundu (EB), 2 September Umguza (AR); **Swallow-tailed Bee-eater** *M. hirundineus* 6 June Harare (IR); **European Roller** *Coracias garrulus* 1 November Kavinga (LMcD), 9 November Chamabonda vlei (CB); **Broad-billed Roller** 2 September Lake Chivero (TC), Kent Estate (PvL), 2 October

Victoria Falls (CB), 3 October The Hide, Hwange NP (SH), 5 October Harare (LMcD), 7 October Hippo Pools (TN), 10 October Umguza (AR), 12 October Marondera South (SC), 17 October Gonarezhou (DS), 28 October Mazuri Ranch (UL).

Barn Swallow 30 September Matusadona NP (J-MB), 8 October Nyanyadzi (1932 C4) (GD), 9 October Victoria Falls (CB), Save-Runde confluence (GD), 19 October Harare (JM), 20 October Lower Ncema Dam, Esigodini (UL); **Red-breasted Swallow** *Cecropis semirufa* 19 July Kennedy 1 (SH), near Shangani (TF); **Common House Martin** 9 October Save-Runde confluence (GD); **Sand Martin** 9 October Mukadzapela Bay, Matusadona (J-MB); **Garden Warbler** *Sylvia borin* 5 November Mutare (GD), Lion's Den (JMk), 7 November Harare (RD); **Broad-tailed Warbler** *Schoenicola brevirostris* 2 November Darwendale (BL); **Willow Warbler** 8 September Harare (TW), 9 September Victoria Falls (DT); **Spotted Flycatcher** *Muscicapa striata* 8 October Matetsi (JV), 9 November Kanyemba (1530 C2†) (ARy); **African Paradise Flycatcher** 7 September Victoria Falls (DT), 13 September Marondera (ES), 15 September Harare suburbs (JBa, LSm, PT), 16 September Juliasdale (BM), Vumba (KW), 20 September Spurwing Island (DP), 25 September Chinhoyi (JMk), 28 September Kavinga (LMcD); **Lesser Grey Shrike** 24 October Kavinga (BL), 2 November Umguza (JV), 6 November Harare (DW), 9 November Chamabonda vlei (CB), 11 November Masoka (MZ); **Red-backed Shrike** *Lanius collurio* 9 November Chamabonda vlei (CB), Kanyemba area (1530 C2†) (ARy), 11 November Nyanga (CC), 16 November Save Valley Conservancy (CS), 18 November Gonarezhou (EvdW), 19 November Kavinga (LMcD), 23 November Harare (JM), 28 November Chinyika Ranch (UL); **Violet-backed Starling** 2 September Victoria Falls (CB), 5 September Matusadona (SH), 17 September Juliasdale (BM), 19 September Mazuri Ranch (UL).

Departures

Capped Wheatear *Oenanthe pileata* 9 November Chamabonda vlei (CB); **Purple-banded Sunbird** *Cinnyris bifasciatus* 31 October Hippo Pools (TN).

Observers

Derek Adams (DA), Terry Anders (TA), Tania Anderson (TAn), Benhildah Antonio (BA), Elspeth Baillie (EB), Colin Baker (CB), Julia Baker (JB), James Ball (JBa), Jamin Bews (JBw), Jean-Michel Blake (J-MB), Mark Brewer (MBr), Mike Bridgeford (MB), Charles Brightman (CBr), Dylan Browne (DB), Christopher Burton (CBu), Jane Bush (JBu), Ken Butchart (KB), Kevin Butler (KBt), Buzz Charlton (BC), Steve Chinhoi (SCh), Ronnie Chirimuta (RC), Ngoni Chiweshe (NC), Stan Chizipi (SC), Dave Christiansen (DC), Graham Cochrane (GC), Tracey Couto (TC), Chris Cragg (CC), Asher Dare (AD), Mo Davey (MD), Paula Dell (PDe), Richard Dennison (RD), Peta Ditchburn (PD), Ken Dixon (KD), Gary Douglas (GD), Steve Edwards (SE), Murray Evans (ME), Kevin Fallon (KF), Terry Fenn (TF), Nicholas Fordyce (NF), Mark Hadingham (MH), Sean Hind (SH), Nkululeko Hlongwane (NH), April Hundermark (AH), Duncan Kinnaird (DKn), Doug Kew (DK), Doug Kok (DKk), Karl van Laeren (KvL), Daniel Landman (DL), Barry Launder (BL), Pam van Leenhoff (PvL), Bruno de Leo (BdL), Ursula Lowe (UL), Jim Mackie (JMk), Doug MacDonald (DMacD), Luke McDonald (LMcD), Roger MacDonald (RMacD), Duncan Macduff (DM), Bruce McKinlay (BMcK), Charles Magner (CMa), Peter Magosvongwe (PM), Michael Mason (MM), Beks Masuku (BMa), Norman Mellett (NM), Cliffy Mhandu (CM), Bev Morgan (BM), Tim Muhluyi (TMu), Jimmy Muropa (JM), Thomas Mutombeni (TM), Bhekizulu Ncube (BN), Tadious Ndadziira (TN), Sean Nicolle (SN), Roger Parry (RP), Richard Peek (RPk), Dan Peel (DP), Julia Pierini (JP), Gordon Putterill (GP), Ali Randell (AR), Jill Rickard (JR), Ian Riddell (IR), Adam Riley (ARy), Colin Ross (CR), Yakov Sabag (YS), Morgan Saineti (MS), Vusumuzi Sibanda (VS), Claire Sirley (CSy), Garret Skead (GS), Doug Smith (DSm), Rob McLennan-Smith (RM-S), Lucinda Smyth (LSm), Evan Solomon (ES), Wouter van Spijker (WvS), Clive Stockil (CS), Dael Stojakovic (DSj), Debbie Swales (DS), Peter Taylor (PT), Luke Terblanche (LT), Peter Tetlow (PTe), Gilly Thornycroft (GT), Darryl Tiran (DT), Judy Travers (JT), Sam Turley (ST), James Varden (JV), Dorothy Wakeling (DW), Lloyd Weber (LW), Elsabe van der Westhuizen (EvdW), Johnny Whitfield (JWh), Spike Williamson (SWm), Carl Wilson (CW), Rogan Wolhuter (RW), Jan Wood (JW), Tony Wood (TW), Forest Worsley (FW), Ken Worsley (KW), Sue Worsley (SW), MacKenzie Zirota (MZ), Piet Zwanikken (PZ).
SABAP2 – Contributor unidentified.
The Babbler – Newsletter of BirdLife Zimbabwe.

COLIN BAKER, *Victoria Falls.* ✉ pratincole306@hotmail.com

TRAVEL

BirdLife South Africa Flock to Marion, January 2022

After the numerous setbacks caused by the global pandemic, the excitement as we boarded the ship was almost tangible. The journey was about to begin, and what a journey it was …

The first day saw us leaving Cape Town on the MSC *Orchestra*, with well over a thousand birders on board, heading southeast towards Marion Island. It was midday as we left the harbour and most of us were out on the decks watching Table Mountain slip away, and the numerous birds around the boat. My first lifer was Sabine's Gull as we left the harbour.

That afternoon saw us speeding southwards, learning our way around the ship, meeting various friends and fellow birders, and enjoying the birding spectacle around us as we were still in Southern African waters.

Over the next few days, we made our way south to Marion Island. The further south we ventured the more frigid it became out on deck, and the early starts to be on deck for sunrise certainly made for long, but enjoyable, days. The sightings were also rolling in fast, with numerous albatross species, including the majestic Wandering and the gorgeous Shy Albatrosses, often following in the wake of the boat. Many hours could be spent at the stern watching their mesmerising flight. So calm and peaceful, in stark contrast to the stormy seas a few feet below them.

We were also graced by many whales, the occasional "blow" giving their presence away.

As we neared Marion Island a huge storm was brewing, and our skilful captain managed to get us a view of the Island and some amazing birds before we had to high tail it away, with winds exceeding 100 km per hour buffeting the ship. Eventually the crew called us all inside as the conditions on deck were too dangerous. A serious storm to shift the massive cruise ship!

I did manage to see numerous special bird species in the area, including King and Macaroni Penguins, Light-mantled Albatross and White-headed Petrel being some personal highlights.

Then on the 28th the most bird species of the trip was seen, including the amazing Tristan Albatross, very tricky to separate from the Wandering Albatross, of which some authorities still considering it to be a subspecies.

By now we had turned north and we were making our way back towards Durban. The air started to warm, and so did the sea. Bird species and numbers slowly decreased as we made our way back into the warmer waters. However, we were still entertained by the eloquent talks given by various speakers, including Peter Harrison and Peter Ryan, some of the foremost global experts on seabirds. The occasional excitement occurred on the deck as another bird was called over the loud hailers, with Tropical Shearwater and Sooty Tern being two new species for me.

On the second to last day, we all added an unexpected Wandering Albatross to our subregion lists as we were back in South African waters.

Although it was a sharp learning curve for the land-locked Zimbabweans on board, the variety of species seen, the varying conditions, as well as the atmosphere, all contributed to this once in a lifetime experience.

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Sooty Albatross (left) and Indian Yellow-nosed Albatross (right). Photos © Roger MacDonald

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THREATENED

Lilian's Lovebirds

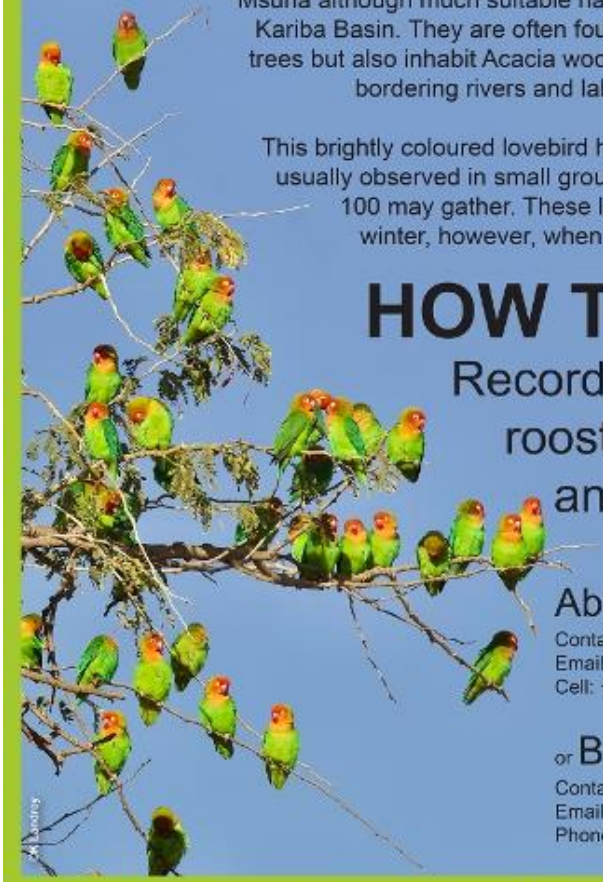
MAJOR THREATS:

- **HABITAT LOSS - Deforestation for agriculture**
- **EXPLOITATION - nest destruction for live bird trade**
- **DAMMING OF ZAMBEZI - flooding of feeding grounds**
- **POISONING OF WATERHOLES - Illegal pest control and poaching**

Lovebirds get their name from the strong bond which forms between a male and female. Pairs of lovebirds spend much of their time close together, regularly preening each other`s feathers. They are in fact monogamous (they have only one mate during a breeding season, or throughout the breeding life of a pair).

In Zimbabwe, Lilian's lovebirds occur in the Middle Zambezi below the escarpment from the Angwa and Hunyani Rivers westwards to Binga and Msuna although much suitable habitat has been lost within the Kariba Basin. They are often found in woodlands of mopane trees but also inhabit Acacia woodlands on flood plains, forest bordering rivers and lakes, and in fig trees.

This brightly coloured lovebird has a gregarious nature and is usually observed in small groups, although sometimes up to 100 may gather. These large flocks only occur during winter, however, when the birds are not breeding.



NEAR THREATENED

Endemic Distribution

Classified as Near Threatened (NT) on the IUCN Red List, and listed on Appendix II of CITES, the total population of Lilian`s Lovebirds has been significantly reduced by habitat loss and exploitation. Like many other lovebirds, this stunning bird is captured for the local and international cage-bird trade. In addition, the cereal-eating lovebird is considered a pest by farmers, and is persecuted as a result. (Lilian's lovebirds feed primarily on grass seed, particularly millet and sorghum seeds, which is picked off the ground, or plucked from the ripening heads of plants).

HOW TO HELP:

Record sightings, roost and nest sites and report to:

Abigail Karimanzira
Contact details:
Email: karimanzirabigail@gmail.com
Cell: +263 771 868 706

or **BirdLife Zimbabwe**
Contact details:
Email: birds@zol.co.zw
Phone: +263 24 248148

BirdLife Zimbabwe promotes the survival of wild birds and biodiversity in Zimbabwe and elsewhere for both their intrinsic value and for the enjoyment of future generations. This is achieved through programmes to increase awareness of biodiversity and the need to protect their habitats through policy, advocacy, education and training. Biodiversity, ecosystems and ecosystem services – our natural capital – must be preserved as the foundations for a sustainable future for us all.

To learn more about BirdLife Zimbabwe`s Nature conservation programmes and to support them:

www.birdlifezimbabwe.org or email: birds@zol.co.zw