

# Ringling in *Acacia* savanna at Ruretse, southeast Botswana, 1996–2000

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## Introduction and methods

From March 1996 to late November 2000 ringing was rather irregularly carried out on a 4 ha plot of *Acacia* savanna at a small house at Ruretse, some 20 km northeast of Gaborone. *Acacia* savanna bordered the plot on three sides and a small road bordered the plot on the fourth side. Across the road was a fallow field fringed with *Acacia*. *Acacia tortilis* and *A. erubescens* were the dominant species with *Boscia foetida* also present and some *Grewia* bushes in the understorey. Water was provided and some seed. Ringing activity was sparse during 1996, netting sessions usually involving only two to three nets (up to 36 m) per session, in the vicinity of the house. In early 1997 mist-netting was more frequent and during some sessions up to 108 m of netting was used spread over the 4 ha. From 1997 to 2000 some ringing was carried out in most months. Differences in ringing effort in terms of time and number of nets make any meaningful analysis difficult but the range of species caught and their relative abundance is of some interest. It provides some information on bird communities in this area of SE Botswana as a comparison with other areas of southern Africa. Some seasonal or annual differences in the numbers of some species are also evident.

## Results

Over the five years, 83 species were caught and ringed. Several others, such as Marsh Owl and Pearlspeckled Owl and Rufous-checked Nightjar, went into nets but escaped before they could be extricated. Many species

were caught only once or twice (e.g. Yellow-billed Kite, Greater and Lesser Honeyguides, Purple and Steelblue Widowfinches, Quailfinch, Plumcoloured Starling) but were quite regularly seen on the plot, albeit in small numbers.

Only 15 species were caught regularly i.e. >100 ringed (Tables 1, 2). Fourteen of these were seedeaters, which, either regularly or irregularly, visited the plot to drink, e.g. Laughing Dove, Redheaded Finch, Melba Finch, Yellow Canary. Blue Waxbill was by far the most numerous species (889 caught) followed by Masked Weaver (398) and Red-billed Quelea (385). The only non-seedeater of the 15 regularly caught species was Rattling Cisticola (106).

Of the five other species caught in relatively high numbers (40 or more), three were seedeaters, one a nectar-feeder/insectivore (Marico Sunbird: 61 caught) and one a frugivore (Pied Barbet: 40 caught).

## Annual differences in numbers

Some species were common only in one or two years (Table 1). For example, Redbilled Quelea and Whitewinged Widow were caught more frequently in 1999 than in previous years and in 2000 both were numerous. Blackcheeked Waxbills and both species of firefinch were also most commonly caught in 2000 whilst another seedeater, the Violet-eared Waxbill was scarce in 2000 but common in 1997 and 1998. Namaqua Doves were common only in 1998 (as well as Shafttailed Whydahs) being particularly few in 1997 and 2000. Conversely Redheaded Finches were most commonly caught in 1999. Larklike

**Table 1.** Annual totals of each species caught at Ruretse, southeast Botswana 1996–2000.

| Species                     | 1996 | 1997 | 1998 | 1999 | 2000 | Total ringed | No. of retraps |
|-----------------------------|------|------|------|------|------|--------------|----------------|
| Yellowbilled Kite           | 0    | 0    | 0    | 1    | 0    | 1            | 0              |
| Rock Pigeon                 | 1    | 3    | 1    | 5    | 2    | 12           | 1              |
| Laughing Dove               | 9    | 64   | 23   | 31   | 31   | 157          | 2              |
| Cape Turtle Dove            | 2    | 4    | 3    | 1    | 0    | 10           | 1              |
| Namaqua Dove                | 5    | 3    | 77   | 16   | 1    | 102          | 0              |
| Swainson's Francolin        | 0    | 0    | 0    | 1    | 0    | 1            | 0              |
| Crested Francolin           | 0    | 0    | 0    | 1    | 0    | 1            | 0              |
| Kurrichane Buttonquail      | 0    | 0    | 0    | 0    | 3    | 3            | 0              |
| Yellowbilled Hornbill       | 0    | 0    | 0    | 1    | 0    | 1            | 0              |
| Little Bee-eater            | 2    | 7    | 5    | 2    | 0    | 16           | 3              |
| Swallowtailed Bee-eater     | 0    | 1    | 0    | 0    | 0    | 1            | 0              |
| Hoopoe                      | 0    | 1    | 0    | 0    | 0    | 1            | 0              |
| Redfaced Mousebird          | 1    | 1    | 0    | 11   | 3    | 16           | 0              |
| Whitebacked Mousebird       | 0    | 0    | 0    | 1    | 0    | 1            | 0              |
| Diederik Cuckoo             | 1    | 1    | 0    | 1    | 0    | 3            | 0              |
| Burchell's Coucal           | 0    | 0    | 0    | 0    | 1    | 1            | 0              |
| Pied Barbet                 | 5    | 11   | 6    | 20   | 5    | 47           | 13             |
| Grey Lourie                 | 0    | 0    | 3    | 0    | 0    | 3            | 0              |
| Forktailed Drongo           | 0    | 0    | 1    | 1    | 0    | 2            | 0              |
| Greater Honeyguide          | 0    | 1    | 0    | 0    | 0    | 1            | 0              |
| Lesser Honeyguide           | 0    | 0    | 0    | 1    | 0    | 1            | 0              |
| Redeyed Bulbul              | 0    | 0    | 0    | 1    | 1    | 2            | 0              |
| Sabota Lark                 | 0    | 1    | 2    | 4    | 2    | 9            | 0              |
| Redbreasted Swallow         | 0    | 0    | 1    | 0    | 0    | 1            | 0              |
| European Swallow            | 0    | 0    | 0    | 2    | 3    | 5            | 0              |
| Marico Flycatcher           | 0    | 0    | 2    | 5    | 0    | 7            | 1              |
| Chinspot Batis              | 0    | 0    | 0    | 1    | 1    | 2            | 0              |
| Titbabbler                  | 2    | 7    | 4    | 7    | 3    | 23           | 10             |
| Whitebrowed Robin           | 4    | 2    | 3    | 4    | 3    | 16           | 5              |
| Kalahari Robin              | 2    | 0    | 1    | 4    | 2    | 9            | 0              |
| Groundscraper Thrush        | 0    | 0    | 1    | 0    | 0    | 1            | 0              |
| Longbilled Crombec          | 2    | 1    | 6    | 2    | 3    | 14           | 4              |
| Greybacked Bleating Warbler | 0    | 0    | 1    | 0    | 1    | 2            | 0              |
| Barred Warbler              | 0    | 0    | 0    | 2    | 0    | 2            | 0              |
| Rattling Cisticola          | 9    | 17   | 15   | 41   | 24   | 106          | 37             |
| Willow Warbler              | 0    | 1    | 0    | 0    | 0    | 1            | 0              |
| Icterine Warbler            | 0    | 0    | 1    | 0    | 1    | 2            | 0              |
| Whitethroat                 | 0    | 1    | 0    | 2    | 2    | 5            | 0              |
| Olive tree Warbler          | 0    | 2    | 0    | 2    | 1    | 5            | 0              |
| Blackchested Prinia         | 4    | 5    | 4    | 6    | 6    | 25           | 13             |
| Burntnecked Eremomela       | 0    | 3    | 2    | 1    | 1    | 7            | 0              |
| Ashy Tit                    | 0    | 1    | 2    | 0    | 0    | 3            | 0              |
| Cape Penduline Tit          | 0    | 0    | 0    | 2    | 1    | 3            | 0              |
| Marico Sunbird              | 7    | 5    | 16   | 30   | 3    | 61           | 3              |
| Whitebellied Sunbird        | 0    | 1    | 1    | 3    | 0    | 5            | 0              |
| Redbacked Shrike            | 3    | 7    | 8    | 8    | 2    | 28           | 2              |
| Threestreaked Tchagra       | 0    | 1    | 4    | 2    | 1    | 8            | 3              |
| Puffback Shrike             | 0    | 0    | 0    | 1    | 0    | 1            | 0              |
| Brubru                      | 0    | 0    | 0    | 1    | 1    | 2            | 0              |
| Crimsonbreasted Shrike      | 3    | 0    | 3    | 2    | 1    | 9            | 0              |

**Table 1.** (continued)

| Species                | 1996       | 1997       | 1998        | 1999        | 2000        | Total ringed | No. of retraps |
|------------------------|------------|------------|-------------|-------------|-------------|--------------|----------------|
| Pied Babbler           | 0          | 1          | 0           | 3           | 3           | 7            | 1              |
| Arrowmarked Babbler    | 0          | 0          | 0           | 2           | 0           | 2            | 0              |
| Masked Weaver          | 5          | 44         | 144         | 147         | 58          | 398          | 5              |
| Lesser Masked Weaver   | 0          | 1          | 1           | 15          | 3           | 20           | 0              |
| Redbilled Quelea       | 1          | 21         | 7           | 42          | 314         | 385          | 0              |
| Redheaded Finch        | 0          | 2          | 7           | 123         | 8           | 140          | 2              |
| Cutthroat Finch        | 0          | 0          | 0           | 2           | 0           | 2            | 0              |
| Golden Bishop          | 0          | 0          | 0           | 1           | 0           | 3            | 0              |
| Whitewinged Widow      | 0          | 8          | 4           | 25          | 145         | 182          | 3              |
| Shafttailed Whydah     | 2          | 8          | 54          | 26          | 1           | 91           | 0              |
| Paradise Whydah        | 0          | 0          | 3           | 27          | 0           | 30           | 0              |
| Melba Finch            | 14         | 95         | 65          | 87          | 84          | 345          | 39             |
| Scalyfeathered Finch   | 44         | 41         | 67          | 95          | 35          | 282          | 117            |
| Common Waxbill         | 0          | 0          | 0           | 1           | 0           | 1            | 0              |
| Violeteared Waxbill    | 3          | 22         | 34          | 6           | 9           | 74           | 7              |
| Blackcheeked Waxbill   | 7          | 14         | 33          | 69          | 112         | 235          | 17             |
| Blue Waxbill           | 45         | 149        | 259         | 179         | 257         | 889          | 74             |
| Jameson's Firefinch    | 0          | 0          | 3           | 2           | 21          | 26           | 6              |
| Redbilled Firefinch    | 0          | 3          | 14          | 3           | 25          | 45           | 0              |
| Steelblue Widowfinch   | 0          | 0          | 0           | 1           | 0           | 3            | 0              |
| Purple Widowfinch      | 0          | 0          | 1           | 0           | 0           | 1            | 0              |
| Quailfinch             | 0          | 0          | 0           | 1           | 0           | 1            | 0              |
| Great Sparrow          | 3          | 1          | 3           | 10          | 2           | 19           | 3              |
| House Sparrow          | 0          | 2          | 2           | 2           | 0           | 6            | 0              |
| Cape Sparrow           | 0          | 0          | 6           | 12          | 6           | 26           | 6              |
| Greyheaded Sparrow     | 12         | 14         | 23          | 70          | 60          | 179          | 25             |
| Glossy Starling        | 0          | 0          | 0           | 1           | 0           | 1            | 0              |
| Plumcoloured Starling  | 0          | 0          | 1           | 0           | 0           | 1            | 0              |
| Blackthroated Canary   | 0          | 2          | 50          | 53          | 50          | 155          | 7              |
| Yellow Canary          | 6          | 24         | 48          | 67          | 50          | 195          | 28             |
| Rock Bunting           | 0          | 0          | 1           | 0           | 0           | 1            | 0              |
| Goldenbreasted Bunting | 0          | 1          | 3           | 2           | 0           | 6            | 1              |
| Larklike Bunting       | 0          | 0          | 310         | 3           | 1           | 314          | 10             |
| <b>Totals</b>          | <b>205</b> | <b>604</b> | <b>1338</b> | <b>1303</b> | <b>1355</b> | <b>4805</b>  | <b>449</b>     |

Buntings (314) were almost all caught in one year (1998) when there was an invasion in the area (Tyler & Tyler 2001).

### Seasonal differences

Numbers caught of some species varied greatly not only between years but between times of the year (Table 2). There was a peak in Namaqua Doves in 1998 during the first period (late summer, January–April). Both Yellow Canaries and Blackthroated Canaries also peaked in this first period, from 1998–

2000 and in the case of Yellow Canary also in 1997. Thus, 75.9% of Yellow Canaries ( $n = 195$ ) ringed at Ruretse, were caught between January and April and 85.8% of Blackthroated Canaries ( $n = 155$ ) were caught in this period. There was a big catch of Blackcheeked Waxbills in the first period of 1999 although in 2000 most were caught in the second period (the dry season from May–August). Other species were most numerous in the dry season e.g. Scalyfeathered Finches and Masked Weaver in 1998. A few were

**Table 2.** Catches in dry and wet seasons from 1996–2000 of the 28 most-ringed species at Ruretse. Dry = May to October, wet = November to April. The March 1996 and November 2000 records are not shown but they are included in the Totals. Species are listed in order of abundance.

| Species              | Dry<br>1996 | Wet<br>1996/97 | Dry<br>1997 | Wet<br>1997/98 | Dry<br>1998 | Wet<br>1998/99 | Dry<br>1999 | Wet<br>1999/00 | Dry<br>2000 | Total |
|----------------------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|-------|
| Blue Waxbill         | 15          | 104            | 67          | 102            | 134         | 169            | 25          | 89             | 171         | 890   |
| Masked Weaver        | 4           | 11             | 34          | 34             | 110         | 57             | 49          | 60             | 41          | 400   |
| Redbilled Quelea     | 0           | 13             | 8           | 5              | 2           | 23             | 1           | 64             | 189         | 385   |
| Melba Finch          | 8           | 80             | 17          | 43             | 19          | 85             | 1           | 46             | 41          | 345   |
| Larklike Bunting     | 0           | 0              | 0           | 66             | 229         | 18             | 0           | 1              | 0           | 314   |
| Scalyfeathered Finch | 37          | 13             | 28          | 8              | 44          | 38             | 59          | 31             | 16          | 282   |
| Blackchecked Waxbill | 1           | 11             | 9           | 17             | 10          | 66             | 6           | 28             | 85          | 235   |
| Yellow Canary        | 0           | 24             | 4           | 36             | 7           | 59             | 3           | 51             | 10          | 195   |
| Greyheaded Sparrow   | 9           | 15             | 1           | 10             | 13          | 38             | 29          | 56             | 8           | 179   |
| Laughing Dove        | 4           | 61             | 4           | 22             | 5           | 11             | 8           | 36             | 6           | 157   |
| Blackthroated Canary | 0           | 1              | 1           | 44             | 5           | 40             | 13          | 50             | 1           | 155   |
| Whitewinged Widow    | 0           | 0              | 7           | 1              | 4           | 1              | 23          | 9              | 128         | 183   |
| Redheaded Finch      | 0           | 2              | 0           | 6              | 1           | 47             | 50          | 32             | 2           | 140   |
| Rattling Cisticola   | 2           | 20             | 0           | 6              | 3           | 22             | 8           | 32             | 7           | 106   |
| Namaqua Dove         | 2           | 4              | 1           | 56             | 19          | 10             | 1           | 8              | 0           | 102   |
| Shafttailed Whydah   | 1           | 1              | 6           | 6              | 44          | 10             | 12          | 11             | 0           | 91    |
| Violeteared Waxbill  | 1           | 7              | 16          | 5              | 28          | 4              | 3           | 1              | 8           | 74    |
| Marico Sunbird       | 3           | 8              | 1           | 9              | 3           | 11             | 15          | 9              | 1           | 61    |
| Redbilled Firefinch  | 0           | 2              | 1           | 6              | 5           | 5              | 0           | 3              | 23          | 45    |
| Pied Barbet          | 4           | 11             | 1           | 5              | 0           | 13             | 1           | 12             | 0           | 47    |
| Paradise Whydah      | 0           | 0              | 0           | 2              | 0           | 2              | 0           | 26             | 0           | 30    |
| Redbacked Shrike     | 0           | 9              | 0           | 1              | 0           | 10             | 0           | 7              | 0           | 28    |
| Jameson's Firefinch  | 0           | 0              | 0           | 0              | 3           | 2              | 0           | 2              | 15          | 26    |
| Cape Sparrow         | 0           | 0              | 0           | 5              | 1           | 8              | 3           | 4              | 3           | 26    |
| Blackchested Prinia  | 3           | 4              | 2           | 4              | 0           | 3              | 2           | 3              | 3           | 25    |
| Titbabbler           | 1           | 8              | 0           | 0              | 3           | 4              | 0           | 5              | 2           | 23    |
| Lesser Masked Weaver | 0           | 1              | 0           | 0              | 0           | 14             | 0           | 5              | 0           | 20    |
| Great Sparrow        | 3           | 1              | 0           | 3              | 0           | 4              | 5           | 3              | 0           | 19    |

largely absent in the dry season e.g. Marico Sunbird. Laughing Doves were also much less commonly caught in the winter period than in the first or last period of the year. Melba Finches were absent from the plot at times but an influx was apparent in most years between January and April, the timing of the influx varying somewhat between years (see Tyler 2001a).

## Discussion

Although few Blackchested Prinias were caught, they and Rattling Cisticolas were numerous in the surrounding area. Low numbers were also caught of other common resi-

dents in the area (Kalahari Robin, White-browed Robin, Titbabbler). This was because trapping only caught resident pairs and offspring (and dispersing birds); unlike seed-eaters, insectivores did not visit the plot for food or water. Possibly the small number of Prinias by comparison with Cisticolas, was because Prinias are able to see nets better and avoid them, or are better able to escape from nets. The difficulty of catching certain species in mist nets, for example larks, explains the few Sabota Larks caught (and no Monotonous Larks during an influx of the species in early 2000).

There was good rain in the summers of 1997/98 and 1999/2000, especially in the late part of the latter season, leading to good grass growth and a supply of seed through the winter months. The summer of 1998/99 had little rainfall and during the winter of 1999 conditions were very dry. Some seedeaters were consequently largely absent from the area in that year (Violeteared Waxbill, Namaqua Dove). The water in the plot did, however, attract species as Redbilled Quelea and Whitewinged Widows, whilst the seed supply in feeders attracted Redheaded Finches. This explains the high numbers of this species caught throughout 1999. In the dry period of 2000, the relatively lush conditions following the exceptional rains of early 2000 no doubt explained the influx of firefinches and Blackcheeked Waxbills.

The seasonal exodus of Marico Sunbirds and Redfaced Mousebirds in the dry winter months, when nectar and fruit sources are scarce, has been noted elsewhere (Tyler

2001a, b). The scarcity of Laughing Doves and canaries in the winter period might indicate a movement away from the area.

Longevity data are inevitably scarce over such a short study period but as the ringing site at Ruretse is still being operated by John Dalziel. I hope that retraps will provide some interesting records over the coming years.

## References

- Tyler, S.J.** 2001a. Movements by birds in *Acacia* savanna in southeast Botswana. *Ostrich Suppl. No.* 15: 98–103. Proceedings of the Tenth Pan-African Ornithological Congress, Kampala, Uganda, 3–8 September 2000.
- Tyler, S.J.** 2001b. Local movements of Redfaced Mousebirds *Urocolius indicus* at Ruretse. *Babbler* 38: 17–18.
- Tyler, S.J.** 2001c. Molt in Scalyfeathered Finches *Sporopipes squamifrons* in southeast Botswana. *Afring News* 30: 56–59.
- Tyler, S.J. & Tyler, I.** 2001. Biometric and moult data for Larklike Buntings *Emberiza impetuani* in south-east Botswana. *Ostrich* 72: 118–120.

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## Erratum for Recoveries report 2000–2001, *Afring News* 30: 74–81.

page 75:

7083110 is listed under Common Tern but is in fact a Sandwich Tern.

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