

Bronze Mannikins come to stay

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Bird distributions are not static, yet often by the time we are aware of changes, we can no longer pinpoint the time when a new species first appeared in our area. In the case of the Bronze Mannikins *Spermestes cucullatus* in Grahamstown, a ringing project ensured that we were on the spot at the right time.

Since 1990 we have been ringing sunbirds, and anything else that gets into our nets, in the botanical gardens in Grahamstown. The gardens adjoin the university campus, a short walk from our department, so that a morning monitoring mistnets provides a welcome break from desk-bound duties. Each sunbird receives a colour ring which constitutes a year code, so on periodic foot patrols we monitor the numbers of sunbirds present, and the proportion of ringed birds amongst them. This project was described in an earlier paper (Craig & Simon 1991). Naturally we also keep a record of all other birds seen in the gardens, so that an up-to-date checklist is available for this site.

In June 1995 we were surprised to see a small flock of Bronze Mannikins on a path which is one of our regular netting sites. Skead (1965) had reported a flock along the Fish River, on the eastern border of the Albany District, but there appeared to be no previous records for Grahamstown. In his review of the birds of the Eastern Cape, Skead (1967) commented that Bronze Mannikins were fairly common along the coast reaching Port Elizabeth, though he added that records were sparse west of the Fish River. In East London, Courtenay-Latimer (1965) described Bronze Mannikins as resident, with large flocks in some years. However, at Port Alfred there was only one record in a three-year period (Morse Jones 1965), and at Kenton-on-Sea a single dated record was provided for the 1970s (Pike 1980). During the

atlas period there were occasional records as far west as Port Elizabeth (Nuttall 1997). Pat Hulley first saw Bronze Mannikins at the bird feeder in his garden in January 1996, and other birdclub members in Grahamstown now also report them regularly.

We ringed our first Bronze Mannikin in Grahamstown in October 1995. By the next year our catch included juvenile birds, and each summer since then the birds have bred successfully. To date (January 2000) we have ringed 141 birds, with 13 recaptures. Four recaptures were within a month of ringing, and the longest intervals so far are 11 and 12 months. During his study in Zimbabwe, Woodall (1975) had one recapture after 28 months, but only six of his birds were recaptured after more than 12 months. It seems that the botanical gardens population is resident, as has been found elsewhere, and so far no-one has seen any of our ringed birds at bird feeders.

Although we have not found any nests, we have handled birds with brood patches in October and December, and birds in immature plumage (initially plain pale brown) have been seen from the end of October. Birds still moulting into adult plumage have been caught up to August. Woodall (1975) found that young birds in Zimbabwe acquire adult plumage about four months after leaving the nest. The few breeding records of Bronze Mannikins from the Transkei and Eastern Cape during the atlas period suggest a peak between November and February for this region, whereas further north in South Africa and in Zimbabwe breeding extends from November to April (Nuttall 1997).

Our records of wing-length and weight (see Table 1) are very similar to those of Woodall (1975), bearing in mind that he used a triple-beam balance correct to 0.1 g,

Table 1. Wing length and weight of adult and immature Bronze Mannikins, comparing birds from Grahamstown with Woodall's (1975) records from Zimbabwe.

Age class and region	Wing-length in mm (mean and range)	Weight in grams (mean and range)	Number of birds for wing-length, weight
Adult, E. Cape	49.5 ± 1.1; 47–52	10.3 ± 0.6; 9.5–12.5	93; 88
Adult, Zimbabwe	48.9 ± 0.1; 45–51	9.9 ± 0.1; 8.4–12.2	250; 106
Immature, E. Cape	48.9 ± 1.2; 46–51	9.8 ± 0.7; 8.5–11.0	56; 54
Immature, Zimbabwe	48.5 ± 0.1; 46–51	9.5 ± 0.1; 8.4–10.6	87; 50

whereas we were using a Pesola spring balance, and only recorded weights to the nearest 0.5 g. In both areas there is a small difference between adults and immature birds, but extensive overlap in these measurements. There is no indication that one can age or sex Bronze Mannikins on the basis of any measurements.

Wing moult in the botanical gardens takes place after breeding, the individual variations may be related to age or timing of the last breeding attempt. Most birds complete wing moult between June and September. During the months of May to September, over 65% of the birds captured are moulting. There is a complete moult in the juvenile birds, which replace both the body plumage, to resemble the adults in appearance, and the wings and tail. In Zimbabwe, Woodall (1975) found that the peak breeding months were November to March. Adult Bronze Mannikins then moulted from March to December, while immature birds started later, moulting from June to October.

So our findings to date in this recently established population of Bronze Mannikins show close agreement with the earlier study by Peter Woodall. The recapture rate for this species is quite encouraging (10% can be regarded as good for a small passerine), and it looks as though the Bronze Mannikin will be

a regular part of our ringing programme in the botanical gardens in the future.

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