Papers

Garden ringing – a heap of information waiting to be harvested

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As ringers, we often spend large amounts of time and energy traveling to pristine areas which we view as being the best possible ringing sites in our areas. This is very rewarding, and often leads to large amounts of useful data being gathered. The purpose of this paper is to highlight the need for long term garden ringing projects. In a home environment, ringing can be done on a much more regular basis than other study sites, since it is so easy to carry on and watch television or spend time with the family while still catching birds at the same time!

We moved into a small cottage on a 2 ha plot in Ashburton, just outside Pietermaritzburg, in April 2001, just after getting married. Our little piece of garden measures about 15 m × 15 m and has mostly indigenous vegetation in it. On three sides it is surrounded by our landlords property, which is a typical suburban garden, but again loaded with indigenous vegetation. The other side has a vacant plot, mostly grassland with acacias and several exotics. Soon after moving in (day 3 in fact!) we began netting birds. I soon realized that installing many bird feeders increased my capture rate, particularly in the winter months.

Trapping has occurred in three ways, namely with mistnets (used on 37 days), walk-in traps (12 days) and springtraps (8 days). Normally two 12 m nets are used, with 3 or 4 nets being used on rare occasions. Between 3 and 10 springtraps baited with mealworms, and up to 2 walk-in traps, baited with either fruit or seed are used. Trapping ranged from 2 to 10 hours per day.

Results

Trapping occurred in all months except October 2001, June 2002, and October 2002. In the two years since we moved in, we have caught and ringed 788 birds of 64 species over 55 days of trapping (Table 1). Table 1 also shows the number of birds caught in each trap method, and Table 2 presents data on primary moult and breeding. See also Fig. 1.

Discussion

Several interesting aspects can be drawn out of this small, two year ringing project in our garden. A few species were first recorded in the garden merely by being caught, such as Black Cuckooshrike, Lesser Honeyguide, Acacia Pied Barbet, Yellow Weaver, Lesser Masked Weaver, Grey Sunbird, Greenspotted Dove, Longbilled Crombec and Streaky-headed Canary. This indicates that ringing should be used to supplement other bird census techniques.

This study gives some sort of measure of the changes in seasonal abundance of birds in a garden environment, with more birds being present in winter and spring (Figure 1), presumably when food resources are lower. Lower numbers in summer may also reflect territoriality and more even distribution during breeding.

The results show that different trapping methods are more effective for different species. While mistnets remain the most effective way of trapping birds, the use of spring-

Table 1. Number of birds caught, retrapped and recovered per species.

Species no. & Name		Number ringed	Number retrapped	Capture method		
				Mist-nets	Sping-traps	Walk-in traps
192	Helmeted Guineafowl *	8				
314	Redeyed Dove	3	0	3		
316	Cape Turtle Dove	2	0	1	1	
317	Laughing Dove	1	0	1		
321	Greenspotted Dove	1	0	1		
352	Diederik Cuckoo	1	0	1		
390	Speckled Mousebird	20	1	11	10	
402	Brownhooded Kingfisher	2	0		2	
418	African Hoopoe	5	0	5		
419	Redbilled Woodhoopoe	1	0	1		
421	Scimitarbilled Woodhoopoe	1	0	1		
431	Black Collared Barbet	2	1	3		
432	Acacia Pied Barbet	1	0	1		
439	Crested Barbet	6	0	5	1	
442	Lesser Honeyguide	1	0	1		
447	Goldentailed Woodpecker	1	0	1		
450	Cardinal Woodpecker	1	0	1		
513	Black Cuckooshrike	1	0	1		
517	Forktailed Drongo	2	0	1	1	
521	Blackheaded Oriole	2	0	2		
527	Southern Black Tit	3	0	3		
545	Blackeyed Bulbul	30	3	30	3	
551	Sombre Bulbul	4	1	5		
552	Kurrichane Thrush	7	2	5	4	
553	Olive Thrush	1	0	1		
581	Cape Robin	7	1	6	5	1
588	Whitebrowed Robin	2	0	2		
621	Longbilled Crombec	1	0	1		
622	Barthroated Apalis	2	0	2		
627	Bleating Warbler	2	0	2		
649	Tawnyflanked Prinia	2	0	1	1	
654	Spotted Flycatcher	1	0		1	
664	Black Flycatcher	5	1	3	3	
665	Fiscal Flycatcher	5	1	3	3	
673	Chinspot Batis	1	0	1		
682	Paradise Flycatcher	3	0	1		
686	Cape Wagtail	3	2	2	3	
707	Fiscal Shrike	2	1		3	
709	Southern Boubou	6	3	6	5	2
719	Orangebreasted Bush Shrike	2	1	3		
736	Plumcoloured Starling	1	0	1		
737	Glossy Starling	3	0	3		
763	Whitebellied Sunbird	5	0	5		
765	Grey Sunbird	1	0	1		
772	Black Sunbird	24	0	24		
775	Cape White-eye	15	3	16	4	
784	House Sparrow	7	4	12		

continued

Table 1 (continued). Number of birds caught, retrapped and recovered per species.

Species no. & Name		Number ringed	Number retrapped	Capture method		
				Mist-nets	Sping-traps	Walk-in traps
786	Cape Sparrow	19	2	13	8	
787	Greyheaded Sparrow	36	1	24	14	
791	Spectacled Weaver	13	3	11	6	
792	Lesser Masked Weaver	1	0	1		
797	Spottedbacked Weaver	378	24	399	3	4
799	Cape Weaver	2	0	2		
800	Yellow Weaver	1	0			1
804	Thickbilled Weaver	2	0	2		
808	Red Bishop	2	0	2		
814	Whitewinged Widow	14	1	1	14	
823	Bronze Mannikin	74	6	20		60
833	Bluebilled Firefinch	5	0	5		
839	Blue Waxbill	1	0	1		
846	Pintailed Whydah	24	3	26	1	
849	Black Widowfinch	4	0	4		
859	Yelloweyed Canary	2	0	2		
867	Streakyheaded Canary	1	0	1		

* Handraised and released

traps and walk-in traps is also successful (Table 1). Whitewinged Widows, Bronze Mannikins and Speckled Mousebirds in particular, are more readily caught in walk-in traps, and capture rates of Shrikes, Flycatchers and Robins are definitely enhanced by using mealworm-baited springtraps.

This study shows a relatively high turnover in individuals within a two year period for most species. Southern Boubous and Cape Robins, both insectivores, appear to have both territorial and non-territorial birds, with individuals being retrapped 3 and 5 times respectively. Frugivores appear to be nomadic, at least on a local scale, with only 1 of 20 Speckled Mousebirds, 0 of 6 Crested Barbets, 3 of 30 Blackeyed Bulbuls, and 3 of 15 Cape White-eyes being retrapped. Sunbirds appear to be even more so, with no recaptures of the 30 Sunbirds of three species being retrapped. Seedeaters show a variety of scenarios. Both Cape and Greyheaded Sparrows were caught in large numbers, with very few being retrapped. House Sparrows on the other hand seem more territorial. Over 50% were recaught at least once. Only 24 of 378 Spottedbacked Weavers have been retrapped, and only 6 of 74 Bronze manikins, also suggesting significant localized movement.

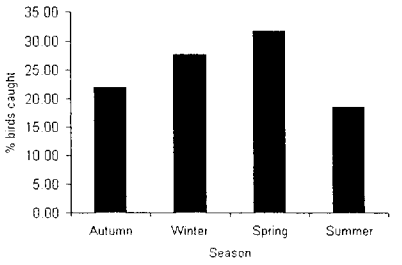

Fig. 1. The percentage of birds caught per season. Trapping effort did not differ drastically between the seasons.

Table 2 shows records of primary moult and breeding (indicated by brood patch presence) for several of the species caught during

Table 2. Primary moult and brood patches of trapped birds per species.

Spp. no. & name		Primary moult	Brood patch
314	Redeyed Dove	Apr.	Jul.
316	Cape Turtle Dove	Nov.	
317	Laughing Dove	Nov.	Nov.
321	Greenspotted Dove		Nov.
390	Speckled Mousebird	Jan., Mar., Jul., Aug., Nov., Dec.	
418	African Hoopoe		Apr.
419	Redbilled Woodhoopoe		Nov.
421	Scimitarbilled Woodhoopoe		Nov.
431	Black Collared Barbet	Mar., Apr.	Aug., Sep., Apr.
432	Acacia Pied Barbet		Aug.
439	Crested Barbet	Nov.	Nov., Dec.
450	Cardinal Woodpecker		Dec.
513	Black Cuckooshrike		Dec.
517	Forktailed Drongo	Dec.	
545	Blackeyed Bulbul	Jan.–Apr.	Dec., Mar.
551	Sombre Bulbul	Feb.	Feb.
552	Kurrichane Thrush		Nov., Mar.
581	Cape Robin		Sep.
627	Bleating Warbler		Feb.
682	Paradise Flycatcher		Nov., Dec.
686	Cape Wagtail	Mar.	
709	Southern Boubou	Dec., Jan.	Jun., Dec., Jan.
719	Orangebreasted Bush Shrike		Sep., Nov.
737	Glossy Starling		Mar.
763	Whitebellied Sunbird	Feb.	Jan.
772	Black Sunbird	Jan., Apr., May, Sep.	Sep., Nov., Jan.
775	Cape White-eye		Jun., Sep., Nov., Dec.
784	House Sparrow		Nov.
786	Cape Sparrow	Jan., Mar.–Jun.	Jun., Jul., Sep.
787	Greyheaded Sparrow	Mar.–May, Aug., Sep., Nov.	Mar., Aug., Nov., Dec.
791	Spectacled Weaver	May	Aug., Sep., Nov., Dec.
792	Lesser Masked Weaver	May	
797	Spottedbacked Weaver	Jan.–Jul., Sep., Dec.	Jan., Mar., Apr., Sep., Nov., Dec.
808	Red Bishop		Dec.
814	Whitewinged Widow	Jul.	
823	Bronze Mannikin	Mar., Jun.–Aug., Dec.	Dec.
833	Bluebilled Firefinch	Apr.	
839	Blue Waxbill	Dec.	
846	Pintailed Whydah	Sep.	

this study. Several species show unusual breeding times, e.g. Southern Boubou (June), Cape White-eye (June) and Cape Sparrow (June & July) while others show extended breeding seasons e.g. Blackcollared Barbet, Greyheaded Sparrow (August–March) and Spottedbacked Weaver (September–April). All of these species are typical urban adapted birds, and seem to have adapted breeding seasons to a more abundant food supply in a garden setting.

In summary, we feel that long term garden ringing needs to be encouraged, as there are so many questions as yet unanswered, even with some of our more common species.