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EIGHTEENTH RINGING REPORT FOR SOUTHERN AFRICA

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SUMMARY

VERNON, C. J. 1976. Eighteenth ringing report for southern Africa. *Ostrich* 47:89-94. A report on ringing activities in southern Africa from July 1974 to June 1975 is presented. A total of 47 777 birds of 475 species were ringed. This information is examined according to distribution of ringers, species ringed and recovery rates.

INTRODUCTION

Trends in ringing activity established over the period 1971-1974 were continued in the year under review. The main concern of the Unit was the streamlining of its administrative operations and the computerisation of all recoveries.

RESULTS

Ringing was carried out in all provinces of South Africa, as well as in Botswana, Malawi, Rhodesia and certain islands of the sub-Antarctic. Most birds were ringed in the Cape Province, the Transvaal and Rhodesia. In each of these areas there are active bird clubs, and, in the two provinces, permanent ringing stations. These three areas accounted for 66 of the 86 ringers and 77% of the birds ringed (Table 1).

The principal ringing organisations in rank order were the Transvaal Provincial Administration, the Rhodesian Ornithological Society and the Witwatersrand Bird Club. These three groups accounted for 54% of the birds ringed (Table 2). The most active individual ringers were D. Hamner (4 158), A. J. Manson (3 137), D. Hewitt (2 799), G. Underhill (2 662) and A. J. Tree (2 266). There were 17 other individuals or organisations who ringed over 500 birds.

TABLE 1
REGIONAL DISTRIBUTION OF RINGING ACTIVITY IN 1974/75

	Ringers	Species Ringed	Birds Ringed	% of Total
Cape Province	21	140	10 202	21,3
Botswana	2	12	224	0,4
Malawi	1	127	4 158	8,7
Natal	8	135	1 995	4,2
Orange Free State	4	31	1 235	2,6
Rhodesia	19	241	7 125	15,0
South West Africa	4	99	1 500	3,1
Sub-Antarctic Islands	2	19	1 172	2,5
Transvaal	26	268	19 910	42,2
Totals	86	475	47 777	

TABLE 2
DIVISION BY ORGANISATIONS OF RINGING ACTIVITIES IN 1974/75

	Species Ringed	Birds Ringed	% of Total
Cape Province			
Cape Bird Club	107	6 066	12,7
Cape Divisional Council-Rondevelei	40	1 774	3,7
Cape Prov. Admin. - Andries Venter	27	1 266	2,7
Percy FitzPatrick Institute	69	2 110	4,4
Others	12	168	0,4
Natal			
Natal Bird Club	135	1 995	4,2
Orange Free State			
Administration	8	367	0,8
Ringers	27	868	1,8
Rhodesia			
Rhod. Orn. Soc.	244	7 371	15,4
Others	4	9	
South West Africa			
S.W.A. Administration	43	261	0,5
S.W.A.	75	1 239	2,6
Transvaal			
Kruger National Park	1	27	0,1
N. Transvaal Ornithological Society	111	1 552	3,2
Transvaal Prov. Administration	136	11 269	23,6
Witwatersrand Bird Club	206	7 004	14,7
Others	21	58	
Botswana	12	224	4,7
Malawi	127	4 158	8,7
Totals	475	47 777	

BIRDS RINGED

A total of 47 777 birds were ringed during 1974/75. This brings the overall total number of birds ringed in southern Africa since 1950 to over 840 000. 475 species were ringed during 1974/75 which brings the total number of species ringed to 734. The 20 most frequently ringed species during 1974/75 are given in Table 3. Birds belonging to these species accounted for 64% of all the birds ringed in 1974/75. This is a decline on the 67% for the 1973/74 figures. Four of these 20 species do not feature on the same listing for 1973/74. They replace the Shelduck *Tadorna cana*, the Cape Teal *Anas capensis*, the Crowned Guineafowl *Numida meleagris* and the Turtle Dove *Streptopelia capicola*. The 20 most frequently ringed species in all the years since 1950 are shown in Table 4. There are 12 species which are common to both the 1974/75 and the overall lists.

BIRDS RECOVERED

There were 1 589 recoveries processed during 1974/75. The 20 most frequently recovered species during the year are shown in Table 5. These species represented 71% of the birds recovered during the year, and 64% of all the recoveries accumulated to date. A list of all the recoveries is available, but it is not published here for reasons previously outlined (Elliott 1974). One of the more

TABLE 3
 TWENTY MOST FREQUENTLY RINGED SPECIES IN 1973/74

	Birds Ringed	
Jackass Penguin <i>Spheniscus demersus</i>	925	A
Cattle Egret <i>Bubulcus ibis</i>	694	
Yellow-billed Duck <i>Anas undulata</i>	3 984	
Cape Vulture <i>Gyps coprotheres</i>	405	A B
Red-knobbed Coot <i>Fulica cristata</i>	617	
Curlew Sandpiper <i>Calidris ferruginea</i>	1 867	
Little Stint <i>Calidris minuta</i>	615	
Knot <i>Calidris canutus</i>	507	B
Ruff <i>Philomachus pugnax</i>	649	B
Hartlaubs Gull <i>Larus hartlaubii</i>	1 368	B
Laughing Dove <i>Stigmatopelia senegalensis</i>	1 831	
European Swallow <i>Hirundo rustica</i>	3 005	
Layards Bulbul <i>Pycnonotus barbatus</i>	459	B
Cape White-eye <i>Zosterops pallidus</i>	620	B
Cape Sparrow <i>Passer melanurus</i>	982	
Spot back Weaver <i>Ploceus cucullatus</i>	975	A B
Brown throated Weaver <i>Ploceus xanthopterus</i>	545	A B
Masked Weaver <i>Ploceus velatus</i>	2 561	
Red billed Quelea <i>Quelea quelea</i>	5 649	
Red Bishop <i>Euplectes orix</i>	2 325	
Total	30 583	

% of overall total = 64%

A = Do not feature on a similar list for 1973/74

B = Do not feature on the list for all years aggregated

interesting recoveries was of a Turnstone *Arenaria interpres* ringed in Mauritius and recovered in India. A list of the 20 most infrequently recovered species is given in Table 6. Over 500 birds of each of these species have been ringed and they all have recovery rates of less than one in four hundred.

RESEARCH

The data bank was consulted by two researchers during the year. These persons are conducting studies of the Cape Vulture *Gyps coprotheres* and the Sacred Ibis *Threskionis aethiopicus*. In addition, the data pertaining to the waterfowl ringed at Barberspan Ornithological Research Station are being analysed (Milstein in prep.).

DISCUSSION

The number of birds ringed decreased in comparison with 1973/74. This is part of a general decline since the peak of activity in 1971/72. This trend may be ascribed to the fluctuating interests and degree of activity of a large body of ringers. This is also reflected in the changes in species ringed between 1973/74 and 1974/75. The ringing scheme depends upon recoveries for the analyses of movements and demography. One hundred recoveries is taken as an arbitrary minimum number of recoveries needed before any detailed analysis can be made. At present there are only 23 of the 734 species ringed which have over 100 recoveries.

TABLE 4
OVERALL TWENTY MOST FREQUENTLY RINGED SPECIES

	Birds Ringed	
Jackass Penguin <i>Spheniscus demersus</i>	9 141	
Gannet <i>Morus capensis</i>	44 322	C
Cape Cormorant <i>Phalacrocorax capensis</i>	7 300	C
Cattle Egret <i>Bubulcus ibis</i>	45 396	
Sacred Ibis <i>Threskiornis aethiopicus</i>	12 967	C
Yellow billed Duck <i>Anas undulata</i>	47 358	
Shelduck <i>Tadorna cana</i>	8 726	C
Red-knobbed Coot <i>Fulica cristata</i>	22 265	
Curlew Sandpiper <i>Calidris ferruginea</i>	13 444	
Little Stint <i>Calidris minuta</i>	11 744	
Turtle Dove <i>Streptopelia capicola</i>	8 538	
Laughing Dove <i>Stigmatopelia senegalensis</i>	32 450	
European Swallow <i>Hirundo rustica</i>	137 266	
Cliff Swallow <i>Petrochelidon spilodera</i>	18 403	C
Cape Sparrow <i>Passer melanurus</i>	25 289	
House Sparrow <i>Passer domesticus</i>	7 903	C
Cape Weaver <i>Ploceus capensis</i>	7 739	C
Masked Weaver <i>Ploceus welatus</i>	29 401	
Red-billed Quelea <i>Quelea quelea</i>	82 698	
Red Bishop <i>Euplectes orix</i>	22 716	

C = Do not feature on the list for 1974/75

TABLE 5
RECOVERIES
TWENTY MOST FREQUENTLY RECOVERED SPECIES IN 1974/75

	1974/75	Overall
Jackass Penguin <i>Spheniscus demersus</i>	257	377
Cattle Egret <i>Bubulcus ibis</i>	21	410
Sacred Ibis <i>Threskiornis aethiopicus</i>	31	264
Egyptian Goose <i>Alopochen aegyptiacus</i>	18	356
Shelduck <i>Tadorna cana</i>	20	344
Yellow-billed Duck <i>Anas undulata</i>	100	831
Red-billed Teal <i>Anas erythrorhyncha</i>	30	263
Cape Teal <i>Anas capensis</i>	103	294
Cape Vulture <i>Gyps coprotheres</i>	48	143
Crowned Guineafowl <i>Numida meleagris</i>	18	70
Red-knobbed Coot <i>Fulica cristata</i>	41	750
Curlew Sandpiper <i>Calidris ferruginea</i>	36	98

TABLE 5 (continued)
 TWENTY MOST FREQUENTLY RECOVERED SPECIES IN 1974/75

Hartlaubs Gull <i>Larus hartlaubii</i>	36	151
Turtle Dove <i>Streptopelia capicola</i>	43	153
Laughing Dove <i>Stigmatopelia senegalensis</i>	191	620
European Swallow <i>Hirundo rustica</i>	49	675
Cliff Swallow <i>Petrochelidon spilodera</i>	23	62
Masked Weaver <i>Ploceus velatus</i>	38	246
Red Bishop <i>Euplectes orix</i>	20	102
Cape Sparrow <i>Passer melanurus</i>	17	160
Total	1 136	6 506
% of the overall total	71	64

TABLE 6
 SPECIES WITH EXTREMELY LOW RECOVERY RATES

Species	Total Ringed	Recovery Rate
Namaqua Dove <i>Oena capensis</i>	871	,15
Horus Swift <i>Apus horus</i>	1 169	,09
Little Swift <i>Apus affinis</i>	1 345	,07
European Swallow <i>Hirundo rustica</i>	137 266	,20
European Sand Martin <i>Riparia riparia</i>	782	,13
African Sand Martin <i>Riparia paludicola</i>	3 570	,17
Garden Warbler <i>Sylvia borin</i>	877	,00
Willow Warbler <i>Phylloscopus trochilus</i>	775	,00
Cape Reed Warbler <i>Calamocichla gracilirostris</i>	586	,12
Great Reed Warbler <i>Acrocephalus arundinaceus</i>	807	,00
European Sedge Warbler <i>Acrocephalus schoenobaenus</i>	932	,11
Tawny flanked Prinia <i>Prinia subflava</i>	515	,00
Orange-breasted Waxbill <i>Amandava subflava</i>	898	,00
Black-cheeked Waxbill <i>Estrilda erythronotos</i>	597	,17
Lesser double-collared Sunbird <i>Cinnyris chalybeus</i>	599	,17
Yellow-bellied Sunbird <i>Cinnyris venustus</i>	660	,15
Lesser Masked Weaver <i>Ploceus intermedius</i>	816	,12
Chestnut Weaver <i>Ploceus rubiginosus</i>	730	,00
Red-billed Quelea <i>Quelea quelea</i>	82 698	,22
Red-collared Widow <i>Coliuspasser ardens</i>	2 758	,11
Red-shouldered Widow <i>Coliuspasser axillaris</i>	937	,00

The problem is, therefore, one of how to obtain greater numbers of recoveries. One can either persist with a policy of ringing as many birds as possible and accumulate recoveries in that way, or adopt alternative methods. The low recovery rate of certain species (Table 6) indicates that with

the present policy, ringing activity would have to increase dramatically to achieve the desired results. For instance, to obtain the 675 recoveries of the European Swallow *Hirundo rustica* 137 000 birds had to be ringed. It seems patently impossible to ring many species on the large scale required. This is especially true of many of the southern African species which are nomadic and which have interesting problems regarding their movements. The Namaqua Dove *Oena capensis* is a fairly typical example.

The alternative possibility is to ring birds of selected species with the aim of obtaining recaptures. In many cases distinctive markers can be used to obtain resightings and so avoid the need to recapture individuals. Such studies provide demographic data and avoid reliance upon recoveries. An example of this type of project is that of marking Hartlaubs Gull *Larus hartlaubii* pulli with colours denoting different years. However, such projects do not provide information about movements which can only be solved by having a network of researchers monitoring population fluctuations.

A feature of the ringing activity is the large proportion of garden birds which are ringed. This includes species such as the Laughing Dove *Streptopelia senegalensis*, the Cape Sparrow *Passer melanurus* and the Masked Weaver *Ploceus velatus* (Table 4). These garden birds, living in man-modified environments, contribute very little towards an understanding of the ecology of birds in "natural" habitats.

There is a need, therefore, to concentrate the activities of researchers either into study groups or by making more intensive studies relying upon recaptures. This redirection can only come from the ringing unit and by a process of education. A start is being made in this direction.

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